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THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL PUBLISHED IN THE DOMINION.

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Editorial.

Fall Wheat.

There are now a great many varieties of fall wheat grown in Ontario, while a few years ago only two or three sorts were known to the farmers of this province. In all the sections about Toronto, and eastward as far as fall wheat is grown, the White Clawson has long been the most profitable kind. To the west of Toronto, especially about London and westward, the Democrat was for many years the favorite. These two kinds are too well known to need description. Both for eastern and western Canada, there are now much better varieties, that will yield from five to ten bushels per acre more than either, if sown on the same soil and given similar treatment.

THE MANCHESTER

has been well tried in Western Ontario, and has proved a good wheat, especially in heavy soils. It was introduced in 1886, and after six years trial it has been found to be both hardy, early and productive. It has a smooth head, red chaff, and beautiful dark amber berry, and would be called by some a red wheat; it usually weighs 63 pounds to the bushel; is only fairly stiff in the straw. The head is more open than in the four or five more newly introduced

sorts herein mentioned, hence does not yield as abundantly.

GOLDEN CROSS

is another sort that is well liked in Western Ontario, and seems to do fairly well east of Toronto, though it does not prove so prolific as in the western section. In the east it is not strong enough in the straw, growing in some



places very weak and spindling. It is extremely hardy and tolerably free from the attacks of insect enemies. It is a light-bearded, compact-headed sort, and does best on light, sharp land. It closely resembles Hybrid Mediterranean, which in many sections is an almost worthless

variety, and winter-kills in almost all sections. If you wish to buy Volunteer or Golden Cross, be very certain you do not get Hybrid Mediterranean, or you will in all probability lose your crop.

NEW EARLY RED CLAWSON

is a very promising wheat of recent introduction. It is destined to be one of the most profitable and popular wheats of recent years, and seems to do well in all sections of the country. It is a very strong grower; tillers well, making a very thick, close crop, with exceedingly long, compact heads, standing erect and handsome.

Mr. John S. Pearce, London, Ont., in writing of it last year, said:—

"This variety was first offered by us in 1889, and from many favorable reports received from those who purchased it, and from our own extensive trials, we can justly style it the *champion of all winter wheats* now in cultivation. It originated from the now popular Golden Cross, or Volunteer, fertilized on the Clawson, partaking from the Golden Cross the compact head, dark red grain, extreme hardiness, rapid growth, and strong stem; and from the Clawson, baldness, and red chaff, with very large kernel. It is, without doubt, the earliest sort grown; enormously productive. A field of this variety when in full head is sure to attract general attention from its upright growth and evenness, all being of the same height, and standing like a wall through severe storms without lodging. The originator, Mr. A. N. Jones, N. Y., had grown under contract in 1890 96 acres, (all there is in the United States), divided up into about fifteen fields, and on different soils, from the lightest sand to the heaviest clay, nearly all of which we inspected before it was ready for cutting, and finer or handsomer fields we never saw anywhere."

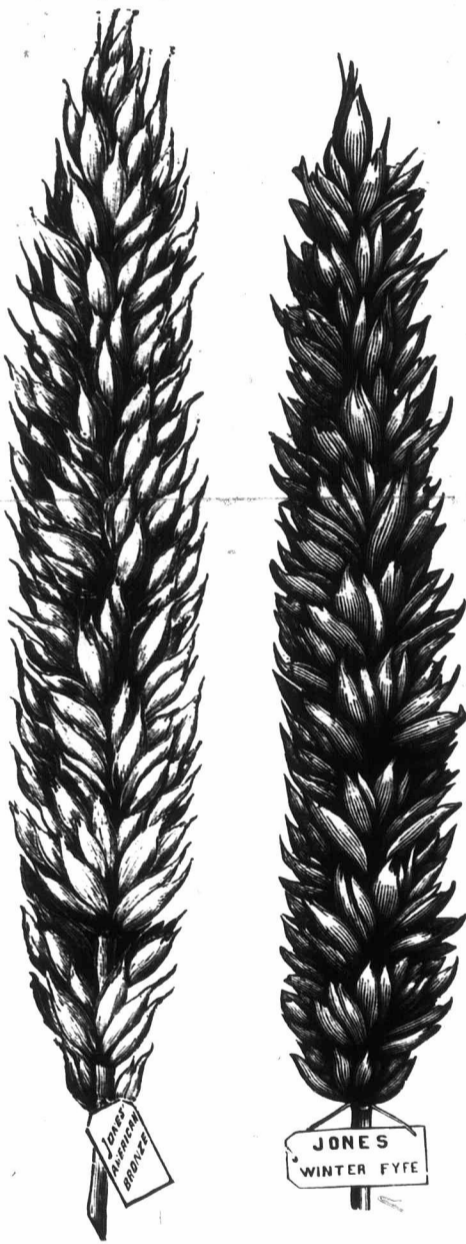
Mr. Pearce has carefully examined fields in various sections of Ontario during the past few weeks, and still considers this wheat the finest in cultivation. It is certainly superior to any before mentioned



JONES' WINTER FYFE

is not generally known in Ontario. Last season it was sold for \$12 per bushel, and only two or three one bushel lots were sown, also a few parties sowed small packets in different sections of the country. It is destined to become a popular wheat, and will, no doubt, give large yields. It is very hardy, stools out wonderfully, having a very handsome appearance when growing. It is spoken of in glowing terms by wheat-growers, seedsmen and millers alike, in the State of New York where originated, who describe it as follows:—

"In size and appearance the grain resembles spring wheat, and contains even more gluten than the noted Saskatchewan Fyfe, the pride of North American millers. It covers the ground early in the season, requiring light seeding on rich soil; straw, above medium height and very strong; heads, long and broad, with breasts overlapping each other, with from four to six grains each, and free from beards and velvet-like white chaff; grain medium size, transparent, hard and dark."



There is another variety of wheat which closely resembles this, viz., the

RED VELVET CHAFF,

sold last year by Mr. Wm. Rennie, Toronto, both in appearance while growing and from the size and color of the grain. This last sort was sold last year by unscrupulous parties as Canadian Velvet Chaff, the grain of which it does not at all resemble.

The newest sort to be introduced into this country is the

AMERICAN BRONZE.

Only a few small plots are now grown in Ontario. It is the most handsome wheat while growing in the field. The straw is long, stiff and very bright; the head long and square. From its appearance it should yield well. It is

quite too soon for the ADVOCATE to pass an opinion as to its merits. Wherever inspected it is most promising. When introducing it its originator wrote as follows:—

"Although especially adapted to poor soils, producing a good crop when most other sorts would prove a complete failure, it is also one of great value on rich, moist land, on which long and soft strawed sorts would go down. It is of medium height, and the thickest walled straw in cultivation, resisting severe wind storms without lodging. Propagated from a cross between Martin's Amber and Fultz. Being a very strong grower and of spreading habit, it requires light seeding if sown on rich soil. Heads are long and broad, free from beards; chaff white; grain large, and of a rich bronze shade, the color being very distinct when grown on light soils. It is early, very productive, and especially free from rust even in unfavorable seasons."

Its appearance when growing would appear to bear out the above recommendation.

THE CANADIAN VELVET CHAFF.

This is indeed a most promising wheat; in fact it is now past the experimental stage; it does extremely well in all sections of Ontario, is almost as hardy as rye. The straw is very stiff and bright, the head long and square, free from rust, ripens early, and is very productive, tillering freely. On good soil it should not be sown thicker than one and a-quarter bushels per acre. Taking the eastern part of the province it is the best fall wheat now in cultivation, and calculating the area of this wheat harvested it will decidedly yield several bushels per acre more than any other sort now grown in Ontario. It is each year improving in quality and yield. Next will come the Early Red Clawson, then the Golden Cross, Surprise and Manchester. Jones' Winter Fyfe and the American Bronze being new wheats not yet fully tried, are not considered in the above order.

In order to give our readers the most reliable information concerning fall wheats, we sent experts from west to east over all the fall wheat growing sections with instructions to critically inspect and report to us. West of London they found Canadian Velvet Chaff, Jones' Winter Fyfe, Golden Cross, Early Red Clawson, American Bronze and Manchester all doing very well. The Early Red Clawson and Canadian Velvet Chaff were meritorious in the order named, leading all others, while Jones' Winter Fyfe made a fine showing. As yet Manchester is the most largely sown in this section, being much earlier introduced. One piece of American Bronze was seen here. Though too small an acreage to compare with the others, it was most handsome and promising.

In Middlesex county, on the extensive trial grounds of Messrs. John S. Pearce & Co., London, we found Early Red Clawson, Canadian Velvet Chaff, Jones' Winter Fyfe, American Bronze, Volunteer or Golden Cross, Manchester, Democrat, and some ten or twelve other sorts growing side by side on a heavy clay loamy soil, rather damp for wheats. In this trial plot we found the first four named sorts looking unusually well, and very promising. The American Bronze was probably the most showy, being very bright in the straw and beautiful heads. The Early Red Clawson, Canadian Velvet Chaff, American Bronze, and Jones' Winter Fyfe stood side by side, and after a careful inspection we had to confess there was very little choice in these four sorts on this trial plot.

Did time and space permit we would like to say something about the oats, peas and barley we saw growing on these grounds, but will have to defer this for another number.

Proceeding to Guelph they found sixty separate varieties on the Experimental Farm, each lot sown in a plot about one-third of an acre. The soil and conditions were similar. A number of German kinds are being tested, some of which are promising, but none good enough to recommend as fit for general cultivation. In time some good varieties may be found among them.

The same may be said of a number of English wheats which, on the whole, are more promising. The American Bronze was very fine, promising and handsome.

Jones' Winter Fyfe, sown on next plot, was not as good, though much better than any imported from Germany or England.

Canadian Velvet Chaff was very good, better than Jones' Winter Fyfe.

Early Red Clawson, thicker on the ground than the last; it had tillered more freely; the heads were shorter, straw not so stiff. It was a most promising crop.

Golden Cross very good, but not as good as the last three mentioned.

The Manchester was good but not as showy as any of the above. It frequently rusts badly in the Guelph section.

Surprise is a very promising wheat, being showy and handsome. Does well in the Guelph section.

The old sorts are also being tested, but they are all so well known, having been distributed over the whole country, farmers can therefore judge which is most suitable to the different localities.

The best sorts now on the Experimental Farm are American Bronze, Canadian Velvet Chaff, Early Red Clawson, Jones' Winter Fyfe, Golden Cross and Surprise, in order named.

From Guelph, our reporters proceeded eastward to Ontario county, visiting the farm of the Hon. John Dryden, Ontario Minister of Agriculture. Here was found the finest field of wheat inspected anywhere this season. It was pure Canadian Velvet Chaff, and was a superb crop, giving evidence that the wheat was peculiarly suited to the soil, and that it had received proper cultivation.

Near Mr. Dryden's is the farm of Mr. H. H. Spencer, who has a field of some ten acres, half of which was sown with Clawson and half with Canadian Velvet Chaff. The field is similar in all respects. The Clawson is good, but will not yield as much per acre as the Velvet Chaff by about nine bushels per acre.

Going eastward to the north-eastern part of Northumberland county, the farm of J. B. Stone, of Norham, was reached. Mr. Stone has several experimental plots of fall wheat. Here Jones' Winter Fyfe made a very poor growth indeed. The straw was short and fine and the heads small and drooping; would yield about eighteen bushels per acre. Golden Cross was stronger and better, but did not grow over two feet six inches high; the straw was fine and spindling. This plot would yield about twenty bushels per acre. Neither of the above sorts are to be recommended for this section. The Early Red Clawson was much better than either of the above. The straw was longer, stronger, and thicker on the ground, and heads larger; would yield about twenty-five bushels per acre. The Canadian Velvet Chaff was by far the most promising plot in his collection; would yield quite thirty bushels per acre. Here the Hybrid Mediterranean was a failure. The plots were the same size, and alike in all particulars. Mr. Stone's field crop consisted of Canadian Velvet Chaff, and was a very fine crop.

Near Mr. Stone's is the farm of G. B. Boyce, member of the Advisory Board of the Agricultural College, Guelph. This gentleman has a sixteen acre field divided into three equal parts, on which he has sown equal quantities of Clawson, Golden Cross, and Canadian Velvet Chaff. This field needed underdraining very badly, and was unfavorable as a place to grow wheat. A considerable portion of the field was killed out; not counting the parts killed, Mr. Boyce reckoned the Clawson would yield 25 bushels per acre, the Golden Cross 18, and the Canadian Velvet Chaff 30. He claimed the last named wheat was sown on the worst part of the field. It certainly was much the finest crop.

Farther east and north the observations of our reporters were similar to the above.



Stock.

Chatty Letter from the States.

The movement of distillery cattle is not very large now. A heavy crop has been marketed, and there will be a liberal supply for August and early September, but as a rule these cattle are forwarded in such a way as not to glut the markets at any one time. In the main the sloped cattle are owned by experienced men who watch the market very closely. Then, again, they are often fed at points so convenient that they can be marketed in a day's notice. Prices lately ruling, \$5 to \$5.90 for 1,000 to 1,440 lb. heaves, and \$4 to \$4.40 for bulls.

There were two important features in the heavy marketing of cattle at all points a year ago. The drought forced many owners to ship whether they would or no, and the President's

abundant for some time to come, and the margin between poor and prime cattle is likely to become wider. The practice of fattening yearling cattle for market is growing in favor. It is only at exceptional times that good fat yearlings are not in strong demand at good, fair prices. There is one danger in the early maturity idea. Feeders do not always realize that only the fat, good conditioned young things are really saleable. Highly bred, but poorly fed young cattle, are worth little, if any more, to the butcher than poorly fed scrubs.

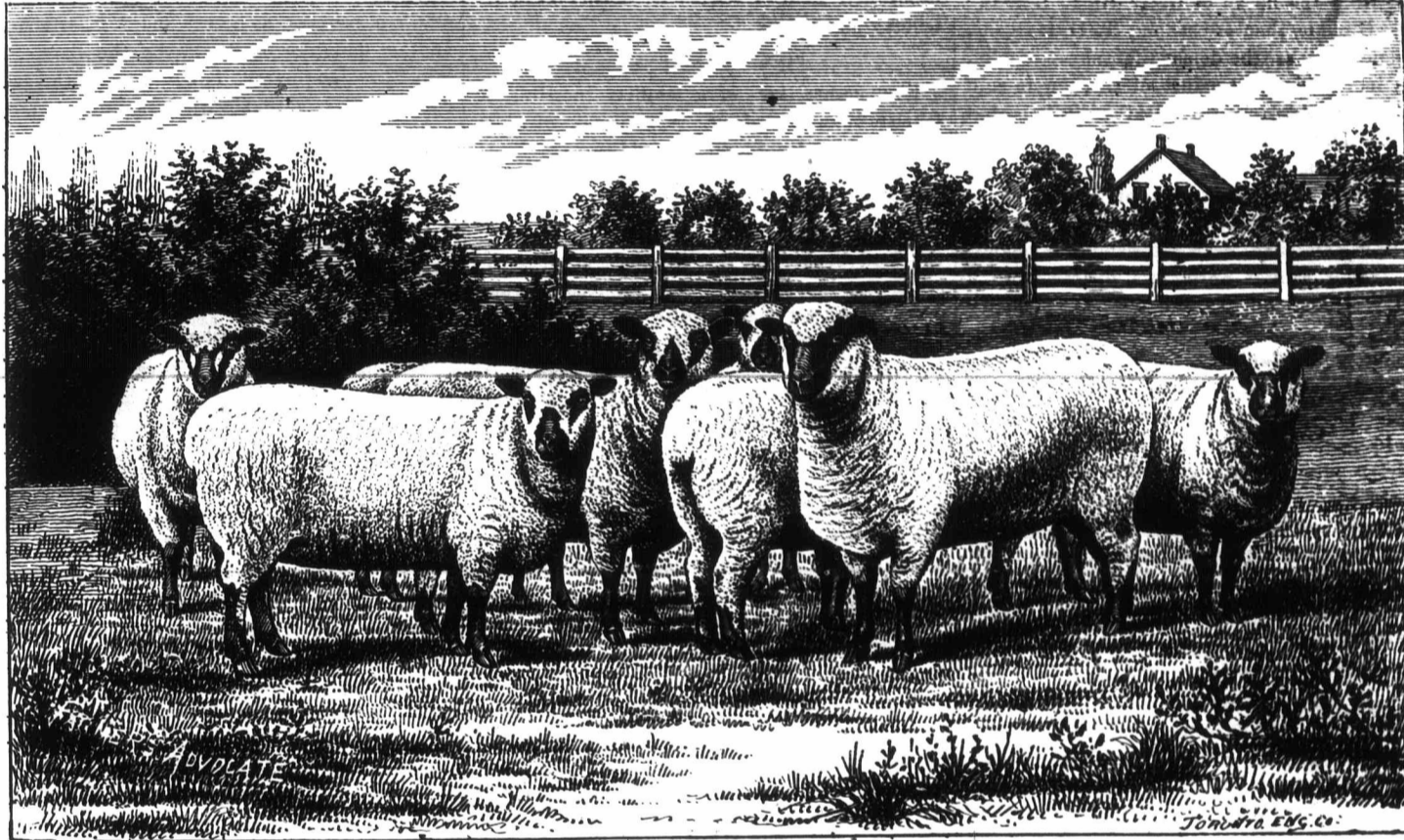
Monday, July 13, Chicago received 19,977 head of cattle and 1,150 calves. The cattle included about 6,000 Texans and 7,000 native cows. The largest run on record was 24,036 cattle, which arrived January 12th last.

The hog market has been very good of late. No extravagant prices, but a good, healthy trade

Hawkhurst Shropshires.

The accompanying illustration is taken from a photograph from life, representing a group of Shropshire shearling ewes, the lot being part of an importation of seventy just arrived to replenish the ranks thinned out by the numerous sales recently made from this flock.

Mr. Hawkshaw selected these in person, and accompanied them to their present quarters, where they now await any visitors who may wish to inspect them. Specimens from the flocks of Mr. R. Bach, Craven Arms, Salop; Mr. E. Hughes, Hereford; Mrs. Bromly, Salop, Shropshire; Mr. Napper, Loughcrew, Ireland; Mr. Blakeley Wootten, Salop. These consist chiefly of shearling ewes, while a grand two shear ram from the flock of Mr. Richard Bach was also included. With the lately arrived addition the flock now numbers 175 head, large size and high



A GROUP OF SHEARLING SHROPSHIRE, THE PROPERTY OF MR. W. S. HAWKSHAW, GLANWORTH, ONT.

order, clearing the "Cherokee strip," threw upon the market many thousands of cattle not ready for market. There may be a drought this summer or fall, but so far there are no indications of it. On the contrary, the rainfall has been rather too heavy. However, an abundance of feed is fairly assured, and there seems to be no section where forced marketing of cattle has been the rule this year.

There is a fairly healthy feeling in the foreign cattle trade, though the exporters of live cattle are not at all disposed to do a make or break volume of business. Prices abroad are only 1/4c. to 1c. higher in London than a year ago, while the cost of cattle here is fully 1c. per lb. more. To offset this ocean rates are \$6 to \$7.50 per head cheaper. The exporters do not deny that they are making a little money, but the best evidence that the trade is not always a bonanza is the fact that many of the shippers are doing less business than last year. Indications are, however, that good cattle will be not any too

at \$1.25 per 100 lbs. advance over a year ago. Hog raisers are not complaining.

The important statement is made by reliable authorities that trichinosis would never appear in hog meat if the hogs were never allowed to eat decayed animal matter. Bury the dead animals. They are worth more for a fertilizer than for hog food. It is surprising that so many people still cling to the old idea that nothing is too foul for a hog to eat or drink. There has lately been a very wide range of prices for hogs. Choice 160 to 260 lb. hogs sold at \$5.25 when sellers found it hard work to get \$4.50 for fat 300 lb. brood sows.

In Manitoba June and July have been wet—exceedingly favorable for vegetation. Old timers say that there will be no danger of frost this year.

Most favorable reports come to us of the crop prospects in Manitoba this year. Hundreds of farm hands are wanted, and wages will be high. Excursions for "harvest hands" will be run on August 4th on C. P. R. line.

quality having been the prominent features borne in mind in selecting for this flock. This season's lambs are exceptionally large and fine, particularly the ram lambs. These and 100 imported ewes to choose from should satisfy those wanting sheep of this breeding.

Since 1883 eighteen travelling dairy schools, attended by 450 students, chiefly farmers' wives and daughters, of whom 348 took a full course of instruction, have been organized under the Bath and West of England Society. The British dairyman is on the move.

Mr. John Q. Sumner, of Morris, writes us as follows:—"I am well pleased with your paper, and consider it the best agricultural publication in Canada. It is always brim full of trustworthy information, and your advertising space is not filled up with patent trash."

James W. Shanks met with a serious loss by the death of his thoroughbred Shorthorn bull. A *post mortem* by the district veterinary, McNaught, revealed a nail in his lungs. It is supposed he swallowed the nail and it worked through the stomach penetrating his lung and causing a large abscess to form.

Studs, Herds and Flocks.

W. E. WRIGHT'S SHROPSHIRE.

The farm owned by the above proprietor is well situated for the fine stock trade, being within half a mile of the Glanworth station, on the London & Port Stanley branch of the Grand Trunk Railway, and just midway between the cities of London and St. Thomas. Not only is the railway accommodation first-class, but there are situated a number of other flocks in close proximity, which is a great advantage, as buyers are sure to congregate where the greatest number of breeders are to be found. Westminster, the township in which Mr. Wright lives, has long been noted as a sheep breeding centre, and perhaps has more flocks of imported sheep within a radius of the same number of miles than any other part of the country. This flock was founded very soon after Shropshire sheep began to be imported freely, the first purchases being made from the flocks of Geary Bros., London; James Glennie, then of Guelph; T. D. Hodgins, London; but as the demand for sheep of high class increased the produce of these were sold and their places again filled with imported sheep. Last winter a number of ewes were selected from Mr. W. S. Hawkshaw's winter importation that had been bred previous to their leaving England. This lot were bred by R. Bach, Onibury, near Shrewsbury, England, and are of capital Shropshire character, with good size and quality. Some exceptionally good ram lambs, imported in their dams, from the most noted English rams, being wonderfully well developed, and promise being very large by show time. In fact, all the lambs are exceptionally good, particularly the ram lambs, which are very strong, with good fleeces and well covered heads. They are all the get of imported rams and show uniformity of type in a marked degree, which is not surprising when the quality of the dams is considered. Shearling ewes and rams are also a good lot, the whole forming a remarkably useful flock.

HILLSIDE FARM.

Messrs. John Ackrow & Son, of Hillside Farm, Highfield P. O., have been engaged in the business of breeding Shorthorns for over thirty years, and as they have always made it a rule to buy none but the best, they have now a herd that, while not only large, is made up of animals of extra good quality. At the head of the herd we found the Kinellar bull Reporter, imported by Mr. John Isaac, of Markham, a bull of the right kind, short-legged and beefy, and combining his individual good qualities, with a pedigree built on show ring triumphs, his sire being the well-known Cruickshank bull Gravesend (46461), and his dam a cow of the famous Wimple family, Wimple 13th, by Golden Prince (38363).

In a field close to the barn we were next shown the latest additions to the Hillside herd, viz., two imported cows purchased at Mr. John Isaac's sale last February. These are both from the Kinellar herd, and are both got by the noted Gravesend (46461); the one, Charlotte, the highest-priced cow sold at the sale, being out of a Cruickshank cow. Both these cows when purchased had calves at their side, by Mr. Isaac's bull, Baron Linton, known as perhaps one of the best stock getters in Ontario, and a very promising pair of youngsters they are, both bulls, the one calved in October and the other in February. Another imported Campbell cow is the old cow

Juliet; this has been a grand breeder, two of her daughters being in the same field, one a four-year-old, Jubilee, by Baron Linton, and the other Juliet's Rose, a three-year-old, by the imported Scotch bull Count of the Empire, this latter having a very sweet heifer calf by Reporter. Among the home-bred animals we were greatly taken with the red cow Rose of Kentucky 3rd, sire Sir Francis, a highly bred Booth bull, dam Rose of Kentucky, by Earl of Edgwood; this is a beautiful cow, smooth and sweet all over, with a well sprung rib, a good front and neat head; in our opinion the pick of the basket, and a credit to her breeders.

In an adjoining paddock were a few very nice heifer calves, one of them especially, a daughter of the stock bull Reporter, Rose of Kentucky the 9th, striking us as being a very smooth, sweet heifer of great promise. Messrs. Ackrow's card will be found in another column, and we can recommend their herd as worthy of inspection by intending purchasers.

PINE FOREST FARM.

Few names are more familiar to Holstein fanciers than that of Mr. Wm. Shunk, of Sherwood, Ont. Mr. Shunk, in addition to being one of the oldest breeders in Ontario, is a director of the Holstein Breeders' Association, and was at the last meeting appointed inspector for the herd book. At the time of our visit the cattle were out at grass, and not receiving any extra feed, yet they were looking as sleek as though grain fed. The first cow shown us was the imported cow Annin, purchased from B. B. Lord & Son, Sinclairville, N. Y.; this is a grand, big cow, with a well shaped udder and large knotted milk views standing out prominently, winner of first at both the Industrial and the Provincial Fairs as a three-year-old heifer. She has made a test of 16 pounds of butter in seven days, as a five-year-old, her dam having a butter record of 18.14 pounds, and a milk record of 77½ pounds in one day, while her sire's dam had a record of no less than 87½ pounds of milk in a day.

Two very nice young cows are Sherwood Charm and Sherwood Alice, both being daughters of Annin, the first named being by Sherwood Lad, a grandson of the famous Barrington, the latter by the bull lately in use at Pine Forest, Alexander 5th. The bull at present in service is Ballie 2nd's Artis Clothilde, bred by Smith, Powell & Lamb, of Syracuse, N. Y., his sire being Clothilde 4th's Artis, the bull used at the famous Belle Mead Farm. Although a little low in flesh at the time of our visit, Baillie 2nd's Clothilde Artis struck us as being a good pattern of a dairy bull, having the milk points strongly developed, while that he is a good stock getter. We had ample proof in seeing the young things got by him, amongst them a really choice bull calf about six weeks old, out of the imported cow Annin.

MR. LINE'S HOLSTEINS.

A short distance from Pine Forest, and also close to Sherwood, we found located another Holstein admirer in the person of Mr. John A. Line. Owing to the number of sales made this spring, Mr. Line, at the time of our visit, was not very heavily stocked, everything of saleable age having left the farm at good prices. The bull in service, Amsterdam, was bred at the Ontario Agricultural College, Guelph, sired by Netherland Statesman's Cornelius, a grandson

of the world-famed prize-winner Netherland Prince. Amsterdam promises to make a very useful bull, his deep, yellow skin showing indications of butter, as well as milk, qualities. Of the cows, one, Breezy, was imported by Messrs. B. B. Lord & Son, of Sinclairville, N. Y., a heavy bodied, short legged cow. Breezy also shows the wedge-shape, so indicative of milking properties, and Mr. Line tells us that she does not belie her appearance, for he expects her to reach a yield of 11,000 pounds of milk in the twelve months, commencing October 12th, 1890. A daughter of Breezy, by the famous prize winning bull Neptune Jr., is Breezy 2nd, and a grand young cow she is; wide over her hips, light in the shoulder, with a nice square udder and well placed teats, she shows the word milk written in capitals all over her, and we were not very much surprised when Mr. Line told us that she had made 14 pounds of butter in 7 days, the third week after calving, besides raising her calf. While not so large as Breezy 2nd, Vernetta Moss, another daughter of Breezy, by the Barrington bull Earl Barrington, is a very smooth, sweet cow all over, with beautiful mellow skin, and having, Mr. Line tells us, the very important qualification of keeping up her supply of milk close to calving.

Although sold out of almost all his young stock, Mr. Line was able to show us a very nice pair of calves—one a bull, out of Vernetta Moss, the other a very choice heifer, out of Tillie Neptune, a cow sold last spring.

Although Mr. Line has not yet ventured into the arena of the larger shows, he has always held his own in local rings, and we feel confident that stock from his herd will be heard of later on.

CLYDESDALE FARM.

In the East Riding of York, and close to the little village of L'Amaroux, is situated Clydesdale Farm, the property of Mr. John Bell, well-known as the owner of some of the best Clydesdale stallions Canada has ever seen, and also as the pioneer importer of Tamworth pigs in Ontario. At the time of our visit the stallions owned by Mr. Bell were The Granite City, Eastfield Chief and Ardlethan Boy. Of these, the last named, a big, upstanding horse, sired by McCamon, was leased for the season, while the two first were making the season at their own stable. Of The Granite City it is unnecessary for us to say much, as he is already well known to the horse loving public through his successes in the show yard both in Scotland and in Canada. It will suffice, therefore, to say that since we saw him last he has grown into a big, massive horse, with a grand set of legs. Eastfield Chief, although also a well-known prize-winner, has not perhaps been as prominently before the public as The Granite City, still in some points he takes our eye even more than his stable companion, a very short-legged, thick horse, with a wealth of muscle. He shows draught in every line, and will, in our opinion, prove a most valuable stock horse. Sired by Prince Lawrance, a grandson of the famous Prince of Wales, and out of a mare by Lord Lyon, he is royally bred, and the people of East York are to be congratulated on having two such stallions kept for service in their county.

Besides the imported stallions, Mr. Bell has a fine stud of registered mares, and some very useful looking youngsters of both sexes. Among them is a pair of two-year-old fillies, both got by Lord

Fitzerskine, a half-brother to The Granite City, lately owned by Mr. Bell, and a two-year-old stallion colt, got by the famous old stock horse Pride of Perth, his dam being by Prince of Belle-ride. This is a big, strong-boned colt, and promises to make a very heavy horse.

The herd of Tamworth pigs, the first, we believe, in Ontario, is headed by the imported boar Norman's Pride (2207), imported from the well-known herd of John Norman, jr., Cliff House, Tamworth, England, a very lengthy, deep-sided pig, with strong bone and good hams. Among the sows we particularly noticed the old imported sow Sally Ann (3908), a very large, thick sow, also from the Cliff House herd, while in another pen we were shown two young sows from her, and got by Norman's Pride; a very neat pair, smooth and lengthy, with good bone and standing well on their legs.

As these pigs are not very well known in Canada, we might say that they are famous in England for cutting up plenty of lean meat and being good thrivers, and Mr. Bell tells us that he finds them all that they have been represented to be, and that a cross from his imported boar is highly valued by the farmers in his neighborhood as a feeding pig.

Besides Berkshires and Tamworths, Mr. Bell has laid the foundation of a herd of Shorthorns and a flock of Shropshires. His advertisement will be found in another column, and we can confidently recommend him as a reliable breeder.

THE BERKSHIRES OF MR. DELBRIDGE.

Among those who have made a name for themselves at the shows of Western Ontario is the above-named breeder. During the last three years that he has been exhibiting, his herd has taken over 130 prizes out of 160 entries, the above premiums being confined to first and second prizes, which speaks volumes for the class of stock that Mr. Delbridge is breeding. Two boars are in use in the herd, one of which is imported and is proving most satisfactory; another, from imported sire and dam, is a particularly attractive pig, and is also proving a No. 1 sire. Among the sows which we have space to mention is one sired by Premier that has hitherto had an unbeaten show ring career. She is particularly well developed, very smooth and handsome. Another beautiful sow is one by Imp. Briton, which is the sort that delights the eye of a Berkshire breeder. She is of good size, with capital hams and fine length of body and depth of side. Mr. Delbridge has a fine lot of young pigs that will be just suitable for the fall trade. Winchelsea, his post office address, is about six miles east of Exeter and a short distance further from Granton on the main line of the G.T.R.

SHROPSHIRE PARK.

This breeding farm, as its name implies, can be numbered among the headquarters for sheep of this breed. Mr. W. H. Beattie, the proprietor, has been making annual importations for the last five years, and through the increase in the trade which he has enjoyed, has each year required to import in larger numbers to supply his customers. The first lot landed this season consists principally of shearing ewes, twenty-five of which Mr. Beattie selected from the flock of Mr. E. Instone, Salop; fifteen from Mr. Peter Everall, Uffington, and others from the flocks of Mr. Ward, Mountford Brydgc; Mr. T. S. Minton, Mountford; Mr. Nock; Mr. Thomas;

Mr. Harding, and Mr. Nevitt, comprising over sixty head. These, in addition to forty ewes wintered at Shropshire Park, and their produce of sixty-seven lambs, counts up a flock of large dimensions. A very handsome shearing ram, bred by Mr. Harding, of Walton, near Salop, is a sheep of fine quality, carrying a capital fleece; he is in fine condition, and is likely to be heard from later. Another we were very much impressed with is a fine shearing ram, bred by Mr. Nevitt, of Harmer Hall; he is not as large as the sheep from Mr. Harding's, but is full of Shropshire character. A three-shear ram of Mr. Jefferson's breeding is a very large, straight, useful sheep that should be wanted to head a choice flock. Mr. Beattie is expecting another lot of shearing ewes shortly from Mr. T. S. Minton. The crop of this season's lambs has not only numbers to attract attention, but they are exceptionally fine, and have not lost any time in making growth. Shropshire Park is four miles south of London, in Westminster township.

The Royal Society's Pigs.

From what one can glean from your valuable journal your countrymen are taking a great deal of interest in the breeding of pigs, and I venture to send you a few notes of the exhibits at the Doncaster Royal where we had collected together a grand lot of pigs from well nigh all the best herds in England. It is now the fashion to have two sets of judges, one set taking the Yorkshires, large, middle and small, and the other awarding the prizes in the classes for Small Blacks, Berkshires and Tamworths.

First on the list comes the class for Large Yorkshire boars under eighteen months. Two splendid pigs from the Holywell Manor herd won first and reserve. The former pig has won six firsts, and the latter two firsts and a reserve. A very large and thick-shouldered boar won second for Mr. Beardsley, the third prize going to a middling boar sent by the Guardians of Prescott Union. The pens of boars were not first rate; there was a want of uniformity and style about them. The Hon. Mrs. Ingram's two sows were of tremendous size and could not have reared any pigs of late. It is time some steps were taken to put a stop to the showing of these over-fattened old dowagers. Mr. Sanders Spencer won first prize for a typical pen of Large White yelts, and was reserved for a second lot much younger and quite as good. A very nice pen won third prize for Mr. Boddington. In middle white boars Mr. Spencer sent a beautiful young boar to win the first prize. This nice young boar was successfully shown at Oxford, Bath and West and Essex shows. Three grand pens of boars won first, second and reserve for Mr. Spencer, who also won second and reserve for breeding sows, and second for pens of yelts, thus taking five of the eight prizes awarded for Middle Whites. Small Yorkshires were very few and very fat. Small Blacks fewer and if possible fatter—not entries enough in either section to take all the prizes offered.

Berkshires were very good and numerous. Mr. E. Burbridge won first, and Mr. W. Pinneck won a second for boars and a third for sows with pigs from one litter. Mr. A. Darby won two seconds and a third with pens of three pigs of either sex. Mr. Benjafield was first for sows. Sir Humphrey de Trafford's three boars were first. Mr. W. A. Barnes won a second for sows, and Mr. Burbidge a first for aged boars; this pig won first and cup at the Bath and West.

Tamworths were in great force and were better than we have seen them; they show more breeding now that they are bred of

a lighter color, due to a cross one would think. Mr. R. Boddington, Mr. J. Norman, jr., Mr. D. W. Philip, Lord Auckland, Mr. F. Ibbotson, Mr. W. H. Mitchell, Mr. Thomas Tompson and some others were successful exhibitors. BERKS.

In Defence of the Percheron.

BY AUZIAS-TURENNE, MANAGER, M.S.D.A.D.F.

If the Clyde and the Shire are still on their proof—a proof that can scarcely be completed before the end of the century, as stated by the editor of the *Nor-West Farmer*—why don't he allow the Percheron as long a trial? Why don't he wait till the end of the century before objecting to such breed, as inferior or unsatisfactory? Has he any right to draw such hasty conclusions before a long experiment? We do not undertake any criticism of other breeds or indulge in comparisons which are proverbially odious, but we simply say: Give our breed a trial! The excellence of the Percheron among the draught breeds, as well as the superiority of the Thoroughbred from England among lighter breeds, we would proclaim, even if we were alone, against a thousand century's old prejudices, even in our Canadian Northwest, where too many men, for the last ten years, have said, "Here are the only breeds fit for our country! We say so, and it is so! No use for any other equine race!"

The population of the United States is formed of all sorts of nationalities of which each one was naturally pledged at first in favor of the horse that came from his fatherland; still, for twenty-five years, they have given a decided preference to Percherons as draught horses. The main zootechnic feature of the Percheron is *swiftness* combined with *strength*. This is the reason why Percherons are sought after by all the nations which are trying to improve their draught horses or to create a breed for themselves. If you want the opinion of a very high British agricultural authority, we will remind you of the following statement of the British Quarterly Journal of Agriculture:—"The Percheron horses are a capital race for hard work and scanty fare. I have never seen such horses at the collar, under the diligence, post carriage or clumsy cabriolet, or for the farm cart. They are enduring and energetic beyond description. With their necks cut to the bone they flinch not. They keep their condition when other horses would die of neglect or hard treatment. A better cross for some of our horses cannot be imagined than those of Normandy."

Since the June issue of the *FARMER'S ADVOCATE*, we have received over twenty-two letters from the Northwest in defence of Percherons.

For instance, Mr. L. D. Lemieux, Oak Lake, Man., writes us:—"That the best stallion ever imported to Brandon was a Percheron named Black Duck. He left some remarkable colts, but the purchaser never paid the agreed price and he was taken back to the States after two years by his owner. The Percheron stallions bought by the Agricultural Society of Brandon were not fine specimens of their breed. Last year a fine Percheron was ruined at Oak Lake, Man., by mismanagement and too many mares in season time. The result was, in some cases, weak or puny colts."

But such instances as false pedigreed scrubs, much abused stallions (sometimes the best one), or poor specimens happen in every breed. A man or a paper, to be fair, must allow the Percheron a trial as long as the Clyde or the Shire before he gives any unfavorable opinion on such breed. We claim that the Percheron breed is the origin of the Quebec Canadian horse. We have proof of it. Our Canadian Percheron colts will prove it. Give them a fair field.

Should Stallions be Licensed.

The breeding season has come and gone again, and as usual, the country has been flooded with a miscellaneous assortment of stallions, pure-bred, half-bred and no breed at all in many cases, and ranging in price of service fee from the highly bred road stallion, with a record of 2.28, at \$40, down to the general purpose mongrel that covers at \$5 to insure; and, again, I am sorry to say, in too many localities we find that the horses of the latter class, if they have not done the biggest seasons, have at any rate done enough to cut down very materially the earnings of really useful horses, the result being that many a man who has invested a goodly sum in the purchase of a well-bred stallion has gone home with the firm intention of going out of the business, and as a natural consequence some neighborhood is deprived of the services of a horse who would in a very few years have added hundreds of dollars to the wealth of the neighborhood in the value of its horses alone.

Now, surely, something should be done to put a stop to such a state of things, and yet when the advisability of licensing stallions is brought up a howl is at once raised that the poor man's liberty is being infringed on, that every man has a right to breed to any horse he likes, and that in this free country it would be an outrage to try to prevent any man who chose to do so from travelling a stallion of any breed or kind he chooses. Let me ask what reason there is in this. It might just as well be claimed that any man who chose should be allowed to sell whiskey, or that a man should be allowed to leave his plum trees full of black knot, or let the thistles on his farm all go to seed; or in fact it might as well be claimed at once that the government has no right to bring in any measure for the good of the country at large that will in any way interfere with the actions of any individual.

Now, let us look into this question for a moment or two. Under the present state of things any man who wishes has a right to keep for service a stallion of any description he may choose. What is the result? We find the country flooded with entire horses that would not, were they gelded, fetch over \$150 to \$200 each, and in many cases less. These horses are travelled on the principal of putting a good stiff figure on the stallion bill and then taking what they can get. I know of one horse in an adjoining county who was bred to three mares at \$4 each to insure, and, of course, numbers of men are found willing to breed to them because they are cheap. This is bad enough, but the mischief does not end here, as the man who has invested his money in a well-bred stallion finds that owing to the number of scrub horses that are doing business at from \$3 to \$6 he has got to either come down in his price to something near their rates or else stay at home. He knows he cannot afford to run a horse that has cost him perhaps \$1,000 or \$1,200 at such a price, run all risks on the horse, take the chances of the mare proving in foal, and last, but far from least, take chances of getting his money, and so he takes the first opportunity of selling his horse and goes out of the business; and I do not blame him, for after some years practical experience I am satisfied that there is very little in keeping stallions for service except worry and bother.

Now, suppose a license fee of say \$100 was levied on every stallion that is kept for service, what would the result be? Simply this, that

the castrating knife would be used very freely next spring, and hundreds of useless, and worse than useless stallions would be set to earn their living by collar work, while the man who is thinking of purchasing a well-bred horse will be encouraged to do so, as he will not be obliged to compete with all the scrub horses he has had to meet hitherto, and my reader adds, he will put the price away up so that no ordinary farmer can touch it. I do not think so; I think the law of supply and demand would regulate that. There are plenty of really good, sound, well-bred horses to be had, and just as soon as any man is found to be getting an extra high rate there would be lots of men ready to put another horse in the field. As the market stands now from \$800 to \$1,200 will buy a good fair stallion of almost any breed, and were stallion owners protected from the competition of \$200 scrubs by a license fee such as I speak of, they could afford to run a horse costing this amount at from \$10 to \$12 to insure, and if a colt is not worth paying that for he is not worth raising.

It would, of course, be necessary that all stallions licensed should be registered with the proper authorities, and I would suggest that it would be well to insist on every owner producing a certificate from a qualified veterinarian that his horse is free from any hereditary disease, and also that he should file a copy of the pedigree, duly sworn to.

Were such a plan as this carried out and the money collected, after the necessary expenses have been paid, handed over to the county agricultural society, I think we would all be surprised in a few years at the change in the quality of our horses that would result; and I would now suggest to the horse owners and breeders of the province that some steps be taken to petition parliament to grant to the different county councils the right to place such a license on all entire horses standing for service within the boundaries of their respective counties.

BLUE BLOOD.

Breeding for Beef.

A more systematic management of the cattle breeding in Canada would result in a much larger sum being realized for this fast increasing export. Although last year's figures footed up over 123,000 head (one-third more than the year previous, and more than double that of two years before, then the largest in the history of the export trade), still a number of these were not a large source of revenue to either breeder or shipper. This was for two reasons. One, because they were shipped unfinished, and the other, on account of the lack of quality required for the British market.

In the manner that breeding is now conducted throughout the country many of the best cows are lost as far as their reproducing powers are concerned. The vast body of farmers who send their milk to cheese factories aim to have their cows come in so that they will be fresh at the beginning of May, therefore the chances of successfully raising calves without the proper quota of milk makes it extremely dubious if it will pay to bring up the calf at all.

After repeated trials, with a want of success that is too plainly displayed in the poor little puny yearlings that are to be seen in the majority of dairy districts, farmers become more careless as to what bulls they breed their cows to, and by this management it is not likely that the quality of the country's yearly output will be improved. The only way to rectify the difficulty is by having the necessary number to keep up the herd calve early in the year. By this means a quantity of butter can be made and sold when it is selling at paying prices, and at the time of year it is in the best condition to ship. The skim-milk, which is sweet and in good order for feeding, remains on the farm to bring up the

calves, which should be ready to be weaned by the time the factory season begins. By good feeding during these months the cows would milk better than they do now, especially where cows are brought through in just merely living condition, and the additional value of a well grown calf would materially help to swell the credit account of each cow in the herd. A revolutionizing of the general management of the feeding methods is necessary before there is much encouragement for better breeding. It is all well enough to speak of the necessity of good blood being infused in our herds that the proper stamp of cattle may be produced to sell at good profit. Breed, without the proper care and attention, avails nothing. If farmers are so niggardly that they fancy each bushel of grain saved for sale is just so much money made, they may just as well keep on with scrub or native cattle, as these will stand starvation rations quite as well or better. On the other hand, if they grow and set apart certain crops to be fed on the farm, they must seek to feed it to such animals as will give the best returns. It has been over and over again manifested that the young steer will give a much larger return for a given number of bushels of ground grain than a steer nearly matured. This difference amounts to from one-third to one-half, and is hardly credible, but a proper test, in which feed and animals are duly weighed, will convince the most sceptical. Just here comes in profit or loss in the feeding operations. In small establishments how much better to so order the feeding and breeding that a certain number of yearlings or calves could be turned off each year than to have a number of all ages on half rations eating up the profits.

Already the demand for good, thrifty-growing young stock is greater than the supply. Far more money can be made by feeding these young things than can be made in finishing the ordinary steer after he has passed his second year. The money is all in getting steers to market at from twenty-four to thirty months. After this age they will not pay for their feed unless they have been purchased at extremely low figures.

In the Scottish dairy districts where large herds of Ayrshire cattle are principally kept, after choosing out the best cows to keep up the supply of heifers to the number required for the dairy herd, the balance are bred to the best type of beef bulls. The calves are sold off early to farmers making a specialty of feeding these. They are sold again when they get to suitable age, to others for stall feeding or grazing, as the case may be. By this system steers of the quality that Scotland is so noted for are produced. Canadian methods have of necessity been indefinite during the opening up of trade and improving the farms, but the time for better ordered system is now necessary to realize profits and make each department of the farm tell. The writer has repeatedly sold steers from twelve to eighteen months at from \$30 to \$50 per head. These, of course, were well cared for, but no easier way of making money can be found, and no better return for feed obtained. Let those who have doubts choose a few of their best framed cows, breed them early to a good-fleshed, pure-bred bull of one of the beef breeds, take care of the calves when they arrive; don't let them go backward; very little feed, if continued, together with good care, will develop steers that will not only be a large source of profit, but will awaken an interest in careful breeding.

The French Coaching Stallion Indre.

The horse portrayed in the subjoined illustration has not only been a most successful prize taker at the expositions of France, but he belongs to a family that have distinguished themselves as winners in the annual races which are held in that country, seventy-eight of his half brothers and sisters winning to the amount of over \$85,000. The grand sire and great grand sire were also getters of trotters winning large sums of money. Mr. Dunham, Wayne, Du Page Co., Ill., his importer, places considerable value on endurance and performances.

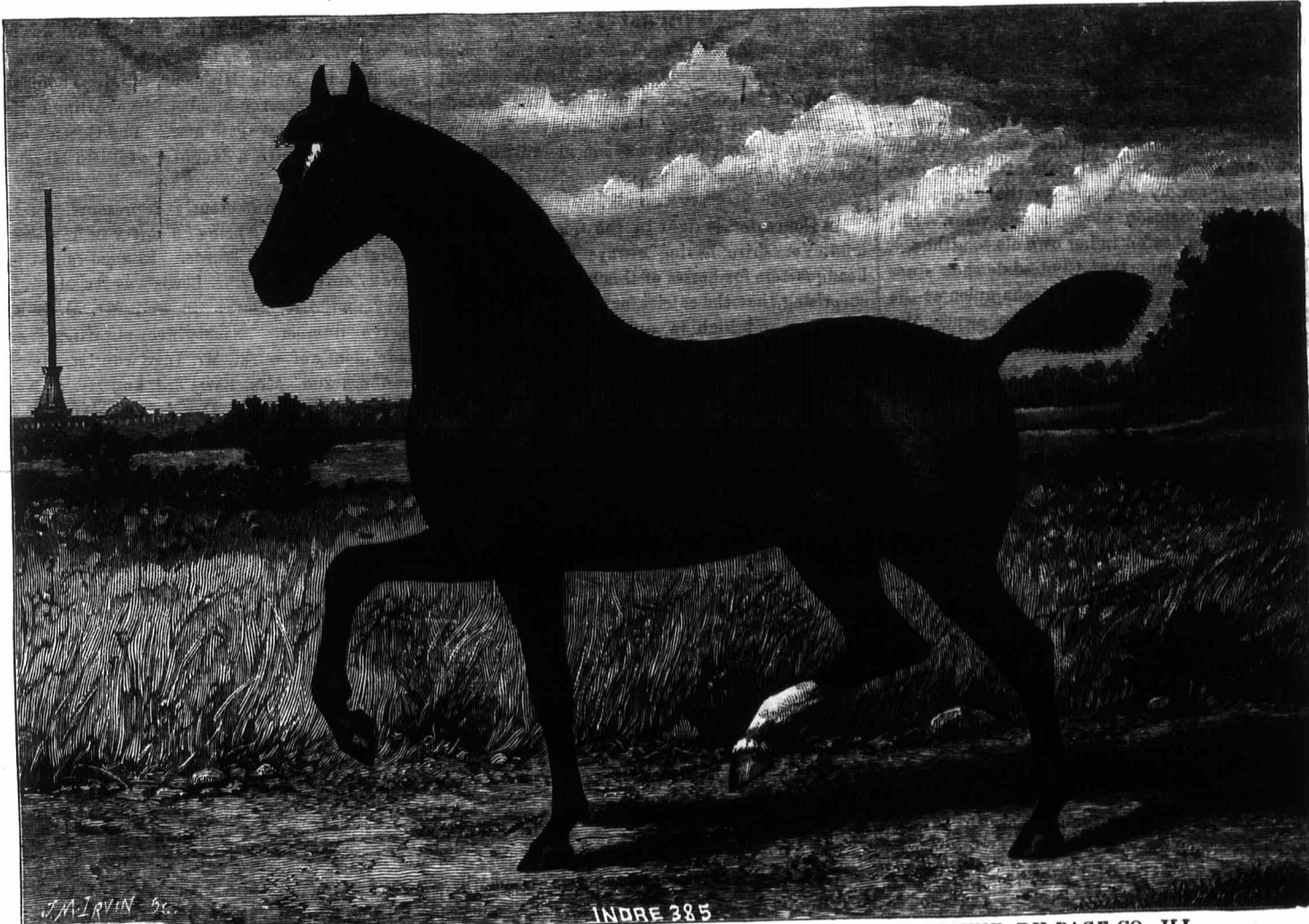
Clydesdales—Our Scottish Letter.

It is something in these dull times to be able to report that all our American and Canadian

Scotland has its own show, and at some of these parish shows there may be seen first-rate displays of stock. One of the best of these is an old established event that always takes place on the second Wednesday of June at Kilmalcolm, in Renfrewshire. I think as far as Clydesdales are concerned this may be described as the best parish show in Scotland. There are several first-rate, although not large, breeding studs in the locality. Chief amongst these may be named that of Margaret's Mill, owned by Mr. Alex. Love, and founded about the beginning of this century. This stud contains one of the best mares ever got by Prince of Wales 673, and the superior breeding horse Prince Gallant 6176 is its most notable member at present. Another successful Clydesdale breeder in Kilmalcolm is

Belted Knight 1395, and Mr. Love, already referred to, with stock got by Prince Gallant. Mr. Thomas Kennedy, Uplawmoor, Nielston, was first with a three-year-old filly got, I think, by Knight O'Lothian 4489, and Mr. C. Watson, Fulwood, Houston, was first with a first-rate two-year-old filly got by Top Gallant.

Another very fine display of Clydesdales was seen at Stirling. This is one of the best district shows in Scotland. The champion female of the show was the Kippendavie mare Brenda, by Knight Errant 4483. This mare has surpassingly good action, and she and her stable companion, Heroine, make a grand pair. Both were bred by Colonel Stirling, and are by Knight Errant. Heroine has more weight and substance, but Brenda has the greater style. Other successful



INDRE 385
THE FRENCH COACHING STALLION INDRE, THE PROPERTY OF MR. DUNHAM, WAYNE, DU PAGE CO., ILL.

friends have not forsaken us. At the Royal Show last week we met Mr. William Graham, of Graham Bros., Claremont, Ont., and Mr. Robert Miller, jr., Brougham, Ont., and since arriving home Mr. Robert Ness, jr., Howick, Quebec, has also entered an appearance. Mr. N. P. Clarke, St. Cloud, Minn., the President of the American Clydesdale Association, is also in evidence. I rather think Mr. Miller is on sheep business, and am not sure that we are likely to see him in the north. All of the others are probably buyers of Clydesdales, and they will likely be taking away some good things.

June is always an abnormally busy month; scarcely a day passes on which there is not more than one agricultural show. On Saturday there were no fewer than four, all of them held at towns not more than thirty miles distant from Glasgow. Almost every parish in the west of

Mr. William Neilson, Matherock Farm, who, at the show held at Greenock a few days ago, gained first prizes, both in the class of yearling colts and the class of yearling fillies, with animals bred by himself. Greenock show is confined to the lower ward of Renfrewshire, of which Kilmalcolm forms a part. The show for the whole county is held at Paisley in the first week of June, and this year it was largely attended and very successful. The most successful exhibitors were Mr. Sinclair Scott, whose fine mares have gained many prizes wherever shown this season; Sir Michael R. Shaw, Stewart Bart, who gained several prizes with stock got by his capital stud horse the Macneil 4566; Mr. W. S. Park, Hatton, Bishopton, who showed some good colts, the best of them got by the famous Top Gallant (1850); Mr. William Taylor, Park Mains, with five yearlings got by Sir Everard 5353, and

exhibitors were the Galbraith Bros., who are well known on both sides of the Atlantic, and showed a number of first-rate animals. They were first with yearling and two-year-old colts got by Lord Ailsa 5974, first with the fine mare Lady Londonderry, by Castlereagh, in the yeld class, and second in the brood mare class with the celebrated Topsman's Princess. Mr. David Mitchell, of Millfield, Polmont, had good success with his stock. The well-known Sunray was first in the brood mare class, and the beautiful Maritana was first in the class of yearling fillies. The first two-year-old filly was the cup winner at the Dumbartonshire show. She is quite a superior animal, and, I now learn, was got by Druid Chief 2061. Colonel Stirling's Brenda, as I have already said, won the championship, even beating Sunray.

The best shows of the month, however, have

been those held at Edinburgh, and the show of the Royal Agricultural Society at Doncaster. Both were very fine displays, and it is no exaggeration to say that the Clydesdale made a grand impression at Doncaster on the classic ground of the St. Leger. There were several good classes at Edinburgh, but both there and at the Royal Mr. Wm. Renwick's Prince Alexander was the champion male Clydesdale. This fine, well-balanced, beautiful horse is the result of the combination of Prince of Wales and Darnley blood—the double crop of Samson blood which never seems to fail. His grandam was got by the famous Lord Lyon 489, and his great grandam was bred from an old Galloway strain. He is a horse in which substance and quality are combined in a remarkable degree. It is further worthy of notice that the female champion at the Royal, Scottish Snowdrop, was bred on almost similar lines. She was got by Prince of Wales out of a Darnley mare, and so has the double Samson crop, but her grandam is also of Samson breeding, being got by Old Times. The dams of Prince of Wales and Old Times were own sisters, and the dam of Darnley was also like them by Samson, so that there is a triple crop of Samson blood in her veins. She has never been beaten in her own class, although shown at every important Clydesdale show since April 1889, and she has been champion at the Royal two years in succession. Her owner, Mr. Sinclair Scott, was also first at Edinburgh with his grand, handsome brood mare Scottish Marchioness. This mare has since foaled, and consequently was not at the Royal. She is, perhaps, as beautiful in outline as any Clydesdale of the season. The Darnley mare, Scottish Rose, was first in the yeld class at the show in the Scottish Metropolis. The Kippendavie mare, Brenda, was first at Edinburgh and third at the Royal in three-year-old class, and Lord Polwarth was first at Edinburgh and second at the Royal with an excellent, well-colored two year-old filly named Maggie IV., and got by Sidar. Curiously enough, another daughter of the same horse, Crosby Rose, owned by Mr. William Montgomery, was first at the Royal in the same class, and stood reserve to Scottish Snowdrop for the championship. Lord Polwarth's breeding like mare, Connie Nairn, stood second at Edinburgh and fourth at the Royal in the three-year-old class. She is a daughter of Prince of Wales, and a great favorite with breeders, having substance and depth, combined with good breeding like points. The Earl of Cawdor was second at the Royal in the three-year-old class with that choice mare Derecto, by the famous Flashwood. This is a mare of much substance, and a great favorite on all hands. Mr. David Mitchell's Maritana, by Excelsior, was first at Edinburgh, and the Earl of Galloway's grand mare Lillie Langtry, by Flashwood, was first at the Royal in the yearling class. The most successful exhibitor at the Royal, perhaps, was Mr. William Montgomery, Banks, Kirkcudbright. He was first with the three-year-old stallion Breastplate, a well-colored, level horse, and, as we have seen, first with Crosby Rose. These were the only two animals he exhibited. Mr. William Graham, Edengrove, Penrith, was first in the brood mare class with Lizzie of Inchparks, a very handsome mare by Belted Knight, which gained a similar honor at Plymouth last year, and the same gentleman was second in the class of three-year-old stallions with the MacCash, a

big, strong, well-colored horse, got by Macgregor. Mr. Andrew Montgomery, of Netherhall, was first in the class of yearling colts with Ross Macgregor, a strong, well-built horse, which, I observe, is commended on all hands, and the same owner was second and third in the class of two-year-old colts with those splendid horses Prince Patrick and the Macquhae, respectively. The Lords A. and L. Cecil showed some first rate Clydesdales from their stud in Kent, and the Marquis of Londonderry was also represented by a number of fine animals. There was in every way a grand show of Clydesdales at Doncaster, and although veterinary inspection was compulsory for all male animals only one Clydesdale failed to pass.

SCOTLAND YET.

The Royal Society's Show at Doncaster.

The late show was the fifty-second held under the auspices of the Royal Agricultural Society of England, and although the attendance reached up higher than last year's show, still in this particular it was considerably behind that held in Windsor in 1889.

LIVE STOCK.

As Doncaster is right in the Coach horse district, Yorkshire having always been considered headquarters for horses of this breeding, it is not surprising that the entries for this class were both numerous and high in quality. Unfortunately the application for separate classes for Cleveland Bays was not recognized, therefore the entry of over seventy included representatives of the Yorkshire Coach horse and Cleveland Bay, less than half being entered in the Stud Book of the latter.

HACKNEYS

were a great show, and 128 entries were found at the Doncaster Show, the classes being defined as follows:—Those over 15 hands, those over 14 and under 15 hands, and Hackney mares and geldings over 14 hands. As weight carries up to 12 and 14 stone respectively.

SHIRES

figured up to 191 entries, in which all the classes were filled to overflowing with capital specimens of this English cart breed. The two-year stallion Buzy Victor Chief, purchased lately by Mr. Wainwright at \$12,500 caused quite a sensation in this class.

CLYDESDALES.

This class has been well described in the letter by Scotland Yet.

SUFFOLK PUNCHES

were not out in such numbers, only forty being entered; but of these some particularly useful horses filled the classes.

SHORTHORNS

were exceedingly well represented, the number footing up to 116 entries, which made a grand display. Less of the unfashionable white appeared to be conspicuous this year. According to the Mark Lane Express the awards were not without dissent from onlookers, two of the judges' predilection for Booth blood causing their judgment to be criticised. In aged bulls Mr. Evan Jones won first with Nugget, described as low and level, but wanting in style. He was sired by a bull of the Warlaby Bright family, from a dam of Mr. Handley's breeding. The second was won by a bull of Mr. Robert Thomson's breeding, and of his Millicent family, Lord Polwarth gaining third and reserve respectively with Commander and Gunboat, both by Sir

Arthur Irvin. Twenty-two entries appeared in the ring for bulls calved in 1889, the first going to Lord Polwarth's Windsor Royal, which also took championship. He is described in the London Live Stock Journal as being round ribbed and gay in carriage. The largest class was that of bulls calved in 1890, there being 27 entries, in which Mr. W. Fowler's Eryholme Prince, sired by the Bliss bull Lord Broughton. He is said to be a very handsome yearling, with masculine head, massive forequarters and well covered top. Mr. Folgam came second with a bull of mixed Scotch and Booth breeding, and Mr. Dean Willis 3rd.

Cows in milk. First and second were won by Lord Polwarth with Wave of Indiana and Wave of Lock Levin, both by Warlaby sires. For heifers in milk Lord Polwarth again won with Truth, by Sir Arthur Irvin. The second was one of Mr. W. Graham's, bred by Mr. Thomson, of Inglewood. Molly Millicent, of Mr. Thomson's lot, took the reserve number. In yearling heifers Lord Polwarth was again first. The Queen's herd scored second with a daughter of Field Marshal.

SHROPSHIRE

were the most numerous represented of the sheep classes, there being an entry of 182 out of a total of 649 of all breeds. In aged rams there were 27 entries. Mr. G. Lewis was 1st, Mr. A. S. Berry 2nd, Mrs. Barrs 3rd, and Mr. D. Buttar reserve number. Ninety-five shearing rams made plenty of work. Mr. Inge won 1st, Messrs. Bradburn 2nd, Mrs. Barrs 3rd, and Mr. E. Nock reserve number. Mr. David Buttar and Mr. J. Dixon both had highly commended sheep. Shearing ewes were a grand class of 28 entries, Mrs. Barrs winning 1st, Mr. Inge 2nd, Messrs. Bradburn 3rd, S. Minton H. C.

SOUTH DOWNS.

In aged rams there were ten entries, the Prince of Wales' flock scoring a 1st, Mr. J. J. Coleman 2nd. Shearing rams numbered 30. Mr. J. J. Coleman 1st, the Prince of Wales 2nd, Mr. J. J. Coleman also taking H. C., also Mr. Ellis and Mr. Wm. Toop.

COTSWOLDS.

Three flocks were forward, Mr. Russell Swanwick taking 1st and 2nd, and Mr. Garne 3rd in aged rams. In shearings Mr. Garne was 1st, Mr. Bagnall 2nd, Mr. Swanwick 3rd. Three pens of shearing ewes were forward, all from Messrs. Bagnall's flock.

LINCOLNS.

In aged rams Mr. Henry Dudding lead off with 1st, Mr. R. Wright 2nd, Mr. Dudding 3rd and H. C. For shearings Mr. Wright was 1st, Mr. Dudding 2nd and 3rd, as well as commended. Mr. Dudding was also 1st and 2nd in pens of ram lambs. Messrs. J. Brown and J. Westbrook were both highly commended. Pen of shearing ewes, 1st and 3rd, R. Wright; H. Dudding 2nd, also R. and V. H. C.

OXFORD DOWNS.

Only a small entry. Messrs. J. C. Eady, A. Brassey, J. Treadwell, S. Adams, and F. Street were among the winning exhibitors.

Appleton's Annual Cyclopaedia.

The above work is again to hand, and for general information concerning the events of the world during 1890, it is difficult to conceive anything more concise and thorough. It contains scraps of last year's history of each country throughout the world, as well as obituaries of marked characters. One, three, and five Bond street, New York, is the address of the publishers.

Toronto's Great Exhibition.

A few weeks more and Canada's great fair will be in full swing. For many weeks past the directors have been hard at work making preparations for it. Everything points to this being the most successful of the many successful exhibitions held under the auspices of the Association; in fact, the entries have been coming in so fast during the past three weeks that fully one-half of all the available space has been allotted already. In the manufacturing departments especially, the entries have been particularly numerous, and one can now realize the forethought of the directors and their faith in the future of their fair by the large expenditure they have undertaken in the erection of new buildings and the enlarging of the old ones so familiar to the public. The prize list, too, large as it has been, has this year been increased to a material extent by the insertion of several new classes in the horse department as well as turn-outs, ponies, gig department, etc. Then, again, increased prizes have been raised in some classes of sheep and cattle departments. The Leicester Breeders' Association of America, for instance, has given a magnificent gold medal for sheep. Horticulture has also received a full share of attention from the directorate, and the new horticultural hall will be one of the features of this exhibition. A new fruit hall has been commenced and the contracts let for the felt and gravel roofing of the implement buildings and Association offices. The secret of the wonderful success of this great fair is to be found in the fact that the directors have ever had in view, above everything else, the benefit of the greatest and most important section of the community, the farmers. This is shown by an analysis of the prize list, nearly four-fifths of which is devoted to the farm and its products. The great Industrial Fair and Agricultural Exposition has now become so well known, not alone throughout the Dominion, but also through the length and breadth of the United States, that many important associations have arranged to hold their annual conventions during the fair. In fact it has become part and parcel of the prominent institutions of the country, and everyone seems to take as much pride in its success as in the loyal observance of Canada's two great holidays, May 24th and July 1st. There is one very important point that exhibitors should not forget, and that is that all entries in the live stock and agricultural departments must be made before the 15th August. This rule, like the laws of the Medes and Persians, is unalterable. Some weeks ago negotiations were opened with the C. P. R. to run a track into the grounds so that exhibitors might unload their stock within a few yards of the cattle pens, thereby doing away with the driving of them, with the risk and annoyance incident to driving them through the crowded streets of a great city. These negotiations resulted in the C. P. R. agreeing to run their track right into the grounds along the line of the electric railway.

All the old buildings are now being thoroughly overhauled. New floors have been placed wherever required in the main building and the annex. Mr. Chambers has had a new greenhouse and conservatory erected, and the C. P. R. are now at work on a building which will be devoted exclusively to the exhibit of products of

Manitoba and the illimitable Northwest. Once more let everyone bear in mind that the entries close August 15th, and everyone who intends to exhibit and who has not yet received a programme can be supplied by addressing Mr. H. J. Hill, the Manager, Industrial Exhibition Association, Toronto.

Auction Sales.

THE GLEN STOCK FARM DISPERSION SALE.

In our last issue we informed our readers that the whole of the studs, herds and flocks of Messrs. Green Bros., Innerkip, Ont., would be sold by auction on the 27th of this month without reserve. The herd of Shorthorns, 29 in number, and nearly all of which are either imported or descended from importations from the best herds in Aberdeenshire, will include, amongst other fine animals, the show cow Vain Maid, who was second at the Royal Northern and second at the Highland and Agricultural Society's Show in Scotland before she was imported, and since her arrival in Canada has been a most successful winner. Imported Clara 40th of Shethen descent has proved herself a most prolific breeder, and has been considered by a most eminent American authority as one of the best cows in the herd. She is thick-fleshed, with well sprung ribs and low set. Imported Miss McBeth is also a cow of great quality and very even. She is of the Miss Ramsden family, and amongst other prizes was awarded second prize at the Western Fair. Another neat cow of great quality is imported Princess Royal 23rd. She is of one of Mr. Marr's best families, and one of her sons was selected for exportation to South America. Several of the animals are sired by the Earl of Marr (47815), who won first at the 38th Provincial Exhibition in 1884, first and Dominion gold medal for the best Shorthorn bull of any age at the grand Dominion and 39th Provincial Exhibition, first at the Industrial Exhibition at Toronto in 1885, and many other prizes. The next bull that was used in the herd was imported Eclipse, a winner not only in Canada but also in Scotland. Prince Albert, the silver medal sweepstakes bull at the Provincial, is also the sire of some of the animals, and a very choice lot of young bulls and heifer calves are from Neidpath Prince, a bull of the well-known Missie family, bred by Messrs. T. Ballantyne & Sons, Stratford, Ont.

The Shire horses are a short legged, wide, heavy lot. Three of the mares are imported, and all are prize-winners, among them being Georgia, one of the most fashionably-bred mares in Canada, combining the William the Conqueror (2343) blood with that of Stych's Champion. She was third at the London (England) Shire Show; first at Buffalo and also at Detroit, competing against Clydes, and first and silver medal sweepstakes at the last Toronto Industrial. The two-year-old fillies are good, thick, promising animals. One of them, the daughter of Georgia, being second at the last Industrial. The two-year-old stallion is a son of the prize-winning mare Buckinghamshire Beauty and should make a good horse.

The Improved Large Yorkshires comprise seven imported brood sows from the celebrated herds of F. Walker-Jones, S. Spencer and G. Charnock, all very choice and of good quality, especially the sow Daisy, who is one of the plums. The herd also includes a large number of fine young pigs from seven to ten weeks' old, and the grand imported stock boar Sultan [12],

who combines extraordinary length with a short head and heavy bone.

The Glen Stock Farm, containing 300 acres of grand river flats and arable land, will, Messrs. Green inform us, be put up for sale on the same day. This farm won the silver medal in the prize farm competition and is in a high state of cultivation. There is also a large quantity of hardwood bush and abundance of cedar for fencing purposes on the farm which is admirably suited for either stock-raising or dairying, being well watered and sheltered from the keen blasts of the wind by the encircling bush.

MR. W. KOUGH'S DISPERSION SALE.

In our advertising columns will be found the advertisement of the dispersion sale by auction of the famous herd of Galloway cattle, owned by Mr. W. Kough, at his farm, Travertine, four miles west of Owen Sound, on Thursday, 20th August. In a business letter he includes the following:—The herd comprises thirty head—twenty-one females and nine bulls—two breeding herds, consisting of five females and one bull each; in all, ten females and two bulls, will be offered under a reserve bid. The remainder, eleven females and seven bulls, will be sold for whatever they will bring.

It is nine years since this herd was commenced. No expense has been spared to bring into it the very best blood, both individually and by pedigree. Weeding the least desirable has been persistently carried out, so that the herd consists of as good type as can be found in the world. An opportunity like the present one has not yet occurred on this continent to secure Galloways of the best quality. For twenty-five years experiments have been carried on by W. Kough, the end arrived at being the production of a type of cattle possessing all the best characteristics that cattle should have, viz., the choicest quality of beef and plenty of it, good milkers, early maturity, without horns, easily fed, willing to eat anything, docile and yet able to take care of themselves, able to do on the roughest feed and want of care, and yet responding to liberal feed and care. All these points are found in this herd and in the crosses from these bulls on any cows. The best three steers ever taken to the Toronto market were crosses from a good Galloway bull on common cows of the country, and were fed by W. Kough, and sold in May, 1889.

All the show cattle of the breed that have been at the head of the leading Canadian exhibitions during late years are in this offering.

Mr. Kough claims that parties desiring to possess herds of the best Angus type can obtain them by buying one of these Galloway bulls and with it crossing their cows. Those desiring further information can obtain it by writing to Mr. W. Kough.

MR. F. S. FOLGER'S SALE.

Mr. F. S. Folger, Rideau Stock Farm, Kingston, Ont., appraises us that he will sell at public sale, at Toronto, during the Industrial Exhibition, about 50 head of registered Holstein cattle. The offering will consist chiefly of cows and heifers. Most of these will be in calf to Ethelka's Prince 13637, sire Jamaeca's Prince 3147, by Vyking, out of Jawana 1334, whose three-year-old record was 112 lbs. 2 ozs. in a day; dam Ethelka 12083, three-year record, 101 lbs. in a day. The herd has been selected from the best strains, and has been carefully bred. This is the first time that any cattle from this herd have been offered for sale, and none but good specimens of the breed will be catalogued, as the proprietor is determined to make this offering as attractive as possible.

A Dog Trap.

Letters are often being received at this office asking how the present statute relates to sheep-killing dogs—the question being asked if a flock-master is justified in destroying dogs prowling around his premises. In spite of legislation sheep worrying continues as briskly as ever, and generally by half starved brutes whose owners know nothing and care less as to their whereabouts. This scourge is likely to continue to militate against a most profitable department in stock keeping. The Southern Planter gives a good plan of a trap that answers the purpose of holding the stray dog when he makes his visits in search of meals that he fails to get at home. And those who value the well being of their flocks can gain a point by the advice thus given. The correspondent in the journal alluded to advises the building of a pen six feet square at the bottom and narrowing to the top in order to allow sides to slant so that the dog can easily mount to the top. The sides having been smeared with broiled meat, some of which is placed inside, the dog climbs up the outside and jumps down, but is unable to get out, and is held as a prisoner until shot or released, as the attendant of the trap sees fit. This plan has the advantage over poison, which is always more or less unsafe to use, and is far in advance of the shotgun, as the trap is always ready, set night and day, to receive the first trespassing dog.

The Cattle Trade.

The export trade in cattle from Canada to Britain showed a very large increase during the year 1890—the largest increase the trade has ever seen since its inception. The total export for 1889 was slightly over 80,000 head, while that for 1890 went over 123,000 head. The difference in numbers was made up by large cargoes of lean cattle for feeding in Britain. Many of these "stores" were of fairly good quality, but a considerable number were only scrub stock which reflected no credit on our breeding. There has been a great outcry against this trade of exporting lean cattle, and it has been shown up by exporters, by leading agriculturists, and by the press generally as very much opposed to the best interests of Canada. It has been urged that we should keep them here, and feed them ourselves, thus securing the manure for the enriching our land, and the extra profit for the feeder. If this can be secured it certainly would be to the advantage of Canada; but it has not always been done. Prices for feeding cattle have during the past year been good, and much steadier than the prices for fat cattle, which were sometimes run down if a number of vessels arrived together, causing an oversupply. Steers and heifers, from thoroughbred sires, and of good quality, were selling in England at 8c. and over, live weight. The highest price for the best heaves has not reached that point yet on this side of the Atlantic. The best quality of shipping steers are worth \$6.15 per 100 lbs. in Chicago; the third quality are worth from \$5.25 to \$5.60. Chicago buyers are not paying these prices for fun, but are exporting from 10,000 to 12,000 head per week direct to England. The advance in price has been going on for months, and Canadians have not reaped an equal benefit. One reason alleged is that ocean freights are much higher from Canada. Why should this be? The St. Lawrence route is much shorter, has a long stretch of river navigation, and has other manifest advantages. The feeders in the United have been doing well, getting good prices, and while the prices for food have been very high they have been getting an advance on cattle which will pay for good feeding. The outlook for cattle men is decidedly good. There is a large shortage, and one it is said that it will take years to fill. The turn has come, and they are receiving the benefit. Our duty seems to be to increase our stock of good cattle. Prospects are very good, and if breeders will use only the best of thoroughbred sires, there is a good market and good prices ahead for all well-bred stock.

Veterinary.**Domestic Veterinary Treatment of the Animals of the Farm.**

BY WM. MOLE, M.R.C.V.S., HAMILTON, ONT.

In the course of these articles on domestic veterinary treatment we shall have to refer to the farmer's medicine chest very frequently, which should contain the following articles and drugs ready mixed for immediate use. Domestic measures of capacity are not always to be relied on for accuracy, therefore a two-ounce measure glass should be procured, which is not a very great item of expense; but for the purpose of giving some general idea of the capacity of ordinary vessels, the following table will be found of service:—

A quart is.....	40 fluid ounces
A pint.....	20 " "
A tumbler.....	8 to 10 " "
A breakfastcupful.....	6 to 8 " "
A teacupful.....	5 to 6 " "
A wineglassful.....	1 to 2 " "
A tablespoonful.....	4 drachms, $\frac{1}{4}$ " ounce
A dessertspoonful.....	2 " $\frac{1}{4}$ " "
A teaspoonful.....	1 " $\frac{1}{8}$ " "
An armful or bundle, about.....	6 ounces
A handful, about.....	3 " "
A pinch, about.....	2 drachms
As much as can be put on the end of a knife, about.....	20 grains

No. 1 Aconite Mixture.—Fleming's tincture of aconite, 1 oz.; spirits of wine, 9 oz. This should be labelled "Aconite Fatigue Medicine—Poison," for the following diseases:—Fever, colds, coughs, loss of appetite, over driving, team work, or chill.

It is of the highest value in chill or exhaustion, a state of the animal which, unless promptly relieved, terminates in inflammation of the lungs, pleurisy, laminitis, or more commonly known as founders. Alcohol in the form of whisky, brandy or strong ale, usually to be found on every farm, is useful in many cases that require a good, rousing stimulant to relieve the system from a state of depression. Doses:—Horse or ox, whisky or brandy, 4 to 8 tablespoonfuls; sheep, 1 to 3 tablespoonfuls; strong ale, horse and ox, 1 pint to 1 quart; sheep, quarter of a pint, repeated two or three times a day.

Aloes.—A purgative for a horse or ox. The ordinary aloetic mass is composed of Barbadoes aloes, 8 oz.; glycerine, 1 oz., melted in a water bath. Dose for horse, 5 to 8 drachms. Solution of aloes for cattle, 5 drachms in a quart of warm beer or gruel. It is usually given with a little ginger in continued and obstinate constipation.

Ammonia Liniment is made by adding a strong solution of ammonia and oil of turpentine, to soap liniment. A pint bottle of the liniment should always be kept at hand, well and securely stoppered. It is useful for all complaints that can be got at externally and where the skin is not broken. Sore throat, rheumatism, sprains of tendons, bruises, etc.; must be well rubbed in with the hand until absorbed by the skin; gad fly, warbles and maggots in horses, oxen and sheep.

Calves Cordial.—A form of chalk mixture for calves and sheep:—Prepared chalk, 2 oz.; powdered catechu, 1 oz.; ginger, $\frac{1}{2}$ oz.; opium, 1 drachm; peppermint water, 1 pint. Dose—Calves, 2 to 4 tablespoonfuls; sheep, 1 to 2 tablespoonfuls.

Carbolic Acid.—A powerful caustic and antiseptic as a dressing for wounds, for disinfecting purposes, etc. As a dressing for wounds:—Pure carbolic acid, 1 oz.; olive oil, 16 oz. Should be kept securely stoppered and labelled, "Poison—Carbolic Liniment." As a lotion for wounds:—Pure carbolic acid, 1 oz.; glycerine, 4 oz.; water 50 oz. Should be further diluted for disinfecting purposes.

Castor and Linseed Oils.—Purgatives. Doses—Horse or ox, 1 to 2 pints; sheep, 4 tablespoonfuls. Never give more than two pints, or there is great danger of causing peritonitis or inflammation of the bowels.

Colic Mixture, for Fret or Gripes.—Tincture of opium, 2 oz.; nitre ether (spirit) and sweet spirits of nitre, 2 oz.; chloric ether, 1 oz. A half pint bottle of this mixture should always be on hand. Dose—Horse, 1 to 2 ounces in half a pint of water every hour until relieved.

Electuary.—A soft mass composed of honey or treacle, useful in colds, sore throat, influenza, husking in cattle or sheep:—Lum. camphor, 2 oz.; powdered myrrh, 8 oz.; liquorice root, 8 oz.; powdered nitre, 3 oz.; extract belladonna, 2 oz. Dose—Horse or ox, a portion the size of a nut to be rubbed on the back teeth with a piece of stick twice a day.

Ginger, cloves, garraway seeds, pepper, etc., are all stimulants and form an essential part of all cordial for exciting appetite or removing pain. They may be given in combination with strong ale in cases of exhaustion or prostration from pain. Dose—Horse or ox, 1 to 2 teaspoonfuls of each; sheep, one-fourth of the quantity.

Nitre (nitre of potash).—Dietetic and fever medicine. Dose—Horse or ox, 2 tablespoonfuls daily in the drinking water, or half the quantity in the food; sheep, 1 teaspoonful in the food.

Salts (Epsom or Glauber's).—Common purgatives for cattle or sheep. Epsom salts are to be preferred as the medicine is more certain in its action. Dose—Ox, 12 to 16 ounces dissolved in a quart of warm water or gruel; a tablespoonful of ginger should be added. Sheep, 4 to 6 ounces.

Sulphur (flowers of sulphur).—A very valuable alterative for horses and cattle; should be combined with nitre, ginger, cloves and carraway seeds. As alterative powders, a tablespoonful of this mixture added to the food every day will promote digestion and relieve the system. Sheep, a teaspoonful in the chopped food.

Turpentine Oil.—Stimulant to the skin and may be given internally to calves for husk, combined with milk and eggs. Dose—Horse, 1 oz.; ox, a tablespoonful; sheep, a teaspoonful.

Vaseline or Petrolatum.—Emollient to the skin. If mixed with oxide of zinc useful for chapped heels, scratches, mud fever, sore teats or calks.

One set of cotton bandages, which should be 3½ yards long and 4 inches wide, a bundle of cotton wool-batting or tow, about two dozen large size pins 1½ inches long, a suture needle and quantity of thread.

Wounds and injuries are constantly met with in the stable and field from a variety of causes, one of the most prolific is the barbed-wire fence. In fact since this form of fencing has been introduced we see more lacerated wounds than was formerly the case. Wounds are now so common among the animals of the farm as to

render it imperative for the farmer to be always prepared to deal with injuries that do not require any surgical operation. The first thing to do is to make a thorough examination of the parts injured, explore the depth of the wound that no arteries are severed, remove all foreign substances, wash and cleanse the parts free from dirt, etc.

Wounds, bruises and sprains are the principal forms of injuries which are likely to be met with, and although the treatment which each form demands will be modified by the various circumstances, there are certain general principles which must always guide the application of remedial measures.

First of all it must be accepted as a fact beyond all question that wounds heal naturally in a healthy state of the system, and the process cannot be accelerated although it may easily be retarded; therefore, we can only assist nature by putting the animal into a healthy state. The gangrenous, sloughing wounds that veterinary surgeons are sometimes called in to treat are due, in many cases, to a neglect of the most simple sanitary precautions. This unhealthy state is due to the introduction of septic germs from without, or some deleterious ointment, generally a vile compound of sulphate of copper and lard, or a very favorite compound is gunpowder and lard. These materials are never to be used. Far better let the wounds heal by a natural process than have recourse to these agents.

All ointments, tinctures, lotions or plasters may be discarded with advantage from the list of domestic medicines, and the amateur surgeon may content himself with the simple expedient of pinning the edges of the wound together and winding thread round the ends until the edges of the wound meet. The interrupted suture is most frequently used. It is formed by passing a needle and thread through the skin from without inwards on one side and from within outwards on the other at about half an inch apart. One word of caution, if they are employed in improper cases they may do more harm than good; they should never be employed when the gap is so wide and the parts unyielding as to require stretching. When the threads do not produce any irritation they should not be removed under three or four days. In many cases a bandage cannot be applied, and whenever it can be applied it will be better to do so. A small piece of lint or cotton wool should be saturated with the carbolic liniment. Under this method of treatment healing takes place without any inflammation or the occurrence of discharge, unless the parts are very much damaged and bruised, or the wound lacerated and ragged. Of course in these cases there will be some amount of discharge.

Injuries to the foot are commonly the cause of lameness which is, in many cases, well marked without the cause being apparent. As a general rule, with very few exceptions, it is safe to say, all lamenesses are due in some measure to some cause or disease of the foot, and always search for it in this direction, as it frequently occurs from bad shoeing, prick from nails, corns, and also from contact with hard substances on roads, etc.

In every case of lameness, especially in the fore limbs, have the shoes removed, or if without shoes have the foot searched by paring and by pressing with the pincers until you are quite sure, from the absence of pain, that no injury is in existence in the foot.

The Dairy.

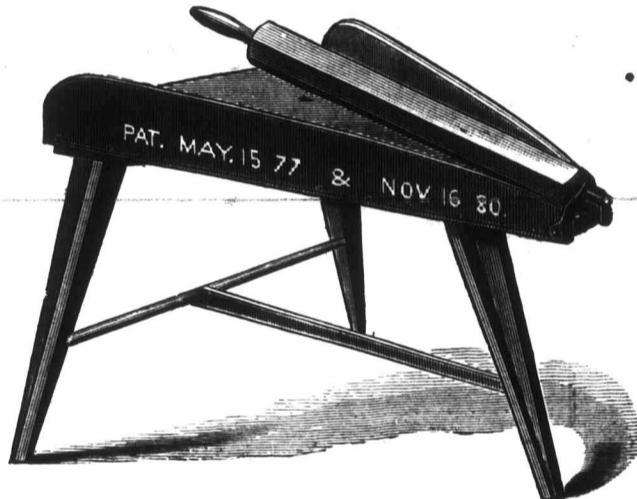
Mechanical Aid in Butter-Making.

In farm dairies, where a considerable quantity of butter is made weekly, the working of it free from water, and the last traces of buttermilk involves no little labor, the burden of which may be profitably lightened by mechanical aid. We give an illustration of a simple contrivance of that kind.

Other styles are in use, but this is the simplest we have seen. With some workers care must be taken as the grain of the butter may be destroyed by being subjected to too much rolling.

Farmer's Advocate Milking Trials.

The well-established milking trials inaugurated by the FARMER'S ADVOCATE will be continued at the Industrial Exhibition in Toronto, which begins on September 7th. As our readers are aware, the basis upon which the awards are made is that of profit from food consumed, which is really the only business basis upon which dairying can be conducted successfully. We offer a beautiful set of silver plate, worth \$65,



LEVER BUTTER-WORKER WITH FOLDING LEGS.

as a first prize, and the Industrial Exhibition Association will add \$30 and \$20 as second and third prizes.

The test will be conducted by Prof. James W. Robertson, Dominion Dairy Commissioner, and such assistants as he may select. The rules under which the competition will be conducted, and which breeders and others interested have had ample opportunity to discuss and suggest any desired amendments thereto at meetings called specially for the purpose, are as follows:—

GOVERNING RULES.

1. Cows of any breed or age may be entered for competition. The cows of each lot entered may be the property of one or more persons. No lot shall contain animals of different breeds. No lot shall contain pure-bred and grade cows. Grade or native cows forming one or more lots will be admitted upon equal terms with the others, but the animals of each lot, which are not entered as pure-bred, must be the grades of one breed.

2. Each competing lot shall be composed of three cows. The competition shall be between the lots and not between the several cows. The person in whose name the entry is made shall declare the age of each cow, the date of her last calving and the time of service, if pregnant.

3. Each entry shall be made to the Secretary of the Toronto Exhibition, on or before Saturday, August 15th, 1891.

4. The tests of the competition shall extend over three days. The milking shall be performed at the times each day to be appointed by the person in charge of the tests.

5. All cows entered for competition shall be milked clean to the satisfaction of the person in charge of the tests, on the morning and evening of the day previous to the beginning of the tests.

6. There will be no restriction as to the quantity or temperature of pure water that may be given to the cows, or as to the quantity of salt that may be fed. The feed shall be provided by the persons in charge of the several cows or lots. The several kinds of feed shall be valued at current market prices by the person in charge of the tests. Representative samples of the feed shall be open to the inspection of all persons interested.

7. The quantity of feed consumed by each lot during three full days shall be valued. The three days shall be counted from one day before the first milk for the test is taken, until one day before the last milk for the test is taken.

8. The milk from the several lots shall be valued at six (6) cents per pound of total butter fat contained in it, together with two and a-half (2½) cents per pound of total solids—no fat—contained in it.

9. Counting from ninety (90) days after the date of last calving, five (5) per cent. additional value shall be added to the valuation of the milk for every thirty (30) days thereafter (and proportionally for every part thereof) up to the end of eleven months after calving. Counting from ninety (90) days after the date of the last service (if pregnant), two (2) per cent. additional value shall be added to the valuation of the milk for every thirty (30) days thereafter (and proportionally for every part thereof) up to the end of two hundred and thirty (230) days after service.

10. Milk of unpalatable flavor, or abnormal as to the nature of its constitution and quality for human food, or for manufacture into fine dairy products, shall be rejected.

11. The lot of cows whose milk shows the largest profit from the food consumed, according to the forementioned scales, will be awarded the prize of a silver service, value \$65, given by the editor of the FARMER'S ADVOCATE AND HOME MAGAZINE, London, Ont.

12. The decision of the person in charge of the tests shall in every case be final, and the animals and premises where they and their feed are kept shall be under his supervision. No feed shall be fed at any time during the time of the test without being weighed or measured by himself or assistant.

13. The prizes will not be awarded unless at least three lots compete, two of which must be of distinct and different breeds.

The Secretary of the Industrial Fair, Mr. H. J. Hill, announces that all entries should be in by August 15th. Therefore, those who propose competing should give the matter prompt attention. These trials have attracted wide-spread attention, and the regulations are such as to admit all pure breeds, grades or natives. The FARMER'S ADVOCATE has nothing to say against private dairy tests; but breeders who expect to hold a permanent place in the confidence of the farmers and practical dairymen of Canada, who invest in pure-bred stock in order to improve the

dairy capabilities of their herds, must see that the public performances of their cows should square with private ones, making some allowance, of course, as may be necessary in the case of certain individual cows, because of the more unfavorable conditions of a public fair ground. However, the best available accommodations for cows entering the trial will be provided, and if the cows are in their quarters at the fair when it opens they should be well enough accustomed to their new surroundings to show fully of what they are capable in profitable milk production.

The facts given in our July issue should arouse cheese factory patrons to the value of sweet whey for feeding purposes (8 to 10 cents per 100 lbs., according to the value of coarse grains). They should insist that factorymen give it to them in good condition, even if the factory whey tank has to be cleaned twice a week to do it, or in case it is retained by the factoryman or sold, that they get full value for it, which is not always the case.

According to the annual report of the Eastern Counties (England) Dairy Institute over one hundred students have been thoroughly trained in dairy practice, most of whom have distinguished themselves in public competitions. Nearly 30,000 persons, principally farmers, their wives and daughters, have attended the classes since the founding of the institutes. Europe is fast awakening to the necessity of adopting modern plans and appliances. If Canada is to keep up in the race *improvement* must be the watchword.

Western Fair Butter Test.

In addition to the handsome cash and other valuable premiums offered for exhibits of cheese and butter at the Western Fair, London, from Sept. 17th to 26th, a special feature in the dairy department will be the two-day butter competition. The Association offers a special prize of \$50 to the cow making the most butter in a two days' test on the ground. Registered cows of any breed are eligible. Besides this, the American Shorthorn Breeders' Association offers two prizes—1st, \$100; 2nd, \$50—for cows of that breed making most butter in a two days' test on the ground. Cows entering must be characteristic Shorthorns in form and color, whose pedigrees are already recorded or accepted for record in the American or Dominion Herd Books, but the competition is limited to cows owned in the Dominion.

At the request of the Fair Association the authorities of the Ontario Agricultural College have deputed Mr. C. A. Zavitz, of the experimental department, to superintend the test. The plan to be pursued will be, we understand, not actually to make the butter, but to weigh the milk given by each cow, and test it for butter fat by the Babcock machine, in which way the total butter fat given in the two days may be easily reckoned. The yield of commercial butter would, of course, be from twelve to fifteen per cent. more than that. This test is a very simple one, and should draw out many entries. Competitors should be required to hand in a statement of food consumed for the information of the agricultural press. Grades and Native cows, according to the Western Fair announcement, are excluded, though there are no doubt individuals here and there among them that might make a favorable showing in such a competition. Write to Secretary T. A. Browne for further particulars.

The Travelling Dairy.

This novel but instructive undertaking, planned by Hon. John Dryden, Ontario Minister of Agriculture, is attracting a good deal of attention among dairymen and those interested in the production of good butter. After obtaining a small grant at the last session of the Legislature for the purpose of defraying the expenses of the Travelling Dairy, Mr. Dryden entrusted the work of arranging meetings to President Mills of the Agricultural College, the result being that Prof. Dean was appointed to take charge of the Dairy, and meetings were arranged for during the greater part of the summer. They will be restricted this summer to the counties of York, Ontario and Simcoe. Mr. Dean, Professor of Dairying at the O. A. C., is assisted in his work by Mr. S. P. Brown and W. J. Palmer, B.S.A. Mr. Brown, an assistant at the College, is a practical buttermaker, having spent some time in Wisconsin doing work in that line. Mr. Palmer is a graduate of the College, who has been giving special attention to dairy work.

The appliances of the Dairy consist of one 20-bottle Babcock milk tester for testing the quality of samples of milk brought to the meeting, one No. 2 Daisy churn, a lever butter-worker, butter printer, thermometers, cream can, setting cans, and other utensils necessary in a private dairy. Three or four gallons of cream and some ice are required for each meeting. These are supplied by some farmer near at hand, who gets the butter in return for the cream.

The objects of the Travelling Dairy are to assist farmers to make a better quality of butter for the local markets, to show them by simple object lessons how to put up in neat and attractive form so as to bring a high price in the markets, and how to pack it so that it will keep any length of time. Butter for exportation must be made by creameries, as a uniform quality can be made in these, which it would be impossible to make in separate private dairies.

Work was commenced on June 29th, and since that time meetings have been held at Islington, Snyder's Settlement, Vaughan Town Hall, Tottenham, Nottawa, Minesing, Brown Hill and Coldwater, all of which have been well attended by appreciative audiences, who appear well satisfied with what they see and hear. A great many ladies turn out to these meetings, who are specially interested in the buttermaking. Lectures are delivered by Prof. Dean and Mr. Palmer on the care of milk and cream for buttermaking, on the practical value of the Babcock milk tester, and on the feeding and care of dairy stock, while all the utensils are exhibited and their use explained. The meetings are made as informal as possible so that all those present can obtain practical information. Many questions are asked and answered as fully as possible. Mr. Brown churns at all the meetings and has succeeded in turning out an excellent quality of butter, which greatly pleases those present. He lays special stress on the value of a thermometer in buttermaking, so as to be able to keep the temperature of the cream right when ripening (from 64° to 70°), and also to churn at the proper temperature (from 58° to 68°) according to the season. The butter is always washed thoroughly in the churn when in the "granular" state, after which it is inspected by those present, then removed, weighed, salted at the rate of half ounce to one ounce per pound, worked on the lever butter worker and then made into pound prints with the printer, when each print is covered with neat parchment paper having printed on it:—

FRESH BUTTER,
MADE AND PUT UP BY THE
TRAVELLING DAIRY.

These prints are greatly admired. Many enquiries are made as to where the butter worker, printer and parchment papers can be obtained. Samples of new and skim milks are brought to the meeting for testing. These are tested, and the results read out and explained. The new milk brought runs from under three per cent. fat to over six per cent. fat. Normal milk has about three and a-half per cent. fat, or 100 pounds of that milk would make about three and a-half pounds butter,* or twenty-eight pounds of the milk about one pound butter. Cows giving under three and a-half per cent. must give a large quantity to make up for the lack of quality or they will not prove profitable butter cows. Cows giving as high as six per cent. fat would prove profitable butter cows, even supposing they gave only a medium quantity. Some samples of skim-milk show as high as one per cent. fat, indicating that over one pound butter is left in every 100 pounds of the skim-milk, while others show as low 0.2 per cent. fat, indicating that only about three ounces butter are left in every 100 pounds skim-milk. It is found that the deep cans, if set in water at 45° and left for twelve hours, give good results, little butter being left in the skim-milk, or if the water is at a slightly higher temperature leave for twenty-four hours, while the shallow pans rarely give complete separation, more or less butter being left in the skim-milk.

This Travelling Dairy, though only a new institution, promises to prove of incalculable benefit to all who make or handle butter. All the meetings so far have proved a great success. Great credit is due the Hon. Mr. Dryden who first thought of this scheme, and to Mr. Mills who arranged the meetings and carried out the many details necessary in such a work.

DAIRYMAN.

[*NOTE.—Our correspondent in stating that milk testing three and a-half per cent. butter fat would yield "about three and a-half pounds butter," does not put it quite accurately for the reason that butter is not pure fat, which consumers would not relish, but contains from twelve to fifteen per cent. additional of other substances such as water, caseous matter and ash. Hence, providing the creaming of the milk were done exhaustively, the butter yield would be from twelve to fifteen per cent. more than three and a-half pounds from the 100 pounds of milk.—ED. FARMER'S ADVOCATE.]

Ensilage in the Dairy.

Mrs. E. M. Jones, of Brockville, Ont., the famed breeder of Jersey cattle, a contingent from whose herd won the silver trophy given in the FARMER'S ADVOCATE milking trial at the last Provincial Fair held in London, puts her beautiful Channel Islanders to good, practical use in the dairy. The output of butter, she reports, is from 4,000 to 6,000 pounds of per year, besides large quantities of milk and cream (sold at door), amounting during the summer to over \$100 per month, and large quantities of milk and cream used in the household. Now, with such an output as this going into a large number of hands, surely someone would observe it if the product was not up to the mark. Mrs. Jones has a right to congratulate herself that she has never yet heard of one complaint. Such a record is not only creditable to the management of the dairy, but we find in it an answer to those who allege, probably in entire ignorance, that feeding ensilage has an injurious effect upon milk and its products. The testimony given by Mrs. Jones is not based upon the experience of one season or two, but of ten years, and should, therefore, count for something as against surmise, speculation or prejudice. In the view of Mrs. Jones, based upon actual knowledge, ensilage, properly grown and put up, is a most valuable and economical food for cattle, even when hay is cheap and roots are grown. Where no roots are grown and hay is dear, ensilage becomes an *absolute necessity*. In those ten years not a case of sickness, or even indigestion, has resulted from its use, and never once was there an unpleasant taste in milk or butter. Everything gets ensilage except the very smallest calves not yet weaned. Last winter her cows, at the flush of milking, were given the following feed per day:—35 pounds ensilage; 4 quarts wheat bran; 2 quarts pea meal; 1 quart oil cake meal; ½ bushel roots (carrots and mangolds); 12 pounds hay (probably less). Half the ensilage was fed in the morning early, with half the meal and bran mixed through it, and the other half was fed in the afternoon. Roots are fed at noon, and hay is put into the manger the last thing after milking.

As to growing the corn for ensilage, she prefers to sow it thinly, and let it have plenty of ears just in the glaze; but she has had capital ensilage from thickly sown corn almost without ears.

As to the effect of ensilage upon milk, complaints have been made, we will admit, but investigation would doubtless show, providing nothing else in the management of cows or milk was at fault, that the ensilage was sour mouldy or half rotten, from which choice milk could no more be expected than from mouldy hay and rotten roots.

"Non-Exercise" of Dairy Cows.

We find that a great deal of interest has been awakened on the "non-exercise" question, as introduced in the FARMER'S ADVOCATE for July, in which the views of breeders and practical dairymen were given. The result of their varied experience and the conclusions drawn by them under different conditions, as described, should be of important service to other dairymen and farmers in determining the extent to which they can safely and profitably carry this idea. As in many other departments of live stock husbandry much will depend on how it is done, though the safest rule will probably be found in adopting the golden mean between too much exercise and none of it. Practical experience, extending over a sufficient length of time, can of course alone determine for the individual owner of a dairy herd many points that arise in connection with the continuous housing of cows in the winter. The questions which we propounded on the subject were as follows:—

- 1. Do you practice "non-exercise" of dairy cows, and to what extent?
2. From experience or observation, what has been the result?
3. Considered as breeding animals, and also for use in practical dairying on the farm, do you approve the continuous housing of dairy cows? If so, under what conditions?
4. Can the daily exercise of a cow in pasturing be considered as a safeguard against possible evil effects arising from being tied in stable continuously four or five winter months?

The following additional replies have been received:—

JOSEPH YULL, MEADOW SIDE FARM, CARLETON PLACE, PRESIDENT DOMINION AYRSHIRE BREEDERS' ASSOCIATION.

1st. When the cold nights come in the fall I tie my cows, and let them out through the day; and when the weather gets very cold, say about the middle of November, I do not let them out again until spring. I have them tied with chains fastened to the manger, which allows them the greatest possible freedom. When spring opens I have a small grass field into which I turn them for a short time each fine day. As soon as the grass is good, generally about the 20th of May, they are turned to grass, and not tied up again, except to be milked.

2nd. I find they milk better. Since I adopted this system, three years ago, I have not had a case of sickness of any kind.

3rd. Yes. I keep the temperature of my cow stable as near 60 deg. Fah. as possible. I have a thermometer hanging in the stable. Plenty of ventilation is provided. The stables are cleaned out twice a day. We bed them well with out straw, and water three times each day, leaving the troughs full of water. By the time the cows want to drink the water is heated to 60 deg. Fah.

4th. I never saw any evil results from having cows tied up all winter. I look upon it as being one of those practices that have only to be tried to be adopted, and for winter dairying it is almost a necessity.

My cows are all Ayreshires.

D. NICHOL, ESQ., CATARAQUI, ONT.

As this is a matter of considerable importance, much disputed sometimes through misleading statements, I think it should be more fully discussed in the FARMER'S ADVOCATE. I have had over thirty years experience in the dairy business, and have always kept what I consider to be first-class dairy cows, but have never adopted the practice of keeping them continuously confined five or six months in winter. I know some extensive, practical and successful dairymen keep their cows continuously confined in stables during the whole year. In many instances this mode is now practiced on the ground that a larger flow of milk is obtained and less food consumed as fuel for maintaining bodily health. These reasons are doubtless true in themselves, but in the continuous profit of a herd of first-class dairy cows there are other questions involved which certainly are of more importance than the possible saving of a few pounds of meal.

If the production of a large quantity of milk, regardless of quality, is the chief object for which the cow is kept, it is no doubt economical to keep her so confined; but if her capacity for producing a vigorous progeny is considered, it will be found incompatible with perfect health in the mother and a certain incapacity to produce a healthy offspring. To me it seems that the surest way of deteriorating any race of animals is in the effemination of the females, and that the more thoroughly this is done the quicker the deterioration. During the period of pregnancy a weak parent exercises a weakening influence on her offspring. I believe this is a principle on which doctors do not differ. Hence, the only way in which a vigorous progeny can be depended upon is to secure healthy parents

from which to breed, and judicious exercise is one of the principal requirements in producing perfect health.

Careful observation has led me to believe that in order to keep up perfect health in all breeding animals they should have daily outdoor exercise, provided always the weather is not exceptionally inclement. It is quite true that when let out only occasionally—a very fine day may occur during the winter—animals are apt to hurt themselves and one another, and that the energy thus expended causes a reduction in the flow of milk, but with regular daily exercise injurious results seldom occur.

I have never kept my cows' heads confined in stanchions, because there are various ways in which they can be tied so that they can lie down and take comfort; and besides, I consider I would be laying myself amenable to the law for the prevention of cruelty to animals. In France I have seen turkeys fatted in coops in which they could neither stand up nor turn around, yet no judicious breeder would so confine his breeding stock. In Great Britain beefing stock during the winter are never turned out until they are ready for the block, but breeding cows are generally allowed daily outdoor exercise. At the same time I know very many dairy cows get too much exercise, especially when the pasture is poor, and so far away from home that they have to be sent for by dogs.

Dairy Observations.

In some sections of Western Ontario cheese factory patrons have been prosecuted by the Inspectors of the Dairymen's Association for tampering with the milk, by watering or skimming, and fines as high as \$30 and costs recorded against them.

Investigations conducted in the city of Guelph, Ont., by Prof. H. H. Dean, of the Ontario Agricultural College, showed that although there are some variations, yet they are so slight there is practically no difference in the percentage of butter fat in the milk as ordinarily handled and served to customers by milkmen at different times from the same can, whether it be taken from the top or from the bottom, and that the motion and jarring of the wagon are sufficient to keep the fat or cream thoroughly mingled with the milk.

In a bulletin issued by C. C. James, M.A., late Professor of Chemistry at the Ontario Agricultural College (now Deputy Minister of Agriculture), he says:—"That any method of determining the percentage of fat in milk suitable to the needs of analysts and dairymen must meet at least four requirements, viz.: (1) Rapid in its work and in giving results; (2) comparatively easy of manipulation; (3) not very expensive; (4) accurate under varying conditions." Then he adds:—"After a thorough test in which the results have been verified by thorough gravimetric analysis, we have concluded that the method devised by Dr. S. M. Babcock, Chief Chemist of the Wisconsin Experiment Station, most nearly fulfills the above requirements."

It having appeared from numbers of tests by milk analyses at the Experimental Farm, Ottawa, at the Ontario Agricultural College Dairy, by private dairymen, and at the British Royal Show milking trials, etc., that the evening samples appeared richer in butter fat than the morning, Prof. Robinson, the Dairy Commissioner, writes that "the difference is due mainly to the time that elapses between the milkings. The closer the time of milking follows the previous one the higher will be the percentage of butter fat in the milk." On many farms the time between the evening and morning milking would be shorter, in which case the morning milk would be the richer. Of course the quantity of milk given by the cow after the shorter interval is less, but will Prof. Robertson state the real reason why the lesser quantity of milk contains the greater percentage of fat?

The Farm.

The Farmers' Alliance.

BY W. A. PEPPER, UNITED STATES SENATOR FOR KANSAS.

Soon after the close of the American war, President Johnson sent an agent into the southern states to investigate the condition of the farmers in that section and to report his observations. One of the results of that journey was the organization of what was known as the Patrons of Husbandry, commonly called the Grange. It was organized by seven persons, all of them but one employed in different departments of the government. The object was to organize the farmers, not only of the south, but of all parts of the country, for purposes of mutual protection against encroachments of organized capital. At that time the condition of the public mind in the south was suspicious and feverish; the people were distrustful of all propositions of a social or political character which did not originate among themselves; hence, this new organization was not received kindly by the persons for whom it was chiefly intended. The Grange, however, grew with great rapidity, spreading over all the country, within the next seven years its membership numbering at least half a million; but it lacked discipline. While the intention was that none but persons directly interested in agriculture should become members, yet there was nothing in the make-up of the body to prevent any person from coming in. In New York and Boston, and in other large cities, lawyers, bankers, loan agents, indeed, all classes of professional men, were members of the Grange; in some instances even stock gamblers posed as grangers. In order to relieve the body from these cumbrous excrescences, a national meeting of the Patrons was called at St. Louis, in 1874, at which place a thorough revision of the constitution was effected, limiting the membership to the class of persons that it was originally intended should form the working body of the order. The action of that convention cut off every person who was not either practically engaged in the work of farming, or who was so closely connected with that sort of work as to be to all intents and purposes a farmer. This included agricultural editors and persons who in any way were directly interested in the practical work of farming. From that time forward the Grange membership diminished yearly, and within eleven years the order had ceased to be strong, either socially or politically, and about that time the Grange as an organization passed practically out of notice.

As a child of the Grange the Farmers' Alliance was born. The first effort was made in Texas, the direct object of that first organization being to oppose the spoliation of the public lands of Texas. Bodies of speculators were gathering up those lands for the purpose of bringing to themselves wealth out of the increase in their value, and the farmers insisted that the public interests should take precedence of those of private individuals. After two years of local effort, it was deemed advisable by the officers to enlarge the scope and work of the Alliance, so as to take in the farmers of the entire state, and to deal with public affairs generally. That occurred about the year 1879. In organizing the state Alliance everything of the partisan character was excluded, its functions "being educational and its field of operations limited only by the boundaries of human exertion." In its declaration of purposes we find: (1) "To labor for the education of the agricultural classes in the science of economical government in a strictly non-partisan spirit; (2) to develop a better state, mentally, morally, socially and financially; (3) to create a better understanding for sustaining civil officers in maintaining law and order; (4) constantly to strive to secure entire harmony and good will among all mankind, and brotherly love among ourselves; (5) to suppress personal, local, sectional and national prejudice, all unhealthy rivalry and all selfish ambition." In another part of the declaration of purposes it is stated that the laws of the Farmers' Alliance "are reason and equity; its cardinal doctrines inspire purity of thought and life, and its intentions are

peace on earth and good will toward men." These may be regarded as the fundamental principles of the Farmers' Alliance.

In 1882, the Texas State Alliance was organized and the membership was limited to white persons. In four years eighty-two counties had become interested in the work of this new order. A meeting was held at Waco on the 17th day of January 1887, for the purpose of taking steps to bring into harmony with the Alliance another organization of farmers in the state of Louisiana, known as the Farmers' Union. Delegates from the Union were present, and the two bodies united, the new organization taking the name of the "Farmers' Alliance and Co-operative Union of America," with C. W. McCune as its president. Measures were taken at that meeting to extend the organization into other states. Organizers and lecturers were sent out, and in a short time the Farmers' Alliance was operating in Missouri, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama and Mississippi. At that time another farmers' organization was operating in the states of Arkansas, Missouri, Kentucky and Tennessee; this was known as the "Agricultural Wheel."

It began about the year 1882. In October 1887, at a meeting held in Shreveport, Louisiana, for that purpose, the Wheel was merged into the Farmers' Alliance. At that meeting the states of Texas, Louisiana, Arkansas, Missouri, Tennessee, Alabama, Florida, Kentucky, North Carolina and Kansas were present and participated.

Among the remarks made by President McCune in his address to that meeting, we find the following significant words: "It seems to be an admitted fact that organization is the only hope of the farmers." This new organization, including the Alliance, the Union and the Wheel, was finally named the "Farmers' and Laborers' Union of America."

As will be seen, up to this time the Farmers' Alliance was almost exclusively a southern institution; it was a secret order with grips and passwords. It had taken no action whatever in politics except by way of impressing its principles upon the minds of public men. While this southern organization was extending its influence among the farmers of the south, another body of a similar character, based upon almost exactly the same principles, and for similar purposes, had been organized in the state of Illinois. It began in the year 1877, and was known as the National Farmers' Alliance. In a little while it had extended into the states of Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas and the Territory of Dakota. The object of this body was declared to be "to interest the farmers of the United States for their protection against class legislation, the encroachments of concentrated capital, the tyranny of monopoly; to provide against being imposed upon by scandalous and scandalizing advertisements in the public prints; to oppose in our respective political parties the election of any candidate to office, state or national, who is not thoroughly in sympathy with the farmers' interests; to demand that the existing political parties shall nominate farmers or those who are in sympathy with them for all offices within the gift of the people; and to do anything in a legitimate manner that may serve to benefit the producer." This National Farmers' Alliance was an open body, transacting its business in public, the same as has always been done by regular political associations. In its social features it is much like that of the southern Alliance. At a meeting of this body in 1887, the following declarations were made and published concerning its objects:

The objects of the National Alliance are to unite the farmers for the promotion of their interests, socially, politically and financially.

To secure a just representation of the agricultural interests of the country in the national Congress and state legislature.

To demand the prohibition of alien cattle and land syndicates.

To oppose all forms of monopoly as being detrimental to the best interests of the public.

To demand of our representatives in Congress their votes and active influence in favor of the prompt passage of such laws as will protect livestock interests from contagious diseases.

To demand that agricultural interests shall be represented by a cabinet officer.

In 1887, or about that time, another association of farmers was effected in the state of

Illinois, which was known as the "Farmers' Mutual Benefit Association." It originated in the southern part of that state; its object was to oppose the encroachments of monopolies. This body did not extend as rapidly as the others, probably because of its later origin; it may be said, too, its officers did not exert themselves as the others had done to spread into new territory. Its principles are substantially the same as those of the orders before named.

At the city of St. Louis, early in December, 1889, a meeting of the Farmers' and Laborers' Union of America was called for the purpose of bringing together in one great organization all of the different bodies of organized farmers in the country. Invitations had been sent out in advance to the officers of all of these different bodies, and also to the officials of the Knights of Labor, and they were all represented at this meeting. Conference committees were appointed and a union for political purposes was effected. They were not all merged into one, but virtually that was done. The object of this consolidation was to influence legislation in the interests of farmers and laborers generally. The new body was to be called the "Farmers' Alliance and Industrial Union." That is the name by which it is now known.

The Alliance is not partisan, but it is intensely political. Primarily it is social, but there is a political feature, and this, after all, is its most powerful force, that which moves in public affairs; and though there was no disposition to go into politics independently, it was understood upon all sides that every possible effort which could legitimately serve the interests of agriculture and labor should be put forth. The St. Louis convention adopted a political platform which has since been known as the St. Louis demands. In time it became a very serious question with members of the Alliance, whether they should operate through the machinery of their old parties, or whether they should join with other workers in a new and distinct movement for a redress of grievances which were universally conceded to exist.

Officers of the Kansas State Alliance were called together in April, 1890, for the purpose of considering this matter. The question was, Shall we remain with the parties to which we have belonged in the past and ask relief through them, or shall we invite the co-operation of other workers, and with them form an independent political body? After mature consideration the latter course was adopted, and in June following a meeting was held in the city of Topeka, at which delegates from the Farmers' Alliance, from the Farmers' Mutual Benefit Association, from the Knights of Labor and several other bodies were present, and it was agreed that members of these different bodies would join with other voters of like belief in a political movement to be known as the People's party. Let it be understood that this new party was not the Farmers' Alliance any more than it was the Knights of Labor. The movement was suggested by the Farmers' Alliance, it received its inspiration largely from that body, but its members were perfectly free to co-operate in the movement or to refrain, just as they desired. It is quite generally assumed, among people on the outside, that there is an oath-bound requirement in the Alliance that its members shall follow in all matters the steps marked out by a majority. This is in no sense true. When an applicant for membership in the Alliance takes his obligation, the person who administers it to him states, in plain, unmistakable language, that the obligation will in no respect "conflict with the freedom of your (his) political or religious views;" and this freedom in politics and religion follows along the course of the Alliance member wherever he goes. He is absolutely and to all intents and purposes a free man. The only obligation which rests upon him, as to his political action, comes from a voluntary acknowledgment on his part of the binding force of an agreement made by a body to which he belongs. He is expected to keep its secrets, he is expected to respect his obligations as a man and a brother, but he is at perfect liberty to vote as he pleases; he is never regarded as out of order in this respect unless, after having agreed with his brethren to a proposition or to a

particular course of action, he afterwards betrays them.

Having determined to operate upon an independent line, the Topeka meeting called a state convention to be held in the same place in August. The convention held at that time placed in the field a regular state ticket, and adopted a platform based on four fundamental ideas—land, labor, transportation and money. As to land, it was asserted that "The earth is the common heritage of the people; every person born into the world is entitled equally with all others to a place to live and earn a living, and any system of government that does not maintain and protect this inalienable right is wrong, and should be changed or abolished."

As to labor, it was affirmed that "Labor is the beginning of progress and the foundation of wealth; that the laborer is entitled to a good living and a fair share of the profits which result from his labor; that the use of labor-saving machinery should shorten the hours of toil and inure to the benefit of the employed equally with the employer."

It was demanded that the "means of communication and transportation shall be owned by and operated in the interest of the people, as is the postal system."

It was demanded, further, that national banks be abolished; that treasury notes take the place of bank notes; that the currency volume should be expanded to satisfy the needs of business, and that money issued by the government should be legal tender in payment of all debts, public and private.

Free and unlimited coinage of silver was urged; alien ownership of land opposed; option dealing denounced; just taxation favored, and a service pension recommended.

To these were appended a few declarations concerning local matters—time for redemption of homesteads sold under orders of court, usurious interest, trusts and combines, salaries of public officers, Australian ballot system of voting and the Crawford county system of primaries—the whole concluding with these words: "People of Kansas, we come to you on this platform. Our candidates, speakers and writers will waste no time in discussing minor matters. The past is gone, the present is with us, the future is before us; old issues are dead; we come to you with new ones." Upon that platform the most remarkable state campaign in our history was fought. Three party tickets were actively supported, Republican, Democratic and the People's. All the trained stump speakers were with the old parties; they discussed old party issues, while farmers, mechanics and laborers, with a few preachers, doctors and editors, took up things of present and pressing interest to the people as they were outlined in their platform. Men, women and children by the thousands met in groves, and by hundreds in schoolhouses and halls, to listen to people of their own class and grade who talked about these new issues. Meetings of 5,000 and 6,000 people were common, and frequently as many as 10,000 persons met at one time and place to hear the "new gospel" taught. This outpouring of the masses, however, was limited to the People's party. The old party meetings were generally small, often discouragingly so; the most distinguished speakers failed to draw large audiences. The result was the election by the People's party of one state officer—attorney-general—five of seven congressmen, ninety-three of one hundred and twenty-five members of the lower house of the State legislature, and finally one United States senator. In six months' time a change in the political complexion of the state, equal to 100,000 voters, was effected.

What, then, does the Farmers' Alliance demand as a matter of practical legislation? Let us first understand the conditions out of which this formidable power of the farmers has grown. Agriculture is depressed, labor is profitless, discontent broods like a cloud over the land. The homes of the people are encumbered by an indebtedness which it is impossible to pay under existing conditions; they are sold by the thousand every year, with no remedy within reach. There is not enough money in circulation to supply legitimate business demands, saying nothing about the payment of loans; renewals in most

cases are out of the question, because with falling prices security weakens; and while property values go lower and lower, dollar values go higher and higher, and taxes, salaries and interest absorb all the people's earnings, leaving nothing to pay on the principal of the debts. Briefly, nearly if not quite one-half of American homes are mortgaged; wealth is fast passing into the hands of a few persons; money has become a power in politics as it has always been in social life, and the same influence which is draining away the substance of the workers is undermining the church. Look what way we will, encroachments of the money power are plainly visible. It pollutes our elections, it controls our legislation, it debauches our trade, it owns our homes. It rules in the forum, the school and the church. It is king.

The overshadowing problem of the time, then, is money. Farmers are not repudiators. They want to pay every dollar of debt they owe, and that according to the letter and the spirit of the contract; but they are powerless to help themselves. They have no money and can get none at rates which will relieve them. When Wall street needs more money the president and secretary of the treasury supply it out of the public treasury; but the Farmer's appeal is not heard. Give us money at rates of interest which we can afford to pay, take our lands as security, and our debts will be paid as fast as the money can be counted. But this is denied us, and year by year the tyrant's grip is tightened. Farmers must have money with which to pay their debts or many of them must lose their homes. And this applies to all owners of land, in town as well as in the country, for the influence which has brought one-half of us to the verge of ruin will, if not checked, soon bring the other half there. We ask relief from congressmen and they laugh at us; we propose a remedy and they call us cranks; we ask time and money with which to pay our debts and save our homes, and we are told that it is our business to work while statesmen take care of the finances. We have determined to rebel, and this great uprising of the people means simply a rebellion against the usurpations of party managers who are wedded to the power which is crushing us, who wink at our misfortunes and laugh when our calamity comes. The people have concluded to take the government into their own hands; they are now marshalling every force for that purpose.

The Farmers' Alliance, then, means to dethrone the money power and thus emancipate the people. This does not mean anarchy, it does not mean repudiation, it does not mean war; it means only the rule of the people. The people will take charge of their own affairs; they will make and issue their own money, and charge borrowers only what the handling of it costs, just as they now do with postage stamps, with courthouses and highways. That is the first and great work to be done. With that will come many other reforms, for every device of villany which is supported by the improper use of money will fall when the props are taken away.

It is proposed to continue the organization until it shall ripen into a national movement including all the working forces of the country, so that in the campaign of 1892 the toilers will be in line with a national ticket in the field. Nothing short of success will satisfy the masses, and success means government control of transportation, of money and of every other public function.

Destroy the influence of money in public affairs, restore the homestead and save it to the citizen, secure to labor its just reward, cripple the arms of avarice, give employment to the workers, purify politics, enact just laws, lighten the burdens of the poor, protect the weak, abolish caste, establish justice, make commerce free, put the government in charge of every public function, and the mission of the Farmers' Alliance will have been accomplished.

Mr. Walter Lynch.

Few farmers in Manitoba are better known than Mr. Walter Lynch, whose sketch is given in this issue. Mr. Lynch was born in the township of Stamford, Ont., and at six years of age removed with his parents to the township of Lobo, in the county of Middlesex. At twenty years of age he took charge of his father's farm and farmed there on his own account some ten years. He was for a time a member of the Municipal Council of that township. In 1871 he went to Manitoba and settled on the farm where he now resides, which is on Rat Creek, about four miles north of Westbourne. Mr. Lynch is the oldest breeder of Shorthorns in Manitoba and has one of the finest herds there. When he went to that country twenty years ago he took with him three females and a bull, and from this beginning worked into an excellent herd. Mr. Lynch is known to every breeder of Shorthorns in the Northwest; and was Vice-President of the Shorthorn Breeders' Association



MR. WALTER LYNCH.

for his province for several years. When the Northwest Pure-bred Cattle Breeders' Association was organized last summer he was unanimously elected president.

Functions of Water—Plant Growth.

BY STUDENT, WINNIPEG.

Plant a seed in dry earth and deprive it of all moisture and though you may heap about it all the fertilizers that nature provides or man compounds it will not grow; but if even a little moisture be supplied it will soon develop roots and stem. We conclude, then, that water is necessary to plant growth. It is the purpose of this paper to investigate the work which water does, and the manner in which it does its work. For this purpose we will study briefly the structure of those parts which have most to do with the workings of water.

If a section of a growing rootlet be taken and highly magnified it will be seen to consist of rectangular cells, with very thin walls. These cells are entirely filled with protoplasm—a nitrogenous matter, which is the active principle of

plant life. When they become older they are found to contain clear spaces in the protoplasm. These are water globules, and as there is no other inlet for them, we must conclude that they were absorbed by the root. When these cells become still older the sides thicken and the ends disappear, thus forming a number of tubes. This structure extends into the stem and even to the leaves.

Now, a highly magnified section of a leaf exhibits the following layers:—On each surface a layer of rectangular thick-walled cells, filled with air (this is called the epidermal). Underneath this, on the upper surface, are long cells, placed close together, with their ends to the epidermal. Between this and the lower epidermal are found cells, globular in shape, and loosely arranged, so that there are spaces between. On the outer surface of the lower epidermal are found curious organs, called stomata, whose structure and use are as follows: Two crescent-shaped cells are placed with their concave sides together. These have the power of so contracting or expanding as to close or widen the aperture between them. They are connected with the inter-cellular spaces of the leaf. It is through these that the superfluous water escapes from the plant. Thus water entering at the roots has a clear highway through the plant—from the roots into the vessels of the stem, through these into the leaves, and thence through the stomata into the atmosphere.

Now, to consider the action of water. Rainwater in falling dissolves from the atmosphere ammonia gas and carbon dioxide; then falling into the earth it dissolves the mineral compounds which it there finds. These are chiefly phosphates, nitrates, alkalies and carbonates, with a little iron. These solutions are absorbed by the roots and passed on to the leaves.

In the cells of the leaf are found green granules, which, beside giving the color to the plant, have the important function of preparing the food for the plant's use. Thus chlorophyl, as this substance is called, has the same relation to the plant as the stomach has to the animal. This chlorophyl seizes the food which the sap brings in and divides it into the several constituents. The ammonia and part of the water are absorbed by the protoplasm to make more of that substance. The carbonic acid and the carbonates are united with another portion of the water to form starch. Then certain organs of the cells form the starch into granules, and in so doing use some more of the water. The iron is now united with starch, and water to form chlorophyl. The metals of the alkalies, separated from their combination, remain in the leaf as oxides, and it is these which give the brilliant color to autumn leaves. Some of the water, too, is broken up into its component gases by the chlorophyl, and these are used in the plant. Finally the remaining water escapes through the stomata.

But there is another way in which water affects the plant. If a bean be placed in pure water it will begin to grow. Now, the water contains nothing that can act as plant food, and itself cannot be used by the plant, because there is no chlorophyl present. The water does not act as a food, yet it causes the plant to grow. We conclude, then, that water acts as a stimulant and arouses the life which lies dormant within the plant.

To recapitulate:—

1. Water acts as a carrier to furnish the food to the plant.
2. Water itself acts as plant food.
3. Water arouses the dormant energy in the seed and changes it into active life.

Constitution of Provincial Granges.**ARTICLE I.—ORGANIZATION AND MEMBERSHIP.***Sixth Degree—Flora, (Charity).*

Section 1.—Provincial Granges may be organized in any of the Provinces in the Dominion having thirty or more Subordinate Granges.

Section 2.—When thirty or more Granges, in good standing, exist in any Province, the Executive Committee of the Dominion Grange may, upon the application of a sufficient number to warrant the action, notify the Division or Subordinate Granges, as the case may be, to elect delegates to meet at some central place to form a Provincial Grange. The delegation to the first or organization meeting shall be one delegate, and his wife (if a matron), from each Subordinate Grange.

Section 3.—Provincial Granges shall be represented in the Dominion Grange by one delegate and his wife, if a matron.

ARTICLE II.—OFFICERS.

Section 1.—The officers shall consist of and rank as follows:—Master, Overseer, Secretary, Treasurer, Lecturer, Chaplain, Steward, Assistant Steward, Gate-Keeper, Ceres, Pomona, Flora and Lady Assistant Steward; also two Auditors, and two members of Executive Committee, to be elected annually.

Section 2.—All nominations and elections shall be by ballot, at a regular meeting of the Provincial Grange. The Master shall be an *ex officio* member of the Executive Committee.

Section 3.—Vacancies by death, resignation or otherwise, to be temporarily filled by the Executive Committee until the first meeting of the Provincial Grange, when an election shall take place.

Section 4.—It shall be the duty of the Master to preside at all meetings of the Provincial Grange or Executive Committee; to see that all officers and members of committees properly perform their respective duties, to see that the Constitution, By-Laws, Principles, Rules and Usages of the Order, and also the resolutions of the Provincial Grange, are observed and obeyed; to properly take and announce the results of all ballots and other votes of the Grange, to sign all orders drawn upon the Treasurer subject to instructions of the Grange or Executive Committee, to perform all other duties usually devolving upon a presiding officer, and may appoint suitable persons as deputies to organize Granges and instal officers, etc., within jurisdiction of such Provincial Grange.

Section 5.—It shall be the duty of the Secretary to keep a true record of all proceedings of the Provincial Grange; to keep a just and true account of all moneys received by him, and pay over the same to the Treasurer monthly, taking his receipt therefor; and to make a full report to the Provincial Grange of all transactions at each session thereof; he shall conduct all correspondence of the Provincial Grange and Executive Committee; and shall keep the account of Division (and Subordinates not connected with Division) with the Provincial Grange, and a complete register of the names, numbers and locations of all Granges under his jurisdiction, with the names and addresses of the Masters and Secretaries of each; he shall also prepare a compiled report, giving all items of information from the reports of the Secretaries of Division Granges (and Subordinates not connected with Division), and forward the same to the Secretary of the Dominion Grange annually and not later than the first day of February in each year, embodying all reports for the preceding fiscal year, as required by the Executive Committee of Provincial Grange.

Section 6.—It shall be the duty of the Treasurer to pay all orders drawn upon him by the Secretary and approved by the Master; to keep an accurate account of all moneys received and paid out, and present a detailed statement of the same to the regular meetings of the Provincial Grange, on the first day of the session, showing the balance on hand; he shall keep his books open to the inspection of the Executive Committee and Auditors at all times, and shall deliver up at any time all moneys, books, papers or other property pertaining to his office, in his possession, upon the order of the Master, under the direction of the Executive Committee, and shall be the custodian of all moneys and other assets of the Grange.

Section 7.—It shall be the duty of the Executive Committee to exercise a general supervision over the affairs of the Order, having authority to act on all matters of interest when the Provincial Grange is not in session; may recommend deputies to be appointed by the Master of the Provincial Grange, to operate within the jurisdiction of such Grange; and appoint business agents as occasion requires, and shall direct the payment of all moneys from the Provincial Grange Treasury; and shall present a detailed account of their acts to the Provincial Grange on the first day of its Annual Session.

Section 8.—It shall be the duty of the Auditors to audit all books and accounts of the Secretary and Treasurer, and report the same to the regular meeting of the Provincial Grange, on the first day of the session; and shall report oftener to the Executive Committee should it be deemed necessary, having authority to inspect said books and accounts at any time; and shall report any irregularities in the same to the Executive Committee.

Section 9.—The duties of the Overseer, Lecturer, Steward, Assistant Steward, Gate-Keeper, Ceres, Pomona, Flora and Lady Assistant Steward, shall be the same as the duties prescribed for those officers by the Constitution of Subordinate Granges, Article IV., Sections 4, 7, 8, 9, 10, 11, and 12.

Section 10.—Such compensation for time and services shall be paid to officers in the employ of the Provincial Grange as the Grange may, from time to time, determine.

Section 11.—All questions of Administration and Jurisprudence, arising in and between Subordinate and Division Granges, and appeals from the actions and decisions thereof, shall be referred to the Master and Executive Committee of the Provincial Grange, whose decisions and actions shall be respected and obeyed until overruled by action of Provincial Grange, or appeal made from such decision to the Dominion Grange.

Constitution of Division Granges.**ARTICLE I.—ORGANIZATION AND MEMBERSHIP.***Fifth Degree—Pomona (Hope).*

Section 1.—Division Granges shall be composed of the Masters of subordinate Granges in the Division, and such number of other delegates as the Division may decide, and wives of Masters and delegates, if matrons. All Past Masters of Division Granges, and their wives, if matrons, are honorary members, but not entitled to vote.

Section 2.—Division Granges shall be organized under a Charter granted by Dominion Grange, upon an application signed by the Master and Secretaries of at least five Subordinate Granges, in good standing, and which shall affiliate therewith.

Section 3.—The jurisdiction of each Division Grange shall extend over at least one County, unless otherwise specially ordered by Executive Committee of Provincial or Dominion Grange, as the case may be, which order shall not be granted except in cases of urgent necessity.

Section 4.—Division Grange shall meet at least once a year, at such time and place as they may fix upon to suit the convenience of the majority interested, and should they adjourn without fixing a time and place of meeting, the Executive Committee shall fix the same and give the proper notice.

Section 5.—A Division Grange may recommend, through its Master, suitable persons to fill the position of Deputies, to the Master of the Dominion or Provincial Grange, as the case may be, who will appoint the same, whose duty it shall be to organize new Granges and instal officers within the jurisdiction of such Division, and shall exercise a general supervision over the Granges composing such Division.

ARTICLE II.—OFFICERS, THEIR DUTIES, POWERS AND PRIVILEGES.

Section 1.—The Officers of Division Granges shall consist of and rank as follows, viz.: Master, Overseer, Secretary, Treasurer, Lecturer, Chaplain, Steward, Assistant Steward, Gate-Keeper, Ceres, Pomona, Flora and Lady Assistant Steward; an Executive Committee of not less than three members, including the Master and Secretary, who shall be *ex officio*, members thereof.

Section 2.—The officers shall be elected and in-

stalled at the first regular meeting in each year. All nominations and elections shall be by ballot.

Section 3.—The duties of all the officers, except the Secretary, shall be the same as prescribed in the Subordinate Grange—Art. III., Secs. 3, 4, 6, 7, 8, 9, 10 and 11, Constitution of Subordinate Grange.

Section 4.—It shall be the duty of the Secretary to keep an accurate record of all meetings of the Grange; to prepare and forward the quarterly returns to the Secretary of the next superior Grange, and pay to the said Secretary the sum of 25 cents for each regular male member, and 12½ cents for each regular female member, retaining initiation fees received for male and female junior members, so reported to him as admitted during the quarter together with a capitation tax of 4 cents per head for each regular member within the jurisdiction of the Division; to keep the accounts of the Subordinate with the Division Grange, and pay over quarterly to the Treasurer all moneys coming into his hands, and to take a receipt for the same; to keep a complete register of the number and name of all Subordinate Granges in his Division, with the name and address of the Master, Secretary and Delegates from each, and also the name and address of the Deputies and Delegates to Provincial or Dominion Grange, as the case may be; to give at least ten days' notice, by letter, card or circular, of all meetings of his Division to the officers and delegates to the same. Also to keep the minutes of the meetings, and all books and accounts of the Executive Committee, and deliver the same to his successor when installed, or to whomsoever the Grange may direct.

Section 5.—The duties of the lady officers shall be such as are prescribed by the ritual.

Section 6.—It will be the duty of the Executive Committee to exercise a general supervision over the affairs of the Order during recess between meetings; to instruct the Secretary in regard to his duties; to decide all questions and appeals referred to them by officers and members of Subordinate Granges, so far as they have authority, and lay before the Grange at each session, a report of all such questions with their decisions thereon, having authority to act on all matters of interest, when the Grange is not in session, not otherwise provided for. It may appoint business agents, prescribe their duties, and fix the remuneration of all officials not otherwise provided for, and shall render a full account of all its transactions at each meeting of the Division, together with any recommendation it may deem expedient in the interest of the Order.

Section 7.—It shall be the duty of the Grange Agent to receive, collect and forward, all orders for goods under the seal of the Division Agency, and upon their arrival to see that the same are properly distributed to the parties ordering. He shall levy such per cent. upon goods purchased and upon products sold through his agency as the Executive Committee of the Grange shall direct, and each quarter, report the total cash value of such purchases and sales to the Grange. He shall keep a correct cash account of all money received and paid out by him as Grange Agent, and keep his books open to inspection at all times by the Executive Committee, and under their direction make arrangements with the retail dealers and business houses of his district for supplying goods to members of the Order. He shall open a stock record, keep prices current from different localities that are deemed of importance, attend to the business correspondence of the Grange, and perform such other duties as the Grange or Executive Committee may from time to time direct, and receive such compensation for his services as the Executive Committee may designate, subject to the approval of the Grange.

Section 8.—Every Division Grange shall appoint two Auditors, whose duty it shall be to audit all books and accounts of the Secretary and Treasurer, and report the same at the first regular meeting in each year, previous to the election of officers, or oftener if they deem it necessary, having authority to inspect said books and accounts at any time, and shall report any irregularities in the same to the Executive Committee.

Section 9.—The Secretary and Treasurer shall give bonds for the faithful performance of their duties, to the satisfaction of the Grange.

[The Constitution of Subordinate Granges will be given in our next issue.]

Preparing Land for Wheat.

Every year there is more or less unsuitable land prepared for fall wheat. In many cases the field has not been fixed upon until the last moment; therefore, the best that can be done for it is but an imperfect preparation. There are a few points to bear in mind: First, a mellow seed bed is required, or the grain will not germinate. Second, wheat requires a solid, firm root hold, or it will most assuredly winter-kill. Thirdly, or perhaps the first point needed, is to have the water thoroughly removed by proper drainage. To obtain a good seed bed many are in favor of shallow cultivation first, and then deeper ploughing. This for some reasons is right enough, provided plenty of work is put on the surface after ploughing, but when the short time available is considered, ploughing first and spending all the time that can be spared in thoroughly pulverizing the surface is the most practicable plan. When stubble land is fixed upon, ploughing with a good jointer plough will assist matters, as this will turn under the stubble and any growth, and at the same time will help break up the surface, and also fill the furrow from the subsoil upwards, which latter is also important, for with an open furrow at the bottom the land is much more difficult to be got solid, and it also causes the drying out of the surface; that must be guarded against, as the hot and dry weather is not yet over at fall wheat seeding. In case of ploughing a stubble, such as that of oats, for wheat preparation, it is of the greatest necessity to begin the after cultivation immediately, or as fast as the ploughing goes on. Much time will be saved by this, as it will be found to pulverize much more easily with one quarter the labor; and not only this, but all the dampness in the soil is conserved by this means. It is well to recollect that there is no mulch like the fine, shallow, pulverized surface, and when this is properly performed there is not much fear but dampness sufficient can be obtained and generally relied upon to germinate the seed. Wheat is a shallow-rooted plant and a poor forager, hence its food must be prepared accordingly, and placed where the roots will get at it most readily, which shows the necessity of the manure having been thoroughly mixed with the soil in a previous crop, or applying it in such a condition that immediate benefit can be derived from it, so that the plant may have gained sufficient strength to withstand the winter and spring. No crop shows the necessity of manure more than wheat, for, through fallowing, the soil may have been placed in fine condition and a grand start before winter obtained, and the crop look exceedingly promising on the opening of spring, when the weather becomes cold and dry, and the wheat plant is gradually starved out. The land has not strength to afford sufficient nourishment under these unfavorable conditions. Every year the same fault is to be seen on a large proportion of farms; the weather is blamed when the management of the land is at fault. Clover sod ploughed as early as possible makes a good preparation for wheat, the decaying roots and the growth supplying humus that, where the land is in good tilth, should produce an abundant crop. We should strongly advise a trial of other fertilizers where sufficient barn-yard manure is not obtainable. Car loads of wood ashes are being shipped away from the country. A dressing of 20 bushels of ashes and 100 pounds of nitrate of soda, 200 pounds of gypsum (the two last mixed together) should give a capital result. Other fertilizers are also advertised. By using some of those great benefits may be obtained.

Still Another Swindle.

The latest that comes to our notice is what is supposed to be a member's ticket, under the title of United States Union Club Company. This has been hawked about and sold for \$5 by sharpers through some of the western counties of Ontario, purporting to be a certificate whereby the bearer may purchase goods of all descriptions at wholesale rates. Offices—New York, Boston, Chicago, San Francisco, Montreal, Quebec, Toronto—and names but no addresses, streets or numbers are given. If this thing had fraud printed in red ink across the face of it, we wonder if purchasers would still be found.

Seasonable Machinery.

Foremost among the successful manufacturers of this city is the firm of Messrs. George White & Sons, proprietors of the Forest City Machine Works, and builders of the well-known White's Portable Farm Threshing Engine. Having had a personal knowledge of the high estimation in which their engines are held by the threshers using them, as well as by the farmers who employ them for threshing and other purposes, we were interested to know the secret of the success that has attended their manufacture and sale; and in a recent visit to the premises we found one of the Mr. Whites at the head of and personally overseeing the manufacturing departments, and were informed that two more are travelling through Ontario and Quebec, another is now in Manitoba looking after the Northwest trade, while Mr. George White, sen., the originator of the business, keeps a watchful eye over the affairs of the firm generally. It is, therefore, not a matter of surprise that a business that is thoroughly understood in all its details by those that are interested should become prosperous, and have of necessity to enlarge their premises; this has already been accomplished as well as adding to their plant, and they are just now commencing to build a paint shop and store-house one hundred by forty feet, which will leave them more space for manufacturing.

This season they are building over one hundred engines, about twenty of which are built specially for the Northwest trade. One of the chief features of this engine is White's self-contained return tube boiler, which enables the operator to raise steam with the greatest possible expedition, which is a vast advantage during the busy season when the machine has to be set several times in a day. The fire-box is large and takes in rough and long wood, which is a great saving on farms that are short of fuel, as refuse from old fences, etc., makes good firing for this boiler.

The vast advantage of the large circumference in this boiler is appreciated by those using this machine, and those who have had to contend with the difficulty of keeping up steam in cold, windy weather, with other engines, may easily recognize this point.

For the Northwest trade a special engine for straw-burning is built; the boiler in this case is clothed with lagging of asbestos and a casing of wood, which proves sufficient protection against the severest weather.

Outside the above line they also build stationary boilers and engines and any other specially ordered machinery. They are now getting ready to make special exhibits at the leading fairs in different parts of the country, when parties will have an opportunity of judging for themselves; and we should strongly advise those contemplating purchasing to inspect them before a choice is made.

Imported Weeds.

Would that I had the means to sound an alarm in the ears of every one who owns a piece of land to make him exterminate every weed that makes its appearance. It is an easy matter to dig up and destroy a single plant when it first shows its head, but when it has taken deep root and scattered its seeds over a field the task means much labor, and often for years. The conduct of our people in this regard seems truly mysterious, and proves that either they are ignorant of the consequences, or wilfully expose themselves to bankruptcy and eviction in the near future, for, so surely as the sheriff will follow the heavy mortgage, so surely will some of our newly imported weeds drive the owners off the land unless they wake up to the danger at once, and in earnest. Sufficient for the day is the evil thereof, and sufficient for us was our supply of Canadian weeds; but since our commerce with Europe has become so extensive, we have got some of their worst weeds, and the misfortune is they are strangers to our people, who look on them as harmless till they get a foothold. The thistle (misnamed Canada thistle) and wild mustard have been so long here that we know their bad qualities, but even these pests are innocent compared with our latest importations, among which we may class the

OXEYE DAISY

that has made its appearance in some places, and unless attacked at once will drive the cattle off the fields. Like the thistle, its root does not die; even the thistle and mustard have one redeeming quality; when cut and properly cured sheep eat thistles with a relish. Mustard forms good pasture for cattle on a summerfallow, but no animal will eat the oxe-eye daisy. We have not a single weed that has the power of surpassing it in the number of its seeds, which are like little bits of chaff and will blow about in a strong wind, will pass from field to field by washing, and stick to the feet of cattle and get planted when they travel, so that once established it soon spreads over a neighborhood. It becomes the duty of everybody to assist in the destruction of these pests. Where a plant has blossomed it should be immediately pulled up, carefully taking up all the roots, and left to die; but where the seeds have got in a grass field and have spread much the mower should be run over it and the plot skinned about two inches deep, and either sun-baked or turned till the roots get killed. With the utmost caution a sharp eye will have to be kept on the patch for years afterwards.

ORANGE HAWK WEED

is another of our unwelcome pests, but appears, from my very slight acquaintance, to be an annual of the class of bitter weeds which cattle will not eat, and is more of a rambling character than its white-bordered brother. It resembles a very slender-stemmed sunflower, with a black shining, satin-colored centre surrounded by an orange border. We have seen this, but have had no experience with it. I have been told that it seeds by the million, and that they are so light that they will float for miles in a breeze. It will be prudent to walk over the farm every two or three weeks to look for these light-footed visitors.

Kindly request all your Canadian exchanges to give prominence to this subject, which is to all Canadians a question of prosperity or ruin.

S. D. G.

Ontario Agricultural College and Experimental Farm.

While inspecting fall wheats, the gentlemen sent out from the FARMER'S ADVOCATE office were highly impressed with the College farm. It has been greatly improved in every particular during the past three years. Everything is in splendid order—in fact it is a "model farm" now, not only in name but in management and detail. It is doubtful if this institution has an equal either as an experimental station or agricultural college in the United States. All young men who intend to be farmers should take a course here. It is the most suitable and least expensive school a farmer's son can attend.

On the farm there are upwards of ninety acres divided into experimental plots, all of which are entirely free from weeds and in perfect order. There are now being tested 57 varieties of fall wheats, 67 varieties of barley, of oats 112, peas 44, potatoes 76, corn 84, roots 120. Mr. Zavitz has charge of the live stock and plot experiments and deserves great credit for the condition in which each is found. About sixty acres are in hoe crop this year. All is in splendid condition. If a search of the province were made a better field of roots or corn could not now be found.

Silos and Silage.

BY S. P. BROWN.

A few years ago anything pertaining to ensilage was looked upon by many, in fact by most Canadian farmers, as a thing almost entirely out of their reach. A few ventured to try the scheme and failed, and this added to the doubts of others confirming the ideas they had previously held. Now, however, they are learning that it is quite within the power of any one who can grow corn to preserve it in the silo for winter feeding. And why should we not? The good housewife preserves fresh fruits for the use of her family in winter, and so may the husbandman preserve green fodder for his stock, if he observes the same precaution in the operations as his good wife does with her preserves. In the first place it is necessary that the building wherein he shall store the green corn shall be perfectly air-tight, for this is the all-important feature in preserving anything. It is also best to be frost proof, as frost damages it considerably. If the building is to be by itself outside the barn, it is best to trench in a wall of stone or brick, raising it about a foot above the level of the ground. This answers the double purpose of making it air-tight at the bottom, and preventing rats from burrowing through for the grain, that is in the silage, thereby admitting air to the injury of the fodder. Upon this wall bed a 2 x 10 inch plank in mortar all around, then spike the second on top, breaking joints and miss-matching ends, so as to bind the corners. When the frame is to be put up, lay the studs in order at the proper distance apart, spike a plank on the bottom end like those on the wall, and another on the top for the plate, and raise a side at a time, spiking strongly to the planks bedded on the wall. When all the sides are up, spike a second plank on the top, breaking joints and binding corners as for the sills. The inside may first be boarded up with ordinary lumber, not the best, so long as it is not shaky, then apply tar paper. Some dress these first boards with hot coal tar before putting on the paper, which will then stick, and when the next covering of boards is put on, it makes the building more perfectly air-tight. This last sheeting should be of good lumber, but not necessarily matched; then when dressed with coal tar

or crude petroleum it will last a long time. If the silo be round, the inside sheeting may be of one-half inch stuff, ordinary fencing, ripped and dressed on one side; this will spring round more easily. Put on three thicknesses with paper between each two, being careful in every case to break joints as much as possible. It is well also to fit a piece into the corners of the square one, 2 x 6 champered. This keeps the silage out from the corners, so it will settle better, and be less liable to admit air. The outside may be boarded up any way to suit the taste of the builder, so long as it is reasonably tight.

The floor should be raised with earth, well packed in, till it is on a level with the wall, so that the silage will not come in contact with it, as masonry causes it to decay much more rapidly than woodwork.

The roof may be made to strengthen the walls against the side pressure by tying the rafters from the heel of one to about the centre of the other on the opposite side.

The door may be made ice-house fashion, between two studs, with loose boards to fit in, but allowing about two feet of the sheeting to run clear through in two or three places between bottom and top, so as to tie the building. A shoot may be made outside to guide the feed down, if desired, but in every case feeding should be done from off the whole top, so as to leave no surface exposed any length of time.

The kind of corn used to fill the silo with will depend on different circumstances. The kind which will mature quickest and yield the greatest weight in your locality is the one to use. It has been found by most silo men, however, that the corn containing most sugar, and, therefore, being best for dry fodder, will produce a sourer silage than one with less sugar. The Mammoth Southern Sweet is one of this kind. The Red Cob Ensilage is similar in some localities, while in others it gives good results. I visited Mr. Trayer's silo near Woodbridge on the 3rd of July, where I found about 3 ft. of good ensilage, except in the corners where the rats had worked in. It had been exposed for about a month, and only about three inches on top is at all injured. This was made from the Red Cob corn. The large B. & W. ensilage is used a great deal in some parts with the white or yellow Dent, or both, with splendid results.

Some prefer to plant in hills, while others sow with a grain-drill thinly. It is my opinion that a greater weight can be obtained, and better success in the destruction of weeds, by planting in hills at least three feet apart. Whatever the kind used, and however planted, it must be well matured. It should never be cut before the ears reach the roasting condition; or better still, leave it till time to cut for husking. When it reaches this stage it should be cut and put in as fast as possible, keeping the sides well tramped, corners especially. If, however, the silo is well built, so as to be air-tight, it does not matter so particularly what method of filling you adopt, so long as you use good judgment and reason. I think I have seen as good silage that was not tramped at all, more than necessary to spread it, as I have that was tramped, but tramping does not hurt it, especially around the edges.

When you have done filling, simply cover with cut straw or chaff about 12 to 16 inches thick, and tramp well. Some wet the straw and think it a great advantage, as it causes the straw to settle more quickly, and the heat from below causes it to ferment and mould, thereby constituting an air-tight covering. When this is done never set a foot on it or in any way permit the cover to be disturbed, for wherever this happens the silage will be found damaged to a greater or less depth. In about a month feeding may begin.

Will Farmers Unite to Elevate Their Calling?

It is with feelings mingled with doubt that we ask such a question, and a longing desire which quickly grows into hope, impels us to look eagerly forward to the time when intelligence and common sense—the two great elevators of every calling—will take possession of the minds of the farmers of this country and bring about a broader and more active sympathy for each other, and result in unity of action, which shall elevate them to the position to which they are justly entitled.

We propose noticing some of the factors that are exerting an influence in uniting the tillers of the soil—the Farmers' Institutes, the Grange, the agricultural press and the Patrons. The Farmers' Institutes appeal almost exclusively to the intellect, and are thus doing a grand work, and scores of our most progressive farmers are lending their best efforts to ameliorate and upraise the condition of the farmer, yet all their efforts combined fall short of their noble aim, and the short-sighted and ignorant farmer still continues to spend hours and days at hotels or in idle conversation, instead of taking a day or two now and then or using his spare moments for the improvement of his mind.

Men who neglect to cultivate their land properly and allow weeds to grow on it undisturbed, are usually found misusing their minds in a similar manner. However, it is gratifying to observe that the Farmers' Institutes indirectly influence these people and its power is continually widening and the work done at its meetings is becoming better every year; yet it does not reach the whole class of farmers. The Grange of years gone by touched a tenderer but less noble spot when it appealed chiefly to the mercenary nature of the farmer. This failed to unite them because many became disgusted with it on account of its degrading effect and the low and selfish desires it instilled in the minds of some, and too frequently it became a name of reproach; so much so that many of the most influential and intelligent farmers abandoned it to its fate. We have not a word to say against it wherein it tended to elevate, but the practical workings of this society of some years ago was not a success. Yet the constitution, etc., of the Dominion Grange, as given in your valuable issue for June, has many very commendable parts and deserves our consideration, but under the old name the prospect is that it never will become a power in our country.

Too much cannot be said for the agricultural journals which are doing a silent yet progressive work, reaching, as they do, the homes and fire-sides where they scatter with lavish hand seeds of thought which cannot fail to take root and grow if the soil be at all congenial. By their influence upon the family, as well as upon the farmer himself, they are doing much to pull down the strongholds of ignorance, and are mighty in the upbuilding of the noble calling whose interests they serve so well.

Of quite recent date the Patrons of Industry have formed lodges, and the promoters have shown considerable foresight in laying down two strong planks in their platform:—(1) Improvement of the mind, and a higher standard of morality; (2) economy in buying and selling. It looks as if the Patrons have a bright future before them if they put a curb bit or an over-check rein on some of the hot heads who wish to run away with the second and lighter plank of the platform and leave to others the work of slowly and steadily moving along the former. If good men are put at the head of the Patrons who will, so to speak, take off their coats and toss on the wagon at their regular meetings the golden sheaves of common sense, intelligence and experience, and let every lodge thresh them out and glean therefrom the golden grains of progressive farming, of broadness of thought and of higher ideals for their noble calling, and use the straw for building up a stack of frugality and economy, then a great result will be accomplished. It is incumbent upon those at the head of the Patrons to use all the wisdom they possess, and make this society intellectually, socially and financially useful to the farmers,

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and soon then they will see united action all along the line. The forces at work to disseminate knowledge among the farmers are many and mighty. The direct ones which have been briefly noticed are doing good work, and the indirect ones are unwittingly assisting. The effect of the combines, the plausibility and deception of agents of all kinds, the appeals of the practical politician are all helping to develop intellect and awaken thought, and intellect thus developed and thought thus awakened will help to answer in the affirmative the question asked at the head of this article. D. E. S.

The Apiary.

Plenty of Honey for Winter.

BY R. F. HOLTERRMANN.

It is quite safe to say that wintering of bees commences the previous summer, and just as safe to say that more than half of the "bad luck" in wintering bees is occasioned by the bees not having sufficient honey left them at the close of the honey season. I have tried the two systems, feeding sugar syrup for winter and leaving the bees natural stores (honey), and find that leaving the bees natural stores for winter has advantages so far greater that the present price of sugar, so much reduced, will not change the scale. When one has reason to believe the honey flow may be drawing to a close, in a hive with a super and eight frames, two frames should be left full of honey at every extracting, and these two should be fallen back on in case the bees have not honey below. If they have shown by weighing early in October they have enough, the honey may be extracted from these two combs, and no harm has been done; if not enough, the two combs with most pollen and least honey may be removed, and the nice full combs of honey put in their place. All the labor of feeding the bees, the waste which takes place in storing, and the danger from robbing has been avoided, and one who has experience in the matter will consider them worth avoiding. If the bee-keeper runs for comb honey entirely, he can, of course, not adopt the above plan. Just here, let me say, no one can to the best advantage run for comb honey alone, yet if he does it is well-known that the bees are far more liable to have honey enough for wintering in the brood chamber. If comb honey is taken instead of extracted, as in comb honey, the supers must be more crowded, and more honey is likely to be forced into the lower story. For four years I have not had to feed a single pound of honey in the fall of the year. My system has been the above. True, less honey has been secured, but better results have been obtained.

QUEENS.

In August every colony should be examined to see if they each have a good queen. If any are queenless they should at once receive a queen not more than two years old; this will bring her to her third year before she can be replaced. With queens, as with other stock on the farm, no cast-iron rule can be laid down as to age, but as a rule it is not safe to keep queens after the third season; they may fail any time after that, and if they fail during the winter or early spring may occasion the loss of a colony. An experienced apiarist can often tell the signs of decay in the queen, the brood is deposited in irregular patches, she lays a few eggs in one comb first, then in another, and lays but few eggs when the time and quantity of bees in the hive should call for more. If you do not know

the age of the queen the greatest aid in detecting her age is her wings. If they have a ragged and worn appearance it is a strong indication that she is ageing and should be changed for a younger. Anything done in the direction of changing a queen should be done carefully. Be sure and take every precaution in introducing the young queen. Remove the old queen 48 hours before you introduce the new queen into the hive, then put the new queen over or between two combs. I generally put her over with wire side between and on two top bars, after one day break down all queen cells and towards evening of the next day gently open the hive, pull the slide open on cage, turning the opening down, pour a little honey about the cage to attract the attention of the bees and carefully replace quilt and cover. To kill bees or jar the hive in the operation may prove fatal. In such a case you should have saved the old queen in a cage, and, if necessary, reintroduce her. She should be put in some other hive for safe keeping meanwhile.

Garden and Orchard.

Notes on the Cultivation and Care of Fruit.

BY W. W. HILBORN, LEAMINGTON, ONT.

MARKETING SURPLUS FRUITS.

Many farmers throughout the country have planted pears, plums, peaches and other fruits for family use, and often there is a surplus to dispose of. This surplus is often nearly or quite lost because the grower does not know how or when it should be gathered and taken to market. Nearly every village or town in Ontario contains one or more merchants who would be glad to handle this fruit if properly put up in convenient packages for shipping. The low rates now offered by the express companies will enable the merchant to ship to some point where good prices can be realized. He, however, has to be very cautious in buying fruit from farmers, simply because they have not taken the precaution to learn in what shape it is wanted. Many dollars could be saved by giving a little attention to this matter at the right time.

Whether you have little or much to sell, aim to put it up in the best possible shape. This will help you to sell at another time when fruit is more plentiful. In picking any of the fruits named above for market, gather as soon as the stem will part readily from the limb by taking hold of the fruit and giving a quick turn upward. Twelve quart baskets are about the best and most convenient package to use. Do not put in any poor samples or any that are beginning to turn mellow. A very small number of bad specimens will spoil the whole basket. Handle carefully to avoid bruising, and put just as good fruit in the bottom of the basket as on the top; let the top be an index to what the basket contains. Early apples will often pay to pack in baskets if they are of good quality. Red Astracan, Yellow Transparent and Duchess are all good varieties for packing thus. Cover all light colored fruit with red gauze, and dark fruit with blue gauze.

FRUIT FOR THE FAIR.

The fall fairs will soon be at hand, and a good show of fruit helps very much to make them a success. I have found on looking over the fruits placed on exhibition at most fairs that they contain many samples of worm-eaten apples and pears.

The following hints, if kept in mind when making your selections, will be sure to increase

the amount of prize money: Have all samples free from worm-holes. Select those of even size and of high color, although they may not be the largest; good regular form and high color will count more than size in most cases. Pick with the stem remaining on the fruit. Select your specimens in such a manner that they would be of the most value placed on a city market, were there a barrel of them instead of a half dozen samples. Color counts very much in fruit, as it indicates quality. Highly colored specimens must be carefully examined, as they are more apt to contain a worm-hole, which would throw them out altogether if the judge is a fruitman. A short scale of "points" could be given in the prize list that would help both judges and exhibitors, somewhat like the following: 1st, free from worm-holes; 2nd, color; 3rd, evenness in form and size; 4th, best condition of fruit.

FRUIT NOTES FOR AUGUST.

Do not continue to cultivate the orchard after the first of this month. The new wood will then ripen up better and enable the trees to withstand a severe winter more readily. This will apply to small fruits as well, with the exception of strawberries. They may be cultivated quite often, with good results, until growth is stopped by frost. If any of the readers of the ADVOCATE have neglected to plant out strawberries for family use it may be done this month, as early as possible. If they are carefully planted in good soil, and well cultivated until growth is stopped by frost, and well mulched as soon as the ground is frozen, quite a large crop of the finest fruit may be looked for. About the best results will be obtained by planting quite close, say eight or ten inches apart in the row, and keep all runners cut off; all the vigor will thus be stored up where it will be sure to produce fruit, while if they are allowed to run those late runners do not have time to mature crowns sufficiently strong to produce much fruit.

The old canes should be cut out from raspberries and blackberries as soon as the last fruit is gathered.

Currant cuttings may be made the last of this month and early in September. Cut from the present season's growth into lengths about eight inches long and plant in rows about two and a-half feet apart and about six inches apart in the row. Allow but one bud to remain above the surface. Any well drained, moderately rich soil will answer, but should not be too heavy clay. Soon as ground freezes mulch heavily with straw. This must be removed early in spring. When the cuttings are planted early, as stated above, they will begin to send out roots in two or three weeks, and thus get a much better start than those planted later.

Budding may be done through this month on apple, pears and plums, and on peaches the last of the month and first of September. Cut the bud with some wood adhering, and when placed in position cut off the top above the bud, parallel with the cross cut on the stock and push the bud up until the bark of bud and stalk joins nicely. Therein lies the secret of successful budding. The sap flows upward through the bark, hence the necessity of joining them nicely at that point. Always use a sharp knife and make a clean cut. Tie the bud in such a manner that no air can get in. Cut the bandage opposite the bud in about two or three weeks after budding, or as soon as the buds are well grown in.

that she ever will, either," said the peddler, as he gathered up Mrs. King's rag-bags and started for the cart.

"Anybody wouldn't need to watch her for more'n two minutes to see how slow she was," assented Mrs. King, following. "She's a girl I took when she was a baby to bring up, an' I've wished more'n fifty times I hadn't. She's a good girl enough, but she's awful slow—no snap to her. How much is them milk-pans?"

Mrs. King was reputedly a sharp woman at a bargain. To trade with her was ordinarily a long job for any peddler, but to-day it was shortened through skilful management. The tin-man came down with astonishing alacrity from his first price, at the merest suggestion from his customer, and, in a much shorter time than usual, she bustled into house, her arms full of pans, and the radiant triumphant conviction of a good bargain in her face.

(TO BE CONTINUED.)

Minnie May's Dep't.

MY DEAR NIECES:—

Would that you could be persuaded to save yourselves much labor during the heated months, by serving fruit, ripe and fragrant, fresh from the summer sunshine, instead of stewing it into pies and puddings. With a plentiful supply, as nearly all farmers' gardens command, your labor would be lessened one-third by abandoning this branch of the culinary art entirely. Providence seems to have made this provision for us; in summer the appetite is more variable, and we long for salads, fruit and acid drinks. Here is the wherewithal to satisfy us, if we would only use it so, thereby saving time, strength and digestions. Fruit, freshly gathered, should appear on our table three times per day while it lasts; do not worry about serving cream with it, many digestions cannot bear it, and do not tempt any one; serve only sugar. There is almost a luxurious appearance about a table set out for tea or breakfast with a large glass bowl of ripe fruit upon it, for the supply must be generous; everyone can eat a second helping of fruit. Another subject has given me anxious thought, to which I shall draw your attention. Every paper we take up gives dozens of receipts for cakes. Now, you must know that cake is not wholesome used in large quantities, and it would be much better to take those ingredients apart than compound them into that too often indigestible mass called cake. Eggs are one of the most wholesome articles of diet, and liked by almost every one. So many ways of cooking them, too; they can be made to please everyone, from the dainty omelet to the plain boiled. Good bread and butter are a diet that no one will quarrel over regarding the nourishing properties, and it is always a staple with housekeepers. Eschew hot biscuits, and substitute hot raised rolls, or cold bread; and with fruit and vegetables you need not worry over your bill of fare. When you prepare potatoes for dinner, peel enough for supper, too; they will boil all at once and save time and fire. While you peel them, be comfortably seated, and use a very sharp knife. So with meat—cook enough to last until next day. If pork, boil for three hours; pull off the skin, cut the fat in small dice, and cover with bread crumbs or cornmeal; set in the oven for one hour. It will make the fat part quite white and solid, and look more tempting; garnish the dish it is served upon with green parsley or mint. Potatoes can be used cold by cutting into dice or thin slices, and when wanted pour over a dressing of equal parts of melted butter and vinegar, with a pinch of pepper and one of salt; toss together with a spoon and fork, and when placed in the dish to be served, ornament the top with thin slices of pickled cucumbers and small

green leaves. Vary your summer beverage by giving your family coffee occasionally, instead of the everlasting tea all the year round, which is the cause of more dyspepsia than could be told. Boiled milk is relished by strong men, but many do not care for it. Pure native is the best of all drinks, but not popular enough for universal adoption.

MINNIE MAY.

Minnie May offers a prize of \$2 for the best article on "Home Tailoring." All essays to be in our office by the 15th October.

Preserving the Health.

Rise early and never sit up late.

Wash the whole body every morning with a large sponge, and rub it dry with a rough towel. Drink water only.

Avoid spirits and fermented liquors.

Keep the head cool and sleep in an airy apartment.

Eat no more than enough, and let the food be plain.

Let your supper be light.—Hall's Journal of Health.

Fashion Notes.

A "lucky slipper" is the newest present for a bridesmaid. The design is a golden slipper with a true lover's knot in jewels, and a very high heel. This dainty trifle finds as dainty a nest in a slipper box lined with white satin.

Jets are used in many novel ways, and are especially pretty and effective when wrought into belts. These belts are usually straight, but many are made pointed with fringed lower edges.

Sunshades, with a hinge at the top to admit of their being turned over and used for a fan as well, are particularly useful, and can be had only in the most expensive material.

Boas of fine artificial flowers are a seasonable novelty. Small blossoms are chosen. They should be worn about the shoulders, as they are too warm around the neck.

The new bell skirts are much worn, being very graceful as well as light, and less cumbersome than heavily draped skirts for warm weather, and requiring much less cloth than other styles. A foot trimming is sometimes added, either braid, lace or flounce, but many are made quite plain. The pretty cotton fabrics look specially cool when made in this fashion.

Grenadines are much more worn than last year, and they have appeared with colored stripes again, but they require so much care in lining they cannot be called an economical dress.

Ribbons are used on everything they can be placed on, even the cool and comfortable tea gown is made gay with bows and streamers of narrow ribbon. It is also used in rows around the bottom of lace gowns, on the shoulders and around the bottom of the basque, terminating in long bows and ends.

Capes are made of all textures, from the color of the costume to the dainty black lace, and they are becoming to the figure and stylish.

For little folks the dresses are so daintily fashioned and so neatly made, the little misses look like fashion plates; but all is so comfortable for them, they look like little folks once more. There are hundreds of patterns to choose from, and no end to the variety of variations in color and material.

Don't forget to say "good night" or "good morning" on meeting or separating from your own family. Don't reserve these courtesies for strangers only.

Recipes.

TO COOK A FOWL.

Singe all hair off, boil in water just enough to cover it until the bones feel loose; take it out, salt and pepper the liquid it was boiled in; cull all the bones you can get out, especially the leg bones, lay breast down in a pudding-dish, pour the liquid around after boiling it down to half a pint, put a dinner plate on top of the fowl and press down with a heavy weight; set in a cool place. It should turn out of the dish in a shape, whole.

CURRENT LOAF.

Set sponge as for bread, in the morning add butter, sugar, spices and fruit to taste; let rise again; when well raised, mould into loaves, and when light, bake in a slow oven.

CUCUMBERS FRIED.

Pare full grown cucumbers; dip in flour, to which a little salt has been added, and fry in hot lard or butter.

SAUCE FOR VEGETABLES.

Boil one pint of water, and while boiling add one tablespoon of flour, into which has been stirred one tablespoon of soft butter; give it one boil up, and add a pinch of salt and one of red pepper, if liked.

CORN OMELET.

Use cold boiled corn left from dinner; cut from the cob, and make a thick mixture of eggs, well beaten, and flour; stir in the corn and cook like fritters—in hot lard.

RED ANTS.

Common tar, poured upon an old plate and left in their haunts will clear them away.

FINNAN HADDIE.

If for breakfast, place in a baking-pan, fleshy side downwards, and cover with fresh milk and a few little bits of butter; bake one hour; the milk should be all absorbed, and the fish tender and flaky.

BAKED TOMATOES.

Place them stem end uppermost in a baking-dish, with a little bit of butter on each, and salt and pepper sprinkled over; bake until very tender, and carefully remove them to the dish they are to be served on; pour the juice around.

FRIED CHICKEN.

When drawn and singed, clip up the backbone with a pair of sharp scissors; remove the breast bone. Fry a light brown in lard.

CANNING CORN.

Canning sweet corn is a rather tedious process, and not often successfully done in the average household. Mrs. S. T. Rorer, Principal of the Philadelphia Cooking School, gives the following directions:—Select fine, fresh corn. Remove husk and silk, and cut the corn from the cob; pack into jars, pressing down closely, and fill to overflowing. Put on the tops, screw them down, place them in a white jar-holder, and pour in sufficient water to half cover the jar; cover the boiler tightly, and boil continuously for three hours, taking care that there is sufficient water to make a full volume of steam. When done, lift out the jars and screw down the covers as tightly as possible; while cooling, tighten the covers from time to time, and when cold screw tighter still, if possible. Keep in a cool, dark place.

"Whenever I marry," said masculine Ann,
"I must really insist upon marrying a man."
"But what if the men—for men are but human—
Would be equally nice about wedding a woman."
—J. G. Saxe

Uncle Tom's Department.

MY DEAR NIECES AND NEPHEWS:—

In this month of ingathering there is much to which one's mind turns. To the white-haired fathers of the families now, alas! growing few, the "harvest home" brings many memories—some tender and some sad—of the days now gone forever, when the little "clearing" returned its reward for the efforts made thereon. Then the household was unbroken, and they toiled—yes, and suffered—all as one. Then, with the growing clearing, came separations; when the log shanty grew too small and the rough corduroy road was made smooth, and jolting over roots and stumps no longer pained the delicate sufferer, worn with fever and ague, or consumption, who

will only be too glad to give you the reins when you prove worthy of holding them. This habit of wanting *my way*—how much harm it does! It does harm in the politics of a country, in the professor's chair, at the editor's desk, in the pulpit and the school room, in the office, and in the home where "sisters dwell and brothers meet, where quarrels should never come." Dogmatic, they call it. It is simply my *own way*, and it shows itself very early in life. It seems to be a part of our nature, and, if Uncle Tom succeeds in this letter in calling the attention of his nieces and nephews to the fact, and getting them to count how often in a day they like to take their way, and how often so doing makes trouble, this letter will not be written in vain.

The story is told of a celebrated man who, walking with his little son, showed him a very

top, and the old mill at the side. What tales those old mills tell! The sound of their business, how it mingles with the past. Standing now silent, almost in ruins, by the water's edge, they call up memories almost "too deep for tears." How many references we have in literature to millers and mills, and how many of our artists have drawn and painted the mills of the past.

George Elliot—she who, in prose, rivals Shakespeare in poetry, has forever immortalized "The Mill on the Floss" with an artist's pen; she truly has pictured not only the "mill," but all about it in her beautiful story.

Goldsmith, too, in rhyme, has told us of "the busy mill" in his "Deserted Village" of Auburn. Who has not heard of the "Miller of the Dee," and, indeed, who does not know of a mill in which sometime in life he or she had great in-



THE OLD MILL.

was borne over them. Then there was a burying ground, and a lot, and a grave, which the autumn woods strewed with yellow and crimson leaves, and the long green grass and the violets and wood flowers covered over in spring and summer time. Then there were others laid quietly to rest, and, as the ripened harvest falls before the reaper in its rounds, so thoughts of the lives he has seen ripen for death come to the old farmer. Do you children wonder why the tear gathers in father's or grandfather's eye, or the voice grows husky when he speaks of the old days and the old times? Are the old ways hard to change? and are the new ways what you want? Have patience, boys; let father have his way. He had suffered and striven and worked longer than you have now, before you were born; and so, hasty youth, listen and *hear and act*, even against your will, and if you have good judgment and are willing to take counsel, father and mother

crooked tree, and asked him what he thought made it so. He was answered at once—somebody must have stepped on it when it was little. So, my boys and girls, we bear the impress of wanting *our own way*, even into grown-up life, if not to its end; and this one habit cripples and maims and dwarfs minds, for by looking to self they look not beyond to higher and better models.

When the August of life, the ingathering time of life's harvest, comes to my nieces and nephews, what will it yield? Not, from misspent hours and years, which make up life, to return a crop of weeds, I trust; but a rich and bountiful harvest return of busy and well-spent years.

Allow Uncle Tom to call attention to our illustration this month—the quiet scene, the large shady trees, so suggestive of cool and quiet enjoyment these warm days, the cooling waters, with the swans so gracefully gliding over the

terest, even if the days are gone, which have been celebrated in local verse of twenty years ago.

"When boys did ride barebacked to mill,
A dozen miles or so,
And hurried off before 'twas day,
Some twenty years ago."

It would be an interesting literature lesson for my young readers to find out the many references to "mills" in our best poetry and prose writers, and keep selections.

Hoping all of you are enjoying the last month of vacation, and that your thoughts when thus "fancy free" are such as you could tell a sympathizing friend like
UNCLE TOM.

P. S.—I have much pleasure in awarding the special prize offered by Miss Ada Armand for the best original puzzles sent in by those who have never won a prize in this paper, to Master T. Plant, York Mills, Ont. The prize is a handsomely bound book, entitled "The Squire's Grandson." Now I hope to hear from many of you for the September number. UNCLE TOM.

Puzzles.

1-ANAGRAM.

Always do better than before, No matter what the task. To know that we have done our best, What more can mortal ask? If only I can pleasure give To those whose lot is hard, No other recompense I ask; I need no great reward.

ADA ARMAND.

2-CHARADE.

What conglomerate thing am I? Base is the metal of my foundation; Yet am I enclosed in one most precious. Jewels I have, but not for ornament; Bridges, beneath whose spans no river flows; Springs that have no drop of water ever known. Pinions have I, but I fly not; Yet however still I stand I ever move. All time is mine, but not a moment's leisure. Consulted oftener than the wisest sage, A monarch with no follower in any train, A paradox I am, but not unbalanced. Man's uncomplaining servitor with modest mien, My hands before my face are ever seen.

T. PLANE.

3-NUMERICAL ENIGMA.

My whole is a good saying. My 11, 12, 4, 6, is to couple. My 17, 9, 2, 5, 10, is to search. My 7, 8, 13, 14, is dirty. My 15, 1, 3, 17, 18, is to run away.

HENRY REEVE.

4-BEEHEADINGS.

Behold an animal and leave a part of the body. Behold to frighten and leave trouble. Behold the smallest and leave a point of the compass. Behold a stream and leave a bird. Behold courageous and leave aged. Behold a bird and leave a tool.

EDDIE R. DOW.

5-ILLUSTRATED REBUS.



6-CHARADE.

My first is often seen in air. And travels through the cloudland there. In famed Olympian games of yore, Conspicuous share it always bore. But now condemned to rail or road, It plods with varying speed and load. My next is found beneath the crust Of earth, in darkness, heat, and dust. Thou can't not own it, nor can he, Because it must belong to me; And if I were to give it thee, Its very name would cease to be. Combine the two from refuse made, A brilliant coloring is displayed. Nothing is waste; good comes from ill. And answer this puzzle I know you soon will.

T. PLANE.

Answers to July Puzzles.

- 1-Block head. 2-David Copperfield-Dickens. 3-Chatham. 4-An hour. 5-How much a dunce that has been sent to Rome excels a dunce that has been kept at home. 6-Sir John Macdonald, Dominion of Canada. 7-Disinterpretation.

Names of those who have Sent Correct Answers to July Puzzles.

Henry Reeve, J. Irvine Devitt, Emma Skelley, Gertrude Moore, Emeline Wilson, F. K. Harris, Jessie A. Ellis, John Harding, Geo. F. Marsh, Maria Dixon.

Borax water will instantly remove all stains from the hands. It is very cleansing and by its use the hands will be kept in excellent condition.

A boy who is constantly reminded of his faults and told he has the making of a bad man, will invariably grow up to fulfil the prophecy. Better show him the better and brighter side of manhood, and help him to grow up to what he should be.

Home Courtesies.

Some parents think they are not bound to be polite to the members of their own household, and keep all their good manners for others than the home circle. This is a grievous error, and one they should correct as soon as possible. How can they expect their children to be courteous when they are not so themselves? They will exact many a little service from their children—and not thank them for it; but they cannot know how the little heart will swell at a "thank you, dear." And that child will learn to say so too. Children should be taught to do small services for each other. It promotes the growth of love between members of a family, and makes them feel they are beloved. Too often a rude line of behavior is established between parent and child, and it must have begun with the parent. No! let your brightest and best side shine forth in the home circle. Some day that brightness will be missed, and then with what affection the children will turn to that bright disposition who never by act or word brought terror to the little hearts who leaned so confidently on him.

Kind words never die; unkind words never die either.

The simple faith of a little child is the world's truest homage.

Remember that valuable as is the gift of speech, silence is more valuable.

Too many people when they find they are fit for nothing else, try to be good.

The derivation of the name Canada is obscure, but it is believed to be derived from an Indian word K-u-n-n-a-t-h-a, meaning a village or collection of huts.

Sprouted peas are considered a dainty dish by Chinese. They are covered in wet sand until the sprouts are about three inches long, then boiled in fast boiling water until tender, and served with cocoanut-milk over them.

Emerson says: "Never imitate. That which each man can do best only his Maker teaches him. Be only that which you are assigned to be, and then you cannot hope too much, nor dare too much. Just as we forsake our own natural part in life to copy others, whose duty and place are different, we fail."

The welcome visitor, and the one who is asked to come again, is the girl who realizes that she not only goes away to have a pleasant time, but that she owes a duty to her hostess. And in this case, duty and pleasure may go hand in hand, and extreme enjoyment be the result.

NEW ADVERTISEMENTS.

Fertilizers—J. L. Grant & Co. Surprise Wheat—Thos. Elmes. Registered Southdowns—Jno. Jackson & Sons. Albert College—Dyer, M. A. Jerseys—W. D. Reesor. Dispersion Sale of Galloways—Wm. Kough. Jersey Cattle and Shropshire Sheep—W. D. Reesor. Sheep and Pigs—W. Mederatt & Son. Shorthorns—D. Alexander. Annual Sale of Holsteins—F. A. Folger. Shropshires—W. S. Hawkshaw. Traction Engines—N. C. Peterson & Sons. Furnaces—Clare Bros. Seed Wheat—Wm. Rennie. Jerseys—Wm. Rolph. Improved Large Yorkshires—Levi Pike. Jerseys—Robert Reesor. Herefords and Shropshires—A. & A. McPherson. New Fall Wheat—John A. Bruce & Co. Farm Implements—Watson Mfg. Co. New Fall Wheats—Steele Bros. Co. Choppers—Waterous Engine Works Co. Detroit Business University. Annual Sale—W. B. Scatcherd. Seed Wheats—John S. Pearce & Co. Windmills—Geo. Decker. Sheep by Auction—Andrew Easton. Real Estate—Fred D. Cooper. Potato Digger—Matthew Moody & Sons. Shropshires—John Dryden.

J. Y. ORMSBY, V. S. (Ont. Vet. Col.) Live Stock Auctioneer and Commission Dealer, Streetsville, Ont. Sales of pedigree stock a specialty. Member of the leading English and Canadian Live Stock Associations. Pedigrees searched and traced. All commissions personally executed. 308-y-O

SHEEP BY AUCTION.

There will be sold by auction, at A. EASTON'S FARM, four miles from Drumbo, on the G. T. R. and C. P. R., on THURSDAY, the 1st of October, 1891, that flock of Pure-bred Shropshire Sheep, bred and imported by the undersigned. Only animals registered in the American Flock Book will be offered. The flock comprises home-bred ewes and shearing ewes, imported young ewes and spring lambs, two stock rams (two shears), one imported and ten good shearing rams. The lot will be sold without reserve, as the proprietor, from the effects of age, is retiring from farming.

ANDREW EASTON, 308-b-OM Bright P. O., Ont.

SHROPSHIRE SHEEP BY AUCTION!

There will be sold by auction at Eastwood, (next G. T. R. Station, east of Woodstock), on Friday, September 12th, 1891 (in the week preceding the Toronto Industrial Fair), One Hundred and Twenty Head of Pure Shropshire Sheep (Ewes and Rams), all imported or bred by the undersigned, excepting some few bought of Mr. Gibson, Delaware, and at the Ontario Agricultural College, Guelph. Only animals registered in the American Flock-book will be offered. Catalogues on application to

T. C. PATTESON, Postmaster, 307-c-OM Toronto, Ont.

J. F. QUIN, V. S., BRAMPTON, ONT. Ridgling horses successfully operated upon; write for particulars. 275-y

DISPERSION SALE.

The Glen Stock Farm herds of Scotch Shorthorns, Shire Horses, Improved Large White Yorkshire Pigs, and Shropshire Sheep, will be sold by auction, without reserve, on Thursday, the 27th August, 1891, at the Glen Farm, Innerkip, Oxford County, Ont. As Messrs. Green Bros. are returning to England, the Glen Farm, which won the silver medal in the prize farm competition, will also be sold on the same day.

ORDER OF SALE.

10.30 a. m.—SHEEP (63 ewes and lambs and one ram) AND IMPROVED LARGE YORKSHIRE PIGS, comprising the grand imported stock boar Sultan [12], 7 imported sows and a large number of young pigs from 7 to 10 weeks old.

1 p. m.—THE GLEN FARM, comprising 300 acres of fine arable pasture land, fine hard-wood bush and cedar; on easy terms, which will be given on the day of sale.

1.30 p. m.—SHORTHORNS—23 cows and heifers of the best Scotch breeding, several of which are imported and prize-winners, and 6 grand young bull calves.

3 p. m.—HORSES, including 3 imported Shire mares, all prize-winners, 2 Shire fillies, two-year-old Shire stallion, and 2 Hackney fillies.

TERMS OF SALE.—Sums of \$10 and under, cash; sums above \$10, nine months credit on approved joint notes. Discount at 6 per cent. allowed for cash on sums over \$10.

The farm is 3/4 mile from Innerkip Station, on the C. P. R., and 6 miles from Woodstock, on the G. T. R. Trains from the east reach Innerkip at 10.19 a. m. Gentlemen coming on G. T. R. should take tickets R. Trains from the east reach Innerkip at 10.19 a. m. leaving Woodstock at 8.50 a. m., for Innerkip. Teams will meet the morning trains. It is expected that cheap tickets will be issued by the railroad companies to parties attending the sale. Luncheon at 12 p. m. Catalogues will be ready by the 15th August, and can be obtained from Green Bros., Innerkip, Ont., or George Andrew, Auctioneer, Oakville.

N. B.—The crops, implements and household furniture will be sold the following month. 308-a-OM

Central Canada Fair.

In an interview with Mr. Charles Magee, President of the Central Canada Exhibition Association at Ottawa, our representative received the following information:—

The prize list for 1891 has undergone careful revision, and in all the live stock classes changes in the interest of, and for the encouragement of the breeder have been made. These changes involve considerable additions to the amount of prize money.

The horse list of the Central is always attractive to exhibitors; the principal change is the increase in all prizes for heavy draught stallions.

In the cattle classes a separate section is given to the two-year-old bull and three-year-old cow, instead of grouping them with the older animals. A separate class has been made for Guernseys. Last year they were shown with the Jerseys.

In swine a new class has been made for Yorkshires. Formerly they were placed with Chester Whites and Poland Chicas. Two additional sections have been added to every class. Last year only one prize was given for boar and sows under one year, whilst this year two are given; for example, boar over six months and under one year, boar under six months.

In sheep a "special" has been received from the American Shropshire Association, value \$50.

The Directors of the Central Fair still believe in the single judge system, and, where practicable, they select experts from a distance. This season several will come from the United States. There are a full list of special prizes for 1891, and it will be noticed that there are eighteen gold medals, besides other valuable prizes.

A large addition is being made to the grand stand and a wing added to the dog show building. One of the greatest difficulties the Association has had to contend against in the past, was the expense of reaching the exhibition grounds, situated 1½ miles from the centre of the city, but the opening of the new Electric Street Railway, with a line direct to the grounds on Elgin and Bond streets, a five cent fare from any part of the city, will make Lansdowne Park easy of access, and must add largely to the gate receipts, as well as to the success of the fair.

The Exhibition opens September 24th, and closes October 3rd. Live stock will be received up to 10 a. m. of Monday, September 28th, and can be removed on Friday, 2nd October, after 4 p. m.

Mr. E. McMahon is the Secretary, and Mr. I. C. Bate, Treasurer.

The ADVOCATE wishes the Ottawa Fair all the success which the enterprize of its promoters entitles them to.

From the present indications the crop of Manitoba this season will require a great amount of labor to harvest, and, according to the crop reporters, there are not half as many men to be had as are required. In view of the serious aspect of the situation, a letter was sent from the FARMER'S ADVOCATE office, Winnipeg, to Mr. Whyte, Superintendent of the C. P. R. at that point, suggesting cheap laborers' excursions from Ontario. Mr. Whyte replied that he has arranged for an excursion on August 4th.

SEED :- WHEATS!

The EARLY RED CLAWSON, CANADIAN VELVET CHAFF,
AMERICAN BRONZE and JONES' WINTER FYFE

— ARE —

HEAD AND SHOULDERS

Above and ahead of any other wheats in cultivation to-day. We have the finest and best stocks of these wheats of any house in the trade. Every farmer should sow one or more of these wheats the coming fall.

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We obtain the highest market value for all kinds of farm produce consigned to us, and make prompt returns either in cash or goods as desired. 308-y-OM

FIRST ANNUAL SALE

— OF —

Holstein-Friesian Cattle

OF RIDEAU STOCK FARM, KINGSTON, ONT.

We will offer for sale, at auction, at Toronto, during the holding of the Industrial Exhibition in September, ABOUT 50 HEAD OF REGISTERED HOLSTEIN CATTLE, mostly cows and heifers in calf by our bull Ethelka's Prince 13637 (sire Jamaica's Prince 3143), by Viking, out of Jamaica 1336, three-year-old record, 112 lbs. 2 oz. in a day; dam Ethelka 1208, three-year-old record, 101 lbs. in a day. Nothing but choice individuals will be offered. Catalogues ready August 15th; mailed on application only.

Address—

F. A. FOLGER,

BOX 579, KINGSTON, ONT.

308 b-OM

THE TENTH SEMI-ANNUAL SALE

— OF —

THOROUGHbred HOLSTEINS

Will be held by the WYTON STOCK-BREEDERS' ASSOCIATION at WYTON, ONT., OCTOBER 1st, at which time a very choice lot of Holsteins, both male and female, will be offered for sale. For further particulars address

308-a OM

W. B. SCATCHERD, ESQ., Secretary, Wyton, Ont.

THE GREATEST EVENT IN POLLED CATTLE CIRCLES OF THIS CONTINENT WILL BE THE

DISPERSION SALE

OF THE ENTIRE HERD OF THIRTY HEAD OF THE CHOICEST PEDIGREED

GALLOWAY CATTLE

In America, by Public Auction, at W. KOUGH'S Farm, Travertine, 4 miles west of Owen Sound, Ont., Canada,
ON THURSDAY, AUGUST 20th, 1891.

The herd consists of 21 females and 9 bulls of the best breeding and individual merit in the world: 11 females and 7 bulls will be UNRESERVED, 10 females and 2 bulls will be offered for sale under a reserved bid. This herd has held the highest honors at the leading Cattle Shows in Canada—14 silver medals, 46 firsts, 34 seconds, 24 thirds having been awarded at Toronto, London, Ottawa and Kingston to this herd. There is no herd in America its equal, and none in Scotland its superior in quality.

A catalogue, with full pedigree, is prepared, and a copy will be mailed on application to W. Kough. The cattle in this herd are the kind that have raised the best Angus herds to what they are. Galloway Breeders and Cattle Breeders generally have never yet had such a chance in America to purchase such Galloway cattle as are now offered. It may be years before such another opportunity presents itself.

TERMS.—Half in six months, half in eighteen months, approved bankable paper, or 10 per cent. discount for cash. For further particulars see sale bill and catalogue.

W. BEATON, Auctioneer.

308 a-OM

W. KOUGH, Owner.

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LARGE CASH PREMIUMS!

Over twenty gold, several silver and bronze medals and other valuable special prizes.
 The Parliament Buildings at Ottawa alone are well worth a visit.
 The new Electric Railway (fare, 5 cents) runs direct to the grounds.
 For Prize Lists and other information apply to
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ENTRIES CLOSE AUGUST 15

For Prize Lists, Entry Forms, etc., address
 J. J. WITHROW, H. J. HILL,
 307-b-OM President, Manager, Toronto.

BOYS FOR FARM HELP!

The managers of DR. BARNARDO'S HOMES desire to obtain good situations with farmers throughout the country for the boys they are sending out from time to time from their London Homes. There are at present nearly 3,000 children in these Homes, receiving an industrial training and education to fit them for positions of usefulness in life; and those who are sent to Canada will be selected with the utmost care, with a view to their moral and physical suitability for Canadian farm life. Farmers requiring such help are invited to apply to

MR. ALFRED B. OWEN,

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Registered Rough-Coated Scotch Collies.

Young dogs for sale from the imported sires Turk II., first prize Toronto, and Moonstone, value \$500, and out of the choicest prize-winning bitches money could buy in England. A. BURLAND, Sec. Ont. Collie Club, Grimsby, Ont.

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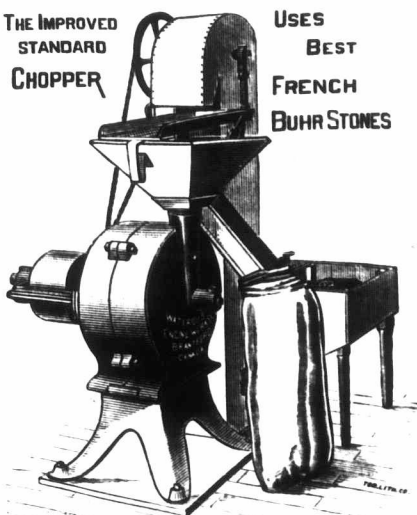
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Norway Spruce at unrivalled rates. A general line of nursery stock, guaranteed true to name by the undersigned who is responsible; has a reputation at stake and is a practical commercial fruit and plant grower. Buy direct, fellow farmers, if you would save money, risk and annoyance. Send a list of your wants for next season at once and get my prices.
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Sent post-paid on receipt of price. Price, \$1.00 per box, 100 Pills.

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Do you farm a hundred and fifty or two hundred acre lot mortgaged for all it is worth? Do you want to raise that mortgage? Why should you leave it as a legacy to your boys and girls? It will never rise of itself till Doomsday in the afternoon, neither could the lever of Archimides raise it unless with the only fulcrum possible—A Policy in the Manufacturers Life for the full amount. This Company has introduced a new plan of insurance, whose premium rates are one-third lower than any other form of whole life policy issued. You might be insured for \$5,000 on this plan for the same premium that the Company would charge you for \$1,000 on a ten year endowment. Do you want to raise that mortgage? Do so now. Tomorrow you may have left it as a legacy to your wife and daughters.

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Choice Registered Canadian-bred Clydesdale Colts and Fillies, Shropshires, imported and Home-bred of the very best strains. Berkshires, bred from Snell Bros' stock. Prices right. Always glad to show stock. **T. W. WHITESIDE,** Elismere P. O., Ont., Agincourt Station on C. P. R. and Midland Div. G. T. R., 1 mile. 304-y-O-M

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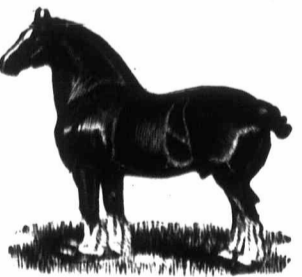
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We always have on hand a large number of imported and home-bred Clydesdales (male and female) of good breeding and quality, which we will sell at honest prices. Our specialties are good and well bred horses and square dealing. Come and see us or write for particulars.

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 IMPORTER AND BREEDER OF
 Clydesdales, Shires, Coachers, Shetlands, and Ayrshire Cattle.

There still a few of the few left yearly importation of high quality on hand, notably—**James Arthur** (5889), sire **Margaret** (1472) sire of dam **Prince of Wales** (673), sire **Margaret** (1472) own brother to the great bred sire **James**—**Marathon**—**Mercury**—**Yorkshire Coachers**. Seven imported mares from **Druid**, **Darnley**, etc.; four in foal. Also some good Shetlands. Having every facility for purchasing direct from the breeder myself, neither acting agent in Scotland or here, and paying cash, I am prepared to sell on any terms agreed upon. Quality and pedigree of the best. Give me a call. The farm is situated 10 miles southwest of Montreal, on the G. T. R., and 100 miles east of Ottawa, on the A. R. Station on the farm.



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STANDARD-BRED TROTTERS, including the producer of such sires as **Almont Wilkes** (1242), 2,224, **Stanton** (2545), and **Superior** (3780), out of registered mares by **Brown Douglas** (10377) and **Winfield Scott** (4319). Two stallions of the choicest breeding now for sale. **JERSEYS** of the choicest butter strains. All the young things sired by the sweep-stakes **St. Lambert** bull, **Nell's John Bull**. Young stock for sale. Prices and terms reasonable. Also a choice fruit and stock farm for sale. 307-y-O-M

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JACK DILLARD, bright bay; a few white hairs round one hind foot; three years old July 10th; a grand, big, open-saited colt; winner of the colt stakes at Stone Creek, 1890, as a two-year-old. Whoever gets him gets a mover. Sire **Dillard Wilkes**, by **Red Wilkes**. Service fee, \$500. Dam by **Harkaway**; 2nd dam by **Caledonia Chief**; 3rd dam by **Old Royal George**. Price right. Come and see him. Also an **A.I. Jersey Cow**; bred at **Oaklands**; registered **A.J.C.C.**; a grand pedigree and a good milker, for less than half her value. **J. W. JARDINE,** Vine Vale Farm, Hamilton, Ont. 307-y-O-M

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But times are hard, and money still scarce. I will sell a few well-bred bulls and heifers of **Bates** blood, and an aged bull at hard-pan prices. Write me, or come and see them. **M. G. Ireland,** Meadow Lawn Farm, COPETOWN, ONT. 308-y-O-M

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My Shorthorns are bred from stock imported by such noted breeders as **Arthur Johnson**, **J. C. Snell** and **Green Bros.** I have a few choice heifers for sale. My Improved Large Yorkshires were imported directly from the famous herd of **C. E. Duckering**, **Kirton**, **Lindsay**, England. I have some young pigs imported in their dam, for sale. Prices Regent, bred by **Snell Bros.**, heads my **Berkshire** herd. Times are hard and my prices are right. Write or call. **A. F. MCGILL,** Hillsburg, Ont. 302-y-O-M

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Have always on hand and for Sale young Bulls and Females, which we offer at reasonable prices.

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ARTHUR JOHNSTON,

Greenwood, Ont.,



Announces that he has for sale, at MODERATE prices, a large and exceedingly good lot of young things of both sex. The calves, yearlings and two-year-olds, are particularly good—all by imported sires and mostly from imported dams of the best strains obtainable in Scotland.

EXCELLENT CLYDESDALES OF BOTH SEX FOR SALE.

New Catalogue for 1891 now ready for delivery. Send for one; they are sent free. My motto: "No business no harm." Greenwood P. O. and Telegraph Office, Clarendon Station on C. P. R., or Pickering Station on the G. T. R. Parties met at either station on shortest notice. Come and see them. 290-tf

SHORTHORN BULLS

HOME-BRED AND IMPORTED

Shropshire Sheep.
The imported 2-year-old Aberdeen Hero

And a choice lot of young bulls of our own breeding. Some No. 1 imported Ewes & Lambs FOR SALE.

SHORE BROS.,
WHITE OAK, ONT.

298-y-OM

Shorthorns, English Berkshires & Improved Large White Yorkshire Swine. Some choice Shorthorn Bulls from six to sixteen months old, the get of "Roan Prince." A number of first-class Berkshire Boars fit for service; also young pigs six weeks old, good quality and from imp. stock. Also Improved Yorkshires of same age and from imported stock. Prices reasonable.

H. J. DAVIS, Woodstock, Ont.
305-y-OM

NEIDPATH STOCK FARM.

We breed Scotch Shorthorns, founded on choice representatives from the famous Aberdeen herds of Duthie, Marr and E. Cruickshank, headed by the Cruickshank Victoria Nonpareil bull INDIAN PRINCE. Produce only for sale. Address—

THOS. BALLANTYNE & SON

302-y-OM STRATFORD, ONT., CAN.



CHOICE SHORTHORNS

Mr. John Ackrow & Son, Hillside Farm, Highfield P.O., Ont., have been breeding Shorthorns for over thirty years, and now offer a few young bulls and heifers of the richest breeding for sale at reasonable figures. Our cattle are the smooth, short-legged, beefy kind. Imported Scotch bull Reporter heads the herd. Station and Telegraph, MALTON, ONT.



FARMERS, LOOK HERE.

If you want a registered Shorthorn bull I can give you your pick of three, from 10 to 18 months old, for \$40. These bulls are sired by Royal Barrington 3rd (10210) and out of cows of a grand milking strain, but they and a few choice cows and heifers must be sold as I am going out of the business.

308-d-OM

C. PETTIT,
South End P.O., Ont.

SHORTHORNS.

6 Show Bull Calves

from imported cows and their daughters, grandly bred and first class stock; red and rich roan. Price reasonable.

D. ALEXANDER, Bridgen
Lambton Co., Ont. 308-OM



GLEN ROUGE JERSEYS!
WM. ROLPH, Glen Rouge Farm, Markham, Ont., offers for sale Jerseys of all ages from his famous herd. The world-renowned St. Lambert blood a specialty. Also registered Clydesdale Horses.

JERSEYS FOR SALE

Nine Heifers and Heifer Calves—six registered in A.J.C.C.; five in calf to 100 per cent. the grandest bred Jersey bull living, being full brother to Stoke Pogis 3rd; all from very rich milking cows. Also Seventy Imp. Shropshire Ewes, Shropshire and Lambs, sired by first prize rams at Toronto Industrial, 1890.



W. D. REESOR,
ELM PARK FARM, MARKHAM.
308-b-OM

LAKEHURST JERSEY STOCK FARM,

Oakville, Ontario.

T. E. BRAMELD, Proprietor, offers for sale, at very reasonable figures, choice A. J. C. C. Jerseys from his prize-winning herd; also a few extra good high-grade Cows and Heifers, and registered Improved Large Yorkshire Pigs. Write for prices. P. O., Station and Telegraphs, Oakville, on G.T.R.
302-f-OM

Riverside Farm.

PURE-BRED A. J. C. C. JERSEYS

—AND—
ESSEX PIGS.

Prince of Oaklawn (Imp.) 12851, heads the herd. Young stock for sale. Also a few choice unregistered and high grade cows. Farm one mile from Streetsville Junction. **J. H. SCARLETT, Streetsville, Ont.** 297-y-OM

Jerseys for Sale.

Some of the finest heifers and calves I ever bred, and at lower prices than I ever offered before. Registered, and express paid by me to any reasonable point. Herd headed by the famous pure St. Lambert bull, Canada's Sir George, prize winner every time shown, son of Allie of St. Lambert, 23 3/4 lbs. butter in one week; Massena's son, pure St. Lambert sire, dam the great Massena, one of the wonders of the Jersey world, estimated to have made 902 lbs. 2 oz. butter in one year and eleven days—actually yielded 9,099 lbs. milk in one year and eleven days; Signal of Belvedere, imported and eleven days; Signal, dam the celebrated prize cow, Miss Sate-nella, 20 lbs. 6 oz. butter in one week, on second calf only.

MRS. E. M. JONES,
303-y-OM Brockville, Ont., Canada.

JERSEYHURST FARM, MARKHAM, ONT.

ROBT. REESOR, importer and breeder of A. J. C. C. Jerseys of the choicest breeding, with the St. Heiler bull Otolie 17219 at the head of the herd. Stock of all ages on hand and for sale. 308-y-OM

Prize-Winning Ayrshires for Sale



GURTA 4th
(1181)

Mine is one of the largest and most successful show herds in Canada. They are finely bred and of great individual merit. Bulls, heifers and cows always on hand for sale; also a few good Leicester sheep. Correspondence solicited. Visitors welcome. Address

THOMAS GUY,
Sydenham Farm, Oshawa, Ont.
290-y

PRIZE-WINNING AYRSHIRES FOR SALE.

I have at present one of the largest & 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,

290-y-OM Rockton, Ont.

Imported and Canadian-Bred



AYRSHIRES AND CLYDESDALES FOR SALE.

I have on hand a large herd of finely-bred Ayrshires of splendid quality. My Clydesdales are also first-class. Stock for sale. Prices and terms liberal.

THOS. BROWN,
298-y-OM Petite Cote, P.Q., near Montreal.

PARK HILL HERD OF AYRSHIRES.

This herd took all the first prizes in Quebec in 1887 and 1888, and in Ontario in 1889, in competition with all the leading herds. Young stock for sale, all of which is from the celebrated bull **ROB ROY** (3971), which is at the head of the herd.

JAMES DRUMMOND,
302-y-OM PETITE COTE, MONTREAL, P. Q.

Ayrshire Cattle & Poland China Hogs, MERINO SHEEP AND FANCY FOWLS.

We have the largest herd of Poland Chinas in Ontario. At the last Industrial Fair we carried off 17 prizes out of 26, including both prizes for pens. We breed from none but the best, and our aim is to supply first-class stock at living prices. We mean business. Write, or come and see us.

W. M. & J. C. SMITH,
298-y-OM Fairfield Plains P. O., Ont.

HOLSTEIN-FRIESIAN

STOCK FOR SALE AT REASONABLE PRICES.


All my stock I have carefully chosen for their extra fine breeding and large milk records, and are all registered in Holstein-Friesian Herd Book. A visit, or correspondence solicited.



R. HOWES CRUMP, Masonville,
300-y-OM near London, Ontario, Canada.

JOHN MILLER & SONS
Brougham, Ont.


Extensive breeders and importers of Clydesdales, Shorthorns and Shropshires. Business established in 1848. We always have on hand and for sale a large number of imported, and home-bred animals. A visit, or correspondence solicited.
308-y



SIMMONS & QUIRIE
IVAN, ONT.

Shorthorns, Berkshires.


Representatives of the Scotch families are **MINA'S** & **STRATHALLAN'S**. The sires in use are the Sweepstakes Silver Medal Bull **SIR CHRISTOPHER** and **RED KNIGHT**, winner of 1st prize at Toronto and London in 1888; also, prize-winning Berkshires.



SHORTHORNS
—AND—
GOTSWOLDS
FOR SALE.

My Shorthorns are well bred, good colors, and have been fine milkers for generations. I have over 100 females and a large number of bulls, from which buyers may select. Prices to suit the times. Satisfaction guaranteed. Correspondence promptly answered. Visitors welcome.

JAMES GRAHAM,
290-y PORT PERRY, ONT.



BROCKHOLME STOCK FARM
Ancaster, Ontario.

R. S. STEVENSON,

Breeder of Holstein Cattle and Improved Yorkshire Pigs. Holsteins recorded in advanced registry. Yorkshires bred from imported stock. Young stock for sale at all times. 295 y-OM


RICHLY-BRED HOLSTEINS FOR SALE.

When we founded our herd our motto was "Quality and Breeding," and as a result we now offer for sale some choice young things rich in the most fashionable strains of blood. Look for our herd at Toronto Fair. J. C. McNIVEN & SON, Lansdowne Farm, WINONA P.O., ONT. 307-y-OM

HOLSTEINS, CLYDESDALES AND CARRIAGE HORSES.
I have one of the oldest herds of Holsteins in Canada, founded on the best blood in America; also registered Clydesdales and Carriage horses. 297-y-OM **WM. SHUNK, Sherwood, Ont.**

CHOICE HOLSTEINS FOR SALE.

I have a few very nice pure-bred registered Holsteins, bulls and heifers, for sale at very reasonable figures. Write or come and see me. Also one or two high grades.—JNO. A. LINE, Sherwood, Ont., Richmond Hill Station. 304-f-OM



Holstein Friesians
of the most remarkable families and greatest performers. Stock of all ages for sale at the lowest possible prices. Railway Stations—Tavistock and Hamburg, on G. T.R. Post Office—Cassel, Ont. **H. & W. F. BOLLERT.** 306-y-OM

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Two nicely marked Yearling Bulls of the best milking strains. **JOHN TREMAIN, FOREST, ONT.** 302-y-OM

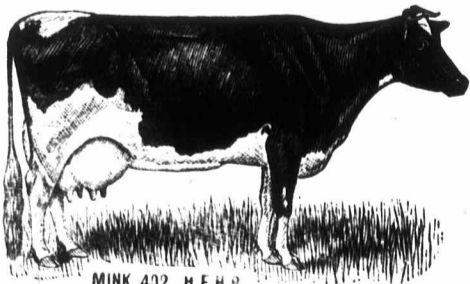
Holstein-Friesians

My herd is composed of the choicest individuals obtainable, and belong to the best milking strains. Young stock at the lowest living prices. Communications promptly attended to. Watford R. R. Station. **S. D. BARNES, - Birnam P. O.** 306

PURE-BRED REGISTERED HOLSTEIN CATTLE.
The sweepstakes herd at the Toronto Industrial Fair, where my stock bull Woodbine Prince (6712) also took the first prize and sweepstakes silver medal. I keep no cattle that are not of the highest standard. **A. KENNEDY, Woodbine Farm, Ayr, Ont.** 298-y-OM

PURE-BRED REGISTERED HOLSTEIN-FRIESIANS
All imported or bred from imported stock. "Sir Mac," of the famous Aaggie tribe, heads the herd. **HUGH McCAUGHERTY & SON, 297-y-OM Walnut Hill Farm, STREETSVILLE, ONT.**

THE GREAT MILK AND BUTTER HERD OF HOLSTEIN-FRIESIANS.
SMITH BROS., Credit Valley Stock Farm, CHURCHVILLE, PEEL COUNTY, ONT., (24 miles west of Toronto)



MINK 402, M.F.H.B.
This is the place to get stock of best quality at reasonable prices. We have seventy-five head, including prize-takers; best strains, cows and heifers, with large milk and butter records; young bulls of superior quality. Send for catalogue. 291-y-OM

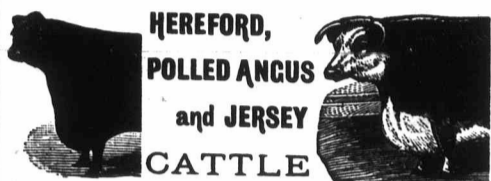
HOLSTEIN-FRIESIANS
THE CHOICEST HERD IN CANADA.

Stock of highest excellence and most noted milk and butter families of the breed. Stock of all ages for sale. Prices right. Railway Station, Petersburg on G. T. R.; New Dundee P. O., Waterloo Co., Ont. Send for catalogue. 306-y-OM **A. C. HALLMAN & CO.**

DAWES & CO., LACHINE, P. Q.

—Importers and Breeders of—

THOROUGHbred & SHIRE HORSES



HEREFORD, POLLED ANGUS and JERSEY CATTLE

BERKSHIRE AND YORKSHIRE SWINE.
The largest breeding establishment in Canada. Inspection and correspondence solicited. 303-y-OM

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ABERDEEN, ANGUS, HEREFORD,

A. J. C. C. JERSEY CATTLE.

Choice Young Bulls and Heifers of the above breeds for sale at moderate prices at all times. A few fine, young Hereford Bulls, by Cassio, at low prices if taken at once. **M. H. COCHRANE, HILLHURST P. O., Compton Co., O.** 298-y

SHROPSHIRES.




Imported Breeding and Shearing Ewes; Shearing Ewes, Ram and Ewe Lambs from Imported Sire and Dam. Prices lower than the lowest. **SHORE BROS., White Oak, 298-y-OM**

SHROPSHIRE SHEEP

The Loughcrew flock has been very successful in England and Ireland wherever exhibited. It consists of 300 breeding ewes of the most fashionable appearance & blood, Ravens, Beach, Barrs, Coxon and Mansell. The Annual Sale first Wednesday in September. **EWES AND RAMS FOR SALE.** Apply to **J. DIXON, Loughcrew, Oldcastle, Co. Meath, Ireland.** 307-y-OM


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This flock has won numerous prizes in England for the last twenty years, besides America, France and Africa. Has been established over seventy years. Several of the best flocks in England started from this flock thirty years back. Sheep always for sale. **F. BACH & SON, Onbury, Shropshire, ENGLAND.** 289-y

PURE-BRED : REGISTERED : SHROPSHIRES !

I can sell six dandy Shearing Rams and some choice Ram Lambs, bred direct from imp. stock, at prices to suit the times. Come and see them. 305-y-OM **W. G. PETTIT, FREEMAN P.O., ONT.**



SHROPSHIRE SHEEP
DAVID BUTTAR,
Corston, Couper-Angus, N.B., Scotland
Has taken all the principal prizes in Scotland for several years. His sheep are of the purest blood, and carefully bred; every sheep eligible for registration. Pedigrees and prices on application. 294-y-OM

SHROPSHIRES

—AND—
Improved Yorkshire Pigs.

Imported Rams and Ewes; also Rams and Ewe Lambs from imported stock. Also young, improved Large Yorkshire Pigs from imported sire & dam. Prices low. Come and see them. **W. MEDCRAFT & SON, SPARTA P. O. and Telegraph Station 297-y-OM**

SHROPSHIRES!

JUST IMPORTED.
I have arrived home with a choice lot of Shearing Ewes. I now offer for sale over 100 Imp. Ewes (nearly all shearlings) and an extra lot of Imp. Ram and Ewe Lambs. Also two very fine two-shear Rams from one of the oldest flocks in England. Visitors welcomed. **W. S. HAWKSHAW, GLANWORTH, ONT.** (7 miles south of London.) 291-ff-OM

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LITTLE'S PATENT FLUID
NON-POISONOUS SHEEP DIP AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange, and all insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc. Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy. The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock: "MAPLE SHADE" HERDS AND FLOCKS. BROOKLIN, ONT., Sept. 4th, 1890. DEAR SIR.—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders. JOHN DRYDEN. Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to **ROBERT WIGHTMAN, DRUGGIST, OWEN SOUND, ONT.** Sole Agent for the Dominion. 303-y-OM



TAZEWELL & HECTOR,
Importers and breeders of
Dorset Horned Sheep and
Improved Yorkshire Pigs.
JOHN TAZEWELL, Indian
Village farm, Port Credit,
Ont. **THOS. HECTOR,** The
Cottage, Springfield-on-
the-Credit, Ont. Stations—
Pt. Credit, on G. W. R.,
Streetsville, on C. P. R.
298-y-OM



MAPLE SHADE
STILL IN IT.
SHROPSHIRE
BOOMING.
Best lot of Lambs
ever offered. Choice
imported rams and
ewes from the best
flocks. Write for
prices. Address—
JOHN DRYDEN,
BROOKLIN, ONT.
289-tf



SHROPSHIRE
Imported Ram Lambs.
Shearling Rams, import-
ed. Breeding and Shear-
ling Ewes; Ewe Lambs
imported or bred from
imported sire and dam.
W. E. WRIGHT,
307-y-OM Glanworth.

DORSET HORN SHEEP

MY SPECIALTY.
These sheep drop their lambs at all
seasons of the year; are good
mothers and most prolific. Devon
Dairy Cattle, good milkers and
grazers. Flock and Herd established
nearly one hundred years. Also Shire
Horses and Berkshire Pigs. Sheep,
Horses and Pigs exported to America
have given every satisfaction.
THOMAS CHICK,
Stratton, Dorchester, Dorset, England.
295-y-OM

LINCOLN -- SHEEP

I always have for inspection
and sale a large flock of pure
Lincoln Longwool Sheep, in-
cluding many prize-winners,
having taken eighty prizes the
last two years at the Royal and
other shows, for both rams and
ewes, also the first for the best
collection of Lincoln fleeces of
wool at the Royal Windsor
show last year, which proves
the character of this flock,
which is most famous for their
great size and 120 years' good
breeding. Also breeder of
WHITE -- YORKSHIRE -- PIGS
Address—
HENRY DUDDING,
Ribby Grove, Gt. Grimsby,
Lincolnshire, Eng.
3-7-y-OM

REGISTERED SOUTH DOWNS

Thirty Rams and Ram Lambs,
Fifty Ewes and Ewe Lambs
to select from; imported or
bred from imported sire and
dam from the best flocks in
England. This year's impor-
tation arrive about August
1st. The most successful
flock in existence; awarded
champion silver cup, ten gold
and silver medals, and over
1,000 prizes in ten years.
Prices right. Visitors welcome. Call on or address
308-b-OM **JOHN JACKSON & SONS,** ABINGDON, ONT., CAN.

JOHN SMITH,
Live Stock Auctioneer, Brampton, Ont. Sales con-
ducted in all parts of Canada and the United States.
Pedigree stock a specialty. Write for terms. Re-
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Eastwood, Ont. 297-y-OM

LORRIDGE FARM, RICHMOND HILL, ONT

MESSRS. ROBT. MARSH & SONS
offer for sale choice Southdown Sheep of all ages,
from their well-known flock, which has taken over
2,000 prizes since its establishment. Correspondence
promptly attended to. 307-y-OM

SOUTH DOWNS!

My sheep are imported
from the flocks of Henry
Webb, Geo. Jonas, J. J.
Coleman and W. Toop.
Will now sell a few ewes
from the above in lamb to
imported rams, also a few
ewe lambs of my own
breeding.
DAVID H. DALE,
Glendale, Ont.
296-y-OM

The Markham Herd of Imp. Large Yorkshires.
LEVI PIKE, Proprietor, offers for sale choice
young Boars and Gilts of this noted breed. All
pedigrees registered. See my stock at Toronto
Farm. Address L. PIKE, Locust Hill, Ont. 308-y-OM

Pedigreed -- Improved -- Large -- Yorkshires.
Mr. G. S. Chapman, of the late firm of Ormsby
& Chapman, is still breeding pedigree Yorkshires,
and is prepared to book orders for young stock.
ADDRESS—**C. S. CHAPMAN,** The Grange Farm,
304-y-OM Springfield-on-the-Credit, Ont.

Improved Large (White)
Yorkshire Pigs and
Scotch Shorthorns.
Entire breeding stock of
Yorkshires are imported;
specially selected from
stock of F. Walker-Jones and Sanders Spencer,
Eng. Registered sows and boars supplied not akin.
Shipped to order and guaranteed to be as described.
J. E. BRETHOUR, Burford, Brant Co., Ont.
300-y-OM

YORKSHIRES ONLY!
MESSRS. BUNBURY & JACKSON, Oakville, Ont.,
have for sale choice young Boars and Yelts of the
Improved Large Yorkshire breed, bred from stock
imported from the best herds in England. Orders
booked now for spring pigs. P.O., Telegrams and
Station, Oakville, on G. T. R. 302-y-OM

Improved Large White
Yorkshires, Pedigreed.
We have lately added
to our herd, which are
from the strains of San-
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and F. Walker-Jones, England. Young stock on
hand at all times for sale. Apply to
Wm. Goodger & Son,
306-y-OM WOODSTOCK, ONT.

IMPROVED - YORKSHIRE - PIGS

OF THE BEST QUALITY CAN BE OBTAINED AT
MODERATE PRICES, FROM
C. E. DUCKERING,
THE CLIFF, Kirkton, Lindsay, England,
the oldest and most successful herd in the country,
having gained since 1856 nearly 3000 prizes. All pigs
supplied either entered or eligible for entry in the
herd book. 300-y-OM

IMPROVED
LARGE YORKSHIRES
We have animals of
all ages for sale, of good
breeding and excellent
quality.
SMITH BROS., Credit Valley Stock Farm,
CHURCHVILLE, ONT. 301-tf-OM

**A Good Pig with a Straight Pedi-
gree at a Fair Price.**
The Pioneer Herd of Improved Large Yorkshires
still sticks to its old motto and maintains its old
reputation for good stock and square dealing. A
few very nice young sows, bred to imported boars,
and some excellent May pigs, just ready to wean,
and for sale at reasonable figures. First come, first
served, so write soon. Address—**J. Y. ORMSBY,**
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Ontario. 307-y-OM

IMPROVED -- LARGE -- YORKSHIRES!

One of the oldest herds in Ontario. Imp. Boars
of Spencer's and Duckering's stock in use ever since
founded. Choice stock for sale. **JAS. FIELD &
SON,** Castle Hill Farm, ANCASTER, ONT. 305-y-OM

R. H. HARDING,
Mapleview Farm,
THORNDALE, ONT.,
Importer and Breeder of
Chester White Swine.
First-class stock for sale
in pairs not akin. Also a fine two-year-old Carriage
Stallion for sale (sire imported). Satisfaction guar-
anteed. Write for prices. 301-t-OM

E. D. GEORGE
PUTNAM -- ONT.,
Importer and Breeder of
Ohio Improved Chester White Swine
6 Boars 4 to 6 months' old, fit to
head any herd. Pairs not akin.
Chesters a specialty. Prices right.
305-y

IMPROVED BERKSHIRES.
Imported and home-bred;
from the best strains
--YOUNG STOCK FOR SALE--
at Right Prices. Apply to—
Richard Delbridge,
299-y-0 WINCHELSEA, ONT

CHOICE PURE-BRED BERKSHIRES
A few grand pigs of both sexes, just weaned, from
a first-prize sow. **A. D. ROBERTS,** Walmer
Lodge, ANCASTER, ONT. 305-y-OM

BERKSHIRES
--AND--
COTSWOLDS.
J. G. SNELL & BRO.
EDMONTON P. O.,
Brampton and Edmonton Railroad Stations.

Now is the time to secure young pigs from choice
imported sows, and got by the renowned imported
boars "Enterprise (1378)" and "Ferry Lad (1378)".
"Enterprise" won first prize at the two leading
fairs in Ontario last year. He weighed just after
landing from England 450 pounds. His pigs are
coming fine, and are particularly well marked. We
have for sale a grand lot of Yearling Cotswold
Rams and Ewes which are well worthy the atten-
tion of those in want of such. Will be pleased to
have visitors come and see our stock. Write for
prices. 298-y-OM

S. COXWORTH,
CLAREMONT, ONT.,
Breeder of Pure-Bred
Berkshires of the choicest
strains. The imported boars
Royal Standard and Prince
Ablon (1113) head my herd. My Sows comprise
some of the best specimens that money could buy
from such breeders as Snell Bros. and Geo. Green.
I guarantee every pedigree, and furnish to register.
Write for prices, and you will find them and the
stock right. Satisfaction guaranteed. 304-y-OM

POLAND CHINAS
All pure-bred and registered. From the very best
strains in America. First come first served. Write
for prices. I mean business.
298-y-OM **W. S. HARRIS,** Homer, Michigan, U.S.

EXCELSIOR HERD
40 HEAD PURE BRED IMPORTED AND PEDIGREED
Poland-China Hogs
Champions and favorites in the
U.S. Most pork for food con-
sumed. Docile, mature quick,
always fat even on grass. Com-
ing hog of Canada. They must
predominate on merits. Best hog
in the world for profit. 200 head
for sale this season.
G. M. ANDERSON, Tynside P. O., Ont.

PURE-BRED TANWORTH HOGS AND CLYDESDALES
JOHN BELL, Clydesdale Farm,
L'AMAROUX P. O., ONT.,
offers for sale young Boars and Sows bred from
registered stock, imported from the best herds in
England. This famous breed of bacon pigs is re-
commended by the largest bacon curers in the world.
Try them, it will pay you. Orders now booked for
spring pigs. Some A 1 Clydesdale Stallions kept for
service. Imported and home-bred Colts and Fillies
for sale. 304-y-OM

PURE-BRED REGISTERED VICTORIA HOGS.
Choice young pigs, both sexes, from Geo. Davis' stock, sire a prize winner at Toronto. **Charles Brown, Drumquin P. O., Ont.** 306-y-OM

TAMWORTHS

Improved Large Yorkshires.

Our stock is all imported from the very best herds in England, and every pig traces to the English Herd Book. We offer for sale at lowest figures Boars and Sows of the above breeds and of all ages. Write for prices, or give us a call and see our stock. Over forty head on hand.

JAS. L. GRANT & CO.,
Ingersoll, Ont. 308-y-OM

NEW FALL WHEAT.

THE CANADIAN VELVET CHAFF!

Excels all other varieties in productiveness and hardness.

The exceptionally heavy yield of 1890 will be surpassed this season. The claims of the introducer more than borne out by present indications.

A Valuable Asset for the Farmers of the Dominion.

The history of this new wheat is briefly as follows:-

Some years ago the late Mr. William Weld, of the FARMER'S ADVOCATE, offered a prize of \$50 for four ounces of a new wheat which, after a fair test, would prove superior to the varieties in general cultivation, and the prize was awarded to Mr. J. B. Stone, County of Durham, Province of Ontario, for what is known as the CANADIAN VELVET CHAFF WHEAT. Mr. Weld had it carefully tested in the winter wheat-growing sections of the United States and throughout the Province of Ontario, and wherever it has been grown under the same conditions as other varieties its superiority has been apparent, both in regard to productiveness and hardness. In appearance the grain is large, more round and plump, and whiter than the Clawson; the head is long and close; the straw stiff and bright, and almost entirely free from rust, even under conditions most conducive to it. The yield of grain is exceptionally heavy in proportion to the straw. It fills freely, as many as 25 heads have been counted from a single root, and millers say that it combines the color and quality they are so much in need of in Ontario.

On the strength of Mr. Weld's representation, and the testimony of Mr. Stone and his neighbors who knew the wheat, we distributed 300 bushels of the Velvet Chaff last fall, and the reports we are daily receiving are of the most satisfactory character, which we are in a position to corroborate from careful personal inspection of the growing crops, and have, therefore, no hesitation in recommending it as the most valuable of recent introductions in new wheats, as the results of the present harvest will surely demonstrate. Until threshing commences, we are unable to give returns of the yield, but cite one instance of the result in 1890 on the farm of Mr. Robert McEwen, in Middlesex County, who sowed 20 bushels of seed on 13 acres and threshed 561 bushels, a return of 28 bushels for one, or 43 bushels per acre.

Natural Size.

Mr. Stone, the introducer, writes us that of 21 varieties under trial the present season the Velvet Chaff is far the best of all.

We are now booking orders, and will be in a position to commence shipping about the middle of August.

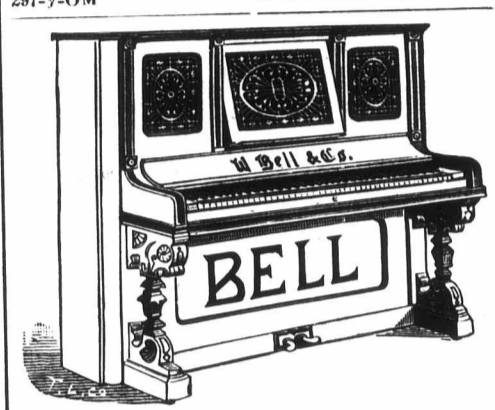
Price—By mail, post-paid, 1 lb., 20 cents; 5 lbs., 75 cents. By freight or express, 4 bush., 75 cents; 16 bush., \$1.25; 1 bush., \$2.25; 2 bush., and over, at \$2 per bush. Cotton bags, 25 cents each.

Send your orders to

JOHN A. BRUCE & CO.,
SEED MERCHANTS AND GROWERS,
308-a-O HAMILTON, ONT.

Graduated Prices. Recently Furnished.
LELAND HOUSE,

W. D. DOUGLAS & CO., Proprietors.
The Finest Hotel in the Northwest.
Corner City Hall Square, Main & Albert Streets,
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Pianos, Reed Organs & Church Pipe Organs

THE STANDARD INSTRUMENTS OF THE WORLD.

Send for Catalogue.

BELL ORGAN AND PIANO CO., Guelph, Ont.
297-y-O

THE ONLY PERFECT FENCE.

BEST STEEL WOVEN WIRE FENCING
64 cts. per Rod and Upward.

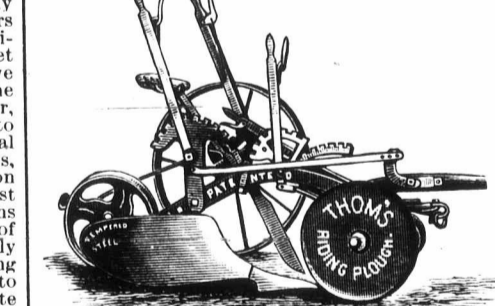


Twisted Wire Rope Selvage.
All widths and sizes. Sold by all dealers in this line. Freight prepaid. Information free. Write

The ONTARIO WIRE FENCING CO.,
Picton, Ontario, or to our Wholesale Agents,
The B. Greening Wire Co., Jas. Cooper,
Hamilton, Montreal.

Carvell Bros., Charlottetown, P.E.I.
No rigid twists. Wire galvanised before weaving. Perfectly adjusted for extremes of cold and heat. A complete barrier against all animals. No trouble to erect.
305-d-OM

THE LATEST AND BEST



CORN & ROOT CULTIVATOR

The old fashioned set and thumb screw adjustment

KNOCKED IN THE HEAD.
The width can be changed by lever while in operation, and crooked rows worked as well as straight, making it the most perfect implement of the kind. We manufacture the very latest

Improved Riding and Walking Plows
on the market.

Agents wanted. Correspondence solicited.
THOM'S IMPLEMENT WORKS, WATFORD, ONT.
Established 1875. 304-f-O

Ontario Veterinary College
Temperance Street, Toronto.

The most successful Veterinary Institution in America. All experienced Teachers. Session begins Oct. 21st. Apply to the principal, PROF. SMITH, V.S., Edin. TORONTO, CANADA. 273-y

The Grand Union Hotel
WINNIPEG, MAN.

Newly fitted and refurnished. First-class and thoroughly equipped with all modern improvements. Centrally located, and in the vicinity of the Opera House. Cuisine unexcelled in the Northwest, and under the management of an experienced chef. Graduated prices. Free omnibus.

303-y-O A. E. J. PERCIVAL, Proprietor.

HARTSHORN'S SELF-ACTING SHADE-ROLLERS
Beware of Imitations.
NOTICE OF AUTOGRAF OF STEWART HARTSHORN'S LABEL AND GET THE GENUINE HARTSHORN

ON 40 DAYS' TRIAL THE GREAT SPIRAL TRUSS

This Pad closes Hernia as if your extended hand was drawn together, closing the aperture. Truss is held positively without friction day and night, and healed like a broken leg. There is no duty to pay when received or returned, which many Canadians found more expensive than the truss. It is the easiest, most durable, and cheap Truss. Sent by mail. Send stamp for illustrated book.
CHAS. CLUTHE Surgical Machinist, 134 King St. W., Toronto.

W. & F. P. CURRIE & CO.

100 Grey Nun St., Montreal,
MANUFACTURERS OF

SOFA, CHAIR AND BED SPRINGS.

A LARGE STOCK ALWAYS ON HAND.

IMPORTERS OF
Drain Pipes, Vent Linings, Flue Covers, Fire Bricks, Fire Clay, Portland Cement, Roman Cement, Water Lime, Plaster of Paris, Borax, Whiting, China, Clay, etc. 277-y

GOLD MEDAL, PARIS, 1878.

GERMAN Sweet Chocolate.

The most popular sweet Chocolate in the market. It is nutritious and palatable; a particular favorite with children, and a most excellent article for family use.

Served as a drink or eaten as Confectionery, it is a delicious Chocolate.

The genuine is stamped upon the wrapper, S. German, Dorchester, Mass.

Sold by Grocers everywhere.
W. Baker & Co., Dorchester, Mass.

W. G. EDWARDS & CO.
IMPORTERS AND BREEDERS.



SCOTCH SHORTHORNS.

The imported Cruickshank bull **GRANDEUR** is at the head of this herd of imported and Home-bred Cows and Heifers of the most approved Scotch families.

ALEX. NORRIE, Manager.

ELMHURST STOCK & DAIRY FARM
CLARENCE, ONT.

Shorthorns, Shropshires and Berkshires
Our flock is from the choicest English flocks, headed by the ram sent out by Mr. Thos. Dyke, also milking Shorthorns with imported bull **PIONEER** at the head of the herd.

HENRY SMITH, Manager.

Laurentian Stock AND Dairy Farm.
North Nation Mills, P. Q.

Ayrshires, Jerseys and Berkshires.
Imported **EMPEROR** at the head of a grand lot of Imported and Canadian-bred Ayrshires; also St Lambert Jerseys and Imported Berkshires.

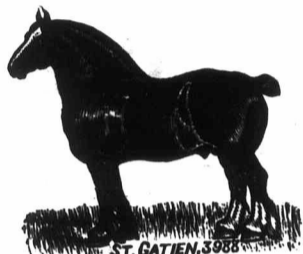
GEORGE CARSON, Manager. 303-y-OM

Imported Clydesdale Stallions and Mares for Sale.

Highest Prize Winners in the Leading Shows of Scotland and Canada, AND THE GET OF FAMOUS SIRES

Such as Lord Erskine, Darnley, Old Times, McCammon, Prince Lawrence, Lord Hopkin, Bold Magee, Sir Wyndham, Good Hope and Fireaway.

Prices Reasonable. Catalogues Furnished on Application.



ROBT. BEITH & CO.
BOWMANVILLE, ONT.

Bowmanville is on the line of the G. T. R., 40 miles east of Toronto and 294 west of Montreal.

IMPORTED AND REGISTERED

CLYDESDALE AND HACKNEY
STALLIONS AND MARES

CONSTANTLY ON HAND, AND FOR SALE AT REASONABLE PRICES



Our last importations comprise a large number of one, two, three and four-year-old registered stallions and mares, the gets of such sires as Macgregor (1487), Darnley (222), and Prince of Wales (673). Also a few choice **SHETLAND PONIES**. Correspondence solicited, and visitors always welcome.

GRAHAM BROTHERS
CLAREMONT ONT.

Twenty-five miles east of Toronto, on the C. P. R.

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SHROPSHIRE SHEEP
— AND —
COLLIE DOGS.



A choice lot of Ewes bred by Mr. David Buttar, Couper, Angus, Scotland; two Shear Ewes, imported last season, and their produce. Also Collie Dogs just imported.

W. E. BEATTIE, Wilton Grove, Ont.

SECTIONAL VIEW OF WHITE SELF-CONTAINED RETURN TUBE BOILER, SHOWING DRY PIPE.



GEO. WHITE & SONS,
LONDON.

This style of boiler is used with all our threshing engines, enabling our customers to produce abundance of steam with long, rough, cheap wood. We utilize water space surrounding and at back end of fire box in connection with our improved internal straw burner.

Manufactured only by **GEORGE WHITE & SONS, London, Ont.**



"Rogers' Peerless Machine Oil" is specially manufactured for Farm Machinery, for lubricating Pittman's Shafts, and all parts of Binders, Mowers, Threshing Machines, Etc. It is most economical. Also Peerless Axle Grease for Wagons and Gearing. Sold by dealers everywhere.

THRESHING MACHINES & HORSE-POWERS
(ONE, TWO AND THREE-HORSE)



Guaranteed to be "the best" Tread Horse-power Threshing Machine made, and takes the lead wherever introduced. Agents wanted. JOHN LAMMONT & CO., Manufacturers, Point St. Charles, Montreal, Que. E. G. PRIOR & Co., Agents, Victoria, B. C.; W. F. BURDITT & Co., St. John, N. B.; G. A. LEBARON, Agent, Sherbrooke, Que.

HALLADAY STANDARD WINDMILLS

For supplying constantly pure and fresh water for the following purposes, viz.:

- Pumping Water For Stock.
- Farm Buildings, Mansions, Villa Residences, Public Institutions, Gardens, Green Houses, Town & Village Water-works.
- Hôtels, Colleges, Pumping for Railway Stations, Fire Protection, Irrigation, Tanneries, Breweries, Sewage, Mines, Draining Low Lands.



These celebrated Windmills are made from one man to forty horse-power. They are perfectly controllable in gales, and uniform in speed. Catalogue and Price Lists with references are led free on application to

ONTARIO PUMP CO'Y,
TORONTO, ONT. 301-tf-OM

STOCK GOSSIP.

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

Dr. Patten, of St. George, has recently purchased from Mr. Arthur Johnston, of Greenwood, an excellent young bull to head his herd of Shorthorns. He is of the well-known Nonpareil sort, sired by the imported Cruickshank bull Indian Chief.

John Jackson & Sons, Abington, in a letter lately received from them includes the following:— I think we have the very best lot of sheep this year we ever had, and to keep up with the demand we are importing some extra good show sheep, including shearing rams, ram lambs and shearing ewes.

W. Goodger & Son, Woodstock, Ont., report that the demand for Large Improved Yorkshires continues. Recent sales:—Two sows to Joshua G. Lytle, Dorking, Ont.; boar to W. O. West, Jericho, Ont.; boar and sow to W. J. Evans, Middlemiss, Ont.; boar and sow to W. F. Stephen, Front River, Quebec; boar and two sows to George Pettes, Garland, Quebec; boar and sow to Peter G. Brown, Wallace Bay, Nova Scotia. We also have a few boars old enough for service this fall for sale.

Mr. Arthur Johnston, of Greenwood, reports Shorthorn matters slowly but steadily on the mend. A greater number of good men have been enquiring for Shorthorns of the best class during the past winter and spring than at any time during the past four years. For young bulls prices have ruled low, but the demand has been healthy and continuous, and all (or nearly all) fit for immediate service have been sold in these parts at moderately paying prices. Females are in somewhat better demand than they have been for some years; but breeders have still many good young females for sale at very reasonable prices. All sorts of crops are good in these parts.

Mr. J. M. Hurley, Belleville, Ont., reports the following spring sales of Improved Yorkshires:—C. J. Massy, Woldbridge, pair; J. M. Farley, Belleville, pair; C. W. Nevele, Newburg, boar; F. W. Payet, Deleco, boar and two sows; J. V. Cooper, Picton, boar; William Kerr, Madoc, pair; W. H. Preston, Stella, boar; Moser, Yearox, Shannonville, pair; Alex. Hume, Burnbrae, three sows; D. O'Shea, Melrose, pair; John Stokes, Thomasburgh, boar; Dawes & Co., Lachine, Que., boar. The sows are doing well. We will have a lot of early fall pigs. Besides these I have shipped pigs to the counties of Essex, Northumberland, North Hastings, Drummond, Prince Edward, Frontenac and the State of Michigan.

Mr. John A. Line writes us that his Holsteins are all doing well, and reports a trade as having been very brisk this spring, his entire stock of young cattle having found ready sale at fair prices. Among his sales have been the following:—To Thos. H. Parkes, Esq., Amherstburg, Ont., the yearling heifer Clara and a choice heifer calf; Geo. Irwin, Esq., Cookston, Ont., the bull calf Karon; Hy. Irwin, Esq., Cookston, Ont., the three-year-old heifer Tillie Neptune. This, Mr. Line adds, is a very promising heifer, and in her Mr. Irwin gets a good one. Mr. Line has also sold a number of high grade heifers, and he adds that all these sales were made through his advertisement in the FARMER'S ADVOCATE, proving, to his satisfaction, that advertising in the ADVOCATE pays well.

A. C. Hallman & Co., New Dundee, Ont., write as follows:—We again take pleasure to announce that our Holsteins are doing nicely, and the demand as strong as ever. We sold all our bulls of serviceable age, and quite a number of females. Among the sales most recently made was a very choice two-year-old heifer, Pride of Waterloo, and her calf, to Peter Dunn, Ingersoll. Mr. Dunn reports that he is well pleased with the heifer. We also sold a very choice heifer calf to C. E. Kent, Kingscraft, P. Q. This calf is got by Royal Canadian Netherland (a son of Netherland Prince), and dam Mina Rooker 3rd, she by Prairie Aggie Prince. The calf has most excellent breeding, and quality quite as good. Mr. Kent never saw the calf before it reached him and is highly pleased with it. We again intend to exhibit at Toronto this fall. We purpose to show an average sample of our herd, and we trust those that make enquiries for stock and prices and do not come to see the herd at home will kindly favor us with a call at Toronto.

Smith Bros., Churchville, Ont., write as follows:—Since sending you our last list of sales of 24 head for six months, we have sold 8 head more, of Holstein cattle. Mr. S. Flock gets two yearling heifers in calf, Janus Aaggie and Lady Ovsterzee 2nd. These are two of the most promising heifers in our herd—beautifully marked, and of best quality and breeding—Erie Belle 2nd's Queen, a very fine young heifer, of true dairy build and extra good breeding, backed up with records. Aaggie Gem 2nd Mercedes Queen, a beauty, rich in the Aaggie and Mercedes strains. Mountain Princess Mink Mercedes will give a good account of herself at the pail, churning, and in the show ring; and Harmonia's Mink Mercedes comes from Harmonia, who gave 51 lbs. of milk in a day as a two-year-old, and as a four-year-old gave 163 lbs. of butter. This heifer is a great one, and from our Mink's Mercedes Baron. To head this herd Mr. Kent has wisely selected a young bull, rich in the two best butter strains, the Mercedes and the Netherland. He is called Netherland Mink Mercedes King. Richness and beauty are his prominent qualities. Dina of the Pines and calf go to Mr. P. Allin, who has in them a good pair. Dina of the Pines gave us 10,983 pounds of milk in ten months. She is one of the kind that keep at it most of the year. We have lots of good ones yet, and our prices are right.

JERSEYS FOR SALE

Twenty-five Daughters of Nell's JOHN BULL, A. J. C. C., at prices to suit the times. All are registered or eligible to register in A. J. C. C. One or two years old. This is a grand lot out of business cows. Their sire is grandson of Ida of St. L., the largest milking Jersey in the world, 87 lbs. in one day, and made 30 lbs. 2 1/4 ozs. butter in seven days. Her full sister, Allie of St. L., is second largest milking Jersey, 82 1/2 lbs. in one day, and made 26 lbs. 12 ozs. butter in one week. His sire was the famous prize-winner, "Canada's John Bull." Nell's "John Bull," as well as being richly bred in milk and butter strains, is individually good, having won at last Toronto Fair first prize in his class and sweepstakes silver medal as best bull any age, in a class of good ones. At Hamilton he won diploma as best bull any age, and diploma as best bull with four of his get. We have about sixty head of Welsh Blood Ponies, all ages. These ponies are superior to any other breed for women or children, being free drivers and gentle. We have taken first wherever they were shown. Prospective buyers would do well to visit our herd and learn prices. Visitors will be met at station upon giving one day's notice.

307-d-OM
GEO. SMITH & SON, Grimsby, Ont.

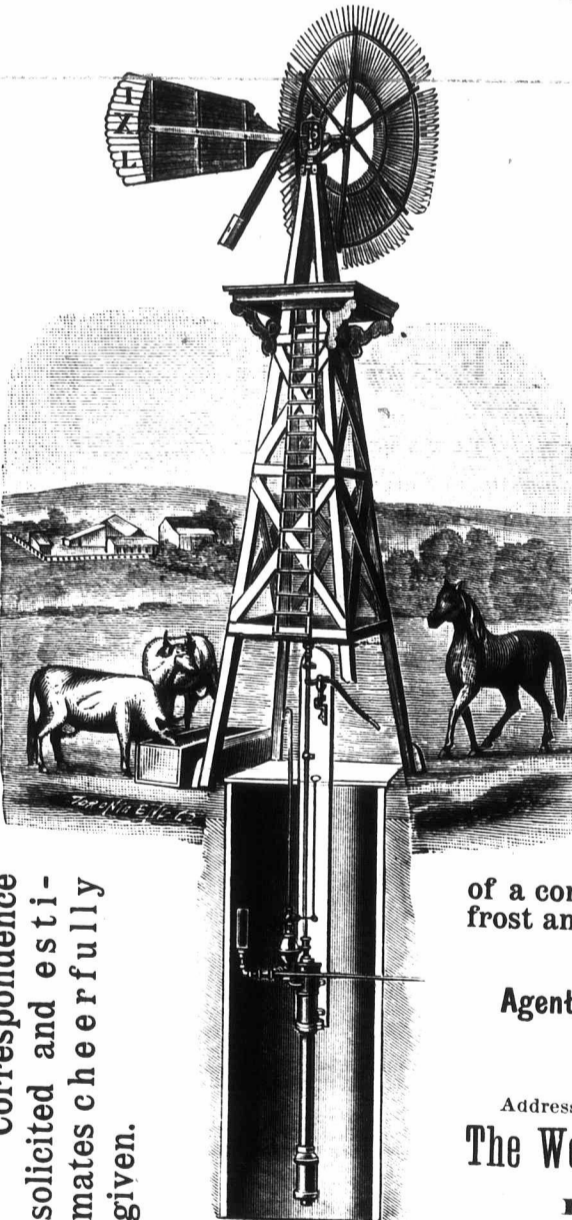
ONTARIO AGRICULTURAL COLLEGE

WILL RE-OPEN ON THE 1st OF OCTOBER.

This Institution furnishes, at very small cost, just the kind of education needed by young men on the farm. Full courses of lectures on Agriculture, Horticulture, Live Stock, Dairying, Chemistry, Geology, Botany, Insects, etc., with practical instruction in English, Book-keeping, and those branches of Mathematics which are most needed by farmers.

For Circular, giving full information as to terms of admission, cost, etc., apply to
JAMES MILLS, M. A.,
President.

307-c-OM



THE I. X. L. WINDMILL
IS UNEQUALED FOR
Strength, Durability and Simplicity.

We never had a mill blow down. Never freezes in winter or gums in summer. No chains, springs or pulleys to break and get out of order. It never pumps when out of gear, is a perfect self-regulator, with uniform and noiseless motion, and can be made to supply any number of tanks required, and force the water in each to entire satisfaction. When the tank gets full the valve will close, and no more water can get in until the water is lowered in the tank. With the I. X. L. Windmill and our underground frost-proof self-acting pumps any premises can have all the advantages of a complete waterworks, safe from frost and at a very small cost.

Agents wanted everywhere in the Dominion.

Address—
The Wortman & Ward Mfg. Co.,
LONDON, ONT.

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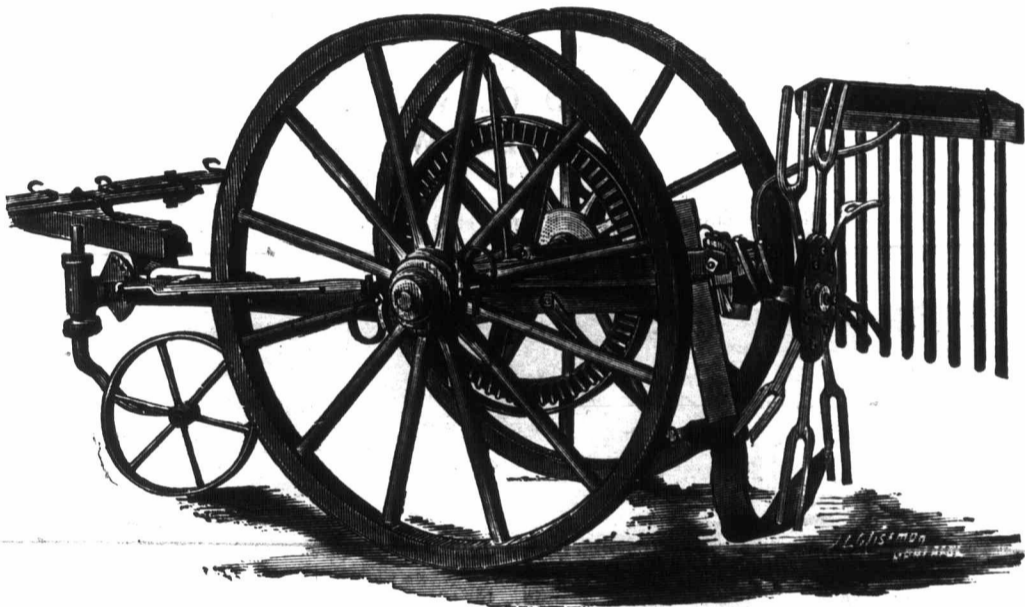
Correspondence solicited and estimates cheerfully given.

Have you any idea of attending a Business College the coming season?
DO YOU KNOW THAT THE



FOREST CITY BUSINESS COLLEGE, LONDON, ONT.
has earned a reputation for practical work? College reopens Sept. 1st. Catalogue upon application.
308-a J. W. WESTERVELT.

MOODY'S POTATO DIGGER.



Do you cultivate your potatoes in drills and keep the drills well filled up? If so, we have a machine which would give great satisfaction on your farm. To get the best work out of this machine, the potatoes should also be sown as shallow in the drills as possible. Given these conditions, we will guarantee that this machine will dig out the potatoes in a satisfactory manner. We have been making this digger for ten years, and given full satisfaction to the purchasers. It is a two-horse machine. The machine will not dig out potatoes which are cultivated otherwise than as above.

MATTHEW MOODY & SONS,

Write for prices, etc.

308-a

Terrebonne, P. Q.

SOMETHING NEW

DO YOU FEED YOUR STOCK?

Notwithstanding anything you may hear we are manufacturing

THE LARGEST LINE OF IMPLEMENTS IN CANADA

Binders, Reapers, Mowers, Rakes,

ENSILAGE AND FEED CUTTERS,

Root Cutters and Pulpers, Grain Grinders,

HORSE-POWERS, JACKS,

Bag Barrows, Turnip Drills, Knife Grinders, Farm Trucks, Pea Harvesters, Clothes Mangles, Lawn Rollers, Vases and Settees.

We have dispensed with all salaried agents in Ontario west of Ottawa, and you can save at least 20 per cent. by writing us direct for what you want. DEAL DIRECT AND SHUN AGENT'S FEES.

ENSILAGE CUTTERS.— We claim to make the best Ensilage Outfit in Canada. Write us for particulars and Treatise on Silos and Ensilage.

Large Illustrated Catalogue mailed free on application.

Watson Mfg. Co., Limited,

AYR, ONTARIO, CANADA.

308-a-0

STOCK GOSSIP.

Messrs. Shore Bros., White Oak, Ont., inform us that they have Shropshire sheep of all ages on hand. See advertisement.

Bollert Bros., of the Maple Grove Stock Farm, report that their late importation (Colanthus Abbekerk) was released from quarantine, and arrived safely at home on July 9th. He came through in perfect shape, and, considering everything, they believe him to be the finest bull of the breed in Canada. He is large, broad and straight, with perfect top and bottom lines; he has a fine head, with beautiful yellow, in and downward curved horns, and his orange yellow skin and perfect handling clearly show his immensely rich breeding. He is, so far as we know, the only bull in Canada containing the blood of the great Mechtchilde, the Queen of all the Holsteins. His sire is the famous and unbeaten Colanthus Sir Henry, he by Sir Henry of Maplewood, out of the famous Colantha, his dam Alberta Abbekerk 2nd, by Sir Mechtchilde out of Alberta Abbekerk, winner of second prize at Buffalo International Fair for producing most butter in twenty-four hours, competition open to all breeds and the world, her stable mate taking first. The following week she took first in Detroit, in same class, beating her mate. Colanthus Abbekerk's nearest ancestors are Alberta Abbekerk, milk record 88 1/2 lbs. in a day, 11,004 lbs. in six months, and 20 lbs. 6 1/2 oz. butter in 7 days; Colantha, with 70 lbs. milk in a day at three years old and 21 lbs. 9 oz. butter in seven days; Mechtchilde, with 112 1/2 lbs. milk in a day, 2,800 lbs. in 30 days, and a butter record of 39 lbs. 10 1/2 oz. in seven days, 202 lbs. in 60 days; Matador, with a milk record of 95 lbs. in a day, and such sires as Colanthus Sir Henry, Sir Henry of Maplewood, Sir Mechtchilde, Constantyne, Abbekerk, Empire, and Billy Boelyn. All of these animals are undefeated prize-winners at the greatest shows in America and Holland. In crossing this bull on our fine imported cows and Barrington helpers we expect great results. Our stock is doing very nicely. All our matured cows gave from 70 to 77 1/2 lbs. milk in a day from 2 to 4 months after dropping their calves. Geldertje gave a little over 2,300 lbs. in 30 days. Our calves are a fine lot—better than we ever before had. Sales this spring were very numerous to all sections of the Dominion, and the demand still keeps up. We have decided not to exhibit at any of the shows this fall, but shall be pleased to see all our friends and lovers of fine stock here to inspect our herd.

NOTICES.

We direct our readers' attention to the advertisement of Messrs. Jno. A. Bruce & Co. of Canadian Velvet Chaff Seed Wheat. Messrs. Bruce & Co. are considered one of the most reliable seed houses in Canada.

F. D. Cooper, Real Estate Agent, Rosser avenue, Brandon, is a great hustler. Like all other western men, he wants the farmers of the east to know there is a gentleman in Brandon selling farms and city lots that can be depended upon doing the square thing.

In another column will be found the advertisement of J. Y. Ormsby, V. S., who is now entering the lists as an auctioneer. He intends making a specialty of sales of pure-bred stock of all kinds. Catalogue work, searching and tracing pedigrees will also be attended to.

In a communication lately received from Messrs. Wm. McCraft & Son, Sparta, they state that their sheep have done exceedingly well. The flock now numbers ninety head, and they are open to supply Shropshire sheep of all ages. Their Improved Yorkshires have been unusually prolific, and two of their imported sows have fine litters, which are now ready for sale.

We have inspected W. H. Vantassell's spraying pump and agricultural syringe and veterinary syringe combined, and consider it a most serviceable implement. It is made of polished brass, and should prove durable. With this outfit the farmer or gardener is in readiness to fight insect pests on his trees and plants, and also has on hand an implement of the best kind to use as an injection pump; and is also just what is required for washing windows or buggies. We hope to give a cut of this outfit in a future issue. His address is Belleville, Ont.

Watson Mfg. Co. (Ltd.), established 1847, consists of Jno. Watson, sr. and three Sons. They have one of the finest works in Canada, and are in a position to fill all orders entrusted to them. A new departure, as an experiment in Ontario, of dispensing with all salaried agents and dealing direct with the farmer has been adopted, and prices will be reduced accordingly, thus farmers will get the benefit of amounts formerly paid to agents. In former years a large percentage had to be added to cover the long-winded credit system. The Watson Co. will sell for cash, or short time paper only. In this way prices have been greatly reduced, and the machines will reach the farmer at a fair advance on cost. The Watson Co. for the present are making a specialty of stock feeders' implements, and have already shipped over 150 ensilage outfits from P. E. Island to British Columbia, with elevators ranging from 10 to 45 feet in length. The Co. also issue a neat catalogue, fully describing the silo and ensilage, which is mailed free to all who apply for it. There is no truth whatever in the report that the Watson Co. intend going out of the business, but with the new system of dealing direct with the farmer, at greatly reduced prices, they hope, and certainly should, increase their business. They will exhibit a full line at Toronto this fall.

THE PEOPLE'S KNITTING MACHINE.

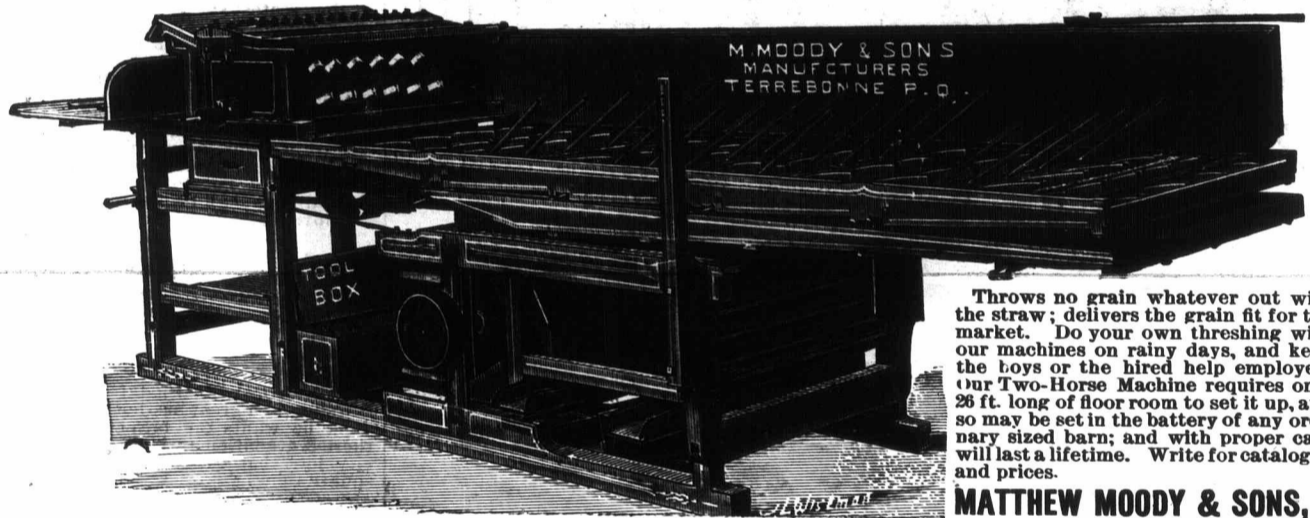
Will knit Stockings, Mitts, Scarfs, Leggings, Fancy-work and everything required in the household from homespun or factory yarn. Simple and easy to operate. Just the machine every family has long wished for. On receipt of \$31 will ship machine, threaded up, with full instructions, by express C. O. D. You can pay the balance, \$4, when machine is received. Large commission to agents. Circular and terms free. Safe delivery and satisfaction guaranteed. Address
Mention FARMER'S ADVOCATE when writing.
CARDON & GEARHART, Dundas, Ont.



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Business University

The Leading Business Training Institution of America, educates young men and women to earn, save and invest money and accumulate wealth. Business, Shorthand, Type-writing, English, Penmanship, Languages, Elocution and Mechanical Drawing Departments. Send for illustrated catalogue. Business University Building, 11 to 19 Wilcox Avenue, Detroit, Mich.
P. R. SPENCER, Secretary. **W. F. JEWELL, President.**

NEW THE STEELE BROS. CO., TORONTO
OFFER THE FOLLOWING VARIETIES:
**CANADIAN VELVET CHAFF,
EARLY RED CLAWSON,
JONES' WINTER FYFE,
AMERICAN BRONZE.**
Send AT ONCE for circular and prices; a post card will do. 308-a-0



308-a

SHOWING INSIDE OF THRESHER.

Throws no grain whatever out with the straw; delivers the grain fit for the market. Do your own threshing with our machines on rainy days, and keep the boys or the hired help employed. Our Two-Horse Machine requires only 26 ft. long of floor room to set it up, and so may be set in the battery of any ordinary sized barn; and with proper care will last a lifetime. Write for catalogue and prices.

**MATTHEW MOODY & SONS,
TERREBONNE, QUE.**

WESTERN FAIR
LONDON, ONT., SEPT. 17 to 26, 1891.

CANADA'S FAVORITE LIVE STOCK AND AGRICULTURAL EXHIBITION!

Arrangements are completed for a larger and more attractive exhibit than ever. Exhibitors should make entries as early as possible. Space and stabling will be allotted in the order received. **ENTRIES CLOSE SEPT. 12th.** Manufacturing in the Main Building will be exceptionally interesting this year. Special attractions, including speeding in the ring, will surpass anything before offered to the public. For Prize Lists and information apply to

CAPT. A. W. PORTE, PRESIDENT. **THOS. A. BROWNE, SECRETARY.**

LAND FOR EVERYBODY.
FREE GRANTS OF GOVERNMENT LAND. CHEAP RAILWAY LANDS FOR SALE ON EASY TERMS.
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Far ahead of all others. Will yield 10 bushels per acre more than Clawson, on the same soil. It is the *hardest* of all winter wheats; straw bright and stiff; head large, long and square; grain very plump and heavy. On the same soils, and in the same fields, under similar conditions, it has yielded during the past season seven bushels per acre more than Early Red Clawson, Manchester or Surprise, ten bushels per acre more than Golden Cross, Volunteer or Hybrid Mediterranean. During the last two years it has been thoroughly tested in all fall wheat growing sections in Ontario and has proved itself the best wheat in cultivation. It does well on all soils where fall wheat will grow and *will winter* where others are "killed out." Taking the entire acreage sown in the province last fall the Canadian Velvet Chaff will make an average yield of seven bushels per acre greater than any other fall wheat sown in the Province of Ontario.

READ TESTIMONIALS BELOW.

Norham, July 24th, 1891.
The 15th of last September I sowed a field of sixteen acres to wheat to three different varieties. The part of the field best calculated for wheat I sowed to the Clawson wheat, the second part of field I sowed to Golden Cross, the poorest part, and the part of the field which lies the lowest, I sowed to the Canadian Velvet Chaff seed, bought of J. B. Stone. I am sorry I did not sow the whole field to the Velvet Chaff, as it promises a much better yield than the other varieties, and I am sure it stands the winter much better than any other variety I have sown for many years.
G. B. BOYCE,
Member of Advisory Board, Guelph.

Brooklin, Ont., Aug. 1st, 1891.
I have carefully examined the fields of Canadian Velvet Chaff growing on the farms of the Hon. John Dryden, Minister of Agriculture, and a number of his neighbors and believe that they are far better than any others in the County of Ontario. Both Mr. Dryden and myself are highly pleased with this wheat. It far out yields the Clawson or other sorts in this section.
CHAS. CALDER,
Deputy Reeve, Whitby, Ontario County, Ont.

Warkworth, July 24th, 1891.
I have tried the Canadian Velvet Chaff Wheat and am highly pleased. I am well satisfied by the appearance of it. It is the wheat to be depended upon for our use with regard to winter killing and its productiveness.
B. R. JONES.

Brighton, July 24th, 1891.
The business I am in causes me to travel over quite a large portion of this county and also into many fields of wheat, and I have no hesitation in saying that the Velvet Chaff Wheat growing on Mr. Stone's farm will yield from five to ten bushels per acre more than any other variety I have seen.
D. C. STUART,
Machine agent for Frost & Wood; member of the Township Council, Brighton.

I have this day sold my crop of Canadian Velvet Chaff Wheat to the following seedsmen, who will offer same for sale.
J. B. STONE, Norham, Ont.

JOHN A. BRUCE & CO., Hamilton. JOHN S. PEARCE & CO., London. THE STEELE BROS. CO., Toronto.
R. EVANS, Hamilton. WM. RENNIE, Toronto.
Price—1 lb., post-paid, 20c.; 5 lbs., post-paid, 75c.; per peck, 75c.; 1-2 bush., \$1.25; 1 bush., \$2.25; 2 bush. or over, \$2.00. Bags, 20c. each, extra.

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In 1890 there were under crop 1,082,794 acres. In 1891 there were under crop 1,349,781 acres.
Increase 266,987 acres.
In 1890 there were under wheat 748,058 acres. In 1891 there were under wheat 916,684 acres.
Increase 170,606 acres.

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Thrive wonderfully on the nutritious grasses of the prairie, and, in fact, MIXED FARMING is now extensively engaged in all over the Province. There are still

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Minister of Agriculture and Immigration,
WINNIPEG, MANITOBA.

Or to
THE MANITOBA IMMIGRATION AGENCY,
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We call attention of Threshers throughout Canada, who are close SPOT CASH buyers, to the following list of supplies. The rubber goods which we offer below are made by the well-known Canadian Rubber Co., of Montreal and Toronto. They need no recommendation from us as their goods are first-class in every respect. We give prices right here. Our terms are very simple. We send no goods unless the money is sent with the order. Send money by registered letter or P. O. order. Our system of doing business is very exact, but our prices are correspondingly low.

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100 feet 6 inch 4-ply Extra Star Belt.....	\$25
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110 " 6 " 4 " " " " " (endless).....	\$28
120 " 6 " 4 " " " " " (endless).....	\$30
130 " 6 " 4 " " " " " (endless).....	\$32
110 " 5 " 4 " " " " " (endless).....	\$25
110 " 5 " 4 " " " " " (endless).....	\$27
120 " 5 " 4 " " " " " (endless).....	\$30
110 " 5 " 4 " Extra Heavy Star Belt.....	\$32

2 inch 4-ply hard rubber suction hose, in lengths of 12 1/2 feet, price \$8.75 per length; 1 1/2 inch 4-ply hard rubber suction hose, in lengths of 12 1/2 feet, price \$7 per length; 3/4 inch 4-ply suction hose, in any length, 18c. per foot; 1 1/2 inch 2-ply rubber carrier belting, per foot 5c.; 2 inch 2-ply ditto, 7c.; rubber packing, 25c. per lb.; hemp packing, 20c. per lb.; asbestos packing (wicking), per ball 15c.; asbestos rope packing, 50c. per lb.; babbit metal, 12c. per lb.; best lace leather, 65c. per lb.; best cut belt laces, 75c. per lb.; copper rivets and burrs, 35c. per lb.; tinned rivets and burrs 25c. per lb.; goggles in wire, white, green or blue glass, at 7c. per pair; belt punches (for No. 8 rivets), 13c. each; blue clout nails, 3/8, 1, 1 1/4 inch, 12c. per lb.; turned clout nails, 7/8, 1, 1 1/4 inch, 15c. per lb.; black oil, per barrel, \$4; best American machine oil, by the barrel (about 48 gallons), 30c. per gallon; American machine oil, in 4 gallon cans, price (can included), \$1.75; cylinder oil in four gallon cans, price (can included) \$3.50 each; small machine oilers, 15c.; best threshers' oilers, 50c.; double jack chain for carriers, standard size, 9c. per yard; extra heavy, 11c. per yard; very best threshers' feeding mitts, made of calf skin, for 60c. per pair; best leather belting, per foot, 1 1/2 inch, 8c.; 2 inch, 11c.; 2 1/2 inch, 13c.; 3 inch, 16c.; 3 1/2 inch, 20c.; 4 inch, 23c.; 4 1/2 inch, 26c.; 5 inch, 30c. Try the experiment of buying goods cheap for spot cash. No goods sent unless the money is with the order. We ship promptly, and all goods put on board cars at Hamilton without charge. We pay no freight and allow no cash discount. Send for catalogue of \$16 road carts and 1,000 lb. scales for only \$12.00 each.

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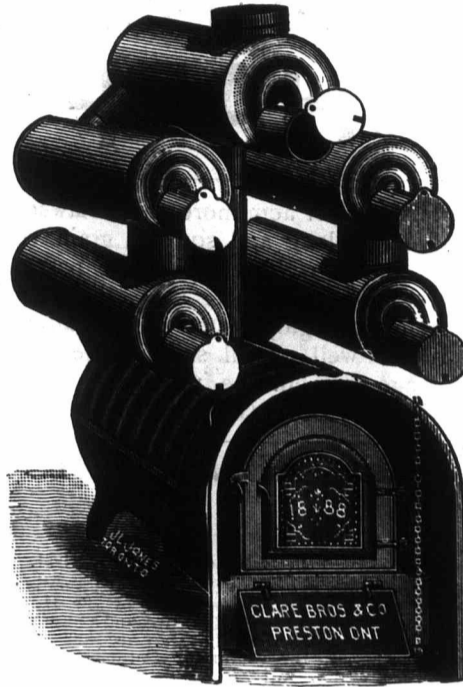
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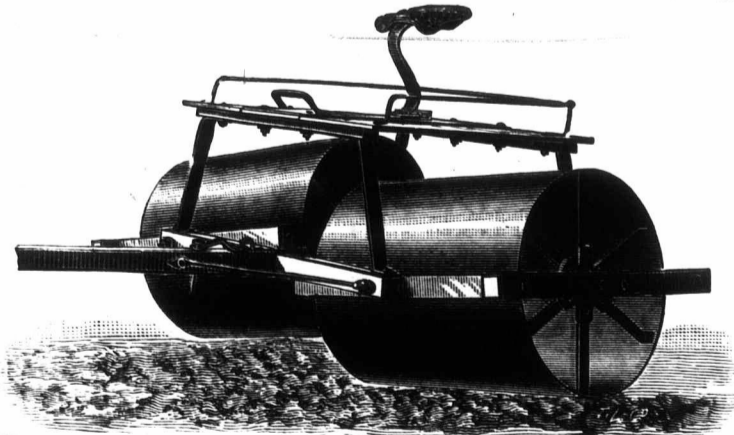
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A STEEL ROLLER, THE DRUMS OF WHICH OSCILLATE ON PIVOTS AND ADAPT THEMSELVES TO THE UNEVENNESS OF THE GROUND.

Its points of advantage are too many to enumerate. Some of them are:



The bearings are the only wearing parts and are guaranteed to last from ten to fifteen years, and can be replaced at a nominal cost.

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