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JULY

1890.



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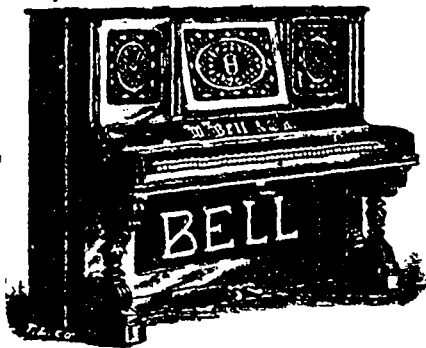
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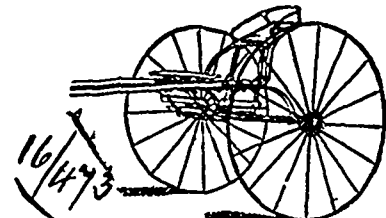
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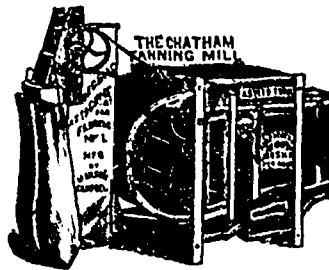
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Niagara, Sept., 1889.

(Signed)

JAS. ROBINSON.

DOMINION FERTILIZER AND CASING WORKS, Hamilton, Ont.

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Niagara, Jan., 1890.

(Signed)

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THE CANADIAN LIVE STOCK AND FARM JOURNAL

Devoted to the Interests of the Stock-Raisers and Farmers of Canada.

VOL. VII. No. 7.]

TORONTO, JULY, 1890.

[WHOLE No. 81



GROUP OF IMPROVED LARGE YORKSHIRES.

Imported and owned by The Ontario Agricultural College, Guelph.

Our Illustration.

The above sketch is a most life-like one of a group of Improved Large Yorkshire pigs recently imported by the Experimental Farm, Guelph. It comprises three of a lot of five which arrived at the above institution about the 1st of June. They are now about nine or ten months old, and have not been injured by forcing with overmuch feed. Two of them were bred by George Charmock, Tello Lane, England, and three by Joseph Ashworth, The Rookery, Sheffield. As will be noticed in the sketch, they represent distinct lines of breeding, for with pigs there are families of our breed with characteristics quite as distinctive as we find in the different families of cattle of a particular breed. Some are characterized by rather more length of body than the others, and possess hair finer and less in quantity. These sows are all in farrow to sires of rare merit. It is expected therefore that the Experimental Farm will have a very large lot of pigs for sale next autumn, both of the Improved Large Yorkshire and Berkshire breeds. These, we

are informed, will be sold either by private sale or by auction, when the autumn sale comes off.

The Improved Large Yorkshires are very popular at the present time with the packers, as they furnish a large amount of bacon well intermixed with fat and lean. They possess long bodies, shoulders a little light, and hams long, broad, and deep, with backs level or slightly arched, and sides long and level. In bone they are medium, rather strong than fine, and they possess wonderful powers of development. No difficulty whatever need be experienced in getting them ready for market at from six to seven months, when they should weigh from one hundred and fifty to two hundred pounds with a generous but not necessarily a forcing ration.

The Improved Large Yorkshires, or Large Whites as they are called in England, are one of the most popular breeds in the country at the present time, and judging by present indications they bid fair to occupy that position in Canada, owing to their adaptability to the wants of the packers, as guided by the tastes of the consumers.

"Holywell Windsor."

Through the courtesy of the *English Live Stock Journal*, we are enabled to present to our readers a portrait of another Improved Yorkshire, namely "Holywell Windsor." This fine boar, one of the very finest specimens of the breed ever produced, was bred and is owned by Mr. Sanders Spencer, of St. Ives, Hunts, England. Mr. Spencer is one of the most successful hog-breeders in England, and is no less able by his pen to convey the stores of his information to his fellowmen, than he is to direct the affairs of his large stock-breeding establishment. Perhaps more than any other person has he been instrumental in popularising the "Improved Whites," and getting their merits recognized by breeders generally, as they have long been by pork-packers and curers. Mr. Spencer writes us that since January 1st he has sold 235 boars and yelts, sending them to 13 foreign countries. The portrait of "Holywell Windsor" was taken when he was only 16 months old. Since that time he has improved immensely, and is now 3 feet 3 inches high and stands only 9 inches from the ground, while his weight is nearly half a ton.

THE Canadian Live Stock and Farm Journal

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TORONTO, JULY, 1890.

Original Plans, Devices, and Ideas.

If you have an original plan, device, or idea, that you think would be of benefit to your fellow farmers or stockmen, turn to our March number and see how we will pay you for it if you send it to us for publication. Space forbids us printing the whole scheme in full, as usual. We would refer those desiring to know more of this to our January, February, and March numbers, where the premiums are given in full with complete particulars.

INTELLIGENT breeding and skilful feeding are the two rails on the main line over which speeds the progress of the live stock industry

In the official report of the Shire Horse Show of Great Britain, written by Sanders Spencer, the fact that the prize winners of the year were drawn from as many as eighteen counties is instanced to indicate the cosmopolitan nature of the Shire.

SHEEP are effective and active weed destroyers, but it is doing them a grievous wrong to say "they will live and thrive on the wastes of the farm." The outgrowth of such belief is to be seen in the pack of hair and bale of bones that goes shackling along some of our roadways. Meet sheep half way and they will go the rest of the way with you to your profit.

THE London Omnibus Company found that three thousand horses fed on sixteen pounds of ground oats, seven and one half pounds of cut hay and one half pound of cut straw did as much work and kept in as good condition as another three thousand fed on nineteen pounds of whole oats and thirteen pounds of uncut hay; thus saving by grinding the grain and cutting the feed six pounds of feed per day or a saving in the feeding of six thousand horses amounting to three hundred dollars per day.

WHAT constitutes a Canadian-bred animal? The Clydesdale Association says that a Canadian-bred horse is one that does not trace on the side of the dam to an imported mare. Persons who cannot see the force of debarring the dam from being imported while the sire may be an importation, hold that the term should apply to one mated, foaled, and reared in Canada. The term is of such general use in all departments of live stock that its definition is worthy

of thorough consideration, and while it is within the province of the different associations to interpret the term as they deem proper, yet it would be well for such terms so universally used to have a meaning alike in all cases. While thinking that the latter interpretation is the more literal and perhaps the best, we would yet like to hear an expression of opinion from those who have thought over the matter.

RECORDS are about to be established, the *Aura-Neu Yorker* tells us, for the registration of fast walking horses, similar to the records that have proved so valuable to breeders of trotting stock. Mr. John W. Aiken, of Scipio, New York, wisely comments as follows: "Anything that creates an interest in a record for fast walking horses must do good. I believe fast walking is a matter both of breeding and training. Colts can be trained to walk fast by being led alongside a fast-walking horse or behind a fast-walking team. As soon as old enough for the harness, each should be driven with a fast-walking mare until the habit is firmly established. A very large percentage of draft animals, however, need no particular training in this direction. Medium-sized Percherons are, as a rule, remarkably fast walkers. Fast walking is of peculiar value to most purchasers of draft stock."

EUROTISSIMA, the Jersey that made a record of 945 lbs. 9 oz. of butter in a year, was fed at the beginning, 24 pounds of grain per day, consisting of one-third each of corn meal, ground oats, and wheat middlings. After one month this was reduced to 21 lbs. in same proportions. At the end of four months bran was fed instead of the middlings, with advantage. The grain was usually mixed with cold water and part spread upon hay or silage. In addition to the grain, she was given during the season, about three hours per day of fair pasture and what hay she would readily take. She was given exercise every fair day when put in the stable, and her feed then was cut and steamed hay and silage, generally some of both, and part of her grain ration mixed with it. She was given all the hay she would readily eat, and about half a bushel of silage, and each day a peck of carrots or beets, the former preferred.

Clover Hay for Horses.

It is the universal opinion that nothing can surpass clover hay as a food for cows, but there is a strong feeling against using it for horses which cannot be accounted for otherwise than by calling it a prejudice nursed by the difficulty in curing the clover crop successfully. For years back one of our most successful stockmen has been feeding cut clover hay, and he is very enthusiastic over the practice. He feeds his working horses each, in round numbers, a ration of twenty pounds of cut clover hay and ten pounds of shorts and bran. The curing of clover is one of those operations of the farm which give birth to opinions as various and many as the different physical conditions of our farms. We have given various methods followed, and now add that first given by Mr. Brown, of Ohio, and now followed by many: "Cut when there is no external moisture, preferably, in the afternoon, and let it be in the swath until about 11 o'clock the next day; then the swaths are turned over, leaving them as loose as possible so the wind can blow through them. Two, or at most three hours later the rake is started and followed immediately with the forks loosening the windrows. An hour later it is turned and at once put into small cocks. If

it is good hay weather this clover will feel to the hand perfectly dry, but if put into the barn at this stage it will heat and must. By standing in the cock until near noon the next day, it will feel quite damp and perhaps slightly warm, and if it is opened and dried a second time in the middle of the day, two hours will finish the airing, and give the best quality of bright sweet hay."

Feeding Pigs for Market.

The market asserts in language intelligible to the dullest and heaviest ear, that pork should be made from pigs, not hogs. The fact is equally plain that the greatest profit can be made only by breeding and feeding for early maturity and moderate weights. At the Vermont Experimental Station it was found that pigs of 150 lbs. yielded a profit above food consumed, but that profit ceased as soon as 208 lbs. was reached. To bring the pigs up to 150 lbs. in the shortest time possible is the best paying aim for the farmer to have before him. To have pigs fit for the market when six months old requires that they be kept steadily growing until about four months old, and then for the remaining two months give their whole time to filling out. For pigs either fattening or breeding there is no foods that receive such universal praise as bran and shorts feed in a thick slop with milk. Waldo F. Brown, in whose judgment we have faith, has found that he gets best results from one pound of old process oilmeal mixed with about ten pounds of bran and shorts given in a slop freshly mixed each day, so as to control fermentation, and salted to help the flavor. He says that where oats are as cheap as other foods he would make the mixture five pounds of ground oats, five pounds of bran, and five pounds of shorts or middlings to one pound of oil meal, and if five or ten gallons of milk can be added to the ration for even one hundred pig, it will help the flavor of the swill, or if a half bushel or a bushel of potatoes can be boiled and mashed and mixed with it, it will be a good addition to it. Succulent food, such as clover and pumpkins, will do much to make the pigs thrifty by keeping their system in good order. To make pork economically there is nothing to equal clover, milk, bran and shorts. As the above authority says the small farmer who can combine dairying with pig growing ought to put from 25 to 50 pounds more upon a six months old pig than the farmer with a hundred or two, who has no milk for them.

Fall Litters.

The major advantages of raising two litters of pigs a year, one in the spring and the other in the fall, from the same sow, are very plainly stated by a correspondent in the *Swine Breeders' Journal*, who has followed this course for some time. Among the strongest points urged by him may be noticed the assertion that they are less likely to become barren, and that they make better nurses, and also do better in many ways if two litters are raised. He claims that he has less trouble with his sows, less danger of accidents, such as would occur during the rutting period, and also that they keep in better flesh and condition after they have been served the second time. The strong statement is made that he would rather breed a sow and kill the pigs in the fall, than allow her to run the summer without breeding. It is plain that to breed them twice a year the sows should not be bred until they are between one and two years old, as the two suckling periods would be too great a tax upon their vitality. While it may be granted that it

is best to have the sows farrow twice a year, the question of the advisability of having fall pigs and their value is not so easily put aside. Fall pigs require much more care, fewer can be kept in pens as they are inclined to bunch together in cold weather, and further, if being made into pork it costs more to lay on a pound than it would during the summer. The writer referred to states that he has found that the best time to have the fall pigs farrowed is not earlier than the middle of September, and not later than the middle of October, and he concludes by saying Keep each litter separate, feed generously, and keep beds clean and warm, provide room for abundant exercise, and fair litters can be made both profitable and pleasant. Where the conditions and quarters are favorable for the keeping of pigs over winter the above considerations are worthy of attention.

♦♦♦

Rye for Pasture and Fodder.

While rambling over the broad acres of Kimboul Stock Farm last month in the genial company of the able manager, Mr. J. C. Davidson, of New Lowell, we had our attention caught by a field of rye well advanced in growth over which our friend was warmly enthusiastic. Mr. Davidson has for years found it unsurpassable for pasturing sheep and also for curing into hay, and as his method of management may differ from that of others we give it to our readers. About the tenth of August the rye is sown at the rate of 3½ bushels per acre. No argument could convince Mr. Davidson that this was too heavy. About one month after it is sown the sheep are turned on it and allowed to eat it down moderately close before winter begins. In April they are again put on it and it takes a smart and big lot of sheep to keep it from getting ahead of them. After pasturing this way for a month or so, according to its growth, the rye is cut with a reaper, cured as hay, drawn in, and run through the cutter and fed as cut feed to the stock. Again the field is pastured for a while, then given a rest to grow well and lastly ploughed in as green manure. As the soil here is light the latter is a very desirable ending. The rye through the whole routine is never allowed to grow past the second joint, and care is taken to never put the sheep on it while it is damp with dew or wet as it is dangerous to the life of the sheep to do so. It is almost impossible to speak too highly of rye. It will grow on the poorest soil, and for green manuring it is one of the best crops, as it grows strong and rapidly and also easily roots in the soil. For pasture it does splendidly, as it will last for years if it is not allowed to approach maturity, and at all times it gives to the stock a full, agreeable bite. As an early green fodder for cattle or sheep no crop will give better results, while as a dry fodder cut early it makes a good food, as it has not the hardness of timothy nor that of straw, as some would expect. With those features to commend it surely it ought to be more grown than it is, and we would bespeak for it a trial by our readers this season on the evidence of the many who have found it superior for the purposes above enumerated.

Rambling.

SHORTHORN HERD OF MR. THOMAS McEVROY,
BALSAM, ONT.

This herd at present includes twenty-four head of pure-bred Shorthorns, including a number of descendants from the well known herd of Mr. Alexander Sims, of Dumfries, Scotland. About fifteen years

ago, Mr. McEvoy well and truly laid a foundation for a first class herd, by purchasing his first animals from Messrs. John Miller & Sons, of Brougham. A noticeable feature, and a profitable one it must be admitted, that attracts the reviewer is the fact that a number of the cows possess that peculiar dairy form common to those Shorthorns that have not had their own as well as the milking properties of their ancestors ignored. Amongst the cows of this type our attention was attracted particularly to Daisy Armstrong and Daisy White. The former is of excellent build, being deep and broad behind, and possessed of those handling qualities which are the property of all good Shorthorns. This cow, we were told, filled her pail and a half in her best season, which is the fittest tribute that could be paid to her breeding and personal merit. Daisy Lily, got by Eclipse, is another of deep milking properties, having proven herself equal to the former at the pail. Mr. McEvoy has seven young heifer calves, and also four young bulls ranging from two to seven months in age, all from Mr. Arthur Johnson's imported Cruikshank bull, Indian Chief. Launched under way so favorably in the breeding of Shorthorns, Mr. McEvoy can hardly fail to still further advance the notoriety of the district in which he resides as the home of superior Shorthorns.

ONTARIO LODGE STOCK FARM.

This stock farm, beautifully situated near Oakville on the shore of Lake Ontario, is owned by Mr. E. M. Jarvis, who was a few years ago a student at the Ontario Agricultural College, and is now crystallising into practice many of the advanced ideas he nurtured at that time. The site is excellent as well as pleasing, being only about twenty miles from Toronto, and within easy reach of a railroad station. The Improved Yorkshire here finds an enthusiastic patron. The breeding herd at present includes two boars and six sows, all of which are importations from the famous herd of Mr. Sanders Spencer, of England. A year ago last January, Mr. Jarvis started breeding pigs, and so successful has he been that he cannot begin to meet the strong demand that exists for animals from his herd. A pair of registered Clydesdales and another pair of Shire mares are the foundation stock for the stud. With one of the Shires, Leake Lively, a stout mare of good draught type, Mr. Jarvis secured first at Toronto Industrial last year. With commendable enterprise, a new venture has been undertaken by Mr. Jarvis, and that is the establishment of a flock of Dorset horned sheep. A select draft of a ram and four ewes has been secured and we have no doubt but that the same degree of success that has attended Mr. Jarvis' efforts in the breeding of pigs, will follow his work as a breeder of Dorsets.

KINECROFT STOCK FARM.

A short distance from the village of Markham, in one of the best farming districts in Ontario, is situated the stock farm of Messrs. William Davies & Son, of Toronto. The farm consists of two hundred acres, and at the time of our visit it reflected in the excellent cultivation and appearance the good guidance and judgment of the manager, Mr. C. H. McNish, who was some years ago a student at the Ontario Agricultural College. An inspection of the immense barn, planned and built on the latest principles, is one of the pleasing features of a visit to this farm. Mr. Davies is breeding Guernsey cattle and Yorkshire pigs, and is also an enthusiast in the matter of horse breeding. The Guernsey herd now includes twenty-eight registered Guernseys. The foundation animals, five cows and a bull, were purchased from the Hon. J. C. Abbott, of Montreal. Amongst this draft

perhaps Johanna, imported direct from the island, is most worthy of notice. She is a large cow, large bodied and has a strong appearance, yet free from all coarseness. Columbine is another splendid cow. She is of excellent type, which is backed up by performances, as shown in the fact that she filled her pail at the time of our visit, when about one month past calving, with milk of excellent richness. Sometime after the formation of the herd a large importation of ten cows was made from the famous herd of Hon. J. J. Clapp, of Wisconsin. They are a nice collection of cows. The one most likely to attract attention is Nellie C., calved 1887. She is a cow of excellent feminine appearance with barrel of large capacity, wide loin, and well attached and balanced udder. From her and their stock bull we notice a sturdy young bull with every appearance of quality and milking inheritance. The best milker of the group falls to the honor of Sarah Second, calved February 1888, a nice fawn in color, and all that could be thought of in dairy form. The herd also includes two superior specimens of the Ayrshire of the large and strong type. They are a pair of very deep milkers. Mary II., calved 1882, is slightly larger than her stall companion, and is the favorite of Mr. McNish, but Sue, calved April 1883 is of more quality. They are both strong framed with large bodies and long udders. The Guernsey bull at the head of the herd is home bred, being from a bull and cow purchased from Hon. J. J. C. Abbott. He is a strong bull and his worth as a getter of good calves is shown in the number of prime youngsters now in the stables, of which there are thirteen. The Yorkshire pigs are doing well and giving every satisfaction. The most of them are direct importations from the herd of Mr. Sanders Spencer. As an evidence of the fecundity of these sows the fact was told us in good faith that one of them had given birth to a litter of twenty-one pigs. The length of body possessed by the members of this herd, as well as their deep and seeming robustness, is a noticeable feature. Running a paddock at the end of the stable was the Canadian-bred Clydesdale stallion Lucky Getter. He is an active horse, free in movement and excellently well built and proportioned.

From National Stockman.

Feeding Trough.

For feeding grain to sheep I have found the following described trough to be convenient and economical. Take for the bottom board a six-inch strip of the length required. Take two eight-inch strips and nail one on each side of the bottom piece or board, placing the bottom board in the center of the two side boards. This will make virtually two feeding troughs, with 3½ inches above the bottom board. This placed on a kind of saw-horse at such height as desired will be found very convenient. If one side gets wet or filled with snow turn it over. To keep sheep from crowding the trough off from the horse on which it is placed nail a little short strip on the top of the horse either side of the trough, with a little space for leeway. This trough can be turned up on its side and the rain will be kept mostly out. The flat bottom keeps sheep from eating fast, so that each may have a better chance for getting its share. WILLIAM BALL.

Toronto Industrial and Agricultural Exposition.

From the substantial evidence we have at the present time of the continued enterprise and energy of the officials of the Industrial, we are fully justified in making the prediction that the coming fall exhibition, which is to be held at Toronto from the 8th to the 20th of September, will not only excel all previous ones held here or elsewhere in Canada, but successfully rival many of the most important to be

held on this continent. It was feared by many that when the Provincial Exhibition had passed away the Industrial Association authorities would relax their efforts and reduce their prize list, but that there is no reason for such fears is clearly apparent from the large and valuable list of prizes offered for competition at the coming exhibition. The directors of the Industrial are determined that theirs shall be the greatest agricultural show of the Dominion, both in name and reality, and it is particularly gratifying to note that more than *three-fourths* of the prize money goes to the farming community through prizes for live stock, dairy, and agricultural products.

We shall briefly refer to a few of the special features of this year, feeling sure that everyone interested will not fail to drop a card to the manager, H. J. Hill, Toronto, for one of their very tastefully and neatly gotten up prize lists. Many additions have been made to the list since last year. In the horse department two extra prizes have been added for Hackney stallions, and the prizes for yearling fillies and geldings and foals of '90 have been increased in every class, and several special prizes are offered by the Clydesdale Horse Association of Canada, the Queens' Hotel, Toronto, the Walker House, Toronto, John Holderness, Esq., of the Albion Hotel, and others. A new class has been added for high jumping tests for hunters to be exhibited each day of the fair, over two hundred dollars in prizes being offered.

In the cattle department \$500.00 has been added to the regular prizes in the various classes, and \$100.00 in special prizes is offered by the American Hereford Association, and \$100.00 by the American Holstein Association. The prize for the dairy test has been increased to the extent of \$50 by the Industrial Association, and the entrance to the competition is free. The rules governing this competition have been prepared by Professor Robertson, Dominion Commissioner, assisted by a committee from the various breeders' associations, and may be obtained by applying to the secretary of the exhibition. Two extra sections have also been added to the class of fat cattle.

Special prizes in addition to the regular list are offered in the sheep department by the English Shropshire Association, and the American Oxford Down Association, and a new class has been added for Farnham Horned Sheep. In the class for fat sheep the long woolled breeds have been separated from the short woolled, which adds two new sections. A new class has been added in the swine department for Improved Yorkshires.

The poultry department has received an addition of \$30.00 to the list, and special prizes are offered for races by Homing Pigeons, which is decidedly a new feature. A pigeon loft with about thirty pigeons owned by different parties has been formed on the Toronto exhibition grounds, and it is intended to have races by these pigeons during the exhibition.

The regular prizes in the dairy department have been largely augmented by a grant of \$100.00 from the Western Dairymen's Association, and \$75.00 by the Ontario Creameries Association, whilst the prizes for grain, and roots and horticultural exhibits have been added to considerably.

Large additions have been made to the fruit and floral hall, and in connection with the exhibition there will be held a grand International Dog Show.

All entries for his exhibition have to be made before the 16th of August, and we would impress upon our readers the importance and necessity of bearing this in mind, as many who were dilatory in sending in their entries last year in proper time were greatly disappointed when they had them returned by the secretary.

Toronto's Exhibition might be fittingly termed a World's Fair, for large exhibits will be shown from all countries of the world—from the West Indies, Spain, England, United States, Manitoba, British Columbia, and many other distant points, valuable and curious productions will be put on exhibition.

The Ontario Agricultural College.

As the reader will doubtless have noticed there is sketch of a group of imported Yorkshire pigs on the first page of this present issue. These we believe are the only animals which the College has imported during recent years, and we are pleased to see that the authorities there are again going to the fountain head in securing their supplies. It always did appear to us

to be a questionable policy on the part of the college to purchase stock at home, or, to put the matter in its true light, to play a part *second* to that of many of our own breeders. In all these matters an institution of this kind should be head and shoulders in advance of all the people.

There are several breeds of considerable popularity in Britain that have not yet been tried at all in this country. Why should not the College introduce these, and demonstrate their value in a manner such as can only be accomplished by an institution of this kind?

The work of the Experimental Farm is being pushed on at the present time with unusual vigor. There are several hundreds of grain plots this year again, and experiments both in the live stock and grain growing department are receiving a very large share of attention.

The roads around and through the farm are becoming rapidly improved, and the most persistent efforts are being made to remove all noxious weeds from the farm. An idea of the labor expended in this direction will be obtained when we mention that more than one hundred acres are in hoed crops the present season. Professor Shaw has announced his intention of cleaning the farm, without the aid of the bare fallow. He has made the somewhat bold assertion that the same will be accomplished in three years, but judging by the progress that is already being made, it does not seem very improbable that his word in this respect will not be made good. If so, it should prove a valuable lesson to the farmers, more especially in view of the fact that his predecessor claimed that a farm could not be made clean without the aid of the bare fallow.

The live stock at the farm are doing very well indeed. The losses have been slight during the past winter, although now and then a lamb, and occasionally an old sheep, is found pining away from some cause not well defined, but which is probably induced by the nature of the vegetation in the low places which abound on the farm.

There is to be a sale, we are informed by the farm manager, which will probably be held about the first of October next. At this sale it is expected that a large lot of Improved Yorkshire and Berkshire pigs will be offered, along with lambs of various breeds and other young stock. It is also intended that grains and potatoes of several leading varieties will be disposed of at the same time, which will afford a splendid opportunity for farmers to obtain a start in these without going to much expense.

We never visit the Experimental Farm without coming away more and more impressed with the value of this institution as a means of educating farmers. When a young man is given the opportunity of listening to a couple of hundred lectures from each of a number of lecturers in the course of two years, all of which bear more or less directly on the subject of agriculture, and which furnish the best and the latest that is known regarding the great science of farming, and when he is taught practically improved modes of management, he is certainly making a most egregious blunder, if he looks upon such splendid opportunities with any degree of indifference.

The education thus provided for farmers' sons may be obtained at but small outlay. It will not cost a young man from the farm more than \$75.00 a year, providing he is willing to labor outside every second afternoon, and it will allow him to have three months of the best of the year, viz. the months of July, August, and September, to labor elsewhere. It is beyond all comprehension the cheapest education of a high order that can be obtained in Canada.

The college year commences in October, so that those intending to enter as students next year, should post themselves at once as to the requirements. This they can do at any time by sending for a College circular.

The work that such an institution can do and is doing, must prove of inestimable value to the farmers of this country, but it can only help those who profit by its presence. The most potent medicines in the world are of no service to those who will not use them.

From Wm. Hutcheon, Herdsman, Hillhurst, Que. "I now enclose my subscription for the JOURNAL for I would not be without it for anything. I have 5 or holiday number to hand to-day and am highly pleased with it, some of my friends are eager to have one and if you would oblige me with 4 of this number, I think I would be able to send you two new subscribers."

The Adaptability of the Shorthorn.

Read by Prof. THOMAS SHAW, Ontario Agricultural College, Guelph, Ont., before the Dominion Shorthorn Association.

By the adaptability of the Shorthorn, I mean its power of accommodating itself to a variety of conditions, as food, climate, and surrounding circumstances.

This power of adaptation it possesses in a remarkable degree, as is evidenced in the fact that Shorthorns are in favor in almost every country of the world where the English language is spoken, and in many of these Shorthorns and their grades are the prevailing stocks of the country.

This does not arise from the fact that Shorthorns were in the field as claimants on the public favor sooner than other breeds, for they were not. The Galloways were being driven in droves to the easterly counties of England at least half a century before the fame of the Shorthorns had begun to be sounded. The Devons in the south were high in favor at a period almost as early. The moulding powers of the immortal Bakewell had made the Longhorns famous ere the masters of the Shorthorn art of improvement had tried their hand, and several decades before the Collings brothers had commenced the work of moulding improved Shorthorns at Ketton, the elder and the younger Tompkins had been busy producing those beautiful specimens of the white face, which were the living wonders of that period.

Each of these breeds then was in the field prior to the Shorthorn, and the same is true of several other breeds that might be named. How comes it then that the Shorthorn has outstripped them in the race and gained favor in so remarkable a degree in every cattle country in the British Empire?

There can be but little doubt that their adaptability to the conditions amid which they have been placed, combined with their utility, has made them the breed *par excellence* in the estimation of the world.

Whether they will retain this proud position in the future rests, in part at least, with those who handle them. So long as they are bred with an eye to utility, and on judicious principles, they may be expected at least to hold their own in individual merit. But there is another condition which is to receive attention if Shorthorns are to hold the fort. It is the increasing demand for animals that will produce a large amount of milk in addition to their capacity to put on flesh. There can be but little doubt that it was the dual power possessed by Shorthorns in so remarkable a degree, of producing both meat and milk, that gave them their hold upon the estimation of the masses of the people. If the power of producing a fair return in milk becomes lessened, the cry for purely milking breeds will increase, and the Shorthorns are so far likely to be displaced.

Now, it is their power of adaptability that renders it so easily possible to improve their milking qualities. Milk production in large quantity was one of the original properties of the Shorthorn cow, and this was not found incompatible with a large amount of meat production when the same was desired. Some other breeds would never respond to the demands of the pail, although they answered well the purposes of the block. Since a large amount of milk-production is one of the original traits of the Shorthorn cow, although this property has been impaired by the desire to develop them in the line of meat production, we may reasonably expect that it can be restored more easily than it could be secured in a breed which had never possessed this quality.

The use of bulls from good milking strains, feeding the young heifers with a view to milk production, and milking the dams by hand for ten months in the year, would soon work a wonderful improvement in the milking properties of Shorthorns, without interfering with their ability to produce feeding animals of a high order.

We see the power of adaptability in Shorthorns, not only in their response to the demands of the pail and the block, but in the good returns which they give on pasture or in the stall. They may not give returns when on pasture quite equal to those of some other breeds, but in the stall they are without a rival up to the present. This does not simply mean that several other breeds of cattle are not excellent for stall-feeding, but that in the past they have not been found so good as the Shorthorns, and the same will hold true of their grades. I would have it understood, that in making these statements I do so without any regard to the amount of food eaten, for the proportionate

amount of food wanted to secure a given end in any line, is a factor about which we know very little indeed, notwithstanding its overwhelming importance.

The experiments that are now being conducted at the Ontario Experimental Farm should throw light upon this subject, and it is light that the live stock world is surely sadly in need of. There is being conducted there at the present time a series of experiments in feeding cattle of the beefing breeds, which takes into account the food consumed, and it is the intention to repeat these sufficiently often to let us know which of these breeds will give the best results on a given amount of food.

Although the plastic power of the Shorthorn is very great, as we have already seen, it has its limits. They will not prosper if subjected to any one of the conditions which I shall name in the after portion of this paper.

(1.) They are a heavy breed, and are therefore ill-adapted to the picking of a livelihood on scant pastures, or even on those grown on light lands which are lacking in qualities of nutrition. Rugged pastures that may feed the Devon well, or that give good results when stocked with the Kerry or the Ayrshire, may not be found at all suitable to the sustenance of

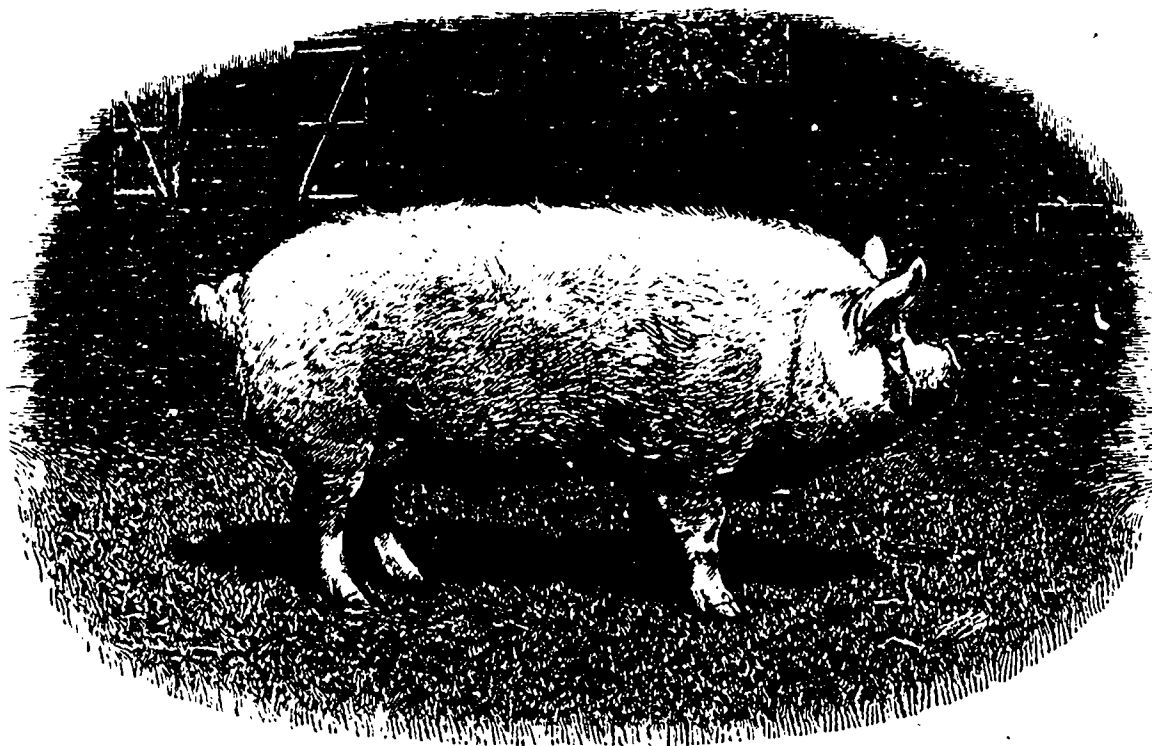
ation of a natural law of the system, where the food given has been abundant and nutritious. This explains the fact which has been so often noticed, that where a well-bred Shorthorn is put in a contest with a beast of the common sorts and both are liberally dealt with, the Shorthorn will leave the other far behind on a less quantity of food, but if the food is inferior and insufficient, the common animal will take the lead in development. The Shorthorn cause has been injured in this way almost more than words can easily express. Animals that would have given every satisfaction under the conditions of food and drink, sufficient, have been arrested in their development, beyond all hope of recovery, by the niggardly feeding and illiberal treatment to which they have been subjected, and the blame has been put on the animal by the owner when common fairness would have placed it on himself. No, although the power of adaptation in Shorthorns is very great, it can never bring the animal to accommodate itself to the parsimonious ways of the illiberal feeder.

(3.) Nor will the power of adaptation in Shorthorns enable them to thrive in a barn-yard, or even open sheds, to the fullest extent in an ordinary Canadian winter. No cattle will give returns in best form

tained on the principles adopted in the improvement of the breed, which were: individual excellence in the animal, resting upon individual excellence in all the lines of the more recent of the ancestry, liberal feeding, and suitable accommodation.

(5.) The adaptability of Shorthorns for crossing purposes when meat production has been the object sought, has been without parallel in the history of the herds in the past, whatever may be the unfoldings of the future in this respect. There are more grade-Shorthorns in the world to-day than of all the other beefing breeds combined. But their power here, too, has its limits. They as a breed possess no inherent power of giving good results where inferior bulls are chosen for crossing and feeding purposes. The choice of bulls of this class has done the Shorthorn interest more harm than anything else, and it does seem a pity that Shorthorn breeders will not use the power which is vested in them of castrating all inferior males rather than sell them at a low price to unskilled purchasers. The results arising from their use is certain to prejudice the Shorthorn interest in every such neighborhood.

The breeders of Shorthorns are the possessors of a goodly heritage if they only use it aright. Let them



HOLYWELL WINDSOR.

Large White Yorkshire Boar, bred and owned by Sanders Spencer, Holywell Manor, St. Ives, Hunts, Winner of First Prize at Highland Society's Show at Melrose, Scotland, in 1889. (See page 237.)

the Shorthorn in its best form. The natural adaptation of the Shorthorn to lands that produce a luxuriant vegetation, keeps it away from the hills and from sections of light sandy and gravel soils.

(2.) The Shorthorn is an animal that matures quite early, and therefore will not adapt itself to diminished supplies of food. In the quality of early improvement it is excelled by none of the improved breeds. This property is the result of breeding for the attainment of the end just mentioned, accompanied by liberal and judicious feeding, and it has characterized the breed for so long a period that it has become intensified by habit, and is therefore as certainly handed down by transmission as any other property. The natural tendency therefore in Shorthorns is to develop rapidly, but on the condition that the food is abundant and nutritious. Where this condition is not forthcoming a shock is given to the tendencies of the system inasmuch that results that will be disappointing are sure to follow. Where thus managed they will not do so well as animals of the commoner sorts, but it is from no fault of the Shorthorn. It is a result, the outcome of a natural law of the system, just as much as satisfactory returns is the result of the oper-

ation when reared in this way, but the common sorts will do better proportionately than Shorthorns, for the habit of ability to stand privation has been well developed in them but not in the Shorthorn. The exact value to put upon this property in a cattle beast reared in Ontario, where every farmer may have a comfortable stable, I never could tell, but it certainly does not afford much comfort to the farmer in the day when he comes to look for profit that will never come to him so long as his cattle are reared in that way.

(4.) Shorthorns have not the power of adapting themselves to the ways of the unskilful breeder, when the selections are bad and the mating ill-judged, results that are entirely satisfactory may not be looked for. Too many breeders of Shorthorns have laid the foundations of their structure on animals purchased at random at sales, and the sires used in the herds have been selected on this one principle, that they could be purchased cheaply, with the unvarying results that the effort has not proved a success, and they have been necessitated to abandon it, but not till they had done more harm to the Shorthorn interest than it has done to them.

Success in breeding Shorthorns can only be main-

see to it that they maintain it in prime condition. The breed of which they are the happy possessors has wonderfully plastic powers, as we have seen. Let the breeders of Shorthorns develop these, for we must never harbor that most paralyzing idea that Shorthorns cannot be further improved. Such an idea would be fatal to all progress, and can find no place in the mind of the progressive breeder of what has hitherto proved the most adaptable of the beefing breeds.

The Value of Pedigree.

Digest of a paper read by GEORGE RICE, Curries, Ont., before the Holstein Breeders' Association.

That pedigree has a value in a commercial sense we are all aware, enabling the breeder of pure-blooded stock to sell at enhanced prices just as that pedigree shows the good breeding of the animal. But this is not the true value of pedigree, but rather the sequence which is necessarily attached to a system of breeding that established a class of animals to distinc-

tion is possessing certain traits. Other and more noble features are called in requisition in making pedigrees valuable.

Through the impulse that rivalry gives the breeders are lead to inquire into the very best methods of breeding and feeding; and when by such scientific breeding the record is broken, that man, though crowding himself with honor, does, in no small measure, show the value of pedigree by showing the great results that are accomplished by systematic endeavor. Man, ambition, skill and desire of gain are all called in requisition, hence we have scientific breeding, and as a precaution against imposition, pedigrees are kept. As has "like produces like," so by mating those that possess superior merits, and keeping this up year after year and, as in the case of the Holsteins century after century a faculty has been created and developed whereby a breed is noted for its superior dairy qualities, and from long breeding for one end has attained a prepotency which makes the pedigree of that animal very valuable. The pedigree of an animal will then be, in a measure, as valuable as that animal is able to demonstrate its superiority to others. What has been accomplished by breeding intelligently? We are informed that a cow in her natural state will give over 2000 lbs. of milk a year, and a common bred, or bred for a so-called general purpose, cow does not average but about 3000 lbs. per year. With that contrast what has been accomplished by scientific breeding, and we find a cow has been bred and developed so as to give over 30,000 lbs. per year, many others over 20,000 lbs., and a very great number over 15,000, whilst the number of Holsteins capable of yielding over 10,000 are innumerable. As such ends have been attained by breeding the very best sires, it follows an animal's pedigree is valuable in proportion to the capacity of its ancestors.

Pedigree is then valuable to the breeder to enable him to go to work intelligently to further develop the capacity of his animals; and as in science those of today are able to take advantage of the knowledge gained by research and ingenuity of those who have gone before, and thus by accumulating knowledge be in a better position for further advancement, so the breeders may obtain value from pedigree, to further improve upon the breed, and by the experience avoid the mistakes and profit by the success of others. Pedigreed animals are valuable in grading up common stock, for being purely bred they possess great prepotency in impressing their qualities upon natives, and by so breeding the traits possessed by the pure-bred will be fixed in the grade. Thus, the dairy qualities are bred into and fixed in the Holstein so that they inherit and transmit these qualities none can successfully deny. By such scientific breeding Pieterje 2nd was bred and developed to give over 30,000 lbs. in one year; that she can transmit these tendencies is well known from the performances of her daughters. Again Clothilde 2nd has inherited a great capacity as butter cow from her dam Clothilde, with whose former doings Holstein breeders are familiar; Clothilde 2nd showed the value of pedigree by exceeding even her dam's great record for butter, as in a late test she produced 115 lbs. 14 3/4 oz. in 30 days, 223 lbs. 5 1/2 oz. in 60 days, and 320 lbs. 1 3/4 oz. in 90 days. It is not by accident that Jewel gave at Buffalo Exhibition in 1888, 71 lbs. of milk in one day, though in milk six months at the time, and follows it up as a great butter cow the following year. It is not by chance that Lutseke at Buffalo in 1889, gave 72 lbs. 12oz. in one day: Not by accident that Titanica gave 3 1/2 lbs. butter in one day on the show grounds, and many others over two lbs. of butter per day at various shows. No greater proof is required that scientific breeding accomplishes great results when we bear in mind that about all the prizes for milk and butter have been won in public tests the past year by the Holsteins, and that this is a characteristic of the Holsteins as a class is shown by the fact that different animals at the various shows were winners of the test, and that the marvellous success of the Holsteins does not depend on one animal or yet a dozen. The value of the so-called "Tops" of a breed can scarcely be over estimated. Not only do they show the possibility of a breed but are valuable for mating with other pure breeds of less note, so as we proceed the blood of the best will by mating show in the other, and bring the lowest to a higher capacity, and raise the average of the breed.

Pedigree, when formed by actual merit is of great importance in order that our progress may be sure. With our recorded pedigrees formed by breeding for a fifty of purpose, our chances of superiority in the

offspring would be very uncertain. If like does not produce like in every case in all probability there are other causes at work that detract from improvement. For instance a mistake may be made in the development of an animal, and thus mar the good effect of pedigree. Now in the case of our Holsteins, this advice is given by that successful breeder, M. E. Moore, "Keep breeding animals in good condition. Avoid extremes of leanness or fleshiness, as both these conditions tend to produce degeneracy in the offspring." And this is sound advice. If then in rearing a Holstein for milk development we should keep the animal very fat whilst young and then when mature neglect and half starve it, the milking capacity of that animal will not be developed and thus the good effects of the blood lines contracted and pedigree lowered in value.

In order to insure success we must have our animals rightly bred for foundation and, as it has been tersely said, a good breed, good feed, and a good feeder is the acme of success in dairying, so also in breeding pure breeds.

The Progress of the Jersey.

AN INTERESTING CHAPTER ON JERSEY BREEDING.

Jersey breeders will read with interest the recent article contributed to the *Country Gentleman* by the veteran auctioneer P. C. Kellogg, under the *non-deplume* of "Hark Comstock." He embraces the opportunity afforded by the late marvellous test of Eurotisama 29668, in which she yielded 945 lbs. 9 oz. of butter in one year, to give a general review of the past tests, and comment on the breeding of the most famous performers. The first test, we learn, for a year was made in '53, when the imported cow Flora 113, yielded 511 lbs. 2 oz. of butter. The next to be recorded was that of Pansy 1010, she testing when six years old for the year, 574 lbs. 8 oz. of butter. In about 1877-8 Jersey Belle of Scituate 7828, broke the record with a yield of 705 lbs. of butter for the year, and it was then that breeders began to look into pedigree, for before this no attention had been given to it beyond the requirement of purity of breed. A couple of years after this, Eurotas 2454, was tested for a year and she gave 778 lbs. 1 oz. in less than that period. Her owner, Mr. A. B. Darling, being a believer in specific breeding, purchased a son of Jersey Belle of Scituate to cross upon the heifers descended from Eurotas. As in the case of Jersey Belle of Scituate, investigators began to look more deeply into the pedigree of Eurotas, and the first feature that struck them was that she was descended from Alpha 171, a cow that had already gained a wide notoriety for remarkable butter tests. Eurotas, merits were thought by many to be chiefly attributable to Alpha, and the subject of breeding butter cows by aid of special pedigree took a strong and general hold upon Jersey breeders. Prior to that time they had with few exceptions, pursued a course of color and point breeding much as fancy fowl and birds are bred.

The movement created by Eurotas, Mr. Kellogg goes on to say, took a score of different forms. Every theory ever applied to the subject of breeding was brought forward and put in practice upon the Jersey with the object of producing the phenomenal butter cow. Horsemen proposed to breed them as trotters and race horses are bred; poultry breeders proposed to breed by a scale of points, another class proposed to reach the object by a proper balancing of skin color and escutcheon; old cattle men proposed to take Alpha as the creative source and breed her blood in-and-in, with no outcrosses, as the Duchess Shorthorn strain had been bred. Col. Hoe had paved the way to this step by adopting that plan himself, and had produced the dam of Eurotas by breeding Alpha to her full brother, Jupiter 93. In imitation of the Duchess formula he had continued this course to a considerable extent, and quite a number of animals were in existence that had been bred for three or four generations exclusively of the blood of Alpha and her full brother Jupiter. Eurotas, however, was got by a sire that was a complete outcross from Alpha—a bull called Rioter 2nd 469, imported from the herd of Phillip Dauncey of England. This bull's blood had been in a moderate number of cases mixed with that of Alpha, and the results of the cross, in other instances than Eurotas, were such as to cause some observers to give the credit quite as much as to Alpha, the credit of Eurotas' superiority. So it happened

that while one set of theorists were declaring for "pure Alpha," another were equally positive that "Rioter-Alpha" was the better formula.

The next cow to beat the yearly record was Jersey Queen of Barnet, with 851 lbs. 1 oz. to her credit, but she being ineligible to the herd book no attention was given to her. Then came Mary Anne of St. Lambert 9770, bred by Mr. R. H. Stephens, of St. Lambert, Que., and tested by Mr. Vallancey E. Fuller, formerly of Hamilton, in which she gave 867 lbs. 14 3/4 oz. in less than a year. Her sire was of imported English Jersey stock and an inbred descendant of Dauncey's Rioter, the grand sire of Eurotas. The wonderful achievement of Mary Anne of St. Lambert was thus thought to confirm the belief that Eurotas owed a large share of her merit to the Rioter blood. For some years Mary Anne's yield was not beaten, and the popularity of her strain, to indicate which the term "pure St. Lambert" was coined, fairly surpassed that of any other cow that has ever appeared. The cross of Stoke Pogis 3rd 2238 on cows of Victor Hugo blood, of which she was the leading instance, produced other great butter cows and proved a remarkable nick. The St. Lambert herd was originally founded on English-bred Jersey cows, and as the bull Victor Hugo first was used, his blood was crossed into nearly all of their descendants. When Stoke Pogis 3rd came into the herd, therefore he hit a Victor Hugo cross in nearly all of his couplings, though there is nothing to show that the foundation sources of the pedigrees back of Victor Hugo had anything in common. The result was a mixture of the various foundation sources with the blood of one or both of these two bulls. Where the term "pure St. Lambert" was applied to animals exclusively descended from this herd, it of course had no individual significance as in the case of "pure Alpha." It was simply the blood of a specific variety of elements instead of one element kept without outside mixture, varying abundantly within its own limits yet admitting nothing new. As a phrase applicable to any breeding principle it therefore signified nothing; but as a catch word it proved the most admissible business resource of all that have ever been put forward in the Jersey interest.

Landseer's Fancy 2876 was the next cow to succeed to the honors of the foremost yearly test, which she did by making for Mr. W. J. Webster of Columbia, Tenn., 936 lbs. 14 3/4 oz. of butter in a year. She was about 14 years old when the test was completed. Hers has stood as the best until the recent achievement of Eurotisama.

Corn Ensilage as a Food for Making Beef.

BY THOMAS SHAW,

Professor of Agriculture at the Ontario Agricultural College.

[BULLETIN XLIX.]

The idea that beefing animals cannot be fed at a profit has been pretty generally indulged in of late, owing to the relatively low prices obtained for some time past compared with those of former years. The experiment conducted at this institution last winter with the utmost care and precision, the details of which are given below, happily disproves the correctness of this idea.

Ten good Shorthorn grade steers, two and three years old, were purchased and brought to the farm October 19th, 1889. The price paid for them was \$500, which was a little extreme owing to the difficulty of getting a uniform lot and for other reasons. They were sold 16th May following for shipment to Britain for \$897.30, or an advance of \$397.30, the price received being 5 3/4 c. per pound live weight. From the date of their arrival at the farm until the close of the year they did not much more than pay for the food fed them because of the imperfect facilities for feeding, arising from the unfinished state of the new buildings. Six of the ten, all three years past, were selected for a feeding contest which commenced 31st December, 1889, and closed 29th April, 1890, thus lasting 119 days. The primary object of the test was to ascertain the value of corn ensilage and meal for beef-making as compared with (a) corn ensilage, hay and meal, and (b) roots, hay and meal, the ration usually fed.

FEEDING.—Group 1, comprising lots 1 and 2, were each fed an average of 79.4 lbs. of ensilage per day and 12.7 lbs. of meal. There was left uncaten of the

ensilage 18 lbs. per day of the coarser portions, but the whole amount fed was charged against the steers.

Group 2, comprising lots 3 and 4, were fed daily 41.6 lbs. ensilage, 11.3 lbs. hay and 12.7 lbs. meal. There was left unaten of the fodder 13 1/2 lbs. per day, which amount was also charged against the steers.

Group 3, comprising lots 5 and 6, were fed daily 14.3 lbs. hay, 41.6 lbs. roots and 12.7 lbs. meal.

The meal consisted of equal parts by weight of peas, barley and oats, and was always mixed with the other food. The hay (clover and not extra in quality) was cut and mixed with other food, and the roots were pulped and mixed likewise. The food was fed in three feeds daily, and water was virtually given in the stall; everything given except bedding, and water was accurately weighed.

CHARGES FOR FOOD, BEDDING AND LABOR.—The food given, except roots and ensilage, was charged at the average market values in Guelph, viz.: peas 55c., barley 40c., and oats 28c. per bushel, or an average of 34c. per lb. for the mixture; hay \$6.50 per ton, roots 8c. per bushel in the cellar, and ensilage \$2.50 in the silo.

The bedding used was estimated at 15 lbs. per head per day, and charged as worth \$1.50 per ton in the barn.

The labor was estimated on the assumption that one attendant at \$25 per month would feed and care for 40 head as ordinarily fed; that \$2.50 per week would pay for the additional outlay in assisting the said laborer in cutting, grinding and pulping the food, and that the additional help in preparing the food in this contest be charged at half this rate, on the ground that the ensilage was already prepared.

ESTIMATED VALUE OF THE MANURE.—The manure was estimated at 75 lbs. per day per head, and valued at \$1.50 per ton, as the standard value of manure made from ordinary stock is usually put at \$1 per ton in the yard.

INCREASE IN WEIGHT AND DAILY COST FOR FOOD.—The particulars are given in the following table:

Groups.	Weight at commencement.	Weight at close.	Total gain.	Average daily gain of each group.	Average cost of feed per day.
1 {	lbs.	lbs.	lbs.	lbs.	cents.
2 {	1,515	1,762	247	1.85	21.02
	1,327	1,520	193		
2 {	1,469	1,691	222	1.857	20.74
4 {	1,393	1,613	220		
3 {	1,477	1,696	219	1.697	21.40
6 {	1,141	1,526	185		

Aggregate weight of the six steers at commencement of the contest..... 8,522 lbs.
 Estimated value at 4 1/2 c. per lb. live weight \$362 18
 Aggregate weight at close..... 9,808 lbs.
 Estimated value at 5 7/12 c. per lb., and equivalent to 5 3/4 c., the selling price when shrunk 15 days hence..... \$547 61
 Increase in value in 119 days..... 185 43
 Total cost of food..... 150 32
 Increase in value over cost of food..... 35 11
 Total estimated cost of attendance..... 18 00
 Cost of bedding, 10,800 lb..... 8 10
 Value of manure, 27 tons..... 40 50
 Value of manure over cost of attendance and bedding..... 14 40
 Weight May 15th at 8 p.m..... 10,149 lbs.
 Weight May 16th at 8 a.m., three steers laying out in yard over night..... 9,763 lbs.
 Average loss by shrinkage..... 62 1/4 "

FINANCIAL SUMMARY.—The financial results of the experiment stand thus:

Direct gain on the food fed..... \$35 11
 Indirect gain from the value of the manure over the cost of bedding and attendance..... 14 48

Direct and indirect profit..... \$49 51
 Or a profit on each animal of... 8 25 1/2

To this may be added in all fairness the profit from raising the food fed, whatever that might be, for this was estimated at market values.

CONCLUSIONS.—The above experiment certainly tends to establish the following important conclusions:

(1) That shipping steers can be fed at a fair profit with prices of grain as at present, when of good types, when they are purchased at reasonable rates and where there are suitable facilities for feeding.

(2) That corn ensilage and meal will fatten as effectively and as cheaply as a ration of roots, hay and meal and with a less expenditure of labor.

(3) That steers fasted twelve hours by simply turning them into a yard at night will shrink from 60 to 70 lb. each.

(4) That with food at present prices, such as that used above, steers weighing from 1,300 to 1,500 lb. can be made to gain on an average 1.801 lb. per day, and at an average cost of 21.053c. per day for the food fed.

(5) That the value of the animals for beefing purposes was increased by the fattening process an average of 1 1/2 cents per pound from commencement to finish.

From Hoar's Dairyman.

Grading up with Ayrshires.

ED. HOARD'S DAIRYMAN.—As an illustration of the advantage of grading up our stock, in the year 1871 I had a dairy of native cows, that gave me an average of 4,000 pounds of milk per year. I then made a purchase of two pure-bred Ayrshire heifers and an Ayrshire bull—raising all of my thoroughbred and grade heifers. As soon as these crowded out the natives, the yield from my herd of fifty cows (thirty per cent. of which were two and three years of age) exceeded 6,000 pounds per cow per year, with same kind of fare, viz., pasture in summer, with hay, straw, and a moderate allowance (four or five pounds) of grain per day in the winter.

Truly yours,

L. D. STOWELL

Black Creek, N.Y.

New Herd Law.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

I agree with those who think that all who keep stock should keep them at home, or be responsible for them if allowed to roam at large.

It would save a great deal of trouble and annoyance and perhaps some ill-feeling amongst neighbours. Yet this would not do away with the necessity of road fences. Anyone driving a bunch of say six steers to market, just out of the stable, would find it simply impossible to keep them on the road without a fence on each side. After they had been driven a few miles, they would no doubt become more manageable, but at the start they would destroy sufficient to detract somewhat from their price.

Every well-ordered farm has some system of crop rotation, and if nothing but the pasture field was fenced, it would necessitate the removal of the fence almost annually, which would be considerable extra work every year.

But to fence the pasture field only would also be impossible, as not one farm in a hundred would have a supply of water in every field. Indeed, in the great majority of farms the water supply is to be had only at one point, to which stock must have access from all parts of the farm, and therefore there must be a fenced road from every field to that particular point. And besides, it is advisable to allow stock to roam over stubble after harvest to pick what may be left and to eat the after grass in the meadows, and so do so it is necessary the farm should be fenced. I know the fences take up a lot of room, and accumulate a lot of dirt and weeds, and I know too that hundreds of farms are too much fenced, yet I can't see how we are going to do away with boundary fences. But I would say have as few inside fences as possible have all cross fences moveable, so that they could be taken from where they are not needed to where they are. And if some one would invent a cheap, easily constructed, easily removed, portable fence, it would be a boon to the farmers of Ontario.

Bunessan, Ont.

GEORGE BINNIE.

Contest between the Beefing Breeds at the Ontario Experimental Farm.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

SIR,—A contest is now being carried on at this institution, the results of which should prove of much interest, and it is hoped also of much value, to the farmers of this Dominion. Grade

calves have been selected where they could be obtained of the various beefing breeds and also of those that are said to be good for both beef and dairy purposes with a view of ascertaining the cost of keeping them, both relatively and individually, until they are measurably matured.

Representatives have been obtained for the contest of the Shorthorn, Hereford, Aberdeen, Angus, Galloways, Devon, Holstein, and "scrub," or native crosses. They are all from pedigree sires except the scrub. This last was selected in Quebec Province, and possesses none of the blood of the improved breeds.

They are all being fed from the pail on new milk for a time. Other food is added as soon as required. It is the intention to have them fed all the food they need for quick and early development and to sell them when about two and a half years old. They are not allowed to go out at all except for exercise in a yard.

The food is all carefully weighed for each animal, and they are also weighed singly every month. Exact records being kept in each instance.

Many important lessons should be learned from this experiment. The comparative gain per month will make known the relative maturing capacity, and also that period when the largest returns are obtained from the food fed. It should also determine whether it will pay at all to raise beef under these conditions, and more particularly whether it will pay to feed calves intended ultimately for the block on a liberal ration of new milk.

The value of the experiment will also be increased by the fact that one animal additional is being reared under conditions precisely similar except that it is being fed skim-milk instead of whole milk. For many years it has been stoutly affirmed by the advocates of the different breeds in the contest that one or another was the most profitable for beef-making. Representatives of most of them have been shown time and again at leading exhibitions with varying success. So far as their relative merits are concerned, therefore, we know about as much as we did when they were first introduced. Hence it cannot be unimportant to determine which of these breeds is best adapted to stall-feeding purposes if this can be determined, and I think it can. It cannot be determined, however, by a single experiment, nor perhaps by a second or a third, though conducted on precisely the same line, owing to the marked differences which individuality and inherited qualities generally have upon the progress of an animal. Because of these things it is intended that the experiment shall be repeated over and over again, until much that is conclusive and reliable is obtained from it for the guidance of the farmers of this Dominion.

There is one point, however, wherein the experiment is liable to be assailed by hostile criticism. It is perhaps at present its weakest point. If some animals in the contest leave others behind a result which is inevitable, it may be alleged that the specimens chosen are not equally representative, that is, that some were more highly bred and better also individually on the start. We are naturally anxious to strengthen that point, and with this object in view, I now appeal to the associations representing the different breeds to select animals from year to year for this contest. Where a breed is not represented by an association in the Dominion I hope those who are interested in the advancement of their favorites will select the animals for us. The conditions of selection are:

1. The animal chosen must be the offspring of a pure-bred sire.
2. It may possess any amount of pure blood short of rendering it eligible for registration.
3. It should reach this station during the months of October, November, and December, and within a few days of birth.
4. Exact particulars must be given so far as known in regard to lineage.

Many farmers in this country have alleged that scrub or native stocks are equally good with those pure bred. They say that the difference is mainly one of feeding. An opportunity is now given them of verifying the correctness of their assumptions, which I have no doubt many of them hold honestly. I trust, therefore, that those who have strong faith in the merits of the scrub will select a good representative of the breed from year to year to enter this contest. The first and second conditions mentioned above do not apply in this case, but instead it is required that there shall be no admixture of improved blood.

I ask that this appeal shall receive careful consideration from those directly interested. They have it easily within their power to select such animals as are exactly suitable. We cannot always do this without much sacrifice of time and large and unnecessary outlay. If those to whom I now appeal fail to make the selection asked for, they will surely consider it their duty to keep silent in regard to the suitability of those which of necessity we will then have to select ourselves.

Yours, etc.,
 THOMAS SHAW,

Ontario Experimental Farm, Guelph, 17th June, 1890.

The Farmer's Horse.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

I would like to offer a few observations upon this question, as it is one of wide and vital interest. There are various opinions held by those competent to form them, and it is only after hearing such criticised and discussed that the right may be evolved.

The first thing to do to raise the type of horse I refer to is to choose a suitable sire. A great many farmers in choosing a stallion to breed their mares to, look more at the fee they have to pay for a foal than at the horse and his pedigree. This mistake is all the more grievous because of the fact that we may get a very well proportioned and stylish horse of very poor breeding. But simply because his service fee may be had for \$8 or \$10, many farmers will breed from him, and the consequence is strongly reflected in the very poor class of horses throughout this country, for such a stallion will be sure to throw a retrograde colt in nine cases out of ten. Now this class of farmers is a great detriment to the enterprising breeder who brings in a good horse with good breeding, and for which he has to pay a high price, and therefore he cannot afford to breed mares for the small paltry fee that you can get a scrub for, and for this reason a great many farmers will patronize the breeder of scrubs because they can get a colt for perhaps \$15 or \$20 cheaper than they would have to pay for a first-class horse. Now the result of this patronage is that we find a lot of poor horses on the road every season, and it will so continue just so long as those short-seeing farmers will patronize them.

I wish more particularly however, to call the attention of our farmers to the matter of raising a horse that will sell at any time his owner wishes to sell him, let the times be good or bad. Now this is a very hard year to sell, but we find that in looking at market reports that if the right style of horse is offered for the market, he commands a quick and ready sale at very good prices.

The general purpose horse that is usually exhibited at our fairs, I do not think fills the requirements at all. It is only a misnomer, the horses entering being too heavy and clumsy. Those that are generally shown at fairs as a "general purpose horse," are mongrel Clydes, and are, I think, the poorest class of horses that we have. The requirements that I think a general purpose horse should have are: He should have a good deal of blood and be able to move along at the rate of 10 or 12 or even 15 miles an hour if necessary. He must be stylish, standing 16 hands or over, but not much under, and weighing on an average of 1200 pounds; he should stand erect on his fore-legs and be as near perfect in symmetry and form as possible; he should be proud, elegant, and dignified in his manner, sound in bone and not liable to blemishes of any kind, and be very firm of flesh. As to color, bay is the favorite and I think preferable, though black or brown are good colors. This is the class of horse that I would term "the farmer's horse," and would do the work on any farm much better and be much nicer to attend and drive, than the big heavy breeds of horses that should never be put beyond a walk; and whenever such a horse as I have in my eye is offered for sale it will sell quickly at prices highly remunerative to the seller.

But I hear some one say: It is impossible to raise that class of horses. Well as to that, many of the principal breeders have done it, and are doing so at present, and why cannot we do the same?

Now in the first place look about for a sire that will come up to the standard I mentioned beforehand, coupled with an indisputable pedigree, for if he has or cannot furnish a *bona fide* one it is better to keep your mares from breeding at all.

The horse that I would recommend to cross on our general class of mares would be a highly-bred trotting stallion, not necessarily standard bred, for often times there are horses that are not eligible to be registered, and are much better bred than many that are standard, though if a standard horse can be got use him, but be sure that he is strongly bred in speed lines. No one could be mistaken in using a horse of any one of the Hambletonians, Mambrinos, Wilkes, or American Star families, with a strong influx of thorough-bred blood in his veins. A great many object to thorough-bred blood being in a trotting horse, and many are of the other opinion, among them being Senator Stanford, from whose breeding stables came Sunol, the fastest three-year-old on record. And again the great progenitor of trotters, Kyslyk's Hambletonian, had a large amount of thorough-bred blood in his veins as will be found in looking at his pedigree. I do not approve of breeding every class of mares to this style of horse. For instance, if you have a very large mare of a cold-blooded nature, by all means breed her to a Clyde, but there are a great many mares of moderate size that are bred to great heavy horses, and the result is that the mare does not afford sufficient nourishment for the fetus or for the colt after it is foaled, and consequently we have a great many flabby loosely-made horses.

The more well-bred blood that flows through a mare's veins the better, and the offspring will show it much quicker than colts from mares not so well bred, but if the use of a good sire is continued it will make itself known, and if our farmers had started using this class of a horse 10 years ago, we would have a much finer class of horses throughout the country, and therefore a much better demand, as buyers would know where to come for the horse they wanted.

In conclusion let me say that such a horse as I have described is not near so liable to blemishes and diseases as the big, heavy, Clydes, Shires, or Percherons. And once more I would say that the farmer who crosses his mares with anything but a pure-bred sire of undoubted pedigree of any class of horses whatever, after reading what has been said on this subject of scrubs, deserves to be a loser by his folly and stinginess.

But let us young men who intend to be breeders of stock breed nothing but the best, and follow in the footsteps of progression, and not retrogression, and "scrub stock," will soon become a thing of the past.

Yours truly,

J. R. A. McALPINE.

Questions and Answers.

If there is any subject bearing upon this or any other department of our JOURNAL, upon which you desire information, write us and we shall be pleased to intrust your query to competent persons and publish the answer thereto in our earliest issue, and if an immediate answer is required, such will be gladly given if a postage stamp is enclosed. Write the queries on paper detached from all matters of business, sign your full name and address as a guarantee of good faith, and write only on one side of the sheet. We request the assistance of our readers in making this a useful and interesting feature, and we shall always be pleased to hear from any, either desiring information or obliging enough to give it for others upon any topic within our field.

HEREFORD AND ABERDEEN-ANGUS REGISTRATION—George Davey, Westbourne, Ont.: To whom should I apply for registration of pure-bred (1) Hereford and (2) Aberdeen-Angus Polled cattle? (1) Apply to C. R. Thomas, Independence, Mo., Secretary of the American Hereford Association. (2) Apply to Thomas McFarlane, Iowa City, Ia., Secretary American Aberdeen-Angus Association.—Ed.]

HOLSTEIN FRIESIAN HERD BOOKS—N.Y.Z., Halifax, N.S.: (1.) Kindly give full address of secretary of American Branch Association of the North Holland Herd Book. (2.) Also full address of secretary of the Holstein Friesian Association of America. [(1.) The most complete address we can obtain is Fred H. Beach, New York City, U.S.A. (2.) Thomas B. Wales, Iowa City, Iowa, U.S.A.—Ed.]

Veterinary.

Does it Pay to Pasture Working Horses?

By DR. GRENDSIDE, Guelph, Ont.

The almost universal practice amongst the farmers of this province of grazing their working horses would appear to give an answer, emphatically in the affirmative, to the above query. We purpose discussing the *pros* and *cons* of this practice, and endeavor to arrive at a conclusion concerning it.

It is doubtless apparently a great saving of trouble to be able to slip the harness off working horses and allow them to go to the pasture field with or without a feed of oats. There is no bother feeding them hay, or bedding them down, and very little cleaning out to be done. So far this is very desirable, but the bother of catching them in the morning somewhat detracts from this advantage. These, however, are minor matters when compared to the condition in which horses can be kept, and the expense of keeping, in making a comparison of dry feeding in the stable, and grass feeding in the field.

We have no carefully carried out experiments to submit as evidence in proof of our position. Our convictions on the subject are simply the result of observation. One thing we do not hesitate to assert as being correct, and that is, a horse cannot be kept in good working condition when fed on grass, even although he may receive a good grain ration. Some

nourishment is undoubtedly received from grain, when fed with grass, but the laxative effect of the grass is such, that the grain appears to be hurried so rapidly through the bowels, that nothing like full benefit is derived from it. Explain it how we may, experience shows that when a horse receives a large bulk of his food that is of a moist or succulent character, it lessens his life and energy and ability to perform work. If a full amount of work is insisted on under these circumstances, an undue loss of flesh will be the result.

By good condition we mean such vigor of the system that will enable a horse to perform a maximum amount of work without overtaxing his strength. Where there is a marked loss of flesh going on, when the animal is in a state of health, it either indicates poor condition or overwork. If this state arises from deficient work, good feeding and regular work will soon rectify matters; but if a horse loses flesh on reasonable work he must be improperly fed. This we find to be the case in almost all instances where a horse is grass fed and regularly worked, for he is not in condition to stand it. The lack of condition for slow work is sufficiently apparent, but it is even more marked in the case of horses used on the roads. Possibly the direct cost of feeding is greater in the stable, when hay and oats are supplied in proper quantities, but when we come to consider the amount of pasture land it requires to sustain a horse, the loss of manure—for it is practically lost—and the marked loss of condition, it is very questionable economy.

There is no doubt that a run at grass is often a beneficial change, and it in some cases exercises a desirable alterative effect, but to receive full benefit from it, the animal should not be worked, but allowed complete leisure. A week or two is usually sufficient for all the benefit to be derived from a change. With such an object in view, the month of June is about the only one in this country that is suitable to turn a horse out. During this month the grass is usually plentiful and succulent, and a horse's life is not rendered miserable from the irritation caused by flies. From the first of July onwards the advantage of a run at grass is questionable. There is some excuse for allowing horses to take a run at pasture during periods in which they have little or no work for several days, for the exercise they get in this way is of considerable value in keeping their legs in order, etc., but to work horses all day and turn them on to a grass ration at night is decidedly bad management, and not far removed from cruelty, for an animal so treated is unfit for steady hard work, especially under a scorching sun. There is very little excuse for the many jaded, ill-conditioned, sore-shouldered looking specimens of horse flesh to be seen in the country, especially about the time they have to go through the trying ordeal of drawing self-binders; and it is this practice of grazing work horses that is almost altogether accountable for it.

With brood mares that are not called upon to work, and growing colts, there is no doubt running at pasture is the most favorable treatment possible for them. If the pasture is good they receive all the nourishment necessary, and have the advantage of gentle and regular exercise. This, to a growing colt is indispensable in order that he may get perfect control of his legs, and have the various tissues that go to make up these severely taxed members during the working period of his life, strengthened and developed.

Mr. Wm. Paterson, of Birtle, Man., writes: "Glad to see the JOURNAL doing so well, the cuts and printing are all very distinct and the different articles are splendidly written and very much to the point on all subjects interesting to the farmer. The majority of notes in the JOURNAL are very useful to the Manitoba farmer."

The Farm.

The Cabbage Worm.

To stay the ravenous attacks of the cabbage worm (*Pieris rapae*), so common in most gardens, no insecticide has yet proven as serviceable as Pyrethrum, or "Insect Powder." As this substance weakens in strength, and hence lessens in effectiveness as it becomes stale, it is of the utmost importance to obtain it fresh and keep it in air-tight jars. It is not a poisonous substance, and it kills the insect by contact, so that there is no danger from applying it to such vegetables as cabbages. It may be used as a powder, one part of the pyrethrum to three parts flour, or better still, it may be applied in the form of a liquid made of a full tablespoon to two gallons of water. The latter method has been most effective in killing this insect. The cabbage worm appears to be becoming more abundant each year, and it is now one of the most troublesome of injurious insects.

Early and Late Cut Hay.

The opinion is common that early cut hay is more valuable for feeding purposes, than what is cut when fully ripe, and that the early cut does not tend so much to exhaust the soil. The first idea is correct, but the second is not. From experiments made in 1888 at the State Agricultural Experiment station, of Vermont, it was found that in many instances the feeding value of early cut hay was fully one dollar per ton more than that of late cut hay. It was found, however, that the late cut hay had not extracted so much of fertilizing properties from the soil in proportion to the whole weight than that cut early. There are two reasons for this: First, in the later stages of growth other substances than fertilizing constituents are taken up faster in proportion to the increase of weight; and second, some of the former are washed out by the rain. Were it not that the feeding value of the early cut is greater than that of the late cut, it would be better to let hay get fully ripe, but this difference in feeding value more than counterbalances the loss in comparative fertilizing properties. It follows then that the farmer who feeds his hay, especially to dairy cows, gets the best value when the same is cut early, but that when it is sold he gets most for the crop who cuts it late. The fertilizing value of hay is computed by ascertaining the respective amounts of nitrogen, phosphoric acid and potash which it contains, multiplying these by the market value of each, and adding the products.

It follows then that cutting a crop in the early stages of ripening does not tend to conserve the fertility of the soil growing it.

The Dominion Experimental Farms.

Of all the many blue books that reach our table, we freely affirm that none are so carefully perused, or read with more interest, than that bearing the caption of "Experimental Farms." If there is one thing more than another reflected clearly from its pages from first to last, it appears to us to be the united enthusiasm of all the specialists there at work, combined with a fervent desire to stand in touch with the Canadian farmer and make their work directly beneficial to him. The director, Prof. W. Saunders, in not only superintending the work of such an immense institution as the Central Farm, but also in establishing the

several farms in the various provinces, had a task before him the arduousness of which few realize, not to say anything of the fact that it is a work from which the fruits mature but slowly. In the present report, the accounts of the establishment of the various farms can only give one a meagre idea of the labor entailed. One feature that we are particularly pleased to notice is the attention that is to be given to the live stock industry. The stables at the farm now contain, on the whole, fairly good representatives of the leading breeds, including Shorthorns, Ayrshires, Holsteins, and Polled Angus, though it is but fair to state that the selection is by no means complete. It is gratifying to notice that this industry, which is slighted by most American stations, will receive due recognition. Under the guidance of Prof. Robertson, we are justified in expecting to see all branches of live stock husbandry amply represented and assisted.

The portion devoted to the report of the chemist, Prof. F. Shutt, will not be found the least interesting. Notwithstanding the fact that the laboratory was only ready for occupation the latter part of June, enough work has been done to show the temper of this department. Numerous analyses appear, to which we may but briefly refer. Treating of the black mucks of Ontario, the practice of burning land that is covered with a layer a foot or so deep is deprecated, and, if underlaid by a stratum of clay, the practice of sub-soil ploughing is recommended, or another plan is to improve it by applications of lime or wood ashes. Mentioning the latter fertilizer, the statement is made with truth, that, as a fertilizer, wood ashes in Canada take a front rank, yet few farmers are aware of this. As it is stated, Canadian ashes are sold and eagerly bought in the New England States for three times the price they can be purchased for in the home market. Commenting still further, the article says that, on account of their alkalinity, wood ashes may be used with benefit for making composts with black muck and other like substances, and further, that by their use the tilth of sandy soil may be much improved, as they become more retentive of moisture. Touching upon gas lime, attention is drawn to the fact that, when fresh, gas lime is only of use as an insecticide, but after being exposed some time it becomes oxidized, and then, losing its properties as an insecticide, it becomes of value as a plant food. This is due to the change of the gas lime from a sulphate of lime, when fresh, to a sulphate of lime (cypsum), after being exposed.

On reading the report of the entomologist and botanist, Prof. James Fletcher, one cannot but feel the enthusiasm of the writer, for it is not paying too strong a tribute to say that there is not in America to-day a warmer enthusiast in the department of economic entomology than the compiler of this report. Several injurious insects that were very destructive in their ravages last year, are treated of. In giving remedies for the Hessian fly, which was very injurious in several districts in several parts of Canada, one is mentioned that will commend itself for most sections at least, namely, the delaying of the seeding of the fall wheat until the third week in September, for the reason that the young plant will not have appeared until after the female has laid her eggs elsewhere. The information given on the spraying with arsenites, in the form of Paris green and London purple, will be appreciated, and especially that pertaining to the former, as it is becoming more important as experiments verify its value and widen its use. Paris green, used in the proportion of 1 lb. to 200 gallons of water, has been found to almost completely prevent the ravages of the codling moth and the plum curculio, when sprayed on these trees just as the petals are falling

from the blossoms. London purple being only a mechanical mixture, it is not of definite composition, and hence it is very apt to injure the foliage when used on plum or peach trees.

The horticulturist, W. W. Hillborn, in his report gives brief notes of value in respect to the various fruits, etc., tried during the past season. One of the most interesting contributions to the report comes from the poultry manager, A. G. Gilbert. It is, indeed, pleasing to know that this department, which is overlooked by so many other similar stations, is so vigorously assisted here. The report abounds in much valuable material, so that we reserve further comment for the proper department.

Study the Nature of Your Soil.

All persons have endowments given them by nature which fit them for the discharge of certain duties better than for the performance of others that may be equally important. It is usually considered the part of wisdom to study adaptability when persons are choosing for themselves a calling which is to be made their future life work. It is regarded as very unfortunate when they make a mistake, owing to the loss of time involved in learning to do something else in a creditable manner.

Similarly it is important in agriculture to study the nature and adaptability of soils. One is apt to apply a system of farming well adapted to the locality of his earlier years, or of some former abode to his new surroundings when the conditions may require something totally different.

Certain soils, when the climatic conditions are favorable, will produce some particular crops better than others, hence such crops should be largely grown upon them. A free sandy loam with average subsoil is eminently adapted to the growth of turnips, while a clay soil with a stiff subsoil will not grow them so well, and no amount of pains or skill will make the turnip crop so profitable in the latter instance as in the former.

Some low lying lands of the loam and muck order, when properly blended, will sustain a permanent pasture for some years in fine form, while on high lying lands of the gravelly order it would be simply folly to devote them to this purpose.

The same will hold true in regard to stocking a farm. One farm may be pre-eminently adapted to the growth of sheep, because of its hills and rugged surfaces; while another may be well adapted to the growth of heavy breeds of beefing cattle, because of the richness of its low lying lands and through its grain growing powers. It would be simple folly to stock the latter with sheep, and the former with heavy breeds of cattle.

It is worth while on going into some new locality to have some regard to the practices of the inhabitants in their management of their soils, even though these may be very imperfectly performed. They usually know what their soils will grow best, although they may not have discovered how to grow crops to the best advantage.

The crops best adapted to soils will always be grown more cheaply than those which are not so adapted, whether the cultivation is of the best order or whether it is not. They have an advantage in the germination, in the early and later growth, and in the maturing processes, which give them the lead over other crops every time.

The discovery of this adaptability of soils is usually the result of experiment in individual neighborhoods more than of scientific investigation. It is by trial that it has been discovered through the lapse of years.

And hence the testimony thus adduced by the practice of the early settlers is always of some value.

But it does not follow that a more extended theoretical knowledge of soils and their adaptability may not be of much value. Some soils are well adapted to the growth of several kinds of crop which may not have been brought out in the practice of the early settlers, but which may be discovered at once by one skilled in soils and a knowledge of their capabilities.

It is true that adaptability in soils may be much modified by the skill of the husbandman, but this usually involves no little expense. The means used in producing modification are mechanical and chemical in their nature, the former including such processes as underdrainage, trenching, etc., and the latter the application of manures that may be particularly adapted to the special needs of the land.

This is a step in advance of the discovery of adaptability through observation of the practices of others, and until the scientific knowledge of farming becomes more rapidly disseminated must be confined to the few.

This study of adaptability is a keynote to successful farming. Without it the husbandman works in a measure in the dark and always at a loss, and the loss is proportioned to the extent of his operations.

There is such a thing existing unfortunately as prejudice to adaptability of soils after this has been discovered. It is the creed of so large a number, that in their practice the thing that hath been is that which shall be, hence when adaptability has been discovered they are loth to adopt it. This may be illustrated by the apathy of many farmers to introduce to any extent the soiling system, although its utility has been so amply demonstrated, as has also the adaptability of their lands to grow soiling crops.

The most faithful students of adaptability in soils, whether natural or acquired, will prove the most successful farmers as a rule, other things being equal.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

Farmers' Wives.

BY D. NICOL, CATARAQUI, ONT.

A TRENCHANT PEN WIELDED IN A GOOD CAUSE.

I have, in course of time, very frequently heard remarks made to the effect that farmer's wives are drudges. Lately I have become thoroughly tired hearing such remarks. That *some* of them may be said to be drudges in a certain sense, must be freely admitted, but from the conclusion that the appellation is generally applicable, I most emphatically dissent.

It is quite true that some unreasonable farmers expect far too much of their wives; as is instanced in the case of a certain husbandman, whose opinion was desired on one of the great questions of the day, "Is marriage a failure?" "Why," said he, "thine my wife Lucindy, she gets up in the mornin', lights the fire, milks six cows, gets breakfast, starts four children to school, looks after the other three, feeds the hens and the motherless lambs, skims the milk, makes the butter, washes the dishes and also the clothes, darns the socks, gets the dinner, milks again at night, and does lots of other things. Think I could hire anybody to do that for what she gets? Not much, I couldn't. Marriage, sir, is success, a great success."

No intelligent, industrious, economical farmer, would allow his wife to be made a drudge, or to make a drudge of herself. I know of some loud-talking, very pretentious farmers, who, were it not for the executive ability of their wives, would not have homes of their own.

Men of the farm are often extravagant, careless,

ill-tempered and untidy, and these unpleasant habits have frequently to be overcome by the merry heart and cheerful countenance of the loving wife and mother.

By the world generally, there is seldom awarded the full share of merit and praise due to the women who rise with the dawn, and pursue with unflinching devotion, the round of labor and patience required to keep the household going like a smoothly running machine. Yet the happiest, heartiest and most sensible women we ever meet are the wives of intelligent farmers.

It is true, the life of the farmer's wife is a busy one, but she has to endure comparatively few hardships, and enjoys more of the true comforts of this life, than are enjoyed by any other class of the people who have to work for a living. It is not called drudgery to sit in a hot room hour after hour ripping to pieces old style dresses, and rebuilding them according to fashion; ruffling, gathering, crimping, cording, shirring, smoothing, ironing, flouncing and flumating, until with headache and heart sickness the body becomes enfeebled and the mind impaired, and all in order that they may appear to better advantage in the opera-house. Yet that is the kind of life many wives in the cities lead.

If housekeeping, preparing the butter for market, caring for children and chickens and motherless lambs is drudgery, it must be because the mind of the woman engaged at such work makes it so. I cannot think of any more desirable occupation for a sensible woman who would teach her daughters habits of industry and thriftiness. Doing work we do not love is always a drudgery, but no farmer's wife need be a drudge if she elevates her work to her own standard.

As regards the privileges which farmers' wives are permitted to enjoy, let us for a moment compare them with those of the wives of dwellers in the city. They are permitted to live longer. It has been proved that the death-rate of districts increases with the density of the population. Investigations which have recently been made on a large scale by Dr. Farr, prove conclusively, that of all living beyond the age of eighty years, only an extremely small proportion were born or spent their childhood in the city, while a large proportion were reared upon the farm. The reason for this state of matters is not hard to find. The conditions of city life are such as to lead to much greater prevalence of epidemic and contagious diseases; while dwellers on the farm enjoy plenty of pure air and sunshine, simple food and out door exercise. Their habits are regular, their hours of rising and retiring are early, and they are never worried about being out of employment.

Most of farmers' wives have all the necessaries and many of the luxuries of life, can ride in their carriage whenever they choose to do so. They can always have plenty of sweet milk and cream, fresh butter and eggs, they can pick the choicest fruit from their own trees and vines, they live close to nature, and if they do not enjoy her riches and beauties, it must be because they are not inclined to appreciate their glorious privileges.

It should be a great satisfaction for mothers on the farm to know that the great majority of the successful business men of the cities, and of the men occupying responsible positions in public life, were reared by them. They produce men of robust constitution and strength of body, without which no one can long endure the strain of business and professional life.

We must acknowledge the difficulty of obtaining female servants for the farm house, now that females are employed to a great extent in doing work that was formerly done altogether by men.

Boarding the hired men in the farm-house was at one time considered judicious economy, but now many farmers have become convinced that it is more economical to build small houses, affording accommodation for married men, by which means better and more reliable help is obtained with less trouble and fewer changes.

I am of opinion that whatever is calculated to lighten the labor of the farmer's wife will tell in the home comforts of the farmer himself. This may appear to be merely a selfish consideration; nevertheless, the adjusting of requirements is the fundamental necessity for ensuring household harmony.

The world has grown kinder to all women than it was formerly, and it will become still kinder as women reason more for themselves. It is not now as it was when the Scotch patriarch admonished his daughter: "Janet, its a solemn thing to get married!" "Yes, father, but its far more solemn to be single."

We read and hear much about the necessity for educating farmers' sons, so as to incline them to love and honor the noble vocation of their fathers, but as yet we have heard little, if anything, about giving farmers' daughters an education that would better fit them for the important position of farmers' wives. I do not know why agricultural colleges should not be open to women and men on the same terms. We must freely admit that the better educated the farmer is the more likely will he be to recognize the rights of his wife, her right to as pleasant a home as his means will afford; her right to social intercourse; her right to a control over house and personal expenditures; to an opportunity for improvement; to an understanding of all matters of interest to himself, and to a share of his time and affectionate consideration. The cultured man respects himself so highly that he considers nothing too good, that is within his means to obtain, for the woman he has chosen to rule his home and to be the mother of his children. The educated woman will recognize all the physical and spiritual rights of her family; she will manage more economically, govern more wisely, and work more advantageously, beside having a better time in doing it.

Hon. John Carling, M.P.

Minister of Agriculture for Dominion of Canada.

Men that serve their country in any of the various public capacities, are fortunate indeed if they have their merits and labors appreciated even by those with whom they are more directly associated, and thus it is that many are forbidden even the consolation of securing a modicum of happiness, by proxy it might be said, through the good opinion of others. Not so has it been with the subject of our sketch, for, besides long enjoying the confidence of his constituency, the Hon. John Carling has ever been the recipient of the greatest respect from those associated with him in his legislative labors.

The Hon. John Carling, M.P. for the city of London, is the youngest son of Thomas Carling, a native of Yorkshire, England, who came to Canada in 1818, and in the year following settled in the county of Middlesex, in the township of London, where the subject of our sketch was born on the 23rd of January, 1828, and educated in the public school of that district. Equipped with a sound education and being blessed with an industrious temperament, it is not surprising that Mr. Carling at an early age took a lively interest in the public matters of the time, and soon became the moving spirit of many business enterprises, as shown by the fact that he was for

several years a director of the Great Western Railway Co., the London, Huron & Bruce Railway Co., and the London and Port Stanley Railway Co.; and also was more or less identified with the civic life of the city of London. In 1857 Mr. Carling entered on a widened public career by aspiring for political honors, with the result that he was returned by a large majority, and continued to represent his constituency down to the time of Confederation. In 1862 he entered the cabinet for the first time as Receiver-General. After the confederation of the provinces, Mr. Carling was again elected as a member of the House of Commons, and was also returned to the Legislative Assembly of Ontario, dual representation being allowable at that time. From this time until 1871 he held the portfolio of Minister of Agriculture in the Cabinet of the Sandfield-Macdonald administration, but was forced to resign when the Government experienced an overthrow. In 1878, Mr. Carling was again elected to a seat in the House of Commons, and in 1882 he entered the cabinet of the present government, being made Postmaster-General. Shortly after this he became again Minister of Agriculture, and in that public capacity has done a work for Canada Agriculture which cannot be too heartily appreciated. The most noticeable undertaking that has emanated from his department has been the huge and intensely beneficial enterprise of establishing experimental farms in the various provinces. With that sound judgment, organising power, and business enterprise, that characterised his labors in his younger years, Mr. Carling has wrought out and placed on a practical working basis a scheme for the uplifting of Canadian agriculture to a higher sphere of profitability, that is distinct and unique; differing from that of the American government in that the work is unified and under central control and guidance, and outshining that of most other nations in its magnitude and effectiveness. The wide introduction of two-rowed barley and the attention given to the cultivation of a market for it also shows that the Honorable Minister is in his touch with the farmers, while the stockmen through various measures have long ago learnt that the department is fully alive to the importance of it trust in guarding so vast and vital an industry at that of our live stock. The liberal and enthusiastic way in which these farms were inaugurated and the careful and wise manner in which the several departments were officered, seemed at once for them the good will and full approval of every intelligent farmer. It is a gratifying fact for us to note that the Canadian stations are setting a bright example for others in giving so much attention to the live stock interests. From the nature of the work that has already been done we feel we are amply justified in saying that as years accumulate a warmer appreciation and deeper feeling of obligation will go forth from every Canadian farmer to the minister who so efficiently wrought out and projected such a far reaching scheme as this for the benefit of Canadian husbandry.

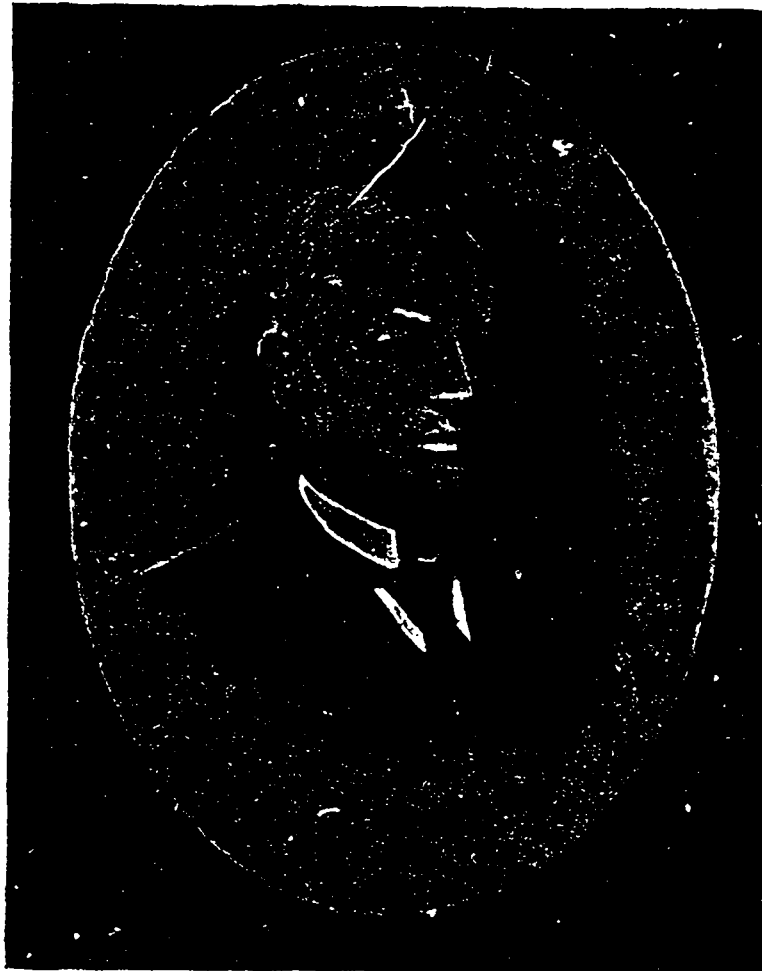
For the CANADIAN LIVE STOCK AND FARM JOURNAL:

Cutting, Curing, and Management of a Hay Crop.

Cutting.—The time to cut hay is directly it is in full bloom. Both science and practice bear out this statement. The reasons assigned are that at flowering time the plants have reached their full growth, and the nutritive constituents of the plants are in a very digestible form. Over-maturity of a fodder plant increases the woody fibre and lessens its nutritive value. These remarks are especially applicable to clover hay. Timothy hay is better for being cut previous to blooming, as then there is no danger of its becoming dusty from the bloom, especially when the hay is a little damp. While in the case of wild grasses it is quite essential that they be cut before blooming to secure any feeding value whatever.

Management.—Two or three hours before hauling to stack or barn open out these coils in order to expose the inner surfaces to the atmosphere, being very careful to remove the bottom of the coil from its old bed, as hay absorbs moisture from the ground. In uncertain weather hay may be housed quite green if the following precautions be observed: Over every layer in the mow a foot or so thick sprinkle a mixture of salt and air-slaked lime, in the proportion of 1 to 2, until quite white with it. The lime absorbs the moisture and the salt preserves and gives it flavor. All the leaves are kept intact, and all that stock require is to get enough of it to grow fat. Nearly all these recommendations we have tried, Mr. Editor, with good effect.

T. RAYNOR, B.S.A.



HON. JOHN CARLING, M.P.

Minister of Agriculture for Dominion of Canada.

Curing.—Cut forenoons, and if possible rake and cock up during the afternoons. Where very heavy use a hay tedder if one be available. It does not hurt hay to put it up quite green. In rainy weather it is decidedly better to cock it up quite green, where it may stand for days in the cock and take no harm. Because it packs solidly together when cocked green and it prevents the water from penetrating the surface at the same time excluding the air, somewhat similar to curing silage in a silo.

Hay suffers most from two causes. (1) Over-maturity, which we have already alluded to, and (2) washings from rain or heavy dews. By exposure to the latter's influences a great deal of the nutritive materials are washed out. The albuminoids, the most valuable nutrients of fodder crops, are lost for feeding purposes in this way.

In curing, when the weather is favorable, make small coils and leave the hay to cure in this way from twenty-four to forty-eight hours.

the hay is ready to cut, and there is very often a few turnips that must be drawn in on Thanksgiving day. Now this is not right. The sheep can be washed just as well on the 23rd, the hay won't spoil and another day, and the turnips should all be stored before Thanksgiving. As a rule there are no steadier working lads in the land than the sons of farmers, and why should not they have all the holidays? Instead of giving them grudgingly I think they should be added to. Why should we not have a holiday to correspond with the civic holiday of the city people? Again, I would urge farmers to be careful what work they give their sons to do. Do not start him to plough in the stoniest field. Do not set him picking stones day after day) Do not give him the worst team, but give him the best team and let him have the easiest work. Consult him about the management of the farm and do not make out that he is always wrong. Make him feel that he is more to you than the hired man. Encourage him to compete against his neighbors at the fall show, and buy him some good stock, so that he can do so successfully. Once arouse the boy's ambition to excel his neighbor in some particular line of farming and help him to do so, and you will altogether likely keep the boy on the farm.

YOUNG FARMER.

Keeping the Boys on the Farm.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

The importance of this subject will I feel, warrant me in asking you to allow me to lay a few thoughts in respect to it before your readers.

A great many boys come home from school, with the idea of farming, but they find everything on and around the farm such as to turn them against the life. Home surroundings are what make nine boys out of ten leave the farm. In the city they see that boys find places to amuse themselves of an evening, while in a great many country homes, it is very different. As a rule they sit around the kitchen fire, and if they do not smoke they go to sleep in the corner. The front part of the house is almost unknown to them: it is the place for visitors and open only when company is present or expected; and further, games of any kind are not tolerated. Now this is not as it should be. Home should be made attractive to the boys. Innocent games should not only be allowed but encouraged. The parlor should be as open as the kitchen. How much better to see the family engaged in their evening work in nicely lighted rooms, neatly, not necessarily expensively furnished, than to see boys sleeping around the kitchen fire. Give the boys a chance. Take besides a local paper an agricultural journal; there is hardly a number that you read, but in it will be found something that if put into practice will pay twice over for the subscription. Music also adds greatly to the attractions of the home. What more beautiful sight (one long to be remembered, after the boy has left the home circle) than to see the family grouped around a musical instrument of a Sabbath evening, singing sacred songs or the hymns of their church? Then there are the holidays which we all know the boys in the city keep, but on the farm you all know there is a tendency to have just a small job ready for them. The 24th of May is a very good day to wash the sheep, by the first of July

Questions and Answers.

If there is any subject bearing upon this or any other department of our JOURNAL upon which you desire information, write us, and we shall be pleased to intrust your query to competent persons and publish the answer thereto in our earliest issue, and if an immediate answer is required, such will be gladly given if a postage stamp is enclosed. Write the queries on paper detached from all matters of business, sign your full name and address as a guarantee of good faith, and write only on one side of the sheet. We request the assistance of our readers in making this a useful and interesting feature, and we shall always be pleased to hear from any either desiring information or obliging enough to give it for others, upon any topic within our field.

RAISING COLT ON COW'S MILK—E.L., Canterbury Station, N.B. I have an imported Clyde mare that foaled one week ago, and would not own her colt, and though forced to suckle it commenced to dry up in two or three days. We are raising the colt by hand. Please let me know the best method of feeding the colt. Is it a common thing for mares to disown foals? What is the probable cause and is she likely to act so next year? [The absence of the maternal instinct is an unaccountable peculiarity. Foals soon learn to drink out of a vessel, and cows' milk is the best and cheapest substitute. If it appears to be too rich, causing any disagreement of the digestive organs as scouring etc., add water to the milk in the proportion of one part of water to three of milk. If the bowels become costive add some molasses, honey, or sugar, to the milk occasionally.]

FORESTRY MATTERS—Subscriber, Canboro, Ont.: (1.) Will the black walnut thrive on clay soil, if so where can I get the nuts to plant, or would it pay better to get young trees from the nursery? (2.) In the May number of THE JOURNAL you spoke of the grey willow for fence posts but as I have none on my farm to take limbs from, please let me know if this willow produces seed and where I could get some? (3.) Is there a forestry report printed in Toronto every year, and if so to whom should I apply for it? (4.) What time of the year should the black walnut be planted, also the Norway spruce? (5.) Will the hickory tree grow from the hickory nut, and if so how should it be planted and where? (6.) Yes, though it prefers rich bottom lands of strong loam. If you have the time and can take the trouble to grow them, procure the nuts from any seedsman or friend living in districts where they grow. You will get better trees from nurserymen than you can grow yourself. (7.) The willow produces its seed in the spring. Your best plan is to secure cuttings or sections of roots from nurserymen, as they are much easier propagated in that way. (8.) Address R. W. Phipps, Department of Agriculture, Toronto, Ont., for Forestry Reports which are issued annually. (9.) Plant the black walnut in the fall if possible, if not store outside in sand during the winter, and plant in early spring. Gather the cones of the spruce in the fall, hang them up in a fine muslin bag in a warm dry place, and the seeds will soon drop out. The seed should be kept dry and planted the following spring. (10.) Yes. Plant in the fall in nursery rows about four feet apart each way, and transplant after one year to their permanent situation. Weed and cultivate well until beyond the weeds. In transplanting do not cut off the tap root. Hickory and butter-nuts may not germinate the first spring, and yet grow well the second. — Ed.]

The Dairy.

At the English Jersey Show held sometime ago, the cow that won the gold medal and fifty dollars in the butter contest, gave 41.1 lbs. of milk, from which was made 2 lbs. 3¼ oz. of butter.

Of the £5000 granted by the Board of Agriculture of Great Britain, for the encouragement of agricultural instruction and research, the largest sum devoted to any single purpose, £2,055, was given for practical instruction in the most approved methods of dairying, including the manufacture of both butter and cheese.

As well try to twist a rope of sand as seek to make a success of dairying by supplying the cheese factory with water tinted a sky blue with milk. Only from good milk can be made the best cheese, and it is only the best cheese that brings the highest price. In sending out poor milk the dairyman flings from his hand the boomerang that is going to descend on his own head.

A NEW departure in the storing of ensilage has been introduced and patented by an English firm, which consists in using an exhaust fan to withdraw the air from the silo, thereby preventing the fermentation that would take place through the presence of the air. When the silo is sufficiently filled, it is made air tight, and then the exhaust fan and pipe are attached, and the air withdrawn.

WRITERS nowadays make mighty efforts to connect cause and effect, but the statement we quote credited to a prominent experimental station in the United States, is the most dogmatic and absurd we have yet met—"Sloppy food makes soft, wet butter." The feeding of sloppy food is not justifiable—but to say that the moistness of the food affects the amount of the moisture in the butter, which is determined by the nature of the washing and working, is clearly unfounded.

BEFORE the New York Dairy Association Professor Myers, of West Virginia Experimental Station, brought forward a new idea in buttermaking. The milk was run through a separator as soon as received, and the cream was at once churned in the ordinary Blanchard box churn, and after the butter gathered the butter-milk was put into the centrifugal separator which threw out whatever butter was left in the butter-milk. He claims by this course he can obtain all but about one-tenth to one per cent. of the butter fat of the milk, and that he has separated 1121 lbs. of milk in 83 minutes. The most noticeable feature is that the cream is churned without being ripened.

Churning Whole Milk

Writing on butter-making, Dr. Aitken, in the *Farmer and Stock Breeder*, brings forward a number of arguments in favor of churning whole milk, instead of following the ordinary method of separating the cream and churning it. He claims that it takes up little room and requires few apparatus; that it takes less trouble and care than creaming; that it does not involve so much risk of loss through accidents of various kinds to which cream is liable; that it yields or can be made to yield the maximum quantity of butter, and that it is very well adapted for small dairy farms of about twenty or thirty cows, especially if they are near towns where a ready market can be had for buttermilk. Among the disadvantages put forth may be mentioned that it takes longer to churn the whole milk into butter. And it there be anything in the claim that ripening of the cream adds to the butter flavor, then this also would stand against the practice of whole milk churning. It is claimed that for many years past it has been the custom in Norway and Sweden, as well as in various parts of Holland, Belgium and Germany, to churn the whole milk. The statement that, by following this method, the maximum quantity of butter may be obtained, should be better qualified before being generally accepted. It would be possible to get equal returns with the other method of churning the cream, but it would be necessary to ripen the whole milk, similarly to the cream, and this means that there will be no sweet skim milk, but in its place sour buttermilk. The method followed on the European continent is as follows: The milk is usually put into a barrel and left over night. To this the morning milk is added, and also the mid-day milk, when it is customary to milk thrice daily. The mixture is allowed to stand until the oldest milk is thirty-six hours old, when

it has attained to ripeness. Under conditions when buttermilk would be as valuable as sweet skim milk, this system might be followed perhaps with advantage.

Silage Squibs.

The silo is one of the best agents for lessening the cost of production that the farmer could adopt, and it is to be remembered that cheapening the cost of production of all articles of the farm, lessens the price of articles that are bought.

Land rich in vegetable matter, deeply ploughed in the fall, and lightly cultivated in the spring, has given the best results.

Corn grows best following sod. Farmyard manure well worked in shows its effects in a greater growth, earlier maturity, and a greater yield of nubbins.

To enable corn to reach maturity plant early as possible. To lessen the loss of kernels not germinating, plant shallow (2½ in.), and it has been recommended strongly to heat the corn seed before sowing.

Plant in rows 3½ feet apart and eight inches in the row. Level cultivation has given most satisfactory results.

Harrow the corn twice at least from the time it is two inches high until it has attained a growth of six inches. At the Central Silage Convention, held at Ohio, and admirably reported in the *Ohio Farmer*, E. Whibbey gave his method as follows: I put about 20 loads of good manure to the acre on five acres, and I planted it with a common grain drill, putting the corn about 3½ feet apart. The corn came up nicely, and as soon as it got dry enough while the corn was small, I put a Thomas harrow on that field and harrowed it thoroughly, straddled each row with a harrow and lapped over, so that it was all harrowed over twice. When I got through with it that field was about as sick a cornfield as I ever saw. I concluded I would not build a silo, I thought my corn was about ruined, and I stayed away from it a week or more, but it came up again and looked much better.

The difference between sour and sweet ensilage is a difference in the degree of sourness, and the adopted conclusion now is that sweet ensilage results when fully matured corn is put in the silo, and sour when immature and wet corn is put in.

Though it is not established by chemists that any improving change takes place in the silage owing to being stored in the silo, yet practice clearly demonstrates that silage is in a better condition for feeding, being more easily masticated, that it is more palatable and more digestible than cured fodder corn for feeding purposes.

The smallest silo yet heard of is one in Pennsylvania 4 x 4 feet and 18 feet deep, and it is said to do splendid work for one cow alone.

The difficulty at present facing siloists is the moulding of the corn in the corners. This may be obviated by fitting a board into the corner so as to break the angle. Another reason for the spoiling of the ensilage in the corners is due to the fact that the ensilage is not spread properly as it leaves the carrier. If not carefully spread the stalks will all be deposited in the centre, and the lighter portions flutter to the sides.

Ensilage is not a complete food, it should be supplemented with grain foods. Many expect to feed it alone and get the best results. It is merely a part substitute for hay or roots and should not be fed alone, but sprinkled with bran, chopped oats, or other foods that might be fed.

At the Central Silo meeting, many expressed themselves in favor of lathing and cementing the inner wall, claiming that it is far more durable. The moist ensilage certainly has a tendency to swell the boards, causing them to warp and rot, but that may be obviated by using crude kerosene for painting the inner wall. Mr. Robnett spoke strongly in favor of the lath and cement, using the following words in support of his claims: "The cement keeps the frame

dry. Some are inclined to build in a hasty clap-trap way, but I think a good cement wall properly constructed, so that it will not open at the corners and will keep feed year, after year is the best. I mean a cement wall put up with studding, and then board up with cheap lumber costing \$8 or \$10 per thousand, put on lath and then plaster with cement just as you would a cistern, making it water-tight, so that your frame shall not be injured by continual dampness and wet from the ensilage. I know a wooden silo can be constructed more cheaply." Also on this question, L. B. Pierce said that he had a friend who was very successful in making sweet ensilage, and his silo was plastered on the inside. He described it as follows: "The outside is rough boarded, and there are two thicknesses of boards on the outside, and then on the inside it is sealed up and sawdust between. On the inside it is furred out and lathed, and plastered with water lime. He told me this afternoon that if he was going to build one hundred silos he would plaster them all. He said it protected the woodwork; it was durable, perfectly smooth, the silage settled nicely and there was no waste on the outside." The plaster would certainly be subject to cracking, or damage from accidents, and hence be more often in need of repairs than the plain board wall.

A cubic foot of silage is about one bushel and a half and will weigh from thirty to forty pounds, which is a sufficient quantity per day to feed two cows, if it has been well preserved.

Referring to the value of ensilage for the other animals of the farm, L. B. Pierce said: We have fed sows for four winters, about twenty-five in number, equal parts of ensilage and corn meal put into a cooker and brought up to a steaming state. It has proved to be very beneficial to them. It keeps up the flow of milk of the sows that are nursing the young, equal to when they are running on clover. We find too, when the pigs are farrowed, they come more robust and take to nursing much sooner and better than they did winters when they were fed on an exclusively dry diet. We also fed it to our sheep. To our sixty head we feed out about sixty bushels of ensilage. We also feed it to our poultry. We are quite extensive poultry raisers, and we find there is nothing to equal silage for egg production, when it is mixed with potatoes and turnips and cooked.

The question of siloing other crops with the corn coming up, Mr. J. W. Pierce, of Indiana, said that he filled one of his silos with equal parts of corn and clover cut, and the other pit was filled with corn alone. He says: "We fed from these two pits. We find from experience, that the clover and corn fed in equal parts with other food is better for stock than to feed either one, corn or clover, exclusively."

In respect to the feeding of ensilage to horses, brood mares, and colts, Dr. Stuart, V.S., made the following assertion at the convention: "We all know that a fall colt is preferable to a spring colt; that is generally in breeding fast stock, we want to have all our mares come in the fall so that the colt can be with the dam through the winter, instead of having fevered milk, which it would generally get in the summer when the dam is pastured, caused by exertion in any form. We also found that the colt thrived and did better. Another point was, and a point I wish to impress upon you, that the colt was weaned when the grass was at its best, and it just grew right on without staying one moment. The difficulty has been to wean the colt on dry feed. Now by feeding the colt ensilage it goes right on to grains, and there is no bother or stopping of the growth of the colt, either in the field or on the ensilage during the winter."

Milk Cooler, Aerator and Strainer.

Editor CANADIAN LIVE STOCK AND FARM JOURNAL:

SIR,—I would like to call the attention of farmers, dairymen, and all others who handle milk, to the above useful article recently invented and patented by Mr. Angus McLeod. Having had one in use the past summer, I have witnessed its successful working as a milk cooler and purifier. The milk passed through it remaining sweet for hours longer than that of the same milking treated in the ordinary way under like conditions. Owing

to its peculiar construction, the processes of cooling and purification through aeration go on simultaneously, while the milk is in motion over a cool surface. The article consists of three parts, a receiver and strainer on top, a cooler tank below it to hold ice or water, over which the milk flows in a long circular stream of about forty feet, and a pan under both to receive the milk.

There can be no doubt that milk often becomes contaminated not only by effete and unwholesome matter in being drawn from the cow, but also obnoxious gases and odors absorbed from the impure atmosphere of barnyards and stables, to say nothing of the contingent of dirt added by the careless milker; and any convenient and inexpensive means of getting rid of this unwholesome matter in the milk, thus rendering it health-promoting instead of disease-producing, ought certainly to be welcomed by all concerned. This new cooler appears to be what is needed for this purpose.

The hygienic consideration is not the only one, though I consider it the more important one. Milk thus cooled, aerated, and purified, will yield more cream, butter, and cheese, and of a better quality, and this means additional dollars and cents in the pockets of the dairyman and farmer.

Mr. W. C. B. Rathburn, of the Deseronto Bay View Ranch, not far from Napanee, has used two of these coolers, two seasons I think, and speaks very highly of them. He says they have increased the sale of his milk seventy-five quarts per day.

ALLEN PRINGLE.

Selby, Ont.

Questions and Answers.

If there is any subject bearing upon this or any other department of our JOURNAL, upon which you desire information, write us and we shall be pleased to intrust your query to competent persons and publish the answer thereto in our earliest issue, and if an immediate answer is required, such will be gladly given if a postage stamp is enclosed. Write the queries on paper detached from all matters of business, sign your full name and address as a guarantee of good faith, and write only on one side of the sheet. We request the assistance of our readers in making this a useful and interesting feature, and we shall always be pleased to hear from any, either desiring information or obliging enough to give it for others upon any topic within our field.

MILKING STRAINS OF SHORTHORNS.—Breeder, Ont.: I am a small breeder of Shorthorn cattle, and I would like to get a few "pointers" from you or any of your readers in regard to the milking strains of Shorthorns. In my herd I have some good milkers, and from what other breeders tell me, and from what I have seen, I know that there are Shorthorns that are excellent milkers. How should I go to work to breed milkers? That is, what are the general rules that should be followed to breed cows that will not only give good returns at the pail, but also give grade calves that can be made into beef? [Our correspondent brings up a matter of much importance. There is a strong demand at present for stock from which may be bred cows that will pay for their keep and give a profit through their dairy qualities, and at the same time throw calves that can be made profitably into beef. This cow will find as ready a sale awaiting her as the purely dairy breeds are at present experiencing. It is a fact that may be easily verified by sound testimony and present observation, that in the Shorthorn breed there are cows varying in dairying qualities all the way from the unfortunate that can hardly suckle her calf into a lousy growth, to the cow that, besides throwing calves that will make beef profitably, also gives from a pail to two pails of milk every day, and keeps it up until the near approach of calving time calls for a rest. Now, such cows are not confined to any single family, but both types may be found in all. It is, however, the belief of the majority that the Bates are the best milkers as a rule, but it is to be remembered that amongst the Booth good milkers are to be found, and hence we would say that the possession of dairy qualities of any cow of the Shorthorn breed depends less upon strains than upon the management of the herd of which she is a member during the last decade or so. This will have a greater effect in determining the present dairy qualities than what was done many years ago when the breed divided into the two families, Bates and Booth. Briefly, to secure milkers, choose as breeders the best milking cows of your herd. Select those inclining to the dairy type in point with deep well-sprung ribs, wide strong loins, and above all give attention to the length and depth of the hind quarter, and the elasticity and length of the udder. Early maturing calves will come only from sires and dams possessing that mossy coating and mellow matting of flesh that characterizes all good feeders. Feed the calves from the pail as far as possible, and above all milk your cows completely dry. Get a bull of such a form as to be able to carry profitable flesh out of a cow that was a good milker, and the more extended the line of good milkers the better. An expression of opinion from any of our readers will be appreciated by our correspondent as well as by us.—Ed.]

Poultry.

In answer to a correspondent's queries in respect to feeding boiled potatoes to fatten young chickens, the *Farm Journal* after recommending them adds that while hot they should be mashed with corn meal and bran, given warm and fed not oftener than every other day and not more than they will eat up clean. The trouble which usually follows feeding potatoes is generally due to over feeding without mixing with meal.

SKIM MILK has a high value as a food for chickens, as many of those who make a specialty of feeding for the market may testify. Dr. G. M. Twitchell is one of these, and he endorses its value and finds that he gets the best returns from feeding chickens by making a dough of it, ground feed, and meat scraps. The best proportions he has found to be thirty per cent. of oats and wheat, twenty of corn, and ten of linseed, all ground together and ten of meat scraps added. This he mixes into a dough with skimmed milk and bakes it thoroughly, sets it away for a day or so and then he pounds it fine. This course is pursued in feeding for market solely.

White Plymouth Rocks.

The popularity of the Barred Plymouth Rocks has been largely shared with the White Plumed variety. In fact many express a strong preference for the latter owing to their white plumage and on that account especially have unexperienced poultry fanciers done best with them, as it is an easier matter to mate and breed to the standard than the mixed colored fowl. It is a much easier task to mate successfully pure colored birds than those of variegated plumage, which must be of a certain pencilling, etc. Some have claimed superior laying qualities and more hardiness for the White than the Barred Plymouth Rock, but such claims are not justifiable. The qualities of the two families are almost identical, the White possessing that plump compact full-breasted body of its close relative, and it also has equally their good laying abilities, fine quality of flesh, and general appearance of robustness, the only appearance that is distinct being the marked difference in plumage. The breeding of White Plymouth Rocks has been a good field for amateurs, as it takes less skill to secure uniformity of markings, and less difficulty in meeting the requirements of the standard as regards color. The standard weights are as follows: Cock 9½ lbs., hen 7½ lbs., cockerel 8 lbs., and pullet 6 lbs., so that it will be seen that as far as weights attained, the both varieties are on the same footing.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

Light Brahmas.

A large number of fanciers have settled down to the conviction that the Light Brahmas, for general purposes, are equal, if not superior to any of our domestic breeds.

Side by side in the show room with the new claimants for admiration, the number of entries come but a little below. There is a noble bearing, something commanding our attention, in this grand old breed. "Every dog has its day," we hear, but what a long day has been that enjoyed by the Light Brahma. They have been more generally bred, and have held a special interest from all lovers of the fancy. Look at the thousands who make them a specialty!

Look at the thousands who place them 1st on the list of breeds kept!

Why all this partiality?

Simply because (1) they are the most hardy; (2) they lay seven-twelfths of all the eggs they lay in the year in five coldest months, when eggs command a fancy price; (3) they lay the largest egg of any breed; (4) they have the popular call as table fowl; (5) they are the *ne plus ultra* of all practical fowls.

What more do you want, "the earth"? Well, friend, you will have to get along without it, it is already spoken for, but you may have the next best thing—the Light Brahma.

Britannia, Ont.

F. J. THOMSON.

From Country Gentleman

Barrelled Ensilage.

Nearly all progressive farmers are building silos and putting in ensilage for their stock. They have been slow to adopt this method of providing a green food for winter, and at first only a silo here and there was to be found. Little attention has yet been paid to preparing ensilage for anything but cows. If it is a good food for them, why not use it for all kinds of live-stock, and especially for poultry? It seems to me it would be an excellent winter feed for them, and one that would make them lay, and not require a silo of necessity. Get some large tight barrels or casks, and fill them solidly with grass. Second crop is best, as it is short and packs well. Last season I filled several casks with green rowen soon as cut, and packed them away in my cellar. In March they were opened, and excepting a little near the head it was as green and in as good order as when put in. To pack it properly, get a water-tight cask or barrel with a head that fits perfectly. Let one man stand in the same and tramp the grass, while another puts in a little at a time. Fill it up solid so that it will bulge up from the top five or six inches. Then press the head in with a barrel header and make it fast. Store your barrels away in a cool cellar, and in the spring and winter you will have some green feed for your poultry. They may possibly not eat it at first, but will soon get to liking it.

GEO. Q. DOW.

N.H.

Horticultural.

A Remedy for Apple Scab.

The Wisconsin Experimental Station during the past season carried on a number of experiments to determine the value of certain mixtures in lessening the attacks of the apple scab. As the Fameuse is one of the varieties of apples that usually suffer most seriously, it was chosen as the subject for experimentation. Twelve trees of this variety were chosen, and four different mixtures were used as follows: A solution of potassium sulphide; a solution of hyposulphite of soda, a third by slacking lime with a portion of sulphur and mixing with water; and the fourth, which gave the best results of all, a solution of an ounce of carbonate of copper in a quart of liquid ammonia diluted with one hundred parts or more of water. The spraying was done when the flowers had all fallen and the apples were slightly larger than peas, and this was repeated through June, July, and into August, about every fortnight. Of all the substances used, the carbonate of copper solution proved the best, being an almost complete remedy for the disease. It is stated that the fruit grower who owned the orchard in which the experiment was tried, has decided to treat his entire twenty-five acre orchard with this the coming season. Four ounces of carbonate of copper, and one gallon of ammonia, is enough to make 100 gallons of the diluted solution, and sufficient to spray once seventy-five medium trees. The ammonia, being volatile, should be procured in glass vessels and kept tightly corked with a rubber stopper. To this add the precipitated carbonate of copper at the rate of one ounce to a quart of ammonia. For use in spraying, add a quart of this liquid to twenty-five gallons of water. The solution should be tightly corked and applied with a force pump as is ordinarily done in spraying.

Summer Pruning Grape Vines.

This practice is followed especially by those desirous of obtaining as large and as finely developed bunches as possible. The advisability of adopting it depends somewhat on the physical conditions surrounding the vine. If the soil is inclined to be moist and induce too rank a growth, some pruning or "pinching," as it is called, should be followed. It should not, however, be delayed until the last of July or August, as then the growth has advanced too far and the vine will be materially weakened by such a delay. The better time is during the months of June and July, when a couple of times each week or oftener, the branches that have grown three or four inches past the bunches of berries should be pinched off, and the leaves thinned out as desired to admit the sunlight. The authorities at the Pennsylvania Experimental Station recommend the practice highly, as they found it to very strikingly effect the bunches, making them full, heavily shouldered, and the berries were noticed to be very large. A bunch off a Concord vine, treated in this way, it is stated, weighed slightly over a pound, and the body held ninety two berries and the shoulder piece thirty berries, making in all a total of 122 berries to the bunch. The largest berry weighed 5.72 grammes and two such bunches were on the one cane.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

The Vegetables we Use.

BY ANNIE L. JACK.

The Peas came into flower the third of June, which is as early as usual, and they give promise of early maturity. The variety is Cleavland's first and best. Lately while thinning vegetables and seeing how very uneven they grow from the seed, I thought it would be as well if we were a little more careful in this process, and more particular to take out the weaklings, and select the strongest to fill the ground, the common method being to pull out the plants indiscriminately. Six inches apart is about the right distance. It should be done in showery weather, or else the drouth will dry up the roots of the plants that are left. Where the onion maggot is bad, it is a good thing to mix the soot from the stove with a little salt, and dust along the rows. Parsley if sown in July makes a late bed for autumn and often winters better than if sown earlier. Nature satters seed when ripe, and that would be midsummer for parsley and many other biennials. Turnips sown new are crisp and tender—we are putting in a few rows of Robertson's Golden Balls—first sowing a little fertilizer along the row, and then the seed, which has been steeped over night in kerosene oil, and then rolled in plaster, this precaution being to prevent the black fly eating them up. Celery in the hot bed grows finely if kept well watered, and the tops sheared once or twice, with the view to make the plants more stocky. They can go in when the earliest peas will soon come off. A little plaster keeps off the cabbage moth, but too much makes any vegetable hard to cook. The beans need sowing in succession, and any vegetable to be used for pickles can be sown in July.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

Work for July.

BY ANNIE L. JACK

The work of the months vary now in a greater degree than at any other season of the year. I suppose any one would think that an orchardist has nothing to do in July, but it is a busy time if anything is done to keep it cultivated. If a green crop, it is the weed season, consequently hoeing must be persevered in. Low growing crops are best and then a seedling down to grass. In our oldest orchard the clover is cut when it comes into bloom, and then left on the ground as a mulch. It is of great value as a manure,

and protects the trees from drouth, while the fruit falls soft and unbruised in the season of windfalls. And it is very necessary to pick up all the prematurely dropped fruit, as it generally contains a codling moth, and only this attention can keep them from destroying the fruit. So this month finds us busy among the fruits, for the raspberries ripen and fall if not gathered. There is nothing more profitable than a plantation of red and white raspberries. Cuthbert and Malboro', with some of the old Antwerp varieties for red, and Golden Queen and Brinkle's Orange for yellow, the former the heaviest cropper, and more robust plant, the latter finest in delicate flavor. For market, a crate of these berries alternate red and white is a pretty sight, the poetry of fruit growing. Then the picking is pleasant when they are planted in clean long rows—and a picker on each side to see all stray berries—not back-aching work like strawberry picking; you can stand up with the blessed breezes blowing around you, and the beauties of nature in view on every side. A flat basket holding six or eight boxes, then a piece of shingle, and as many on top, is to be provided for each side of the row, while the picker keeps the box to be filled fastened to the waist by a belt or apron, leaving both hands free. How fragrant they are; how the robins and blue jays revel in them, and give us a song in payment for their little thefts, or rather for the toll they take, for our trespasses.

In the flower garden the tall white Virgin's lily is the queen, for the summer roses are fading. It is a very beautiful lily, such as the virgin is said to have held on the day of her espousals, and is not half as well known or grown as it ought to be. The annuals are coming into flower, and the gay Spireas and Weigelas form the chief shrubs after the faded Lilacs and Syringa, and until the Hydrangea paniculata comes next month. There is a freshness yet in the summer delights, and the garden is a treasure house where choice living delights are to be found. For the champion or marrowfat peas are ready, the golden wax bean, and the first cauliflower. Then the rotund gooseberry with its tart and self contained flavor; the strings of currants, mixed, white, red and black, if one wishes, that adorn the bushes, and cherries are ripe. Who has not some pleasant memories of this fruit? "Cherry ripe." I fancy I hear the cry on London streets, I see the tall trees in the immense orchards, round about the south side of that wonderful city. As a child I climb the trees, and sit among the red bowed branches, eating and enjoying the luscious fruit, as only a child can. But in Canada they are uncertain. Full of promise truly, but after the white of beautiful blooming often comes a chilly gale from the sunset and no cherries for that year. Only a type truly of our many hopes and disappointments. Sometimes in July we have the blackberry, and the dewberry, but they are late in the month; any one with a garden fence can train on it a few of these later fruits. I remember seeing once a friend's garden fence in a city house where raspberries, black berries, and grapes ripened together, fastened back by wire to the board fence, and seeming to like the situation. They are valuable fruits at this season of the year, the blackberry especially being a corrective in summer complaints, and quite safely can be given to children, who are generally fond of their sweetness, and glad to take them after the other fruits are past their season.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

The Chief Consideration in Commercial Fruit Growing.

HINTS FROM LAST SEASON.

The disastrous frost on the morning of May 29th last year, clearly marked out in the western portion of this Province of Ontario the limit for profitable fruit growing, and the freeze of Oct. 20th, the same year, made the line of division more distinct. When the crop of fruit is universally good, the observant grower is painfully aware that profits are very small when all the cost of plants, planting, growing, and manure is reckoned at its value. On the other hand, when the crop is made fearfully short by frost, which occurs on, an average, once in five years, or by drought, which occurs at least every third year, or by excessive cold, wet weather, or any other cause, then the grower who has a location and soil exempt from these troubles is assured very remunerative returns. Excessive wet can be prevented by thorough tile draining; drouth can also be partially averted by the

same means, in conjunction with thorough cultivation, and can be wholly overcome by means of irrigation. But the effects of frost can only be escaped by planting in a location protected in some way, and these protected portions of the province were well defined by the frosts of the past season. The crop in such localities paid the growers extremely well, so well that they can afford to grow three or four succeeding crops at prices that will leave a very small margin of profit, whereas the grower who lost all, this season can ill afford to do so. For to lose a crop of fruit is money out of pocket, as the cost of care and cultivation, and interest on money invested, has to be incurred, crop or no crop, and this loss will likely wipe out all the profit of a succeeding crop or two. To make this point plain, I will suppose a case. Mr. A. lives in a section cut by frost, and lost his crop in 1889, incurring a loss of say \$30 per acre. The following four seasons, let us suppose, are all heavy crops, but for that reason prices are very low, and getting lower each succeeding year, and the profits are small, let us say \$30 per acre each year, or \$120, leaving a net profit of \$90 in five years, or \$18 per acre per annum. Mr. B. has a crop in 1889, and, as very few others were so fortunate, prices were unusually high, and the profits were say \$200 per acre; and the next four years same as Mr. A's, or \$120, or \$320 in five years, or \$64 per acre per annum. Mr. A. would starve, while Mr. B. would roll in wealth, other things being equal. The moral is, if you contemplate commercial fruit growing, look sharp around for the results of such a frost as that of May 29th, 1889, or May 29th, 1884, for it is a remarkable coincidence that both occurred on the same morning, and avoid embarking in that enterprise extensively in that locality. I would rather pay \$500 per acre for land that escaped frost on those mornings, for fruit growing, than have any other land at \$50 per acre, other things being equal. At the same time, every person who has land should have enough of the leading and hardest fruits, those best adapted to his locality, for the use of his family. I think there is no section of this province in which some kind of fruit will not grow to perfection. Many growers in this section netted from \$200 to \$400 per acre the past season, from strawberries, grapes, or plums.

E. D. SMITH.

Winona.

The Apiary.

For the CANADIAN LIVE STOCK AND FARM JOURNAL.

The Prevention of Swarming.

By R. F. HOLTERMAN, A.O.A.C., Romney, Ont.

At the present day when bees cannot be sold for more than the price of the hive, comb foundation, and the honey consumed during winter, it is admitted that the strongest swarms, if given sufficient room, will give the most honey. If any can be secured, any light upon the prevention of swarming must be received with interest. Mr. J. B. Aches, at the late Lambton Bee Keepers Association, said that excessive swarming could be controlled, but it was a hard matter to prevent it. He thought the best way was to give plenty of room and practice the storifying system. Some bee-keepers practiced caging the queen.

The president thought best to give plenty of room, keep hives well shaded, and cage the queen. The points indicated by these two men, if followed, will probably lead to success in the direction indicated. The caging of the queen is objectionable, especially so for a farmer who has not a large experience in the handling of bees. It is unnatural, and if not done with great care, loss and failure will result. The search for the queen takes time and disturbs the bees, and the more we know about bee-keeping the more we will abhor unnecessary manipulation.

The farmer in particular, during the summer season, has no time to spare. He might well observe greater care in shading his hives. Only the other day one could see three colonies of bees placed on the south side of a shed seven miles from here. Such a position is undesirable, winter or summer. If colonies have to be in the open light, shade boards are very good.

As to the storifying system, as it is generally called, the tiering up system; here, too, the farmer is liable to fail. Too many do not practice taking honey from an upper story, and again, when done, the upper story is not put on until the bees already have the

swarming impulse, when it is too late to prevent it. An idea to prevent swarming, or rather after-swarming, not here mentioned, is to put the new colony on the old stand this colony catches, then all the worker force and the old colony is so depopulated that it rarely attempts to swarm again.

Young Stockman's Department.

Our Prize Essays.

To deepen the interest of our farmers' boys in the work of the farm, and so strengthen their love for a life in the country, to awaken their slumbering talents and stimulate their efforts for self-improvement, we offer the following book-prizes as inducements for the boys to write on such subjects as we shall announce each month:

1. *The Soil of the Farm*, by Scott & Morton.
2. *The Chemistry of the Farm*, by Warrington.
3. *Handbook of Agriculture*, by Wrightson.

The conditions to be observed by competitors are:

1. The writer must not be over 17 years of age.
2. The essay must not exceed one column in length.
3. The essays for competition for the prizes to be given in any month are to reach us on or before the 15th of the preceding month.

Essay for August competition:

Why I Like my Favorite Breed of Sheep.

Essay for September competition:

The Winter Feeding of Dairy Cows.

The Dog on the Farm.

By ARTHUR H. SELLAR, Sourisford P.O., Manitoba.

[PRIZE ESSAY.]

In answer to the question as to whether the dog has a place on the farm or not, I would emphatically say yes, provided it is a sheep farm and the dog is well trained, for under such conditions the dog assists the keeper to a great extent in preventing restless animals straying from the flock, and if it is well trained and treated, it will do away with the necessity of an extra hand on the farm. As the advantage largely depends on the dog chosen, his training and treatment, let me refer to these.

I have had considerable experience with dogs, and would strongly advocate the Scotch Collie as being more intelligent and faithful than any other breed.

As to the treatment and training of Collies I will make a few suggestions. In the first place they should invariably be treated with kindness, as they are very sensitive to harsh treatment, and should always be encouraged when doing right.

As to training, the best way is to train the young dog without the company of any other dog, as the youngster might go to the heels if alone, while if accompanied by another it would be forced to go to the head, the older dog being the master; thus it would acquire a bad habit, which would likely follow it through life. I have a prize-winning Collie, the value of which I have abundant proof, as, out here on the prairie where cattle often get mixed up, he will pick our cattle out and drive them home, he is also useful for keeping wild geese and turkeys off the grain fields in spring, as well as gathering in the barnyard fowls at night. He also is a good watch dog.

Farmers' Daughters' Column.

Our Prize Essay.

With the avowed object of helping our farmers' daughters to make the life on the farm more pleasant and more enjoyable through a wider knowledge of the work that may properly come under their guidance, we purpose offering a series of prizes for essays written by them on various topics. That there need not be any lagging on account of the want of subjects, we shall from month to month suggest a few, but it is to be remembered that a choice of any prize will be given to the writer of the best essay on any suitable subject that reaches us that month. You may choose your own subject, and if none better reach us that month, and the subject chosen is one that will interest the other readers of this department, a choice of any of the prizes will be given to the writer. The conditions to be observed by the writer are:—

- (1) The essay must not exceed one column in length.
- (2) The essays for competition for the prizes to be given in any month are to reach us on or before the 15th of the preceding month.

Essay for August competition:
Window Gardening.

Essay for September Competition:
The Winter Management of Poultry.

The following are the prizes we offer:

- (1) *The Canadian Queen* one year, \$1.00.
- (2) *Pick's Illustrated Floral Magazine* one year, \$1.00.
- (3) *The Ladies' Home Journal*, one year, \$1.00.

This list will be increased later.

Flowering Shrubs.

By MARTHA M. CULLIS, "Elmwood," Fenelon, Ont.

[PRIZE ESSAY.]

As the old recipe for hare pie reads, "First catch your hare," so as to garden shrubs, first get your garden. This does not mean for John Farmer to say to John Farmer's wife, "There Jane, you may have that corner at the north of the house for a garden, 'taint of any particular use to me, 'taint big enough for wheat, and 'twont grow roots, there is too much clay, you can have that for flowers." Now, John Farmer that is not fair. But say, "Come, Jane, let us have a flower garden, or if we have not time to care for a flower garden, let us have a nice lawn in front of the house." And do you then set to work at it. Is the ground in front of the house nearly level? Make it quite level, or if it be steep, terrace it. Next, build a neat fence all around it, and see that the gates are hung so as to swing shut after careless girls and women (boys and men always close them of course.) And right here I want to say that cattle and sheep can do more damage to garden shrubs in half an hour than nature can repair in five years.

We will now suppose your garden is ready, that is, the soil has been enriched and sown with some good lawn grass seed, and that we are ready for the shrubs. The size of the shrubs required will depend largely on the size of the lawn, however, it would not be amiss to plant a couple of the flowering Locusts, one of the thorny kind and one of the *gummy* variety; we very much prefer the latter, as the florets are much closer on the head, and the foliage more graceful. We have a specimen which for some weeks is a truly beautiful sight. The thick clusters of creamy flowers, just tinted with pink, blending beautifully with the graceful feathery foliage. Next, we should say, a Horse-chestnut, with its many lobed leaves and its pretty flowers, and a gracefully drooping mountain ash, with its bright berries. These are really not shrubs but trees, but they flower, and no lawn can be really beautiful without shade.

But of the shrubs proper, I should give first place to the Lilac, both white and pink. Some think them old-fashioned but that does not make them any the less fragrant. Did you ever notice how sweet is the cluster of new leaves at the end of the stem. If you never did, do so, and tell me did you ever smell anything more purely fragrant. We shall need say two Snow-ball trees, which, with careful pruning may be made to resemble a huge snow ball relieved here and there with a touch of green. We cannot do without one or two specimens of the Siberian Honey-suckle, with its beautiful and fragrant clusters of pink flowers; these flowers are equally useful for personal or table decoration. We must not omit Syringa either, with its snowy flowers so closely resembling orange blossoms, or the flowering Almond whose tiny sweet-scented flowers are like miniature roses.

And now for the queens of the garden, the Roses. First let me say plant only hardy varieties, as farmers' wives are usually too busy to nurse out-of-door plants. The hardiest is, I believe, the Sweet Brier, which, with its delicately tinted blossoms and fragrant leaves, is worthy a place in any garden; next, the Cabbage rose, beloved of our great grandmothers and every generation since; add a Yellow rose with its bright cheerful buds and blossoms, and a hardy White rose, emblem of purity, and I believe our list is complete. From these you can take cuttings till your home will be a veritable "blooming Eden."

MR. T. CURRELLEY, Fullerton, Ont., writes: "Please find one dollar as my subscription to your valuable paper. If we, as farmers, are going to make any money off our farms it has to be from stock, and I consider the better the stock the more we will make, and we cannot handle the different kinds of stock to the best advantage without such an able assistant as the LIVE STOCK JOURNAL."

Jottings.

Bright Prospects for Scotland.—Mr. James Clark, Glasgow, Scotland, under date of May 22nd writes:—"The crops all over Scotland look better this year than they have done for the last ten years, and a large yield of farm products is expected, and, providing the weather is what we would like at this time, we should have abundance of first-class grain of all kinds. Hay and grass are at a just price. Importers would do well to see Mr. Clark's advertisement in our pages under heading Importers Agents."

Manufacturers' Life Insurance Co.—One of the special aims of this company, whose card appears in this issue, is to develop a large business with farmers, and to that end they are putting forth every legitimate effort. It may be seen in the rates offered and the strict attention they give to all the claims and details of their business. Their rates are as reasonable as those of any first-class company, and as low as only a Canadian life insurance company doing business in Canada can make them. Their office is in the Traders' Bank Building, Toronto.

The Bain Wagon Co. The Bain Wagon Co., of Woodstock, Ont., owing to the universal satisfaction given by their wagons, have won the appreciation of all their patrons. Not only in this country have their wagons long been known for their merits but they have also greatly extended market in the United States because of the same. They also make a specialty of a farm truck which has given general satisfaction wherever tried. Being constructed on right principles and of good material it not only meets all the demands of utility but further possesses the very desirable feature of durability.

The Western Fair.—The Western Fair, to be held in London, September 18th to 27th 1890 promises to be a grand success, as every effort is being put forth in various directions to make it surpass those of former years. At its new features are being introduced and the liberal sum of \$25,000 is to be awarded in prizes for live stock, agricultural industry, and art productions, warranting a large and various exhibit in these various classes. The price lists may be had on application to the secretary, Thomas A. Brown, London, Ontario, and we would advise all to get one and note particularly the many valuable and various prizes offered.

The Reason Why.—Our contemporary the *Mark Lane Express* is responsible for this. Several young ladies were in a field watching the milkmaid milk a cow. Suddenly a wild bull is seen rushing toward the group with lowered head, uplifted tail, and bellowing furiously. The young ladies were in despair. There was no chance to escape. The milkmaid, on the other hand, kept on milking perfectly unconcerned. As soon as the furious animal got within a few feet of his victims, he turned tail and fled in dismay. "Why did he run away?" asked one of the young ladies. "He got scared of this cow I'm milking. She is his mother-in-law," replied the milkmaid.

Clydesdale Stud Book.—The fourth volume of the Clydesdale Stud Book of Canada has reached us through the kindness of the Editor and Secretary, Mr. Henry Wade, of Toronto. It contains entries of two hundred and fifty-eight stallions, and two hundred and eighty-nine mares. The volume is handsomely bound and nicely illustrated with engravings of Maeneilage and MacLaskie, from the stud of Graham, Sons, of Clarendon, and a group of three from the stud of Beith & Co., of Bowmanville. The minutes of the several meetings of the Association are given, and also the prize list of the Spring Stallion Show of 1889. The Stud Book is a credit to those who compiled it, and is in every way worthy of the Society.

American Jersey Cattle Club.—At the twenty-second annual meeting of the Club, held in New York last May Mr. Frederick Bunson was re-elected president. The Club has 406 members, and four volumes of the herd register has been issued since last report. There has been an increase of 992 registrations over the 9,813 animals of last year. The price of registering animals was reduced to \$2.50 for non-members. The report of the treasurer stated that there was about \$27,000 in the treasury, an increase of \$10,000 the past year. Double fee is now charged for animals over four years old, and no charges will be made hereafter for recording tests, and further the price of single volumes of the herd register has been reduced to \$1.

Agricultural Education.—We hear very little now said against higher agricultural education maintained by the State. No doubt there are still some farmers who think that the Experimental Farm at Guelph should be put upon a paying basis. To all such it may be well to quote what has been done in the continent of Europe. Germany has 70 schools teaching agriculture. France 17, Belgium, with a population about the same as Canada spends from State funds for agricultural education \$275,000 per year; Denmark, with a population equal to that of Ontario, spends, if only for dairy instruction alone, \$55,000. The result is that Danish butter, which a few years ago was exceedingly bad, is now at the top, and has no rival in the London market.

The National Shire and Hackney Horse Company.—A large company of English capitalists have recently formed a company under the above caption with a capital of £5,000, for the purpose of carrying on an extensive trade with the United States in Shire and Hackney horses, and Welsh ponies. They are very sanguine in their prospects where they state that stallions of superior quality are readily saleable in America at from \$1,400 to \$2,500 each, while they can be purchased in England at from £200 to £400 each. They state in the same document as evidence of the future before this trade, that during the three years 1877-79 the total number of horses exported from Great Britain was 1,028 while in the three years 1879-81 the number amounted to 1,670. The first establishment is to be opened at Neillville, Wisconsin, U.S.A.

A Group of Trotting Celebrities.—Through the liberality of the proprietor of Forest City Stock Farm, Mr. C. F. Emery, of Cleveland, O., we have been favored with an excellent large sized lithograph of a group of well-known standard-bred horses that are at his stables, and also with a very tastefully gotten up catalogue of his stud. The picture is an excellent production and in it appears the stallions Patron 2:14, Brown Wilkes 2:21, Comaught 2:24, Monte Carlo 2:20, Hermes, and also the mare Mattie Hunter 2:12. This makes a rare collection of trotting-bred celebrities. Patron stands the coming season at \$300, Brown Wilkes \$150, Nugget \$100, Mar Caspio \$50, Comaught \$50, Monte Carlo \$50. These stallions are high bred in trotting lines, and parties desiring the use of such will do well to secure one of these catalogues and look into their breeding.

Keeping Farm Accounts.—The keeping of farm accounts has always been a more or less complicated undertaking, and for that reason many, who are fully aware of the value of well kept accounts, have neglected to follow up this work as they should. We have to hand, through the kindness of the originator and publisher, George A. Rogers, of West Upton, Mass., a book for keeping farm accounts, which is by far the most complete, easily understood system that we have yet looked into. Any one who can read, so simple is the method, may easily keep his accounts intelligently by the aid of this book. As far as the book itself is concerned it is gotten up in good business style, well printed on nice paper. Mr. Rogers, who, by the way, is superintendent of Mr. French's well-known Ayshire herd and farm in Massachusetts, has sold over 500 copies since the beginning of the year.

Cowhide Horseshoes.—In England and on many parts of the Continent, they have been for a long time using the Yates horseshoe, one made by compressing common cowhide. It is composed of three thicknesses of the cow skin pressed into a steel mould, and then subjected to a chemical preparation. It is claimed for it that it is much lighter, that it lasts longer, and that split hoofs are never known in horses using it. It is perfectly smooth on the bottom, no calks being required, the shoe adhering firmly on the most polished surface. Its elasticity prevents many sprains, the horse's steps being lighter and surer. Straw, treated with chemicals unknown, has been used for horseshoes for centuries in Japan. Perhaps some American genius will give us a paper horseshoe, who knows?—*St. Louis Republican.*

The Cosmopolitan.—A portrait of Murat Halstead, who regularly contributes a review of current events of the day to *The Cosmopolitan* magazine, of New York, appears in the frontispiece of the June number. This is followed by an article by the late Minister to Persia, Mr. S. G. W. Benjamin, on Farm Life and Irrigating in that remote and interesting country. Mr. Lafcadio Hearn contributes a study of the Half-Breed Races in the West Indies, and an extremely popular article, entitled Side Glances at American Beauty, by Eleanor Waddle, is illustrated with reproductions of photographs of some of the most beautiful women of the United States, selected from the most prominent cities—Memphis, Baltimore, Boston, New York, Leavenworth, and many others. Full descriptive personal notes accompany these engravings. The complete short novel of the number is entitled *A Ghost at his Fireside*, and is by Mrs. Louise Chandler Moulton, with illustrations by Mr. Albert E. Stern.

Obituary.—Our sympathy is with our American friends in the material loss they have suffered in the decease of Hon. Lewis F. Allen, of Buffalo, and Hon. Hiram Smith, of Wisconsin. We feel free to say that no other gentleman has by thought and action done more for the live stock interest of this continent, and has more worthily deserved the appreciation of others than the first mentioned. He was the founder and for forty years the editor of the American Shorthorn Herd Book, and he also wrote *A History of Shorthorn Cattle, American Cattle, The American Farm Book*, and other works, besides being a contributor to the leading periodicals of his time. The name of Hon. Hiram Smith has reached the ears of every intelligent farmer in this land, and has long been revered by dairymen of progressive methods, as he has been recognised for years as one of the leaders of dairy thought and the most advanced practice. Both these gentlemen have not only graced the noblest calling on earth with a quiet dignity, but they have also served their country well in various public capacities.

Companion Pictures.—Another handsome reminder of the continued enterprise of *The Youth's Companion*, the favorite family paper, has come to us in the form of a Colored Announcement Card, printed in fourteen colors. Spring is represented by a beautiful maiden who is returning through the fields her hands filled with trailing arbutus—that delicate spring flower which grows so plentifully in many localities. On the companion page, the farmer's daughter is pictured coming through the harvested grain, carrying a well-filled picher and basket. The bearer of the noon-day lunch is a welcome sight to the hungry reapers. The interior of the card contains an array of authors and articles for the coming volume unsurpassed by any paper. This beautiful card is only an indication of the great enterprise of *The Companion*, which has made it a National Family Paper, with more than 400,000 subscribers. Nowhere can there be obtained so much entertainment and instruction for so little money (only \$1.75 a year). Address *The Youth's Companion*, Boston, Mass.

The Late Chas. Gibb.—*The Canadian Horticulturist* which has contributed so much to the elevation of Canadian horticulture, gives in its June issue a frontispiece and obituary notice of the late Mr. Chas. Gibb, of Abbotsford, Que., late vice president of the Montreal Horticultural Society. Mr. Gibb tendered his more than ordinary talents with never ceasing devotion to the advancement of Canadian horticulture, and evidences of his overflowing enthusiasm are to be seen in the Dominion Horticultural Association, Montreal Horticultural Society, and many other local societies in the Province of Quebec, and also in the abundance of his writings and addresses on various horticultural topics. From Mr. Gibb's travels and researches in all corners of the globe, and in particular Russia, our horticulture has abundantly reaped. From those most closely associated with Mr. Gibb in his labours come peans of praise, and words of regret are given in our esteemed contempor-

ary, but we feel sure that this is but a meagre reflection of the unexpressed sympathy and regret felt by many who have profited by Mr. Gibb's horticultural work.

Feeding for Butter.—Before the Wisconsin Farmers' Institute, Mr. Henry M. Cuthbertson, in a paper on "How to Make Dairy Butter," gave the following as his system of feeding:—"Our cows have been fed continually since July, 1886, receiving a light feed of bran morning and evening daily during the summer, also a little salt, as near as possible to the amount their appetites crave, and with the beginning of frosty weather are stabled cool nights. Fodder-corn is fed as pasture disappears, which is added to with small potatoes, pumpkins, increased grain and hay, and later, when the potatoes and pumpkins disappear, ensilage. Young stock now receive ensilage and fodder-corn, with a little bran and very little hay; and the cows, all of these with shorts additional. The amounts given to cows will be as they are relished, and appetites indicate digestion, governed by the approach to becoming fresh. Through this manner of feeding, the butter yield is not expected to fall below an average of half a pound a day from each cow giving milk, and milked to within four weeks of becoming fresh. This amount of butter at 25 cents a pound, its price, will nearly, if not quite, pay for each day's feed consumed during the milking period in winter. The cows, being mostly low grades or natives, average 225 pounds of butter each annually."

Manitoba News.—Our correspondent writes:—"Never before perhaps have the indications for a choice crop season in the North-West been more hopeful than to-day. The spring was a late one, but except to those where the fatness had aggravated the shortage of winter feed, this was not a special objection. No oldtimers want to see again a mild winter and prematurely early spring, and though the land, was in spite of a fair amount of winter snow fall, extremely dry, we had some heavy snow showers in seed time, and the rainfall since, though in no case abundant, has put crops in magnificent growth, and the advance in the month of June has been very great. The cold of May promoted free tillage, and with frequent showers and glowing sunshine the end of June will see things in as fine shape as ever before known. Morden district is at this writing rather dry, but may be favored in a day or two as other places have been. Superior cultivation is also telling much in favor of this year's crop, and farmers are every where jubilant. The visitors from Ontario coming in on excursion trains will see the country at its best and cannot fail to admire it. It is very doubtful after all if the city of Winnipeg will be able to get enough votes to pass the by-law for providing the buildings wanted for the agricultural exhibition in October. In that case the whole thing will have to be taken over by a private company, which will ask help in the shape of a personal guarantee which will be necessary to ensure the success of the show, and will most certainly have to take it to the old show grounds at St. Boniface. There will be a show any way, and a good one, or all present auguries are false."

St. John, N. B., Exhibition.—An association formed of the leading citizens of St. John, New Brunswick, has been incorporated for the purpose of holding exhibitions in that city, and are now making good progress in their arrangements for the first annual Agricultural, Horticultural, and Industrial Fair. The exhibition will be opened on the 24th September, and will continue until the 4th October. The association have large permanent buildings, affording ample space, also extensive grounds, including a fine speeding course, and every arrangement is being made for the accommodation of a very large number of visitors to the city. All the committees have been organized, have their work well forward, and from present prospects the exhibition will assume large proportions. As it is probable this will be the only important exhibition held in the Maritime Provinces this year, our people should secure space and take advantage of this means of cultivating a trade in that section. In addition to offering a very handsome list of prizes (competition for which is open to the world), a number of attractions of a special character are being secured. Several new features are also included in the program, giving this exhibition an international character. One of the leading novelties will be a large exhibit of the products of the West India Islands. A collection will be made of the products of the mines and forests of the Maritime Provinces, as well as the fish, fishing appliances, etc. The marine section, particularly, is a department which will be of special interest to the eastern people. The delightful summer climate of St. John, New Brunswick, is sufficient attraction for most people, but with this additional inducement we have no doubt there will be a good number of western visitors as well as exhibitors. Full particulars can be obtained by addressing the secretary, Ira Cornwall, St. John, N. B.

Central Farmers' Institute.—The Executive Committee of the Central Farmers' Institute, held a meeting in Toronto, June 19th. The President, N. Awrey, M.P.P., occupied the chair, and the members present were Vice-President T. Lloyd Jones, James McEwing, Murray Pettit, J. B. Ewing, D. M. McPherson, Daniel Black, Henry Brown, and A. H. Pettit the Secretary. A communication was received from the Minister of Agriculture, stating that he had placed in the estimates \$4500 for the Central Farmers' Institute, as requested by the delegation. The following questions were put down for discussion at the annual meeting of the institute on the second Tuesday in February. They will first be submitted to the local institutes for their opinions: (1) Has the success of winter dairying been such as to warrant its general introduction in the Province of Ontario? Question to be introduced by Thomas Ballantyne, M.P.P., Stratford, and Henry Nixon, of St. George. (2) What legislation is required to prevent the formation of combines and trusts injurious to the farmers? Introduced by Mr. Matherson, of Montreal, and Thomas Bain, of Dundas. (3) Ornamentation of our public highways. (4) Beneficial effects of windbreaks on the farmer. Introduced by Mr. Pettit, Winona. (5) The position of the Province of Ontario. Introduced by Henry Brown, of Chesley. (6) Is the exportation of fatted cattle more profitable to the farmers of Ontario than the exportation of lean or store cattle? Introduced by D. M. McPherson. A memorial to the Ontario government was drafted, requesting that two of the three present vacancies in the cabinet be filled with members from the ranks of the farmers, and submitted for the

consideration of the government were the names of Nicholas Awrey, M.P.P., and John Dryden, M.P.P., as those of gentlemen in every way suitable to fill said vacancies, uniting as they do the representation of the two great branches of the farming industry, namely, general agriculture and live stock.

Jersey Breeders' Cup.—The Jersey Breeders cup for 1890, was won by D. F. Appleton, he making the average of \$304 on the five animals, Young Pedrona 40095, \$210, Alberts Lily 3rd 55106, \$270; Young Pedro 3rd 24715, \$250, Howdy 55119, \$370, and Khediviana 47746, \$420. The cup has been offered since 1888, and the winners and averages on five animals has been as follows:

1880 Thomas H. Faile.....	\$ 980 00
1881 John I. Holly.....	1 088 39
1882 A. B. Darling.....	054 17
1883 S. M. Burnham (Breeders Cup).....	2,400 00
1883 J. V. M. Willis (Contributors' Cup).....	1,323 50
1884 A. B. Darling (Breeders Cup).....	2,621 00
1884 V. E. Fuller (Contributors' Cup).....	3,350 00
1885 V. E. Fuller (Breeders' Cup).....	816 00
1885 J. V. M. Willis (Contributors' Cup).....	927 00
1886 Frederick Loeser (Breeders Cup).....	553 00
1886 Mrs. E. M. Jones (Contributors' Cup).....	687 00
1887 Ehrich Family (Breeders' Cup).....	280 00
1888 T. S. Cooper.....	427 00
1889 A. B. Darling.....	190 00
1890 D. F. Appleton.....	340 00

The Hog in America.—The above is the title of a work from the pen of S. M. Shepherd, of Charleston, Illinois. It is beyond all comparison the most comprehensive work yet issued on the subject. The title of the first chapter is the same as the title of the book. It tells the little that is known regarding the early introduction of the hog into America in a most painstaking way. It narrates the introduction of the improved breeds from Britain, speaks of the increasing popularity of the Berkshires after their introduction, and shows how the tide of this popularity was checked by the formation of American breeds. The chapters on the selection and arrangement of the farm in swine rearing, on pens, their location and construction, conveniences in feeding and arrangement, are excellent and very complete, furnishing drawings which cannot fail to convey important lessons to those seeking instruction in such things. Then there is a chapter on In-and-in Breeding, Pedigrees and their Value, and one on The Professional Breeder, from which useful ideas may be gleaned. The portion which treats of breeding, feeding, care, and management, is very full and comprehensive. The division which speaks of fairs and judging in relation to the hog, are novelties in a treatise on the pig, and the many standards of excellence which are given, relating to the different breeds, are of great value to those engaged in breeding any of those respective breeds. This portion of the book is also brimful of illustrations, showing the good and the defective points in conformation. The chapter which treats of diseases, their symptoms and treatment, is also very full. The last chapter treats of the existing breeds of swine in America, and gives a long and complete list of the same. The greatest weakness of the book is probably stated, but in a manly and open way, in their preface thereof. The writer says that the author is partial to the Poland China breeds of swine. This is plainly avowed and manifest, and if such preference, or if it seem to the reader prejudice, has caused the writer to unjustly criticize other breeds. It is not the result of a design to do so, but rather the imperfection common to most men, viz., "the difficulty of seeing ourselves as others see us." This is not just the frame of mind for the writer of a book to be in when he commences his work, especially if that work is to treat of a number of breeds of stock between which there is the closest rivalry. Breeders have large interests at stake and to mete out the exact meed of justice dear to each, is not easily done by one who approaches the work with avowed preferences. But in spite of this weakness it is a good book, and will well repay its cost price to any one interested in the breeding of swine. It may be obtained from the author, and from the address given above.

Publishers' Column.

Sample Copies, etc.—We shall be glad to furnish sample copies, Blank Order Forms, and all other necessities for the securing of subscriptions, to anyone desiring them.

Trial Subscribers.—We will send THE LIVE STOCK JOURNAL for six months, on trial, to any address for 25 cents. All trial subscriptions must be written out on our blank order-forms provided for that purpose.

How Trial Subscribers Count.—Three new trial subscribers count as one new regular subscriber in all our premium plans.

How to Secure Your Own Copy Free.—Send us \$2.00 with the names of two new subscribers, or \$1.50 with the names of 6 new trial subscribers, and we will advance your own subscription one year free. Remember that the subscribers so obtained must be new, old subscribers will not count. The trial subscriptions should be written out on blank order forms which we will supply on application.

How to send your money.—Send it by Registered Letter. This is a perfectly safe and satisfactory way. If the amount is large send by Post Office Money Order. Never send money in an unregistered letter. There is no means of tracing it if it be lost, and losses are sure to occur now and again.

The picture of the Ontario Agricultural College.—We have received from the late managers of the JOURNAL a number of fine lithograph pictures of the Ontario Agricultural College. It is a beautifully colored plate, 14x27 inches, giving a good view of the College and the surrounding buildings and grounds, and quite suitable for framing. To every present subscriber sending us money, either for arrears or for renewals, we will send a copy (if requested) of this picture until the stock is exhausted.

How to address your letters.—Address all correspondence to THE J. E. BRYANT PUBLISHING COMPANY (Limited), 58 Bay Street, Toronto. Put all matter intended for the editor, all items of news, stock notes, and matter intended for publication, on separate sheets. Please bear this in mind; it saves a good deal of trouble.

Stock Notes.

Horses.

For a get of the Clydesdale stallion Gran National, owned by Mr. David Riddell, Mr. Taylor of Belleisle, Scotland, was offered \$500, though the colt is only three weeks old.

The Thoroughbred stud at Belle Meade, Nashville, Tennessee, has been dispersed. The one hundred and sixty animals bringing the high average of \$1,050. Iroquois, the old Derby winner, sold for \$34,000.

The famous thoroughbred English horse Stockwell, for two seasons before his death, obtained the highest stallion fees yet known, viz., \$2,500. The highest ever obtained by an American horse is the \$1,000 asked by the owners of Avett.

The Sixtytwo Clydesdale, the property of Mr. Amos Cruckshank, the famous Scotch Shorthorn breeder, were disposed of last month. The six mares averaged over \$255, the two two-year old fillies \$200, four yearling fillies \$155, and two entire colts averaged \$135.

ORLANDO, the first prize yearling colt at the Highland Society's Show at Melrose, last year, has been recently sold for £1,500. Last spring he was purchased by Mr. Johnson of Lochburnie, for £1,000. He represents the two most fashionable strains of Clydesdale breeding, being sired by the Prince of Wales 673, while his dam was by Darnley.

T. J. KELLY, Brandon Hills P.O. Manitoba, writes: "I have brought out here with me the trotting stallion, Western Sprague 2289, that I advertise in the JOURNAL for sale, and I have since sold a half interest in him to Messrs. Munro & Alexander of Brandon, and he is making a splendid season, getting all he can attend to at \$25 for the season. I am at present driving a son of his, two years old the second of this month, and a few days before he was two years old he showed a mile better than 3 15. Barring accidents he is sure to make a flier. We have had fine rains, and with the prospects of a big crop this year, farmers are in good spirits."

MR. PETER BURR, Bloomfield Stock Farm, Bloomfield, Ont., has recently added to his stud many choice selections of Kentucky bred horses, including two stallions and three fillies. At the head of the stud stands the richly bred stallion King Fugo brother of Fugue, 219 1/2, and sired by the famous King Rene, a brother of Nutood 218 1/2, and Wedgewood 218, and also well

Stock Notes.—Continued.

known as a getter of superior stock, as he has on many occasions at the leading stock shows in America headed the first prize family group. Through his maternal side King Fugo inherits excellent ancestral merit, as his dam was by a brother of the well known Goldsmith Maid, 214. At Kingston, Belleville, and Picton, King Fugo has won many prizes. The rest of the stud includes another stallion, Lexington Goldsmith, three Kentucky mares, several brood mares, and a score of fillies and colts.

MR. W. C. BROWN, Meadowdale, writes: "My stock of Cleveland Bays have wintered well and are in fine shape for a run on the grass during the summer. Two of my brood mares and two stallions have been entered and accepted for registry in the Canada Coach Horse Stud Book, of Goderich, Ont. I have sold the young stallion Glenwood, advertised in the STOCK JOURNAL, to Mr. Wright, of Michigan, U.S. This horse when two years old stood at the head of my stud which was awarded the gold medal at the Brampton Central. I had a good many buyers for my stock horse King Fairfield, but I thought it best not to part with him yet, for this season at least. He has proved himself a first-class stock horse. His colts have plenty of bone and muscle and are very stylish. I had the misfortune to lose a very fine yearling stallion out of my best show mare. I would like to see a few more stock notes from our horse-men. They are about as interesting as any column in the JOURNAL."

MR. J. G. CODHAM, of Niagara Falls South, Ont., offers for sale, in this issue, a roaster stallion, described as standing fully sixteen hands high, sound in wind and limb, and pure gaited. Taking into consideration the fact that this horse is of such excellent carriage type, and further, has been bred on the best of speed lines, he should make a superior horse for breeding purposes. He is sired by the well-known General Stanton 2545, by Hambletonian 10, and from One Eyed Kentucky Hunter, General Stanton has got many fast and stylish drivers besides this one offered by Mr. Codham, as may be seen from the fact that he sired Fides, 222 1/2; Nettie T., 223 1/2; Geraldine, 228 1/2; and many others. The sire of General Stanton was the famous getter of trotters, Hambletonian 10, the sire of 41 within 2:30, the grand sire of over 500 performers with the prescribed limit for registration. The dam of this stallion offered is by Pelham Tartar 4699, got by Toronto Chief 85, a Royal George stallion that put quite a few of his get below 2:30. Be sure and see this advertisement, and write Mr. Codham for further particulars.

Cattle.

WILLIAM ROBINSON, Dalton-le-Dale, Scotland, has a Shetland cow that is suckling three lambs.

Fifty-six head of pure-bred Shorthorns, mostly Cruikshanks, sold for an average of \$108 at Maryville, Mo., some time ago.

During the four months ending April 30th, '90, the value of the live animals imported for food into Great Britain was £2,679,984.

The Closeburn Galloways, numbering sixty-nine head, owned by Mr. Villiers, of Dumfriesshire, Scotland, sold for the sum total of \$8,835.

A public sale of Holsteins, from herd of E. M. McGillin, at Lincoln, Neb., some time ago, resulted in an average of \$100 for fifty-seven head, including calves.

The Red Polls bring good prices. E. Smith Jamieson sold at Dexter Park, Chicago, 27 females at an average of \$153, 12 bulls averaged \$97, and the average of lot was \$136.

The Shorthorn cow Wetherby Charmer that with two of her offspring took second prize as a family group, at the Northampton show, Eng., gave when she was tested, fifteen pounds of butter per week upon natural pasture alone.

The White River Jersey Cattle Company, of Indiana, held a sale, the result of which, it is stated, should be an encouragement to the owners of Tormentor blood, as animals rich in this brought highest prices. Twenty-five head averaged \$112.

MESSRS. JOHN THORNTON & Co., London, England, sell on the 22nd August, at Horsted Place, Sussex, the entire herd of Polled Aberdeen-Angus cattle, bred by F. Barchard, Esq. This is an important sale, at which animals of best types and breeding will be disposed of. See advertisement.

JOHN ISAAC, Markham, Ont., writes that he has found the demand for Shorthorns better this season than for a number of years. He has recently made the following sales. One bull to Charles Junkin, Cammington, one to John Graham, Lindsay; one to Robert McQueen, Elora, one to Arthur Johnston, Greenwood; one to John Campbell, Owen Sound, one to Lord, DelBrassy, North-west Territory; also four heifers to John Miller & Sons, Brougham.

GRAHAM BROS., of Belvedere Farm, of Ailsa Craig, Ont., for ward the following list of sales: "To Mr. Westley Snell-Eyster, Ont., Baron Chesterfield, =11041=; to J. & J. Mackey, Sylvania, Ont., and Earl of Belvedere, =11040=; to Messrs. Wm. Amos & Son, West McGillivray, Ont., Belvedere Chief, =11939=. Our crop of calves for this year number ten, five bulls and five heifers, and are a promising lot. The cows and heifers have done well since they went on grass."

ELIAS PANNAHECKER, of Fairview Farm, of Hespeler, Ont., writes: "My small herd of Holsteins have wintered fine and are doing well now. Our two-year-old Aaggie heifer is milking fine. I expect her some day to make a mark. I have recently sold to Mr. F. H. Trudgen, of Sundridge P.O., district of Parry Sound, our young bull Wellington Prince, sired by our Barrington bull Wildridge, he being the first Holstein to be introduced into that part of the country. We wish success to the new beginner."

MR. STEWART, Jr., Seymour, Ont., writes: "I have sold the Ayrshire cow, Annie Lyle, and the yearling bull, Macduff, to Mr. Adam Humphries, Westwood, Ont.; one yearling heifer

Advertisements.

TOO LATE FOR CLASSIFICATION.

FOR SALE—Jersey Bull, First Prize at Toronto and Hamilton. Registered. Price low. Apply to J. S. JOB, WATERDOWN.

FOR SALE.

TWO GUERNEY BULLS, 7 mos. and 9 mos. old, also a Rennie Ditching Machine, but little used and made good as new. WM. DAVIS & SONS, Kine Croft Farm, MarkL. -m.

FOR SALE

At very reasonable prices eleven head of thoroughbred and high grade

AYRSHIRE COWS

due to calve in August and September. Fine animals and heavy milkers. \$50.00 each for the lot. Thirteen Shearling Southdown Ewes and Rams \$10.00 each. Also grand Berkshire and improved large Yorkshire Boars and sows ready to ship, \$10.00 each, with registered pedigree.

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IMPORTANT SALE

HOLSTEIN CATTLE.

About disposing of my Farm I offer for sale my entire herd of Holstein Cattle. This is the finest herd in Canada, having for the last three years won more money prizes, more gold and silver medals and more diplomas than was ever won by any Herd of any breed at same number of exhibitions in this Province. At the Industrial in Toronto last fall, with an American expert as judge we practically swept the ring, taking first for aged Bull, sweepstakes for best Bull of any age, first for yearling Bull, first, second and third for Cows, and first herd prize for best bull and four females. Breeders will understand what that means. Whether the herd is sold or not it will not be exhibited this year. Small breeders will therefore have a chance to get what they have never been able to do since I have exhibited—a share of the principal prizes.

JOHN LEYS, TORONTO.

Stock Notes.—Continued.

and heifer calf, to Mr. Henry Humphries, Westwood, Ont.; one bull calf, Duke of Maine, to Mr. John Eastwood, Rawdon, Ont.; one bull calf to Mr. M. Dunham, Rawdon, Ont.; two heifer calves to W. W. Drocups, Rawdon, Ont. Of Berkshires, have sold one sow to Mr. S. Malony, Sidney, Ont.; two boars to Mr. C. Clarke, Plainfield, Ont.; one sow to Mr. M. Kelliher, Belleville, Ont. I have also purchased the imported bull, White Prince, from D. Morton & Sons, Hamilton, Ont. He is a grand dairy bull, and will make a valuable addition to the Meire yards. Stock are loing splendid, and I have now a fine stock of calves.

MAJOR GEORGE GREIG, of Toronto, Ont., purchased from Col. W. S. King, of Minnesota, the nucleus for a fine herd of Shorthorns for his ranch under the control of his son in Manitoba. The selections were made by Mr. John Hope, of Bow Park, and composed the following animals with prices paid appended: Duke of Lyndale (Duchess), calved July 2nd, '89, \$1,000; Imported Oxford Siddingon 3rd (Kirklevington), calved May, '83, \$155; Siddingon Duchess of Ridgewood (Kirklevington), calved Aug. '86, \$150; Siddingon Duchess of Kirkwood 2nd (Kirklevington), calved Dec. '87 and b.c., \$300; Kirklevington of Erie 9th (Kirklevington), calved Oct., '86, \$375; Kirklevington Princess 4th (Kirklevington), calved Dec., '88, \$300; Duchess Barrington 16th (Barrington), calved June, '86, and b.c., \$385; Countess Barrington of Lyonsdale (Barrington), calved June, '87, \$200; Constance of Lyonsdale (Constance), calved Dec., '87, and c.c., \$525; Peri Duchess 9th, calved Aug., '86, \$200; Lady Bates of Lakeside (Filbert), March, '87, \$130.

MESSRS. J. & W. B. WATT, of Salem, Ont., write: We have made the following sales the past season: To Henry Arkell, Arkell, the young bull, The Governor, sire Perfection, dam Matchless of Elmhurst 6th; to George Axford, Talbotville, bull Delmore, sire Perfection, dam Fancy Princess; to Valentine Fitch, Oriol, bull Barmpton Hero's Duplicate, sire Barmpton Hero, dam Village Bud; to W. W. Pineo, Waterville, King's County, N.S., bull Rising Star, dam, Starlight 3rd, to John Marshal, Living Springs, bull Lord Fyfe, sire, Lord Lansdown, dam Village Gem; to John & George Taylor, Rockwood, bull Romeo, sire Barmpton Hero, dam Queen Esther; to Ontario Agricultural College, Guelph, the two-year-old heifer, Matchless of Elmhurst 7th and calf; to William Sloan, Kempville, Minnie 1st of Lynden and calf, and heifer calf Lovely 26th, same buyer; to William Waddick, Pensoyby, cow Florasella 2nd and bull calf. Our Oxford Downes are increasing fast, thirty-five lambs this spring. Clydesdales and Berkshires doing well. Good demand for Shorthorns last winter, sold all our bull calves before spring.

A. & G. RICE, Curries Crossing, Ont., write us that they have sold recently to A. Ramey, Esq., Brant Co., near Harrisburg, the Holstein yearling, McGinty, dam Duchess of Hollowell. A large joint stock cheese factory has been started this spring in that locality, and Mr. Rainey shows considerable enterprise in introducing such superior milkers as the Holsteins, and only good results can follow such action. The demand for Holsteins is very active. Messrs. Rice have sold all their last year's crop and have many inquiries. Their bull, Jewel III., they state, has thrown them a number of fine calves this year. The Jewel III. Daisy Netherland, is a grand-son of that famous cow, Jewel, the handsomest and greatest prize winner of a great breed, from 1883 to 1889. Jewel was winner of the sweepstakes milk prize of 1889, at Buffalo, besides winning numerous butter prizes in 1889, at various expositions. Her record is 100 pounds per day, thirty-one pounds of butter in seven days. Jewel 3rd's record is 237 pounds milk in thirty days, at four years of age. Both are in the advanced Registry; also Jewel 2nd stood well in public milk and butter tests of 1889, showing this is a remarkable family which, combined with the Netherland, makes a grand combination of performers. Such is the pedigrees of Jewel 3rd and Daisy Netherland.

MR. WILLIAM DUTHIE, of Collynie, Scotland, has sustained a great loss in the death of his famous Shorthorn bull Field Marshal, which, owing to an accident, had to be killed the other day. Field Marshal was purchased when a calf from Mr. Cruickshank, Sittyton, not alone for his breeding, which was all that could be wished—his sire being Roan Gauntlet, and his dam Azalea by Caesar Augustus—but his early promise also attracted Mr. Duthie's attention, and, being put in showyard condition, he became the champion bull of his day in this part of the country. He won, among many other prizes, the challenge cup at the Royal Northern show at Aberdeen, and as a two-year-old was third in a strong class of 16 two-year-old bulls at the centenary show of the Highland and Agricultural Society at Edinburgh. Mr. Tait, manager at the Royal farm at Windsor, fancied him, and in spite of the prejudice of English breeders to Scotch-bred Shorthorns, which was stronger then than it is now, he took Field Marshal to Windsor, where he was used with good effect for three years. The favorable impression which Field Marshal made in England at some of the larger provincial shows was further deepened by the appearance, in 1888, of his son Mario (bred by Mr. Duthie), which was adjudged the champion bull of the year at the Royal English show. There is no question that these two bulls in a very practical way brought the merits of the Aberdeenshire Shorthorns under the notice of southern breeders, and to a large extent helped to break down English prejudices, and open up the demand that has since grown up for Scotch Shorthorns on the south side of the border. Of the two bulls, Field Marshal would have been preferred by a good many judges from a breeder's point of view. Taken on his points, not a few did not hesitate to class him as one of the best Scotch-bred bulls that have been seen for many a year. Along with marvellous size and substance, he exhibited perfect shapes—a finer bull in his quarter, loin, ribs, and crops has rarely if ever been seen, while so full of lean flesh, so level, and everywhere perfectly covered; in fact, his development of beefing points was his great and excellent characteristic. He returned to Collynie last year in perfect bloom for a seven-year-old bull, his girth measurement at that time being 9 feet 1 inch. He was reduced a bit in condition by exercise, and at the time of the accident measured 9 feet 3 inches. He was thoroughly active and useful, and it was with great reluctance that Mr. Duthie ordered him to be killed on account of his having broken his thigh joint—a reluctance which most breeders would have felt in the case of one of the most celebrated bulls of the day.

WANTED An A 1 representative in every township in Canada to handle exclusively our famous Nursery Stock. **Apply to our office** week. Handsome outfit free. Write immediately for full particulars. **J. Austin Shaw, Nurseryman, Brooklyn, N.Y.**

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CANADA'S GREAT
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SPECIAL FEATURES.

The Newest and Best Attractions attainable.
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BRIGHTER AND GREATER THAN EVER
The best time to visit the Metropolis of Ontario.

Cheap Excursions and low rates on all Railways, etc.
Entries positively close August 16th

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FARMS for Sale in Ontario. "LAKE'S LAND LIST" No. 19, with Provincial and County maps, is now ready, and contains descriptions and prices of stock, grain, dairy and fruit farms for sale and exchange. This is the largest list published in Canada. Money to Loan at low rate of interest on Farm property.

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We can usually exchange farm property, if unencumbered, for productive Toronto Real Estate. Clients' interests carefully guarded. Address

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SELECTED FARMS
(WESTERN ONTARIO.)
FROM \$1,500 TO \$25,000. Address:—

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Stock Notes.—Continued.
Sheep.

In the United Kingdom of Great Britain and Ireland there are 29,484,774 sheep, or 61.5 per hundred cultivated acres.

MR. FLEMING, Larbet, Scotland, whose flock of Leicesters has had a high reputation, held a sale recently at which twenty Leicester ewes with lambs brought from \$22.50 to \$30.00.

Early last month J. Campbell, Jr., Woodville, Ont., left for England with a view of bringing on his return a number of Shearling rams and ewes, for which he negotiated previous to an increase of values owing to the high price of mutton in that country. A careful selection will be made so as to secure standard sheep in points of form and breeding, to supply the ever-growing demand for good animals of this popular breed.

H. H. SPENCER, of Dorset Farm, Brooklin, Ont., writes: "My stock are doing well, considering the floods we have had. Sheep, I think, will be in good demand again this summer. I have just sold eighteen Shropshire yearling rams to Mr. D. Ward, New York State, and have a call for a car-load more to ship to Texas, but it is not easy to get them, as many people have given up the breeding of sheep, on account of their destruction by the accursed dogs, which are a great injury and loss to this section of country. My Clydesdales are doing fine. A stallion, not yet two years old, weighs 1,500 pounds, and is of excellent quality; and I have a Clydesdale yearling doing equally as well. My young maers are growing well. The breeding mares are in fine trim, with their colts. I have one yet to foal. My Shorthorns have given me a very choice lot of red calves, mostly all from that noted imported bull, Sussex (56623). I may state the prolific cow, Isabella III., has lately dropped her tenth calf, nine of which she has bred since I owned her. She is now fourteen years old, and as lively as a seven-year-old, and is dam, grand dam, and great grand dam, to about fifty head of choice cattle since she was first bred, and many of them first prize show animals of great value. In Berkshire, we have a fair demand, and I have about thirty spring pigs."

MESSRS. JOHN THORNTON & Co., 7 Princess street, Hanover Square, London, W., England, hold a series of important auction sales of Southdown sheep, which will mark an era in the progress of the popular breed. On Tuesday, July 22nd, at Streetly Hall, Linton, Cambridgeshire, this firm will sell by auction, without reserve, the whole of Mr. Henry Webb's flock of famous Southdowns. It will be remembered that last year a draft was sold from this flock, and the prices then realized indicated clearly the popularity of the breed, and the high appreciation of the breeders, for the skilful manner in which this well-known flock had been brought to its high degree of excellence. It is not necessary for us to say that this is an opportunity unequalled for the securing of the very best specimens of the Southdown, bred and descended from the most famous flock in England. Mr. Henry Webb has been breeding entirely from the choice animals of the celebrated flock of his father, Mr. Jonas Webb, who, through the high development of the individuals of his flock, made it by intelligent management and breeding, gave the Southdowns an impetus that carried them high on the wave of popularity. The lot to be offered numbers about 250 yearling rams and ewes, all descended from the far renowned Abraham flock. The whole of the remainder of Mr. H. Webb's flock will be dispersed, so that an opportunity of rare occurrence is offered those seeking selections for importation, for the securing of young stock bred on the right lines. The same firm on Tuesday, August 5th, at Summersbury, Guildford, sell a draft from the prize-winning flock of Mr. Edwin Ellis, consisting of about fifty rams and ram lambs, and one hundred ewes. This flock has won proud distinction for itself in many of the leading show yards of England on various occasions. As an index to the class of stock that will be, it is only necessary to say that members of this flock have won the Southdown cup at the Jubilee Royal at Windsor, the highest honors at the Paris International Exhibition, and the £500 Champion Plate and Breeders Gold Medal at the great Smithfield show in '90. From this it will be seen that this flock occupies a high position in Southdown circles, and we are assured that the selections offered will be worthy of their distinguished associates. On August 6th at Preston Hall, Kent, the annual sale of drafts from the flock of Southdowns owned by H. A. Brassey will take place, and on August 13th, at Backland, Farringdon, an annual sale will be held by the same firm, at which drafts will be disposed of from the long-established flock of Sir N. W. Throckmorton, Bart. Lord Hampden's annual sale will be conducted by Messrs. Thornton at Lewes, Sussex, August 15th, and on Friday, August 22nd, they will sell the whole of the flock of F. Bachard, Esq., and also his herd of Aberdeen Angus cattle. This series of Southdown sales also includes the annual sale of a number of pure animals from the flock of Mr. Hugh Gorringe, which takes place on August 29th. Messrs. Thornton & Co. give special attention to commissions for foreign buyers, every care being observed to make such thoroughly satisfactory.

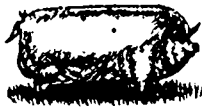
Swine.

MR. CECIL FRENCH, Ightham Court Farm, Truro, N.S., writes us that the partnership of Messrs. Polchampton & French has been dissolved, owing to the fact that Mr. Polchampton purposes leaving Nova Scotia shortly. Mr. French writes: "I have lately sold three boars and two sows to Andrew Gilmore, of Huntington, Que., and one boar to Ed. Blanchard, of Truro."

MESSRS. GRACE, BRUS, Innerkip, Ont., inform us of the safe arrival of their latest importation of improved large white Yorkshire pigs, in spite of the very tempestuous voyage. Among the lot were five young breeding sows, specially selected for the Ontario Agricultural College, Guelph, all well forward in pig. They were purchased from Mr. Joseph Ashforth, and all trace to prize-winning stock; some being sired by The Dog (360), a first prize winner at the Royal, at Preston; the others by Donald (495), who also took first at the Royal at Norwich, while the dams of several of them are sired by the famous boar Yorkshreman, winner of twenty prizes, including first at the Royal at Shrewsbury; of the sows, some are in pig to Duke of Windsor, also a "Royal first, at Windsor, last year. Mr. George Charnock, of Halifax, furnished them with some good

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SOME CHOICE
SUFFOLK AND BERKSHIRE SPRING PIGS
FROM IMPORTED STOCK.
\$6 EACH, OR
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Also Sows and Pigs of different ages. 1 young Holstein Bull of "Barrington" family, nearly 12 months old. Imp. sire and dam. A perfect model at a bargain. Prices reasonable.

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Brucefield, Ont.

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FINE YOUNG HOLSTEIN BULL
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JERSEYS FOR SALE.

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SHORTHORNS FOR SALE.

Shorthorn Bulls.

1 Bull, aged 5 years; 1 Bull, aged 19 months; 1 Bull, aged 14 months; 1 Bull, aged 12 months. All of Dom. S. H. B. registry, except the bull aged 19 months, which is eligible to N. S. H. B.

A. C. BELL,
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IMPORTED CLYDESDALE STALLIONS FOR SALE From three to six years old. We have just received a fresh importation including the winners of several prizes in Scotland. Also a few Canadian-bred Colts and Fillies on hand.
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Imported Clydesdale Stallion, Bentee of Cullen (5537), Vol. 1, and also Imported Clydesdale mare, Geordie Vol. XII.
Apply to, **JAMES MCCOMBIE, Galt, Ont.**

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FINE ROADSTER STALLION
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A beautiful seal brown horse, 16 hands full, foaled 1885. Kind as a gelding; very showy; pure action; wears no boots; never trained for speed; perfectly sound and smoothly built, weighs 1195 lbs., has three standard and producing sires on his dam's side.

Sired by General Stanton (2543), Sire of Fides, 2,22½, Nettie T., 2,22½, and three others below 2,30. Dam by Pelham Tartar (4699), sire of Namouna, 2,28½, dam of Marshal B., 2,26½, and Brown Douglas, sire of Charley Gibson, 2,21½; General Stanton by Rydyk's Hambletonian, (10), sire of 41, in the 2,30 list. Pelham Tartar by Toronto Chief (85), sire of Thomas Jefferson, 2,23, Lady Hamilton and others, and of the dam of Toledo Girl, 2,15.

Extended pedigree sent on application to owner, who is selling because he cannot devote time and attention to the horse business. EXCHANGES. Will be sold well within value and those desiring to purchase will be accorded every opportunity to satisfy themselves.
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CHEAP * CONVENIENT * AND * EFFECTIVE.

The best Non-poisonous Sheep Dip and Cattle Wash in the world.

A "CHEMICAL FOOD" FOR THE WOOL.
Rapidly increases the quantity and improves the quality.

IT IS EASY TO USE,
Requires very little preparation, mixes instantly with cold water, leaves no sediment, no scum, no waste.

CERTAIN DEATH TO LICE, MANGE,
And all insects upon Horses, Cattle, Calves, Pigs, Dogs, etc.
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OWEN SOUND, ONT.

Sole agent or the Dominion.
532

Stock Notes.—Continued.

sows whose sire was General Worsley IV (1114). From Mr. Sanders Spencer, of Holywell Manor, they have a good representative in Holywell Lass, she being of the Holywell Dame family well known for its prolificness, and her sire is Holywell Howard (4-1-1). Messrs. Green have this goodly amount of new blood to blend with their former importation, which was entirely from the herd of Mr. F. Walker Jones. The following is a list of recent sales of Yorkshire: A boar to Alex. Iveson, Burnbrae; boar and sow to R. I. Hepburn, Port Stanley; boar to I. G. Smith, Rosemount; boar to F. Crankshaw, La. n's Head; boar to George Reeder, Ridgetown; boar to W. Went, Solina; boar and two sows to W. G. Pearce, Morpeth; sow to A. J. Debon, Chatham; pair of sows to J. C. Clarke, Ottawa; sow to H. A. Wilson, Chatham; sow to H. C. Gibson, New Castle; boar to P. Hetherington, Barrie. Also the following Shorthorns: The red yearling bull Count, out of imported Clara 4th, to Mr. Thos. Butch, of Blandford; and the red yearling bull, Paragon, out of imported Proud Du Lac, to Mr. H. Lewis, Ingersoll. Both these were sired by the Earl of Mar (75710).

MESSRS. JOHN THORNTON & CO.,

7 PRINCES' ST, HANOVER SQUARE,

LONDON, - - - ENGLAND,

Have the honor to make the following announcements of important sales of

ENGLISH PURE-BRED STOCK.

Southdown Sheep Sales in England.

DISPERSON OF THE ENTIRE REMAINDER OF MR. HENRY WEBB'S CELEBRATED FLOCK.

Messrs. John Thornton & Co. will sell by public auction, without reserve, on Friday, July 22nd, at STREETLY HALL, LINCOLN, CAMBRIDGE SHIRE, ENGLAND, about 2500 earling Rams and Ewes, bred entirely from the late Mr. Jonas Webb's flock at Babraham. These sheep are the lambs retained from the sale of the flock last year, when the high average of £32.9.8 was obtained for 83 Rams and £76.8 for 415 Ewes. This sale will complete the dispersion of Mr. Henry Webb's celebrated flock, to which breeders from all parts of the Kingdom, as well as from the Continent, the United States and Canada, have resorted, for the last quarter of a century.

The Annual Sale of Mr. Edward Ellis' Prize Flock will take place on Tuesday, August 6th, at Summersbury, Shalford, Guildford, England, and comprise about fifty Rams and Rams and one hundred Ewes. The success of this flock has been unprecedented, besides many county prizes, the "Champion Southdown Cup" was won at the great Jubilee meeting of the Royal Agricultural Society of England, at Windsor; the "Pris d'Honneur" at the International Exhibition at Paris; and the "500 Champion Plate" and the "Breeders' Gold Medal" at the Smithfield Club Fat Show, 1889.

Mr. H. A. Brassey's Annual Sale will be held on Wednesday, August 6th, at Preston Hall, Aylesford, Kent, England.

The Annual Sale from the old Buckland Flock, belonging to Sir N. W. Throckmorton, Bart., will be held on Wednesday, August 13th, at Buckland, Faringdon, England.

Lord Hampden's Annual Sale will be held on Thursday, August 21st, at Glynde, Lewes, Sussex, England.

The First-Class Flock, bred by F. Barchard, Esq., at Horsted Place, Uckfield, Sussex, England, will be sold on Friday, August 22nd, when the entire herd of Polled Aberdeen-Angus Cattle will also be sold.

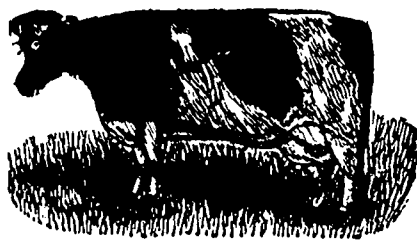
Mr. Hugh Goringe's Annual Sale will take place on Friday, August 22nd, at Kingston House, Brighton, England.

Commissions will be executed and Sheep carefully shipped by JOHN THORNTON & CO., 7 PRINCES' ST., HANOVER SQUARE, LONDON, W. ENGLAND.

Telegraphic Address: "SHORTHORN" LONDON.

HOLSTEIN-FRIESIANS.

SPRING BROOK STOCK FARM. A. C. HALLMAN & CO., New Dundee, Waterloo Co., Ont.

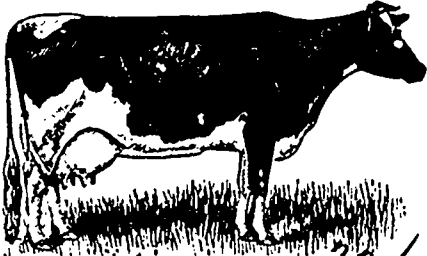


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Stock of all Ages - both Sexes for sale from above Families. Prices reasonable considering quality. Send for Catalogue.

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(MINK 402 H.H.B.)

THE GREAT BUTTER AND MILK HERD OF PURE-BRED REGISTERED HOLSTEIN-FRIESIAN CATTLE.

Most first prize of any herd in Canada at Provincial and Industrial Exhibitions, 1888 and 1889.

Best strains, as Mercedes, Netherland, Clothilde, Artis, Wayne, Auggie, Mink, Stepkje, Tensen and Ykema, for sale. Particular attention paid to individual excellence and good breeding combined. Prices low for quality of stock and within range of all farmers. Send for catalogue.

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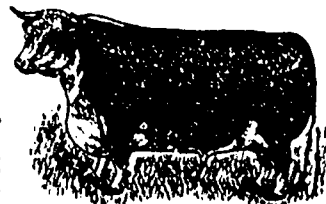
EDEN MILLS P.O., Ont

Breeder of Choice Devon Cattle. During the past five years, at the leading Exhibitions in Canada, my herd has stood first whenever shown, winning five Diplomas, one Gold, thirteen Silver and one Bronze Medal. Stock for Sale including Berkshire Pigs, Cotswold Sheep, and Plymouth Rock Fowls.



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THIS herd is remarkable for the number and uniformity of the good calves that it produces. It has taken all the Medals given in the Province of Quebec, at leading exhibitions the last three years. Breeders who are anxious to get bulls or females with plenty of hair and of good quality and good milk producers, should see this herd before purchasing elsewhere.

J. WALTER M. VERNON,

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WE have on hand for sale a number of Hereford Cows, Young Bulls and Heifers of the best of breeding. They are all from imported stock of the highest merit. The bulls are a robust, vigorous lot and cannot fail to get prime feeders. We also hold for sale a choice collection of young Aberdeen Angus Bulls from the best strains of the breed and they are all imported or from imported stock. A rare chance is afforded to get a superior sire of sturdy constitution.

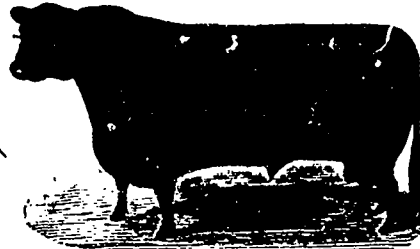
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Of Large Size, and from Choice Milking Strains.

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These animals have been all bred by me from imported stock.

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BATES SHORTHORNS

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Several very choice young bulls of the above families, fit for service, for sale on reasonable terms. For particulars write to or call on

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We have on hand eighteen young bulls fit for service, good animals and well bred, which we offer at reasonable prices and liberal terms. Address

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Announces to his customers, and the public, that he is still doing business at the old stand, and has for sale the finest lot of young animals, of both sexes, ever offered by him. The yearlings of both sexes are exceedingly good—all by imported bulls, and mostly out of imported dams.

Intending exhibitors can be supplied with first-class show animals of either sex and of various ages. New catalogues will be ready by January 20th, 1890. Send for one.

Claremont Sta'n, C.P.R., or Pickering Sta'n, G.T.R. Write or wire me, when and at which station to meet you. No business, no harm.

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Pure-Bred Shorthorns.

The Bates portion of herd is headed by imported 8th Duke of Leicester=92799 and consists of the following families:

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There are some imported Booth Cattle, and Scotch strains are also included. Purchasers can depend upon fair treatment and liberal usage.

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Inspection invited. Catalogues on application.



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Our Entire Herd of Shorthorns,

Including animals bred by such breeders as S. Campbell, J. Bruce, A. Cruickshank, Aberdeen Scotland, and of such strains as Imp. Minnies, Imp. Wimples, Imp. Columbinas, Imp. Princesses, Imp. Pansies and Imp. Maybirds and their daughters. Also imported and home-bred Bulls and Heifers. A grand lot from Silver Medal Bull, owned by J. Russel, bred by me, and also some from Imp. Goldfinder, bred by J. Bruce. The bull I have been lately using is a well bred Cruickshank.



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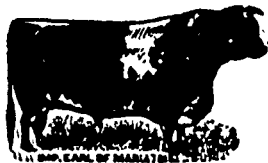
Our herd of Shorthorns is headed by Ross Prince 6th, and it consists of the following families:—Corisander, Tillys, Chesterfields, Berthas, Rosettes, and Darlings. We have for sale a choice lot of young bulls. Also a number of young heifers bred to Imported Duke of Salsbury, and they, like the bull, are descendants of good milking strains. Any person looking for stock is always welcome and will be met at depot if notice is given when they are coming. Prices and Terms Easy.

GRAHAM BROS., Allsa Craig P.O.

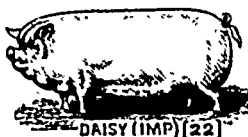
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A few young heifers and bulls for sale at reasonable prices. Our first importation of Improved Large (White) Yorkshire pigs are from the herd of F. Walker-Jones, England, whose herd won over \$10,000 in prizes in three years.

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IMPROVED LARGE YORKSHIRE PIGS.

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We have the Pioneer Herd of Pedigreed Yorkshire Pigs in America. All bred from the BEST ENGLISH STRAINS. Every pedigree guaranteed. Prices low. We are now booking orders for fall pigs. Also

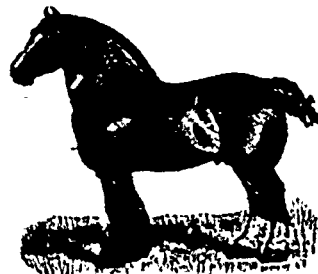
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"Little Jock Elliot" (3763), Wallace and (2486). Also on hand and for sale, Shorthorn Cattle, South Down Sheep, Berkshire Swine, and Scotch Collie Dogs. Buyers don't fail to see my stock. Prices low. Quality first-class. Address

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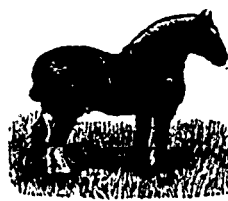
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Howick, Chateauguay Co., Province of Que., Offers on reasonable terms CHOICE Pedigreed



Clydesdale Stallions and Fillies. Amongst them are "Lord Roilo," sire Macaroni, first prize last year and this year at Huntingdon, P.Q. and this year at Montreal, "Lord Oliphant," first prize this year at Huntingdon and St. Martine, P.Q., "Lord Cross," "Lord Duplin," etc.; all of various ages Prize winners in Scotland, freshly imported, all from favorite and fashionable sires and registered in the British Clydesdale Stud Book. Correspondence solicited and visitors welcome.

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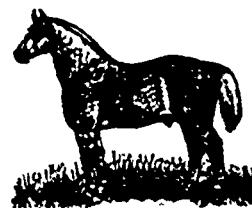
has on hand for sale a large collection of prize-winning animals of the above breeds. The Clydesdales are large and of the best quality. The Shorthorns are of the best Scotch families and of superior individual merit.

Particular attention is called to our Stallions and young Bulls, which will be offered at moderate prices. Terms easy.

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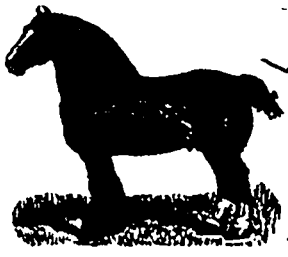
Clydesdales,

37 PURE-BREDS on hand and for sale including gets of the following sires: Boydston Boy (111), Lord Erskine (1744), Macgregor (1437), Maclellan (4564), The Granite City (5397), McPherson (3825), Knight of Lothian (4480), McCamou (3818), Sir Maurice (4721), Darnley King (2717), Knight of Ellerslie (3737), St. Clair Erskine (4590), Douglas Chief (2603), Prince Charlie (629), What Care I (912), Macneilage (2992), and Gallant Lad (281); many of our horses are descendants of Darnley (222) and Prince of Wales (673), and 23 of them are stallions and colts. Several of our mares are supposed to be in foal to our Boydston Boy (111) and Bold Boy (4257).

Stables 4 miles from Guelph on G. T. R. and C. P. R. and 1/2 mile from Gourock, flag station, on Wellington, Grey and Bruce division of G. T. R.

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FROM one to four years old, stallions and fillies from the best studs in Scotland, including gets from Macgregor, Harold, Knight of Snowdon, Sovereign Crown Jewel, McMaster, What-Care-I, Clyde, Scotts, Laird Craford, etc., etc. The stock is selected by myself with great care. Parties wishing to purchase would do well to inspect personally before deciding.



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IMPORTERS OF REGISTERED CLYDESDALES -AND- HACKNEYS. Stallions and Mares constantly on hand and FOR SALE On reasonable terms.



The importations 1523 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), Harold (6126), Crown Jewel (2708), Lord Marmion (2620), St. Lawrence (3220), and others of like merit. Also a few choice Shetland Ponies. Correspondence solicited. New catalogues just out. Visitors are always heartily welcome.

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REGISTERED IMPROVED Large Yorkshire Hogs, Shropshire Sheep. Registered in A.M. Shrop. Record. Bred from Imported Stock. Young stock for sale. JAMES HALL, Edmondton, P.O., Ont.

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CRAMPTON ONT. IMPORTERS AND BREEDERS OF OHIO IMPROVED CHESTER WHITE SWINE.



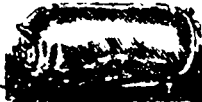
Also Suffolk and Berkshire Swine. We have over 100 pigs for spring trade, sired by four novel imported boars. Single bred for spring pigs in pairs not akin. All breeding stock registered. Correspondence solicited. Single rate by express.

REGISTERED Improved Large Yorkshire. Imported from H. H. Wells. Wonderful H. heads the herd. Young stock for

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R. & J. GURNETT,



IMPORTERS AND BREEDERS OF IMPROVED CHESTER WHITE PIGS.

Young stock for sale. Send for prices. R. & J. GURNETT, Ancaster, Ont.

Cecil French, IGHTHAM COURT FARM - TRURO, N. S.

Importer and Breeder of improved large, white Yorkshire Swine. also, Black Chinese Langshans (pure cross strain.)



S. COXWORTH,

Claremont, Ont. Breeder of Pure Berkshire Swine.



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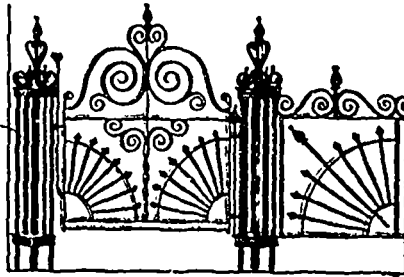
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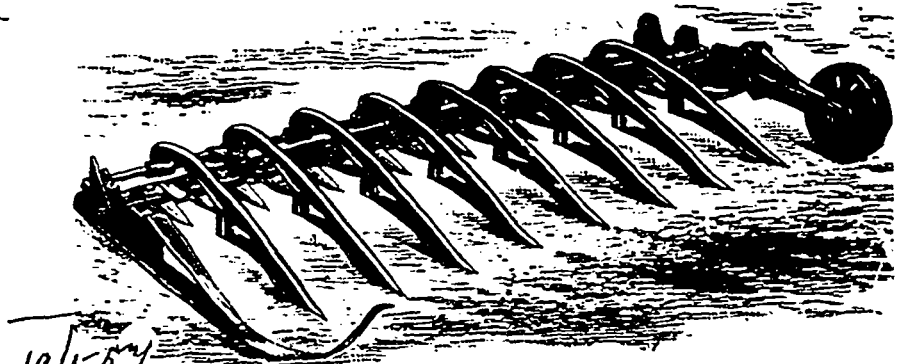
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