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1896

THE FARMER'S ADVOCATE

AND HOME MAGAZINE



EDITORIAL.

New Year's on the Farm.

"New Year's at the Old Homestead" is the subject of our frontispiece in this issue, and our artist has succeeded in portraying a joyous gathering at the festive board within, and a well-cared-for group of live stock enjoying their noon-day airing without. Our artist evidently is one of those who still adheres to the view that a bit of fresh air and exercise is calculated to promote the general health of the animal. Since he presents the farmyard group in such "good form," they are evidently well cared for in the stall, and we are not disposed on this holiday occasion to argue with him the question of exercise vs. non-exercise.

The Success of Ensilage.

Since 1890 the corn acreage in many portions of the Dominion has doubled. In 1896 we expect to see an increase far exceeding that of any previous year. From our correspondence, and by our personal visits to farms in all parts of the country, we find that silo construction and corn ensilage still constitute probably the most live subject for consideration among our readers at the present time. A large number of silos will be built and filled this year. As promised in our last issue, we give, from a report of Mr. E. D. Tillson, one of the most remarkable testimonies in favor of ensilage ever published, based on about 14 years' actual experience. We commend it to the careful perusal of our readers. He has proved silage to be a complete success—healthful and economical; in fact, the cheapest of stock foods. From time to time we have dealt fully with every phase of how to build, fill, and feed from a silo; but hundreds of new readers, and the newly awakened interest of old ones, still require us to keep the subject prominent in our columns.

Up to this time books devoted exclusively to ensilage have been scarce, and, as a rule, very incomplete. The best in every respect that we have yet seen is entitled "A Book on Silage," written by that practical and well-known authority, Prof. F. W. Woll, of the Wisconsin Agricultural Experiment Station, a copy of which we have just received from the publishers, Messrs. Rand & McNally. It contains over 190 well-printed pages, and is fully illustrated. Some idea of its completeness may be gathered from the following table of contents:

INTRODUCTION.
CHAPTER I.—SILAGE CROPS.
A. Indian Corn.
Development of the Corn Plant.
Varieties to be Planted for the Silo.
Methods of Planting Corn.
Thickness of Planting.
Planting in Hills or in Drills.
Sowing Corn Broadcast.
Preparation of Corn Land.
B. Clover.
Time to cut Clover for the Silo.
C. Other Silage Crops.
CHAPTER II.—SILOS.
General Considerations.
Descriptions of Different Kinds of Silos.
1. Pits in the Ground.
2. Silos in Barns.
3. Separate Silo Structures.
A. Wooden Silos.
Circular Wooden Silos.
B. Stone or Brick Silos.
C. Grout (Cement Concrete) Silos.
D. Stave Silos.
E. Metal Silos.
F. Silo Stacks.
Preservation of Silos.
Cost of Silos.
CHAPTER III.—SILAGE.
Filling the Silo.
Cutting the Corn in the Field.
Whole vs. Cut Silage.
Siloing Corn "Ears and All."
The Filling Process.
Fast or Slow Filling.

The price of the above work is \$1.00 in cloth and 50 cents in paper binding. In order to bring it within easy access of all, we have made an arrangement with the publishers whereby we offer a copy, well bound in cloth, to any one sending us the names of two new subscribers to the FARMER'S ADVOCATE (and \$1.00 each), or a copy in paper for the name of one new subscriber and \$1.00. We trust that a large number of our readers will avail themselves of the opportunity to secure a copy of this exceedingly useful and timely work.

Unless Australians have a deal of persistence, they will very soon abandon the idea of sending live stock to the English markets, as nothing but disappointment and financial loss has attended the attempts that have yet gone forward. Out of a recently sent, of 200 sheep, from South Australia, 144 animals were washed overboard, and only 56 that colony can find a hungry nation

The Season's Greetings and An Important Matter.

"DEAR ADVOCATE," writes Mr. McMillan, of Shakespeare, in sending us the season's greetings under date of Dec. 21, 1895, "as you have paid me your last visit for this year, enclosed you will find one dollar for the continuance of your semi-monthly visits for the ensuing year. I am one of your earliest subscribers in this locality, so that you and I are old friends. I gain much valuable information from your pages. You are the farmer's true friend."

Thousands of subscribers have been attending promptly to the renewal of their subscriptions, like our friend, Mr. McMillan, but a few have delayed. In order to begin the new year with a brand "new leaf," we request their early attention to this important matter. During the coming year we purpose giving still more and better matter of practical service to the farmer and breeder than ever before. The contents of the present issue may be taken as a fair average of the class of matter that will be given, but our aim is to make each issue in quality better than the last.

We not only look for the renewal of every old subscriber, but wish our list doubled by new subscriptions in every locality. In order to afford extra encouragement to our readers and others in the good work of extending the influence and benefits of the ADVOCATE, we direct attention to the splendid list of special inducements offered on another page, all of which are of sterling worth, and such as have given the very highest satisfaction in the past. Our chief reliance, however, is upon the ADVOCATE itself, and the substantial merits of its contents.

We wish all our readers a prosperous new year, and bespeak a continuation of their good will and co-operation during 1896.

Lessons Learned in Experimental Work.

The seventeenth annual meeting of the Ontario Agricultural and Experimental Union was held, as announced, at the Guelph College, on December 12th and 13th. Coming immediately after the Fat Stock Show and breeders' meetings, the attendance of visitors and ex-students was much larger than usual. The importance and general utility of the Experimental Union is just beginning to be appreciated in this and other countries. The visitors from the United States who were present expressed very high opinions of Ontario farmers, farming, the Agricultural College and Experimental Farm, which was acknowledged by those well-informed American gentlemen as being unsurpassed by institutions of a like nature on the American Continent. In fact, every visitor who expressed himself at all, acknowledged his agreeable surprise at the magnitude and great practical utility of the institution. Dr. Myers, of the West Virginia Experiment Station, referred to it as "a magnificent demonstration of practical experimental work." Col. Birch, of Chicago, also expressed himself in very flattering terms.

The work of the "Union," as carried on at present throughout Ontario, commenced ten years ago with 12 experiments, conducted by 8 successful experimenters. In 1895, 513 experimenters sent in successful reports, which were received from all parts of Ontario. The crop of oats in Ontario in 1895 was 2,373,309 acres. Now, if by growing the best sorts as ascertained by such experiments, the yield could have been increased one bushel per acre, the benefit to the Province would have been about \$500,000. The same sort of benefits would accrue to all other crops by an increased yield. Last spring 9,000 packages of seed and fertilizer were sent out, which shows the demand for them. After the members of the "Union" have been supplied, applications from any other source are always attended to as far as possible. Mr. Zavitz, by referring to charts prepared by him and hung up before the audience, showed how the best sorts of oats, wheat, barley, corn, etc., had done on an average over the Province. In this connection there was some interesting discussion, which brought out many valuable characteristics of the various varieties, more particularly of roots and fodder crops.

Lucern and Crimson Clover.—We can only refer to a few of the crops at this juncture. Out of 36 tests made with Lucern clover sown last spring, 33 secured good catches, which grew to an average height of 10.6 inches. The average height of similar crops grown for four years was 11.8 inches. It was the general opinion of the members that Lucern makes a very profitable pasture or green soiling crop, but Mr. Rennie, the College Farm Superintendent, is entirely opposed to growing it, on the ground of its ill effects on their sheep flock. He found that several sheep had died from the effects of balls of Lucern fibre forming in the stomach and creating a stoppage. The clover used, however, was very ripe hay, which could easily have been avoided by cutting green.

With regard to Crimson clover, the average height to which it reached was 11.1 inches, yielding 135 tons of crop per acre. This clover is so good that it does well sown

proved a failure at the Guelph Farm, thus sown. The best time to sow it here is in April or May, or even in the early part of June, when a Red clover catch has not been secured. Mr. Zavitz will be able next year to give a well-grounded opinion of its value as a green manure, as he has an experiment with different green crops plowed down for fall wheat now under way.

Underdraining.—A comprehensive paper on underdraining was read by A. W. Campbell, C. E., St. Thomas. Considerable emphasis was put on getting a uniform fall from head to mouth. The grade should be made by an instrument of some reliable sort, be it ever so simple. A home-made level was recommended, such as is described in our Helping Hand Department of Dec. 16 (1895) issue. It must be remembered that a "drop" of 4 inches in a drain will completely obstruct a 4-inch tile drain, and thus ruin its usefulness. It is very important that the tile be very carefully laid on an even solid bottom. It is very important that the mouth of the drain be well constructed, and given more fall than is necessary further up, in order that it may clear itself of silt, etc. The mouth should be protected from tramping in by stock seeking water. In clay soil, the clay itself around the tile will keep silt out of the joints, but when quicksand is present, a covering of bark or tough sod should be applied immediately upon the tile. When a farmer has engaged a man to drain his field, he should look well after the execution of the job in every detail, and not trust to any chances of anything but first-class work. As soon as the drainer has his money his responsibility is ended, but the farmer will continue to be interested in that drain so long as he has any interest in the drained field.

In the discussion which was opened by T. G. Raynor, B. S. A., Rose Hill, Ont., the finer tilth, deeper soil and resulting benefits were referred to as direct influences of underdraining. A wet spot in a field renders the whole field late. Mr. Raynor advised draining a field while in tough sod, for the reason that a truer grade could be thus obtained, and the sod answers a good purpose in covering the tile.

Entomology.—Prof. Pantou mentioned in the course of his remarks some new insects which have come beneath his notice. Plant lice on turnips, oats and wheat have greatly increased during late years. They have, however, a destroying enemy, the "Lady Bird," which will in all probability keep them in check. As an application, kerosene emulsion is their specific remedy. The Plum Scale, which is about the size of half a small pea, has increased rapidly of late. The Buffalo Carpet Moth has become very troublesome as a house pest in some quarters. It does its damage in the larval stage; when it matures it seeks outdoor quarters and feeds on vegetable matter. The Peach Borer, Grape-vine Beetle and the Pea Bug are among the most formidable insect pests of the present day. With regard to new weeds, the Bird-weed and Perennial Sow-thistle are among the worst, while Wild Flax and Chicory, or Blue-weed, are gaining ground rapidly throughout the Province. The Professor advised the stamping out of new weeds on their first appearance. To this end a keen observation and constant vigilance are necessary.

"Small Factory Cheese for Home Use" was the title of a paper by J. F. Beam, Black Creek. The size of the cheese hoop recommended was about 18 inches, which made a cheese weighing from 12 to 20 pounds. Mr. Beam has found a very ready local demand for a great many from all his part from local grocers. By using hoops of this often remaining portions of curd, the hoops are filled, could be pressed as making small cheese as a business. needs to be hastened so that more moisture held than in large Cheddars.

Feeding Sheep.—Prof. J. A. Craig, of Madiso Wis., by the aid of a chart, illustrated the value grain feeding to fattening lambs. The system flock management employed was hurriedly reviewed. When the lambs are weaned the ewes are put on poor pasture to dry up their milk. They are then well fed in order to get them into good condition before winter. When the ewes are up in good flesh at breeding time, the flock will take the more evenly, and in spring have more big, strong twin lambs than if the ewes were in low order. Ewes' feed in the fall consists of half a pound grain daily when on fair pasture, but when rape fresh clover is used no grain is necessary. Winter ration consists of corn fodder night and morning, with the addition of clover hay and straw. The Professor claims a good deal for hay for sheep food, even more than timothy, if well saved. The ewes get half a pound of oats each during the winter until near lambing time, when it is used instead. Feed well after lambing and provide creep pens for the lambs just as soon as they wean. When the ewes are turned onto good grass the grain is more profitably withheld from the but the lambs should continue to get their share. When the lambs are weaned they are run together for a few days to help them forget their mother. They are then divided into groups, according to size and age, so that every lamb will get its share of the food.

The Professor has conducted at the Wisconsin Station a series of experiments in lamb fattening. One lot was fed grain from the time they were commenced to eat until they were ready for market the following spring. Another lot was fed no grain during the summer. The gain was

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period commenced both lots were given grain in liberal quantities. When all the lambs were fat those fed grain from the beginning gave a profit per head of 57 cents over the other lot, and they were ready for the butcher seven weeks earlier, which saved the work of feeding and risk during that time. The quantity of grain fed was limited only by the appetite of the lambs. The most profit was realized from feeding crushed corn, which yielded \$1.04 per head; wheat fed gave 69 cents profit per head; wheat screenings gave 55 cents profit; a mixture of corn, peas and oats gave 80 cents per head of a margin; oats alone or peas alone gave no return of profit.

The Professor places a high value on ensilage for sheep feeding, not only for the constituents of the food, but for the health-giving effect of its succulence. Ensilage and roots at \$2 per ton, the former is most profitable to feed in Wisconsin. The experimental sheep were all Shropshire grades. It is the Professor's opinion that the more open fleeced ones give most return for food consumed.

Economical Feeding at the O. A. C.—During the discussion of this (Prof. Craig's) address, Mr. Rennie, Farm Superintendent at the Ontario Agricultural College, gave an interesting review of his methods of feeding the College sheep. Prior to about a year ago, for a long time, the sheep on the "Farm" always appeared miserable and unhealthy. The conclusion generally arrived at was that the Experimental Farm was not a sheep farm, and, indeed, many people had come to the conclusion that there was some lingering disease continually in the flock and about the farm and buildings, but it is gratifying to know that the Guelph "Farm" is a good sheep farm and also as free from disease as any other. Until Mr. Rennie took charge the sheep, old and young, received liberal grain feeding to keep them in any sort of presentable condition, which, however, it failed to do. Mr. Rennie resorted to a plain diet, and the flock, during our visit to the "Union," never before looked as well. They are healthy, vigorous, in good order, and have the same thrifty appearance as any other well-kept flock of sheep.

Mr. Rennie believes in succulent diet, and to that end he had a field of rape cut and thrown in large windrows the last thing before the ground froze up. This rape is yet being hauled and fed to the ewes in their yards during the afternoon. The morning and evening feed consists of corn silage, pea chaff and pulped roots mixed together the previous day. At noon they get pea straw. They get no other grain except the corn of the ensilage.

By the way, we may mention just here that this mixture of ensilage, chaff and pulped roots is fed alike to horses and cattle, with the addition of a little bran in a few special cases, and these are all looking hearty and in good order. Cows that could not be got to breed for years previous to this plainer feeding are now producing calves without any trouble. The horses were fed last winter during the idle season on eight cents per day, and Mr. Rennie thinks he is going to put them through this winter on about seven cents daily, and keep them in fine, thrifty condition. The hogs, too, are being wintered very cheaply; about two cents per day is the cost of the brood sows' ration, up till within a few weeks of farrowing, when some grain will be used. The food used is mangels, and they also get the swill from the College kitchen, which is not taken into account. This sort of feeding, if it turns out as well as it promises, should remove the objection so often raised against farming at the College, that no private farmer can carry on his work in such fashion as is done at Guelph. This has frequently been hurled at students and ex-students by persons who have never visited the institution, but have heard such and such regarding their methods.

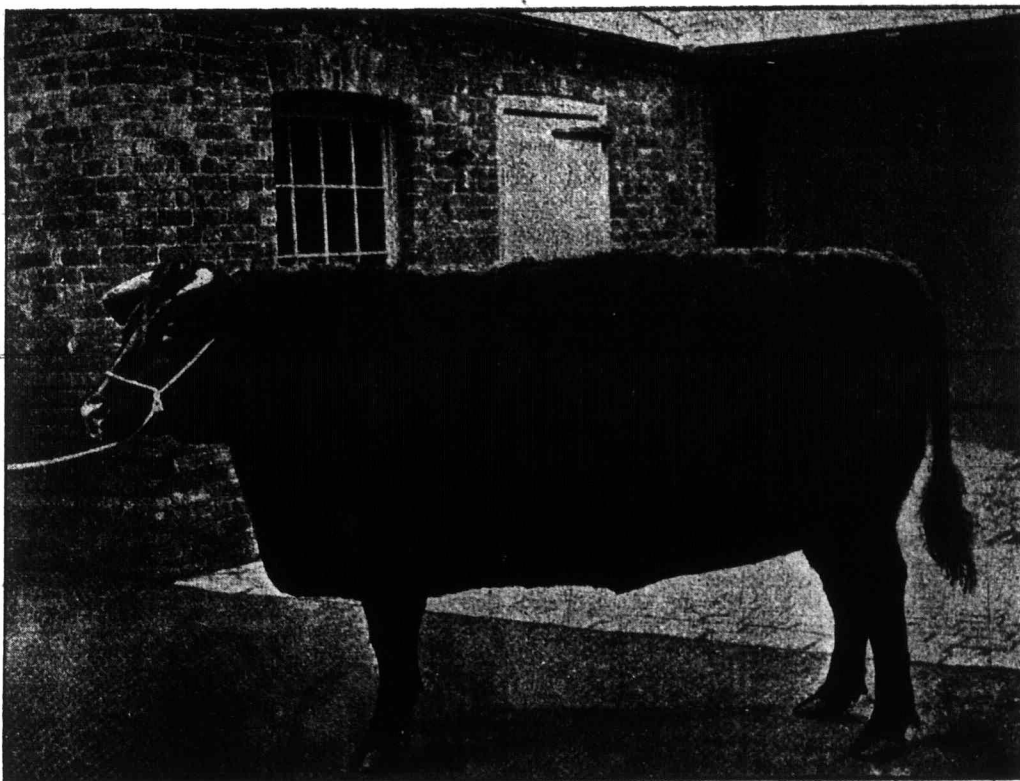
Beef Rings.—Mr. W. S. Fraser, Bradford, gave an address on the subject of fresh meat for the farmer during the summer months. The scheme is similar to many that are being carried out in different parts of the country. Mr. Fraser's method is to form, not later than February, a syndicate or "ring" of sixteen or twenty farmers, each one of whom agrees to put in an animal to dress about 400 lbs. of beef some time during the summer months. A butcher, who may be one of the number, agrees to slaughter, dress, and cut up the animals at \$2 per head. Lots are cast to decide each man's turn to supply his animal so that his beast may be ready when wanted. A beast is therefore killed and eaten every week. The method of distribution is to have a hook for each member in the butcher shop, and upon it hung, by the butcher, a roast, boiling piece and steak, making up his share of twenty or twenty-five pounds according to agreement. A strict rotation is followed throughout the season so that no member gets the same parts twice, and each family will, during the summer, have eaten a

whole beast. The head, hide, etc., belong to the member supplying the animal. When a beast dresses more than 400 lbs., or the allotted weight, the contributor gets a fixed price per pound for the extra weight. When it falls below he has to make it up. The animals are killed in the morning of the same day each week, so that the members will always know when to go for their meat. This method cannot but have a good effect upon the health and pockets of the members who have been in the habit of using salt pork the year 'round.

"Rations for dairy cows," by Prof. G. E. Day, B. S. A.; "Profits in poultry raising," by H. J. Page, St. Mary's, followed by discussion opened by W. R. Graham, B. S. A., Bayside, Ont.; "Tests with five-banded Italian bees," by R. F. Holtermann, Brantford; "Leading varieties of small fruits," by Prof. Hutt, B. S. A.; and the "Food value of milk and its derivatives," by Miss Bessie Livingston, of Ottawa Cooking School, were papers and addresses carefully given and much appreciated by the large audiences.

Prof. A. E. Shuttleworth took up the subject, "Quality and quantity of cheese from the percentage of fat in whole milk," and by discussing it clearly and explicitly, brought out the same lessons as are shown in Prof. Dean's article contained in our Dec. 16th '95 issue. One of the finest addresses of the "Union" was given by Prof. C. C. James, Deputy Minister of Agriculture, on the "Lives, works and influence of several agricultural scientists who departed this life during the year 1895," among which we may mention Amos Cruickshank, Profs. Pasteur, Riley, Langstroth, and others. President Mills' address was greatly appreciated.

ELECTION OF OFFICERS.
 President—Elmer Lick, Oshawa.



A WINNER FROM HER MAJESTY'S SHORTHORN HERD.

Vice-President—D. Z. Gibson, Willow Grove.
 Directors—President Mills; C. A. Zavitz; S. N. Monteith, Stratford; R. F. Holtermann, Brantford; T. G. Raynor, Rose Hill.
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 Committee on Agriculture—President Mills, C. A. Zavitz, Prof. Shuttleworth, P. O. Vanatter, and R. Harcourt.
 Committee on Horticulture—Prof. Hutt, Messrs. Lick and Monteith.
 Committee on Apiculture—R. F. Holtermann; R. Husband, Cairngorm; and E. Emigh, Holbrook.
 Committee on Dairying—Prof. Dean; H. L. Beckett, Hamilton; S. P. Brown, Coldstream.
 Committee on Economic Botany and Entomology—Profs. Panton and Harrison, and M. W. Doherty, O. A. C., Guelph.

STOCK.

The Queen's Shorthorn, Frederica.

The subject of our extra illustration is the noted Shorthorn two-year-old heifer, Frederica, bred and exhibited by Her Majesty the Queen, the Prince Consort's Shaw Farm, Windsor. She is a beautiful red, sired by Volunteer 63501, dam Fragrant 9th, by Mr. Duthie's Lord Violet. Frederica was first winner in her class at the Royal (Darlington), 1895, and was reserve number for the championship there as best female. Her successes are still going on, as she was a popular winner at the recent Birmingham and London Fat Stock Shows, at each of which she carried off the very highest honors. It goes without saying that she is an almost typical Shorthorn. Besides her wonderful symmetry, she possesses great weight for her age. At 1,047 days old she tipped the beam at 1,802 lbs. The roans and whites do not always win.

The Portfolio of Agriculture.

A dispatch from Ottawa announces that Hon. W. H. Montague (M. D.), M. P., Haldimand, Ont., has been advanced from the position of Secretary of State to be Minister of Agriculture for the Dominion.

An Appreciative Letter.

SIR,—I take much pleasure in forwarding you a few (six) new names as subscribers to ADVOCATE, and renewal (P.O. order for \$7.00 enclosed). I am alone, with a large stock to attend to, so cannot devote much time to it, so have only canvassed my immediate neighborhood, and, in doing so, am surprised at the indifference of many to their own profession, and how little they read or know of what is going on in the world around them. The article in your last number, from the pen of Prof. Mills, "A Word to Farmers' Sons," is a grand address to young men, and should be widely read and studied by farmers' sons everywhere. Could you not publish it again for the benefit of new subscribers?
 West Middlesex, Ont. S. A. OTTON.

Our Scottish Letter.

The subject of moving interest at the present time is live stock. We are in the midst of the great Christmas shows and sales, and new developments having taken place in several departments, the attention of the public has been proportionately quickened. Fat stock shows have been held at Birmingham, Inverness, London, Leeds, and York. At all of these Scottish-bred cattle and sheep have been much in evidence, and a very large share of the prize money has fallen to them. Birmingham and London are the great rendezvous, and it is at these places that the Northern breeds come into sharpest conflict with the best produced in the South. The results have this season been very much a case of Scotland first, and the rest nowhere. Her Majesty the Queen, with a Scottish-bred Shorthorn heifer (Frederica), cleared the decks at both places, winning the very highest honors. This animal is red, and in general outlines belongs to the Cruickshank type. She had a hard fight for the supreme honors at both shows, an umpire having on each occasion to be called in. In her own breed section her chief opponent was another Scottish

Shorthorn, Marchioness XVI., bred and owned by Mr. C. M. Cameron, Balnakyle, Rossshire. This is a very fine specimen of the breed, and plenty of judges preferred her before Frederica. She is roan in color, and truer to breed character, but the red heifer was better finished for a fat stock show. The reserve champion animals, both at Birmingham and London, were three parts bred Shorthorns, with one part Aberdeen-Angus blood, and both were bred by Mr. John Ross, Meikle Tarrel, Fearn, also in Rossshire. The sire was Ringleader, a Collynie bull. And a large proportion of the prize-winners alike at the two great English shows and the Inverness show were got by this bull, out of Mr. Ross's cross-bred cows. The reserve champion at the capital of the Midlands was Lady Lizzie, a heifer owned by Mr. C. J. Bruce, Bogmuchsals Lodge, Portsoy, and of all the Meikle Tarrel cattle shown this season, the only one with horns. In every other case the one cross of the Polled bull had knocked off the horns of the Shorthorn. At London, Lady Lizzie had to make way for her nearly full sister, White Socks, a heifer identical in breeding, and owned by the Earl of Rosebery, K.G., who was a most successful exhibitor in all the sections. White Socks is a remarkably good cross-bred heifer, and an umpire had to decide whether she or Frederica was to wear the supreme honors of the Smithfield Club. The award went in favor of Frederica, which was bred, as well as exhibited, by the Queen, but many, including several of the leading butchers, preferred White Socks. She won the championship in the cross-bred section, and her all but full brother, Scottish Prince, also bred at Meikle Tarrel, and owned by the Earl of Rosebery,

was the reserve. In the contest for the best steer in the show he also stood reserve to the Hereford champion which pulled off this honor. In the Aberdeen-Angus section the champion at both of the great English shows was Mr. J. Douglas Fletcher's heifer, Miss Fluffy, a true specimen of the breed, and bred by her owner. Several other first prizes fell to Mr. Fletcher's lot at Birmingham, and thus Rosshie scored again. Sir George Macpherson Grant, Bart., has entered the field as an exhibitor of fat stock, and secured the championship at Inverness with the heifer Mantlet, and the reserve championship at London with the steer Rattler. Both are very well-bred animals, and their success shows that Sir George can feed as well as breed. His manager now is Alexander Turner, a son of Mr. Robert Turner, Cairnton of Boyndie, Portsoy, one of the most successful feeders in the north of Scotland. Young Turner has made a good start for Ballindalloch. The Highlanders are great favorites with the London butchers, and no class of cattle sell more rapidly than they. This year the chief honors went to one of the most spirited patrons of the breed, Mr. William Nemmo, Castle Eden, Durham, and the reserve to Sir John Swinburne, Bart., Capheaton, Northumberland, another tried patron of the mountaineers. These picturesque animals have seldom been forward in greater force than at the show which closed to-day, and, as indicating their popularity with London butchers, we may mention that the third prize steer, which was also a champion at Inverness, was sold alive for £55, or at the rate of nearly 70s. per cwt. of 112 pounds. No other class of cattle kill with so large a percentage of lean meat, and this gives point to the argument of a well-known English farmer, that you cannot have lean meat without bone, nor bone without age. This gentleman is an opponent of the craze for baby beef, the animals which produce that being characterized by him as whipstick-legged animals. There is likely to be more heard about this. The chief rival of the Highlander in the favor of the London first-class butcher is the hardy Galloway. This year the representatives of this splendid old breed were forward in great force, and a really choice display was made. Mr. Murray Stewart, of Cally Gatehouse—a Galloway laird who has never forsaken beef for dairying—won the championship with a splendid bullock named Anthony. This prime animal was bred in Wigtownshire, and nothing almost could beat him as a good butcher's bullock. The reserve champion was his neighbor, bred by Mr. H. C. Stephens, M. P., Cholderton, Salisbury, an English patron, and Mr. W. Parkin-Moore, of Whitehall, Mealsgate, Cumberland, a liberal patron, secured two first prizes. Other choice cattle of the same breed were shown by Messrs. Bggar & Sons, gentlemen who have never swerved from their devotion to the old breed of the Province.

Notable as these triumphs are, there is better behind. A block test was for the first time instituted this year at the Smithfield Show. There were two classes, one for steers over and another for steers under two years old. In the first a Highland bullock, owned by Lord Cawdor, Nairn, won. He was reserve champion alive at Inverness. The next three bullocks placed in order were all Galloways, their owners being the gentlemen already named—Messrs. Murray Stewart, Parkin-Moor, and Biggar & Sons. The Highlander's figures were in some way bungled in the official returns, but, working them out for ourselves, we make him to have killed 66.4 per cent. dead to live weight. The second Galloway, 61.8; third Galloway, 61.2; and the fourth, 63.3. It is little wonder that these old breeds are first favorites with the butchers. Amongst other breeds represented in this section were the Red Polled, Aberdeen-Angus, Shorthorn, and Hereford. In the class for young steers, a cross-bred from Mr. John Ross, Meikle Tarrel, was first. His live weight was 11 cwt. 3q. 6 lbs., and his dead weight, 7 cwt. 3q. 2 lbs., or 63.6 per cent. A Sussex was second, a Red Polled third, and an A.-A. fourth. The carcass of the first Highland ox was sold at almost 1s. per lb. to Mr. Harry Grant, a well-known West End London butcher. In the block test for sheep Scotland came equally well to the front. The first prize carcass in the long-wool section was that of a Blackface wether belonging to Mr. Gilmour, of Montave. A Cheviot from Sutherlandshire was second, and a half-bred, or cross between a Border Leicester ram and a Cheviot ewe, was third. Another Blackface wether carcass was fourth. The worst carcasses in this section were those of the Lincoln, English Leicester, and Devon breeds. First prize for carcasses of short-wooled sheep was won by His Royal Highness the Prince of Wales with a Southdown. It was sold at 11d. per lb. The other Down breeds, which were strongly represented in this section, made a very poor show indeed, the mutton being excessively fat and tallowy, and the butchers were buying it at a fraction under 4d. per lb. The worst carcass on exhibition, as well as the best, was that of a Southdown. The first offer that was got for it was 2½d. per lb., but by holding on the auctioneer got it up to 3½d. Altogether, Scottish exhibitors and breeders have every reason to be satisfied with the results of the show of 1895.

SCOTLAND YET.

Prof. E. E. Faville, Director, advises us that the short winter course at the Nova Scotia School of Horticulture, Wolfville, will open on Jan. 8th. A very broad, yet thorough, course is offered, and the tuition is free. Write the Director for particulars.

A New Year's Greeting from England.

To the Editor FARMER'S ADVOCATE:

SIR,—I trust the New Year will bring good times to farmers on your side. Breeders here are more hopeful, as store stock are dear, and among Short-horns there has been a keen demand for young bulls for the Argentine Republic. Beef and mutton are not, however, selling well, and feeders are not having a good time. Our country is remarkably free from disease, and this may be the cause of the discussions which are taking place, chiefly among members of the veterinary profession, with regard to tuberculosis, this disease and swine fever being about the only ones left remaining for their attention at the present time. The former is, however, often much exaggerated, breeders of pedigree stock being, as a rule, the last persons to allow such a disease to remain in their herds when once discovered, for the obvious reason that they would be the greatest sufferers. The large dairies of the great towns sometimes encourage its development, but inspection is rigid, and no great danger is to be apprehended from this source. The Smithfield show of fat stock is over; the Shorthorn heifer, Frederica, from Windsor, a dark red in color, that won at the breeding show of the R.A.S.C. Society at Darlington, took the championship. A good cross-bred or two were also much admired. The block test was held for the first time, and the carcasses sold by auction were an object lesson to many, showing that fat on the backs of animals several inches in thickness is of little or no value to butchers.

The winter being a mild one at present is also against the sale of this so-called Christmas meat. In these carcass competitions a Southdown sheep won first prize, and was sold for 7s. 4d. per stone of 8 lbs., the first prize beef making 7s. 6d.; these being more than ordinary market values, the first prizes putting, perhaps, 2s. per stone value on them.

The old cry of "Protection" for our industries is being raised again, especially with regard to foreign barley for malting purposes, it being argued that it would not be a great hardship to tax the brewing interest a little.

The Southern Counties of England (Kent, Sussex, etc.) have suffered very severely this year with the very low price of hops and the bad crop of barley; this latter is, however, a good crop in Yorkshire, the great variation in our districts and soils, as you know, making what is true of one country quite inapplicable to another. Perhaps the most distressed portion is Essex, where for the last fifteen years prices and times have been against clayey, corn-land farms, which have no grass of any feeding value besides what is artificially raised with much manual labor. Wishing Canadian friends a happy New Year, remain

Yours truly, "W."

London, England.

Sheep Breeders Congratulated.

[Points from the annual address, at Guelph, of Mr. John Jackson, President of the Dominion Sheep Breeders' Association.]

Mr. Jackson congratulated the members on the continued harmony and posterity of the Association. He was pleased to note the marked improvement in the flocks of the Ontario sheep breeders during recent years. In reviewing the flocks at the various large shows, he said there was one feature which would forcibly present itself to every careful observer. That is the marked improvement in the home-bred sheep, to encourage which had always been the aim of the Association. A few years ago, he said, it was very easy, after looking over the sheep exhibit at any of the shows, to point out every imported animal. But now there is not that contrast; even an expert judge would hardly like to risk his reputation by undertaking the task. Continuing, he said it was very gratifying to find that, notwithstanding the depression in nearly every line of agricultural production, the demand for first-class pure-bred registered sheep had been good, and that remunerative prices had been obtained. He spoke of the great possibilities of Canada in sheep raising, and said they had only to recall to mind their well-earned victories at the great World's Fair at Chicago to establish that fact, and only two weeks ago at the show held in Madison Square Gardens, New York City, held under the auspices of the Live Stock Association of America, the Canadian exhibit of sheep was decorated with honors, for out of \$1,000 offered in prizes Ontario won \$945. "What more can we ask?" he said; "and what has been said of that show is corroborated by the grand display of sheep at our winter exhibition."

Preserve the Advocate.

No doubt many ADVOCATE readers, on looking over the contents for 1895, published in December 16th issue, wished they had saved all the numbers of the year. Now is the time to enter upon a system that will avoid any such regret in the future. Simply set apart a portion of a shelf somewhere in the house, and when a new issue arrives, put the last one (which by that time will have been thoroughly read by all in the home) away on the shelf. The papers will thus be kept in good order, and, if desired, may be bound at the end of the year. We might add that we can furnish substantially bound volumes of all the issues for 1895 at \$2 per copy. Many of our readers have every copy of the ADVOCATE, from the inaugural issue, preserved, so highly is the paper prized. In no other way can so much valuable information be preserved at so small an outlay.

The Economical Use of Grain in Fattening Cattle.

SIR,—In answer to your request respecting the kind and quantity of grain I would recommend in the preparatory, second and finishing stages in the process of fattening cattle, I may say that any opinion I may express upon this question would be only an approximate as indicating what we have found to work well in practice upon a comparatively small scale. In the fattening of cattle I am not a believer in feeding such very heavy rations of grain as many farmers still persist in cramming into their animals. In this country, where we have our animals stabled for such a long time, I consider one of the greatest secrets of success in connection with a system of stock-keeping, with a view to either beefing or dairying, lies in our being able to get our winter foddere preserved in the very best possible condition. For instance, imagine a farmer curing his hay crop when it has become so ripe that the substance has nearly all left the stem; also leaving his grain crop until it may be drawn in directly after cutting, and then, with this quality of fodder as the bulky portion of his food ration, endeavor to fatten his animals for the May market. With such a quality of fodder, in which there must be a very small percentage of digestible food material, it does not surprise me that many consider that very large quantities of grain are required, and more particularly so when animals have previously been partially neglected through the want of a sufficiency of pasture grass, or other suitable fodder to keep them good and thrifty and gaining at least moderately during the previous summer. Practical experience is constantly teaching us that there is no single fodder upon which animals will gain and fatten so rapidly as upon the rich pasture of spring and early summer, more particularly when it has reached that stage of maturity which it usually attains from two to three weeks before the bulk of farmers begin haying operations. This practical lesson should also teach us that the nearer we can preserve our fodder to this condition the more digestible and valuable will its feeding qualities be. The analysis of good clover hay properly cured, confirmed by the practical results attained in its feeding, tells us that it is almost a perfect fodder in itself.

I merely throw out these points to show that it is quite practical, under favorable conditions, to fatten animals upon other foddere besides the concentrated grains which are so largely used in winter feeding. I do this not by any means to convey the idea that animals can be stall-fed in winter without grain, but to show that by exercising judicious care in the growth and preservation of our common bulky foddere, and availing ourselves of the valuable addition to these which is found in the great succulence and digestibility of the corn crop, we can thus be able to supply our animals with full and appropriate rations without having recourse to such large quantities of grain. With a mixture of about 15 lbs. of ensilage and 15 lbs. of wheat and oat straw, we are at present feeding our animals three or four pounds of grain—a mixture of peas and oats. Upon this allowance of grain they are doing well, and I consider it quite sufficient to carry them along till January.

For the next two months, with a mixture of clover hay, straw and ensilage, six pounds of grain, a mixture of peas, oats, and a little oil-cake, followed by certainly not more than eight pounds of the same mixture during the finishing period, should be quite sufficient to put the animals in prime condition for May shipment. THOS. McMILLAN, Huron Co., Ont.

"Blue-Grays"—A New Breed Suggested.

SIR,—We have been reading for some years, in your journal and others, about the great superiority of blue-gray cattle as producers of the very choicest beef, and the great demand for them. Would it not be in order to commence a distinct breed of them? We think if the Ontario Agricultural College were to undertake it they could do a good work for the country at large. Our idea would be to select the best white Shorthorn bull that could be secured, then secure three Galloway cows of three different families, then I would secure three white Shorthorn cows of the same number of distinct Shorthorn families, and mate them with the best Galloway bull that could be procured; then we would mate their produce one with the other. We think a breed could be formed of them in this way without breeding in and in; and if, as is claimed, they are so much superior as beef producers, and the beef being superior to any other breed now in existence, they would very soon commend themselves to the breeders and feeders of this country. Not only that, but all of them being without horns would be an advantage, and it would give the students of the College an ocular demonstration of how to form a breed, in which we have no doubt they would take a deep interest. As Canada has no breed of farm stock that it can claim as its own founding, they could be called Canada's Polls, and if they turn out to be as good as we suppose, they would soon be known the world over by that name, and be very much sought after by breeders and feeders. Some may say, we have enough breeds already! The answer to this is, we never have had enough of the best, and our opinion is that we shall never have too many. York Co., Ont. "ONLOOKER."

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THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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CONTENTS.

- EDITORIAL:—
1—Illustration. 2—New Year's on the Farm; The Success of Ensilage; The Season's Greetings and an Important Matter; Lessons Learned in Experimental Work.
- STOCK:—
3—The Queen's Shorthorn, Frederica; The Portfolio of Agriculture; An Appreciative Letter; Our Scottish Letter. 4—A New Year's Greeting from England; Sheep Breeders Congratulated; Preserve the Advocate; The Economical Use of Grain in Fattening Cattle; "Blue-Grays"—A New Breed Suggested. 5—Takes First Place; Live Stock Husbandry and the Dominion Experimental Farm Staff; Action a Necessary Quality; The Fat-Stock Show at Guelph, Ont.
- FARM:—
8—Remarkable Testimony in Favor of Ensilage, Based on 14 Years' Experience; Does not Favor Ensilage Alone; Fed Ensilage for Five Years; A Cement Concrete Silo. 9—Practical Points Gleaned at Farmers' Institutes in Eastern Ontario. 10—The Use of the Root Pulper Approved.
- THE HELPING HAND:—
10—P. O. Address Wanted; A Corn Binder; A Handy Farm Vegetable Garden; A Hydraulic Ram.
- DAIRY:—
10—More Light Yet Needed on the Apportioning of Cheese Factory Dividends. 11—With the Travelling Dairy in British Columbia; A Great Convention; A World-Wide Butter Competition.
- POULTRY:—
11—Feeding for Winter Eggs.
- GARDEN AND ORCHARD:—
12—Fruit Growers in Session.
- QUESTIONS AND ANSWERS:—
12—Veterinary. 13—Miscellaneous.
- LIVE STOCK MARKETS:—
13—Toronto Markets; Chatty Stock Letter from Chicago; Montreal Markets; Buffalo Markets.
- FAMILY CIRCLE:—14.
- CHILDREN'S CORNER:—15.
- THE QUIET HOUR:—16.
- UNCLE TOM'S DEPARTMENT:—16.
- STOCK GOSSIP:—21, 22, 23.
- NOTICES:—17, 21.
- BOOK TABLE:—21.
- ADVERTISEMENTS:—17 to 24.

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Takes First Place.

The FARMER'S ADVOCATE:
SIR,—Please find enclosed my subscription up to December, 1896. Please excuse me for having neglected this matter before. Your paper is far ahead of any American paper which I have ever seen, and I wish you every success in the coming year.

Yours truly, H. O. FITZGERALD.
Lincoln, Dec. 28th, 1895.

Live Stock Husbandry and the Dominion Experimental Farm Staff.

We understand that some proposals have been made for extending the work of the Dominion Experimental Farm staff, among the number being the establishment of a Bee Department. Now, we offer no objection to anything that may legitimately further the interests of so commendable a farm industry as bee-keeping. Let that be understood at the outset. Reviewing, in the FARMER'S ADVOCATE for Sept. 16th, the annual report of the Dominion Experimental Farms for the past year, we were struck with the conspicuous absence of attention of sheep husbandry, an industry for which, we believe, there is a great future in Canada, with its wide range of climate, foods, and soils, suggesting variety in breeds, management, etc. We took occasion also to express the view that live stock husbandry might deservedly receive increased attention in view of its pre-eminent importance as an industry lying at the very foundation of, and inseparably connected with, the whole structure of successful Canadian farming. If bee-keeping is entitled to a specialist at the Central Experimental Farm, surely there should be ample scope for one (the best available would be none too good) possessing adequate knowledge and practical capabilities in the many-sided domain of animal husbandry. It will hardly be assumed that all the problems of breeding, economic feeding, general management, etc., have been disposed of beyond the need of further attention. These observations imply no reflection upon the eminent specialists occupying various departments there now, but simply call attention to a need which, we believe, is pretty generally recognized by the foremost agriculturists and breeders of the Dominion. Prof. Robertson, for instance, has been nominally Agriculturist, but his growing duties as Dairy Commissioner, to which will soon be added a dressed meat trade, have largely absorbed his time and thought, so that but little attention, comparatively, could be given to live stock experimental work. In fact, we believe he has recognized this himself.

It is also proposed, we notice, by the new Minister of Agriculture that the Central Farm staff should render more service in the way of attending meetings of farmers, which would naturally afford many opportunities for the head of a live stock department thoroughly posted in regard to pure breeds, general management, etc.

No one would suggest running the Central or branch farms as breeding establishments pure and simple, to come in competition with private enterprise; but stock is a necessary part of the equipment of the Experimental Farm system, and should be of the best from an educational standpoint. Additional animals, if required, can at any time be purchased for experimental purposes.

The commanding and useful position attained by the Wisconsin Agricultural Experiment Station stands in evidence as to the importance of specially recognizing this department in manning such an institution.

If any addition to or rearrangement of the staff and its duties is to be made, we submit that the considerations outlined above are entitled to weight, nor should the opportunity thus presented be allowed to slip.

Action a Necessary Quality.

At the present more than at any time in the past, action in a horse, is most eagerly sought. While this is more particularly true in the case of light harness stock, there is no doubt that the question of action plays an important part in estimating the worth of all other sorts. However handsome a horse may be, if he is a bad mover he may expect no favor from a judge or a buyer who knows his business.

The action of a horse is either natural or artificial, or a little of both, the last, perhaps, being most commonly the case. This is so for the simple reason that however fine a mover a young horse may be, his method of moving his limbs can usually be considerably improved by schooling; whilst, on the other hand, even the most handsome of horses, if he has no action to commence with, is scarcely worth taking a great deal of trouble over, for seldom, if ever, does such an animal imbibe a faculty for properly using his legs. Says the English Live Stock Journal on this point: "What action is there is capable of being improved upon; but what does not exist is extremely hard to create." Regarding the question of action from another point of view, it is notorious that contributory negligence on the part of an owner, or groom, may speedily and effectually reduce this virtue to a minimum. A long journey or two, followed by a period of idleness, and succeeded again by a spell of hard work, will soon effect a degeneration in the action of the finest goer, and, consequently, it is incumbent upon those who have the charge of high-movers to see that their charges are not neglected in the matter of necessary and constant schooling.

Whatever method of schooling is resorted to, whether it be a judicious alteration in the weight of the shoes, or exercising in deep-straw yards, or over bales, must, of course, be left to the discretion of the responsible person. It will have often been noticed that front action is more easily developed than back action, as quite a large proportion omit to tuck their hocks under them. This is a serious fault in any breed, for it must be obvious that propelling power of the hocks must materially affect the fire and dash of a horse, to say nothing of the smoothness and regularity of his action. All horses should be good movers behind, from the draught animal, that has to shift heavy loads, to the Hackney, who presents but a sorry appearance when he proceeds around a ring, all go in front, but trailing his hind legs as though he were ashamed of moving them so badly.

For a business road horse it should not be forgotten that a high, flashy action not only tires the horse, but wastes time, and, except for park or show purposes, is not so popular as the lower-going trotting-bred animal. In the case of roadsters, however, when speed is not always so important a factor in the selection of an animal as is style, it is, of course, most necessary that a winner should know the way to bend his knees; but there is a right and wrong way of carrying out this movement. A horse that picks up his feet until his knees are almost to his bridle, and then smashes them down again about a foot in front of the spot from which he took them, may be all very well in his way, but he is not a likely animal for good judges to fall in love with. This is the sort of horse that disgusts the trotting fraternity with the modern Hackney. The long, sloping-shouldered animal that gets away and straightens his knees, to say nothing of his pasterns, in the momentary poise that takes place when the fore leg is perfectly extended, and then puts his foot squarely on the ground, possesses the sort of foreaction that should be inculcated, if possible, upon the minds of the colt or filly; and it is this class of horse that is generally the biggest goer behind. Consequently, it may be suggested that all owners of horses would be acting wisely if they insist upon a proper amount of attention being paid to the schooling of all young horses, especially when they are being fitted for the market or show ring.

The Fat Stock Show at Guelph, Ont.

CATTLE.

The Provincial Fat Stock and Dairy Show for 1895, held at Guelph, Dec. 10 to 12, was a decided success, and was generally admitted to have been the greatest show of the kind ever held in Canada. This is certainly true of the show of sheep especially, and probably of swine as well. Of the exhibit of fat cattle it may safely be said that it was of a high order of merit generally. There may have been in former years better single specimens shown than the best of this year, but taking it all round, in all the classes, we believe this was the best of the series. What strikes the careful observer in comparing these shows with those of some ten years ago is the absence of the old and overgrown steers and cows which used to be seen, and the presence of young, fresh, smooth animals, showing uniformity of type and early maturity. The managers of the show have wisely discouraged the feeding of steers over three years old by giving prizes only for such as are under that age, and breeders have learned well the lesson that greater profit comes from feeding young animals, and from breeding a class of cattle that will respond to generous treatment by reaching a state of finish at two to two and a-half years old, which best suits the demands of the markets.

There were in all the classes about 65 entries, a substantial increase in numbers as compared with former years. The principal exhibitors were James Rennie, Wick; Jas. Oke & Sons, Alvinston; H. D. Smith, Compton, Que.; T. Russell, Exeter; A. A. Armstrong, Fergus; John Bolton, Armstrong's Mills; Wm. Dredge & Son, Nassagaweya; Executors of late Mr. Stone, D. McCrae, Jas. Bowman, Guelph; W. J. Rudd, Eden Mills; J. R. Caldwell, Fergus; Duncan Stewart, Everton; Peter Bathgate, Eramosa; Jas. Riddoch, Everton.

Shorthorns and their grades were, as usual, largely in the majority, but it was gratifying to find the other beef breeds out in increased numbers, and the Herefords shown by Mr. Smith, of Compton, the Galloways exhibited by Mr. McTae, the Polled Angus by Mr. Bowman, and the Devons by Mr. Rudd, were excellent specimens of the breeds they represent, and added very much to the interest of the show. We welcome Mr. Smith to the West, and hope to see him again here with representatives of his choice herd.

Mr. Oke's eleven head of Shorthorns and grades were one of the strongest exhibits, and were a credit to breeder and feeder. This gentleman has been one of the mainstays of our fat stock shows for several years past and has now as large a share as any other. His string is always a good one, and would be very much missed if he should fail to respond to the annual call of this show.

Mr. Rennie has been another constant friend of the show, and has done his part well in maintaining the high character of the exhibits. His contribution, both last year and this, was such as any man might well be proud to own. He got so near the top last year in the grand sweepstakes contest that many good judges thought he ought to have been placed there, and this year his beautiful grade heifer, "Susie," not only won first prize

in her class as a yearling, but was crowned queen of the cattle show. Space will not admit of a detailed review of all the classes, and we can only refer briefly to a few of the leading features of the show.

Shorthorns.—The class for registered Shorthorns was well filled with wealthy young things, prominent among which was Mr. Oke's 1st prize two-year-old steer, Iron Clad, a profitable butcher's beast; one that would kill with light offal, being well covered with firm flesh on his ribs, back and loins, and not given to paunchiness.

Mr. Bolton had the 1st prize yearling steer in his peerless "Snowball," which was by common consent declared sweepstakes winner in his class. He is a model steer, well furnished in all his parts, showing fine breed character and feeding qualities, and will no doubt be a strong candidate for the championship next year, if spared. Mr. Lindsay showed a very tidy white steer in this section; young for his class, but smooth and level, and if well done for may be heard from again.

For the best steer in the class under one year, Mr. Oke won first place with a remarkable calf. Ages being counted to 1st December, he was a few days over the year, but his wonderful development would indicate a few months over the mark. Set on short legs, he carried great width and depth of carcass, and his top and bottom lines were straight and true. He should be "in it" for the best things in the competition of ninety-six.

Grades.—Mr. Oke was to the fore with a grand steer in the section for two-year-olds, a rich roan with fine handling qualities, well-sprung ribs, and thickly-covered back. He was young for his class, but was fully ripe, and would rank among the best in the record of these shows; he was also the sweepstakes winner as best grade Shorthorn steer any age. Mr. Rennie had an excellent entry in this ring, which had won 1st prize and sweepstakes at Montreal over Mr. Oke's steers, and had many admirers here who would have placed him higher. He was sold to go to Winnipeg, to be shown there the following week and to make a display of Christmas beef for Gallagher & Sons. One of the best things in the show was the yearling grade steer which won 1st prize in his section, shown by W. H. Nichols, Hamilton; he was the 1st prize calf of '94, then owned by D. D. Wilson, Seaford. He has gone on well, and came out this year an extra good one. Large for his age, showing strong Shorthorn character, full of firm, ripe flesh, he was a sure winner in a strong class, and was close up to the top in the sweepstakes competition.

Mr. Oke had the winner in grade steers under a year, a smooth, level calf with a grand back and quarters, but Mr. Rennie's entry was close after him, and will make it interesting for him next year if they come together again. Mr. Smith, of Compton, had a very fine Hereford grade steer in this ring, which showed fine quality of flesh and smooth form.

The show of grade heifers was unusually good; it was indeed one of the strongest features of the show.

Mr. Oke had the 1st prize winner in both the three-year-old and the two-year-old rings; the latter an exceptionally good one, with a back like a table and a wealth of firm flesh that is seldom excelled. These were sold to go to Winnipeg.

Grand Sweepstakes.—The competition for best fat beast on the ground, any breed or sex, brought out the 1st prize winners in all the classes, and made a very interesting show. The fight lay between Mr. Rennie's 1st prize yearling heifer, Mr. Oke's 1st prize two-year-old heifer, the 1st prize two-year-old steers shown by Mr. Oke, Mr. Nichols' 1st prize yearling grade steer, and Mr. Bolton's 1st prize yearling Shorthorn steer. It was no small honor to win first place in such a contest, and there was room for difference of opinion. All were first-class, and high up in first class. After careful examination and comparison, the judges awarded the coveted honor, the championship of the year, to Mr. Rennie's yearling Shorthorn grade heifer, "Susie," and her owner and feeder is to be congratulated on his success in bringing to such perfection as a butcher's beast this beautiful heifer, a model of a beef animal in every respect, ripe for the block at two years old, weighing 1,415 lbs. at that age; a remarkable example of early maturity, and a credit to her breeder and feeder.

Dairy Cattle.—A new feature of the show this year was the offering of prizes for dairy cows, to be judged by actual performance at the pail. It was late in the season when the announcement of this new departure was made, and breeders of dairy cattle did not take to it as generally as was hoped. The competition was limited to two pure breeds, Holsteins and Ayrshires. A few grades also were entered. Eleven cows competed; of these, five were Holsteins, three Ayrshires, and three grades. Holsteins were shown by A. & G. Rice, Currie's, and Wm. McClure, Brampton; Ayrshires by W. M. & J. C. Smith, Fairfield Plains, and Wm. Stewart, Menie.

The Holstein cow, imported Calamity Jane, owned by Messrs. Rice, won easily the highest honors, with a record of over 60 lbs. of milk daily, testing from 3 to 3.6 per cent. of butter-fat. This cow was milked three times a day, which caused considerable objection by other exhibitors, as the rules distinctly stated that the cows were to be milked at 6 o'clock on the evening of December 10th; the judging to be done on the 11th, and the morning and evening milk to be weighed and tested. While it was admitted that a cow trained to milk

ing three times a day would give more milk than if milked only twice, yet the judges agreed that Calamity Jane was so far in advance of her competitor she could easily have held her place at the head of the list if she had been milked but twice a day.

CATTLE AWARDS.

Shorthorn steer, two to three years—1 and 3, James Oke & Sons, Alvinston; 2, Thomas Russell, Exeter.
Shorthorn steer, one to two years—1, John Bolton, Armstrong's Mills; 2, Oke & Sons; 3, James Lindsay, Fergus.
Best registered Shorthorn steer, any age—John Bolton.
Hereford steer, one to two years—1 and 2, Estate of F. W. Stone, Guelph; 3, H. D. Smith, Compton, Que.
Hereford cow, three years and over—1, H. D. Smith; 2 and 3, Estate of F. W. Stone.
Polled Angus steer, one to two years—1 and 2, James Bowman, Guelph.
Galloway, cow or heifer, three years and over—1 and 2, D. McCrae, Guelph.
Grade steer, one to two years—1, W. H. Nichols, Hamilton; 2, J. R. Caldwell; 3, James Rennie.
Grade steer, under one year—1, Oke & Sons; 2, James Rennie; 3, H. D. Smith.
Grade cow or heifer, three years and over—1, Oke & Sons; 2, Eastwood Bros., Mimico; 3, James Riddoch, Everton.
Grade heifer, two or three years—1, Oke & Sons; 2, Peter Bathgate, Eramosa.
Shorthorn steer, under one year—1, Oke & Sons; 2, A. A. Armstrong, Fergus; 3, Wm. Dredge & Son, Nassagaweya.
Shorthorn, cow or heifer, three years and over—A. A. Armstrong.
Heifer, two to three years—1 and 2, D. Stewart, Everton.
Shorthorn heifer, under two years—1, A. A. Armstrong; 2, Wm. Dredge & Son.
Best Shorthorn grade steer, any age—Oke & Sons.
Devon steer, two to three years—1 and 2, W. J. Rudd, Eden Mills.
Devon cow or heifer, three years and over—1 and 2, W. J. Rudd.
Grade Steer, two to three years—1, Oke & Sons; 2, J. R. Caldwell, Fergus; 3, James Rennie.
Grade heifer, under two years—1, James Rennie; 2 and 3, Oke & Sons.
Championship prize for the best fat animal on the grounds, of any breed or sex—James Rennie.

THE DAIRY TEST.

An exhibit of dairy cattle, and a milking trial conducted under the standard rules of the British dairy shows, the following being the scale of points, constituted a new and interesting feature of the show:

- 30 points for constitution and conformation.
- 1 point for each pound of milk.
- 20 points for each pound of fat.
- 4 points for each pound of solids (not fat).
- 4 point for each ten days in milk, after the first twenty days. (Limit, two hundred days).
- 10 points shall be deducted from the total score for each per cent. of fat below three per cent. of fat in the milk.

There were classes open for Shorthorns, Ayrshires, Holsteins, Jerseys or Guernseys, and Grades, with cash and valuable special prizes. Result:—

Name of Cow.	Breed.	Owner.	Points of Constitution.	Pounds of Milk.	Average per cent. of Fat.	Pounds of Fat.	Pounds of Solids (not fat).	Total Points Scored.	Awards.
Lady Bright	Shorthorn	H. Wright, Guelph	15.4	45.31	3.25	1.46	4.14	102.07	1st
Calamity Jane	Holstein	A. & G. Rice, Currie's	18.1	69.18	3.16	2.09	6.4	133.06	1st
Annemie Gray	"	Wm. McClure, Brampton	17.2	40.68	3.2	1.30	3.22	108.28	1st
Assiegie Jane	"	Wm. McClure, Brampton	16.2	35.53	3.5	1.24	3.11	99.97	2nd
Johnnie	"	W. M. Stewart, J.C. & Son, Menie	13.1	47.19	3.45	1.57	4.33	116.11	2nd
Jessie Ann	Ayrshire	W. M. & J. C. Smith, Fairfield Plains	13.9	37.18	3.73	1.37	3.09	87.02	2nd
Ada	"	W. M. & J. C. Smith, Fairfield Plains	13.3	30.18	3.73	1.20	2.76	76.07	2nd
Greta	"	D. Keiser	13.3	30.18	3.73	1.20	2.76	76.07	2nd
Blue Bell	Grade	Jas. Bowman, Guelph	14	31.07	4.8	1.01	1.86	68.61	3rd
Nancy	Grade	High Moulding, Guelph	14	46.2	4.6	1.77	4.22	113.82	1st
			15	24	4.6	1.10	2.26	81.01	2nd

SHEEP.

The sheep exhibit, although considerably fallen away since last year, contained as much quality as has ever been seen at any show this side of the Atlantic. The number was 208, instead of 108 as given in our last issue. Ordinary sheep in fair condition can not win prizes at Canada's "Smithfield," and are therefore left at home. Winning sheep must have, besides quality and size, a deal of mutton firmly laid on. Many of the successful exhibitors of 1894 came up again this year to prove that the superiority of their flocks is a continuous thing, and not a spasmodic, short-lived condition.

In long wools, open to Lincoln, Leicester, and Cotswold, the two former breeds were alone in the contest. In Leicester, John Kelly, of Shakespeare, and John Rutherford, Roseville, had the only flocks out. The Lincoln exhibitors were Capt. T. E. Robson, Ilderton; Wm. Oliver, Avonbank; and Gibson & Walker, Denfield. The honors were fairly evenly divided between the two breeds, although the bulk of the 1st awards found their way to the Lincoln breed. In ewes between one and two years, ten excellent sheep lined up before the judges, Alex. Smith, Maple Lodge, Wm. Thompson, Uxbridge, and R. W. Stephens, Lambeth. The task of giving every sheep its due was not light, as they were such a uniform lot. After considerable shifting of animals, it was evident that both breeds had to be in it, but which should be 1st, 2nd, or 3rd was not so easily settled, as the best three of each breed were about faultless. With anxious look stood the owners of the animals, while the expert and conscientious judges examined back after back, leg after leg, neck after neck time and again, and then stepped aside to hold a confab and compare notes. It was ultimately decided to place a massive, flat ewe of grand quality, shown by Gibson & Walker, 1st; a right royal Leicester of Kelley's 2nd, and Capt. Robson's 3rd.

The section for ewes under a year numbered the same as the former lot, with the same exhibitors, minus Capt. Robson. The row was apparently equally even. The outstanding coats of the Leicesters tended to attract the sympathies of the spectators; but when the two breeds were carefully handled their backs could claim very little over those of their opponents, while the legs of mutton and briskets of the Lincolns quite made up for any other difference. Here Gibson & Walker again scored, with Kelly and Oliver following in the order mentioned.

Long-wooled wethers over one and under two years were not a striking section, neither for numbers nor quality. Here the winner was not hard to find in Gibson & Walker's (Lincoln) Son of Riby Gem, a monster sheep of uniform proportions and high butcher's flesh. This is the sheep that won the \$100 Cooper Cup. Two very good Leicesters shown by John Rutherford won 2nd and 3rd.

Wether lambs (nine in number) made up one of the finest sections in the show. They were well grown, of nice quality, and nearly all carried a great wealth of flesh for growing sheep. Kelly's Leicesters were very choice, one of which succeeded in walking away with the laurels; while a ripe individual of Gibson & Walker's came 2nd, followed by a Leicester shown by Rutherford.

The section for three ewes under a year had the same sheep that competed in the single contest, and won in the same order. In three wether lambs, Kelly won 1st and Gibson & Walker 2nd and 3rd. In pens of five, under two years, bred by exhibitor, the decision was not easily made between Kelly's Leicesters and Gibson & Walker's Lincolns. Such masses of wool and mutton can be understood to bewilder judges when the excellence of every animal is of so high an order. The Lincolns, however, received the preference, with not much to spare.

Medium wools.—The Shrops made the great show in this class, as not an Oxford and only one Hampshire was present, and that in the ewe section one year and under two. She was a fine big one, however, shown by John Kelly. The exhibitors of Shropshires were John Campbell, Woodville; Wm. E. Wright, Glanworth; D. G. Hanmer & Son, Mt. Vernon; Jas. P. Phin, Hespeler; W. H. Beattie, Wilton Grove; John Rutherford, Roseville, and Richard Gibson, Delaware.

In yearling ewes there was a variety of type ranging from very fine, like the Southdown, to medium coarse; nearly all were well covered both on head and legs. Mr. Kelly's Hampshire looked somewhat out of place in this section because of her greater length of leg and want of compactness; she is a good ewe, however, of her own sort. The struggle for the awards lay between the two flocks that have faced each other so frequently during the last few show seasons, and also did so much for the good name of Canada's Shropshire breeding stock at the recent New York Show. Hanmer and Campbell have grand flocks; and they know how to fit them. Not only were the sheep of typical Shropshire character, but they were fat and very neatly trimmed. The odds between the best of the two flocks was very little, and Hanmer's 242 won the red ribbon by a trifling superiority in scale. The 3rd also went to her pen mate, and the 2nd to Campbell's 544, a typical ewe with quite an aristocratic bearing. In ewe lambs the same two breeders showed the best sheep, although J. P. Phin came very little behind them. The nine exhibited were exceedingly good. In this contest Campbell scored with a very handsome lamb that might have been better in neck. Hanmer won the next two awards on a very choice woolly-faced pair of lambs. Shropshire wethers, one year and under two, made up a fine row of ripe mutton sheep that would be hard to surpass in a block or table test. For toothsome mutton it was dainty enough for an epicure. The lot were good Shrops and fat. Wright won 1st on a brood-backed, heavy-legged sheep, and was followed by Campbell's two exhibits. The pull between Campbell's 3rd winner and Beattie's number was very close, it being decided by the referee, John Miller, of Markham, who breeds Southdowns, and therefore values fine quality. The judges were Henry Arkell, Teeswater, and James McFarlane, Clinton. The ten wether lambs made a fine string;

JANUARY among judges test. deep, f also e Beattie Three mer, tioned Gibson got ov 3rd pre sheep v those other v two be whole pen. Sou down's John J Galt; Baker W H. the sar were la any of One found deed, t to the hands for ew surpass but ha was go award years, Dougl next i string gem. tory w mate, Dougl to type well fl breed. won in ums w son's, I ewes u lambs quality much nothing figure J Jackso sheep well co ewe, c and tw ling ew and t were v 1st awa him th Gra through end, fr the lar tions w Smith, Eight answer way of light as up in Leask, sappy, charact & Wal Wilton ewe. honors Gray F and 3rd Grade mixed general in a we of Ayr Hanmer for thr followe Lincoln strong, bell an up one than e of whic cording backed ford's couple lambs, won in stakes best g Campb shire. Prize citation: Gran sheep, S old or ov ford.

among them were the New York winners. The judges took a long while to decide in this close contest. While good size was a prominent feature, deep, firm flesh and fine Shropshire character were also exemplified in a marked degree. Gibson, Beattie, and Wright won in the order named. Three ewes under one year had three entries. Hammer, Phin, and Campbell won in the mentioned order. In three wethers under a year, Gibson's sensational New York trio could not be got over. Wright and Beattie won the 2nd and 3rd premiums. Just two entries in section for five sheep under two years, bred by exhibitor, were out: those of Hammer and Campbell, who faced each other with almost faultless quintets. We doubt if two better fives could have been chosen from the whole show, even by selecting from any and every pen.

Southdowns were alone in the class for Southdowns, Dorsets, and Merinos. The exhibitors were John Jackson & Sons, Abington; T. C. Douglas, Galt; A. Simenton & Son, Black Heath; Geo. Baker & Son, Simcoe; A. Telfer & Son, Paris, and W. H. Beattie, Wilton Grove. The judges were the same as in the Shropshire class. The entries were larger in most of the sections of this than in any of the other pure-bred classes.

One of the sensational sheep of last year was found in the flock of Messrs. Simenton; and, indeed, their shearing ewe this year may lay claim to the same honor. For a wide, deep, fine and handsome ewe, the first prize winner in the section for ewes one and under two years is hard to surpass. The next best was a great beauty, but hardly as highly fitted as the foregoing. She was good enough, however, to win the sweepstakes award for best pure-bred ewe any breed, under two years, bred by exhibitor, who was in this case Mr. Douglas. Jackson's exhibit, a tidy ewe, was placed next in order. Southdown lambs made a pretty string of twelve. Simenton again led off with a gem. If she goes on well till next show time, victory will, in all probability, attend her. Her pen mate, also a dandy on short legs, won 3rd, with Douglas between them with a very fine lamb, true to type and well fitted. The wether sections were well filled with quality, rivaling the females of this breed. In yearlings, Jackson, Douglas, and Telfer won in the mentioned order, and the lamb premiums were placed in the order: Simenton's, Jackson's, Douglas's exhibits. In the section for three ewes under one year, Simenton again led with lambs suited to their position in quantity and quality. Douglas and Jackson followed with trios much alike. In three wethers, Douglas found nothing above his very sheepy lambs, worth a high figure per pound in a New York restaurant; Messrs. Jackson and Baker followed. The section for five sheep under two years, bred by exhibitor, was well contested by Simenton with one shearing ewe, one shearing wether, one wether lamb and two ewe lambs; Douglas with five shearing ewes; and Jackson, three shearing ewes and two shearing wethers. The ewes, which were very even and all good, won for Douglas the 1st award. The evenness of Jackson's five brought him the next premium.

Grades—The grade class was a mixed one throughout; in fact, it was a graded one from end to end, from the fineness of a high grade Southdown to the large typical Lincoln and Leicester. The sections were well filled, and were judged by Arkell, Smith, and Stephens.

Eight well-fitted ewes, two years and over, answered to the first grade call. The only reasonable way of judging them was to view them in the same light as would a butcher who wanted them to hang up in his stall. A Shrop grade, shown by James Leask, Greenbank, was placed 1st; she is a soggy, sappy, good one, with considerable Shropshire character. A very heavy Lincoln grade of Gibson & Walker's took the 2nd place, and David Beattie, Wilton Grove, followed with a gray-faced, good ewe. The yearling grade ewe section divided the honors among the breeds, 1st going to Campbell's Gray Face, 2nd to T. E. Robson's Lincoln grade, and 3rd to Richard Gibson's high grade Shropshire. Grade ewe lambs were eighteen strong and as mixed as any of the former, and of much the same general good quality. Here Leicester blood scored in a well-grown, fat lamb of Douglas' (Lillico's Jr.), of Ayr. Shropshire grades, shown by Wright and Hammer, won 2nd and 3rd. Douglas' Lillico won 1st for three Leicester grade ewes under a year, and was followed by Hammer's Shrops and Capt. Robson's Lincolns. Yearling grade wethers were eight strong. The premiums went 1st and 2nd to Campbell and 3rd to Wright. Grade wether lambs made up one of the strongest sections of the show; no less than eighteen entries were present, the majority of which were choice in quality and of good size, according to their various breeding. A big, broad-backed, solid-fleshed Leicester grade of Rutherford's scored here, followed by a heavy, thick couple of Campbell's. For three grade wether lambs, Campbell, Rutherford, and Gibson & Walker won in the mentioned order. The wether sweepstakes ribbon was won by Rutherford; and the best grade ewe was found in possession of Campbell. Each of these was a high grade Shropshire.

Prizes not mentioned in report:

SPECIALS.
Prizes offered by the American Shropshire Record Association:
Grand sweepstakes, if won by a registered Shropshire sheep, \$50; and for registered Shropshire wether, two years old or over—1st, Wm. E. Wright; 2nd and 3rd, Jno. Rutherford.

Shropshire wether, one year old and under two—1st, Wm. E. Wright; 2 and 3, Jno. Campbell.
Shropshire wether, under one year—1st, R. Gibson; 2nd, W. H. Beattie; 3rd, Wm. E. Wright.

EXTRA SPECIALS.
Best wethers sired by registered Shropshire rams and out of grade ewes:

Two years old and over—1st and 2nd, Jno. Rutherford.
Wether, one year old and under two—1st and 2nd, Jno. Campbell.

Wether, under one year—1st and 2nd, Jno. Campbell.
Messrs. Cooper & Nephews, Galveston, Texas, manufacturers of Cooper's Sheep Dip, offered for the third time, the sterling silver cup valued at \$100, as sweepstakes prize for best sheep bred by exhibitor. To become the final owner, an exhibitor must win the cup twice in succession, or on three separate occasions. It was won in 1893 by Henry Arkell, Arkell; in 1894 by John Campbell, Woodville; and in 1895 by Gibson & Walker, Denfield.

Prizes given by the Southdown Breeders' Association of England:
For best ram—Jno. Jackson & Sons.
For sweepstakes ewe—A. Simenton & Sons.
Special premium by American Southdown Breeders' Association:
Pen of four lambs (two rams and two ewes), bred and owned by exhibitor—Jno. Jackson & Sons.

SWINE.

The exhibit in this department of the show, though a trifle less in numbers than the preceding year, in point of quality and finish were well up to the mark. A noticeable feature of the swine exhibit was a general tendency to conform to the requirements of the present day, viz., the toning down of some to a more modern and useful type, and the introduction of more length and tone in others, thereby attaining a medium that is more profitable to the producer, which fills the requirements of the pork packers, and is at the same time more pleasing to the eye. Instead of the overloaded, flabby and unevenly distributed surplus flesh seen heretofore in swine at fat stock shows, we find animals of heavy weights well proportioned, with better sides, heavier hams and lighter shoulders, and flesh solid, evenly and smoothly put on.

Berkshires.—The judges of this class were Thos. Teasdale, Concord, and Jas. Maine.

Exhibitors were J. G. Snell & Bro., Snelgrove; H. J. Davis, Woodstock; D. A. Graham, Parkhill; and John Kitching, Corwhin. Messrs. Snell were out with eleven from their celebrated herd, on which they succeeded in winning fourteen prizes. They had an easy first in the class for over nine months and under eighteen, on their wonderful barrow, Sensation, by Roseberry—3580—, and from Snell's Highclere 2nd. Sensation combines great length, depth and thickness with a smoothness and finish hard to surpass in a hog of his weight; while he carried himself squarely and well on his legs. The sweepstakes for best pure-bred barrow any age or breed was also awarded (and properly) to this pig. Their barrow, Great Scott, full brother to Sensation, is also a remarkably good hog; but the victory was accorded to Sensation almost immediately on his entry into the ring. In the class for under nine months, Messrs. Snell had it all to themselves, exhibiting a trio of very smooth, well-developed pigs of splendid quality; winners in the order named: Count Highclere by Byron Lee 4th—3444—, Star Prince by imp. Star One—3071—, Silver King, also by Baron Lee; the first and third being from the sow Snell's Highclere 2nd—4003—. For sows over nine months and under eighteen, four very even sows entered the ring. Fantasy—4212—is a grand sow and in capital form, but owing to being in exceptionally fine society, she had to be satisfied with second place. For sows under nine months, Messrs. Snell were first and second on a couple of well brought out sows: Snell's Highclere 3rd and Snell's Highclere 4th, full sisters by Baron Lee 4th and from Snell's Highclere 2nd.

Mr. H. J. Davis was forward with only three Berkshire, one barrow and two sows; the latter being very fine sows and brought out in excellent form. Oxford Daisy by Royal Hope—3050—, dam Nellie Green—2643—, is well worthy of eulogy, and did her owner much honor to win in so strong a ring. Her mate, Nellie Oxford, by same sire and dam, was very little her inferior, and made a very worthy third.

D. A. Graham, Parkhill, showed three nice, smooth sows, of good quality, but hardly in high enough fit to win where competition is so keen; however, they secured third place for three pigs, offspring of one sow; Messrs. Snell capturing first and second.

John Kitching was placed third on a right good barrow over nine months and under eighteen, and on sow under nine months.

Yorkshires were exhibited by Joseph Featherstone, Streetsville; H. J. Davis, Woodstock; Richard Gibson, Delaware; and Thos. Watson, Springvale; one of the prominent and leading breeders being absent from the competing ring this year, in the person of Mr. J. E. Brethour, of Burford. In this class Mr. Featherstone secured the majority of the best prizes. York Midge by Halton King was a creditable production in the over nine months and under eighteen class, while in the class for barrows under nine months, Featherstone was again first on a pig of good length, good back and thick ham; R. Gibson standing second on a pig of fair quality but hardly up in finish. For sows over nine months, Mr. Featherstone won first and second on a couple of grand sows: Haskett Lily and Satella 2nd, both sired by Haskett—922— and from Satella—1844—. These sows were brought out in capital finish and full bloom, good length, deep sides, well-sprung ribs and thick hams, and certainly a wonderful improvement on the Yorkshires of a few years past. R. Gibson was third on

a sow of good type but not in her best bloom. Sows under nine months, Mr. Featherstone was again the winner, on Polly, Molly, and Dolly, a nice, smooth trio of good Yorkshire type, all the same dam, Satella—1844—, and sired by Sweepstake—1934—; these three also won the prize for three pigs, offspring of one sow, and bred by exhibitor. Thos. Watson, Springvale, was out with three very nice sows, on which he was placed second. Judges—Thos. Teasdale and Jas. Maine.

Poland-Chinas.—There were two exhibitors in this class: Messrs. W. & H. Jones, Mt. Elgin, and W. M. & J. C. Smith, Fairfield Plains. Both herds were most creditably represented and were brought out in as fine a finish if not better than any of the other breeds. This show closed a most successful year's campaign for Messrs. W. & H. Jones; their winnings including a majority of the best prizes here as elsewhere.

Messrs. Smith's herd also contained some grand ones. Their barrow in the over nine months class captured first; he was in the best of form, of grand quality, and splendidly proportioned. W. & H. Jones followed closely with Reuben, sired by Wise Reuben—504—; these barrows are both thick-fleshed, deep-sided pigs, and brought out in such form as to show the capabilities of the breed. For barrows under nine months, Messrs. Jones were first on Robin Hood, a son of Rob Roy 619—, followed by Messrs. Smith with Peter, by Midnight—591—. The call for sows over nine months brought out some most excellent individuals, Messrs. Jones securing first and second on Avon Belle—899—, by Fountain King—369—, and Black Betsy—943—, by Canada Boy; the former was also sweepstakes sow, and is truly a wonderful production, a typical Poland, and in the very pink of condition. The latter, Black Betsy, is also a sow of capital conformation; Smith's November Queen, by Midnight, making a worthy third. For sows under nine months, Messrs. Jones won first, second and third respectively on Rachael, Graceful Queen, and Graceful Index, the two last being by the famous sire Darkness Quality—594—, the former by Rob Roy—619—. The first honor for three best pigs, offspring of one sow, was secured by Messrs. Jones on Graceful Queen, Graceful Index, and Black Betsy; second going to Messrs. Smith, and third to Messrs. Jones; they securing ten firsts on seven pigs. Judges—Joseph Brethour, Burford, and J. Featherstone, Streetsville.

Chester Whites.—Judges were Joseph Brethour and Jos. Featherstone. The exhibitors were Wm. Butler and Son, Dereham Centre; R. H. Harding, Thorndale; and H. George & Sons, Crampton. For barrows over nine months, R. H. Harding won first on Patron, by Cleveland—320—, a barrow of good form and quality, and of firm flesh, evenly distributed, but lacking a trifle in finish for the ring. Wm. Butler & Son were second on Douglas 3rd, by Rustler—415—. Messrs. Butler won first and second on a couple of capital barrows under nine months: Barney and Byron, full brothers, from the sow Dominion Belle—517—, and sired by White Lord—338—. H. George & Sons also showed a good hog in Long Jim, by Victor—305—, dam Sweepstakes, on which they won third premium. The call for sows over nine months brought out some capital specimens, Wm. Butler capturing first and third on Annie Rooney and Annie Laurie 2nd, daughters of Dominion Belle—517—, and sired by White Lord—338—. This ends a season of successful winnings for the sow Annie Rooney; in most respects she might be considered a model Chester. R. H. Harding's Sweet Marie is a good sow of considerable merit, having a good level back, deep sides and capital hams; she was accorded the blue ribbon, while the red was awarded to same exhibitor for sow under nine months, on Nightingale, by Washington—608—, and out of Silt Ear—376—. Nightingale is a very even, nice qualified sow, and was followed close with second on her full sister, Jeannette—808—. For three pigs, offspring of one sow, and bred by exhibitor, R. H. Harding won the honors with Patron, Nightingale and Jeannette; second falling to Wm. Butler & Son.

Tamworths.—The judges were J. E. Brethour and Jos. Featherstone. Exhibitors were Wm. Butler & Son and H. George & Sons. The former showed seven head, on which they won three firsts and three seconds. The latter showed four individuals, on which they won two firsts and two seconds. This exhibit was hardly up to the previous year, although some very good specimens indeed were on hand.

Duroc Jerseys.—Messrs. Butler was the only exhibitor in this breed, which seems to be growing in popularity where they have been given a fair trial. There are now a number of good herds established in the country, and, without doubt, they would have been more strongly represented had the premiums offered been such as to have induced them to come from a distance. Messrs. Butler's herd was brought out in most excellent form, and their stock of Durocs are certainly such as should recommend the breed.

Suffolk, Essex, and Victoria.—Judges—Jas. Maine, Milton, and Thos. Teasdale. Exhibitors were R. Dorsey, Burnhamthorpe (Suffolk); Jos. Featherstone, Streetsville (Essex and Suffolk); and A. Frank & Son, The Grange (Suffolk). R. Dorsey captured all the firsts on a typical lot of Suffolks; Jos. Featherstone all the seconds and thirds; but three; A. Frank & Son winning second on sow under nine months, and third for three pigs out of one sow, bred by exhibitor; R. Dorsey getting first and second in this section. Messrs. Frank's pigs

were in good form, even and smoothly built, but were considered by the judges too much "improved" to win.

Grades.—Judges were Thos Teasdale and Jas. Maine. Exhibitors were J. G. Snell, Snelgrove; W. & H. Jones, Mt. Elgin; R. H. Harding, Thorndale; Samuel Congdon, Everton; Jno. Bolton, Armstrong's Mills; W. M. & J. C. Smith, Fairfield Plains; Patrick McGarr, Guelph, and Robert Agnew, Action. In the section for grade barrows over nine months, Robt Agnew, Action, captured first and second on a pair of model hogs, Berk and York cross, very lengthy, deep-sided, level-backed, with well-sprung ribs and heavy hams, carrying their great weights remarkably well on their legs. J. G. Snell & Bro. were third on their barrow, Great Expectations, but his expectations were not quite realized in this case, although a remarkably fine hog. The call for barrow under nine months brought out nine grand individuals, J. G. Snell & Bro. winning first and second on a couple of capital high grade Berks, Dick and Fad; Samuel Congdon coming in for third on a good Berk and Yorkshire cross. For sow over nine months, Wm. & J. C. Smith was first on a grand Poland-China grade, a capital hog, and brought out in the best of finish; second going to Patrick McGarr on a good Berk grade. For sow under nine months, Samuel Congdon was first on Floss, a grade Berkshire of good quality, followed closely by Jno. Bolton on a well-finished Poland-China and Yorkshire cross. Alfred Hales showed three nice Berkshire grades, winning third on sow under nine months.

Sweepstakes (silver medal) for best grade hog, any age, breed or sex, was competed for by J. G. Snell & Bro., Smith Bros., and Robt. Agnew, Action, Ont., the honor falling to Robt. Agnew on barrow over nine months, Berkshire and Yorkshire cross; winning in his section and already described.

POULTRY.

The dressed poultry exhibit was not so large, and in some of the classes not so good as last year. The turkeys were not so fat or so numerous as in former years. The geese were large and well fattened. Chickens were numerous and well prepared. Collections were good, but only four shown. Ducks, good, but few in number. Prices ruled lower than last year, nine cents per pound being the highest paid for turkeys, six to seven for geese, and the same for ducks; nine for chickens. Messrs. White & Strachan were the principal buyers, shipping them to Mr. Leaman, of Halifax. On the whole, the exhibit was inferior to last year, though some good specimens were shown.

The live poultry exhibit was very fine; in fact, competent judges consider it superior to the Ontario Poultry Association Show with the large Government grant to assist it. There were over 1,100 entries altogether, and the birds in the numerous classes exhibited were very fine, the plumage being much superior to what was shown at the Toronto Industrial. The show of turkeys, geese, and ducks was remarkably good, all the pure breeds being well represented; some of the Bremen, Toulouse, and Chinese geese being very large and in fine plumage. The Pekin, Aylsbury, and Rouen ducks were also grand, the judge, Mr. Jarvis, remarking he had never seen finer in such numbers. Some very fine specimens of Bronze turkeys were also shown; one gobbler weighing over 40 lbs., another 36, "last year's bird." There were some 20 white turkeys on exhibition, and very fine birds amongst them. There were several young Bronze cockerels that turned the scales at 24 and 25 lbs. each. The birds were all shown singly, and the prizes were good: \$1.50 for first and 75c. for second.

In Asiatics, the Light Brahmas and Cochins had the largest exhibit, and some beautiful specimens were represented. The exhibit of game was simply immense, and the judge, Mr. Barber, from Toronto, had a difficult matter to decide which should carry off the ribbons. The show of game Bantams was also very fine, some of them being imported. The Hamburgs were also well represented; they are a beautiful bird, with their gold and silver pencillings; though excellent layers, not a profitable bird for the farmer. The White and Brown Leghorns were very fine, and for egg producers cannot be beaten. By keeping them warm in winter and feeding well they will lay all winter, when eggs are worth something handsome. The Minorcas, black and white, were not numerous, but very fine specimens. The Black Spanish were also very fine; these two breeds are excellent layers of fine large white eggs, but are rather tender. The Plymouth Rocks were numerous and very fine; they have the barred, buff and white now, and for a general purpose fowl cannot be beaten. The Javas, black and white, were good, though few in numbers. Wyandottes very fine: golden, white, silver, and black; grand specimens of each. They are a very useful bird, being hardy, and good layers of fine large eggs. Houdans also fine; they are one of the best table birds we have. Dorkings come next on the list, and for a table bird cannot be excelled. Polands were good and well represented. Red Caps, Andalusians, etc., were fine birds; they are not so well known as some of the older breeds, but seem to have their admirers. The pigeons were not so numerous as at Toronto, but some very fine specimens were shown. The judges, Messrs. Jarvis and Barber, had a hard time of it, but seemed to have given general satisfaction, as very few complaints were heard. Some good sales were made, and great interest taken in the different exhibits; in fact, the hall was crowded almost continually. The obliging Secretary, Mr. John Coulson, did his

duty well, and gave general satisfaction. Upon the whole, it was one of the best exhibitions of poultry ever held in Canada, and the interest in poultry raising seems to be going ahead with rapid strides.

The following list comprises the names of those making the largest number of entries: Geo. Bogue, Strathroy; Alfred Brown, Picton; Geo. Colwell, Paris Station; Joseph Foster, Brampton; Chas. B. Gould, Glencoe; E. Howitt, Guelph; J. C. Lyons, Lucknow; J. E. Meyer, Kossuth; L. McIntyre, Norwich; Jno. Pletsch, Shakespeare; J. D. Robertson, Guelph; J. C. Pequegnat, New Hamburg; H. M. Smith, Fairfield Plains.

FARM.

Remarkable Testimony in Favor of Ensilage, Based on 14 Years' Experience.

SIR,—Your favor duly received, and, in reply, I beg to say that I have been feeding ensilage every season now for some thirteen or fourteen years to my cows, fattening steers and young cattle with the very best results. In fact, I could not run my farm and dairy without ensilage, except at a loss, particularly these past few years, in which we have had such terrible drouths, effecting both pasture and meadow. My hay crop last summer was a complete failure, and my straw crop was less than half what I should have had in an ordinary season, so that my only sure reliance is on corn ensilage for both summer and winter feed. I find it to be the cheapest, most convenient, and most satisfactory feed I can grow for summer feed in time of drouth. After the experience I have had with the drouth during the past two seasons, I have come to the conclusion that I will put up ensilage enough to feed my cows through the whole year if necessary, as I think cows would do much better if kept in the stable during the time of drouth, heat and flies, and so I have decided to try the experiment next summer, and so prepared for it last summer by growing corn enough to make one thousand tons of ensilage, besides some dry corn stover. I put one thousand tons into my five silos, and commenced feeding on the first of October. I GREW 1,000 TONS ON FIFTY ACRES, twenty tons to the acre; it cost 60 cents to grow, including seed, and 40 cents to harvest, making the cost \$1 per ton put in silo, the cheapest feed by half that a man can raise for feeding cows. Our corn was well loaded with ears, with a good deal of it glazed, which makes fine, rich feed. We put 1,000 tons into silo in fifteen days, or seventy tons per day. I intend getting a larger ensilage cutter next season, that will cut one hundred tons per day. We have a set of first-class hay scales near the corn, and we measure our land and weigh the corn as we haul it in, so that we know just what we are doing, and what we get from an acre without any guess work, so you see we have a very good and cheap feed. You ask how I feed ensilage. We used to cut our corn too green, before it had any ears on, and consequently it was not nearly as good as we now have it. I think that if the ensilage was very acid or sour, and fed very heavy, say 60 to 70 pounds of ensilage, without much other feed, it might cause a bad flavor to the milk, but with good, mature corn ensilage, well saved, fed along with other dry feed, hay or straw, with some grain feed, there will be no bad effects, neither as to the health of the cattle nor quality of the milk, but, on the contrary, good effects both in the animal and milk, and butter or cheese.

Several years ago I wanted to try an experiment on feeding ensilage alone, without any other feed, and so, in the fall or beginning of winter, I put ten two-year-old steers and heifers in one stable, and fed one half of them all winter on nothing but ensilage; to the other half I fed ensilage and clover hay—all they would eat. Those fed ensilage only came through all right in good health, but made very little gain in weight; the others that were fed on ensilage and clover hay came out fat in the spring with increased weight. In feeding steers for beef for export, I have always found ensilage fed with hay and grain the most profitable feed I ever used. I made my steers when but two and a-half years old weigh 1,400 and 1,500 pounds, and always got the highest market price; but since beef cattle have got so slow in price, I have given up raising steers, and gone more into cows and dairying. I am now milking sixty cows the year round, and making butter. We get an average of about 1,400 pounds of milk per day the year round from sixty cows, some coming in fresh and some going dry every month in the year, but have more coming in September, October and November than at any other time. You ask what I feed my cows. This winter, not having much hay nor straw, I have to feed more ensilage than usual—more than I would if I had plenty of hay. I am feeding sixty pounds per day of ensilage, some oats, straw, and dry cut cornstalks (or stover), 8 pound wheat bran, and 2 pounds oil cake (linseed meal). Last year, when I had plenty of clover hay and not so much ensilage, I fed 10 pounds ensilage, 3 pounds clover hay, 4 pounds bran, 3 pounds pea meal, 3 pounds mixed chop, and 2 pounds cotton-seed meal. This last is a splendid ration for large cows, but rather too heavy, as my cows got too fat on it, but gave rather more milk than they are

doing now. I like cotton-seed meal better than linseed oil cake meal at the price I paid for it last year—\$16 per ton, F. O. B. cars in Tilsonburg. I think it the cheapest grain feed for cows one can buy. This year they want \$18 per ton for cotton seed, and \$19 for old process oil cake meal, so I thought I would try the oil cake. Now, if I had plenty of good clover hay and ensilage, I would feed 50 pounds ensilage, 8 pounds hay, 6 pounds bran, 3 pounds pea meal, and 2 pounds cotton-seed meal for large cows. With ensilage as good as mine is this year the above would be a splendid ration, and give good results. I am now feeding ensilage to my pigs with good results. There is no other feed so healthful, convenient and cheap as corn ensilage, cut and put in silo convenient to stable, and no feed that a farmer can raise from which he can keep so many cattle from an acre of land (100 cows on 100 acres), at half the cost of any other feed. E. D. TILLSON.

Norfolk Co., Ont.

Does Not Favor Ensilage Alone.

SIR,—I do not think that you can grow any other rough feed as cheaply as ensilage. We have fed young cattle, cows, and feeding steers with satisfactory results. Have never tried it with sheep or horses. Have never fed it alone, and have never weighed our feeds. Have always mixed it according to our supply of other feeds. We are feeding our young cattle and dry cows now with a mixture of turnips, ensilage and cut straw (no grain), and they are doing very well. We mix turnips and ensilage, each one part, and straw, two parts, but I think more ensilage could be fed to advantage if the supply would allow it. Last winter, hay being plentiful and our root crop short, we fed our steers ensilage, cut hay and chaff, with about one and a-half pounds oil cake, and one-half pound bran per head to start with, increasing the feed as the season advanced to about five pounds oil cake and one pound bran. Bran was hard to get and high. Have observed no ill effects when feeding it with roots; if no roots are fed they are inclined to become costive. To get the best results from feeding ensilage, it should always be fed with some other feeds, such as straw or hay, and roots if possible. While it is a wonderful help (and cheap) in feeding, it is not a good feed alone; in fact, I do not consider it safe. J. W. BARNETT, Manager W. C. Edwards & Co.

Fed Ensilage for Five Years.

SIR,—In answer to your letter would say I have fed ensilage for five seasons, and have never had any trouble in any way with it. I consider it the cheapest feed a farmer can grow. We are feeding the ensilage to all the stock, and everything seems to like it, and are doing well. I always feed straw or hay with it, and a little meal to the fattening cattle. We feed the fat cattle now per day 50 pounds ensilage, 30 pounds Graystone turnips, 8 pounds potatoes, and all the straw they can eat up clean, and they are doing well on it. Our corn was nearer maturity this year than it ever was before, and I do not think it will require as much meal as other years to fatten them. We have three silos—one 20x19 feet, the other two 18 feet high by 19 feet diameter. We are feeding 24 cattle for spring market. The hay and grain crops were so poor this year we would have had to sell some of our store cattle had we not had plenty of corn, so you see we are depending on the corn for feed. We have no straw for bedding even, and that is something new for us. JOSEPH WARD, Ontario Co.

A Cement Concrete Silo.

The writer recently had the pleasure of looking over the premises of Mr. D. McIntyre, Avon, Ont., who last season reconstructed his barns, placing them upon cement concrete walls, laying the cattle stalls, passage and feed alley of the same material, making a capital job throughout. Underneath the feed alley he ran a pipe with an opening to each manger, through which fresh air was brought in from the outside. Mr. Isaac Usher, of Thorold, has perfected a device of this description, the fresh air outlet being through numerous holes perforated in the sides of the small iron pipe opening into the manger. The air about the cattle becomes heated, and, rising, the cold fresh air flows steadily in, keeping the atmosphere of the stable very pure. Several who have used this plan speak highly of it. Mr. McIntyre's pair of cement concrete silos attracted our special attention; the inside dimensions being about 8x13 feet each, and 24 feet deep; the partition separating the two being some 10 inches thick. The outside walls were about 18 inches at the bottom by 12 at the top, and plumb inside. There was a 6-inch cut-off in the corner. We have seen many silos, but few that equalled these. One of them was nearly fed out, and the ensilage had kept perfectly. The walls were sound and smooth throughout. Mr. McIntyre's stock was looking well. He was feeding at the time ensilage mixed with a little cut straw and corn fodder, with some pulped roots and a pinch of grain occasionally, but ensilage was his main reliance. In fact, owing to the drouth, which was exceptionally severe in that locality, he would have found himself in very sore straits had it not been for the corn crop. His silos were inside the barn, a door from each opening on the feed alley. Gravel was mixed with cement in the proportion of 5 to 1. Many stones were bedded in the walls.

Practical Points Gleaned at Farmers' Institutes in Eastern Ontario.

The following practical points have been gleaned at the Farmers' Institute meetings held in the counties of Lanark, Grenville, Carleton, Russell, Renfrew, and Amherst Island during December, 1895. The deputation consisted of Mr. D. McCrae, of Guelph, and the writer. Assistance was also rendered at some of the meetings by local men. At two meetings in North Lanark, Miss Millar, of the Ottawa Cooking School, and Mr. Gilbert, Poultry Manager at the Central Experimental Farm, rendered good service. Mr. Sheppard, of Queenston, representing the Good Roads Association, was a valuable helper at the meetings in Renfrew County. Some ex-students of the Ontario Agricultural College Dairy School were prominent workers, especially A. R. Yuill, J. J. Ferguson, L. Patton, R. H. Grant, P. S. MacLaren, and J. D. McPhail. The ex-students of the College will take a prominent part in the Institute work of the future. Their influence and usefulness is growing each year.

MIXED FARMING.

Mr. Nicholson, Merrickville, emphasized:—1. Drain all low-lying land. 2. Keep the weeds down. 3. Cattle should be well housed and not be allowed to wander about the fields in winter wasting food and energy, while the manure from them was carried into the swamps or the Rideau River at every freshet. 4. Where there is not sufficient barnyard manure for the farm, he would recommend the use of artificial fertilizers, especially for corn. 5. Pasture fields were often left too long before breaking them up and re-seeding, thus causing a waste of land, as many of these old pasture fields produced very little food for cattle.

FARM HOMES.

This topic was discussed by Mr. McCrae:—Farm homes should have flowers, shrubs, and a general tasty appearance on the outside; while inside, books, papers, magazines, pictures, and everything possible pertaining to beauty, adornment, and happiness should prevail. In building houses he recommended having the chimneys in the center of the house, which will make it warmer in winter and cooler in summer. Good cellars, pure water, and plenty of sunlight and fresh air in the house are points needing special attention. In addition farmers should aim to lessen the drudgery of farm life, improve the quality of farm products and make the home attractive. Above all, love should dwell there, that the boys and girls who go out from Canadian homes may always look back to them as the most pleasant spots in the world.

SCIENTIFIC COOKERY.

Miss Millar drew attention to the fact that scientific housekeeping is as important as scientific farm-keeping, yet little attention has been paid to the former until recently. "Beef is manufactured grass." "Condiments or spices are not food nutrients, but they serve to make foods palatable." "The water of fruits, vegetables, and meats is more valuable than ordinary water, as it usually contains some mineral and other valuable matters dissolved in it." "Good water should be clear, cool, and free from taste and smell." "Lemonade, and thin oatmeal gruel well cooked, and afterwards cooled, are the best drinks for summer." "Porridge should be cooked for at least one hour before it is in best condition to digest. Better cook it the day before and 'warm it up' in the morning." "Raw starch is indigestible." "Foods should be balanced, i. e., too much fat or too much sugar is not good for a person; starchy foods should be combined with protein or muscle-forming foods to balance them properly. We eat too much of the heat formers (sugar and starch) and not enough of the muscle formers (lean meat, white of egg, etc.)."

BUTTERMAKING.

By A. R. Yuill:—"While milking, the air of the stable becomes mixed with the milk, hence the need of pure air in the stable." "Milk regularly, and use a stool so heavy that it cannot be swung in one hand." "The cream should be ripened as thick as good maple syrup before churning." "Churn in 36 hours after milking." "Stop the churn when the butter is like grains of wheat and draw off the buttermilk." "Salt in the churn and a worker is not needed."

GRASSES AND CLOVERS.

Mr. McCrae recommends sowing orchard grass mixed with timothy and clovers when seeding down. Meadow Fescue and Brome grass should also be used as a variety, as it will make better pasture and hay than timothy alone. Clovers are valuable as manures, owing to the fact that they take nitrogen from the air, thus enriching the soil. Lucern clover is a valuable plant for soiling purposes. It does best on land having an open subsoil. Alsike clover is valuable for its seed. As a crop it will take the place of wheat. Yellow Trefoil might be sown on bars and waste places in pasture fields. Sow a small piece at a time and see how it grows. Crimson clover might do well in warmer parts of the Province. In harvesting Alsike for seed it should be handled carefully, as it shells easily. One farmer reported that on his low-lying land he could not raise Red clover, but since he commenced sowing Alsike he had no further trouble—in fact, he always had clover now, as the seed seems to remain in the soil. Red clover hay may be cut in the forenoon, "tedded" in the afternoon, raked up in the evening, and hauled the next day. It will come

out of the mow with the color of the blossom on it. There must be no dew or rain on the hay when it is hauled in. Sow more clovers.

WEEDS.

"To kill couch or quack grass in sandy soil take off three crops of buckwheat and one crop of roots and it will be effectually eradicated," said a Grenville farmer. Others recommend shallow plowing and carting the roots from the field to a compost heap, or burn them. To kill the Canada thistle seed down thickly and mow for two or three years. Sheep are excellent to keep weeds in check. Grain fields should be gang-plowed after harvest and worked on top to start the weeds growing; then plow deeply in the fall. A Russell farmer thought that this plan wasted a good deal of the fertilizing matter in the soil, and preferred seeding nearly all crops down with clover in the spring and pasture after harvest. Plowing directly after harvest should not be done except in extreme cases, according to his opinion.

CHANGE OF SEED.

A discussion on this topic at Metcalfe brought out a variety of opinion. One farmer thought that if a part of the farm were gravelly and light and the remainder heavy or mucky, that a change from one part of the farm to the other would be better than getting seed from outside, and run the risk of weed seeds, besides paying an extra price. Some thought that a change of seed was not nearly so important as a great many fancied, and that there was no need of so much changing as practiced by some.

SPRING VS. FALL PLOWING.

Most farmers seem agreed that fall plowing is best for all crops except corn. There seems to be a difference of opinion as to whether heavy soil should be plowed in the spring or fall for corn, but nearly all seemed agreed that on light soil it does best on spring plowing. When plowing in the fall it is well to plow a little deeper each time, thus bringing up a small portion of the subsoil to the action of air, frost and sunshine. The depth of soil available for plant-food will thus keep on increasing, and in time, instead of having five or six inches of soil for plants to feed on, they will have from eight to twelve inches of plant-food soil, such as they have in the Island of Jersey, where they plow twelve to fourteen inches deep and raise two crops a year off all land.

CORN GROWING FOR THE SILO.

By Mr. Morrison, President of N. Grenville Institute. He prefers grass land manured from the stable (twenty loads to the acre) and plowed six inches deep in the spring. Would turn the whole field at one furrow if possible. Work the top well and secure a fine seed bed, then mark the land and plant in hills three feet apart. (He considers that a "planter" is not safe in the hands of a hired man, nor on land not in good condition, as a person may imagine they are planting the field when they are not.) Plant four kernels to the hill. Harrow as soon as the corn is up, using an old-fashioned wooden harrow. Have the teeth of the harrow sharp so that they will cut through the hills and not drag the corn out. When scuffling always go the same way between the rows, as the roots become turned in one direction, and if the next time the field is cultivated the scuffer goes in an opposite direction it will break too many roots. Never pile dirt around corn, as it causes root formation which is worthless. Cultivate lightly and as long as possible. He always had men in the silo to tramp the corn until this year, and he has more spoil corn than ever before. He believes in tramping the corn into the silo.

COST OF RAISING TEN ACRES OF CORN AND FILLING THE SAME INTO A SILO.

By Mr. Derrick, of Merrickville. The past season he grew ten acres of corn on an old pasture field, near the barn, which was not manured, as the land was rich. It was nearly all plowed in the fall, but the ground froze before he got it all plowed, and the remainder was plowed in the spring. The crop was equally good on both fall and spring plowing. He used the Longfellow variety of corn, which seems to be the favorite in Eastern Ontario. The corn was planted in hills 3½ feet apart. (He made a marker by bolting worn-out cultivator teeth on a plank the right distance apart.) He picked off the best ears before cutting for the silo, and estimates there were 500 bushels of these ears. (This seems to be a common practice among silo men in these counties. They pluck the best ears before cutting the corn for the silo and feed these to pigs. They claim that a great deal of this ripe corn passes through the cow undigested and is lost.) The corn was cut with sickles. He "changed work" with some neighbors while filling the silo, and had twelve men for two days to clean the field. He paid \$1.00 per day for the hired help, and paid \$6.00 per day for two men, two teams, and the machine for cutting the corn into the silo. The total cost, he stated, is as follows:—

Plowing (10 acres).....	\$15 00
Cultivating.....	4 50
Harrowing and marking.....	6 00
Planting.....	8 00
Scuffling.....	11 00
Hoeing.....	5 00
Cost of harvesting.....	39 50
Total cost.....	\$92 00

He has eighty tons of silage, which cost him \$1.15 per ton. This he considers is the cheapest feed a farmer can grow, and "men who are standing aloof from the silo are making a great mistake." A

small farmer needs a silo even more than a person on a large farm, because with the silo more stock may be kept on a given area of land. Mr. Derrick thinks that corn alone is not good food for cows giving milk. In addition to 35 lbs. silage daily, he feeds straw and 3 to 4 lbs. of meal, and clover hay at night. He made an experiment one day by putting the meal at one side of the manger and the silage at the other, and when the cows came in from water they ate the silage first. In addition to his address on corn growing, Mr. Derrick told the meeting how he built his milkstand. (I was pleased to see the great number of excellent milkstands along the roads as we drove from place to place. In the West we are very much behind in this respect.) He put down posts 9 feet high. The size of the stand is 5x7½ feet (though he thought 6x8 would be better). The sides are made of lattice work, ripped from planks—not lath. It has a suitable roof and doors. A 2-inch tin pipe runs from the stand to the hog-pen to carry the whey and washings from the can. (The latter should never be emptied near the milkstand day after day, as they are apt to create an odor, and the whey should not be returned in milk cans.) The whole stand was nicely painted. This sort of a milkstand is quite a contrast to the shaky, unsightly looking structures that pass for milkstands in many places. Let us reform.

RAINWATER IN MILK.

Mr. Kidd, President of the Carleton Institute, and an owner of several cheese factories, reported that one rainy morning this past season he took in half a ton more milk at one of his factories than he did the previous or succeeding morning. He did not have any more cheese, and it was the poorest cheese made during the season. MORAL: Cheese cannot be made from rainwater. It also spoils the quality of the cheese. Patrons should not allow the cans of milk to be exposed to rain. Milkstands should be covered, the milk wagons should have canvas covers to protect the milk from rain, sun, and dust, and covered driveways should be provided at the factories for the wagons while unloading. To satisfy patrons who send in 100 pounds of milk and wish to take home 200 pounds of whey, Mr. Kidd attached the ejectors to the Rideau River, and every one was satisfied thereafter.

DEHORNING.

A great many farmers are dehorning their cattle in the East. Men say they would not have stock with horns on under any consideration. Both saw and clippers are used—the former for large horns. One man lost an animal by bleeding to death. They recommend tying a piece of binder twine around the base of the horn, which will prevent bleeding to a large extent. Some tie this string on all animals after dehorning, as a preventive, while others practice this only in case of "bleeders."

STRAWBERRIES FOR FARMERS.

Mr. Sheppard recommends manuring heavily and plowing in the fall. Coal ashes are good for heavy soil. When the plants are received, "heel" them in at once until ready to plant. To plant a large plot of strawberries, make furrows four feet apart, plant one foot apart in the furrow, and cover with the hoe. To plant in a garden, put the plants in hills two feet apart. Make a hole with a crowbar or spade, put in the plant and press the dirt firmly about it. Pinch off all the fruit buds the first year, as one box of berries the first year means a sacrifice of fifty boxes the second. Keep the runners down until August, then allow a few. After September, do not allow any more plants to form, as it weakens the parent plant. Plant new beds every year, and do not expect them to last more than two years. Mr. Sheppard takes but one crop, and then plows them up. He recommends covering the plants with evergreen boughs, or straw, before winter. Better to plant early and late varieties, so as to prolong the season.

GOOD ROADS.

Many of the township councils in the East have bought road machines, and all speak very highly of them. The North Gower people say they never had such good roads as during the past season with road machines. They agree that statute labor is not satisfactory in working them, as some farmers are so afraid of their horses. Better to hire teams and men accustomed to the work, they say. Mr. Mohr, Warden of Carleton, is strongly in favor of commuting statute labor to fifty cents a day. A road machine costs from \$200 to \$250. Two other implements are needed in road-making—a heavy roller and a stone-crusher, where there is no gravel, but plenty of rock. A stone-crusher, which will take a stone 14 inches by 6 inches, and will crush a cord of stone per hour, will cost about \$600. Such a machine requires a 12-horse power engine to drive it. Six inches of broken stone and two inches of "siftings" or sand, well packed on the roads, will make an excellent road. Such a road-bed, eight feet wide and eight inches deep, will cost from \$400 to \$500 per mile, but it is a safe and paying investment on leading roads. The Good Roads Association is in favor of the counties assuming control of all leading inter-town and city roads. Drifts in winter may be prevented by lowering the fences. Many of the log fences where we have been driving are lowered for the winter by taking off one or two of the top logs.

H. H. DEAN.

Dr. Peter Collier recently resigned his position as Director of the Geneva (N. Y.) Experiment Station, and has been succeeded by Prof. E. B. Voorhees, at the head of the New Jersey Experiment Station.

The Use of the Root Pulper Approved.

SIR,—In the *ADVOCATE* of Dec. 16 ('95), page 501, Mr. A. C. Hallman, of New Dundee, Ont., condemns the use of the root pulper as a waste to "time and muscle." He says: "The root pulper, to my mind, has seen its best days. It is only of value for calves and pigs or some cattle that will not eat whole turnips." Our experience does not, by any means, agree with Mr. Hallman's ideas. I believe the root pulper fills a long-felt want in the economical feeding of stock. We will find that its days are not by any means numbered, but that it has come to stay. It will be agreed on all sides that to have the best results in feeding we must supply a succulent ration of some sort. It is also acknowledged, I think, that for winter feeding roots or ensilage are the two best foods to supply that want. Turnips, we all know, contain a large percentage of water. This water cannot be fed or given to stock in a way that will give better results than having it mixed with the dry feeds. How many are apt to undervalue turnips when viewed in the chemist's table? The same results are seen in the grasses. When the stock are given a free range of good pasture they will thrive much better than they would if fed on the dried grass or hay, no matter how perfectly it has been cured, or how fresh and green the hay is. The water in the grass or turnip is worth more than it would be in the bucket. If turnips are thrown whole into the manger with cut feed and meal, as Mr. Hallman suggests, they will not be eaten along with the rest of the feed; they will either be eaten first or left till the last. When pulped and mixed with the cut feed and meal they help to assimilate the more fibrous and less digestible hay and straw, and in this, more than the nutriment they contain, lies their value for feeding. There will be more thorough mastication also. It may take a little time and muscle to pulp roots. Time is worth something, but muscle ought to be cheap on the farm in the winter. It is a good deal cheaper putting a little muscle into a pulper than keeping it "stored up" on "puffed" horses' legs.

The comfort of the cow in eating is to be looked at also. A cow usually gets enough exercise without chewing hard turnips. This may seem a small matter, but it is worth looking at;—every little item counts. Probably if we did not use the pulper and fed the roots separately the cut feed might last longer; they will not eat as much. That is not the aim, however, of successful stock feeders. We must economize feed, it is true, and not be wasteful; at the same time get them to eat all they can of a properly balanced ration. Let them "gulp" down mixed feed as Mr. Hallman says, but let the feeder see to it that it is properly "mixed," no more being given than is eaten up clean, and there will be no danger of indigestion; the mastication will be all right, the cow muscle will be saved, the horse muscle will not go to waste, and much better harmony will reign all around, with a cash balance on the proper side of the ledger.

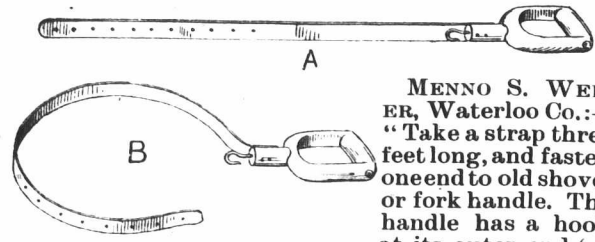
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THE HELPING HAND.

P. O. Address Wanted.

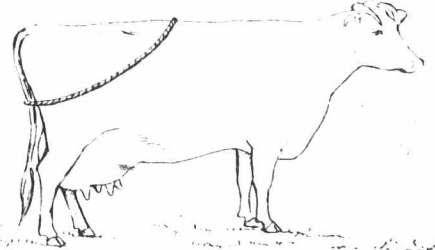
Will Mr. Simeon Snyder, whose article describing a plow issue appeared in this department, Nov. 15th (1895) issue, kindly forward his P. O. address to this office.

A Corn Binder.



MENNO S. WEBER, Waterloo Co.:—"Take a strap three feet long, and fasten one end to old shovel or fork handle. The handle has a hook at its outer end (as in fig. B), and the strap is perforated. Throw the strap around the shock, catching the outer end with the disengaged hand, and draw up as firmly as you wish, fastening it to the hook. The shock can then be easily tied. A shows the strap fastened to the handle, B as thrown around shock ready for fastening.

"TO PREVENT A COW FROM SWITCHING.



"Take a piece of rope at least an inch thick, and about seven feet long. Tie the ends together and place on the cow."

A Handy Farm Vegetable Garden.

T. W. L., Bruce Co.:—"Every farmer's family should have all the vegetables and small fruits they can use, and if the work is done in the right time, and in the right way, the time will never be missed. Take a quarter of an acre (330 feet long

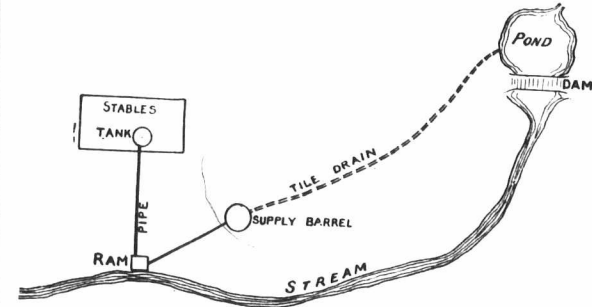
by 33 feet wide), manure and cultivate thoroughly—you cannot do either too well. Then plant next spring the following: 3 rows raspberries (2 red and 1 black), 2 rows strawberries, 2 early potatoes, 1 early corn; 66 feet each of carrots, beets, parsnips, lettuce, spinach, making 1 row; 1 row onions, 1 row beans, 1 double row for watermelons, cabbage, tomatoes, celery, citrons. All rows the same distance apart, and nearly all the work done with the horse-hoe.

"FARM GARDEN, ONE-QUARTER ACRE, 330 FEET BY 33 FEET, ROWS 30 INCHES APART.

1	Raspberries, red
2	" "
3	Black Cap
4	Strawberries
5	" "
6	Potatoes, early
7	" "
8	Corn
9	Beans, plant twice, two weeks between
10	Carrots, 66 ft.; Beets, 66 ft.; Parsnips, 66 ft.; Lettuce, 66 ft.; Spinach, 66 ft.
	Onions, two varieties
	Watermelon, Cabbage, Celery, Citrons. This is a double row.

"Good manuring, good cultivating, good seed, result, a good garden."

A Hydraulic Ram.



R. C. ALLEN, Northumberland Co., Ont.:—"It is not generally known among farmers that a hydraulic ram may be made to furnish a constant supply of water sufficient for the stock on a large farm, provided the stables are not located too far from even a very small stream, having a few feet of fall in the vicinity of the buildings. A ram consists of an air-chamber (not larger than an air-chamber of a hand force-pump), one leather valve and one brass valve, which, properly constructed, will last longer than pump valves. It will furnish a constant stream, varying in size according to the number of feet the stables are above the ram, and the amount of fall there is in the stream. Some distance up stream a small dam is required to insure a supply of water at all times, and to protect the mouth of the supply drain from ice in winter. In making a dam, a part of the head required to work the ram is obtained. More head is obtained by means of a pipe or tile drain along the bank of the stream from the dam to a supply barrel. If tile is used, the drain must not have more than six inches of fall in 50 yards. It should enter the supply barrel, which serves as a settling well for sand, at about a foot from the bottom. From the center of the barrel is a 1 1/2-inch gas pipe to the ram (not less than 50 feet distant). The end in the barrel should be protected by a fine wire hood to prevent any foreign substance from stopping valves of the ram. The ram should be placed as low down near the edge of the creek as it will work in freshet time, a short tile drain returning waste water to the stream. That which goes to the stables may be conducted in a 3/4-inch or 1-inch gas pipe to an elevated tank as high as the water is required. The tank must be placed where it will not freeze. An overflow-pipe can be conducted to watering trough in any suitable place, said pipe having connection with a stop-cock at the bottom of tank, by means of which the tank can be emptied at pleasure into the trough. Overflow from trough may be carried away by tile drain. All tile, supply barrel, ram, and pipes must be sufficiently under ground to escape frost. A ram can be bought and put in for less money than a well can be dug, bricked or stoned up, and pump purchased. It will do its own pumping, and do it day and night the year around. It will not get out of order as often as a pump, there not being as much machinery about it, and if it does stop a touch will start it again. I have recently put in a hydraulic ram for a prominent farmer in this locality, which works very satisfactorily. I consider it a very handy as well as a labor-saving and inexpensive contrivance for obtaining a constant supply of fresh water in a farm yard. Shovelling snow, chopping ice, and driving cattle to a creek for water in a raging blizzard should be by-gone methods of watering stock among our progressive farmers."

Norfolk Reformer (daily and weekly):—"The Thanksgiving number of the *FARMER'S ADVOCATE*, London, is a particularly fine issue, and reflects the highest credit on the enterprising publishers. The *FARMER'S ADVOCATE* is among the very best papers of this class, and it is not surprising that it is growing in popularity."

DAIRY.

More Light Yet Needed on the Apportioning of Cheese Factory Dividends.

SIR,—The explanation given by Prof. Dean on this subject, in your issue of December 16th (1895), was timely and very much needed. I think I may safely say that not one out of every ten patrons of factories understand the division of moneys by the butter-fat system. The mathematical problems given by the Professor should make the matter plain to all who have a knowledge of fractions. The scientific problem is very plainly put also, and may be readily seen by many who are not very scientific farmers. I would just here remark that I think there is no better way of giving general information on farm subjects, and no better medium can be employed for conveying the results of experiments carried on by scientific and practical men to those who are ready to profit by them, than through the columns of the *FARMER'S ADVOCATE*. I do hope that the last statement made by the Professor will be carefully read, and that it may forever silence those croakers who still advocate the old quantity system of dividing by weight of milk alone. The quality system is approved by all the Professors, and the aim of all experiments should now be to get at the very fairest method of working under this system. I would like to ask the Professor and others some questions as to the best way of handling the tester in cheese factories. I suppose the plan adopted by most factories is that known as the composite test. It does not seem to be a very fair way of doing, viz., to take a small quantity of each patron's milk each morning, then to take the sample for testing from this mixed sample, as kept in sample bottles; but I fear there is a difficulty right here, viz., in getting a fair sample of the milk from this bottle. Does the chemical substance added to the milk keep the cream from rising in the bottle, or does it just keep the milk sweet? If a separation has taken place, something more than even a thorough shaking of the bottle will be needed. I would think, in order to thoroughly mix the sample. The richer the milk is the more complete the separation, and thus I see a disadvantage to richer samples. The milk is drawn into a very small opening in the pipette, and the thinner part of a sample would be sure to rush in if not thoroughly mixed. Is it customary to set the sample bottles in hot water in order to thin the milk before shaking? This would make some extra trouble, but as it determines the amount of money that each patron shall receive, it surely demands great care. I fear that there is sometimes trouble in getting fair samples from these bottles.

I do think that unless great care is taken under the composite plan, that a better way might be to let cheesemakers take a sample for testing from each can, as it comes to factory, say, twice or three times per month, these days to be known only to himself and to be changed so that no patron could ever know the testing days, and thus be tempted to bring a better quality on these days. This would do away with much trouble to cheesemakers in taking and keeping samples, and in most cases, I believe, would give as good results, if not better, than the other plan. If you want to hold the patrons of cheese factories together great care is needed in the division of the moneys, as we cannot have union in any line very long without "fair play." It does seem to me that those having rich milk are not likely to get too much "fair play" anyway. The little Jersey cow has had to keep bawling to her bigger sisters for "fair play," and rejoiced at the birth of the "Babcock Tester," the best friend she ever saw. The pooling system of division was robbery to those putting in rich milk, and under that system many a dollar must have gone into the wrong pocket. Now, Prof. Dean has made the science of this matter so plain in his article that he cannot blame any practical farmer for being presumptuous when he freely expresses his mind on the subject, even though he may differ from himself in the matter, as I believe his aim is to make this matter so plain that every farmer, if possible, may form his own conclusions. It is the farmer's purse-strings that are effected by it, and that alone should make us look into the subject.

I look at the three methods of paying for milk this way: First, the old way—supposes all milk to be alike and pays for it on this basis, simply by weight. Prof. Dean's plan pays for milk according to the weight of cheese made from it, or according to weight of casein plus weight of butter-fat; and supposes casein and fat to be of equal value. The third plan pays according to weight of fat in milk, and supposes butter-fat to be the substance in all milk which should determine its value; and I really believe it should. If butter fat and casein in milk were inseparable, and thus only of value in cheesemaking, the second plan might be fair; but such is not the case. Butter-fat has a market value of its own, and a much greater value than casein, on account of its two-fold market; and we are forced to pay market value for an article when we buy, whether it pays for our purpose or not. Butter-fat is worth from 18c. to 30c. per lb., while casein would only be worth from 3c. to 5c. at most, but where mixed with a greater weight of butter-fat is sold in cheese at from 8c. to 10c. per lb. But does it follow that because a mixture of two ingredients makes an article that sells at a given price, that we buy these ingredients at same price? For example: Pea meal at \$20 per ton and bran at \$12 per ton

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make a mixture worth \$16, yet can we buy pea meal and bran at same price? We must pay market value, and so we must do for butter-fat, if we expect to hold patrons who furnish rich milk, and especially in those counties near a good butter market. These two great industries, *cheesemaking* and *buttermaking*, are going along side and side. Butter-fat enters largely into composition of both articles. Casein does not, and on account of this, if nothing else, butter-fat will always have a greater demand and, consequently, a higher market value. But another reason: It is the butter-fat that puts the quality into the cheese. Just as the pea meal puts the quality into the mixture before mentioned, so the butter-fat puts the quality *very largely* and richness into the cheese. Take the fat out and what have we left? *Skim cheese*—unmarketable stuff; add butter-fat, and plenty of it, and we have *cream cheese*!—a high-priced article. What makes the difference? Butter-fat! It may be difficult to tell any difference between cheese made from 3 per cent. milk and that made from 4 per cent. milk, yet I am inclined to believe the difference is there nevertheless! But if not, there would be a strong temptation for the man who has 4 per cent. milk to skim out 1 lb. of fat from every 100 lbs. of his milk, making it same quality as his neighbor's, and thus get 20 cents per lb. for it in butter instead of 8 or 10 cents, at most, in cheese. If casein is a fixed quantity in all milk, then it is the fat alone that determines the relative values of different samples. It is the fat in milk that is costly to produce, whether fed in or bred in. If fed in, it would be at cost of rich feed; and if bred in, we almost invariably find that if we breed for quality of milk it is more or less at expense of quantity, so that butter-fat is expensive to produce, and demands its fair value, and I believe that the only way to give full value for each is to divide by the straight Babcock Tester. At the prices I have given, 100 lbs. of 3 per cent. milk would be worth, as compared with 100 lbs. of 4 per cent. milk, as follows: 3 lbs. fat @ 18c. = 54c. + 2 lbs. casein @ 5c. = 10c.; total, 64c. per 100 lbs.; and 4 lbs. fat @ 18c. = 72c. + 2 lbs. casein @ 10c. = 82c.; 82c. per 100 lbs., or in the ratio of 3 to 4 almost. These prices may be too high, but I believe they are in right proportions. In our factory milk varied from as low as 2.4 to over 4 per cent. fat. Our plan of division was to add 1 per cent. to fat readings, and I do think, in all fairness to those furnishing the rich milk, that one per cent. was enough to add to 2.4 per cent. stuff. The City of Toronto standard calls for three per cent. milk, and I think that milk under 2.8 is blue enough for any purpose, and rather too blue. I feel assured that Prof. Dean will still experiment on the line indicated by the *ADVOCATE*, viz., as to qualities of cheese from different qualities of milk. Producers of rich milk will watch these experiments closely. Until the professors can settle this question I will, for harmony's sake, meet them half way and still add one per cent., while I look for more light on the matter.

ROBT. McCULLOCH,

Secretary of the Edmonton (Ont.) Cheese Co.

With the Travelling Dairy in British Columbia.

BY J. A. RUDDICK, OF THE DAIRY COMMISSIONER'S STAFF.

(Continued from page 479, Dec. 2, 1895.)

There are many fine farms with splendid buildings in Chilliwack district. Most of the farmers are doing something in the line of dairying, and altogether it is the most important dairy district in the Province. The valley suffered heavily by the flood of 1894, but the damage was nothing like what it has been represented to be.

After leaving Chilliwack we had meetings at Abbotsford, Langley, and Pt. Haney, all of which were well attended, and a great deal of interest was shown by those who gathered from far and near to witness the operations of the dairy and listen to the addresses which were given. At Langley steps are being taken towards starting a creamery, and there seemed to be the right kind of men around there to carry out the idea and make a success of it.

This finished our work on the mainland for the time being. On the way to Vancouver Island a visit was made to the new creamery situated on the "Delta," near the town of Ladner, and not far from the mouth of the Fraser River. Here was found a well built and splendidly equipped creamery, turning out about 300 pounds per day of gilt-edge butter, which was put up in one pound prints, and sent fresh every day or so to Victoria and other points, retailing at 35 cents per pound. The manager told me that they could not supply one half the demand, yet creamery butter in tubs from Manitoba and the Territories was not finding a very ready sale, at prices ranging from 20 cents to 25 cents per pound. Why this difference? Simply because the latter was not fresh. The almost universal complaint against Manitoba and the Northwest butter is that it is held too long before being sent out. No doubt the most of it is quite as good as the British Columbia article when first made, but because the people can get one fresh and put up in dainty shape, they are very willing to pay the difference in price which I have quoted. I mention this because some of our Manitoba friends could not understand why they were not receiving more for their shipments when such high prices were quoted.

I have often heard it said that the B. C. market was not a very critical one, and that they would take a poorer article than other markets would. No

doubt they have taken a lot of poor butter in times past—when they could not get better—but give the average British Columbian a choice, and he will pay more in proportion for an article of finest quality than people will in any other part of Canada. He wants good butter, and he wants it bad, and knows as well as anyone else that a great deal of inferior butter has been forced upon him in the past.

The "Travelling Dairy" held forth at the Victoria Exhibition. Prof. Robertson was also present, and delivered a number of pleasing and instructive addresses, which were listened to with great interest by a large number of people. After the exhibition meetings were held at Saanich, Colquitz, and Metchosin, three districts near Victoria. Proceeding north by the E. & N. Railway, the next place we visited was Duncan's, about 30 miles from Victoria, and a flourishing agricultural settlement. An attempt is being made to start a creamery at this point. Nanaimo and Comox were next visited, the latter being one of the oldest and most prosperous farming districts on the Island. There is a good and increasing market at the Union Coal Mines.

Coming back to the mainland, a week was spent at the New Westminster Exhibition, and a meeting held at Cloverdale, a few miles out of Westminster, on the south side of the river.

On our way home we stopped off at Sicamons, and spent a few days in the far-famed Okanagan Valley, holding meetings at Armstrong, Vernon, and Lumby. The climate is dry here, yet the grasses on the ranges are said to be very nutritious, and stock does very well. A great deal of wheat is grown, and we saw some splendid ranches (all farms are called ranches in B. C.).

It is near Vernon that the famous Coldstream Ranch, the property of the Governor-General, is located. I had the pleasure of visiting it at the invitation of their Excellencies, who were there at the time, and I must say that I have never seen a finer sight in the shape of an orchard than the one which I saw at "Coldstream." It is a beautiful place, and His Excellency may well feel proud of it.

Much improvement might be made in the stock of dairy cows in B. C. Among the thoroughbred animals, the Holsteins and Jerseys predominate, and I find a tendency to cross these breeds, with the idea of combining the distinctive qualities of the two breeds in one animal, a course which will not be endorsed, I fancy, by breeders of experience. Many of the cows have too much of the "cayuse," or native blood, in them to make good milkers.

The cows are not as well housed in winter as they should be, and judging from the long hair and shaggy coats which one very often sees, they suffer more from exposure in many cases than cows do in other Provinces, where the winters are much more severe. I look for big improvements in the near future, however, for if the average British Columbia dairyman may not be quite up to date in all his methods, he certainly lacks nothing in the matter of intelligence, and having commenced to think more about his business, the rest will follow in due course. I have been speaking generally, but it is only fair to say that I met many individual dairymen who were making splendid progress. The best butter makers were getting 30 cents per pound for their butter all last summer, and they invariably told me that they could not supply the demand.

A Great Convention.

The Western Ontario Dairymen's Association Convention, to be held in Woodstock on Jan. 7, 8 and 9, should be attended by every dairymen that can possibly arrange to be there. The programme committee have spared no pains to secure speakers who are able to teach the most profitable methods in every department of dairy farming, cheese manufacturing, and cheese marketing. Practical addresses and practical men will be the order of every session. Those who have heard John Gould, of Ohio, need not be told that he is one of the most instructive and entertaining speakers of the day on dairy matters. He will be on the programme upon several occasions during the Convention. Theodore Louis, of Wisconsin, who is known throughout the United States as one of the great authorities on hog raising, will address several sessions on topics of vital interest to hog raisers. Prof. Robertson, Ottawa; Prof. Dean, Guelph; J. A. Ruddick, Dairy School, Kingston, and many other first-class authorities will be present to contribute to the well-arranged and valuable programme. Dairymen who are members of the Association should be there, and those who are not members should also be there and become members, so as to participate in the benefits of the co-operation. A copy of the programme may be obtained from Mr. J. W. Wheaton, Secretary, London.

A World-Wide Butter Competition.

The National Butter and Cheese Makers' Association will hold its fourth annual meeting at Cedar Rapids, Iowa, during the whole of the last week of February, 1896. A working creamery, with all the latest patterns of machinery, will be in operation. There will be liberal prizes given for the best exhibits of butter and cheese. A grand prize—an original design of a buttermaker at work, cast in pure silver, and valued at \$500—will be given for the best package of butter, competition open to the world. Other valuable premiums will be given for high-scoring exhibits, competition open to the State. For further information, address the Secretary, E. J. Burridge, 79 Fifth Ave., Chicago, Ill.

POULTRY.

Feeding for Winter Eggs.

BY R. C. ALLAN.

The article by Mr. Maw, in the *ADVOCATE* of Dec. 2, '95, on winter eggs, while treating of a very seasonable topic, fails to enter fully into even the meagre details given on the subject. There is a great deal of arrant nonsense paraded in the columns of our papers, much that is simply theory on the part of the writers, or the reiteration of assertions made by some other equally theoretic writer that appeared to the unpractical author to be sensible; but when applied to practical work, invariably proved unsuccessful. At the risk of calling down upon my devoted head the derision of my brother poultrymen, I beg leave to assert that more hens, by 50 to 1, fail to lay from want of food rather than from excess of it. Hens must be in good condition (*fat*, if you choose to put it that way) to lay. A thin hen never lays.

The first paragraph in the article above referred to contains some admirable hints to all who keep hens, but the last is, to say the least of it, misleading to the amateur. In the first place, a steady supply of winter eggs cannot be obtained if no other green food is given except the table scraps from an ordinary kitchen, with a raw cabbage or turnip for the hens to jump at. Cut clover hay, all the hens care to eat once every day, is absolutely necessary; it is one of the best persuaders to egg production known. It should be cut very fine (¼ inch); and where there are no especial appliances for preparing the cooked rations of the fowls, may be crammed tightly into a pot, which should then be half filled with water, and boiled. It should scald ten or fifteen minutes. To a pailful of the hay add about two quarts canelle; mix well and feed hot. Let them have all they will eat up clean. You need not be a bit afraid that they will eat too much; it is soon digested, and they will be eager for another meal when it comes.

I have very little patience with the oft repeated assertion that "hens won't lay unless they work all day." I grant that exercise to a certain extent is necessary; so is it for cows. But just fancy Mrs. Jones hanging up a bunch of roots before a fine Jersey cow for her to jump at; there is about as much sense in doing it for the cow as the hen, and about as much good. I have as fine a flock of laying hens as can be found—regular egg-machines, and a turnip would hang up intact till next spring if they had to jump for it. Mangolds are more readily eaten than turnips, and a larger quantity will be devoured. If they are sliced down the center and laid in the feeding trough, the hens will attend to the rest. I feed them, about two hours after the cooked hay in the morning, about four medium roots, being cleaned up by 100 hens. Leave no stale food from one day till another; feed just what is eaten up clean.

In the production of winter eggs, a green bone mill is of inestimable help; it reduces the grain bill one-half and makes the fowls more thrifty, while the increase in the number of eggs would hardly be credited by one who had not used ground green bone and meat as a part of the daily food. Dry ground bone is good to a certain extent, but of course is not a food like the green bone and lean meat. Now, if you measure out a pound to every sixteen hens (the amount usually recommended by many writers), about one-half of the sixteen (the laying half, you will find) will gobble up three-quarters of the pound, and the other eight will get about one-half of what you intended them to have. Unless each hen could be fed by herself, that will invariably happen. Now, let me tell you that all the green bone the hens will eat will not hurt their laying qualities one whit, but will increase the dozens of eggs until you are astonished. This should be fed after dinner, but I prefer the hot hay in the morning followed by roots, because if the hens get what they like best, viz., ground bone and grain, first, they will not eat a sufficiency of the bulky food, consequently the latter should be fed first. Now, as to throwing grain among litter for them to scratch after, will someone tell us what kind of hens will scratch all day for a few handfuls of grain, in say six inches of litter, which is far too much on the floor, for many reasons? A good, lively flock of hens would turn every straw or leaf upside down in half an hour. If you gave them enough to keep them at work all day, you might carry in half a bushel to 50, and I'll engage they will find every kernel in a good deal less than half a day, if they can only eat it all. A covered dish of grain kept in the house and a handful thrown to them every time the eggs are gathered, is, I find, the best way to give them something to do; one quart to 50 hens will be sufficient. This, with the work of picking the roots, will be all the exercise they will need. Cabbage should be cooked the same as the hay and given occasionally for a change. When feeding for night, give all they will eat. Wheat is the best grain for steady use, but on very cold nights I feed whole corn warmed in the oven. They cannot go to roost with crops too full for the long cold nights. If properly fed before, they won't eat as much grain as you fancy; but if you half starve them all day, they will gorge themselves on the grain. I know from many years' experience that hens fed as I have described will give a good account of themselves, even if they do sit huddled in a corner part of the time; they often do that for warmth.

Pure water should be given first thing in the morning; it should be slightly warmed. The hens often want a drink before eating, and icy water is not good. For lime and grit, a box of old plaster with a plentiful supply of broken glassware or crockery is much relished.

Under such a system of feeding, in the middle of last winter I have averaged 20 eggs per day from a pen of 27 pullets for two months, and have gathered from 30 to 40 per day from a pen of 60 year-old hens. The houses were so cold that in severe weather pieces of carpeting were fastened over the roosts and down around the dropping boards to keep the combs from freezing. The fowls were seldom let out of these two pens, which were only about half as large as poultry writers insist upon; but they were cleaned every day, and the fowls were free from vermin. They were veritable gluttons, and I stuffed them enough to make a theoretical poultryman's hair stand on end; but they paid me over and over again for their food, and were admired by everyone who saw them. I keep an accurate account of all expenditure and returns, and can substantiate every assertion made. I should like to hear from others on this subject, as it is one of much interest to the farming community.

GARDEN AND ORCHARD.

Fruit Growers in Session.

The thirty-sixth annual and winter meeting of the Ontario Fruit Growers' Association opened at Woodstock on Wednesday morning, December 11, and continued till Friday at noon of the 13th. In some respects this was the most important meeting yet held by the Association. The presence, for two days, of the Provincial Minister of Agriculture, Hon. Mr. Dryden, and the significant addresses delivered by him; and the presence also of President Mills, of the Ontario Agricultural College, Guelph, and Prof. Saunders, of the Dominion Experimental Farm at Ottawa, all bore testimony to the growing importance of the fruit industry and the work that the Association is doing. Another marked feature of the meeting was the increased interest that had been awakened in the county of Oxford in fruit and floral culture during the past twelve years. This was referred to by several of the speakers, who remembered the meeting held by the Association, in Woodstock, just twelve years ago, when only a small company attended, compared with the crowded and lively sessions of the present meeting. From the character of the addresses delivered and the papers read, the report of the Ontario Fruit Growers' Association for 1895 will be one of the most valuable yet published. It will be impossible to give anything but a very brief notice of those papers in our present report, but we may summarize some of the most important of them in future issues of the *ADVOCATE*.

After President Pettit's few opening remarks, the first paper given was one on green fruits, by Mr. A. M. Smith, of St. Catharines. Mr. Smith deprecated sending to the markets any kind of fruit in a green and uneatable condition. But so long as every grower was anxious to get first into the market with his fruit, this evil, Mr. Smith thought, would continue. Mr. A. McNeill, of Windsor, suggested co-operative selling as a remedy, which he said was done in some districts of the United States. In a paper on apple culture, Mr. Hersee, of Woodstock, strongly recommended the application of potash manures and the ploughing in of clover.

Mr. H. Jones, of Maitland, gave a very interesting and valuable paper on the character of some of our leading varieties of apples, and among a handsome exhibit of many varieties grown by himself on the St. Lawrence River he showed one peculiar to that district, and much in demand there, known as the Scarlet Pippin. Mr. Jones' paper dealt also with a new apple-tree pest, known as the Cigar-shaped Case-bearer, described in the report of 1894, which is working its way westward. After describing the ravages of this pest, Mr. Jones warned the Western growers to be prepared for it.

Mr. W. Boulter, of Picton, in a paper on shipping fruit to British Columbia, gave it as his opinion, after considerable experience in that Pacific Coast Province, that Ontario growers would never find a strong competitor in the B. C. apple in the markets of the Northwest. Mr. Boulter is a large shipper, both east and west, and he declares that, notwithstanding all we hear about the Nova Scotia and the British Columbia apple, he always finds a ready market for No. 1 Ontario-grown fruit in both the Eastern Provinces and Western Territories. A superior fall apple they can produce in B. C., but he goes so far as to affirm that it will never be able to mature a good winter or long-keeping apple.

A very valuable paper (on Wednesday afternoon) was given by Mr. R. B. Thornton, of Woodstock, on "How to Make Our Fruit Exhibits Educational." This paper would need to be given in full to give a correct idea of its force and value. Too many exhibitors at our fall fairs show their fruit purely for the prize it may win, instead of what they and their neighbors may learn from such exhibitions. He believed that one competent judge should be engaged to remain throughout the exhibition to explain to the public all about the fruit shown. The Agricultural Department, he thought, might send a judge to each county show. During the discussion on this paper Mr. McNeill, of Windsor, said he thought all fruit-tree agents should be licensed, on showing proper qualification, as they are in some of the United States.

Many good points were brought out on the unfruitfulness of orchards, by Prof. Craig, of Ottawa, in a paper on the blossoming period. As some varieties of apple trees are not sufficiently self-fertilizing, it is always better in planting to have alternate rows of varieties blossoming about the same time. The blossoming season of the same variety, the Professor showed, varied at least twelve days between Windsor and Ottawa. A local grower said he had an orchard of Kings planted alternately with Baldwins that bear heavily every year, and Mr. Boulter testified that he had 400 thrifty Golden Russet trees planted in a block that had never borne except on one side where Ben Davis were planted near, and another side near by a row of Maiden's Blush. Mr. Caston recommended the Baxter as a fertilizer for the Northern Spy. A local grower thought that no large orchardist should be without bees, no matter how well he had his varieties mixed.

Mr. C. E. Beman, of Newcastle, an extensive pear grower, said in a paper on pear culture, that growing and cutting close for mulch in the pear orchard had been with him a never-failing preventive from blight. He had tried continuous cultivation, and always had blight on the ground worked, while that seeded with clover and mulched was entirely free from blight. Prof. Craig, two years ago, sent out enquiries regarding this point, and learned that less blight affected pear orchards in sod than in those cultivated. There is less juice in the tissue of the trees growing in sod than in those standing in cultivated ground. Mr. Huggard, of Whitby, said he used plenty of ashes about the trees and never had blight.

At Wednesday evening's meeting, at which Hon. Mr. Dryden presided, President Mills, of Guelph, and Prof. Saunders, of Ottawa, both complimented the Association, and spoke of the important and excellent work they were doing in all the departments of fruit growing. In a lengthy paper Prof. Saunders described the work carried on at the several experimental stations under charge of the Federal Government. He admitted that every effort to grow apple trees at the experimental stations in Manitoba and Northwest Territories had failed, though they had met with encouraging success in B. C. Of all the experiments in Manitoba and the Northwest, the only living results are some trees obtained from crossing the Duchess with a variety of crab. In B. C., he said, they had their orchard trees planted from an elevation of 250 to 1,050 feet, and the higher-up fruit had always been larger, better, and finer than that produced lower down. The closing part of the Professor's address was an eloquent appeal for the development of the nobler instincts and finer sensibilities by the cultivation of all that is beautiful and ennobling in nature. The close student of the Bible will observe that the beautiful and ornamental is mentioned before the useful and practical. What God has seen well to create, man might well turn to his joy and comfort.

The first business of Thursday was opening the question drawer, and to the question, "What would you plant in an apple orchard of 200 trees?" Mr. Dempsey answered: 20 Duchess, 20 Wealthy, 20 Ontario, 20 Gravenstein, and the balance in Ben Davis and Stark. A very instructive paper was given by Mr. J. C. Harris, of Ingersoll, on spraying, in which he gave his experiments during the season past and the results. Mr. Harris gave six sprayings during the season, and the application just before the opening of the buds, and the June application, just after the blossom had dropped, he believed were the most important and effective. Mr. A. H. Pettit followed with an account of his spraying experiments during the season under the Department of Agriculture. He began on April 24 taking a circuit of the Province, and gave six applications. The results, Mr. Pettit claimed, were easily seen at all the points touched, in a healthy and vigorous foliage, clean and perfect fruit, increase in size, and larger quantity. He believed the early summer frosts had quite an effect in destroying fungi, and therefore the effect of the spraying was not so marked as it would otherwise have been. Mr. Pettit strongly recommended using Paris green with every application of Bordeaux mixture, as the lime will help to stick the poison to the foliage and hold it there for a greater length of time. Prof. Craig gave the correct mixture as 4 lbs. of cop. sulph. to 4 lbs. of lime and 4 ozs. of Paris green to a barrel of water.

Here Mr. Dryden congratulated the Association upon the energy it was displaying, reminding them that the Government aid received was conditional, not merely that the members might help each other, but that the masses might be educated. The fruit growers' business naturally divided itself into two parts: first, the knowledge necessary to the best production; and second, placing the results of their labors on the market in the best possible condition. It was necessary to grow varieties suited to different localities, and to this end the experimental fruit stations, the establishment of which he had recommended, should do good service, as should also the practical instructions upon the subject of spraying, for want of which he was satisfied thousands of dollars were being lost to the country. Eternal vigilance was the price of superior fruit. Packages suited to the market must be used, and the packing must be honest. Dr. Franklin's maxim would still be found true—"Honesty is the best policy." Dishonest fruit packing was suicidal, and those who undertake to deceive our best customers and spoil our best market should be punished as the

action deserves. With regard to transportation facilities, or the commercial aspect of the case, he believed that promises had been made, upon the fulfillment of which the Association should insist. What has been done for Australia should be done for Canada. If these things were attended to, as he believed they would be, there need be no fear but that Canada, as far as fruit was concerned, would hold a first place in the industrial race of the nations.

Secretary Woolverton gave a practical paper on packing and shipping fruit; and Prof. Craig, speaking of the trial shipments in cold storage, explained that the boxes of fruit were so hot when they reached Montreal that they melted the ice in the storage apartments before the fruit could be well cooled through. But other trials will be made next season, he said, and he feels quite confident that our fruit can be yet placed in the British market in good condition. Mr. Pettit thought we suffered greatly from having our fruit sold in the British market by auction. He believed every grower should have ample time to pack his own fruit, and suggested some aid by the Government in getting our apples, as well as our cheese, a sale in the foreign market as their merits deserve.

Mr. Shuttleworth, of Bow Park Farm, Brantford, a shipper of long experience to the British market, continued the subject of fruit shipping in an instructive address, on Friday morning. Mr. Shuttleworth said the first thing to know was what the market wanted, and then supply them with that thing. The Ben Davis apple, he said, was not good enough to rot, and that was why it kept so long. The apple with quality will, in the long run, beat the show apple. The Englishmen like the Greening, and are tired nibbling at the Ben Davis. The Denmark apple was a strong competitor, though not as good as the Canadian, but it was better done up and laid down in the market in better condition. He believed the barrel the most convenient package, but the fruit should be better packed and honestly rated No. 1 or 2, and a penalty imposed for every misrepresentation discovered. Handlers could be made to handle more carefully in transportation if watched and reported. His firm had secured a great improvement in that respect by vigilance and constant appealing to transportation companies. Mr. Shuttleworth thought that France, Spain, and Belgium would always beat us in the British market with pears; Jersey Island in tomatoes, and Lisbon and the Cape in grapes. California, in fact, will not be able long to compete with those countries and districts named, as they were nearer at hand and had special transportation facilities granted them. In reply to a question, Mr. Shuttleworth repeated his belief that the Greening apple would hold its place in the British market long after the show apple, including the Ben Davis, had fallen into disfavor.

The Thursday evening meeting was largely given up to papers on floriculture, including house plants, outdoor bulbs, etc. Mr. G. R. Pattullo gave a paper on public and private parks, in which he strongly advocated those resorts for every town and village, where the poor as well as the rich could go and enjoy the beauties of nature, and the pure air laden with the perfumes of flowers. The American visitors, Mr. L. B. Rice, of Port Huron, and Mr. J. D. Watkins, of Manchester, Michigan, both spoke in connection with this subject. The latter is the owner of a private park on his 800-acre farm, to which he brings, at his own expense, several times during the summer, all the poor children from the city, and treats them to peaches and other fruits. He considers that he gets full value for the cost in seeing the children eat and enjoy themselves.

The election of officers for 1896 resulted as follows:—President, M. Pettit (re-elected); Vice-President, W. E. Willington (re-elected); Directors: Division No. 1, W. S. Turner, Cornwall; No. 2, R. B. Whyte, Ottawa; No. 3, Geo. Nichols, Cataragui; No. 4, W. Boulter, Picton; No. 5, Thos. Beal, Lindsay; No. 6, R. A. Haggart, Whitby; No. 7, W. M. Orr, Stony Creek; No. 8, A. M. Smith, St. Catharines; No. 9, J. S. Scarff, Woodstock; No. 10, J. Stewart, Benmiller; No. 11, T. H. Race, Mitchell; No. 12, Alex. McNeill, Windsor; No. 13, C. G. Caston, Craighurst. Auditors: A. H. Pettit, Grimsby, and Geo. Fisher, Burlington.

QUESTIONS AND ANSWERS.

Veterinary.

ITCHY LEGS—SIDERONES.

DAVID HILL, Staffa, Ont.:—"I have several Clydesdale horses that have itchy legs. I cannot see anything to cause this condition. The legs from the knees down appear to be above natural heat. They are continually pounding the floor, and have been troubled for two years. What is the cause and what will cure it? 2. What are siderones on horses? Are they injurious to the animal for work? 3. What is the cause for cows chewing bones; seems to be worst in autumn?"

[It was caused in the first instance by washing the legs in water and not properly drying them. As this breed of horses is particularly prone to this complaint, leading on to chronic grease, it is then a very troublesome affection. The disease is often the result of indigestion. In this case give daily, in the animal's food, one ounce of sulphate of soda and twenty grains of powdered nux vomica, until the bowels are in good condition. As a wash for the legs, use one dram of bicarbonate of soda, two drams of carbolic acid, one ounce of glycerine, and

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one quart of water; apply every day for a month, or until the parts are relieved. 2. Sidebones are due to ossification of the lateral cartilages of the foot, are hereditary, and cause lameness in the heavy breeds, especially Clydesdales, and the only way to be rid of them is by breeding from perfectly sound animals. While some may be so slight as to cause no inconvenience, others may be so large as to cause acute lameness of a chronic character, and are often incurable.

3. The cause of bone sucking in cows is chronic indigestion, due to want of bone salts in the blood. Place before the animal a box containing ordinary salt and wood ashes mixed; give a dose of purgative medicine in the shape of one pound of Epsom salts and two drams of powdered gentian and ginger and half dram of powdered nuxvomica. This will no doubt remove the habit.

DR. WM MOLE, M. R. C. V. S., Toronto.

Miscellaneous.

CRANBERRY CULTURE.

R. E. KING, Haldimand Co.:—"I would be pleased to receive, through the columns of the ADVOCATE, any information you may be able to give on 'cranberry culture.' Could you refer me to any publication that would be helpful?"

[Wherever the cranberry grows naturally it indicates the conditions most favorable to its production. It chooses locations well supplied with moisture, and a peaty, or sometimes siliceous, soil, free from any mixture of clay. In preparing the land for cranberries the object should be to afford to the plant the elements needed for its successful growth, to give it entire possession of the ground, and to protect the young plants until they attain full vigor. In preparing swamp land, which is the best for cranberries, the ground must be cleared of bushes, stumps, etc., and given thorough drainage. Then the whole surface must be covered with a coating of four to eight inches of sand. There are various methods of planting. Perhaps as successful as any, on soils properly prepared by spreading sand over muck or peat, is to mark out the ground in rows 14 inches apart, with a small sled having three runners; the vines are then dropped in these marks, say two in a place, 14 inches apart in the rows, and pressed into the ground with a spade-like tool, placed on the vine about one-quarter distance from the root to the top. The roots of the vine should be pressed into close proximity to the muck below, that it may be stimulated to grow more rapidly. The vines should be flooded in the fall and winter season, therefore a flood gate is a very important item in cranberry culture. We replied to a similar question to the above in our issue of March 1st, 1895. We would refer Mr. King to Farmer's Bulletin No. 13, on Cranberry Culture, by Wm. Saunders, published by the Department of Agriculture, Washington, D. C., U. S. A., and also to a work entitled "Cranberry Culture," by White, published by Orange-Judd Co., 751 Broadway, N. Y.]

FEEDING BARLEY MEAL.

A. MCF., Dunmore:—"I am short of peas, but have a considerable quantity of barley and oats. Do you consider ground barley and oats good food for beefing cattle, and also for milking cows? Will barley do ground alone?"

[We consider ground barley and oats, about half of each, good for fattening cattle, but would rather feed peas instead of the barley. Oats and peas, mixed about two to one, make a specially good ration for fattening cattle. For milking cows, two parts oats, one part barley, and one of bran should answer well. Ground barley alone is not the best cattle food. It is too hot and constipating, except fed with a liberal quantity of roots.]

GRASSES AND CLOVERS.

R. W. RICHMOND, P. Q.:—"Kindly get some of your readers to relate their experience with the various clovers and grasses. I would like to learn which is the best to sow."

[This question is well answered in "Practical Points" from Farmers' Institutes elsewhere in this issue. We would be pleased, however, to receive correspondence upon this important subject.]

LIVE STOCK DISEASES.

SUBSCRIBER:—"Please inform me through your paper where I can get a good treatise on the horse, cow, and sheep, treating of all their diseases and cure."

[Law's Veterinary Adviser is probably the most suitable work of this kind. To be had through this office, price \$3.00.]

CAPACITY OF SILO.

C. G. HURDMAN, Nipissing District:—"Will you please say in the next issue of the ADVOCATE what quantity of ensilage a silo 16x16 feet square by 16 feet deep will hold, also what quantity, in pounds and decimals, one cubic foot of space will hold."

[Such a silo would hold about 70 tons of average corn ensilage. A deeper silo of same capacity will hold more. Forty pounds is the average weight of a cubic foot of corn silage. Prof. Wolf's new book on silage, which we offer as a subscription premium, is just the thing Mr. Hurdman and hundreds of others are needing.]

A letter from Secretary John Hall, Rochester, N. Y., advises us that the 41st anniversary of the Western New York Horticultural Society, which now has a membership of 450, will be held in the Music Hall, Rochester, on January 22nd and 23rd. Programmes may be had from Mr. Hall. Reduced rates are offered from Niagara Falls.

LIVE STOCK MARKETS.

Toronto Markets.

This being the market immediately after the Fat Stock Show, Guelph, a large number of butchers were in attendance. During the early morning buying was brisk, but towards noon slackened off again. We heard of some cattle being sold for 7c. per lb. at Guelph, to be sent forward to Ottawa for Christmas. Receipts were 2,118 cattle, 1,067 lambs and sheep, 3,580 hogs, for the week. There has been a marked increase in the receipts of stock at the cattle market during the past year. The following return shows the receipts of stock during 1894, and the receipts for the year ending Dec. 15, 1895:—

Table with columns: 1894, 1895, Cattle, Sheep, Hogs.

Export Cattle.—Two loads of good to fair cattle were picked up for the Old Country by the new route, viz., Halifax. They were bought at 4c. per lb. by a new buyer on this market, from Galt. Mr. Aikins bought three loads from 4c. to 4 1/2c. per lb. In one or two instances a slight increase up to 4 1/2c. per lb. was paid. He has shipped, this season, over 33,400 head of cattle to the Old Country, and is also associated with Mr. C. Flannagan in the horse business. The Beaver Line steamship, Lake Superior, carried on her first winter trip for Great Britain, 2,000 sheep and 75 horses.

Butchers' Cattle.—All the local butchers were out in force; buying was brisk for the Christmas trade. Prices were not high, many deals went in the region of 3c. per lb. Best quality fetched 3 1/2c. per lb. Good choice cattle sold up to 4 1/2c. per lb., and four extra choice reached 4 1/2c. One bunch of eleven, 1,650 lb. average, sold for 3 1/2c. per lb.

Bulls.—A few very nice bulls were bought by Mr. Crawford, M. P. P., for export, at about 3c. to 3 1/2c. per lb. Every bull on the market fit for export was soon picked out. On Tuesday the market was completely dead—only four loads of cattle present.

Stockers.—A very nice bunch was bought for a farmer near Ottawa, otherwise there was very little doing.

Sheep.—There was an active demand for good quality of shipping animals; and good sheep found a better sale than for the last few weeks. The supply was only just equal to the demand. Mr. Kinross bought about 200 sheep, for which he paid from 2 1/2c. to 3c. per lb. This was about the range in prices.

Lambs.—Good Christmas lambs sold a little better to-day. About 500 were on the market, and prices ruled about 3c. to 3 1/2c. per lb. In one instance 3 1/2c. was paid for very fine quality.

Calves and Cows.—Good to medium calves sold at from \$4 to \$6 each. Milk cow market poor.

Hogs.—Although offerings were light (1,350 on offer) only very poor prices were realized. Choice hogs, about 150 lbs., sold for \$3.50; over 150 lbs. and light hogs, \$3.60 per cwt. Sows at 3c.

Hay.—Quiet, steady; and prices show a slightly upward tendency. Ten loads on market; \$15 to \$18 per ton.

Baled Hay.—The feeling is for higher prices, on the prospect of lighter receipts from Quebec. Boston and New York buyers are operating freely in Quebec Province. Car lots No. 1 at \$14.50.

Straw.—Only a few loads of baled straw on offer; \$12 to \$12.50. A load of oat straw fetched \$9. Market firm; straw very scarce and wanted. Prospects are for higher prices.

Dressed Hogs.—The offerings of dressed hogs on the street market were very liberal and the stock was of prime quality—buying active at \$4.50 to \$4.60. One weighing 640 lbs. was on view.

Dressed Beef.—All good stock is in fair demand at firmer prices—\$7 to \$8 per cwt. by carcass.

Poultry.—The St. Lawrence market was glutted with poultry this morning, and there was a large crowd of buyers. A feature of the market was the large stock of heavy turkeys, weighing from 14 to 18 lbs. each, for which they were asking 7c. per lb. They were all cleared out by noon, and the farmers seemed well satisfied with the trade, notwithstanding the unfavorable weather.

Eggs.—Scarce and in good demand; 25c. to 27c. per doz.

Butter.—Pound rolls, choice, 21c. to 25c. per lb.

Cheese.—12c. to 14c. per lb. retail; enquiry for export.

Oats.—Steady. Six hundred bushels sold at 28c. Five hundred bushels changed hands at 26 1/2c. Four loads on offer.

Barley.—Sales at 4 1/2c. per bushel. Only two loads on offer.

Wheat.—Dull, with sales of 150 bushels at a visible increase in the stocks of wheat at Minneapolis of 900,000, and at Duluth, 1,350,000 this week—an addition of two and a half million bushels at any time this year. A report is on the market that one and a half million bushels have been chartered for Australia.

Potatoes.—The buying is very slow and stock not wanted, as there is more than enough to supply this market for a month. A carload was offered at 21c., but refused even at that figure, as farmers are dumping them at 18c. and 20c. per bushel, or 25c. per bag.

Hides and Skins.—The only feature of the market this week was an advance of 5c. on sheepskins, for which 80c. is now being paid. Market dull. Hides, green, 5c.; No. 1 cured, 6c. Deerskins, 8c. per lb.; dried, 20c. per lb.

Chatty Stock Letter from Chicago.

(BY OUR SPECIAL CORRESPONDENT.)

The cattle market has been very low lately. Fancy Christmas hogs sold at \$4.50 to \$5.00, with a very few up to \$5.25 and \$5.50. The highest prices of cattle averaged below 1,350 lbs. Good export cattle sold at \$3.85 to \$4.35.

The following shows the top price on Christmas cattle for several years past:—

Table with columns: Year, Price per cwt.

The top price, \$9.30, was paid in June, 1882. Cattle feeders and shippers are fast becoming educated to the comparatively low range of prices, and the bulk of the cattle started on higher priced corn has been marketed. We are now nearing a season when cattle will be fattened on corn at less than half the price current last year, and the results will not be so bad, especially where the first cost of the cattle was within reason.

Heavy cattle are fast becoming distasteful to the demand, as almost the entire consuming portion of the people want light or medium meats of all kinds.

An Illinois man sold some 1,885-lb. cattle at \$4.50, which he could have sold three months before along with some out of the same feed lot at \$5.70, when they averaged 1,492 lbs. Some 1,230-lb. steers sold at \$4.25, against \$4.20 for some 700-lb. yearlings.

The hog market is on the down grade, and the closing prices for the year are the lowest. Receipts lately have been improving somewhat in quality, but diminishing in numbers. A hog salesman says: "The quality, while still good, indicates a material let-up in old hogs and a good beginning on this year's crop. The average weight is lighter, but more uniform, the bulk of the offerings being 'medium weights.' Cheap corn will be fed more freely and hogs will be ready for market earlier and in better condition this season than usual, and, while we are not now prepared to write much about the future supply, we look for liberal receipts next month."

There is at present almost no speculation in hog products, and as the Eastern shipping demand is not strong, the packers are able to hold prices down even with light receipts.

Chicago receipts of live stock for the year, estimating last six days: 2,586,186 cattle, 160,949 calves, 7,483,228 hogs, 3,069,725 sheep, and 113,781 horses. These figures, compared with 1894, decreased: 388,177 cattle; gained: 7,633 calves, 456,089 hogs, 309,996 sheep, and 16,360 horses.

The largest day receipts of cattle, hogs, and sheep during the different months were:—

Table with columns: Month, Cattle, Hogs, Sheep.

The highest prices for cattle, hogs, and sheep during 1895 were:—

Table with columns: Month, Beef Cattle, Hogs, Sheep.

Average prices for different kinds of stock were as follows:—

Table with columns: Native Steers, Native Cows, Hogs, Sheep, Lambs.

Montreal Markets.

Cattle.—The markets have been overstocked of late with cattle, aided by sudden and continued break in the weather, the result being a decline to drovers. Last Monday (December 16) the offerings of all stocks, though heavy, met with a good brisk trade and active demand, choice cattle making as high as 4 1/2c. per pound, while quite a number changed hands at 4 1/2c. to 4 1/4c. per pound. A number of cars of the best were taken for Quebec.

The following market (Thursday) a slight break in prices took place, occasioned by the heavy receipts brought in by drovers, induced by the previous market's good prices and the sudden change in the weather. This break was followed by an utter collapse on the following market (Monday, 23), when it was estimated that no more than five head of cattle were sold out of each car on offer; that is speaking generally. The change in prices was not of such moment; it was simply that butchers would not touch at any price. The highest price paid on this market was 3 1/2c. per pound; one drover who had been offered 4 1/2c. for some choice cattle on the 16th and refused, carried them over the two following markets and was unable to realize even 3c. on the last market. Common to medium good stock ranged from 2c. to 2 1/2c. per pound; inferior and culls down to 1 1/2c. per pound.

Sheep.—Choice to heavy lambs met with a better demand for shipping account, and a number were picked up for this purpose at from 2 1/2c. to 3c. per pound. For local wants the last two markets have been dead.

Dressed Hogs.—In dressed meats, the spell of mild weather has had a very depressing effect all round, and the market is stagnant. This is the packers' holiday, extra hands being put on in the different establishments to tide over the rush. Any change, however, that has been made in prices comes from the West, we having heard of a few cars having been bought at \$4.20 per cwt. at Western points; that means \$4.55 unloaded here. This refers to choice bacon hogs. We also heard of another lot of hogs, a little coarse, selling at \$4.50 here. Single carcasses and small lots make the usual advance of 25c. to 35c., \$4.75 to \$5.

Poultry.—The receipts of turkeys for the Christmas trade has been extra heavy and prices somewhat low, but for choice birds a good active demand was experienced, the poorer lots being uncalled for. Turkeys made from 7c. to 8 1/2c. per pound, as to quality; geese, 5 1/2c. to 6c. per pound; poultry, 7c. to 8c. per pound.

Hides.—Since our last report, beef hides, light and heavy, have declined another half cent, to 5 1/2c. per pound for No. 1; 4 1/2c. for No. 2, and 3 1/2c. for No. 3. Calf skins steady at 6c. per pound, and sheep skins 65c. each.

Exports.—There are two steamers each from St. John, N. B., and Portland, Maine, sailing at the end of the week, loaded mostly with Canadian cattle and sheep.

Buffalo Markets.

Buffalo, Dec. 23rd, 1895.

Hogs in the country at \$3.25 per 100 pounds are too high, and should be bought at \$2.75 or \$3.00. Better prices are looked for early in January. Offerings to-day were about 100 cars, with prices as given below:—

Table with columns: Item, Price.



MISS LESTER'S COMPANION.

Miss Lester was an old lady of seventy-two and she had begun to think she must have a companion. It was just fifty-four years since she, then a pretty young girl, had left her home and gone to be governess to the baby Earl of Charlwood, a delicate, ailing orphan-child whose young mother had died at his birth.

His aunts were so grateful to Miss Lester and recommended her so strongly that from this time she went from one home to another, always making herself beloved and respected by those with whom she came into contact. All her pupils were boys, and she loved and was loved by them all; but her first pupil, the delicate little Earl now her gray-haired father of a grown-up family, occupied the tenderest spot in her heart, and yet it was years since she had seen him, since he had brought his first little daughter to see his old friend.

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When, after nearly forty years of teaching, the old governess had finally decided that she was past work, she made up her mind to settle somewhere near London, and selected Richmond as a place to which she would like to go, and where she could easily find her way. She had no relatives with whom she cared to live; being of an independent turn of mind, she preferred a home of her own. She was well off too, having, with what she had saved out of her handsome salaries and her share of the family property, a nice little income.

No sooner did she announce her intention of retiring and settling in a house of her own, than presents flowed in from all her friends and pupils; and one of her latest was a young baronet, a young baronet who had but lately succeeded his father, one of the richest men in the country in which Miss Lester had worked so long, bought and presented to her a long lease of the little Richmond cottage, thus enabling her to live rent free for the rest of her life.

So Miss Lester settled herself comfortably in her little home, and very soon made many friends amongst rich and poor, and declaring herself to them by her natural kindness and benevolence.

For five years she lived in great content; then one winter she had a long and bad illness, which left her weak and low all the summer. Friends and neighbors were very kind; but, as autumn and the long evenings came on, she began to dread the many solitary hours she must pass, and so the idea entered her head that she might possibly find some quiet and pleasant place to live, a comfortable home and a small salary, would like to live in a cheerful place like Richmond and help her in the works of charity to which she devoted most of her time.

So she put an advertisement in the Times, and, to her horror and amazement, not many hours after it appeared answer after answer poured in, until a heap of over fifty lay on the table before which she sat in hopeless embarrassment, not knowing which to open first.

She was sitting with one letter in her hand, dreading to open it, when a child at the gate of the little front garden roused her, and she looked up to see a girl come quickly up the path and ring the door-bell with a sharp pull. Two minutes afterwards Martha announced:

"A lady to see you, Miss!"

The visitor advanced quietly towards Miss Lester, holding out her hand and then suddenly withdrawing it and blushing crimson. She was rather tall and slim, with a round face, a slightly retroussé nose, a determined little knob of a chin, dark hair curling in thick rings on her forehead, and deep gray eyes—innocent-looking eyes, out of which she seemed to find it difficult to keep a certain twinkle of fun. Her dress was a rather odd mixture, but Miss Lester could not see quite so well as in her younger days, so she did not notice the incongruity of the black dress, which, though made plainly enough, was of the finest cashmere and evidently the work of a first-rate dressmaker, the very shabby and servant-like jacket and hat, and the long tan-colored Suede gloves of the very best make.

The old lady rose nervously, rather at a loss as to what to say, for she guessed that this must be a person applicant for the situation. The girl, however, took matters into her own hands at once, saying eagerly:

"You are Miss Lester, are you not? And you said you wanted a companion? Don't you think I should do?"

She put her hand upon Miss Lester's arm as she spoke and looked at her imploringly, yet with a suspicion of a smile about the corners of her pretty little mouth; and as she looked—What was it? Surely something in the face, in the clear gray eyes, touched some answering chord in the old lady's memory!

"What is your name, my dear?" "Mary Smith."

No, the name was not familiar. Miss Lester's pupils and their relatives had mostly possessed far more aristocratic surnames; nevertheless, it was not a bad name for a companion, and the fair face into which she was looking surely could not belong to an impostor; and yet—

"Have you been out before? I can't take you without references, you know."

The girl hung her head a little and her voice quavered, but she spoke up bravely:

"I have never been out before, but I do so want to go away from home for a time! I will vow, if you like, that it is nothing wrong!"

"I am so unhappy at home just now, and if you will only let me come for a little while I shall be so very grateful, and you needn't pay me any wages at all!"

Then the tears fell fast, and proved quite too much for Miss Lester's tender old heart. She took the girl's hand and patted it softly.

"Don't cry, my dear, and I will see what I can do." "Oh, thank you, thank you!" cried Mary Smith. "And I will do everything you want—work for you and read to you, and"—she glanced round the room and caught sight of the heap of letters lying on the desk—"answer all those letters for you!"

After that Miss Lester gave in. The mere idea of having those terrible letters opened, read, and answered for her was a great relief.

The next moment Mary Smith had tossed her hat and jacket upon a chair and drawn off her long gloves. Seating herself at the desk, after having established Miss Lester in her arm-chair, she took up the first letter.

"Are you? Why?" with a little cry of amazement—"you haven't opened one yet!"

Miss Lester shook her head.

"There were too many," she said, feebly.

"Mary Smith's eyes twinkled more than ever." "Shall I open them and read them to you?"

Miss Lester nodded.

"I am sure they are none of them half so nice as I shall be!" the girl murmured loud enough for the old lady to hear. Then she proceeded with the opening of the letters, commenting on each and finding some insuperable objection to the writer, while Miss Lester listened and laughed, fascinated by the girl's sweet young voice and pretty manner, and feeling every moment less and less inclination to insist on references. Finally, when she found that Mary Smith required only an hour or two to tell her friends and pack her box, the old lady gave in altogether, and agreed to grant the girl a month's trial, at any rate.

While she hesitated before actually saying "Yes," Mary Smith turned very pale for a moment, and then, when at last Miss Lester looked up and said, "Very well, my dear," the girl fell upon her knees by her side, and taking the old lady's hand in both hers kissed it passionately with trembling lips, saying earnestly:

"Thank you, dear Miss Lester; I promise you shall never be sorry for having trusted me."

Five minutes afterwards she went off, after having again donned the shabby hat and jacket and the long gloves. But no sooner was she out of sight of Laurel Cottage than she took off her hat and examined the inside carefully; then she ran her fingers through the soft curls on her forehead, after which she put on her hat again, pressing it rather low over her eyes and hiding all the little curls with it; next she took from her pocket and put on, first a pair of spectacles, then a rather thick gray gauze veil; and the disguise was so complete that her own mother might easily have passed without knowing her.

She walked on rapidly until she reached the well-known maid-of-honor's shop, there she regaled herself with sand-wiches and ginger beer, paying for them from a purse on which were two silver initials decidedly not "M. S.," and then, having bought some of the famous little "maids," she betook herself to the Terrace, where, seating herself comfortably, she produced a book from her pocket, and read, ate her cakes and sat musing for about two hours. Then she rose and wended her way slowly down to the railway station, where she went to the cloak-room, and producing a check, claimed a modest-looking black box, had it placed on a cab, and directed the man to drive to Laurel Cottage.

That was how Mary Smith went home and told her friends.

One morning, some ten days later, a gentleman knocked at Miss Lester's door—a gentleman of about twenty-eight, tall and manly-looking, though by no means handsome—who was received by Martha with an exclamation of pleasure, and ushered in the little sitting-room.

"Here is Sir Arthur, Miss!"

Miss Lester's "boys," many of whom rejoiced in a title of some kind, were a source of great delight to Martha, and this one happened to be a particular favorite.

To Sir Arthur's great astonishment, Miss Lester was not to be seen, but a very pretty girl who was sitting at a table arranging flowers rose, half flinging a little, and bowed. Then, seeing the amazement depicted on the young man's face, she gave a sweet little gurgling laugh and said, with an attempt at dignity:

"I am Miss Lester's companion. Miss Lester is not down yet; she was very tired last night, so I persuaded her to have her breakfast in bed."

"Where on earth had his old governess picked up this girl—a lady, evidently, and so charmingly pretty?"

"Won't you sit down?" continued Mary Smith. "She will be here soon."

her pretty bright ways, her evident pleasure, her charming face, and, above all, the gray eyes sparkling with mischief, and yet now and then darkening with a slight touch of wistfulness, had completely fascinated the young man and lulled to rest all suspicion.

After driving a good many miles, they stopped at a pretty little inn far from the river. Sir Arthur had the carriage put up, and ordered dinner. While it was being got ready, they strolled about the garden and stood watching the dear old river shining in the sunlight.

Sir Arthur made Miss Lester take his arm, and devoted himself to her, talking in the way he knew she loved about the old times when he was a small boy and used to tease her with his wild spirits. He, like her first pupil, the delicate little Earl, had been an only child and motherless.

Mary Smith meanwhile wandered off by herself, stationing herself by a low wall at the end of the garden, gazing at the river with its fringe of many-colored leaves and tall grass. Now and then a boat would come past, and she would draw back out of sight of any one, or turn round to look, with eyes that for the moment were misty with unshed tears, at the old woman and the young man talking so happily.

"I like him!" she thought. "I wonder if he is as good as he looks? His face is so honest and true; he surely could never try to make a girl marry him whether she liked him or not! And yet—"

Apparently Mary Smith's experience of lovers had not been a happy one.

"It seems as though he really cared for dear old Miss Lester. I wonder if he is engaged? Supposing he is not, he might take it into his head to fall in love with me, who am only Miss Lester's companion!"

At this idea she laughed; and then, as Sir Arthur, hearing the soft little sound, looked at her with a smile, she turned away blushing hotly.

After dinner, Miss Lester, who was not accustomed to such dissipation, grew very sleepy; so Sir Arthur suggested a little nap for her while he took Miss Smith for a walk; and, having settled the old lady comfortably on the sofa and left directions that tea was to be ready in an hour, the two young people started, instinctively they strolled toward the river.

"Shall we take a boat?" asked Sir Arthur.

Miss Smith hesitated for a moment, but finally said "Yes." While he was choosing a boat, the gauze veil was put on again; and this time it could not be as a protection from the sun, for the sky had clouded over while they were at dinner.

Sir Arthur once more began to feel a little uncomfortable. Why was she so anxious to hide her face? Perhaps something in his manner or the tone of his voice betrayed his suspicions, for all the sunny brightness of the morning seemed to leave the girl. She sat quite still, only answering when he asked if he might smoke or when he made remarks about the beauty of the scene. At last, after a long silence, during which Sir Arthur was slowly making up his mind, he suddenly pulled the boat under the overhanging branches of a large chestnut-tree, and said—

"I am sadly out of training, Miss Smith; besides, it is warm for the time of year, and I find pulling after dinner rather hard work. Do you mind if I rest for a bit?"

The girl nodded, and, as she did so, he caught the glitter of tears in her eyes. In a moment his mind was made up. He took the pipe from his mouth, laid it aside, and leaning towards his companion, said, in a tone that, though quiet enough, had yet a certain determination in it.

"Miss Smith, I want you to do me a kindness. Will you please take off that veil? I have something to say to you, something serious—to ask you to treat me as a friend—and I can't talk if I don't see your face."

There was a moment's pause; then the girl quietly took off the piece of gauze and met the young man's gaze frankly, though the color rose in her face and a tear still glistened in each eye. Then Sir Arthur spoke again, and she listened gravely, meeting his gaze boldly all the time.

"I think you must know, Miss Smith, that it is not usual for ladies to engage companions without references of some sort. Miss Lester tells me you could give her none. Of course she is free to do as she pleases in such a matter; but others—I, at any rate, Miss Smith"—he laid a little emphasis on the name—"am quite convinced that there is some mystery—that in some way or other you are taking her in. I am very fond of her—for years she was almost a mother to me—and I will not let her be made unhappy if I can help it. You are young and a lady, I can see. She has already learned to love you and trust you. I can see that you are good to her, that you make her happy. I do not want to hurt you in any way; but, Miss Smith, will you tell me—will you give me your word of honor that your secret, whatever it is, will do my dear old friend no harm? Will you put your hand in mine and tell me honestly that I may trust you? And I, on my part, will promise to take you at your word and believe you implicitly."

As the girl listened to the speech—the words of an honest, true-hearted English gentleman—her face flushed, and her eyes were fixed on his all the while. Now they were shining brightly as, without a second's hesitation, she put her hand into his, which he held out as he spoke, and with all her strength gave a responsive clasp.

"I will, I will indeed!" she cried. "I will swear to you, if you like! It is true, quite true! I have a secret, and my name is not 'Smith'; but it cannot possibly hurt Miss Lester in any way. I love her too—she is so kind—and I would not harm her for worlds!" There was a little quiver in her voice, and the tears rushed to her eyes once more.

"I will trust you then entirely, Miss Smith, and for the future we will be friends." As he spoke, Sir Arthur raised to his lips the hat he still held.

The row back was much more lively. All Mary Smith's gaiety had returned, and the two talked till they felt quite like old acquaintances.

They found Miss Lester just waking up, and after a cup of tea they started for home.

When they reached Laurel Cottage, Sir Arthur was easily persuaded to go in to supper, afterwards staying till Martha appeared with the bedroom candles, as a gentle hint that it was time for him to depart.

JANUA... stood M... the girl... the act o... held out... an unmi... finger... Miss... lightness... came to... "She... romantic... am sure... interfere... let matte... It wa... Charlw... list of th... the two... The l... to the n... Laurel... and pas... sight. F... his side... Lester, p... "Wh... as the st... it down... with a si... self. It... The s... went on... the Cha... they wer... and prett... left hom... was sav... wards to... During t... for her... and the g... particula... Yorkshir... family... the fami... On th... well for... Arthur... drawing-... was trim... Day. The... ing again... brown he... work; th... slightly i... You... I'm g... "Goi... "Wel... people w... My old... round to... ably thin... asyunt... The... Smith, sh... bending g... ting the... "Sever... rose abru... There she... tears. It... ment that... tears cam... hand, and... to her eye... ing with... one. "Moll... The g... little pal... coquetish... hands. "Moll... want me... "Wh... flushed co... tried to s... into his... "I did... net on Ch... From... will go."... The s... quivering... moment... and he w... An ho... ner, she f... usual. S... had been... the great... Mary in... commissio... so that he... Miss Les... when dinn... arm-c... pack to r... quickly u... man had... As the... Mary Smi... hear all h... dear!" "Wh... She sm... his arm as... "Yes, Arthur, y... who I am... have aske... would not... once—in s... "Moll... may be." "Than... the squ... Day I will... I want to... Christmas... loved her... always sin... I was o... much for... her, talked... heard from... she was g... when he d... favorite d... frightened... but I did... went to pa... said he w... had heard,

That was all they could get him to say then. Just a week later he walked into the nursery with a package in his hands. And from that package he took out some photographs and handed one to each of his nephews and nieces. And such photographs! In the foreground stood Ned and Carl, regarding each other threateningly and with fists tightly clenched. Near them was Connie, her pretty features so disfigured by frowns as to be hardly recognizable, while even Baby Bessie's plump face had as many puckers and wrinkles as an old dame of eighty.

For some time the children regarded their likenesses in silence. Then Bess spoke with a quavering voice:

"Uncle Jack, I don't like to look that way." "Bless your heart, I'm glad you don't!" said Uncle Jack, taking her up in his arms. "But you see you did look that way only last Saturday, little one. It's good for people to sometimes see themselves as others see them."

The four photographs were placed in a row upon the nursery shelf, and thereafter when any one of the four owners was tempted to indulge in pouts or frowns or unpleasant looks, a single glance in the direction of the mantel would prove an effective check. For the children decided that what seems so very bad in a picture cannot be very good at any time. And on the whole that seems a sensible conclusion.—Selected.

Bringing in the New Year.

"I had a dream which was not all a dream." Methought a herald, standing by my side, In fullest panoply accoutred, cried— When he three trumpet-blasts had rung out clear— "The Year is dying—hail the Coming Year!" With that I saw, receding fast away In the dim distance, phantom-like and grey, A figure which most strangely seemed to be, Diversely seen, each one's epitome; So that it bore the impress of the seal That each had set on it of woe or weal. Some sighed to lose it, others gaily trolled, As though from off their hearts a stone had rolled. And with the ever-growing, rosier light Burst on the scene a child exceeding bright, Led by two figures. I could plainly see, The herald being interpreter to me, That these were Peace and Plenty, bringing in The blithe New Year, with loud-acclaiming din. Full many a quaint device and emblem rare The kindly herald showed me outlined there; From which I learned at least one lesson clear— How each should strive to form the infant year; That *it*, through *him*, should be the creature moulded, By some among the germs of good unfolded— Some idol from his seat of glory hurled, Some sin upturn, amid the heartstring curled. To make a purer, so a happier, world. Thus we, in part, the Golden Age may see— Not past, but in the future that's to be; For he who works aright can never fail To catch some glimpses of the Holy Grail. Thus far my herald-guide—then, waking me With voice of thunder, cried—So mote it be! —J. L.

THE QUIET HOUR.

The Responsibilities of Life.

MARGARET I. STRODE.

What a vast amount of meaning is embodied in that one short word, Life. Its presence is everywhere apparent, from the giant oak that towers so majestically above us, to the smallest flower that lifts its head to receive the falling dew drop and be kissed by the morning sun. In the air we breathe and the water we drink are myriads of living, breathing creatures. "What is life?" Is it the only chief essential to our existence, the mere transit from the cradle to the grave? Ask the Sage, and he will answer, "Wisdom, knowledge, and power." Seek the busy workman at his toil, whose brow is deeply furrowed by care; and his reply will be, "Labor, never-ceasing labor." Go ask the gay votary of fashions and pleasures; and for answer receive, "Life is vain, its pleasures deceitful." Behold the merry, light-hearted schoolboy, with the fresh blood bounding through his veins, and he will tell you, "Life is hope, with promise of fruition." Question the patriarch, whose head is white with the snow of many winters, and quick will come the response, "Life is what we make it." And thus we find that as a feeble infant, pure and sinless, we first inhale the breath of life, and for a short time are dependent upon the love and care of those who nurtured us, but in the years that follow it is ours to make or mar.

There are those who have reached the years of discretion, strong in their manhood's prime, shunning alike the pleasures of sin, and the "ways of the righteous," but selling their lives for what? Gold! Is all that is good and noble in their characters to be sacrificed upon such a base altar? As the years roll on their minds become calloused, having no time or thought for anything else save

to worship at the shrine of mammon, but "what shall it profit a man, if he gains the whole world and lose his own soul?" Christ tells us that "Life is more than meat," and was He not in "all points tempted like as we are, yet without sin?" It is a sad sight to witness the evening tide of one grown old in sin; the shadows of night are deepening with-out one ray of light to brighten the gloom, friendless and forsaken, a whole life wasted for time and eternity.

"Forenoon, and afternoon, and night— Yes, that is life; make this forenoon sublime, This afternoon a psalm, this night a prayer, And time is conquered, and thy crown is won."

How peaceful and serene the life of a true Christian? With what strength and courage he meets and bears the many trials and crosses! Firm and steadfast is the step that follows the "Master." There will be no terror depicted on that face as the last enemy, "Death," approaches; instead, the countenance beams with a sweet and holy joy, in the full assurance of a glorious resurrection, and the "crown of life eternal."

Where I brought you Sorrow, Through his care, at length, It may rise triumphant Into future Strength.

If I brought you plenty, All wealth's bounteous charms, Shall not the New Angel Turn them into Alms?

I gave Health and Leisure, Skill to dream and plan; Let him make them nobler;— Work for God and Man.

If I broke your Idols, Showed you they were dust, Let him turn the Knowledge Into heavenly Trust.

If I brought Temptation, Let sin die away Into boundless Pity For all hearts that stray.

If your list of Errors Dark and long appears, Let this new-born Monarch Melt them into tears.

May you hold this Angel Dearer than the last— So I bless his Future, While he crowns my Past.

No Night There.

LIFE, we've been long together, Thro' pleasant and thro' stormy weather; 'Tis hard to part when friends are dear, Perhaps 'twill cost a sigh, a tear; Then steal away, give little warning, Choose thine own time!

Say not, "Good Night," but in some brighter clime Bid me "Good Morning." —Mrs. Barbauld.

UNCLE TOM'S DEPT.

MY DEAR NEPHEWS AND NIECES,

At the birth of the dear Christ-child, in the lowly manger at Bethlehem, God gave to his people a new and beautiful golden cord upon which to string the gems he wished them to gather during their lives. Our ancestors, hundreds of times removed from us, began this glorious task; their children and children's children down to the present have continued it, and yet it is not completed. We, too, have done a share, but our task is not over—it will only end with our lives.

Let us glance at this wonderful chain of jewels. Jewels? Yes, jewels they should all be, and dazzlingly beautiful are many of them; but alas! some are dark and gloomy, resembling more a common clod of clay than a gem fitted to be offered to the Master's hand when the chain shall be completed. And some of the diamonds have flaws in them, and some of the pearls are blemished, but never now can these defects be remedied; once upon this golden cord these gems can never be changed. How careful, then, should the collectors be, that none but worthy ones be placed upon it.

You wonder, perhaps, some of you little ones, what this golden chain and those jewels mean, and what they have to do with you and me? The golden cord is the thread of Time, and counting the gems already strung on it, we find they number eighteen hundred and ninety-five, so we may understand that each one represents a year, and the top-most jewel is the year just past. Is it a beautiful one? Is it fair and unblemished as it should be? If so, the retrospect should make us very happy, for each of us has had a share in making it what it is; but if that gem is not as pure as we would choose to offer, may we not learn by its flaws how to make the next more perfect? The flaws and blemishes may be the result of our failing to do our parts as we should, for all must work together in order to make a beautiful, harmonious whole.

This is only an allegory, my dears,—one of the curious fancies that throng through your old uncle's mind, and never more often than when his thoughts are with his dear boys and girls; yet, often from fables we may draw salutary lessons. I often wish I could know you all personally, and then I fall to musing as to what your lives are, whether congenial or otherwise, etc. I have but poorly illustrated my ideas of what our lives should be, and so will give you a sweet little poem that expresses my thoughts for me.

The writer of these beautiful lines is, or was, a worker in a knitting mill, thus proving that lowly occupations have no power over truly noble minds and hearts, and that the lowliest in life may be the richest in spirit;

The Old Year's Blessing.

ADELAIDE PROCTOR.

I am fading from you, But one draweth near Called the Angel-guardian Of the coming year.

If my gifts and graces Coldly you forget, Let the New-Year's Angel Bless and crown them yet.

For we work together; He and I are one; Let him end and perfect All I leave undone.

I brought Good Desires, Though as yet but seeds; Let the New-Year make them Blossom into Deeds.

I brought Joy to brighten Many happy days; Let the New-Year's Angel Turn it into Fraise.

If I gave you Sickness, If I brought you Care, Let him make one Patience, And the other Prayer.



BRINGING IN THE NEW YEAR.

JANUARY
That may be ing of yo
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HERRI INCORPORATED PURITY AND Q GUARANTEE
We were National Li precedent previous ye exported la land, where foreign ship sles having tion of the company to a half in o they were, sds about R

Weaving them into a work-a-day life,
Beautiful threads of gold!
A thread of joy and a strand of strife,
And yet the hands that hold
May fashion them out into patterns rare,
Designs of beauty new and fair,
Till the Master weaver finds them there
In beautiful threads of gold.

Weaving them in with a patient hand,
Beautiful threads of gold!
Designs of beauty new and fair,
Till the Master weaver finds them there
In beautiful threads of gold.

Weaving them in with the homeliest cares
Over some burden another bears,
Glad that the Master weaver spares
Some beautiful threads of gold.

Weaving them in with hopes and fears,
Beautiful threads of gold!
Brighter the gold of the thread appears
As the web of life grows old.

Weaving them in with a smile and song,
Wonderful threads so fine and strong,
Under the good and over the wrong
Weave beautiful threads of gold.

Weaving them in with a watchful eye,
Beautiful threads of gold!
To shine across where the shadows lie
When the web is all unrolled.

Weaving them in when the Master's call
Lets the bright thread break and the shuttle fall,
And angels come down and gather them all,
Life's broken threads of gold.

That the life-web of each dear nephew and niece
may be one golden fabric, is the New Year's greet-
ing of your fond old—
UNCLE TOM.

Puzzles.
All puzzles should be sent direct to ADA ARMAND, Pakon-
ham, Ont., who has charge of this department.

1—TRANSPOSITION.
Het admisrpy sirt, chiwh ni Etpgy ewre dali ;
Tno Enoesaly daerng, rto Asilmy mead ;
Tonh Malosoun botm fo aoleseuf dan Inigl ;
Frtohu, eht epmeit fo Dain ni cesuhp thuli ;
Teh sussloco fo Rodhse taos ni ashrs ot eht nsu ;
Thixs, Jrupiste tanest yb Psahlid nedo ;
Teh Psahra fo Epytg salt dioncor fo lod,
Ro het Picaea fo Csupyr codtemne hitw logd,

SADIE MCRAR.

2—SQUARE WORD.
1. The head ;
2. Advanced in age ;
3. To wait upon ;
4. Whirling.

IRENE M. CRAIG.

3—RIDDLE.
Of letters six I am a word
Forever fraught with pain ;
Behold, curtail and then transpose,
My meaning's still the same.
And now I have but letters four,
And yet I say again,
Take away forty and ten more
And one will still remain.

4—RIDDLE.
He who made me would not use me ;
He who bought me did refuse me ;
He who used me could not tell
Whether I suited ill or well.
What am I ?

5—TRANSPOSITION.
Leaving the river behind us,
We climbed up the mountain side
By a winding and narrow footpath,
Threading by chasms wide.
But fully repaid were our efforts,
When we stood on the mountain crest,
By the sumptuous feast of vision
Of Nature in glory drest.

As with swelling hearts we tarried,
And gazed with dilated eyes
At the perfect picture before us
Designed in Paradise,
There appeared from a cluster of cedars,
The front of a cavern drest,
A man with a snow-white PRIMAL,
Descending upon his breast.
Said he, as his two and hoary head
He shook with a sorrowful nod :
" My Children, behold the works of art
Painted for me by God,
" Fair seem the works that man hath raised
From this lofty central height,
But Nature supplies what charms the eye,
And makes Man's efforts bright.
" 'Twas Love that designed this wondrous work,
And caused the sun to shine ;
But the World hath taken the Children's THREE
From their fainting lips and mine.
" And the bursting heart in its craving FOUR-ed,
Grows callous, stern and cold,
Like the ice-bound rocks in the frozen north,
That once was a summer wold."

CHARLIE S. EDWARDS.

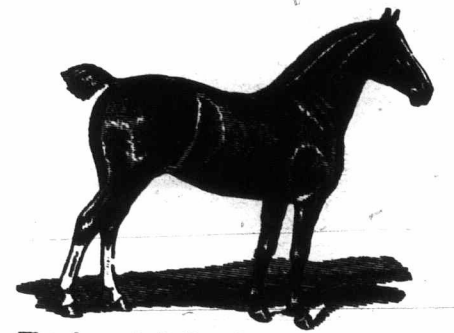
19th Annual Convention
OF THE
Dairymen's Association
of Western Ontario
AT
WOODSTOCK, ONT.,
ON
January 7, 8 and 9, '96.
Special railway rates of one and one-third
fare for round trip.
J. W. WHEATON, Secretary,
LONDON, ONT.

Farm For Sale!
ONE of the best equipped farms in Ontario
for sale, now occupied by Mr. John I. Hob-
son. This farm comprises 315 acres, more
or less. Splendid buildings, finely fenced, and
in a high state of cultivation. Close to Mos-
borough Station, Post Office, and Church. If
desired, a large part of the purchase money
may remain on mortgage at 5 per cent. For
further particulars apply to
John I. Hobson, MOSBORO,
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SPRAMOTOR CO.
LONDON, ONT.
Patented in Canada and U. S., Sept. 21, 1893;
July 17, 1894, and Dec. 3, 1895.
— MANUFACTURERS OF —
PATENT SPRAYING APPARATUS
AND ALL-BRASS SAND
PUMPING CYLINDERS.
AWARDS IN 1895:
Diploma at Industrial Exhibition, Toronto.
Medal at Western Fair, London.
Diploma at Great Southwestern Fair, Essex.
Diploma at Howard Fair, Ridgeway.
Diploma at Norfolk Fair, Simcoe.
Diploma at East Lambton Fair, Watford.
Diploma at Malahide Fair, Aylmer.
Diploma at Great North western Fair, Goderich.
Diploma at Huron County Fair, Seaford.
Diploma at Huron Centre Fair, Blyth.
Agents wanted.
357 Richmond St.

HERRICK SEED CO.,
INCORPORATED,
ROCHESTER, N. Y.
PURITY AND QUALITY GUARANTEED. AGENTS WANTED.
NOTICE.
We were advised by a representative of the
National Linseed Oil Co. that they have had
unprecedented sales during this season. In
previous years their mill, like many others,
exported large quantities of oil cake to Eng-
land, whereas this year only one very small
foreign shipment has been made, the domestic
sales having absorbed the whole of the produc-
tion of the mill. It is the intention of the
company to increase their capacity by almost
a half in order to keep up with the trade.
They were, at the beginning of December,
about five weeks ahead of production.

HORACE N. CROSSLEY,
PROPRIETOR OF THE
SANDY BAY STOCK FARM,
Importer and breeder of
SHIRES, HACKNEYS, AND COLLIE DOGS.



The above stud, though only commenced in
1890, has achieved unparalleled success at all
the leading Canadian shows, such as Montreal,
Toronto and London, also at the **WORLD'S FAIR**
The most notable in this stud are, the Shire
horse Bravo II, 1895, winner of first at Toronto,
Montreal and London, and also beating all
Clydes at the latter show in the sweepstakes.
Hackney, Fireworks No. 3602, winner at Chicago,
Toronto and London. Shires and Hackneys
always on hand for sale. For further par-
ticulars apply to the Proprietor, ROSSEAU,
Muskoka. 10-y-om

WILLOW BANK STOCK FARM,
Founded in 1855
by the late Wm. Douglas, has for sale a num-
ber of grand young Shorthorns, of both sexes ;
also the old stock bull, Baron Evernote
=16705=. Prices to suit the times. Write for
particulars. Address—JAMES DOUGLAS,
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SHORTHORN BULLS FOR SALE.
Two young Short-
horn registered Bulls
for sale; color, red;
one 21 months old and
one eight months old.
First-class animals;
principally Booth
blood. Prices reason-
able. Reg. Oxford
Down Sheep of both
sexes always for sale.
The oldest established
flock in Canada!
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ARKELL P. O., ONT. Telephone and Railway,
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AMPLE SHADE STOCK FARM
— BREEDS AND HAS FOR SALE —
**Shorthorn Cattle, Leicester Sheep,
Mammoth Bronze Turkeys.**
All of the best quality, at reasonable prices.
Inspection solicited. Stock shipped to order
and satisfaction guaranteed. Address—
E. GAUNT & SONS, St. Helens, Ont.
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CARGILL HERD OF SHORTHORNS.
Have some good
show material in
Heifer Calves,
also some grand
Canadian-bred
Cows and Heifers
for sale. Write
for catalogue.
**H. CARGILL & SON,
CARGILL, ONT.**
11-y-om

**THE KEYSTONE
DEHORNER**
Cuts clean on all sides—does not crush. The
most humane, rapid and durable knife
made, fully warranted. Highest World's
Fair Award. Descriptive Circulars Free.
A. C. BROSIUS, Cochransville, Pa.
Can ship from Picton and Hamilton, Ont.

SHORTHORN BULLS
AND A
FEW CHOICE **Heifers**
(got by the grand young sire Abbotsford
=1946=) for sale at hard times prices. Drop a
card for particulars to
H. & W. SMITH, Hay, Ont.
Exeter Stn., G. T. R., 1 mile. 23-1-f-om

MAPLETON STOCK FARM
Parties wishing to purchase a
fine young Shorthorn Bull, 11
months old, should call on me at
the Fair Stock Show, Guelph. He
is from the World's Fair milking
strain, and a fine calf; will make
a very large bull, and a neat one.
HERBERT WRIGHT, Box 47, Guelph, Ontario.
5-1-y-om

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

**CRAIGIEBURN
Stock Farm.**
BETHESDA P. O.
G. A. BRODIE, breeder of
Scotch Shorthorns.
A few good young bulls
for sale. Write me for
prices and particulars.
All orders and corre-
spondence promptly
attended to. Mention
ADVOCATE. 21-1-y-om

Shorthorns, Shropshires, and Berkshires.
Having rented one of my farms, I will sell at
very much reduced prices five young cows due
to calve Sept. to Dec.; 40 ewes, one to four years
old; my (imp.) Bradburn stock ram (first prize
winner in England); 16 yearling rams and a
choice lot of lambs; four sows, due to farrow
in Sept. and Oct.; one boar, 12 months old; and
six litters of spring pigs. All registered. 15-y-om
W. G. Pettit, Freeman P. O., Burlington Stn., C. T. R.

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

2 THOROUGHBRED COWS FOR SALE.
CHEAP.
Forward in calf to 1st prize bull Commander
=18828=, and three young bulls at bargain.
12-y-om **A. J. C. SHAW & SONS, Thamesville.**

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MARKHAM, ONT.,
Breeder of Shorthorn
Cattle. Five choice
young bulls also heifers
by prize bull Aberdeen
for sale, winners at the
Industrial for best
young herd of four; two
of the bulls won second
and third in their class.
My stock are choice.
Write for prices. 19-L-om

HAWTHORN HERD
OF DEEP MILKING SHORTHORNS.
FOR SALE—Four young Bulls, all reds, de-
scendants of 2nd Fair Maid of Hullett
=9047=, with a record of 52 lbs. of milk and
2.54 lbs. butter in one day. **WM. GRAINGER
& SON, Londonboro, Ont.** 13-y-om

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MAPLE LEAF FARM,
ORIEL, ONT.,
Breeder of Scotch Shorthorns, Clydesdale, and
Shire Horses; Cotswold and Shropshire Sheep;
Yorkshire Hogs. Young stock for sale at hard
times prices.
Young bulls supplied in carload lots.
7-1-y-om Write for particulars.

THOS. PUGH & SONS,
Breeder of Shorthorn Cattle and Shropshire
Sheep of No. 1 quality. Young stock for sale
at moderate prices. Write us or come and
see our stock. **WHITEVALE P. O. Locust Hill
Station, C. P. R. Pickering, G. T. R.** 15-1-L-0

A. & D. BROWN, BREEDERS OF
IONA, ONTARIO, **Scotch Shorthorns**
Three very
choice young roan
bulls, and also a
number of good
heifers for sale at
very reasonable
prices; bred from
the noted stock
bull Warfare
(imp.). 21-1-y-o

SIMMONS & QUIRIE.
Shorthorn Cattle, Berkshire Swine—Money-
making Sorts.
The matchless bull, ROYAL SAXON =10537=
(by Imp. Excelior), 1st at Toronto, 1894, heads
the herd, with BARMPTON M. =18240=, 1st,
Toronto, 1895, by Barmpton Hero =324=, in
reserve. Female representatives of the cele-
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Mysie families.
The Berkshires are choice prize-winning
stock. Easy to feed, quick to sell.
Stock for Sale. **C. M. SIMMONS, Ivan P. O., Ont.**
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SHORTHORN BULL CALVES FOR SALE.
Four Reds and a
rich Roan, includ-
ing 1st and 2nd
prize winners at
different fairs. All
good ones. Prices
and terms easy.
Come & see them,
or write me.
WM. RIVERS, Springhill Farm, WALKERTON.
13-1-y-om

FOR SALE.
Seven Shorthorn Bulls
fit for service, including a large Red Bull,
about 24 months, from Imp. Roan Princess,
and sired by the same bull as the 1st prize
yearling which was awarded the sweepstakes
of all ages at Toronto in 1895.
1-om **J. & W. RUSSELL,
Richmond Hill, Ont.**

PRIZE WINNER FOR SALE AT A BARGAIN
A beautiful Shorthorn Bull, 13 months old;
sired by Wimple's Warfare =15392=, who was
bred by Arthur Johnston, Greenwood.
F. BIRDSALL & SON, Birdsall, Ont.
11-1-y-o

FOR SALE—Shorthorns: A fine 18-months
old Bull; Heifers giving milk and younger
ones. Also Fruit Farm, at Clarkson, 16 miles
west of Toronto. Fifty acres of land, good
house and outbuildings, 425 apple trees, 500
pear trees and other fruit. Possession immedi-
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Ontario.** 17-1-y-om

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TABLE OF CONTENTS:

<p>INTRODUCTION. CHAPTER I.—SILAGE CROPS. A. Indian Corn. Development of the Corn Plant. Varieties to be Planted for the Silo. Methods of Planting Corn. Thickness of Planting. Planting in Hills or in Drills. Sowing Corn Broadcast. Preparation of Corn Land. B. Clover. Time to cut Clover for the Silo. C. Other Silage Crops. CHAPTER II.—SILOS. General Considerations. Descriptions of Different Kinds of Silos. 1. Pits in the Ground. 2. Silos in Barns. 3. Separate Silo Structures. A. Wooden Silos. Circular Wooden Silos. B. Stone or Brick Silos.</p>	<p>C. Grout (Cement Concrete) Silos. D. Stave Silos. E. Metal Silos. F. Silo Stacks. Preservation of Silos. Cost of Silos. CHAPTER III.—SILAGE. Filling the Silo. Cutting the Corn in the Field. Whole vs. Cut Silage. Siloing Corn "Ears and All." The Filling Process. Fast or Slow Filling. Covering the Siloed Fodder. Dry Silage. Freezing of Silage. Clover Silage. CHAPTER IV.—SILAGE. Freezing of Silage. Chemical Composition of Silage. The Relation of Moisture and Acidity in Silage. Sweet vs. Sour Silage. Digestibility of Silage. Losses of Food Materials in the Silo.</p>	<p>Losses in Field-Curing Fodder Corn. Necessary Losses in the Silo. Necessary Losses in Siloing Clover. CHAPTER IV.—FEEDING OF SILAGE. Silage for Milch Cows. Silage for Steers. Silage for Horses. Silage for Sheep. Silage for Swine. Silage for Poultry. CHAPTER V.—COMPARISON OF SILAGE AND OTHER FEEDS. 1. Economy of Production. Corn Silage vs. Roots. Corn Silage vs. Hay. Corn Silage vs. Fodder Corn. 2. Comparative Feeding Experiments. Corn Silage vs. Roots. Corn Silage vs. Dry Roughage. CHAPTER VI.—THE SILO IN MODERN AGRICULTURE.</p>
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How to get a first-class Collie:



To any subscriber sending us the names of 10 new yearly paid-up subscribers we offer a young Collie, six weeks old or over, eligible to registration, and bred by Mr. R. McEwen, Byron, Ont. (See page 453, Nov. 15th '95 issue, for fuller description.)

LIVE STOCK

To those desiring pure-bred stock of any breed as a subscription prize, we are prepared to supply same on most favorable terms.

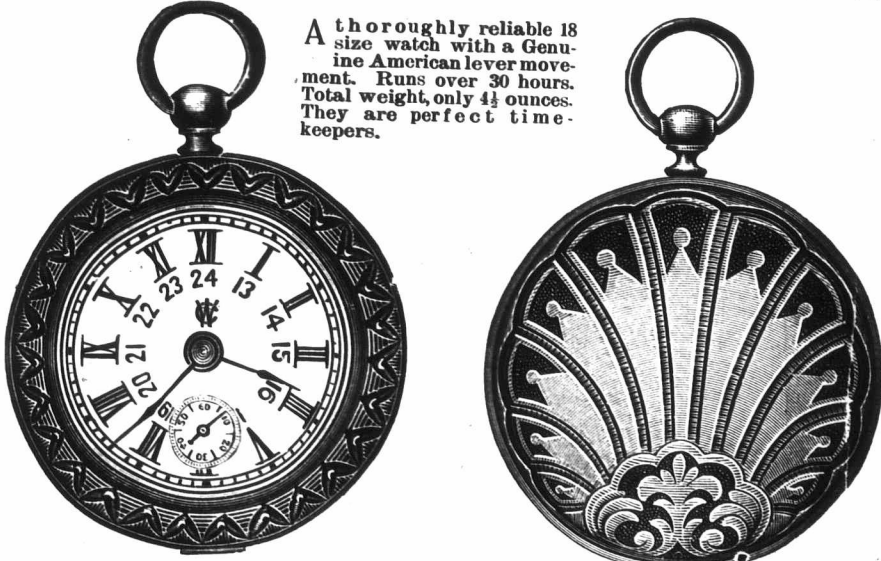
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WE ARE HAVING A WONDERFUL RUN ON OUR WATCH AND RING PREMIUMS, EVERY ONE RECEIVING THEM IS PLEASED.



DUKE (PLAIN).

DUCHESS (ENGRAVED).

Read What These Say Who Have Earned It.

To the Farmer's Advocate:—NEW DUNDEE, October 23rd, 1894.
DEAR SIRS,—I received your watch as a premium, and it has given entire satisfaction in every way. I will always endeavor to further the interests of your paper by sending a few names now and again. Yours truly, JACOB STOLTZ.

Editor of the Farmer's Advocate, London:—EAST ORO, ONT., October 23rd, 1894.
DEAR SIR,—The watch which you sent me for getting subscribers for your paper has given entire satisfaction, being an excellent time-keeper. I will try to get you some more subscribers. Yours truly, W. M. C. WILSON.

To the William Weld Co.:—CHATHAM, November 26th, 1894.
DEAR SIR,—I received your letter the 23rd inst.; also, the watch came to me in good order, and I am very much pleased with it. I am endeavoring to get more subscribers for the ADVOCATE, but almost every farmer takes it around here. Yours truly, JOHN LONGMORE.

Either watch, with chain and charm, will be given to any subscriber sending us the names of three new yearly paid-up subscribers.

IF PREFERRED, WE GIVE LIBERAL CASH COMMISSION.

To find the size of ring required, take a narrow strip of paper that will draw tightly around the finger, forward same to us, and we will assure you a perfect fit.

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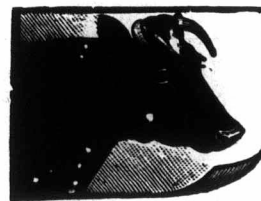
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Beautifully Chased.
10 New Subscribers. |
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Write or
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shire herd
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Hotel, Carl
WM. S
Borders of
young stock
on hand. C
Columbian



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IMPORTERS AND BREEDERS.



Pine Grove Stock Farm,
ROCKLAND, ONT.

Laurentian Stock and Dairy Farm,
NORTH NATION MILLS,
P. Q.

Shropshires and Scotch Shorthorns

The imported Cruickshank bulls Knight of St. John and Scottish Sportsman are at the head of this herd of Imported and Home-bred Cows and Heifers of the most approved Scotch families.

JOS. W. BARNETT,

7-17 **Manager.**

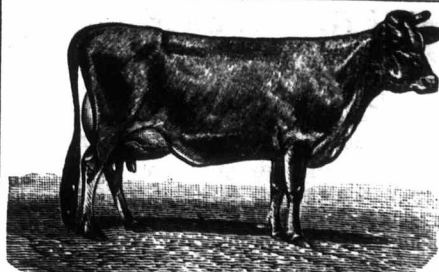
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Our excellent aged herd of Ayrshires is headed by our noted imported bull Cyclone. Tam Glen heads the young herd, and Lisgar Pogis of St. Anne's heads the Jerseys. The young stock are all from time tried dams. Write for full particulars.

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3 Yearlings and 1 Three-year-old.
Extra good animals and of unsurpassed breeding, at reasonable prices.
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JERSEYS FOR SALE.—Young Cows and Heifers in calf, Heifer Calves and Bull Calves, richly bred, best testing strains, and good color. Also first-class Berkshire Boars and Sows, bred straight from imported stock. Come and see or write for prices.
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8-y-om

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JERSEY BULL, "RIOTER'S JUPITER"

Two yrs. old; Solid Dark Fawn, Blk. Points.

Sire, Liliun's Rioter, 1st prize Toronto, Montreal, Ottawa and Gananoque, 1895.
Headed 1st prize Herd, Toronto, Montreal and Ottawa, 1895.

Took Silver Medal, Toronto, Montreal and Ottawa, 1895.
His dam makes 17 1/2 lbs. butter a week, milks 20 quarts a day, and never goes dry.

Dam of Rioter's Jupiter is a daughter of Lulu Delle, 1st prize and Silver Medal overall Canada. In my 1st prize Herd at Toronto and London. Was one of my three at London, winning Silver Tea Set, for three Best Dairy Cows.
Price of Rioter's Jupiter, \$125.00.
Also, two bull calves, 5 and 6 months, grandsons of my famous prize bull, Canada's Sir George, whose dam made 26 1/2 lbs. butter a week.
Two bull calves, 3 and 4 months, g. g. sons of Massena, 654 lbs. butter in her 16th year.

MRS. E. M. JONES,
8-y-om Box 324, BROCKVILLE, Ont., CAN.

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

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23-c-om

GLEN ROUGE JERSEYS

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

ATTENTION!

SPECIAL SALE OF—
REGISTERED JERSEYS
Month December. Carload of young cows in calf, and heifers; good colors; well bred. Carload of choice Jersey grades. No room, and will sell cheap. Come and see or write.
Address, **E. PHELPS BALL,**
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17-y-0

A. M. McINTYRE,

CORONMORE FARM, Lawrence, Ont.,
Breeder of choice Jersey Cattle of the St. Lambert strain, and Welsh ponies. A couple of choice Bull Calves now for sale, by Ruster of St. Lambert and Ida's Romeo, and from cows of choice breeding.
21-1-y-0

JERSEYS FOR SALE

At the head of the herd is the grand young St. Lambert bull, Nabob, son of Nell's John Bull. Stock of both sexes and different ages, and of choice breeding, now on hand.
JONATHAN CARPENTER,
13-1-y-om **WINONA, ONT.**

W. F. BACON,

Orillia, - Ontario,
—BREEDER OF—
CHOICE REGISTERED JERSEYS

Young bulls and heifers of the best blood for sale. Write me for prices and particulars. 19-1-y-om
A. J. C. C. FOR SALE.—Two heifer calves 3 and 9 months old; sire Baron Hugo of St. Anne's; sire of dams Sunny Brae, by Canada John Bull 3rd. Are simply perfect. Price, \$60 and \$75, express prepaid.—**H. E. WILLIAMS,** Sunny Lea Farm, Knowlton, P. Q. 17-1-y-0

For Sale Cheap, That grand Ayrshire "HEATHER JOCK" — 1212 —



Bred by D. Morton & Son, Hamilton; Sire Royal Chief (Imp.) — 75 — (1647); dam Primrose (Imp) — 1205 — (5507). This bull has proven a sure stock getter and can be purchased at a bargain if taken at once. Having a number of his progeny at breeding age, we cannot use him. Speak quick if you want a bargain. We have also some choice young Yorkshire Sows of breeding age from the stock of J. E. Brethour. Correspondence a pleasure.
1-1-y-0 **A. & H. FOREMAN,** Collingwood, Ont.

CLYDESDALES AND HACKNEYS



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

GRAHAM BROS.,

Claremont, Ontario.
25 miles east of Toronto, on C. P. R. 4-1f-om

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WE have now on hand for private sale, choice stock of pure-bred AYRSHIRE and GUERNSEY CATTLE, SHROPSHIRE SHEEP, and IMPROVED YORKSHIRE SWINE. At our recent annual auction sale we disposed of a lot of our surplus stock, consequently we are in better shape to attend to the requirements of our correspondents.
We are preparing for publication a permanent stock catalogue, when ready, we shall be pleased to mail to all applicants.
CORRESPONDENCE INVITED.
9-y-om

J. N. GREENSHIELDS, Proprietor.
T. D. McCALLUM, Manager, Danville, Que.

Bargains for next 30 days



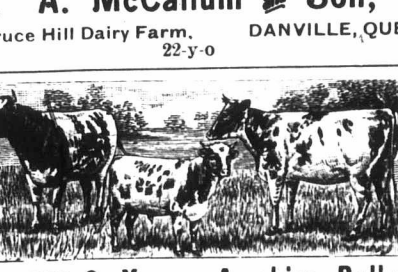
in Holsteins, Jerseys, and Ayrshires. As I am overstocked and short of feed, I will sell the following choicely-bred stock at a great sacrifice: Four Holsteins, two bulls and two heifers, seven to ten months old, by Postmaster-General 474, and from choicely-bred (imp) cows, \$25.00 each. Two choice Jersey heifers, coming two years old, in calf to an imp. bull (if taken before January 1st) \$35.00 each. Three Ayrshire bulls, from seven to nine months old, \$20.00 to \$25.00 each. Will register stock in purchaser's name if taken soon. 23-1-y-0 **ALEXANDER WOOLLEY,** SPRINGFIELD, ONT.

Farm to Rent

An Improved Farm of 150 Acres, with good barns and outbuildings; new brick dwelling house, with furnace; 90 acres are cleared; soil clay loam; large orchards of Apples, Peaches, Plums, and Pears. A plentiful supply of good water. Write for particulars and give references.
A. M. McINTYRE, Lawrence, Ont.

Ayrshires!

PURE-BRED, of different ages, and both sex. No inferior animals. Write for particulars.
A. McCallum & Son,
Spruce Hill Dairy Farm, DANVILLE, QUE.
22-y-0



HAVE NOW 3 Young Ayrshire Bulls, ON HAND
1, 2 and 3 years old, respectively; all prize-winners; the 3-year-old having won 1st at leading exhibitions. Write:
19-y-om
MESSRS. ROBERTSON & NESS, Howick, Que.

ADVERTISE IN THE ADVOCATE

GUERNSEYS

This is the Dairy breed for ordinary farmers. Large, vigorous and hardy, giving plenty of rich milk. Imported Bull Benefit, son of Vice-Pres. Morton's famous butter cow Bienfaitrice 4th, heads the herd.
Address: **SYDNEY FISHER,**
Alva Farm, Knowlton, P. Q.
17-y-0

75 PER CENT.

OF PRIZES WON AT LEADING FAIRS BY

Ingleside Herefords.

Special offerings for next thirty days. Choice young bulls.
YORKSHIRE and TAMWORTH SWINE.
Fall litters at bargains.
H. D. SMITH, Ingleside Farm,
Satisfaction guaranteed. **COMPTON, QUE.**
17-y-om

HOLSTEINS AND YORKSHIRES.

None but the best are kept at **BROCKHOLME FARM, ANCASTER, ONT.**
R. S. STEVENSON, Proprietor.

Write me for prices if you want first-class stock at moderate figures. Holsteins in the advanced registry. Yorkshires all recorded.
13-1-y-om

SPRING BROOK STOCK FARM!

Great bargains in prize-winning HOLSTEIN-FRIESIANS, and Tamworth Swine. GET A PRIZE-WINNER!
Stock must be reduced the next three months. Great choice in young bulls, also females of all ages. Breeding the best. Over 60 head of Tamworth Swine for sale.
A. C. HALLMAN, New Dundee, Waterloo Co., Ont.
7-1-y-om

THE CHANCE OF A LIFETIME IN . . . HOLSTEINS

Owing to failing health, I feel compelled to reduce my herd more than half, and I now offer my great record and young cows (some due to calve next month) at prices that must sell them at once. Will you secure one of them to found a herd of great producers with,—then write for prices to
3-1-y-om **H. BOLLERT,** Cassel, Ontario.

MAPLE HILL HOLSTEIN-FRIESIANS.

Have you the blood of the great butter cows, DeKol 2nd, Empress Josephine 3rd, Meethilde and Pauline Paul, in your herd? If not, why not? The demand for this blood exceeds the supply. Speak at once if you want some of it.
11-y-om **G. W. CLEMONS,** St. George, Ont.

GEM HOLSTEIN HERD

6 MONTHS' CREDIT GIVEN.
BULLS, all Registered Holsteins; quality the best, and fit to head any herd; we have them all ages. Write for particulars to
ELLIS BROTHERS,
7-y-om **BEDFORD PARK P.O., ONT.**

HOLSTEINS!

WE now offer young stock that have won prizes, and calves from our show herd, from one month to one year old, whose dams have large records—any age or sex—FOR SALE, at very low prices to quick buyers. Also some Poland-China Pigs, 1 and 6 months old; same quality (the best).
A. & G. RICE,
Brookbank Stock Farms, CURRIE'S CROSS-ING, Oxford Co., Ont. 18-y-om

WM. J. RUDD,

Eden Mills, Fairview Stock Farm, breeder of Choice Devon Cattle, Cotswold and Suffolk Sheep, Berkshire Pigs, and Plymouth Fowl. Young stock of the above, and of the best quality, always on hand. I can also furnish a carload of Cotswolds, shearing rams and ewes of the choicest quality. Write me for particulars. Shipping—G.T.R. and C.P.R., Guelph 13-1-y-0



John Newman & Sons

Box 221, Lachine, Que., breeders of Ayrshire Cattle and Carriage Horses. We have a choice young two-year-old bull and a yearling, bred from imp. cows and from our grand stock bull Glencoe, fit to top any herd; also yearlings, bull calves, and heifers of all ages. Prices to suit the times. Write or call.
15-1-y-0

J. YULL & SONS,

MEADOWSIDE FARM, Carleton Place, Ont
Breeders of high class Ayrshires, choice Berkshires, and Shropshire Sheep. Young stock always for sale, at reasonable prices. Our Ayrshire herd is the largest and oldest in Canada. Write for prices. Parties met at Queen's Hotel, Carleton.
20-y-0

WM. STEWART & SON,

MENIE, ONT.,
Breeders of high-class Ayrshire cattle; choice young stock of either sex and any age always on hand. Our herd contains a number of Columbian winners.
21-1-y-0

MEADOWBROOK JERSEYS.
 EDGAR SILCOX, Shedden, Ont.,
 Breeder of high-class St. Lambert Jerseys. A couple of young Bulls for sale, grand individuals, nine and fourteen months old, from Rose of Oak Grove and Edna Hugo, sire Robin of Meadowbrook. 21-1-y-o

JERSEYS FOR SALE, Cheap!
 Two highly bred bulls, fit for service. Pedigreed stock.
J. D Stewart, Russeldale, Perth Co., Ont.

"Best Quality with Greatest Quantity"
 STILL THE MOTTO AT
MAPLE SHADE.

OUR Shropshire lambs are not numerous, but they are of good quality and good size. We still have left also a few strong, smooth, home-bred yearlings of good breeding and character. Our **Shorthorn Calves** are developing finely, and present the characteristic quality and thick flesh of the typical Cruickshank Shorthorn. Prices moderate; if you doubt it, write and believe.

Address—**JOHN DRYDEN,** Brooklin, 16-2-g-om
 (30 miles east of Toronto.)

SHROPSHIRE
 FOR SALE.—A number of choice imported breeding Ewes, from noted English flocks, also home-bred shearling rams and ewes. Correspondence solicited.
 15-1-f-o **W. E. WRIGHT,** Clanworth, Ont.

THE GLEN STOCK FARM Shropshires
 We will sell at moderate prices a number of Yearling Rams and Ram Lambs, also a choice lot of yearlings and two-year-old Ewes and Ewe Lambs. Our herd of Ayrshires are in splendid form, and parties in need of young stock of either sex will do well to see what we have to offer before purchasing elsewhere.

Address—**WHITESIDE BROS.,** INNERKIP, ONT. 7-y-om

SHROPSHIRE FOR SALE.
 One and two-year Rams and Ram Lambs, descended from the best English flocks. My stock are all of No. 1 quality, and the rams offered are strong, lusty fellows, with fine quality of wool and extra well covered. Write me at once for prices if you wish to secure a bargain!
 18-2-o **JAS. F. DAWSON,** Odessa, Ont.

C. & E. WOOD, Locust Lodge, Freeman P. O., Breeders of high-class **LEICESTER SHEEP** AND **POLAND-CHINA SWINE.** Stock for sale at prices to suit the times. Correspondence solicited. 10-2-y-o

MAPLE LODGE STOCK FARM. We have very choice **LEICESTER** Rams and Ewes, and **Shorthorn** Bull Calves, for sale just now. **JAS. S. SMITH,** Maple Lodge P. O., Ontario. 9-1-y-om

To Stockmen & Breeders.

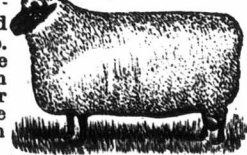
LITTLE'S PATENT: FLUID NON-POISONOUS SHEEP DIP AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc. Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy.

The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock:
"MAPLE SHADE" HERDS AND FLOCKS, BROOKLIN, ONT., Sept. 4th, 1890.
 DEAR SIR,—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders.
JOHN DRYDEN.

Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to **ROBERT WICHTMAN, DRUGGIST, OWEN SOUND, Ont.** Sole Agent for the Dominion. 7-1-y-om

SMITH EVANS, Gourock, Ont.
 Breeder and importer of registered Oxford-Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited. 5-1-y-om



SHEEP BREEDERS' ASSOCIATIONS.
 American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to **MORTIMER LEV-ERING, Sec., Lafayette, Indiana.** 3-1-y-om

USE **GOCCOON LIQUID SHEEP DIP**
 NON-POISONOUS KILLS TICKS, LICE AND ALL INSECTS
 4-y-om **MYERS & CO.,** Niagara Falls, Ont.

ASHTON GRANGE HERD IMPROVED YORKSHIRES
 Imported or out of imported stock. We have a choice lot of young stock ready for shipping. We ship to order, and guarantee satisfaction.
 7-1-y-om **WM. TAIT,** St. Laurent, near Montreal.
 Specialty of **Large White Yorkshire Swine.**



Over 250 pigs of different ages on hand of the most desirable type. Quality of stock guaranteed as described. All stock delivered free of express charges. **J. E. BRETHER,** Burford, Brant Co., Ont. 3-y-om

LARGE IMPROVED YORKSHIRES
 A choice lot of young pigs from four weeks to six months old, including boars fit for service and sows ready to mate. Prices to suit the times. Satisfaction guaranteed. Apply to **WM. GOODER & SON,** Box 160, Woodstock, Ont. 11-y-o

YORKSHIRE PIGS
 Of the best type and breeding. Pairs and sows for sale at all seasons.
J. M. HURLEY & SON, Belleville, Ont. Box 442. 17-1-y-om

J. G. CLARK, Woodroffe Stock Farm, OTTAWA, BREEDER OF **CLYDESDALE HORSES, AYRSHIRE CATTLE, AND IMPROVED LARGE YORKSHIRES.**

I now have on hand a number of choice young Yorkshires, both sexes, which I will sell at prices to suit the times. Pairs supplied not akin. Correspondence solicited. 11-1-y-om

SHORTHORNS: AND BERKSHIRES FOR SALE.
 At very low figures. Choice boars ready for immediate use, and sows of fine breeding and quality from spring litters. Also a few good bull calves. For description and prices, address—**JNO. RACE,** Jr., Lennoxville, Que. 17-1-y-om

BERKSHIRES AND YORKSHIRES!
 Choice stock for sale at reasonable prices. Orders filled in rotation. Inspection invited. Write for prices.
THOMAS WATSON, Springvale, Ont. 11-1-y-o

MODEL BERKSHIRE HERD
D. A. GRAHAM, Parkhill, Ont., Importer and breeder of Berkshire Pigs, offers for sale some choice Brood Sows of all ages; also a few grand young Boars fit for service, at prices to suit the times, and young pigs four to eight weeks old, and choice Bronze Turkeys. Write for prices. 21-1-om

ENTERPRISE STOCK FARM. FOR SALE—Large English and Poland-China Swine. I am prepared to supply young stock of the above, either sex, any age. Pairs supplied not akin. Prices moderate. Correspondence solicited.
E. CAVERLEY, Smith's Cove, Ont.

Large English Berkshires!
 Our Berkshires made a clean sweep of all the first (11) prizes offered for Berkshires at the late Toronto Industrial Exhibition, including 1st and 2nd prizes for herd of boar and two sows, boar and four of his get, and sow and four of her produce. We now have a fine lot of young pigs for sale from two to three months, also boars and sows about five months old. Write for prices. **J. G. SNELL & BRO.,** Snelgrove, Ont. Brampton and Snelgrove Sts. 2-y-om

LARGE ENGLISH BERKSHIRES, IMPROVED LARGE WHITE YORKSHIRE SWINE, SHORTHORN CATTLE, AND SHROPSHIRE SHEEP.
 A choice lot of Boars of either breed, fit for service, for sale. Young Sows in pig, and a lot of very fine Boars and Sows three months old.
 Herd won 65 firsts and 45 second prizes at leading fairs, 1885. Inspection invited. Address, **H. J. DAVIS,** Woodstock, Ont. 8-y-om

ISRAEL CRESSMAN, New Dundee, -IMPORTER OF- Large - English - Berkshires
 4-y-om

FOR SALE!
 Some very fine young Berkshire Pigs; pairs not akin;
 Also **COTSWOLD RAM LAMBS, EWE LAMBS, AND BREEDING EWES.**
F. BONNYCASTLE & SONS, 11-1-y-om **CAMPBELLFORD, ONT.**

BARTON HERD OF TAMWORTHS
 Choice stock of all ages and either sex, descended from imp. stock. Pairs and trios not akin. Write for prices. 19-1-y-om
W. T. ELLIOTT, Hamilton Market.

W. P. HUFF, CHATHAM, ONTARIO, BREEDER OF **CHOICE TAMWORTHS**
 Descended from the stock of John Bell, of Amber, and the Grant & Co's importation. Young stock of No. 1 quality always on hand. Some choice sows now ready to breed. Rock-bottom prices. 21-1-y-o

Tamworths for Sale. Special offers for herd will be sold at bargains. Sixty days. The entire herd of 2 three-year-old sows, bred; 3 May Sows, bred; 3 one-year-old Sows, bred; 3 Sept. Sows. All stock guaranteed.
 17-1-f-om **JOHN L. REVEL,** Putnam, Ont.

MR. H. REVEL
 Woodlands Farm, INGERSOLL, - ONT., Breeder of **Choice Tamworth & Poland-China Swine**
 Young stock of all ages and either sex for sale at reasonable prices; bred from or descended from imported stock.

HERRON & DAFOE, AVON P.O.
 Importers and Breeders of **Poland-China, Chester White and Tamworth Swine**
 Young stock of the above, any age and either sex, imp. and descended from imp. stock, for sale at hard-time prices. All stock registered. Mention **ADVOCATE.**

THE FARCO HERD OF POLAND-CHINAS
 Are of the choicest quality and breeding. I have young stock for sale from an imp. boar and imp. and home-bred sows, also a few choice sows in farrow to the imp. boar Black Joe. Those desiring a first-class article at the right price, should write at once or come and see my stock.
OLIVER DRURY, 13-1-y-o **FARCO, ONT.**

OXFORD HERD OF POLAND-CHINAS
 Our herd made a clean sweep of all the first prizes at the late Toronto, Montreal and Ottawa Exhibitions. **DARKNESS** (1st prize) the highest ever at the World's Fair, and the best stock for sale. Write for prices.
W. and H. JONES, 1-1-y-o **Montreal, Ont.**

CANADA: WILKES
 Over 100 head — all ages, sexes and different families.
 Do you want a bargain in **RED OR BLACK RASPBERRIES** in 1,000-PLANT LOTS. Write for prices.
CAPT. A. W. YOUNG, Tupperville, Ont. 17-y-om

DUROC-JERSEY SWINE
 We have the best and greatest prize-winning herd in Canada. Write for what you want. We have everything.
TAPE BROS., Ridgetown, Ont. 18-2-y-om

DUROC-JERSEYS FOR SALE. A number of choice young six-weeks-old pigs, of the best breeding obtainable. Prices in accordance with the times. Address—**FRANK J. BARBER,** Georgetown, Ont. 11-y-o

DUROC-JERSEYS FOR SALE
 Our stock is of the best quality and breeding obtainable. Special offer of young sows now ready to breed. Boars fit for service; and younger ones of both sex at hard-time prices.
BERDAN & McNEIL, STRATHBURN, ONTARIO. 21-1-y-o

Summit Farm Herd of Duroc-Jersey Swine.
 I still have a couple of nice Boars for sale, a couple of grand Sows, and some young Pigs farrowed in July and August. Prices to suit the times. **F. W. TERHUNE,** 3-1-y-om **Box 690, BRANTFORD.**

SPECIAL OFFERING IN DUROC-JERSEYS
 Four fine young boars (2 extra good) ready for service; five very fine young sows fit to breed, and choice lot young fall pigs. Very low prices to sell quick. **PETER LAMARSH,** "Pioneer Herd," Wheatley, Ont. 5-1-y-om

GIDEON SNYDER, Jr.
 Jarvis, - Ontario, BREEDER AND IMPORTER OF **Ohio Improved Chester and Berkshire Swine.**
 -ALSO- **BRICK - AND - TILE - MANUFACTURER.** Junction of Air Line and Hamilton & North-western Railway.

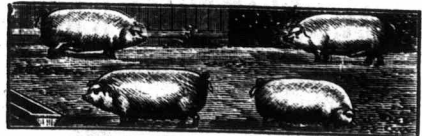
E.D. GEORGE
 PUTNAM, ONT., Importer and Breeder of **Ohio Improved Chester White Swine**
 The largest and oldest established registered herd in Canada. I make this breed a specialty, and furnish a good pig at a fair price. Write for prices. 15-1-y-om

O. I. CHESTER WHITE SWINE.
 Stock for sale. All stock registered. Toulouse Geese, Pekin Ducks, Bronze Turkeys, eggs \$1.50 per 11. Partridge and Buff Cochins, Plymouth Rocks, Silver Gray Dorkings, Golden Silver, and White Wyandottes, Brown and White Leghorns, Black Hamburgs, American Dominiques, Black Red and Black Summatras, and Indian and Pit Games, eggs, \$1 per 13. Will mix sittings if desired; also a few pair of Wild Turkeys for sale. **G. BENNETT & PARDO,** Charing Cross, Ont. 7-1-y-om

IMP. CHESTER WHITE and TAMWORTH SWINE.
 Having won the sweepstakes for the best boar and two sows of any age at Industrial Exhibition (Toronto) 1895, we offer for sale 10 choice boars and sows from four to six months old. Prices away down for next 60 days. Pedigrees furnished. Reduced rates by express. Drop a card for prices. **H. GEORGE & SONS,** Crampton, Ont., Middlesex County. 7-y-om

CHESTER WHITE HOGS
 From prize-winning stock of the choicest strains. Quality the best. Prices as low as the lowest.
J. H. CHALK, Calton P. O. 21-1-y-om

ADVERTISE IN THE ADVOCATE



When you want to buy a first-class Tamworth or Chester White sow, bred to first-prize sires, or a nice C. W. pig, from 2 to 4 months old, why not buy from a herd which has won 50% of the first prizes and 75% of the sweepstakes at leading exhibitions for the past two years? Come and see our stock at Guelph, Dec. 10, 11 and 12. **WM. BUTLER & SON,** 7-y-om Dereham Centre, Ont.

CHESTER WHITES AND BERKSHIRES

Young pigs now ready for shipping, and young sows in pig to imported boars. All are held at reasonable figures. Can supply pigs at all ages. Orders by mail filled with care, and correspondence cheerfully answered. Write for prices, stating what is wanted. 18-om **J. H. SHAW, Simcoe, Ont.**

M. BRONZE TURKEYS FOR SALE.

For the next 30 days, will sell a choice lot of Turkeys at greatly reduced prices. For a description of birds and prices write **W. H. CREWS, Box 323, Trenton, Ont.**

Jacob B. Snider, German Mills, Ont. Breeder of choice Light and Dark Brahmas, Black Langshans, Plymouth Rocks, Golden Wyandottes, Black Minorcas, Red Cap and Indian Game. Eggs, \$1.25 per 13. Correspondence solicited. 7-1-y-o

HERE AGAIN! SHOEMAKER'S POULTRY ALMANAC FOR 1896.

It is a beauty, larger and better than ever, nearly 100 pages 8x10 on best book paper. Fully illustrated with finest engravings of special design. A veritable Encyclopedia of Poultry Information. Sent postpaid for only 15 cents. Address, **C. C. SHOEMAKER, Box 65, Freeport, Ill., U. S. A.** P. S.—Incubators and Brooders. Hot water, pipe system, the best in the world, a fine 32 page Catalogue free.

Feathers! We Buy Them

WE BUY ALL KINDS, AND WE PAY CASH. Write for Shipping Instructions. **THE ALASKA FEATHER and DOWN COMPANY, Ltd.,** 10 St. SACRAMENT ST., MONTREAL. Manufacturers of Down Comforters and Down Cushions.

HATCH CHICKENS BY STEAM With the **MODEL Excelsior Incubator.** Simple, Perfect, Self-Regulating. Thousands in successful operation. Guaranteed to hatch a larger percentage of fertile eggs at less cost than any other Hatcher. Lowest priced first-class Hatcher made. **GEO. H. STABLE,** 114 to 122 S. 6th St., Quincy, Ill.

NOXALL INCUBATOR. Are used in every State in the Union. Incubator and Brooder self-regulating. Catalogue free. **GEO. W. MURPHY & CO.,** Quincy, Ill.

Incubators & Brooders Best in the world, hot water, pipe system. Will hatch chicks when others fail. Catalogue free. **Shoemaker Incubator Co., Freeport, Ill., U. S. A.**

\$5 Hand Bone, Shell, and Corn Mills for Poultrymen. Daisy Bone Cutter, Power Mills. Circular and testimonials free. **WILSON BROS.,** Easton, Pa.

TRY US. We sell your Poultry, Veals, Fruits and all produce at highest prices. DAILY RETURNS. For stencils, prices and references, write **F. L. BAGE & SONS, 123 Reado St., N. Y.**

FERRY'S SEEDS Perfect seeds grow paying crops. Perfect seeds are not grown by chance. Nothing is ever left to chance in growing **Ferry's Seeds.** Dealers sell them everywhere. Write for **FERRY'S SEED ANNUAL** for 1896. Brimful of valuable information about best and newest seeds. Free by mail. **D. M. FERRY & CO.,** Windsor, Ont.

KEYSTONE Dehorning Clippers!

MANY young men are making money at this time of the year by going from farm to farm making a business of dehorning cattle. The prices charged for this work range from 8c. to 12c. per head, according to the number dehorned at one time. We sell the well-known Keystone Dehorning Clippers for only \$10 Ten Dollars. These Clippers do the work perfectly, and do it easily. They are powerful articles, never failing in their work. They are made of a fine quality of malleable iron, and the blades are of the finest steel and of the special temper required for this work. Total weight of a pair of Dehorning Clippers is about 17 1/2 lbs. Our price is \$10 per pair, and we pay the freight charges to any station in Ontario. Our terms are cash-with-the-order. We ship the same day the order is received. Send money in Registered Letter or Post Office Order to Mail Order Department of **STANLEY MILLS & CO., HAMILTON, ONT.** 2-y-om

Fine Drivers cannot be made out of horses that are out of condition. Merely to feed plenty of oats is not enough. A horse gets run down the same as a man and needs a general toning up. **Dick's Blood Purifier** is a scientific preparation in the form of a powder. It purifies the blood, strengthens the digestion, turns a rough coat into a smooth and glossy one and puts the animal "in condition." He then has "good life" and feels like holding up his head and lifting his feet. **MILCH COWS** are greatly benefitted by it. The whole system is toned up. The digestive organs being strengthened, more nutriment is drawn from the food and the flow of milk increased. **Dick's Blood Purifier** will pay for itself ten times over. For sale by druggists, at general stores or sent post paid on receipt of 50 cts. **Dick & Co., P. O. Box 452, Montreal.**

PLANTING A GARDEN without the aid of the **PLANET JR.** tools, is like cutting an acre of grass with a sickle. With them you can almost do three days' work in one. They do nearly everything but think. The new **Hill Dropping Seed Drill** is an example of the perfect ingenuity of the **PLANET JR.** tools. Opens the furrow, drops the seed—in hills or drills, covers, and marks the next row. The **PLANET JR.** book illustrates and explains all the **PLANET JR.** Farm and Garden Tools. "Twice pay you to get and read it." Mailed free. **C. S. L. ALLEN & CO., 1107 Market St., PHILADELPHIA.**

THE MODEL GRAIN CRUSHER. "It is now the season for purchasing Root Pulpers, Grain Crushers, Straw and Ensilage Cutters, and Tread Powers. We have the finest. Get prices from your local agent, or write direct to The Estate of T. T. Coleman, Seaforth, Ontario, Canada."

The Ripper Feed Gutters! STOCK FEEDERS' FAVORITE MACHINE. HAS NO EQUAL FOR DRY FEED. **THOM'S IMPLEMENT WORKS** Established 1875. WATFORD, ONT. 13-a-o

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate. "Grand young Shorthorns" are offered in another column by Mr. James Douglas, Caledonia, Ont., and the prices are not out of reach. Commence the year in a business-like way and add paying capital to your business by securing, say, a few young Shorthorns, either females to commence a pure-bred herd, or a young bull to improve and grade up your present stock.

Mr. Thomas Shannon, Cloverdale, B. C., writes under date of Dec. 18:—"The demand for Berkshires the past year has been fairly good, considering the scarcity of money. I was very successful at the fairs last fall, winning most of the regular prizes and all the specials competed for. The handsome silver cup offered by the President for the best hog on the ground, any breed, was won by my stock this year for the second time, which now makes it my property. I also won specials, both first and second, for best registered boar, any breed, shown against hogs personally selected in the East from herds whose owners claim to have won \$5 first prizes in 1894. Your paper should be read by all practical stockmen who wish to keep abreast of the times. Enclosed you will find \$1.00 for my subscription for 1896."

H. Cargill & Son, Cargill, Ont., write, under date of Dec. 21:—"Notwithstanding the poor pasture of the past season, our herd went into the stables in good breeding condition. We already have a number of calves, and expect to have about twenty in all. They are mostly sired by Royal Member and are a remarkably good lot—we think the best we ever had; and we imagine we have what everyone looks for, viz., a first-class stock bull. This is our first lot of calves from him, and they please us, as well as everyone who sees them. Ramon Robin is doing well—developing wonderfully. As yet we have but two calves from him—heifers out of Early Bud (imp.) and Diamond 15th (imp.). Judging from these and the fact that Mr. Russell was successful in winning all the good prizes at London last fall with calves sired by him, we should say we were fortunate in acquiring him as a helpmate for Royal Member. We have but three bull calves unsold—all good ones, one being the winner of all first prizes at local shows last fall. We have one out of a daughter of Lovely 19th, sired by our old Golden Drop bull, Albert Victor (imp.), which we think fit to go into service in any herd of Shorthorns. He is red in color, of the thick, low-down kind, meat down to the hocks, grand back and under line; and although only in nice growing order, weighs 850 lbs., and will not celebrate his first birthday until 13th February next. We are now offering some show material in young heifer calves; and also good Canadian-bred cows and heifers."

MEETING OF EXECUTIVE OF SHEEP AND SWINE BREEDERS' ASSOCIATIONS. On dates mentioned below, meetings of the Executive of the Dominion Sheep and Swine Breeders will be held at the Hotel Oxford, Woodstock, to receive and discuss the Secretary's report and the Treasurer's statement, to determine a line of work for 1896, to appoint necessary committees, etc. Swine Breeders meet at 1 o'clock on Jan. 7, and Sheep Breeders at same hour on Jan. 8. Those attending should purchase a first-class single fare ticket to Woodstock, and obtain from the railway agent at the same time a standard railway certificate. This certificate, when signed by the Secretary at the meetings, entitles the holder to return at excursion rates.

BOOK TABLE. The December "O. A. C. Review," which may be termed "Christmas Number," has an addition to their usual size of four pages, to make room for excellent productions from the pens of Dr. Mills and other officers of the institution. The issue is a live, practical, and commendable number.

The Scottish Farmer Album for 1896 contains, besides a calendar and a list of the principal British shows, with dates for 1896 and secretaries, no less than 55 half-tone illustrations of various breeds of horses, cattle, sheep, and one pig, which have during 1895 won important premiums at leading shows. The English Live Stock Journal Almanac for 1896 has come to hand. We notice it continues to increase in healthy growth year by year. Its 320 pages contain much that is valuable in history, breeding, management, etc., of all the recognized British breeds of farm stock. The work is profuse in illustrations, and practical in character. It is published by Vinton & Co., 9 New Bridge St., Ludgate Circus, London, Eng. Price, one shilling.

A bound copy of the Wisconsin Farmers' Institute report for 1895 has been received from the Secretary and Editor, Mr. Geo. McKerrrow. It is appropriately called a Hand Book of Agriculture, as it contains a great many able papers and discussions given at Institute meetings during the past year. We notice considerable space is devoted to the subject of proper and economical cooking of foods for the human animal. This volume is attractively illustrated and well bound.

"Tuberculosis from a Layman's Standpoint" is the title of a lecture delivered before the Renfrew (Scottish) Agricultural Society, by Mr. Archibald McNellie, Glasgow. The lecturer explained the disease, and gave instances of its introduction to bovine from human and human to bovine subjects. Under the heading, "The extent of the disease," it is pointed out that the disease is most prevalent in dairy cattle that have been too closely confined and forced to produce the greatest possible amount of milk in the shortest time. The heredity of the disease, risk of contagion, the use of tuberculin, etc., are ably discussed. The lecture is issued in pamphlet form at three pence a copy, from the Scottish Farmer office.

NOTICE. FARM TO RENT. Any good farmer wanting to rent a very choice, completely fitted farm should at once look up the description of A. M. McIntyre's very desirable property offered to rent in this issue.

STOCK GOSSIP.

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

Secretary John G. Springer, Springfield, Ill., writes us that nearly enough entries have already been received for Volume VI. of the American Southdown Record. The registration of Southdowns in 1895 largely exceeded those of any previous year.

Mr. W. A. Shafer, Middleton, Ohio (Secretary), writes us: "The annual meeting of the American Oxford Down Sheep Record Association will be held at the Neil House, Columbus, Ohio, Tuesday evening, Jan. 11. The election of officers, arrangement of special prize list for 1896, and other business of importance to members of the Association and to exhibitors and breeders of Oxford Down, will come before the meeting."

Ed. McLean, Manager W. C. Edwards & Co., North Newton, Mills, P. Q. Enclosed please find our renewal coming year. Our stock came into winter quarters in good condition. During past summer we kept our milkers in the stable during the daytime and let them out to pasture at night, cutting green crops to feed, which was very beneficial to the cows. They are now doing better than last year in milk yield. Our Ayrshire milkers are still headed by our imported Cyclone, while we have placed Tam Glen at the head of the young herd. This bull was bought from Messrs. Wm. Stewart & Sons. Among his prize honors are first in the yearling class at Chicago; first at the head of the young herd; and was one of the four sired by White Prince 2nd that won the family premium. A number of these young heifers are due to calve in March. They will show what Cyclone has done for us as a dairy sire. Our Jerseys have also increased in number. They are still headed by Lisgar Pogis of St. Anne's. Those that are milking are doing very well. The young milkers are good producers. We have some young bulls of both breeds, fit for service on hand. They are all from time-tried dams and the above mentioned sires. Our Shropshire sheep are in good health. We have mated them with a ram bought from Mr. A. Hagar, of Plantagenet, imported by Hon. John Dryden.

Mr. J. C. Snell, Snelgrove, reports the sale to S. Staples & Son, Ida, Ont., of four head of high-class Jerseys—two cows, one yearling heifer in calf, and one bull calf. One of the cows is Graham's Princess, by Elmhurst Stoke Pogis—a pure St. Lambert bull with four crosses of Stoke Pogis 3rd and 5th per cent. of his blood, and whose dam, Brenda of Elmhurst, made 20 lbs. 8 ozs. butter in seven days. Graham's Princess is a handsome solid silver-gray five year-old cow, and is half-sister to Mighty Dollar, winner of sweepstakes silver medal at Toronto Exhibition twice. He is One Hundred Per Cent., full brother in blood to the sire of Mary Anne of St. Lambert (record, 36 lbs. 12 ozs. butter in seven days). The other cow is a handsome four-year-old daughter of Yankee's Pogis by One Hundred Per Cent., dam Yankee's Dream (record, 23 lbs. 4 ozs. butter in seven days) and in first prize herd at Toronto Exhibition. The heifer is a beautiful daughter of Jetsam's Dollar by Mighty Dollar, and out of imported Jetsam (from the Island of Jersey), one of the first prize herd at Toronto Exhibition in 1893. These are in calf to Massena's Duke by Massena's son (first prize at Toronto Exhibition), dam Massena (record, 65 lbs. butter in her 16th year), and to Signet Seal by Mighty Dollar, dam Gipsy of Sprucegrove, winner of sweepstakes as best Jersey cow at the Provincial Dairy Show, 1895. The bull calf is a son of Pogis of Ingledale, and out of Arabella Pogis by Nell's John Bull—first prize and silver medal at Toronto Exhibition—by Canada's John Bull. Mr. Staples is to be congratulated on securing such a solid foundation for a herd, as they are not only first-class individuals but their pedigrees are written in butter; and they are in hands where they will not be neglected, but will receive the generous treatment which he gives to all his stock.

MR. GEO. SMITH & SON'S JERSEYS.

We recently had the pleasure of calling on these gentlemen and inspecting their herd of choice Jerseys which now comprises some seventy-five head, from which cream is supplied to Toronto and Ontario. Messrs. Smith's home is beautifully located—one mile west of the village of Grimsby—at the foot of the mountain, overlooking the lake, and in a section that might deservedly be called the garden spot of the Dominion. Selections from this herd won a fair share of the premiums at the Toronto and Ontario exhibitions, and during the past year have been very satisfactory—so much so that they have nothing on hand now to supply the demand. Heading the herd are the two prize-winning bulls, Rustler of St. Lambert, and Plunkett, now two years old. Rustler of St. Lambert is out of the old prize cow, Kitt, whose full sister was gold medal cow at the Boston Dairy Show (Mass.), and was sired by Nell's John Bull, who is a grandson of old Ida of St. Lambert. He was placed first at Toronto, as a yearling, last fall; his mate, Plunkett, taking third place, the latter being by the same sire and out of a full sister to Rustler of St. Lambert. These bulls are richly bred and are full of quality. We were particularly pleased with Rustler of St. Lambert. Among the cows are many grand individuals. Kitt's Fancy filled our eye, about the best of any, and a grand three-year-old she is—perfect in conformation, and good enough to win first at Toronto last fall; she is full sister to Rustler of St. Lambert, mentioned above. Her mate, Rosette of Grimsby, is also a grand cow, and sustained the Grimsby herd by winning third place in the same ring. Cathleen of Grimsby is a remarkably fine two-year-old that gives promise of turning out something extra good; the second premium at Toronto was placed to her credit. Many others of the herd are well worthy of mention, but suffice it to say that the herd is one of the oldest in the country, and its members represent the richest of breeding.

Welsh ponies are also a specialty with Messrs. Smith, the foundation of which was imported from Wales a few years ago, and parties desirous of purchasing any of these pets will have an opportunity of selecting from some forty head at this farm.

Scrambled Eggs

Take a small quantity of Cottolene and a little cream; warm in a frying pan. Break 6 eggs in it and stir until slightly cooked. Serve hot.

Use not more than two-thirds as much Cottolene as you would butter and be sure that you do not overheat it before dropping in the eggs. This is always essential in cooking with Cottolene.

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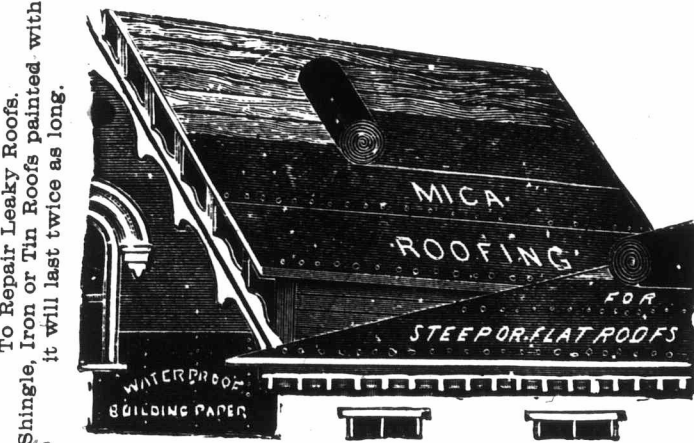
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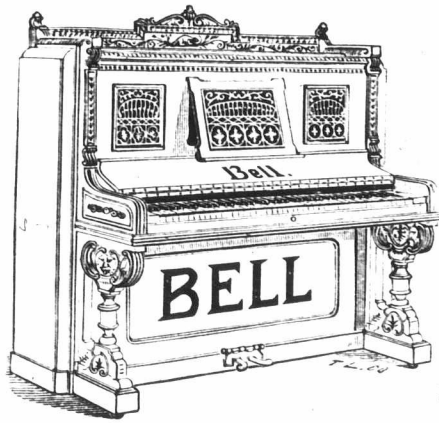
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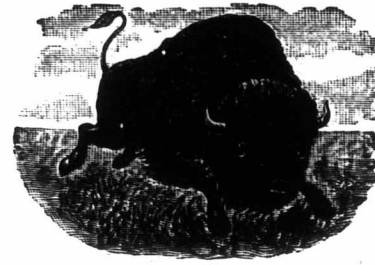
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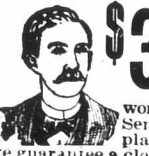
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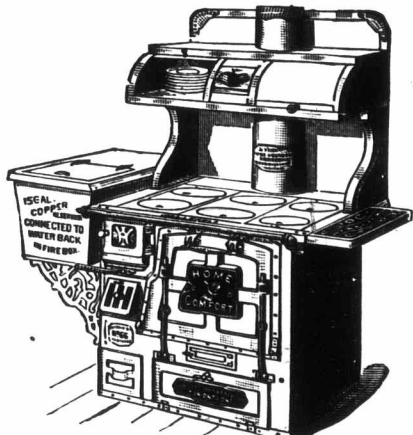
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This preparation is a specific for Mammitis,
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STOCK GOSSIP.

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

W. C. Edwards & Co., Pine Grove Stock
 Farm, Rockland, Ont., write us per Jos. W.
 Barnett, Manager, under date of Dec. 19:—
 "Our cattle, though not in high condition, are
 all thrifty and doing well. Our show cattle
 seem to have forgotten all about their trip to
 the exhibition. The old bull, Knight of St.
 John, is still as active as a yearling. The
 medal cow, Bessie of Rockland, has lately
 given us a nice ran bull calf, and the red imp.
 cow, Rosebloom, a red one, both by the Knight
 of St. John. We have a nice lot of thick,
 sappy bulls, from six to fourteen months old.
 The prospects for a good season's trade are far
 ahead of last year at this time. Equeries are
 coming briskly."

AN APPRECIATED PRIZE.
 Messrs. A. & G. Rice, Brookbank Stock
 Farm, Currie's, Ont., write us:—"The beauti-
 ful clock given by you at the recent Guelph
 dairy test, for the best pure-bred dairy cow,
 and won by our Calamity Jane, has just
 arrived, and we are greatly pleased with it.
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 that we have reason to be proud of, and we
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 butter-fat and solids during this test with
 English and American tests, we find it has
 rarely been equalled, and never to our knowl-
 edge by a four-year-old. She gave more
 butter-fat and solids than the eight-year-old
 cow at Winnipeg, and is therefore champion
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Mr. Woolley's farm is situated some three
 miles from Springfield, on the M. C. R., nine
 miles from Aylmer, G. T. R., and ten miles
 from Putnam, C. P. R., and contains some two
 hundred and fifty acres. Among the Holsteins
 we might mention Duchess of Wyton (imp.)
 226, mother of one of the bull calves offered for
 sale in our advertising columns. Duchess of
 Wyton was bred by J. N. Scotchhead, Buffalo,
 N. Y., and was sired by the noted bull Sir
 James of Aaggie 1452, her dam being Lapolka
 2nd 2774. Beauty of Malahide 223, bred by
 same breeder, and sired by König Nicholas
 531, and from Duchess of Wyton, is a good
 cow, purchased at a cost of \$95, her dam,
 Duchess of Wyton, costing \$200. Lapolka of
 Doncaster 251, bred by A. W. Newell, White-
 water, Wis., U. S., and sired by Prince Seward
 6881, dam Lapolka Queen 8125, and Lady
 Peiterje, also of good breeding, are some of
 the best, and are the dams of young stock now
 offered by Mr. Woolley; their sire being Post-
 master General 474. The Ayrshire calves
 offered are sired by such bulls as Farmer Lad
 —1265—, and Blucher—A 279—, tracing to imp.
 stock. Their dams are: Ituby—A 150—, bred
 by J. C. Spearman, Ivy; Roseberry—2136—,
 sire Lord Stanley—322—, dam Princess
 Louise—64—, by Sir Colin; and Lily of the
 Valley 1967—, by Nicholby—768—; all trac-
 ing to imported stock. Mr. Woolley's stock of
 pure-breds consists of some twenty Holstein
 Friesians, twelve Ayrshires, and a few Jerseys
 of the Snell stock. They are kept mostly for
 dairy purposes, but as he is very short of feed
 for the stock he has on hand, he has decided
 to dispose of some, even if at a great sacrifice.
 Considering their breeding, which, as can be
 seen, is of the right kind, parties wanting any
 of the above breeds no doubt would find it to
 their interest to correspond with Mr. Woolley.

"PINE GROVE FARM"

is situated one mile west of Jarvis, York Co.,
 Ont., and only a few minutes' walk from the
 depot. Mr. Snyder, the proprietor, has been
 breeding Berkshires for a number of years
 past, and recently added a herd of very choice
 Chester Whites to his stock. At the head of
 the Berkshire herd is Master Highclere—358—
 of J. G. Snell's breeding; he is from Snell's
 Highclere 2nd—403—, a sow that has pro-
 duced many prize-winning pigs for her
 owners, including some of their best at the
 Guelph Stock Show. His sire was a
 noted breeder, Baron Lee 4th—344—.
 The best sow of the herd, and an extra good
 one she certainly is, is Walpole Queen—
 lengthy, straight, deep and smooth. She is a
 daughter of Real Countess (784), who was sired
 by Real Briton (188) (imp.). Walpole Queen
 was sired by Sir Toby—3326—, who was bred
 by J. G. Snell & Bro., and sired by (imp.) Enter-
 prise. Mr. Snyder now has three eight-month-
 old pigs to offer—two sows and one boar by
 Sir Toby, and from Blue Bell, full sister of
 Walpole Queen. These pigs are of splendid
 conformation and capital quality. Walpole
 Queen is due to farrow again, February 1st,
 by Master Highclere. Believing that the
 wisest plan, when making a start in any breed,
 was to secure nothing but the best, and
 always having a liking for the Chester Whites,
 Mr. Snyder, last spring, imported a remark-
 ably fine pair from the celebrated Chester
 White breeder, L. B. Silver, Cleveland, Ohio,
 the originator of the celebrated O. I. C.'s. Ohio
 Boy 11082 is now thirteen months old, and a
 finer specimen it would be hard to find; broad,
 level-backed, good length, deep-sided, with
 thick, heavy hams. He is by the grand stock
 boar, Grover Cleveland 11102, and from the
 sow Silverine 10108. The sow Ohio Queen
 11081 is a model Chester, of great length, with
 capital back and well-sprung ribs, well-hammed,
 and stands squarely on her pigs. She is by
 Buckeye Boy 11052, and from Lady Elsie 10177.
 She is due to farrow in January, by Ohio Boy,
 and the young pigs should certainly prove
 something extra good, judging from their sire
 and dam. The O. I. C.'s are said to be noted
 for their large quarters, deep sides, broad and
 straight backs, well filled out behind the
 shoulders, head and neck short, and standing
 on short, strong legs, of small bone (as compared
 with their size), round ribs, allowing a great
 chance for laying on fat, and are esteemed for
 their symmetrical, breedy appearance, and
 the soundness of their lines, which are much ad-
 mired by the breeders of improved stock.
 They are also noted for their rapid growth and
 vigorous constitution. It is claimed by the
 breeders of the O. I. C.'s that they possess ex-
 cellencies not found in other varieties of hogs,
 without their defects, all of which naturally,
 they claim, render them the hogs for economy
 and utility, and ensures for them a successful
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Manufacturer of the celebrated Smalley Tread Powers.
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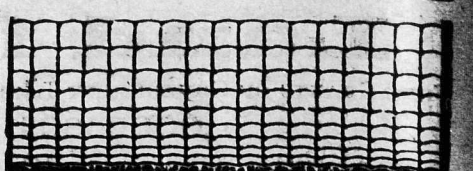
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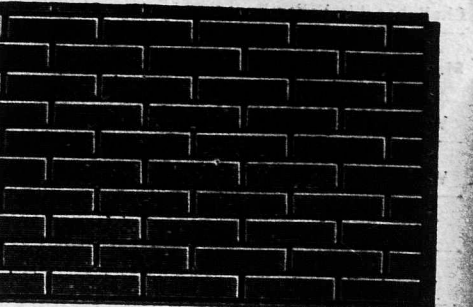


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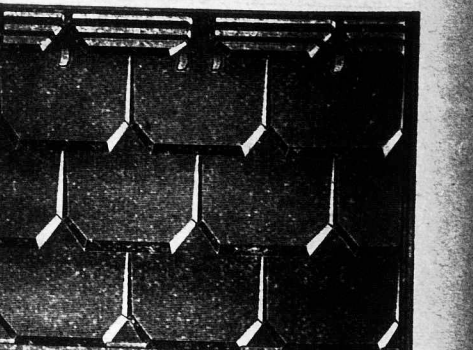
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