

J. H. Girdale  
Exp. Farm. Dec 15, 99

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

Vol. XXXIV. LONDON, ONTARIO. MARCH 1, 1899. WINNIPEG, MANITOBA. No. 473

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## CONTENTS OF THIS NUMBER.

EDITORIAL.	PAGE.
THE TEACHING OF AGRICULTURE IN ONTARIO	115
AWAY WITH SCRUB SIRE!	115
BEAUTY AND UTILITY COMBINED	116
<b>STOCK.</b>	
OUR SCOTTISH LETTER	116
SEPARATOR MILK FOR CALVES	116
THE EARLY IMPORTATIONS OF SHORTHORNS TO CANADA	117
BARON SOLWAY = 23 = (ILLUSTRATION)	117
QUEEN OF ATHELSTANE = 439 = (ILLUSTRATION)	118
ROSDALE = 2243 = (ILLUSTRATION)	118
HOW SHALL WE PRODUCE THE IDEAL BACON HOG?	118
TO INDUCE OESTRUM	118
SCALDING PIGS	118
DOCKING AND CASTRATION OF LAMBS	118
QUEEN OF DIAMONDS = 5198 = (ILLUSTRATION)	119
FEEDING BEEF CATTLE	119
ROSE OF STRATHALLAN = 480 = (ILLUSTRATION)	119
MIMULUS = 343 = (ILLUSTRATION)	119
HOW THE SMITHFIELD CHAMPION DRESSED	119
<b>FARM.</b>	
HOW TO MAKE CONCRETE FLOORS	119
VARIETIES OF GRAIN IN THE VARIOUS PROVINCES OF CANADA	119
CANADA'S BEST ADVERTISEMENT	119
HITCH FOR CONTROLLING OR LEADING UNRULY ANIMALS	119
PREPARE FOR SEEDING	120
AN ADMIRABLE STOCK BARN FOR A SMALL FARM (ILLUSTRATED)	120
<b>DAIRY.</b>	
THE CREAM SEPARATOR ESSENTIAL TO SUCCESS IN DAIRYING	120
CONVENTION OF CHEESE AND BUTTER MAKERS	121
FEEDING COWS FOR TESTS	121
DOMINION GRANGE OFFICERS	121
GOOD ADVICE RE CHURNING—SOME QUESTIONS ASKED	122
<b>HELPING HAND.</b>	
ANOTHER SHEEP RACK	122
HANDLING A CROSS SOW	122
<b>APIARY.</b>	
UNION BEEKEEPERS' CONVENTION	122
<b>GARDEN AND ORCHARD.</b>	
ONTARIO FRUIT-GROWERS' OUTLOOK	122
PRODUCING TOMATO PLANTS	123
<b>POULTRY.</b>	
EARLY PULLETS FOR NEXT WINTER'S LAYERS	123
<b>QUESTIONS AND ANSWERS.</b>	
VETERINARY: PROBABLY NASAL GLEET; CHOKING; OPEN JOINT; CATARRH; LUMP ON JAW; HORSES' HOOFS DRY AND HARD; CAUSE OF LUMP JAW	123, 124
MISCELLANEOUS: HATCHING GOSLINGS—TOMATO CULTURE—PROTEIN, CARBOHYDRATES, ETC.; CROSS SOWS; RATION FOR PIGS; HEATING WATER FOR STOCK—CEMENT FLOORS; A GOOD EGG YIELD—GREEN BONE—ANIMAL MEAL—BONE CUTTER; REGISTERING SWINE; CHOKING PIGS; REGISTERED HORSE WITHOUT A NUMBER; PERCENTAGE OF DRESSED TO LIVE WEIGHT; DEHORNING WITH CAUSTIC POTASH	124, 125
<b>SHOWS AND SHOWING.</b>	
CANADIAN FAIRS ASSOCIATIONS	125
<b>MARKETS.</b>	
FARM GOSSIP: KENT CO., ONT.; OXFORD COUNTY; PORK PACKING AT BRANTFORD	125
TORONTO MARKETS	125
CHATTY STOCK LETTER FROM CHICAGO	125
DEATH OF MR. PATRICK KINNEAR	125
<b>MISCELLANEOUS.</b>	
BRITISH COLUMBIA CENTRAL FARMERS' INSTITUTE	130
MARITIME NOTES	130
<b>HOME MAGAZINE.</b>	
FAMILY CIRCLE	126
UNCLE TOM'S DEPARTMENT	127
"HOMEWARD BOUND" (ILLUSTRATION)	128
THE CHILDREN'S CORNER	128
"LITTLE RED RIDING-HOOD" (ILLUSTRATION)	129
PUZZLES	129
THE QUIET HOUR	130, 137
<b>NOTICES.</b>	
GOSSIP	131, 132, 137, 138, 139
AYRSHIRE BREEDERS' ASSOCIATION ANNUAL MEETING	135
<b>ADVERTISEMENTS.</b> 113, 114, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140	

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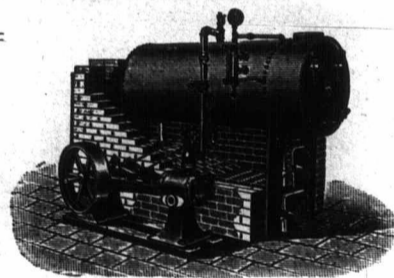
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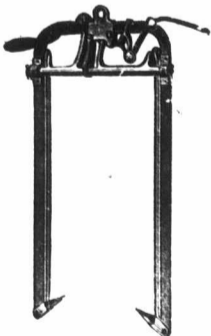
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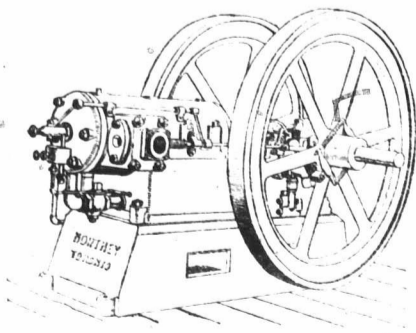
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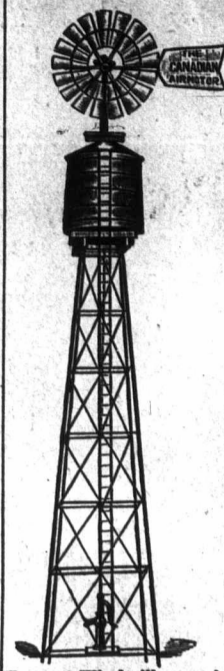
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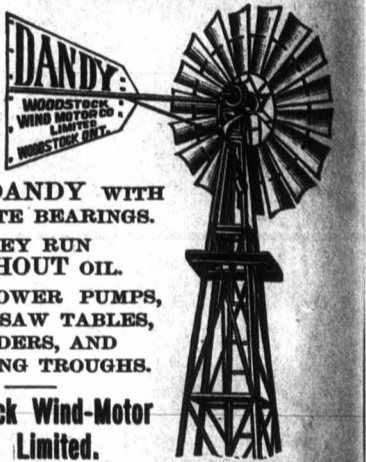
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# FARMER'S ADVOCATE

AND HOME MAGAZINE

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

Vol. XXXIV.

LONDON, ONT., AND WINNIPEG, MAN., MARCH 1, 1899.

No. 473

## EDITORIAL.

### The Teaching of Agriculture in Ontario.

A bill amending the School Law of the Province of Ontario has been introduced by the Minister of Education in the Provincial Legislature now sitting in Toronto. Among other features, it makes provision for the employment of graduates from the Ontario Agricultural College to give instruction in the schools. The clauses referring to this subject are as follows:

"(1) The Council of every municipality may, subject to the regulations of the Education Department, employ one or more persons holding the degree of Bachelor of Science of Agriculture or a certificate of qualification from the Ontario Agricultural College to give instruction in agriculture in the separate, public and high schools of the municipality, and the Council shall have power to raise such sums of money as may be necessary to pay the salaries of such instructors and all other expenses connected therewith. Such course of instruction shall include a knowledge of the chemistry of the soil, plant life, drainage, the cultivation of fruit, the beautifying of the farm, and generally all matters which would tend to enhance the value of the products of the farm, the dairy and the garden.

"(2) The trustees of any public, separate or high school or any number of boards of such trustees may severally or jointly engage the services of any person qualified as in the preceding section for the purpose of giving similar instruction to the pupils of their respective schools, providing always that such course of instruction shall not supersede the instruction of the teacher in charge of the school as required by the regulations of the Education Department.

"(3) As far as practicable the course of lectures in agriculture by such temporary instructor shall occupy the last school period of each afternoon, and shall be open to all residents of the school section or municipality."

It will be observed that the above provisions, like the authorization of the new text-book on agriculture issued last year in the Province of Ontario, are simply permissive, the word "may" being used in sections (1) and (2)—municipal councils "may" employ and school trustees "may" engage. It is also stipulated that the contemplated instructions must not supersede the regular work of the teacher as provided by departmental regulations, and the lectures of the temporary, itinerant instructor are relegated to the last school period of the afternoon. Hence, unless a large staff of traveling instructors were employed it would be a long time between the lessons on agriculture in each of the many schools in a township. Up to the present time about 90 B. S. A.'s have graduated from the Ontario Agricultural College, the rate being about one dozen per year, and a good many of them are occupying positions in similar institutions in the United States. The probabilities are that very few would be available as itinerant lecturers to serve the thousands of rural schools in the Province, providing the plan were otherwise workable and the compensation offered them were adequate.

The proposed amendment is a virtual admission that the public school teachers of Ontario as at present taught and trained are not competent to teach the subject of agriculture. If that be so, and the subject is one that should be dealt with, why not begin at the beginning, viz., the qualifying of the teachers? The question that will naturally arise in the mind of a farmer is, should not the teachers drop Latin and French and some other things from their present course and be taught agriculture and the related sciences instead? With the new scheme in view, we believe that for two reasons at least he will answer in the affirmative:

1st. It would be more economical than to pay an extra teacher's salary and traveling expenses for occasional lessons.

2nd. Instruction by the regular teachers, providing that they are competent, may very reasonably be expected to be much more systematic and efficient than when given by itinerants, who, however

well-equipped with knowledge of the facts of science, have had little or no training as teachers of children, and of whom, as already indicated, very few would be prepared to take to the road in the capacity of "lecturers."

### Away with Scrub Sires!

Never in the history of our country was the necessity for improving the quality of our beef stock more apparent than at the present time. Never was competition so keen and aggressive in the markets of the world or the tastes of buyers and consumers so fastidious. Never were there so many countries so ready to cater to the British market, which is and will be our chief dependence as an outlet for our live stock and its products, and it is plain that our only hope of being able to hold our own in the race for supremacy, or even of equality, lies in our producing goods of a quality equal to the best, and in order to do this with any reasonable degree of profit to the producer we must avail ourselves of all the means at our disposal to produce them at the lowest possible cost. To this end we must have a class of stock that will give a fair return for the food consumed.

The complaint comes from all parts of the Dominion that our beef cattle as seen in the markets of our own country and of Great Britain are sadly deficient in quality and finish, and compare unfavorably with those from the United States and other countries with which we have to compete. That the complaint is too well founded few will deny. If Canada is to hold her own in this competition, immediate and prompt action must be taken to remove the imputation and the fact. The cause is patent to all observers. It lies mainly in the fact that too large a proportion of our farmers are failing to take advantage of their opportunities to improve the quality of their cattle by the use of pure-bred bulls of good quality. It is difficult to understand how a class of farmers such as we have in Canada, progressive as a rule in adopting improved methods and in keeping abreast of the times, should actually have retrograded as they seem to have done in the matter of producing a creditable class of beef cattle. Our dairymen have manifested a progressive spirit in improving their cattle from a dairy standpoint and along dairy lines by the only means by which such improvement can be made—that is, by using only pure-bred sires of proper type, weeding out inferior cows, and feeding liberally. The example published in our last issue, of the magnificent results of the application of these means in the herd of Mr. Tillson, by which the average yearly milk production of a herd of 55 cows has been brought up to 11,000 pounds, and of butter 476 pounds each, is a striking exemplification of the soundness of this principle. We are well aware that breeders of the beef breeds of cattle freely charge the introduction of the special dairy breeds with the crime of degrading the general cattle stock of the country. There is much less truth in this charge than many are disposed to believe. Very few of the cattle offered on our markets show any marks of the dairy breeds, and very few steers of these breeds are raised. Bulls of the special dairy breeds are being used by only a small proportion of the farmers of Canada, a very great majority of whom favor the beef breeds, and believe, perhaps rightly, in the beef grade or general purpose cow as being best suited for the purpose of the general farmer. The cow which will give a fair flow of milk and will produce calves which fed on her skim milk and properly cared for can be made to fill the bill for export heeves at two and a half to three years old will always, and properly, meet the approbation of the bulk of our farmers. But the question is, are the men of this great army who profess to believe in the merits of this class of cattle doing their share in the work of raising the standard of the class? There can be but one answer. They know they are not. The fact is

patent to all disinterested observers that while they have been standing at the street-corners cursing the dairy breeds for spoiling our cattle, they themselves have been allowing their own to degenerate by using inferior and low-grade bulls, with the result that instead of keeping pace with the progressive spirit of the age, they find themselves fooling with cattle which cannot be compared with those their fathers owned nearly half a century ago. The writer well remembers some thirty years ago that when a first-class bull was brought into a neighborhood it was not unusual for the owner to have a list of from 75 to 100 of his neighbors' cows on his books at a service fee of two dollars, enough in many cases to repay in one or two seasons the cost of the bull. The result, as we all know, was that good, big, breedily-looking general purpose cows were common, and plenty of well-bred steers could be found for feeding, such as were a pleasure to look upon and a satisfaction to feed. But how is it to-day, and how has it been in the last ten or fifteen years? We know many cases where men have brought high-class bulls into a district, and standing them at the same fee, have not been patronized to the extent of more than a beggarly dozen of cows in a year. And it was not because of the existence of dairy bulls in the district, for only few patronized them, while the men who profess to believe in the beef breeds and the general purpose cow were breeding from low-grade bulls of their own raising or inferior ones whose services were held at fifty cents to insure a calf. The fact may as well be faced at first as at last, that the dairy breeds are here to stay, for the reason that they are paying their way and making good money for their owners all the year round, when properly cared for; and there is no class of farmers in the Dominion standing on safer ground than are the dairymen, but there is ample room in this great country for both the beef breeds and the dairy breeds—aye, and for the general purpose cow too—and those whose tastes do not run to dairying as a specialty have just as large a field for the cultivation of their tastes and proving themselves benefactors of their country by improving the class of cattle they fancy by the adoption of intelligent methods. The man who undertakes to look up a few steers for feeding, or the man who feeds them, needs no argument to convince him of the vital importance of this subject. There is pleasure and satisfaction as well as profit in feeding the well-bred, broad-backed, square-ended bullock which pays for his feed and gives a good balance on the right side of the account, while the bony, three-cornered, ill-bred brute eats more, makes less gain in weight, makes a low-grade class of beef, and discounts the price of the whole bunch when a buyer comes round.

We believe it is safe to say that the difference in the selling value of these two classes in our best market at two and a half years old is at least \$20 a head, while the cost of producing the lower-priced animals has been greater than that of the other, which means a loss of millions of dollars on the cattle marketed in Canada every year, and this loss falls mainly on the men who raise them. A corresponding loss is sustained on all the cattle of this class kept upon the farms of the Dominion, and however much we may deplore the fact, it is certain that the remedy is not to be found in whining over the decadence of our cattle nor in harping on "the tune that the old cow died of," but by every man asking himself the question, "What am I doing to improve the situation?" and by carrying into practice a resolve to begin at home by improving his own stock by the use of the best sires within his reach, and joining in a vigorous crusade against scrub sires. It seems almost incredible that men will so carelessly neglect their own direct interest by the use of mongrel sires, when good pure-breeds can be easily purchased or their services secured in nearly every locality at the reasonable fees now current. The small extra initial outlay is a mere trifle, when the certain resulting advantages are considered. Let us have done with this "scrub" folly, and let the new leaf be turned over this very season.

## THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN  
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JOHN WELD, MANAGER.

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LONDON, CANADA.

## Beauty and Utility Combined.

GENTLEMEN,—A long and severe illness has prevented my telling you at an earlier date what I thought of the Christmas number of the FARMER'S ADVOCATE, but even now I feel I must add my mite to the congratulations you so justly deserve. In my opinion the issue is not only beyond all praise in point of both beauty and interest, but it is of more actual value to the agricultural community than anything of the kind that I have seen.

As you are aware, I never cease urging farmers and dairymen to get out of the old ruts, to take and read good agricultural papers, and when possible, to travel about a little and compare notes with their neighbors and see how other people do things. In building, dairying, keeping stock, etc., you will often learn more from a visit to another farm than you have any idea of. New light will break upon you, new ambitions will arise, and you will learn not only how to do many things, but also, what is quite as important, how not to do them. Desirable as this social intercourse is, want of time and want of means prevent too many from profiting by it; but you, by a happy inspiration, have arranged for all your readers who cannot go and see these places—that the places are, as it were, brought to them—to their pleasure and very great advantage. Nothing adds more to the value of a publication than liberal and truthful illustrations, and I, for one, look through your Christmas number with increasing interest from time to time. You certainly merit the thanks of all your readers. With best wishes,

Truly yours, MRS. ELIZA M. JONES,  
Brockville, Ont., Feb. 21, 1890.

[EDITORIAL NOTE.—Farmers, and especially those interested in dairying, will be glad to learn of the restoration to health of Mrs. Jones. At an opportune time in the progress of Canadian dairying, she put her ready pen to paper, and the result was that practical little work which has had such a wide circulation through the English-speaking world, viz., "Dairying for Profit; or, the Poor Man's Cow." It proved a wonderful incentive to improved methods in the farm dairy and the more intelligent keeping of better cows. The good influence of her own famous herd of Jerseys also spread far and wide. We are obliged to Mrs. Jones for her generous allusion to the efforts which the FARMER'S ADVOCATE has made to advance the interests of the farmer and the keeping of improved livestock.]

## STOCK.

## Our Scottish Letter.

GLASGOW STALLION SHOW.

Clydesdale breeders here have just got over their annual stallion show, and are able with some degree of confidence to review the situation. The show was one of the smallest in point of numbers ever held in Glasgow, only 94 horses altogether appearing. Prior to the opening of the show over 50 horses had been hired for service during the ensuing season, and only two or three of these appeared at the show. This is a great change from the days when about 200 horses were exhibited, and between 50 and 60 were hired during the show and on the preceding day. The system of engaging horses in advance by private treaty has developed greatly during the past ten years, and as a hiring fair for stallions Glasgow show has been shorn of much of its glory. Only a dozen horses were engaged on the show day, and the terms offered were certainly not high. Possibly the best would not exceed an equivalent to about £240 for a season, and the worst would be well sold at about one-half that figure. A notable circumstance was the fact that the two horses selected by the judges of the Glasgow Agricultural Society, Mr. James Kilpatrick's massive big horse Cawdor Cup 10045, and Mr. Walter S. Park's Clan Chattan 10527, were both hired on the previous day by deputations from Strathearn in Perthshire, the older horse, Cawdor Cup, having been selected by the Crieff folks, and the younger one, Clan Chattan, by the Forteviot folks. Of course these engagements fell through when the horses were selected for the Glasgow district, and the Strathearn men had to look elsewhere.

In the open classes, as they are called, there was an excellent show of aged and three-year-old stallions, but the two-year-olds were a disappointing lot. The winning aged horse was Hiawatha 10067, now owned by Mr. John Pollock, Papermill Farm, near Glasgow. This horse secured the same honor last year when owned by Mr. Matthew Marshall, Stranraer, and on both occasions he has thoroughly deserved his place. He is a seven-year-old bay horse, and was bred by Mr. W. Hunter, Garthland Mains, Stranraer. He was got by the massive big horse Prince Robert 7135, which himself won first prize at the Stallion Show in 1892. Hiawatha is a horse with wonderful quality of limbs. His feet and legs are unimpeachable, and his hind leg is simply perfect. It may be put down as a model hind leg in every respect. He is not a wide horse, and there are horses with stronger knees and forearms. As horses are judged in Scotland, he is a very difficult one to beat, and will take some handling before he can be beaten in a Scottish showing. His dam, Old Darling 7365, is an exceptionally good mare, and just about invincible amongst mares of her age in Scotland. Hiawatha was also for the second time awarded the Cawdor Cup as the best horse on the ground. The horse placed second to him in his class was Mr. Kilpatrick's Cawdor Cup 10045, the winner of the Glasgow premium. He was first at this show two years ago when a three-year-old, and is a horse of immense substance, with extraordinary action. He was bred by Earl Cawdor, and his sire was the champion horse Prince of Kyle 7155, while his dam, Lady Lawrence 9476, was a noted prizewinner about ten years ago. Cawdor Cup was a popular winner. He excels, where Hiawatha is weak, in depth of ribs and substance, but his legs are not so fashionable and sweet as are those of his more successful rival. Mr. Riddell took third prize with Good Gift 10564, a very fine type of the Clydesdale draft horse. He was first at the H. & A. S. Show in 1897, and third at the Stallion Show last year. He has grand feet and legs, and is a gay mover, although perhaps a little wide in front—that is, between the points of the shoulders. Mr. Richard Dunn was fourth with the solid, massive horse, Gay City 10194, a horse with good action and winner in the three-year-old class last year. He was bred in Aberdeenshire, and was got by the Cawdor Cup champion horse, Prince of Carruchan 8151, from Ruby 10606, by McCamon 3818, an own sister to your Canadian horse, Tinwald Chieftain. Except that Gay City's hair is not so straight and silky on the legs as Scotchmen fancy, he is a first-rate, powerful horse. Another very useful horse, named Cannymen 10323, was placed fifth. This horse is owned by Mr. Alex. McRobbie, Aberdeen, and was hired to travel in West Fife. Mr. Matthew Marshall had two excellent horses—Moncreiffe Marquis 9053, and Macgregor's Best—placed sixth and eighth. The former is one of the best horses in the country, with the best of legs, great substance and size, and very well coupled. He is bad to beat as a typical cart horse. Between these two horses came another thick Macgregor horse, named Prince of Rosburgh. He was hired to go to Kinross. One of the best horses in the class, and not at all well placed, was Sir Christopher 10280, a massive, short-legged horse, owned now by the Lords Cecil, which won the championship at the H. & A. S. Show in 1897 as a two-year-old. This is a right good Canadian horse.

The three-year-olds were not very numerous; all they numbered 25. We have seen as many as 125 of the same age at this show. The quality was excellent, and the first prize winner, Casabianca 10523, owned by Mr. Jno. Crawford, Jr., Mauraband, Leith, is a magnificent animal of great weight and

size, got by the champion breeding horse Baron's Pride 9122. His dam, it is worthy noticing, Garthland Queen 13413, was bred by Mr. Hunter, who bred Hiawatha, and his own breeder was Mr. David Dunn, Rosburgh Mains. There was no disputing this horse's title to first place, and he was quite a formidable rival for the Cawdor Cup. He is up to a great size and moves well. He was hired some months ago to travel in Buchbyvie and Strathendrick districts, and is the kind of horse everybody wants. In second place stood Mr. Herbert Webster's black colt, Lord Fauntleroy 10370, bred by Mr. George Alston, and winner of numerous prizes. He has rare quality of bone, but lacks the substance and weight of Casabianca. After him, in third place, came Mr. Park's Clan Chattan, the winner of the Glasgow premium. This is a beautifully-balanced colt, got by Mains of Airies 10379, and bred by Mr. James Fleming, Friock Mains, Arbroath. Clan Chattan was a very late foal, and is therefore not big, but he is quality over all, and his breed action is what pleases a Scotchman. Mr. Wm. Renwick, Meadowfield, Corstorphine, was fourth, with Lothian's Best 10374, a brown colt of great substance and like breeding big cart horses. He was got by the noted breeding horse Lord Lothian 5098, and his dam, Flash Girl, 13233, was a champion mare by Flashwood 3604. He was bred by Messrs. Percival, Burgh; by Sand's Carlisle. Another big, powerful horse, named Gartly Squire 10350, owned by Mr. James A. Wallace, Claycrop, Kirkinner, was fifth. He was first last year as a two-year-old, and he is a horse of great weight and substance, with good feet. He was bred by Mr. Mennie, Brawlandknowes, Gartly, and was got by Sir Everard 5363 from a daughter of Prince of Carruchan 8157. Clan Chattan's dam was another daughter of the same sire. Mr. John Pollock's very bonnie colt, The Charming Prince, was sixth, and Mr. Wm. Crawford, Whiteside, Kirkcubright, was seventh with a sweet kind of colt named Sir Mark. He was bred by Mr. James Lockhart, and his dam was the Darnley mare Mehetabel 13124. Plenty of good horses were unplaced, as this class, although small, was well selected, and there were no weeds amongst the horses exhibited in it. The winning horse in the two-year-old class was an upstanding colt named Fikle Fashion 10546, owned by Mr. Wm. Dunlop, Dunure Mains, Ayr.

The next event in the calendar will be the spring bull sales. "SCOTLAND YET."

## Separator Milk for Calves.

The discussion which is going on in your correspondence columns as to milk substitutes for calves shows that farmers are beginning to realize the value of cream and butter as marketable commodities, and I have now some hope of seeing co-operative dairies taking root in Scotland. In the paper which I read at the Hawick Farmers' Club I did my best to prove that separated milk was a much more valuable food than it was believed to be by farmers. The medical profession, when all remedies fail to cure some forms of indigestion, throw physic to the dogs and put such patients on skimmed milk, having discovered that milk when the fat is removed is more easily digested, and can be taken in larger quantities. It is not uncommon for such patients to live for months and grow fat on such milk alone. Again, in rearing children on the bottle, cow's milk must be largely diluted at first, and gradually given stronger and stronger, until they are able to digest it as it comes from the cow. Such experience made me feel certain that calves could be reared on separated milk with less mortality, and, when not intended to be killed as fat calves, almost as well as on whole milk.

This is a question which has been engaging the attention of our Australian farmers since butter began to be exported in such quantities, and I was gratified to learn from an article in the *Sydney Morning Herald* that in New South Wales calves were reared most successfully on separated milk alone. It is thus proved that the conclusion at which I had arrived is correct. Such being the case, farmers need have no fear of using separated milk alone in rearing their calves, and may save all expense and trouble in giving cod-liver oil or any other pure fat. So soon as the colostrum disappears, and the calf is fairly started, it will thrive well on separated milk alone. Chemists tell us whole milk consists of 4 per cent. of casein, 3.7 per cent. of fat, 5 per cent. of lactin, .6 per cent. of salts—13.3 per cent. of total solids, 86.7 per cent. of water. The casein is the albuminous part; lactin is something like sugar. When we examine such an analysis we see that, even with the fat left out, the most important ingredients remain, and whatever chemists may say as to the necessity of fat, we know by experience that milk from which it has been abstracted is an excellent and sufficient food. Other food stuffs—such as well-boiled Indian meal, bran, etc.—might be given to the calves as soon as they could take them, in addition to a liberal supply of the separated milk. In that way our farmers might not only rear calves, but get a good return from a co-operative creamery.—John Haddon, M. D., in *Scottish Farmer*, Jan. 30th, 1890.

The next few weeks will doubtless witness increasing activity in the demand for pure-bred cattle and hogs. The excellent prices obtaining for beef cattle and the growing proportions of the dairy trade, as well as the establishment of new pork-dairying houses, are indications of healthy expansion.

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The Early Importations of Shorthorns to Canada.

According to the best records available the history of the importation of pure-bred Shorthorn cattle to Canada dates back to 1825 or 1826, and the Province of New Brunswick has the honor of having made the first importation, the Board of Agriculture of that Province, through the then Speaker of the Legislature, having imported four bulls, all of which are registered in the first volume of the English herd book; but no females were brought out with them. In 1832 Judge Robert Arnold, of St. Catharines, Ontario, owned the registered cow Countess = 782 =, bred by C. H. Hall, Harlem, N. Y., sired by imp. son of Comet (155), dam Princess = 419 =, imp., bred by Robert Colling, and born in 1827, so that the late Judge Arnold

high-class stock, such as were likely to stand well in the competition for prizes at the Provincial Fair. Among these were the Millers, of Markham and Pickering, and Mr. F. W. Stone, of Guelph, whose first importations of Shorthorns were made in 1854, the former exhibiting at the Provincial Fair at London in that year, winning first-class honors.

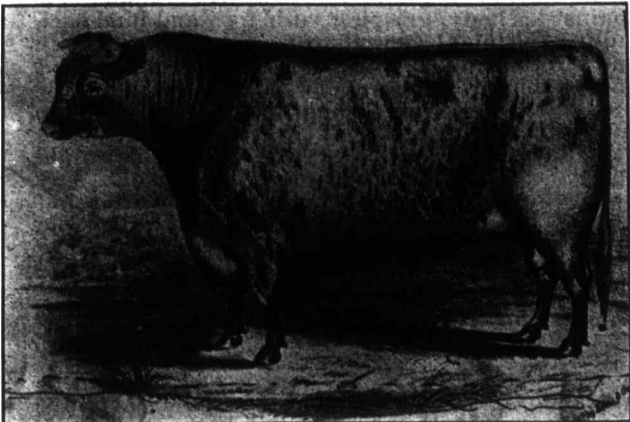
The late George Miller, of Markham, came to Canada from his native Scotland in 1832, and was followed three years later by his nephew, Mr. John Miller, who yet lives in Pickering, being now in his 82nd year, and who is, so far as we know, the oldest living importer of pure-bred stock to Canada from the Old Country, having brought with him a dozen Leicester sheep and a pair of Yorkshire pigs. His father, the late William Miller, of Pickering, and his two brothers—Robert, of Pickering, and William, now of Storm Lake, Iowa—came out in 1839, bringing with them ten Leicester sheep and a pig, so that the Millers were among the pioneer importers of sheep and swine to this country, if not, indeed, the first to venture in that line, and it required no little courage to undertake such an enterprise in those days, before steamships were in vogue, and the voyage by sailing vessel often extended over eight to twelve weeks, the accommodations being very limited and the risks much greater than in the present day. It was after one of these long and tedious voyages that William Miller and his sons landed on this side the Atlantic, and young Willie, when informed that he was in America, shook his curly head and declared, "I will nae believe it till I see my Uncle Geordie." This evidence was shortly after afforded him, and these brave men settled down to the work of hewing out for themselves homes in their adopted country, and entered upon a career in importing and breeding pure-bred stock, which extended over many years, and is yet continued successfully by at least one of the pioneers of the family (the sage of the Thistle Ha'), and by others of a younger generation.

some of which were purchased by the late Mr. John Snell, of Edmonton, who also made his first show in Provincial competition at Cobourg in 1855, winning a fair share of prizes with Cotswold and Leicester sheep. From that time forward for many years the names Miller, Stone and Snell held a prominent place in the records of the prize lists at Provincial Fairs and were widely known as associated with high-class stock breeding and successful exhibiting. Mr. Stone imported largely in 1855 and also in 1856, and in October of that year held a public sale of Shorthorns, at which prices unprecedented in Canada up to that date were obtained, many buyers from the United States being present, and quite a number of animals selling at from \$300 up to \$750, at which price the imported cow, Margaret, was purchased by Mr. John Hles, of Puslinch, while the late John Snell paid \$1,300 for the cow Fairy and her yearling daughter Fancy, and \$400 for Prince of the West, a bull calf under a year old.

In 1857 the late John Thomson, of Whitby, imported three excellent animals from the herd of Mr. James Douglas, Athelstaneford, Scotland. These were the cows Lady of Athelstane and Nerissa 11th, and the bull Bridgegroom, a first prize winner at leading shows. In this year, also, Mr. R. R. Bown, of "The Ox Bow," now Bow Park, Brantford, imported three head—the bull Master Graham = 107 =, a first prize winner at the Provincial, and the cows Bessie, by Bankfield, and Roan Duchess, by Lord Ducie, a very prolific family.

The impression, we believe, is general that the introduction of Cruickshank Shorthorns into Canada was of comparatively recent date, as it is only in the last twenty years that they have been accorded the distinction of a famous family, but the records show that as far back as 1859—just 40 years ago—Mr. Neil J. McGillivray, of Williamstown, in the County of Glengarry, Ont., imported four cows and a bull, two of the cows and the bull being bred by Amos Cruickshank, of Sittyton, the breeding of which is familiar to all students of Shorthorn lineage, the cows being Honesty = 232 =, by Procurator, and Model = 371 =, by Matadore, and the bull, Royal George = 240 =, by Master Butterfly 2nd. These cattle passed out of Mr. McGillivray's hands shortly after, but were regarded as a very superior class, showing the influence of the master-hand of the breeder.

Among the first importations of note in the sixties was one for Geo. Miller, by Simon Beattie, in 1861, with which came the bull Baron Solway = 23 =, for John Snell, of Edmonton. This bull made a splendid record as a prizewinner and a breeder, and is well remembered by many living stockmen, and that made in 1864, by the Hon. David Christie, of Paris, Ont., who brought to the fine farm now known as Oak Park, and owned by Capt. D. Milloy, a magnificent selection of five cows from the herd of Mr. James Douglas, of Athelstaneford, Scotland, who, judging from the character of these cattle, had shown himself a breeder in the best sense of the term and one who succeeded in producing animals of a type quite in advance of the times, such, indeed, as would measure well up to that of the best specimens of the most approved type of the present day. Those who remember the cow, Queen of Athelstane, will acknowledge that she has had few equals in the list of show cows since her day, being as she was level and straight in her lines, with a grand back and ribs and deep and full in all her parts, standing on short legs and showing great indications of constitution, but having been highly fitted for the showing in the Old Country, her usefulness as a breeder was sadly impaired, though she left two charming daughters, which had they been judiciously



BARON SOLWAY = 23 =

IMPORTED IN 1861 BY SIMON BEATTIE, FOR JOHN SNELL, EDMONTON, ONT.

evidently has the honor of having been the pioneer breeder of Shorthorns in Canada, as this cow bred eight calves while in his possession, and was then sold to Mr. Lewis F. Allen, of Buffalo, N. Y., then editor of the American Shorthorn Herd Book. Many of the useful Shorthorns of the country trace to this cow Countess.

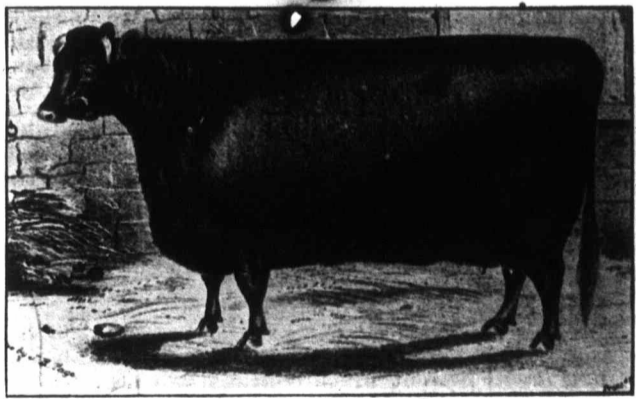
In 1833 the first importation of considerable importance was made by Mr. Roland Wingfield, an Englishman, who brought them to the neighborhood of Guelph, and shortly afterwards sold them to Mr. John Howitt, of the same place. This importation numbered six heifers and two bulls—the latter being Reformer = 212 =, and Young Farmer = 275 =, bred by Rev. Henry Berry, Worcester-shire. The cows were Lilly = 302 =, by Warden, bred in Yorkshire; Favorite = 179 =, by Henwood; Favorite = 180 =, by Warden; Dairymaid = 103 =, by Warwick; Pedigree = 408 =, by Myneher and Countess = 94 =, by Warwick. Of these cows Lilly by Warden seems to have the largest number of descendants on record, a great many useful cattle tracing in their lineage to her. Four at least out of these six cows were sold, after producing one or more calves, to go to Kentucky.

In 1835 the late Hon. Adam Ferguson, of Woodhill, Waterdown, Ontario, imported one bull and two cows. One of the latter, Beauty = 30 =, by Snowball, was the maternal ancestor of a very numerous family of good cattle widely scattered throughout the Dominion, showing strong breed character and excellent milking qualities. The other cow was Cherry = 76 =, by Dunstan Castle = 93 =, and the bull was Agricola, alias Sir Walter = 5 = (1614). In 1837 Messrs. George and John Simpson, of Newmarket, Ont., imported one bull, Roseberry = 215 =, and two cows, Rosebud = 469 = and Lady Jane = 281 =, by Sir Walter. A large number of excellent cattle have descended from the last named cow, and are widely distributed.

In 1845 Mr. Ralph Wade, of Port Hope, imported four heifers, among which were Snowdrop = 497 =, and Fisher Roan = 186 =, from which a good many very excellent animals have descended. These and a few other scattering importations of one or two pure-bred animals up to the last named date proved a potent influence in the districts where they were used in improving the quality of the stock raised, and an incentive to improvement which led others to embark in the enterprise on a larger scale, and to the great benefit of the farmers of Canada generally.

It was in 1846 that the Provincial Agricultural Association for Upper Canada was organized, and the first Provincial Exhibition was held at Toronto in that year. Liberal prizes were offered for the best pure-bred animals, the first prize for stallions in several classes being as high as £10, and for bulls £17 10s., or equal to \$70. For many years the Association encouraged the importation of first-class male animals by offering three times the amount of the first prize if won by imported males not previously exhibited. This movement probably did more in the following twenty years to stimulate competition and encourage enterprise in the importation and breeding of improved stock than any other agency, and from the date of the institution of the Provincial Fair rapid progress was made in this line.

In the year 1854 and from that date forward men whose names are familiar to the present generation and who are well remembered personally by many of the older stockmen of the present day ventured largely in the enterprise of importing



QUEEN OF ATHELSTANE = 439 =

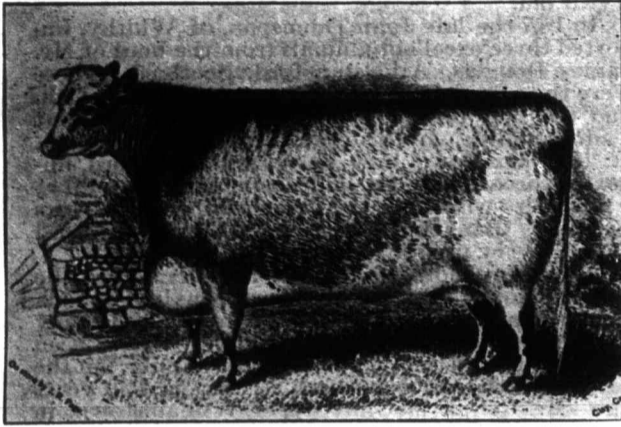
IMPORTED IN 1864 BY HON. DAVID CHRISTIE, PARIS, ONT.

mated with the right class of bulls, might have perpetuated the excellencies of a rarely good family, but, strange to say, they seem to have almost entirely disappeared from Canadian records, in so far, at least, as the female line is concerned.

The importation in 1867 of two cows and two bulls by Mr. George Isaac, of Baltimore, Ont., from the herd of Sylvester Campbell, seems to have been the first of the Kinellar stock to come to Canada, but they made a lasting impression and were soon followed by many more from the same source and of a character which has done splendid service in moulding the type of the modern Shorthorn as we find it in the best of the breed.

It was in 1867 that Hon. M. H. Cochrane, Compton, Quebec, entered the list of importers by bringing out the star performers Rosedale and Baron Booth of Lancaster. Rosedale had made a great

record as a show cow in Great Britain, having won for Lady Pigot, by whom she was bred, in two years upwards of five hundred guineas in prizes. She was a daughter of Mr. Booth's Valasco and of Rosy by Master Belleville, and cost Mr. Cochrane 235 guineas, or about \$1,175. She was a model Shorthorn and had an unbroken run of success as a prizewinner at leading shows in Canada and the United States, and proved a capital breeder as well. Baron Booth of Lancaster was sold shortly after importation to J. H. Pickerell, of Illinois, the present editor of the American Shorthorn Herd book, in whose hands he made a splendid record as a prizewinner and a sire of winners. From this time and throughout the following decade importations were made on a large scale, in some cases numbering thirty to fifty head of cattle, Mr. Cochrane being one of the largest operators. It was in 1868 that he paid Capt. Gunter,



ROSEDALE =2243=  
IMPORTED IN 1867 BY HON. M. H. COCHRANE, COMPTON, QUE.

of Wetherby, 1,000 guineas for Duchess 97th, the highest price ever paid up to that date for a female Shorthorn, and in 1869 came Queen of Diamonds, a magnificent show cow, which had won many prizes in England, and had a successful career in the U. S. Of this cow so good a judge as Richard Gibson has written: "She was, after Queen of Athelstane, the most symmetrical little cow I can call to mind."

In 1870 Mr. John Miller, of Brougham, made an important importation, which included, among others, the fine show cows, Cherry Bloom and Rose of Strathallan, which had been prizewinners in the old land, as they were at the leading shows in Canada, as well as proving exceptionally good breeders, the last-named cow having become famous by the prizewinning records of her descendants, which are highly prized at the present time.

In 1871 Mr. James I. Davidson and Mr. John Dryden made their first importations of Cruickshank cattle from the Sittyton herd. It was in this year that Mr. Dryden brought out the matronly cow Mimulus, by the famous Champion of England, the most potent influence in moulding the character of the greatest herd of its day. Mimulus was the dam of a number of superior bulls, including the celebrated Barmpton Hero =324=, himself a champion, and whose sons and grandsons made a phenomenal record in winning championship honors at leading shows in Canada. Repeated drafts from the same source, made in succeeding years, rendered the name and fame of these breeders well known throughout the American continent. Mr. Davidson having for several years had practically a monopoly of the Sittyton stock coming to America, of which he imported largely. Important importations of Scotch-bred cattle were also made in the seventies by the Thompsons, of Whitby; the Hunters, of Alma; the Isaacs, of Bomanton; J. S. Armstrong, of Fergus, and others, and from that date importations were numerous, and the breed was firmly established in the Dominion on a sound basis in the hands of many skillful breeders, who have well maintained the reputation of the breed both at home and abroad.

### How Shall We Produce the Ideal Bacon Hog?

To the Editor FARMER'S ADVOCATE:

SIR,—The farmers who are engaged in the swine industry and are aiming to produce the ideal bacon hog are at present much confused as to the proper breed of hogs, and, when this difficulty is ended, how to feed them to produce good firm bacon. We farmers go to hear someone who, it is said, knows all about the best breed and feed. This gentleman will tell us to get a Tamworth or Yorkshire boar to cross on our sows; then to feed no corn and but very little grain of any kind, give lots of exercise, and all will be well. Then comes another gentleman who also knows all about hog-raising. He tells us to get a Berkshire boar, and feed grain, shorts, corn, barley and rape, and to force our hogs as quickly as possible up to the desired 180 or 200 pounds, and we will be money in pocket. Now, how do we know which to follow? Then we hear the question asked, "Does feed or breed produce the soft bacon?" Now, we have been breeding hogs for the last eight or ten years, and during that time we have fed fifty to one hundred hogs per year, and have tried all the most prominent breeds, viz.: Berkshires, Poland-Chinas, Chester Whites, Tamworths, and lastly, the Duroc-Jersey. We have also had a wide experience in feeding, and have come to the conclusion that any breed of the

above named will produce good firm bacon or very soft bacon. I know that the Tamworth or Yorkshire are the most apt of all to produce soft bacon if they are not properly handled. Any breeder knows that they are a large, coarse hog, and their forms require a longer time to ripen than any of the smaller and finer breeds. We find that it is impossible to produce good firm bacon in less than eight or ten months with Tams or Yorks, but taking the Berkshires on the same feed they will make firmer bacon at five or seven months. We find that the Duroc-Jersey will ripen a little ahead of the Berk, and the pork will be as fine, if not finer, than any of the lot if properly fed.

Our method of feeding to a finish is this: Having a good place for the pigs to run in, say a well-grown patch of rape or clover, we feed barley and oats (chopped) in equal parts, with some shorts fed one day in the week; and for the last two weeks all the corn they will eat. This fall we had eighty pigs, all pure-bred Durocs, and our buyer gave us \$5.15 per cwt., while he bought hogs of all other breeds and their crosses for \$5, and he told us that ours were the cheapest from a bacon point of view and would make him the most money. Any hog must be made ripe, and this point can only be reached by age. Forcing will not ripen, but has a tendency to extend the time, if anything, of maturity. We have been told by many gentlemen who know all about it that we must go more into Tams and Yorks, as they will produce leaner pork. This we believe to be true, for we find it impossible to fatten them until after they are one year old. First we were told to kill at five or six months, then again we are told that we must not kill until eight or ten months of age, but I think that farmers will do as well to use their own judgment a little and not trot to every whim that the "know-alls" think fit to tell them. From our experience we favor breeding only from pure-bred sires and dams. If cross-bred pigs have proved in some cases profitable feeders, it is only another evidence of the value of pure blood, and there is no evidence that pure-bred pigs will not give fully as good results, and the prices that pure-bred pigs are selling at now need not debar any farmer from having them.

Kent Co., Ont. R. L. JARVIS & BRO.

### To Induce Oestrus.

To the Editor FARMER'S ADVOCATE:

SIR,—In ADVOCATE of 16th January I see a recipe recommended to bring cows in season, also your note on same. I will give my method. I use rennet (stomach of calf). For a large cow I would cut from a dry rennet a piece the size of a walnut. Soak it over night in about half a cupful of warm water. In morning pour off liquid and add to as much dry salt, and let the cow eat it. Have got liquid rennet from cheese factory, but prefer making liquid myself. I have used rennet for years and it always had the desired effect. I never noticed any bad effects from its use. I wish you continued prosperity.

SUBSCRIBER.

### Scalding Pigs.

To the Editor FARMER'S ADVOCATE:

SIR,—In your paper of January 16th, 1890, a reader wanted to know how hot water should be to scald pigs, and the reply was that the water should be at a temperature of 185° or 195°. In your paper of Feb. 1, 1890, a correspondent says he has scalded lots of pigs and finds that 145° will take the hair off young pigs, while for older ones up to 160° is required. Now, I have scalded many hogs, using a thermometer. I have scalded hogs at 158°, but had poor results, as the water was too cool. I find good results when I use the water from 164° to 170°, but no hotter, for it sets the hair. If the water is up to 185° or 195°, I don't think there would be much skin left on when the hair would be off. I would like the man to explain how he can scald pigs with a temperature below scalding point, which is 150°. I also use ashes in the water, which is a great advantage to scalding.

Elgin Co., Ont., Feb. 6th, 1890.

### Docking and Castration of Lambs.

BY J. M'CAIG, PETERBORO, ONT.

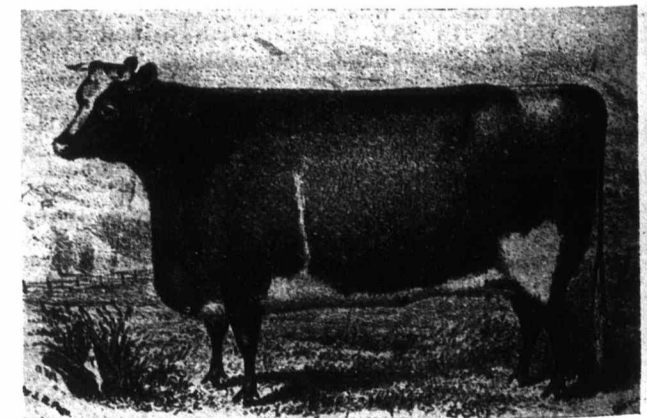
It should be almost unnecessary to speak of the operations of docking and castration. Both operations are simple and easily performed, and the purpose of each well understood by the ordinary shepherd. However, there are still a good many sheep-owners—they cannot be called shepherds—who neglect both operations. Of course, the man who is raising stock for breeding purposes does not castrate, but among the other breeders who are simply raising lambs for the butcher's block, it will generally be observed that it is the farmer who is raising the worst scrubs that usually leaves his ram lambs uncastrated. There are good reasons for both castrating and docking of lambs intended for the butcher. In the first place, wether lambs flesh up better on the back than ram lambs; they are better handlers. The ram may be heavier than the wether, but he will not be as nice quality. Even if he is heavier, he will have taken more food to produce a given weight than the wether will have taken, as he is not such a quiet feeder. In the second place, any rams, except the one with which the ewes are coupled, are more or less of a nuisance if not sold in August. This, of course, only applies to rams to be sold for mutton. The breeder of stock rams is rewarded for his extra work by better prices. If the ram lambs have been castrated, they

may run with the ewe lambs all fall and winter, if it is necessary to hold them over for better markets. Though all the ram lambs of a flock of pure-breds may not be suitable sizes, the breeder of such stock generally has to let all rams go uncastrated, as young stock is much harder to judge than old stock. An "unlikely" looking youngster may stretch out well by autumn, or a promising looking one go very small and stunted.

The advantages of docking are perhaps just as great as those of castrating. The danger of leaving them undocked is that on heavy lands and succulent grasses they often become soft behind and maggots are developed at the sides of the tail, frequently causing death if neglected. A lamb looks heavier, squarer, and more attractive to the butcher when docked, than he does with the brush dangling behind him, just as the Clyde colt looks better filled in the ham by shortening the tail.

To castrate the lamb, have an assistant hold it against his body, grasping both fore and hind legs, pulling the hind legs well up, so as to have the belly and scrotum well exposed between the thighs. Cut off one-third of the lower end of the purse and draw each testicle out with a slight jerk. Many find no bad results from cutting off two-thirds of the purse, including the testicles, with shears. This would be better done before the lamb is ten days old. Any time before three weeks old is better than after that time. The lamb should be not less than a week old and growing properly. The time chosen should be a warm, dry day, and the pens should have plenty of dry straw, as it is dangerous to have a newly-cut lamb lie in a cold, damp place. The morning is the best time for the operation, as the lambs can be stirred up if they lie down and have not the courage to suck right away, and cases of bleeding can be watched. In the case of well-grown lambs over five or six weeks old the scrotum should not be shortened, but a slit should be cut in each side to allow the passage of the testicle. The surrounding membrane should be opened and slid back, and the testicle scraped and severed back three or four inches on the cord. Bleeding is prevented by severing with a hot iron, instead of by cutting. Lately instruments have been devised by which the cord is severed by crushing or torsion, rather than cutting. These elaborate methods, however, are not necessary except in the case of lambs three or four months old.

Lambs may be docked at the same time that they are castrated, if the operations are done when the lamb is young. This is a matter of convenience. As far as the lamb is concerned, it would doubtless be better to dock at a week old and castrate at two weeks old to lighten the shock to the system. Have the lamb held as in the case of castration and sever the tail at one cutting. The proper length can be better judged from below than from the upper side, as the lower side is bare of wool. The tails should be pretty short. There is no dangerous results from cutting the tail off almost at the spine if the lamb is quite young. There is no need of making them quite so short as this, although some exhibitors think they get a squarer and solid looking butt by leaving no stump at all. This is a little unnatural, however, even for show sheep. The ewe lambs may be left with three-quarters of an inch and the ram lambs with fully an inch. It gives strength to the appearance of a ram lamb to have sufficient dock at least to lie flat across the rump. If the dock is too short it will not lie down at all. It is a matter of no small importance to have a ewe with a short dock. They require less trimming in the fall, and do not get so foul on soft food in the spring. A sheep has less blood in proportion to its weight than the pig,

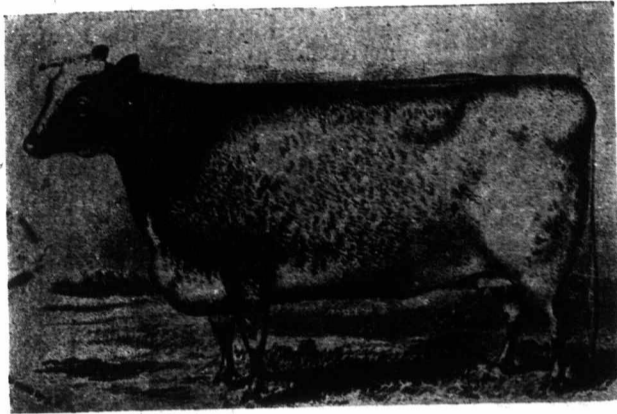


QUEEN OF DIAMONDS =5198=  
IMPORTED IN 1869 BY HON. M. H. COCHRANE, COMPTON, QUE.

horse or cow, and is more easily reduced by loss of blood. Where the tails are taken off with red-hot pinchers, which is sometimes recommended, the arteries are sealed up in the act of docking. In cutting, however, an occasional case of profuse bleeding may occur. The stump may be tied tightly with three or four laps of cord for a day or two in such cases. If the ligature will not stop the bleeding, then searing with a red-hot iron may be resorted to. The application of cold water will be effective in most cases. Another remedy is the application of powdered sulphate of copper (blue-stone) immediately after cutting. It would be advisable to dust a little of this on in all cases to check bleeding. Though fatal cases seldom occur, it would check unnecessary loss of blood. Pure-bred sheep bleed worse than common sheep, and precautions are more necessary in their case.

Feeding Beef Cattle.

In giving my experience upon the stall-feeding of fat cattle during the finishing period, I would emphasize the great importance of the herdsmen exercising care, kindness and attention. Without these requirements satisfactory gains will not be obtained from the feeding of any ration. To be systematic in all our work and regular in our time of feeding cannot be too carefully observed. We feed three times each day: about 6 a. m., 11 a. m., and 6 p. m. We cut the bulk of our fodder, which should be well-cured clover hay, although the animals require a change, and will relish an occasional feed of the long hay. After a little of the cut hay, ensilage from well-matured corn is the best and cheapest bulky food we can have. With about 35 pounds of such ensilage, what cut clover



ROSE OF STRATHALLAN - 480 - IMPORTED IN 1870 BY JOHN MILLER, BROUGHAM, ONT.

hay the animals will consume, and about eight pounds of ground grain per day, mixed together one feed ahead (say a mixture of oil cake, one pound; middlings, one pound; oats, four pounds; corn or peas, two pounds), I think the animals will make a more satisfactory gain for the food consumed than by giving a heavier ration. Even along with ensilage, we have found a small allowance of mangolds helpful, but we never use any condiments or artificial feeds. It is a matter of great importance to have fresh water accessible to the cattle at any time. We find animals thrive better fed in loose boxes, where they can get water whenever they wish, and they are thus allowed sufficient exercise. THOS. McMILLAN, Huron Co., Ont.

FARM.

How to Make Concrete Floors.

To the Editor FARMER'S ADVOCATE:

SIR, - As I have given in my previous letters instructions how to make concrete and how to build walls, I will in this letter take up how to make concrete floors, and in my next deal with silos, pigpens, etc. In laying concrete floors first set the manger and tail posts; to do so take a ground auger and bore the holes twenty inches or two feet deep, then put in these holes about three inches of concrete, and put the posts in and ram concrete around them. By doing this it will hold the posts firm after the stalls and floor is laid. Put in a post at each end of the row of cow stalls, and stretch two lines, one at the top and another at the bottom, from these posts; then place the remainder of the posts to these lines. By doing so the posts will be plumb and in line with each other. After these posts are set, then put in the bottom of gutter behind cows and one foot wider than gutter is to be when finished. Then place a plank nine or ten inches wide on edge next the cows and another five inches wide next the passage behind cows, the one next the cows plumb, the other sloping out from gutter; by placing short pieces of boards between these planks it will keep them from coming together in ramming the concrete around them. Take a small bevelled strip of inch stuff and tack it on the top edge of the plank next the concrete, so that when floor is finished it will leave a bevelled edge to top of gutter. After this form for the gutter is put in take a two by four scantling and place it in front of manger two inches higher than the gutter plank. This will give a grade of two inches to the floor. Now take and make a batch of concrete, seven or eight of gravel to one of cement, and spread it over ground about one and a half or two inches thick, and before ramming place in all the stone you can, and ram them in the loose concrete till they come within one and a half inches of the grade line. The very next batch make three of gravel and one of cement, and spread it over these stones, and ram it down well and float off with a wooden float. If there should not be enough moisture come to the surface sprinkle slightly with a rose sprinkler, and then float off. By using a wooden float instead of a steel trowel it leaves a grindstone surface or like first-coat plaster, and the cattle do not slip on it. Never put in more than two or three stalls with the rough concrete before finishing with the three to one, for if the whole stable is put in with the rough concrete and the next coat being put on after, it will break the set of the lower one; always finish within two hours after starting. Never use any sand, always gravel, and never put a top coat of sand and cement on the floor; always finish off

with the gravel and cement to the surface. All concrete work should be kept damp for at least two weeks after finished, by covering with cut straw or chaff, and sprinkling with water twice a week. This is very essential to a proper setting of the concrete, as if allowed to dry rapidly it is liable to crack.

By making the first batch of concrete eight to one and adding the stone, and the top three to one, it will make the whole floor about seven or eight to one of cement, and is cheaper than a plank floor at first cost and will last for ages, and by far cleaner and healthier than block paving or plank. Never put stone on ground first, as they will have a tendency to rock, but by putting the rough concrete first and stone after they become imbedded solid in it. A good many object to deep gutters before using them. I have them in my own stable, and would not use a shallow one. If they are too deep they can be filled in with concrete the next season, but if they are too shallow it is hard to remedy them. For floors for cow stables four inches thick is the usual thickness, and six inches for horses, and two inches for feed alleys. Gravel in size from wheat grains to hens' eggs should be used. NORVAL B. HAGAR, Travelling Instructor for the Battle Estate Cement Works, Welland Co., Ont.

Varieties of Grain in the Various Provinces of Canada.

For the purpose of gaining information as to the relative productiveness of the best known varieties of grain, the various Provincial Experimental Farms under the direction of Prof. Wm. Saunders, LL.D., have for years grown the different sorts side by side on uniform plots of from one-tenth to one-fourtieth of an acre. The seed used was uniform in character and in quantity sown per acre, and the manner of sowing was the same in each case. On each farm the time of sowing was also uniform. The following tables represent the yields of the most productive sorts, also the number of days from sowing to harvesting, in 1888.

Table with columns: Name of Variety, Ottawa, Ont., Nappan, N. S., Brandon, Man., Indian Head, N.-W. T., Agassiz, B. C., Average of all Farms, Average days from sowing to harvesting. Rows include OATS, TWO-ROWED BARLEY, SIX-ROWED BARLEY, SPRING WHEAT, and PEAS.

Table titled 'INDIAN CORN' with columns: Name of Variety, Ottawa, Ont., Nappan, N. S., Brandon, Man., Indian Head, N.-W. T., Agassiz, B. C., Average of all Farms. Rows include Red Cob Ensilage, Blue Cob Ensilage, etc.

Canada's Best Advertisement.

To the Editor FARMER'S ADVOCATE: GENTLEMEN, - I have received three regular copies of ADVOCATE since becoming a subscriber and value the paper highly. The Christmas number is also to hand. I appreciate having such a beautiful magazine in the house, and also the fact that farmers throughout Canada have in you gentlemen a firm ready to expend large sums of money and much time and labor not only to make agriculture financially successful, but to place it on a level with the other professions and create in farmers confidence in and a love for the business so essential to success. I hope a great many numbers of the Christmas edition went to the Old Country. I think it would do more good than the advertisements of all the real estate agents Canada has. W. W. FAWCETT, JR., Upper Sackville, N. B., Feb. 14th, 1890.

How the Smithfield Champion Dressed.

We have it on the authority of the Live Stock Journal that the Aberdeen-Angus heifer, Ju-Ju of Glamis, with which the Earl of Strathmore won the championship of the Smithfield Show, gave a dressed-carass weight of 1,248 lbs., equal to 11 cwt. 16 lbs. Her live weight being 15 cwt. 2 qrs. 21 lbs., her percentage of carcass to gross live weight thus comes to a fraction over 71 per cent. This was a long way in excess of any of the other animals exhibited at the Show. Her hide weighed 66 lbs., and she gave 135 lbs. of bone fat.



MIMULUS - 343 - IMPORTED IN 1871 BY HON. JOHN DRYDEN, BROOKLIN, ONT.

Hitch for Controlling or Leading Unruly Animals.

Take a half-inch or five-eighth rope; tie a knot on one end; make another knot far enough from the end to pass the rope around the neck; put knot on end through and tighten. Next put rope through mouth from rear side to off side; bring rope back under jaw to rear side. Next draw free end of rope through from rear to front between cheek of animal and portion of rope between neck and mouth. Now pass the rope back under jaw, then back through mouth from off to rear side, and pass between cheek and portion of rope between mouth and neck from front back and draw through. Take hold of the end of rope and let your animal go, and you will be surprised at the ease with which it can be held. D. P. L., Prescott Co., Ont.

Prepare for Seeding.

In the year 1898 the Ontario Agricultural and Experimental Union conducted nineteen different experiments covering nearly all the farm crops of Ontario on 3,028 different farms in the Province. Of these, 667 satisfactory reports were received by the director, C. A. Zavitz, from various parts of the Province, and from these the following tables have been deduced:

SPRING WHEAT.				
Variety.	Com. Value.	Straw—Tons.	Grain—Bush.	
Rio Grande.....	100	1.34	17.1	
Harrison's Bearded.....	88	1.22	16.2	
Pringle's Champion.....	90	1.30	18.8	
Spring Rye.....	59	1.43	18.8	
BARLEY.				
Mandscheuri.....	100	1.32	34.2	
Oderbrucker.....	91	1.27	34.0	
Kinna Kulla.....	57	1.22	26.9	
White Hull-less.....	53	1.20	2.31	
OATS.				
Siberian.....	100	1.68	51.5	
Bavarian.....	91	1.66	50.1	
Oderbrucker.....	85	1.44	49.3	
Joanette.....	66	1.57	47.6	
B. Tatarian.....	71	1.68	45.9	
PEAS.				
Early Britain.....	100	1.14	23.3	
Chancellor.....	100	1.15	22.3	
P. Blue.....	89	1.29	21.8	
Tall W. Marrowfat.....	78	1.21	20.0	
BEANS.				
White Wonder.....	100	.....	26.8	
Cal. Pea Bean.....	65	.....	19.2	
BUCKWHEAT.				
1898—Bush.		Two years. Average Bush.		
Japanese.....	16.6	22.8		
Silver Hull.....	17.	22.7		
Common Gray.....	16.1	21.3		
MILLET.				
Com. Value.	Height.	Tons—green.		
Jap. Pannicle.....	100	21.8	8.4	
Jap. Barnyard.....	77	26.0	8.0	
Jap. Common.....	100	24.2	7.9	
Hungarian Grass.....	31	23.2	5.6	
CORN.				
Height. Inches.	Ears—tons.	Crop—tons.	Stage.	
Mastodon.....	98	3.1	14.6	dough
Mam. Cuban.....	98	2.7	12.8	dough
Wis. E. W. Dent.....	85	3.1	11.6	firm
Salzer's N. Dakota.....	73	2.9	10.8	ripe
Early Butler.....	82	2.7	10.2	ripe
Kendle's E. Giant.....	52	2.1	6.3	ripe
LEGUMINOUS CROPS.				
Com. Value.		Tons—green.		
Grass Pea.....	100	7.9		
Tares.....	79	7.2		
Crimson Clover.....	55	5.4		
MIXTURES FOR GREEN FODDER.				
Com. Value.		Tons—3 years. Tons—1898.		
Oats, 1/2 bush. per acre	88	9.3	4.8	
Peas, 1 " " "				
Tares, 1 " " "				
Peas, 1 " " "	100	8.9	5.7	
Oats, 1/2 " " "				
Oats, 1 " " "	77	8.2	5.1	
Tares, 1 " " "				
CLOVER FOR HAY.				
Height of Crop—Inches.		Yield per acre.		
1st year.	2nd year.	Green.	Hay.	
Mam. Red.....	15	42	5.4	3.0
Com. Red.....	8	26	8.5	2.5
Alsike.....	8	25	7.5	2.4
Lucerne.....	9	26	7.7	2.0
CARROTS.				
Com. Value.		Tons per acre.		
Pearce's Improved Half Long.....	100	30.4		
Large W. Vosges.....	83	28.4		
Large W. Belgium.....	69	27.6		
Guerrande.....	61	22.7		
Danver's Orange.....	51	21.5		
MANGELS AND SUGAR BEETS.				
Com. Value.		Tons per acre.		
Evans' Im. Mam. S. Long.....	87	35.1		
Summer's Im. L. Red.....	100	34.7		
Danish Im. S. Beet.....	79	31		
Carter's Y. Intermediate.....	65	27.5		
Carter's Y. Globe.....	46	26.1		
TURNIPS.				
Com. Value.		Tons per acre.		
Purple-top Mam. Fall.....	89	39.3		
Jersey Navet.....	67	38.0		
Hartley's Bronze-top Swede.....	100	31.9		
White Swede.....	78	29.5		
POTATOES.				
Days to mature.	Table quality.	Per cent. marketable.	Yield, bush.	
Am. Wonder.....	124	80	191	
Empire State.....	113	97	190	
Tonhocks.....	101	100	173	
Great Divide.....	109	82	161	
Burpee Ex. Early.....	94	100	150	
Stray Beauty.....	83	57	124	

The above results were obtained on plots about one rod in extent, and may be taken as a guide to the comparative merits of the varieties included in the lists. They were selected as the best varieties grown on the Guelph Experimental Farm for a number of consecutive years. The results shown in the tables are the averages from the many correct reports received from all classes of soils over the various portions of the Province.

The time should be improved during the month of March to prepare for the spring seeding, by getting the seed grain prepared, so that time may not be lost when the weather and the land becomes suitable to start seeding. As a rule, the early sown crops prove the most successful. Implements, harness, etc., should, of course, be overhauled, repaired and put in first-class condition, so that everything may be in readiness when wanted.

An Admirable Stock Barn for a Small Farm.

A very complete little barn and basement has been fitted up during the past year by Mr. J. W. Craig on the fifty-acre farm he recently purchased some four miles north-east of the City of London. The upper structure has the frame of the old barn, but it has been sided up, painted and modernized to suit the new basement. The basement has stone walls 8 feet high, 21 inches thick, that stand upon concrete foundations 3 feet 3 inches deep and 2 feet 6 inches wide. As the basement plan shows, it is well lighted. The root-house extends beneath the driveway to the barn floor above. It is the intention to erect a cement concrete silo opposite the center of the east end, where a door space is shown. The arrangement of stalls for the stock is clearly shown in the plan. If desired, the horse stable could have been shifted back far enough to admit of two more double cow stalls, or the drive shed could have been made the horse stable and the cow capacity doubled. As will be seen, the plan is one which can be enlarged along the same lines to suit any sized farm, and still retain the convenience of caring for the stock. The farm is provided with excellent springs, which will be used to operate a hydraulic ram to supply fresh water in the stables.

Fig II. represents a cross section of the basement, showing the arrangement of the floors, gutters, feed passage, and ventilation system. The cement used

The feed passage is 8 inches higher than the floor. This, with an 8-inch board upon it, forms the back of cattle mangers. The stalls are 7 feet wide and 7 feet long. The divisions between the stalls, extend back 4 feet from the passage and are low enough that the backs of all the cattle are in view when standing up. The posts are set well down in cement. The gutters behind the cattle are 14 inches wide. One is 6 inches deep and the other 8, and Mr. Craig prefers the shallower one.

The horse stable is roomy and well equipped. Fig. III. shows the sort of mangers used. They are made the width of stalls, and swing on a rod (passing through the bottom near the floor) back into the passage to receive the hay or other feed. This is Mr. Craig's own invention, and, we believe, a good one. The heavy curved line at the top represents iron basins, in which the grain is fed. The floor of the stalls is covered with planks, which can be taken out and cleaned beneath, as desired.

Taking the basement as a whole, it is one of the neatest plans for a small farm we have seen, while it can be extended along the same lines to suit any sized herd, with changes that would suggest themselves to a man with ordinary inventive ability.

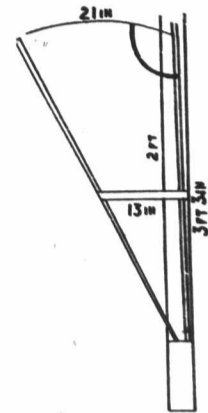


FIG. III.—SWINGING HORSE MANGER.

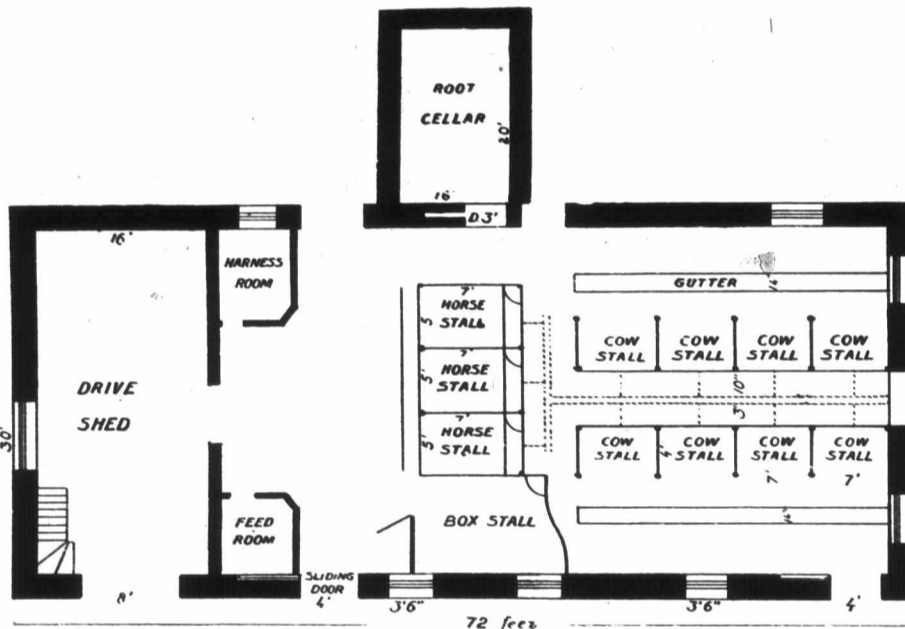


FIG. I.—BASEMENT PLAN OF MR. J. W. CRAIG'S STOCK BARN.

was from Queenston, Ont., and put in under instructions of Mr. Isaac Usher, whose ventilation system is also employed. The elevated platform, 3 feet 10 inches wide, between the two rows of cows has a 6-inch tile running through it lengthwise and opening to the outside of the building. This is shown in Fig. II., marked "fresh air." It is shown in Fig. I. by the double dotted line, and the single dotted lines are inch gas pipes conveying fresh air to the center of each double cow stall and to each horse stall. The outer end of each inch pipe has a perforated cap, which admits the fresh air as a spray, so that there is never any draft. As the temperature rises in the stable the heated air escapes by the ventilator shown above in Fig. II., making room for more fresh air to enter. With this system the doors and windows can be kept tightly closed, and the temperature will regulate itself, keeping the air pure at all times.

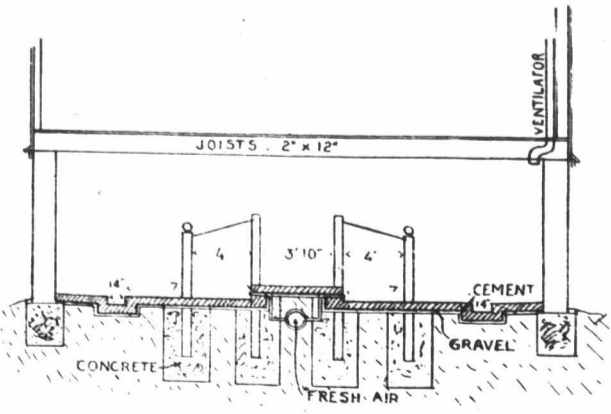


FIG. II.—CROSS SECTION OF STABLE, SHOWING ARRANGEMENT OF CEMENT FLOOR AND VENTILATION SYSTEM.

It might be remarked just here that as a rule the temperature in stables ventilated by this system regulates itself at about 50 degrees in all winter weather. Now, where a dairyman considers a warmer atmosphere better for his cows, the tile shaft could be constructed under ground for 60 to 75 feet, when the air would warm up to the temperature of the earth. In such a case the duct should go below the frost line, and it should have a tile drain below it to convey away the water that might enter the duct.

DAIRY.

The Cream Separator Essential to Success in Dairying.

To Editor FARMER'S ADVOCATE:

As you ask for the experience of those who have used the cream separators for the benefit of those who may think of buying this year, I will give you mine. I might say I have tried the shallow-pan and the creamer can, but find the separator does much better than either. I bought the largest size hand (or power) machine I could get. I wanted to keep about 25 cows, and I thought that would be too much milk to separate by hand. Then, again, I thought sometimes there would hardly be enough milk to make worth while

starting a power. After nearly five years' experience, I still think this is the best size for the farm dairy, and it is from this point of view I am writing. The first cost of the machine is more than it should be. Still, if dairying is to be a success, the separator must be counted on. If it will pay to dairy without the separator, it will pay better to have one. More and better cream is got, and with less trouble. If proper care is taken of the separator there will be no expense after first cost; I haven't paid more than \$2.00 for repairs in the time I have been running this one, and it has been in use winter and summer.

Now I shall try and tell you how some of the work is done. I might say I had no bank account to start with, but had to make the money out of the dairy to pay for any improvements made; it has done that and paid for many other things; has never been hauled out, frosted, or otherwise damaged. When we built the house, we put a lean-to on the north side, 12x24, for a dairy room. This is fitted up for churn, separator, and butter-worker. A piece of shafting runs nearly the length of the room, or rather two rooms, as it is divided, and on the west end there is a stairway leading into the cellar. Behind this building we had a tread power with belt running onto shaft. The milk is drawn to the dairy on a cart, made with low-down platform. This cart was made at very little expense, as the wheels were borrowed from the drill, and all the work was done at home but the axle. On this cart we put a cheese-factory can, as it has a cover which prevents the milk from slopping over. The cart is placed at stable door, as the milking is done there winter and summer. No smoke (smudges), no running around after cows, and when it rains, if the cows are allowed to stand for awhile the milk is dry while milking. Salt is often in the mangers; this is better than putting it on the ground, as I have done and many others do. A strainer is held over the can by means of a hoop. The strainer is made of cheese cloth—as many thicknesses as desired—and allowed to sag down in the center so the milk can be poured in without slopping over. When the milking is done, one man can run the cart to the dairy; the milk is taken off at a platform at the door of the dairy, which is the same height as the platform of the cart; then a barrel is put on the cart, placed under a spout connected with the skim milk spout of separator. When separating is done the cart is run back to the stable and the milk is drawn off by means of a tap at bottom of barrel; this saves the trouble of skimming the froth from



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the milk. I find the cart a great convenience, but intend putting on lighter wheels, as it will be much easier to handle; one man can handle more milk on this cart than ten men could in pails in the same time. The cream is kept in cream vats, made on the same plan as the factory vats, so that the cream can be surrounded with hot or cold water as desired. We have two vats, so while the cream is ripening in one it is kept sweet in the other. By means of cold water one can control the temperature, which is very important in the making of butter. Get a good thermometer, and use it, and you will have no witches in the cream.

The churning and working I will leave to others. If you have never used a barrel churn, get one this year, and try washing and salting the butter in the churn; also have a worker. If the dairy won't pay for tools to work with, try something that will. At present we are trying to find a market for all our make, put up in pound bricks. The butter is put in parchment paper, printed with name of farm and address, then put in folding paper box. This makes it much easier to handle the butter without injuring the bricks, and adds very much to the outward appearance of the package. No matter whether tub, box, or paper wrapping, if it is not clean and attractive in appearance the butter will not find so ready a sale, and anything that adds to the outward appearance of good butter adds to the profit of the dairyman. These boxes can be got from Mace, Wilson & Co., Montreal, at \$3.85 per 1000 in 5000 lots, and will cost laid down here a half cent each. The parchment paper will cost, with printing, in 1000 lots, \$2.40, making in all less than it will cost to put it in tubs. Some say it is too much work to put the butter in bricks. Well, if you have a worker, after a little experience you will find it is not so hard to do as it might seem. Some say, why go to all this bother and expense—one will get no more for the butter? I say to such, put yourself in a position to demand a better price and you will get it, or keep right on in the old way and you will get the old price and nothing more.

Shortly after we got the separator I got a second-hand tread power that we used till last fall. Had it been a good power I think it would have been all right, but it was not, so I have bought a 2 H. P. gasoline engine. This is more power than is needed to run the churn and separator, but as I wanted enough power to saw wood I got this size. This, I think, is the best kind of power for the farmer. However, I can't say much about it yet. We have not used it to run the separator yet, but have run the wood saw, churn, and washing machine. This washing machine is another great labor-saver. Once the power is got many things can be run by power other than wife power, and much cheaper than hiring the work done. The machine is always at home, and never talks back, and is the most satisfactory kind of help.

Now, in conclusion, I will say, don't get the separator thinking you can raise a good calves on the warm skim milk as you could on whole milk or milk that contained a part of the butter-fat; still, the calves will live on it, and other food can be supplied that is cheaper than butter-fat, which is too expensive feed for calves. If you patronize a creamery the hand separator might do, but if you have a farm dairy by all means have a power. I notice one of your correspondents, in a January issue, says the farmer has so much money invested in machinery that lies idle most of the year. Yes, just so; and the same men will be very slow to put a little money in a machine to be used the year round. This is the kind of work where labor-saving machinery is most needed.

A. N. LECAIN & SONS.

Sunnyside Dairy Farm, Eastern Assa.

Convention of Cheese and Butter Makers.

(Continued from page 93.)

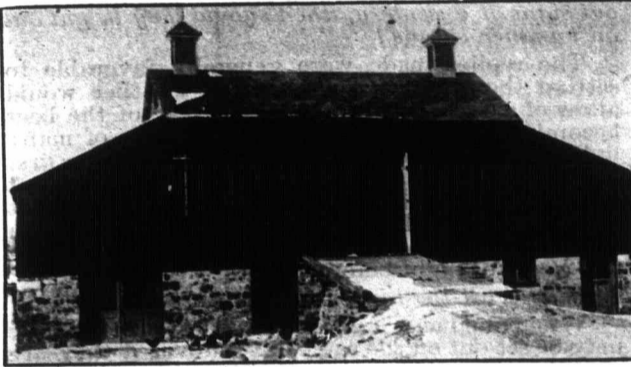
**The Growth of Dairying.**—Prof. H. H. Dean pointed out that co-operative dairying commenced in Canada in 1864, and it stands as one of the leading industries of the country. This wonderful growth has been due to energy, enterprise and favorable conditions. Since competition has become keen, we need to put in new life in order to hold our past reputation. It is necessary to study the wants of the future in order that growth may continue. The patrons, makers, salesmen, and consumers, each have their parts to play to insure continued success. Better cows better cared for, with cheaper and better feed, better care of milk, better factories, and improved selling and shipping facilities, are needed all along the way. In order to show the difference in cows of the same breed, the Professor gave the profits in milk over food consumed of several members of the Agricultural College herd. Two cows of each of three breeds were referred to, which gave in the case of the first two, profits of \$59 and \$17 in one year on the same kind of food; of the second breed, \$44 and \$20, and of the third breed, \$26 and \$12. Unless a dairyman determines accurately what his individual cows are doing, he is as liable to be feeding \$12 cows as those that give profits of \$44 or \$59.

With regard to the curing of cheese, the Professor foreshadowed the coming of a system of curing the cheese of several factories in large central curing-rooms, when all the conditions for doing first-class work are as they should be. Many of the points treated in our convention reports of the Eastern and Western Cheese and Butter Associations were touched upon. A new idea, however, was expressed with regard to the value of steam pipes

being used to surround the curing-room in order to heat it with steam from the boiler room. These pipes can also be used for cooling purposes in the hot weather by running cold water through them. He strongly advised putting the curing-rooms into shape that the temperature in them can be controlled. The sub-earth duct was recommended, and it was claimed that \$200 would properly insulate an ordinary curing-room and put in the duct. It was shown that a 100-ton factory would get the entire outlay returned them the first season by reason of the better price and less shrinkage of cheese. The Professor claimed that all salesmen should know good cheese and butter, that they may be able to cope with the shrewd buyers.

**Separators.**—Mr. Mark Sprague, Ameliasburg, explained the principle of separation of cream from milk by centrifugal motion, and gave much good advice to operators upon their work. He pointed out the importance of running the machine at the speed found to be best by testing the skim milk. Correct temperature is also important.

**Economy in Fuel.**—Perhaps the most highly appreciated paper given at the convention was that by Mr. E. Agur, of Bowmanville, on how to economize fuel in the factory steam boiler. Mr. Agur estimated that at the least calculation twenty-five per cent. of fuel in most factories is wasted through faulty fire boxes and lack of proper attention. To get the full heat from the fuel burned, the boiler and engine should be kept in perfect repair, inside and out. The flues should be cleaned regularly twice a week. Only dry wood should be used, cut in two-foot lengths. The drafts should never be more than half open, and should be closed except when starting the fire or steam is wanted. A brick smoke-stack is preferable, and it should be connected with the boiler by means of an elbow. The smoke-stack should have a door at the bottom by which the draft can be controlled. All pipes and joints should be tight, that no steam may escape. The brickwork should come in touch with the boiler at high-water mark. It should be absolutely free from cracks. Mr. Agur's brickwork is thirteen inches thick, and the top is covered with several inches of sand. Mr. Agur has fired for a week in a very large factory on a cord of soft, short wood. He keeps the water about ten inches above the tubes, which are eighteen inches from top of boiler.



BARN ON THE FIFTY-ACRE FARM OF MR. J. W. CRAIG, LONDON, CANADA.

A fairly large fireplace was recommended, but the grate should not be larger than three feet, so that cold air would not escape back of the fire into the tubes.

**Cheesemaking.**—Mr. G. G. Pueblo, Cheese Instructor at the Kingston Dairy School, in an address advised all cheesemakers to spend a few weeks each winter at one or other of the dairy schools. The best men pick up some helpful hints. This address dealt with methods of overcoming such faults as bad flavors, acid cheese, weak body, etc. It was advised to have two curing-rooms, one at 70° Fahr., in which the cheese should be placed for a few days, and the other at 60, in which the curing should be completed. Milk should be ripened that the whey may be drawn in from two and a-half to three hours, according to the richness of the milk. Cut the curd in two and one-half times the time it took the milk to thicken to the consistency of syrup. Cutting should be very carefully done with a sharp knife, that loss of fat may be at a minimum. Stir thoroughly for a considerable time before applying steam. A good agitator does satisfactory work. Raise the temperature slowly—one to two degrees in five minutes is fast enough at first—till 90 degrees is reached. If acid develops too fast, heat faster and run off some of the whey. All the whey should be drawn off when one-eighth of an inch of acid is shown on the hot iron. If acid is developing too fast on racks, stir the curd drier. A sweet, nutty flavor cannot be secured from curd with too much acid. After the curd is allowed to mat, if it is stiff and acid is slow, it should be piled deeper and turned frequently to insure even cooking till 1½ inches of acid shows. Mill the curd fine and uniform. Stir it on the racks about one hour, or as long as flavor is improving. When the curd remains in a lump when squeezed it should be salted. Put on salt at four applications with hair sieve at sufficient intervals to allow each application to dissolve before the next is added. Weigh the curd into the hoops, and do not press too hard at first. Pack the center of the hoop most firmly when filling to guard against open body. Press for two days, if possible, but examine sufficiently while pressing to have a well-finished cheese. See that bandages are put on square. Do not put a cheese on the shelf while a fault can be found with it. A very lively

discussion followed, which we cannot give space to, except to point out that washing bad-flavored or gassy curds with pure water at 110 degrees in the vat was strongly recommended. It requires about a barrel of water, which should remain on the curds about half an hour. Mr. Pueblo has treated curd made from sour milk in this way at the Dairy School and secured a good quality of cheese.

**Winter Buttermaking.**—Mr. J. F. Millar, St. George, reviewed his system of making butter in the winter season, referring to each step in the process from the taking in of the milk to the shipping of the butter in 56-pound boxes to the British market. He advised quick ripening by the use of 10 to 12 per cent. of starter. He believes in washing the butter in granular form until the water comes away as clear as when it went into the churn. He also recommended the use of sacks to cover the butter packages in order to keep them perfectly clean while in transportation. An interesting discussion followed the reading of the paper, when it was brought out that butter should stand four to five hours in the workroom after it is made before placing it in the cold room. This gives the salt ample chance to dissolve and thus prevents mottles. Regarding starters, Mr. T. C. Rodgers, buttermaker at the O. A. C. Dairy School, recommended 15 to 20 pounds of nice starter to the cream from 1,000 pounds of separated milk. A thick cream requires more starter than that which is thinner, since it is the skim milk that contains the milk-sugar upon which the ferment acts. A good starter should present a smooth, glossy surface, without whey or water on the top. The Dairy School is now using a starter that has been propagated from day to day for five months. Mr. Arch. Smith, Thamesford, recommended the use of commercial pure lactic ferments.

**Pasteurization.**—Mr. T. C. Rodgers addressed the convention on the subject of pasteurizing milk and cream. In 1868 Pasteur discovered that fermentation was due to vegetable organisms, which could be destroyed by heat. This principle was soon introduced into the manufacture of wine and beer in France. In 1890 another scientist introduced pasteurization into the creameries of Denmark, and to the sterilized cream added pure cultures to reseed the cream with a species of organism that would cause a definite known desirable fermentation. Since that time a large proportion of Danish butter has been made under this system, with the result that it sells in the best markets in the world at the topmost figures.

Many of the taints of milk are due to organisms which by pasteurization are prevented from propagation, so that even rather badly-flavored milk can be used for buttermaking with good results if pasteurized and ripened with a pure-flavored starter. Mr. Rodgers did not, however, recommend using milk in which an objectionable flavor could be detected; but in some cases the bad flavors are not apparent until the process of ripening has commenced. One great advantage of pasteurizing cream and introducing a pure culture is that a uniform quality and flavor of butter is made from day to day and from week to week, provided other things are equal. Butter from pasteurized cream also has good keeping qualities. The proper temperature to employ is 150 to 165 degrees Fahr. A higher temperature causes a scorched or cooked flavor. The Dairy School uses two pasteurizing machines, Reid's and Lister's, either of which gives excellent satisfaction. For a small or moderate sized creamery Mr. Rodgers recommended pasteurizing cream in a shotgun milk can, by placing it in a tank or barrel of water at 185 degrees and stirring thoroughly till 160 degrees is reached in the cream. The cream should stand at this temperature for 20 minutes and then be cooled down quickly to about 95 degrees, and add the starter. Continue the cooling to about 70 degrees, at which the ripening should be done. The cream should be cooled as soon as thick enough to be churned. During the discussion it came out that pasteurizing cannot be done in gathered creamery practice because cream commencing to sour cannot be pasteurized successfully for buttermaking.

**Ice Box for Cheese-Curing Room.**—Mr. A. T. Bell, of Tavistock, by means of a chart described his ice box which gave him control of the temperature in his curing-room during the hot weather of last summer. For a description of it see report of Western Ontario Cheese and Butter Association in the FARMER'S ADVOCATE of Feb. 1st, 1890.

**Handling Gassy Curds and Curing Cheese** were the subjects of two instructive papers by Messrs. Geo. McDonald, Bluevale, and W. A. Edgar, Culloden, which lack of space prevents us publishing here.

Feeding Cows for Tests.

To the Editor FARMER'S ADVOCATE:

SIR,—I think it would be of great interest to dairymen generally if Mr. Rice and others, through your paper, would give an account of feed fed to their cows in those public and private tests.

"DAIRYMAN."

Dominion Grange Officers.

At the 24th annual meeting of the Dominion Grange, held recently in Toronto, the following officers were elected: Worthy Master, Jabel Robinson, Middlemarch; Overseer, Thos. McMurchy, Thornbury; Secretary-Treasurer, Robert Wilkie, Blenheim; Chaplain, Wm. Oke, Whitby; Steward, C. Shrigley, Painswick; Assistant Steward, D. W. Lennox, Churchill; Gatekeeper, Lyman Henry, Sombra; Executive Committee, J. Robinson, R. Wilkie, H. Glendinning, G. Fisher; Auditors, Edwin Peart and John McDougall. The next annual meeting will be held in London.

### Good Advice re Churning—Some Questions Asked.

To the Editor FARMER'S ADVOCATE:

SIR,—Please find enclosed \$2 for the FARMER'S ADVOCATE. I like your paper much. I have been somewhat interested in the separator discussion. A good bit is said about the ease with which it is turned by a child. I should like to know something about the simplicity of its operations. Would it be possible to leave the operation occasionally to the younger members of the family without liability of serious loss? I have always understood that it required a good bit of judgment in running it at a certain speed.

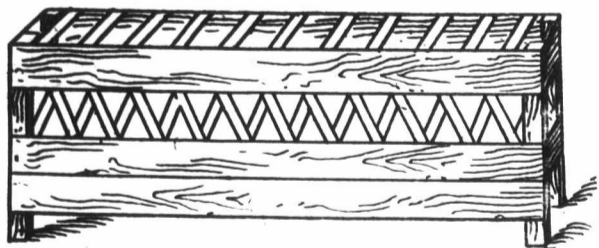
There seems to be a great many in trouble with the churn. I think if the farmer would try to have a few cows come in fresh in the fall and occasionally one through the winter, and then follow the advice of Bro. E. C. Bligh, as given in Feb. 1st issue, with regard to the handling of the cream, there would not be much complaint. We churn two to three times per week and find no trouble. I do not think it good advice to churn at a temperature of 80°. In this district it would be utterly impossible to make good butter churning at that temperature, whatever Bro. Miller could do at Brockville (neither could Mrs. Jones, so she says). Of course there are occasionally other causes than those mentioned which contribute sometimes to long churning, such as having the cream too thin, from too large percentage of skim milk, or from a cow like Bro. Cole has. By-the-by, if I were Bro. Cole I would let the butcher settle with that cow, unless he values her as one which he had with him in the Ark (as Bro. Cole lives on Mount Arrarat), but I believe the great trouble in general is that the poor housewife who is worried with much serving has neither the time nor inclination to study the general rules that govern buttermaking. Every farmer should make himself master of the situation, and be in a position to come to the rescue of the poor tired wife when the butter will not come.

Parry Sound District, Ont. W. H. SILVESTER.

### HELPING HAND.

#### Another Sheep Rack.

JOHN MILLIKEN, Middlesex Co., Ont.:—"I am a new subscriber to the FARMER'S ADVOCATE, and wish to say that I am more than pleased with it, as I consider that there are articles in every number any one of which is worth more than the subscription price of the paper for a year. I noticed in the issue of Jan. 16th an enquiry by Arthur F. O'Neil for a plan of the best feeding rack for sheep, and in the previous number a description by Mr. Caverhill of rack used by him, and which he says has given good satisfaction. There are some points about this rack which I like very well. It is easy of construction, and can be made strong and durable at a very small outlay. I am especially pleased with his plan of feeding. There is one drawback, however, which I notice, viz., allowing the sheep to push their heads through the slats into the rack. They will be very apt to pull out and waste a part of their feed. I enclose the plan of a rack which I have used for a number of years and find to give entire satisfaction, and which obviates the difficulty, above mentioned.



"Take four scantlings, 3x4 and 31 feet long, for legs; nail a piece 6 inches wide and 3 feet long on inside of each pair to form the ends of rack. On these cross pieces nail three boards, 12 feet long and 12 inches wide, to form bottom. Around this bottom nail a board six inches wide. Three inches of this board should project above the bottom, and it should be well nailed to bottom boards. Nail a board 6 inches wide around the top; have upper edges even with top of posts. Use slats 2 inches wide; nail upper end to inside of top board, and lower end to center of bottom. Have these slats 21 inches apart, which is sufficiently wide to allow the sheep to eat, and at the same time prevents them from pushing their heads into the rack and wasting their feed. The lower side boards and bottom form a trough 3 inches deep, into which will fall heads of clover, seeds, etc., and will also be found useful for the purpose of feeding roots, oats or chop. The ends of the rack may either be boarded close or slatted, and will be found large enough for sixteen sheep."

[NOTE.—We have used sheep racks with slats so close that the sheep could get only their noses in for the hay, and others in which they could insert their heads, and invariably found much less waste with the latter form, as then the sheep kept their heads in all the time they were feeding. We cannot see any advantage in having the top cross slats as shown in cut, which would make it difficult to get the hay in for the sheep. EDITOR.]

### Handling a Cross Sow.

There has been much written about cross sows at farrowing time. The best way that I know to handle a cross sow is to make a crate with 1 x 5 inch strips; have the crate just large enough to fit over the sow nicely and without any bottom to it. Leave the strips four or five inches apart so that the sow will get her nose between them. When you have the sow in the crate tie her front feet to each front corner of the crate, and that will draw her nose tight between two slats; next bind each hind foot to the hind corners of the crate, and when you have that done all you have to do is to upset the crate and let the young pigs around the sow. By this means she cannot hurt them either with her head or feet, and if the young ones are strong they will soon master her, and she will let the milk down to them, and the little pigs can run over her nose and she can't bite them, and may be kept in that position as long as necessary.

G. H. Oxford Co., Ont.

### APIARY.

#### Union Beekeepers' Convention.

SPRING MANAGEMENT.

A number of expert beekeepers from the counties surrounding Brantford, Ont., met in convention at Brantford on Feb. 9th for a two-days convention. Mr. Jacob Alpagh, of Galt, was elected chairman, and without further delay discussion upon the work in the apiary commenced. There were no papers read, but a number of practical questions that had been prepared by Mr. R. F. Holtermann, Brantford, and others were taken up consecutively and discussed at length. Commencing on the right of the chairman, the questions went round, each beekeeper who wished giving his method of dealing with the branch of work under discussion. At the first session the entire field of spring management was covered, and at subsequent sessions many troublesome questions were well handled. At the close of the meeting it was generally decided that the convention had been the most helpful one yet held in Canada. It was decided to hold a similar gathering in Brantford one year hence.

*When bees are wintering well in the cellar, without signs of dysentery, when should they be put out on summer stands?*

The replies made were generally favorable to setting them out as early as the weather would allow of a cleansing flight without fear of the bees becoming chilled. This, in the experience of many living in the Brantford district, is during the first half of March. It was considered wise to not put them out while there was any snow to speak of left on the ground. They should be put out on a warm day, early enough in the day to allow them at least two hours of flight before evening.

*Should all the hives be set out at once?*

When one has a small number of swarms they may be set out on the same day, provided they are placed at some distance apart. When one has upwards of say sixty colonies they should be set out a part at a time and to different parts of the yard, but all should be set out as soon as possible after the proper time arrives. One member said he once set out his entire 200 colonies and lost all but 40 on account of their mixing and getting chilled.

*Should they be set on the old stands?*

A discussion arose over this question as to whether or not the bees recognize their old stands, and it came out that when no attention was paid to getting the hives onto their old stands no evils resulted. While there are generally many of last year's bees in the spring colony, they never desert the colony to take up quarters at the old stand.

*When should bees wintered inside be examined in spring?*

As soon as they are put out it should be observed by their weight whether or not they have stores enough, and are flying in apparently good condition. If these conditions are right no further attention was considered necessary. Sufficient stores without activity indicates weakness or perhaps loss of the queen. The bottom boards of the hives should be changed and cleaned. Whenever examination is necessary it should be given as far as possible from the bottom, so as not to break open the sealed quilt on top.

*What protection should the colonies be given when taken out of the cellar in March?*

Put on a super four or five inches deep and pack with shavings or leaves, or put a jute or duck cushion on top of the sealed quilt over the frames. They should have the protection of a board fence on north and west, and the entrance should be contracted. If the colony is weak the combs the bees cannot cover should be taken out and the brood chamber contracted by means of dummies. If the weather continues cold for over a week, outside protection should be given, such as an outer case packed with shavings, sawdust, chaff or leaves.

*When bees are wintered outside, when should they be first examined?*

From the 20th of May to the end of June was claimed to be as early as the hives should be opened. As soon as the weather is warm enough to admit of the brood being examined outside it should be ascertained whether or not the colonies each have queens. Now is the time to clip the queen's wings, and unite weak colonies and drone-laying colonies.

Do this work only during a few hours in the middle of the day. Take away a drone-laying queen 24 hours before uniting. It was generally conceded that when colonies are flying well after spring opens no further examination is needed till they need supers, but colonies that appear not just right should be marked and looked after. Leave on the packing till steady warm weather has set in.

*When bees are short of stores in spring, what is the best way of supplying them?*

If one has capped comb it may be uncapped and given them. It was considered good practice to fill empty combs by holding them in a slanting position and pouring on the honey or syrup while warm from a coffee-pot or a similar vessel. By pouring slowly the combs will fill and not leak. When one side is filled it can be turned over and the other side filled the same way. One member has found it satisfactory to place a feeder under the cushion on top of the frames and pour honey or syrup in by means of a funnel, so as not to disturb the sealed quilt. Another member has a flap in the center of the quilt and pours the honey into the feeder through that. He has used this in midwinter without ill effects. It was also recommended to feed from the entrance with a glass sealer on its side, having gauze over the mouth. Unless the bees have a liberal quantity of stores they will not produce brood satisfactorily.

(TO BE CONTINUED.)

### GARDEN AND ORCHARD.

#### Ontario Fruit-growers' Outlook.

BY JOHN B. PETTIT, WENTWORTH, CO., ONT.

When we think of the apparently reckless manner in which many of the population of the Province of Ontario are rushing into the growing of fruit as a means of securing a livelihood, a doubt arises in my mind whether many of us ever take into serious consideration what is to take place inside of ten years hence in connection with the fruit industry in our Province and in many of the fruit-producing States of the American Union. In the Niagara Peninsula, that section of the Province lying along the south shore of Lake Ontario, between Hamilton and Niagara Falls, a section that years ago, on account of its output of fruit of all kinds, gained for itself the distinction of being "The Garden of Canada"; then again, in the extreme western portion of the Province, in the newer counties of Essex and Kent, we have large areas of extremely fertile and rich soils, with climatic influences favorable to the production and maturity of the very choicest of all kinds of fruits which we commonly assign to the tender class, such as peaches, grapes, and many varieties of plums. Last season the growers in Essex County very clearly demonstrated to us this fact, and they were able to cause those large growers in the central part of the Province to look with astonishment at the excellent sample and enormous production of the very finest peaches. Again, in other sections of our Province we find soil and climate particularly adapted to the production of the more hardy fruit, the apple, and the growers about the northern shore of Lake Ontario, near the eastern end of the Province, have surprised the fruit-growing world with the sample of this kind of fruit they have been sending to the markets, both home and foreign, this last few years. Thus we see that we have such soil and climate as cannot be surpassed by any section of country on the American continent, and plenty of it to supply many millions of a population with fruit of the very choicest quality.

But what is the present state of affairs? Already it is a question in the minds of many of our old and experienced fruit-growers whether it is a profitable business or not; and well it may be when we take into consideration the prevailing prices of the last two or three seasons. And we must remember while considering those prices that they would have been lower still had the then bearing trees throughout the country been loaded, and had all the fruit that was brought to maturity been harvested. We get the information from the report of the Ontario Fruit-growers' Association, that in the year 1896, when plums of a good quality sold as low as 9 cents per twelve-quart basket, there was not five per cent. of a crop of that particular kind of fruit on the trees of bearing size all through Central Ontario from Cornwall to Windsor. We also know that there were thousands of bushels of currants that were never stripped, any amount of plums were not picked, and hundreds of barrels of apples were either fed to stock or never harvested at all. If the production in the Niagara Peninsula alone made the price what it was in Ontario, what would have been the result had the other sections given a full crop? If such be the condition of affairs, what will it be inside of a very few years, for we know that not one hundredth part of the trees and vines already under cultivation have reached what can be properly termed the bearing stage. Still, as the seasons pass by the acreage planted to fruits of all varieties is rapidly increasing, the annual output from the nurseries is enormous, if anything, increasing instead of growing less.

What, we ask, is to become of the fruit from all these plantations when once they begin to bear? The nurserymen assume a smiling countenance, and tell us by that time we will have worked up a market in England that will accept all the fruit Ontario ever has or ever can produce, and that in our own Dominion the smaller towns will be

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reached, and a proper distribution of the crop will be effected. That sounds very acceptable, but let us go slowly, as the argument will bear consideration, and I believe that before long many will wish they had given it more consideration before accepting it. An English market! What a grand thing it would be if Ontario could get the job of supplying John Bull with his luxuries in the way of fruits. But what is the result of the efforts put forth along that line? We have found that our grapes will not stand the journey and arrive in a presentable condition. More than that, we have also found that could they be put on the market in good shape they would not meet with ready sale on account of the flavor not being agreeable to the very refined taste of the English people. We have ascertained that our plums and peaches are not of a nature to carry such a long distance, and that our only hope is to secure a sale for our very choicest apples and pears in that distant land. The "small town and proper distribution in our own Dominion" phase of the question is also very questionable. We must remember that the nurseymen are getting the rural districts about these towns planted out just as rapidly as their agents can dispose of the stock, and that in a very short time they will be supplied by growers from near at hand. In the past the Ontario grower has been able to dispose of much of his produce in the Provinces of Nova Scotia, Quebec, and Prince Edward Island, and in the United States. Now, however, those Provinces are becoming rapidly filled up with bearing stock, and the tariff wall keeps us out of the American markets. So again the question presents itself, What is to become of all this fruit?

Of course it is only natural to come to but one conclusion, and that is: All progressive fruit-growers have awakened to the fact that the supply is rapidly overlapping the demand, and that some precautions must be exercised to prevent an overabundance to cause an utter failure of that branch of horticulture, and the financial ruin of many engaged therein. But a few years ago, the greater portion of the time devoted to a meeting of any fruit-growers' association was taken up by those attending in discussing the different kinds of fruits, the particular merits of each variety, the nature of soil and location suitable for same and the proper cultivation to bring them to maturity. That time is past, for, as a result of the experiments that followed those discussions, many of us now, by practical experience, know the best and more profitable varieties, their proper location and soil and the best method of cultivation. To-day the principal theme at such gatherings is how to create a demand for and secure profitable returns for that which we have brought to a harvesting stage.

We have now come to a period in the history of fruit culture when, if one engaged in that pursuit expects to receive proper remuneration for his labor and capital expended, he must not only expect to so manage his plantations that they will produce abundantly, but must also follow certain scientific principles that will tend to induce a production of high quality, and high quality only. The depression in the markets at the present time is probably not so much the result of so much fruit as it is the consequence of too much poor fruit. Seeing that these are facts which must be faced, what must the progressive grower do to try in a measure to counteract the enormous events? There is but one course to pursue, and that is to himself follow methods that are productive of high quality, and induce others to do the same. Many growers know perfectly well how to go about to accomplish the required results, but thinking they may make less their chance of personal gain, they keep their knowledge to themselves. Such a course of procedure is not worthy the least degree of commendation, for while a few are producing an article of extra good quality, there are thousands distributed throughout the country who are trying to carry on a work about which they know very little and sometimes are entirely ignorant, and the result is failure and an overproduction of produce that is unfit to be harvested, competing in the markets with that of a higher grade. There is one thing we must remember—the inferior fruit always stands in the way and hinders the ready sale of that of a superior quality. It ripens at the same time, it is harvested at the same time, or, probably what is still worse, a few days earlier and before it has properly ripened, and has a depressing influence on the markets; the producer sends it to the same markets, and it is a commodity that has to soon pass through the different stages from producer to consumer, it is sacrificed at a mere trifle, and the result is that although your product is of superior quality, it is in competition with an inferior grade, and as a result the price obtained is greatly affected. In the past much of this inferior fruit has been sent to England, and instead of aiding in opening a market for us there, it has gone far to create a feeling against our products. If, then, we cannot see that there is danger of producing too much fruit, it is very patent to all that there is already too much poor fruit.

"There is that scattereth, and yet increaseth; and there is that withholdeth more than is meet, but it tendeth to poverty." It is, then, the duty of every grower to do all in his power to induce and promote education along horticultural lines, and try, by so doing, to raise the quality of the products of the Province to a higher plane.

We know the value of scientific spraying and the results derived therefrom. Thousands throughout the country have not yet learned of the

method, or, if they are possessed of a knowledge of its existence, they do not understand the proper application of the same. When practical demonstrations of it are proposed by our Government many of us are inclined to have a severe attack of political colic, and condemn the administration for following such lines of procedure, claiming that little if any benefit is derived therefrom, and that it is but a scheme to fatten a few political friends. There is where we make a very serious mistake, and with little consideration we can see wherein our argument is unsound. Those who have carried on these practical demonstrations can testify as to the ignorance of many growers in certain districts concerning this particular work, and of the lack of knowledge of bringing a crop to proper maturity. And these growers are the ones that are producing the small-sized, scab-covered, insect-infested, wormy, flavorless specimens that are to be presented on the same market in competition with our fruits of a high quality. Who would say in the face of such argument that any administration that is urging upon all growers the necessity of performing such operations is not doing much towards the benefit of one of the greatest industries of the Province?

The experimental stations are also an important factor in the education of the fruit-growing public. Too often in the past have unscrupulous nurserymen imposed upon the purchaser some worthless variety, introduced probably from some foreign country. The glowing description is far from being realized when the trees reach a fruiting age, but of course the fruit is pushed on the market. Hundreds of such varieties have been palmed off on the public, and to what effect the progressive grower knows only too well. The Government experimental stations are dampers to this kind of deception. Varieties are tested, and the results closely watched and reported, and unless they are worthy of propagation they are condemned. Many contend that this work has been in progress for years and at great expense. True, but the results of these investigations have yet to be made known to hundreds of growers. Such institutions should be tolerated instead of condemned, and all ardent growers should endeavor to aid the proper distribution of all literature printed setting forth the results of such investigations.

Closely allied with this institution are the fruit-growers' associations, the farmers' institutes and the horticultural societies. The annual fairs and exhibitions are also great educators, showing the advancement that is being made in the industry. All these should be patronized and promoted, for "He that questioneth much shall learn much," and it will be only when the growers of fruit become educated along the line of principles productive of quality that that branch of horticulture will prove the profitable calling it has been and should be in the future.

#### Producing Tomato Plants.

While it may be somewhat more convenient to purchase tomato plants ready to set out when the season arrives, the advantage of having vigorous plants of the best varieties will warrant the growing of one's own plants when it can be done with very little expense or trouble. Except one has saved seed from a former year's fruit, it will be necessary to procure it from a seed house. Among the best varieties now grown are Canada Victor, Livingston's Favorite, and Livingston's Beauty. They are all fairly early, firm, productive, and of good quality. It is well to grow several sorts, that the seed for future years may be selected from the sorts best liked. It may be pointed out just here that in selecting tomatoes for seed, the earliest, largest and best shaped specimens should be set apart and allowed to be well ripened on the vines. Since few farmers have hothouses, the hotbed will have to be depended upon in which to grow the young plants. A bank of heating horse manure surrounded by boards and covered with six inches of earth, with a window sash above, makes a good hot-house. Make the manure heap three feet deep when fresh, and one foot wider each way than the sash and box that holds the earth.

The bed should be got into a heat of seventy or eighty degrees before sowing the seed. As the fermentation begins to cease, the heat can be kept up by banking the outside well with hot manure. The plants will need airing, but care must be taken to avoid chilling them, and when the sun comes out very warm the plants should be shaded. White-washing the glass may be done to advantage at this time.

The seed should be sown in drills about one foot apart, half an inch deep, and quite thin in the row. Press the earth down level and quite firmly. When the plants are up and showing the first rough leaf, they should be thinned to two inches apart. As they grow they should be gently shifted by hand from the rows to the spaces between, until the plants stand equal distance apart in the bed. Mr. S. H. Mitchell, St. Mary's, Ont., says, in a practical treatise on tomato-growing, that while this much space given to the plants may appear unnecessary, except one wishes to transplant the plants while they are quite young, the extra space is of great advantage. He also claims that from experience he has learned that every time a tomato plant is transplanted, it loses, to some extent, its productiveness. Grow the plants as large and strong as possible until the leaves touch each other. They should then be shifted by means of a trowel, being careful to break the roots as little as possible. Set the plants in rows a foot apart and seven or eight

inches apart in the row in cold frames, if necessary. As soon as the leaves touch again they are ready to be set out. The plants should be protected at all stages of growth from cold, as a touch of frost, or even a severe chill, will seriously weaken their vitality and productiveness.

#### POULTRY.

##### Early Pullets for Next Winter's Layers.

No doubt there are at the present time many would-be poultrymen and women somewhat disgusted with their failure to get the hens to lay liberally during the past two months. Care was taken to have the house made comfortable and light, the birds and premises were treated for lice, and the flock was carefully and regularly attended to. It is not well, however, to give up in despair, for many others are succeeding, but it must be remembered it has taken them some time to learn the tricks of the trade. An all-important factor is to have young, vigorous hens to depend upon for winter eggs, and the best results are usually obtained from early, well-matured pullets. March is the month to prepare for them by mating the select hens of the flock with a first-class male. April is the month to have the chickens hatch, but to do this provision must be made for their comfort, so that they will grow rapidly from the start. The selection of the breeding-pen should be carefully done. The cock as well as the hens should be robust and from winter-laying stock. The hens should be long-bodied, deep-keeled fowls, carrying the tail well up, and are broad behind. Two-year-old hens that were good winter layers as pullets are best to depend upon for dams. Hens are like cows. Some produce only during a few months of the year when the conditions are most favorable, while others yield well most of the time. The difference is largely one of hereditary tendency.

The breeding-pen may consist of 15 families to one male. The male should not be fat, but vigorous. He should have plenty of exercise, be sparingly fed on such foods as lean meat, linseed meal and the like. This will reduce the fat, if he be too heavy, and increase his strength. It is also desirable to allow the hens plenty of range and keep them active. It is recommended in the *Reliable Poultry Journal* by Mr. L. E. Keyser to add a little sulphur and charcoal to the morning mash in order to get a large percentage of fertile eggs. It is also recommended to take the male from the pen for a portion of the day and change cocks from one pen to another every other day.

If the pens are mated by the 10th of March there will be plenty of fertile eggs by the 25th of the month, which will be about early enough for most farmers, especially those who depend upon hens to do the hatching. Where one can manage it, the pullets, for the purpose under discussion, should all be hatched before the first of May, but if this cannot be done the pullets hatched during the first half of May will be all right if bred right and hustled to maturity.

In setting hens have as many ready at the same time as possible, and if the weather is cold not more than 10 or 11 eggs should be placed under each hen. When the eggs have been set one week the infertile ones can be detected on examination, and should be removed, and the live eggs placed under fewer hens, giving the others a new lot of eggs. A hen does not mind sitting four weeks, neither does she object to raising a large, full family. As more hens become broody set them, and as the broods hatch, double them up or use a brooder for the chicks, and set the same hens again. If they are well-fed and prevented from becoming lousy they will hatch two or three batches in succession without being any the worse for so doing.

#### QUESTIONS AND ANSWERS.

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

##### Veterinary.

###### PROBABLY NASAL GLEET.

SUBSCRIBER, Pipestone:—"Have a mare five years old; has been running at right nostril for two years. The discharge is thick, yellowish-looking matter, offensive smell, or fetid breath. Discharges very little when standing in the stable, but when driving or working there is a constant discharge. There is also a slight discharge to a young veterinary fresh from college a year ago last summer; he examined her teeth, but said that she had chronic catarrh. I took her in again last July to a veterinary surgeon who prints on his cards "A Specialty of Dentistry." He said he thought that she had an ulcerated tooth, and that when the mare was working the increased respiration forced out the pus or matter; but he told me to take her back to him again, which I have not done. Now, I was looking over the files of the FARMER'S ADVOCATE. I have been a subscriber for six years, and in the issue for November 20th, 1893, there is a long article by Dr. Mole, M. R. C. V. S., Toronto, on page 444, in which he says: "Even if strangles does not appear we may have pus or matter forming in the sinuses, particularly in the upper jaw, ending in softening and degeneration of the bone." I am of the opinion that that

part of the article applies to my mare; that there must be diseased bone somewhere in the upper jaw, the cause of the fetid breath. When I took her in to the V. S. the last time I thought it might be a case of glanders, but he said there was no symptom of that disease. I have since bred the mare. Will her ailment be likely to harm her foal?

"In answering could you give me information as to what should be done with her, and advise whether she should be kept alone or not?"

[The case is probably one of chronic catarrh, in veterinary language usually called nasal gleet; if so, it is neither contagious nor infectious. Nasal gleet occurs as a sequel of acute catarrh, but there are other causes from which it may arise, such as external injuries, diseased upper molar teeth, disease of the upper jaw bone caused by contact with an elongated lower molar tooth, etc. The offensive smell plainly indicates the presence of decaying teeth or bone. As the case is one of long standing, the treatment will necessarily consist of either a dental or surgical operation, and I would advise you to employ a competent and reliable veterinary surgeon. Have nothing to do with so-called "horse dentists," for a large majority of them are simply humbugs.]

#### CHOKING.

SUBSCRIBER.—"I have a young mare rising four years old that takes a fit of choking sometimes after eating, and then she will cough and something like saliva will run out of the mouth and nostrils in large quantity. Sometimes the choking spasms will last for quite a while, and hay or other food will come back through the nostrils."

[By swallowing their food faster than it enters the stomach, horses with ravenous appetites are sometimes subject to the condition you have mentioned, especially when fed on dry rations, such as a mixture of oats and bran, chopped hay or chaff, etc. Choking also results from certain abnormal states of the apparatus immediately employed in the processes of mastication, salivation, and deglutition, such as faulty teeth, disease of the salivary glands, producing in those bodies functional inactivity, inflammation of the pharynx or the adjoining structures, spasm of the oesophagus (gullet), pharyngeal polypus, or any other condition that would interfere with the act of swallowing. In the case of your mare, if choking is caused by greediness in eating, I would advise you to feed grain from a wide, shallow trough, so that the animal will be prevented from taking too large mouthfuls. I would advise you to have the mare examined by a veterinary surgeon.]

#### OPEN JOINT.

J. S. C., Muskoka, Ont.:—"Some time ago my mare got kicked on the inside of hock joint. I took her out to draw some wood, but next morning she could not put her foot to the ground. It swelled terribly for several days, when it broke. That is about two weeks ago. She cannot put her foot to the ground now, and the wound keeps running a little all the time. What had I better do for her?"

[At first this is difficult to say, as it will depend on the value of the animal. The symptoms are well described. The lameness is always very excessive, the animal evincing acute and agonizing pain by partial tremors and sweats on her body. The animal, although not able to put her foot to the ground, keeps it in an almost continual state of motion. The synovia or joint oil coagulates upon the lips of the wound, and oozing through this there will be a thin, watery discharge. The treatment is almost hopeless, even to a well-trained surgeon, but the object is to get the wound closed by pressure. If you have no veterinary surgeon near, ask your nearest medical man to provide you with a small piece of perchloride of mercury and place that immediately in the wound, and should you succeed in stopping the discharge, treat as a common wound, by dusting on boracic acid four parts, iodoform one part.

#### CATARRH.

N. H. F., Lenox Co., Ont.:—"I have a thoroughbred sheep which is very bad with discharging in the head. I have used pine tar quite frequently, with no good effect. What is good for her?"

[This sheep has catarrh, a condition quite prevalent in some sections. There is no better treatment than tar. Mix a liberal supply of pine tar in their salt and keep her from the rest of the flock. Spray the pen with disinfectants. A dry, well-ventilated pen must be provided, and mix a twenty-grain dose of sulphate of iron in her feed (one a day for a month), and feed well.]

#### LUMP ON JAW.

T. Vernon, B. C.:—"A heifer calf, ten months old, that has lump on jaw, but not quite underneath, as in lumpy jaw. It is a long way back and on lower jaw. I have tried to examine for anything wrong with teeth, but couldn't do it very satisfactorily on account of its being so far back?"

[You do not mention whether the lump is hard or soft, movable or immovable. Does the calf chew properly, or does it drop imperfectly chewed food? Write again.]

#### HORSES' HOOFES DRY AND HARD.

N. B. S., Truro, N. S.:—"My horses have to travel a good deal in snow and ice water, which has caused their hoofs to become dry and very hard. What is best to keep them in good condition?"

[Apply every night with a brush an ointment made of equal parts of raw linseed oil, crude petroleum oil, neat's-foot oil and pure tar.]

#### CAUSE OF LUMP JAW.

SUBSCRIBER, Grey Co., Ont.:—"Could you or some of your many readers give me the cause of 'lump jaw' in cattle. Also, is it injurious in any way to use the milk from a cow that is bothered with it? I think the FARMER'S ADVOCATE a valuable paper for farmers. I have taken it a year and am much pleased with it. I must say your Christmas number is elegant. It surpassed all my expectations."

[The cause of lump jaw in cattle is a germ, which gains access to the jaws by being taken into the mouth, and is supposed to enter the gums around the teeth. It is communicable to man as well as animals, consequently the milk from such a cow is unfit for food, and if in the advanced stage of the disease should be destroyed. For treatment of a case of short standing write Fleming Bros., St. George, Ontario.]

#### Miscellaneous.

##### HATCHING GOSLINGS—TOMATO CULTURE—PROTEIN, CARBOHYDRATES, ETC.

R. GRAHAM, Peterboro Co., Ont.:—" (1) To what address should I write for a copy of the Farmers' Institute Report of 1897-98, and what is the price? (2) Could you please publish a list of the seeds that are distributed from the Guelph Experimental Farm, making special mention of the different kinds of potatoes. (3) Please give short article on the raising of geese. Last year we set 30 eggs under geese. They sat well, but most of the eggs were rotten, and we only got five or six goslings. What was wrong? Should they be fed specially during laying time, or is there feeding to entice them to lay early in spring? (4) Please give an article on the culture of tomatoes when you have space. (5) Explain the terms protein, carbohydrates, dry matter, etc. I think this is a good batch of questions."

[ (1) Department of Agriculture, Toronto, Ont. The copies are sent free. (2) See elsewhere in this issue, and write C. A. Zavitz, O. A. C., Guelph, Ont. (3) In all probability a number of the eggs that did not hatch last year were infertile, or they may have become chilled by some accident. We would recommend keeping a gander for every two or at most three geese. Keep the eggs in a box of bran in a cool place from the time they are laid till they are set, and turn them every day. It is generally preferred to put a sod in the bottom of the nest if the nest is not on the ground. No special feeding is required. Access to water to drink is necessary, and an occasional swim is also considered helpful. If it is desired to keep the goose laying the eggs may be set under hens—four to a hen. It is well to set a number of hens at a time, and on the seventh day the eggs should be tested and the infertile ones removed and the good ones set under a less number of hens. (4) This request will be complied with. (5) Protein is a name applied to a collection of compounds in a plant, all of which contain the element nitrogen. The gluten of wheat, the slimy matter of boiled flax, white of an egg, and the curd of milk are all largely protein. Cattle food must contain protein in order to supply and repair the nitrogenous tissues and compounds of the animal body, such as the muscle, the milk, internal organs, as liver, heart, kidneys, blood, etc. Without protein in the food the animal would have nothing to grow these materials from. Carbohydrates include the starches, such as potato starch, cornstarch, and the different sugars, gums, cellulose, fiber, etc. All the cereal grains are rich in this compound. A large part of the carbohydrates of a ration is burned in the animal body to furnish it with necessary heat and energy, while some is converted into animal fat and perhaps milk fat. The term fats of food refers to the vegetable oils, such as cotton-seed oil, linseed oil, rape-seed oil, etc. It furnishes heat, energy and fat. Dry matter is the entire dry substance of food.]

##### CROSS SOWS.

SUBSCRIBER, Argenteuil Co., Que.:—"We have two pure-bred sows—one Poland-China, the other a Berkshire. Both have proved themselves to be very wicked to their young ones, especially the Poland-China. They were fed together in the same pen until five days before they were due to farrow. They were fed on boiled carrots and ground provender, sour skim milk, with an occasional feed of clover hay and chaff. What is the matter? Is it the feed or the want of something else that they have not had during the time of pregnancy?"

[The feed mentioned would seem to have been very suitable for sows in that condition. You do not say whether they have been allowed out of the pens for exercise, which is very essential. This and access to grit of some kind—gravel, sand or ashes and cinders, or sods. A subscriber gives in this issue a plan for handling a cross sow, which is rather an extreme measure, and should not be necessary when all the conditions are natural and favorable; but there may be extreme cases where it might be used to advantage.]

##### RATION FOR PIGS.

SUBSCRIBER, B. C.:—"Would you kindly let me know through your columns what you would consider the cheapest of following grains, at the prices named, for feeding young pigs: Wheat, \$22 per ton (chopping, \$2 per ton extra); oats, \$18 per ton (chopping, \$2 per ton extra); peas, \$25 per ton (chopping, \$2 per ton extra); shorts, \$23 per ton; bran, \$22 per ton. I have a quantity of small potatoes which I propose to boil and mix with the grain and feed that from weaning until clover comes.

Then it would be clover and whatever grain would be best. What proportion would you advise mixing the potatoes and grain for best results?"

[Replying to "B. C. Subscriber," I beg to say that, in my estimation, the wheat is the cheapest of the foods mentioned. Next to this would probably be the oats and shorts. A mixture of two parts wheat and one part shorts should prove about as satisfactory a combination as could be made from the grains mentioned. Another very good mixture would be two parts wheat, one part shorts, and one part oats. For finishing I would prefer to use wheat largely and leave out the oats—say three parts wheat and one part shorts. A few peas would improve the ration, but the price is so high that it would be well to use them in small quantity, if at all. At first I would use very few potatoes, but as the pigs get older they may constitute from forty to fifty per cent. of the total weight of the ration.

G. E. DAY, Agriculturist.  
Agricultural College, Guelph, Feb. 24th.]

##### HEATING WATER FOR STOCK—CEMENT FLOORS.

W. W. FAWCETT, JR., Upper Sackville, N. B.:—"I propose to renovate a barn next summer, and wish information on several points."

"1st. Do you know of any practical way, not expensive, of putting water in barn from spring 50 yards from barn with about 10 feet rise? I wish to provide for 25 head."

"2nd. Do you know of any practical way of warming the water for the stock? In answering, state probable cost."

"3rd. Will steers keep as dry on cement floors as on plank floors one inch apart laid lengthwise of steer?"

"4th. What are the principal points in favor of cement floors versus water-tight plank floors?"

[1st. If a fall of a few feet can be secured from the spring, a hydraulic ram will be the simplest and cheapest plan to employ. An ordinary ram will raise water from 10 to 15 feet for every foot of fall one can secure in the drive pipe from the spring to the ram. The distance of 50 yards will be no obstruction, provided there is a fairly strong head of water. If the fall cannot be obtained, a small windmill would do the work well.

2nd. A reader of the ADVOCATE uses a simple device for this purpose. A galvanized-iron box heater, about 2 ft. 6 in. square, with two lengths of pipe with an elbow on a pivot so as to fan the wind by means of a tail—a door on top, where big chunks of wood may be put in, with a damper beside it, similar to the "Queen" stove—is placed in the large water-trough for a while before the cattle are let out to drink, and a fire started, which raises the temperature of the water in a short time. We understand that the water in the case referred to is pumped by a windmill into a large, square trough or tank in the barnyard or near the barn. The heater would be more durable if made of boiler-iron plates.

3rd. Yes, if a fair amount of bedding is used.

4th. The fact that cement absorbs no offensive odors, and can be readily flushed with water and washed if desirable, besides being durable and lasting.]

##### A GOOD EGG YIELD—GREEN BONE—ANIMAL MEAL—BONE CUTTER.

G. C., Queen's Co., P.-E. I.:—"In your issue of Feb. 1st appears an article, 'Cut Bone vs. Animal Meal.' There seems to be something lacking to make the test of much value, and that something is eggs. With the treatment given, there should, I think, have been more than twice the number of eggs, leaving out the cut bone. I have 45 hens that have laid 600 eggs since the first day of January (44 days), and we are having severe weather right along. Please answer the following: 1. What is meant by green cut bone? 2. What is meant by animal meal? 3. Where could a bone cutter be procured? What would one cost, to be worked either by hand or horse power?"

[1. Green cut bone is fresh bones right from the butcher shop run through a bone-cutting machine. 2. Animal meal is simply lean meat dried and ground into meal. 3. Mr. C. J. Daniels, 221 River St., Toronto, advertised bone mills in the FARMER'S ADVOCATE of Feb. 15th, page 106. A postal card addressed to him will bring the price.]

##### REGISTERING SWINE.

BEGINNER, Lincoln Co., Ont.:—"Will you please inform me, through the columns of your valuable paper, how to proceed in order to register pure-bred swine; also cost?"

[Write to Henry Wade, Registrar of Live Stock, Parliament Buildings, Toronto, for blank forms of application for registry of the breed of swine you wish to record. The fee for registration of each pedigree is to members 50 cents, to non-members \$1. The membership fee to the Swine Breeders' Association is \$2 per annum, which entitles the member to a free copy of the Record for each year that he is a member. A similar question was answered in our issue of Feb. 15th.]

##### CHOKING PIGS.

MR. THOMAS BATY, of Middlesex Co., Ont., recently called at our office to give our readers the advantage of his observation and experience with choking pigs, such as Subscriber, Lambton Co., refers to in Feb. 1st issue, page 69. In Mr. Baty's opinion the choking is due to the feed being mixed so thin with milk that the pigs endeavor to drink it and become choked. Mr. Baty has cured similar cases by feeding the chop or shorts dry or almost so, and giving the drink before and afterwards.





UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

I am growing quite proud of our Puzzle Corner, which I watch with as much interest as when I had full care of it. How clever my boys and girls are! I should not be surprised to see some of them bud out into poets some fine day—what say you? I regret that we cannot have more space for our department [Uncle Tom still claims the Puzzle column as his], but if we trespass the editor grumbles politely, and—well, what can a poor fellow do but try to be content with less? Endeavor to send shorter puzzles (conciseness is laudable in almost everything), and fewer large "form" puzzles, such as "cabin," "hourglass," and large "diagonals," as the answers, as well as the puzzles, occupy considerable space.

One of the principal aims of the conscientious teacher of to-day is to encourage his pupils to think for themselves, to reason things out, rather than commit them to memory—thank fortune the methods are better than when your uncle was a boy. Many of my nephews and nieces are past school age; several who are still young are unable to attend school; for them the amusement of puzzling is very beneficial, as it strengthens the reasoning faculties and supplies (at least in a small measure) the mental discipline of study, while it cannot fail to be entertaining.

Our readers' love of good literature has been amply exemplified by the large numbers who took

Now, if any of you know a good joke, give the public the benefit of it, and when May 15th ADVOCATE comes, we'll all laugh together, and what a glorious chorus will resound all over Canada.

Your loving— UNCLE TOM.

"Homeward Bound."

What a world of meaning lies in these two words! Those who have been at sea can doubly understand all they convey. Of course, in these days of rapid transit and wealth there are many who think no more of a trip across the ocean than a run to Montreal, New York, or Chicago, but these people do not seem to belong to the same category. "Homeward Bound" or outward bound is much the same to them—it is simply a "trip." These ocean liners are little worlds for the time being, and hold many a romance and tragedy. Many a "match" has been made on board—for people are thrown so much more together socially than when on land—unless they are stand-offish. One seems somehow to have a common interest in the surroundings and in each other.

Sometimes "Homeward Bound" has a deeper meaning: When some poor soul dies on the voyage, and the vessel is stopped for a time, a solemn hush prevails, and the one who is already gone in spirit is lowered into God's boundless sea—then the great engines revolve, and the good ship goes on her way—ah! but this is a solemn time!

Well, we must take the sadness and the joy as it comes, and try to picture those on board and those waiting for them at home.

Agriculture in the Bible and Bible Times.

BY REV. W. A. BURMAN, B. D., LECTURER IN BOTANY, ST JOHN'S COLLEGE, WINNIPEG.

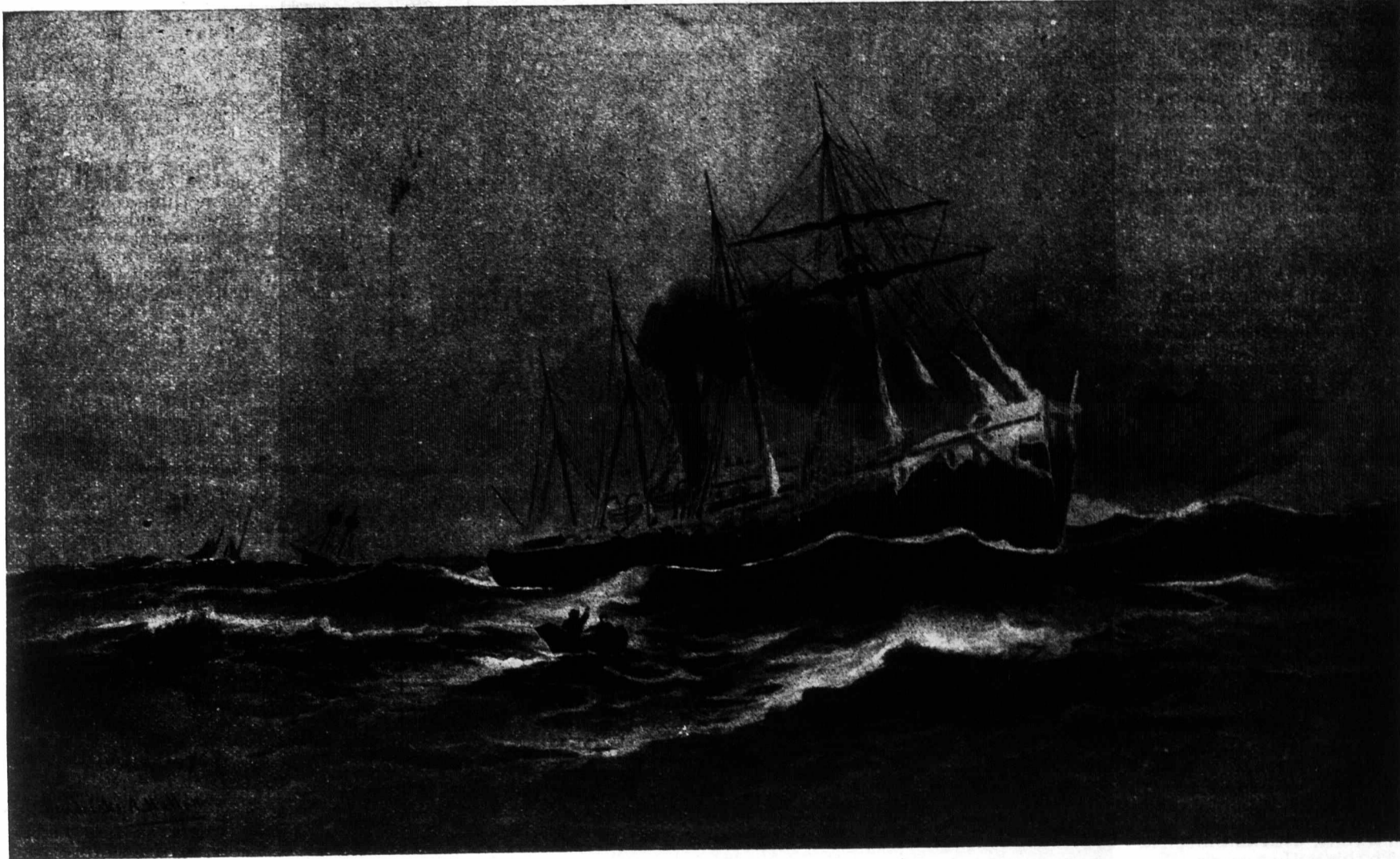
[Copyrighted.]

(Continued from page 125.) "The making of the fields."

"The dry land" having now been formed, the time had come for the creation of plants for which it was suited. The Bible story is very brief: "Let the earth bring forth grass, the herb yielding seed, the fruit-tree yielding fruit after his kind, whose seed is in itself, upon the earth; and it was so. And the earth brought forth grass," etc.—Gen. I.; 11-12. Now, we must not suppose this wonderful passage simply means that in a very short period the Creator made and left the surface of the earth just as we see it to-day. It simply tells us that one after another the various forms of plant life have taken their place on the earth, some to exist but a comparatively short time, yet each alike helping to clothe the earth, and fulfilling its mission in preparing the way for other plants by its own decay and death.

They have not only in this way prepared vast areas of rich vegetable loam, which is composed of the remains of generations of dead plants, but in the earlier ages of the world's life they even assisted in the formation of certain parts of the rocks which form the earth's crust. They flourished, then dying, contributed each their quota to the rocks being built up largely out of animal and vegetable life.

Geology shows many remains of the earliest



"HOMEWARD BOUND"

part in the contests held during the past year, and before the long evenings leave us and the busy spring work commences I should like to have another competition different from any of the others.

Many doctors assert, and I concur with them, that laughter is good for digestion; and most people will admit that good digestion constitutes a great part of our worldly happiness (fancy a happy dyspeptic!); therefore it is expedient for us to try to promote it by all the means in our power. If laughter be an aid to that end, why, let us laugh. Some of those learned fellows will probably claim to have made this discovery; but Solomon proclaimed ages ago that "a merry heart doeth good like a medicine," and I'm sure it is infinitely more agreeable. The contest I am about to announce has for its object the treating of our readers to a good hearty laugh.

We offer three cloth-bound books for the three best collections of amusing anecdotes, witticisms, or humorous tid-bits; each collection to contain three items, none of which contain more than two hundred and fifty words. Write with pen and ink, on one side only of the paper, and address "Uncle Tom," FARMER'S ADVOCATE, London, Ont. All papers should be signed plainly with the sender's name, which will not be published if the writer does not wish it, and will send a *nom de plume*. The work must be in this office not later than April 15, and the result will appear in the ADVOCATE of May 15th. Articles which have already appeared in the ADVOCATE are not desired.

This liner seems to have had a pretty rough time, judging by the ice which clings to the rigging. In that small boat must be the pilot, apparently waving a good-bye, or signalling that he is ready to come aboard, and in the distance we see the pilot cutter with its two big globes aloft—easily seen by day and at night lighted up. There is always something invigorating in these shipping scenes, with the dancing waves and the bounding vessel, and one seems touched by a breeze from the sea—a touch which teaches how much "Homeward Bound" can mean.

Is it You?

There is a child—a boy or girl,  
I'm sorry it is true—  
Who doesn't mind when spoken to;  
Is it you?—it can't be you!

I know a child—a boy or girl,  
I'm loth to say I do—  
Who struck a little playmate child;  
I hope that wasn't you.

I know a child—a boy or girl,  
I hope that such are few—  
Who told a lie—yes, told a lie!  
It cannot be 'twas you!

There is a boy—I know a boy,  
I cannot love him, though—  
Who robs the little birdie's nest;  
That bad boy can't be you!

A girl there is—a girl I know—  
And I could love her, too,  
But that she is so proud and vain;  
That surely isn't you!

types of plants imbedded in and turned to rock. The oldest forms were seaweeds, ferns, horsetails, clubmosses, and a species of cone-bearing tree.

In what is known as the Devonian series of rocks, further advance has been made. Trees more like our own are found, petrified of course, but so wonderfully preserved that their character can be determined. So, gradually, there came into existence representatives of the various great divisions of plants as we now have them, just as the Bible states. Vast forests covered many parts, and these at length formed enormous deposits of vegetable matter, which, under the action of water and finally tremendous pressure, became the precious coal beds which are of such inestimable value to us now. It is interesting to note the order in which the different classes of plants are placed in the Scripture narrative. First "the tender grass," then "herb yielding seed," next "the tree yielding fruit."

This is just what we should expect to find written, for it accords fully with what may still be observed.

Suppose we could watch the process of clothing with vegetation some coral island or naked rock, what should we see?

First would be seen a thin coating of lichen clothing the rock as with a garment of many colors, red, yellow and gray mixed in wondrous harmony. These tiny plants, to be seen on every hand on hard rock, stained fence or weather-beaten tree, pave the way for a succeeding race of mosses, which live and grow upon the vegetable matter provided by the decaying lichen.

As years roll by the mosses form masses upon which ferns and grasses can find a footing. Soon a true vegetable mould is formed—the surface of the rock has been in part decomposed by acids secreted by the delicate rootlets, affording a certain amount of sand or mineral matter.

By this time what we call *sod* is being formed, and upon this, *herbs*, tender, juicy plants, soon begin to grow; each generation adds to the depth of the soil by its own decay; and, presently, the seeds of trees wafted thither grow, and the making of the forest is begun.

What God did in the beginning was, we have every reason to believe, quite in accord with His methods now, except in that, in some way we cannot understand, by His mighty power, with a word, the Scripture tells us, He created everything that grows according to its kind. The order in which they are named is not accidental. It has deep significance for those who can see still the hand of God at work in the making of the fields.

"He maketh grass to grow upon the mountains"; "He causeth the grass to grow for the cattle, and herb for the service of men." Psalm 147:8, and 104:14. He does this for small and great:—"The profit of the earth is for all; the King himself is served by the field." Eccles. 5:9.

By the life and decay of tiny moss, tender flower, and sturdy tree, the earth is furnished with the coating of mould which makes agriculture possible.

To conclude this part of our subject: Vegetable mould must be regarded as a layer of material in which, as we have said, continual processes of decomposition are going forward, a large amount of oxygen is absorbed from the air and a continual return is made by the disengagement of carbonic acid gas. Vegetable mould in this condition is called *humus*. Its presence, if not absolutely necessary, is at least most desirable for the success of the cultivation of the soil.

#### Our Library Table.

"A SAILOR'S SWEETHEART." W. Clark Russell.—As a writer of sea stories, this author stands pre-eminent. There is a spontaneity and breeziness in his descriptions which bring the whole scene vividly to us, and we feel ourselves to be literally on deck—in the rigging—on a barren rock—in fact, *anywhere* the author chooses to place us! Through all the exciting episodes running through these most delightful nautical incidents there is always a pretty story as well, and none sweeter than this one of "A Sailor's Sweetheart." "The Wreck of the Grosvenor," "Jack's Courtship," "Marooned," and many others testify to W. Clark Russell's wonderful ability in making his stories interesting—although nearly all on the same lines.

"TRUMPETER FRED." Captain Charles King.—This stirring and pathetic story can be read and re-read, for it is one of which you do not tire. It tells of military life in camp and action, and Indian revolts, with all the spirit in which this author excels. The story itself is beautiful, and we cannot but love young Trumpeter Fred, while in his father—the fine old Sergeant Waller, with his all-mastering love and pride in his boy, coupled with his stern and soldierly sense of duty—we have a type of character which does one good to read about. Altogether a delightful book.

"DWELLERS IN GOTHAM," Annan Dale. "DIANE OF VILLE MARIE," Blanche Macdonell. "PATH-FINDING ON PLAIN AND PRAIRIE," McDougall. (Published by William Briggs, Toronto.)—These books are quite new and well written. The first-named deals with life in New York in various phases, and treats of money-making mission work and labor problems with a pleasant story running through. The second is a story of old French-Canada—with much historical interest; the Rev. John McDougall's account of missionary life in the far-off Northwest is stirring and well told, and makes one wonder how such terrible hardships could be endured as are graphically described in his "Path-finding," etc.

NOTE.—I might mention that these three last-mentioned books, being just published, are not at present to be had in cheaper paper editions. They are well bound and printed and are one dollar each.

FELIX.

"No, Willie, dear," said mamma, "no more cakes to-night. Don't you know you cannot sleep on a full stomach?"

"Well," replied Willie, "I can sleep on my back."

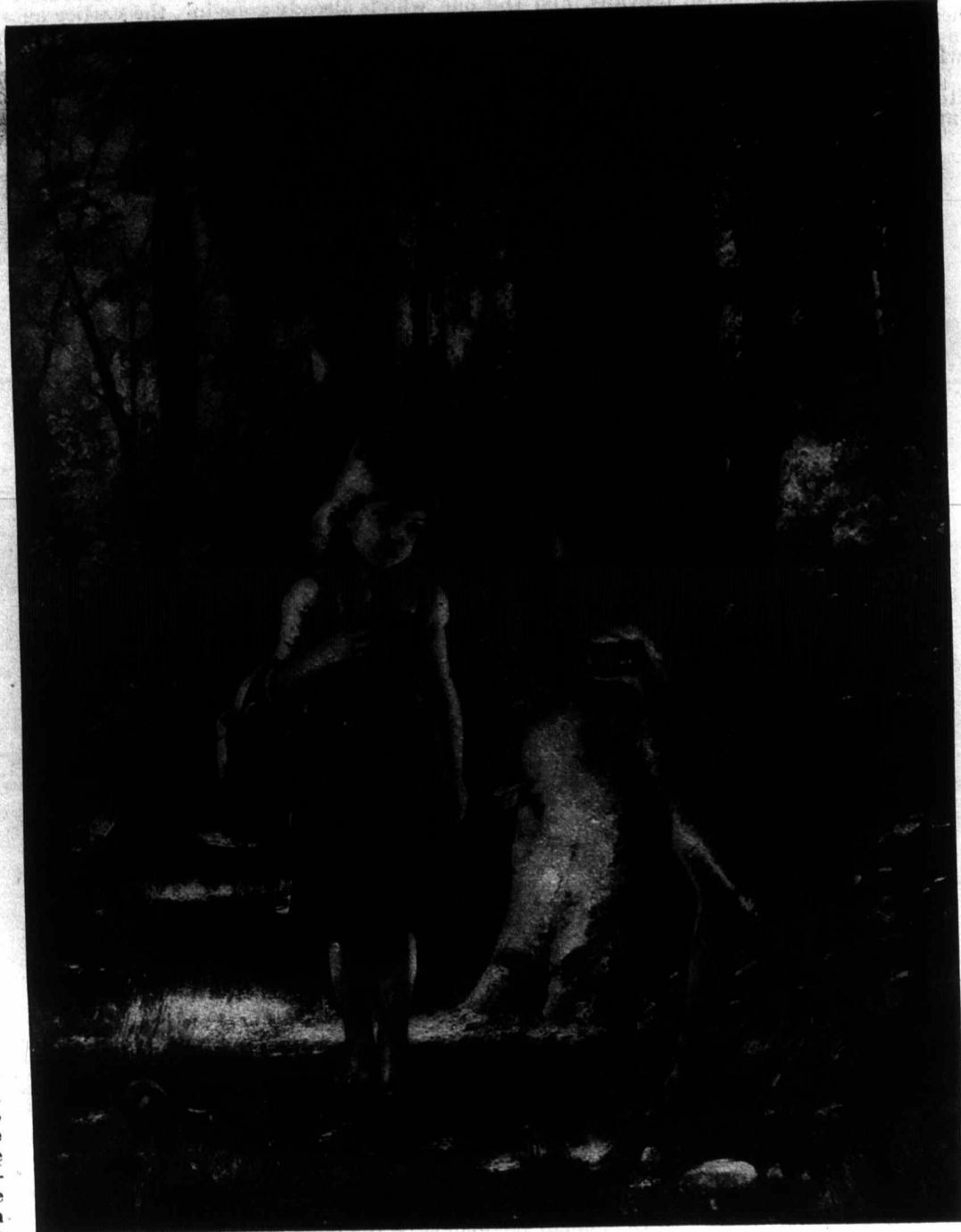


#### The Obsequies.

"I've been to a funeral in the garden—  
The funniest funeral, Nellie," said he.  
"Now, Jack, dear, I really must ask your pardon,  
But funerals never are funny," said she.

"Well, but this one just is," he answered, laughing;  
"So come on and see it—it's going on still."  
"All right," said Nell, "but I know you are chaffing.  
For I have not heard there was anyone ill."

Then away they went, hand in hand together,  
Across the long grass to the big tulip tree.  
'Twas raining quite hard, but why mind the weather,  
When such a queer sight one is going to see!



#### "LITTLE RED RIDING-HOOD."

And they found them all in full marching order—  
The little black ants, going on two by two,  
Just at the edge of the gravel-walk border—  
A soldierly line of them, straight and true.

Eight little pallbearers, all very solemn,  
And as stiff as though they were dressed up in tin,  
Carried their comrade in front of the column,  
With his small head limp, and his legs crumpled in.

"I think," said she, "the dead one's a relation,  
For the mourners have on such very black clothes,  
Or perhaps an aunt of quite high station—"  
"Oh!" said Jack, "'twas an 'uncle,' dear, I suppose."  
—Virna Sheard.

#### The Birds' Ball.

Spring said, "I have decided, Mother Nature, to give the birds a ball."

"What a good time they will have!" exclaimed Dame Nature.

"There ought to be flowers everywhere," suggested Spring.

"Yes, indeed," said Dame Nature, "we will have flowers and refreshments everywhere."

And then Dame Nature and Spring went to work—and such a busy, joyous time as they had getting ready for the Birds' Ball. It was no trouble, either, for all things wanted to help.

"What can we do?" said the Breezes.

"Carry the word to the flowers," said Dame Nature, "and ask them to have their fairest and largest blossoms ready to open on the day of the ball."

Then Spring said, "As we have no nightingales, how are we to send out the invitations? You know the song says:

"Spring once said to the nightingale,  
'I wish to give you birds a ball!  
Pray now ask the birdies all,  
The birds and birdies, great and small.'"

"We have no nightingales in America, but we do have carrier pigeons, who know how to carry messages and can fly very swiftly. We can send them," said Dame Nature.

At last the day of the ball arrived; and as the sun came up above the horizon he shone upon an earth decked with flowers that were jeweled with dewdrops which sparkled in the sunlight like diamonds.

As the sun came up higher Dame Nature was heard to say: "I have provided refreshments of every kind. I hope the birds will help themselves to whatever they like best to eat."

And then such a twittering and chirruping as was heard! The robins went after worms; the humming birds sipped nectar from the flowers; the woodpeckers

ran up and down the trees after grubs; the flycatchers darted around in the air after insects—and they all found that Dame Nature had done just what she said she would, and each bird had what he liked best to eat.

Then they danced. How long? All day. That is what the song says:

"They danced all day till the sun was low;  
The mother birds prepared to go;  
Then one and all, both great and small,  
Flew home to their nests from the birdies' ball."

Spring was happy as he traveled farther north that night, for nothing pleased him more than to make the world a gay and cheerful place.

But the owl was not happy. "Why didn't you ask me to your ball?" hooted he, crossly.

"We tried to," said Spring, "but you were sound asleep. Why don't you give one yourself at night, when you are awake?"

"That is just what I will do," said the owl, so pleased with the suggestion that he forgot to be cross. "I will give a midsummer-night's ball just as soon as the frogs begin to croak and the fireflies come."

#### A Word to Fathers.

How often one comes across and reads about some sad case of a young girl or youth who, in spite of God-fearing, honest parents and careful religious training, turns out to be a bitter disappointment, devoting themselves to habits which are in distinct contradiction to those of their kin. People exclaim: "Why, think of that young fellow, Brown, with such a good home and his people so strict and well-principled. Such an example as he's had!" Now, stay, my friend, are you so sure of that "example?" Perhaps you are very sure as far as regards the example set by careful home training, but this is not all that is required, as I shall try to show. Our farmers, as a rule, are extra careful as to the selection of their stock. Consider the amount of thought, time and money spent in obtaining some fine breed of cattle, some rare fruit or vegetable, some new invention in farm implements, and all these things, mind you, are well worth all this thought, time and money. But now a question: "How much consideration is spent upon the sort of *hired man* employed?" Yet this is a matter of grave importance. The farmer wants good help, and when able, is willing to pay well for it. But does he often think much of anything besides the working capability? He will not, perhaps, knowingly employ a hard drinker, or man of known immoral character; but does he trouble to find out much about this, and does he often think much about the *language* of his hired man, or the bent of his conversation? The man is, perhaps, careful in the house, or before his employer, but what is his style of conversation when *not* under restriction? Is it such as young ears should listen to? The swearing and coarse remarks which are often heard amongst some farm hands are enough to pollute any young boy or girl. This kind of thing is easily picked up, but, alas, *not easily forgotten*. If a farmer has his young people's welfare at heart—and surely there are few who have *not*—he should consider seriously and make determined enquiries about whatever man or boy he employs, and it would be well to ascertain for himself what kind of talk is



THE QUIET HOUR.

A Word to Parents.

Fathers and mothers, do you realize what a responsible position you fill? Do you grasp the fact that the happiness and holiness of your children's lives—and of their children, too—depends largely on you? You are anxious to give them a good start in life, with a good education to enable them to work their way up in this world. What about the next? Are you trying as hard to fit them for that? Let us look for a moment at the first parents. Think how their disobedience to God's law dragged down their children after them.

If it is true that no man sinneth to himself, much more is that true when he is a father with little children growing up to imitate him. Think how children almost invariably imitate, consciously or unconsciously, the habits of those about them. If a mother or father speaks sharply or complainingly, how quickly the children mimic the very tones of the voice.

If you should find that your child is untruthful, look very closely at yourself and see if you have not often failed to keep your word in little things. Do you never promise to do little kindnesses, and put off from day to day the performance of them? Do you never threaten punishments which you know—and they know—you don't intend to inflict?

Your children's faults are, far more often than you suspect, simply the reflection of your own far greater sins. Be sure that you take the beam out of your own eye that you may see clearly how to take the mote out of theirs.

If you drive hard bargains, cheat a little about the value of a horse you desire to sell, for instance, and are not particular to give a customer always the full value of his money, can you wonder that the children, who listen eagerly to your triumphant account of the good bargain you have made, grow up with the determination that they too will get as much as possible for themselves, with no thought of the rights or feelings of others? How will you like it if this fixed idea, which you have fostered, grows and grows until the sharp boy becomes a thief, a cheat, a swindler?

It will be his sin certainly, not yours, but have not you sown the seeds of dishonesty when his character was most impressionable and almost any seed was sure to take firm root?

If you are rude in speech or manner at home, do not be surprised if your children are rough, quarrelsome, and almost unbearable. If you are untidy, or slatternly in your dress and work, the children will always be in a muddle. If you are careless about going to church, the children will soon make excuses to stay at home too. Your boys will grow up to lounge about on Sunday "as father does," and, being young and energetic, will find plenty of mischief for their "idle hands to do," instead of just taking a well-earned rest as you feel you are doing. Be careful!

God has given the children into your hands to be trained for His service. Great will be your reward, even in this world, if you fulfill this duty wisely, prayerfully and patiently. What terrible sorrow may you have to bear if you carelessly neglect it. Now is the time while the children are young and innocent. They may be a blessing and an honor to your home, or they may bring disgrace and misery on you and your respectable name. They may, which is far worse than that, sink their own immortal souls in degradation and crime. Much of the responsibility rests on you. Be very careful, then, both in training and precept, and in your example most of all, for it is far more powerful for good or evil. You root out noxious weeds in your fields, do not suffer them to grow unnoticed in the hearts and lives of your children. You cultivate the soil and plant good seed. Do you fill their young minds with desires and aspirations after "the good, the true and the beautiful?" Do you hold up before them noble and heroic lives to copy? Do you always speak and act—yes, and think—as in God's sight? Do you make it very plain to the whole family that "as for me and my house we will serve the Lord?" Are you careful never to use words or expressions which would shock you coming from the innocent lips of your sons or daughters.

Some households seem to be almost heathen from Monday morning to Saturday night. God is never thought of the whole week through. Is it any wonder if children brought up in such an atmosphere lose all practical belief in Him. In homes where there is no family prayer, and where even private prayer is careless, hurried, or often neglected altogether; where the thought of God, and the homage due unto Him, is crowded out as being of less importance than the smallest matter connected with this world, of necessity the children imbibe the opinion that He is not to be considered in anything. At least that would be the almost certain result, only, happily for us all, God loves His children, and sometimes directs outsiders to root out the weeds and plant the good seed, taking that great and important work out of the hands which have proved so careless and neglectful. Sometimes He repairs the ruin parents have wrought, but can you be sure that He will in your case? Are the sins of the parents never visited on the children?

No matter how busy you may be then, be sure you find time for this, which is probably the greatest and most important work you can do, remembering the command: "Ye fathers, provoke not your children to wrath, but bring them up in the nurture and admonition of the Lord."

indulged in when with the children of the farm. Are our children of less consequence than our cattle, our farm produce, our implements? Those children, those growing up young girls and boys—the future hope and stay of our great country—are they, I say, of less consequence? I surely hear the emphatic answer, "NO," from every true man. Then look to it, fathers on the farm; do not risk so precious a thing as your child's soul, and pause before passing blame in the wrong direction, for the evil may have happened "within your own gates," unsuspected.

I would not have it supposed that I make any sweeping assertion regarding farm hands. There are scores of worthy, upright men and boys who have exercised a most beneficial influence, and who have been held in the greatest esteem by their employers, but this only goes to prove that such are obtainable? I would venture to say that if those farmers who have the welfare of the young folks depending on them were to insist in a body upon clean language about their farm, they would, before long, find that men would become more careful, and that a prolific source of harm-doing would be largely ameliorated.

If any farm hands read this, and the cap happens to fit, may it be of service to them, and let them be very sure that it is written in the most earnest spirit of good will. Another word: Let the farmer himself guard his speech!

Puzzles.

[The following prizes are offered every quarter, beginning with months of April, July and October: For answers to puzzles during each quarter—1st prize, \$1.50; 2nd, \$1.00; 3rd, 75c. For original puzzles—1st, \$1.00; 2nd, 75c; 3rd, 50c.

This column is open to all who comply with the following rules: Puzzles must be original—that is, must not be copied from other papers; they must be written on one side only of paper, and sender's name signed to each puzzle; answers must accompany all original puzzles (preferably on separate paper). It is not necessary to write out puzzles to which you send answers—the number of puzzle and date of issue is sufficient. Partial answers will receive credit. Work intended for first issue of any month should reach Pakenham not later than the 15th of the month previous; that for second issue not later than the 5th of that month. Leave envelope open, mark "Printer's Copy" in one corner, and letter will come for one cent. Address all work to Miss Ada Armand, Pakenham, Ont.]

1—TURN-ABOUT ENIGMA.

Stand me on my head, keep up my feet, Now read me backwards, until all complete; Then set me right, and still some words I spell, Which I shall leave for you to try and tell. When all is settled my WHOLE to you appears— Oft used as potent sign in ancient years.

An abdicated potentate, Fond of war and regal state, Lived in my FIRST—when dire defeat At last o'erthrew him from his seat. He reigned again—but for a while, And died in pain and sad exile. This FIRST's a curious sort of thing— For three whole changes can it ring. Reverse it—I hope you're fit to do Of any good which lies in you. And now exchange two letters' place, A man appears of ancient race.

My SECOND can be soft or hard (From this last I would be debarred), But soft, it feels of no account, Though sometimes causing an amount Of mischief. Also joy it brings; In fact, announces many things. You can reverse this little word, And really it seems quite absurd; For, though it looks so very small, It equals everything and all! SIMPLE SIMON.

2—SQUARE.

- 1. A mountain mentioned in Scripture.
2. To venerate.
3. An incarnation of a deity.
4. To retreat.
5. A mountain in Persia.
6. Long and round.

"Boz."

3—CHARADE.

"Here, Dick and Tom, give me a boost Up in this shell-bark hickory tree; If I ONE reach that loaded limb I'll get some nuts for you and me." But Jack two not reward the friends Who helped him reach his wishod-for seat; He THREE the nuts all up himself, Like a political COMPLETE. "Boz."

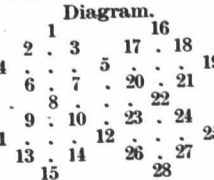
4—ONE-WORD PUZZLE.

I am so many different things that I get myself all mixed up and don't remember which I am! Will someone help me? I am, very good-natured, for I can make myself at home almost anywhere. I travel by land and water, am used to the railway, and am sometimes on people's clothes. In spite of these accommodating qualities I am seldom made a pet—perhaps because I haven't a pretty voice—still some people are very fond of part of me. I will confess that I come of an obstinate race, for it is said that a far-off ancestor actually went to pay court to a young lady, against his lady mother's express desire—which was certainly most reprehensible! SIMPLE SIMON.

5—RHOMBUS.

Across—(1) To smear; (2) a plowing of land; (3) children sport; (4) instruments used by gold-wire-drawers; (5) issues from; (6) cases for pocket instruments. Down—(1) In England; (2) back or again; (3) to devour; (4) a plain surface; (5) a continued endeavor to gain possession; (6) to subdue; (7) to reach; (8) a bird (trans.); (9) to desecr; (10) a ruin in Scotland; (11) in Russia. ARRY 'AWKINS.

6—CONNECTED DIAMONDS.



- I.—1, A letter; 2 to 3, the grampus; 4 to 5, a Dutch boat; 6 to 7, an eastern chief; 8, a letter.
II.—3, A letter; 9 to 10, a speck; 11 to 12, virtuous; 13 to 14, a game; 15, a letter.
III.—16, A letter; 17 to 18, a snare; 5 to 19, one of a large class of elements; 20 to 21, an Indian pony; 22, a letter.
IV.—22, A letter; 23 to 24, fresh; 12 to 25, a fruit; 26 to 27, got; 28, a letter.
V.—5, A letter; 7 to 20, expressing denial; 8 to 22, a standard; 10 to 23, a sum; 12, a letter. "OGMA."

7—RIDDLE.

There's a queer little thing and it lives in a hole, It is neither a rabbit, a squirrel, nor a mole. It sleeps in the Winter, but starts in the Spring To its task again, to dance and sing. It has a black body and six crooked legs; Riddle me this, of you I beg. ESTHER CRAIG.

8—CHARADE.

My first our hearts all long to see, The birds and children love her; The grass is green, the flowers bloom, The blue sky smiles above her. My second makes the earth look bright, We all love to behold it; It waves and nods with all its might Till night comes to enfold it. My whole is loved by bee and bird, And when talking of summer's often heard. C. B. M.

9—

Trapezoid. Across—(1) A moslem; (2) aids; (3) to hold; (4) to part with. Down—(1) A consonant; (2) expressing an alternative; (3) a possessive pronoun; (4) malt liquors; (5) a crumb; (6) ground grain; (7) wicked; (8) the lair of a beast; (9) so; (10) a consonant. M. N.

10—NUMERICAL ENIGMA.

My 16, 4, 10, 11, 22, 5, belongs to the mail service. My 25, 20, 7, 13, 14, is to gaze. My 3, 12, 25, 8, 19, 23, is a place of rest. My 15, 19, 17, 6, 28, 30, should always be young. My 1, 21, 2, 18, 29, is everything. My whole is a much-abused quotation. ARRY 'AWKINS.

11—PROVERBS.

The following contains all the words of eight familiar proverbs. See if you can reconstruct them.

Turn your coat according to the tide and you will wish too late to mend your way. The cloth deserves a good time; where their haste send a cut alone, if not a thing more. Got let no man wait for another one, it is never well done if there is less speed. "OGMA."

12—FLOWERS TRANSPOSED.

Aidtsunh, ruasprk, ceennitgmo, uttsmiran, acieuptn, sss- llihogpa, ssilloapci, tdyauafnc, aerynimunhchcs. PETER HYDE.

13—ENIGMA.

I am a bright little thing, 'Tho' of brains, white or gray, have I none; Yet when I enter you sing As if you were shot from a gun. "DICKENS."

Answers to February 1st Puzzles.

1—Amherstburg, Ashburnham, Beauharnois, Stellarton, Summerside, Esquimalt, Carbonear, Heart's Content.

2—Sea-boat. 3—Whole-hole-Leo.

4—Tell me not, in mournful numbers, Life is but an empty dream, For the soul is dead that slumbers, And things are not what they seem.

5—Mandeville, Cabot, Marco Polo, Verrazano, Columbus, Cortereal, Cartier, Champlain.

6—Eagle, bluejay, vulture, thrush, barn-owl, canary.

7—Moult, aroma, divan, alpha, groin, arena, sober, cadji, activ, ratio—Madagascar=Tananarivo.

8—Canadian teacher.

9—S (Dutch S). Because they are in "constant." E, sam-e, hat-e, cap-e. H, s(h)ot. T-all. A me(a)n, a-men.

10—FISTULOUS

r a t c h e t

u t t e r

I r a

t

a y e

g l a i r

e m u l a t e

m a n i p u l a r

11—Beached—ache=bed, beholder—hold=beer, bellow—ell=bow, mustard—star=mud, remissly—miss=relly, arrant—ran=ant.

12—Ashes—she=as, routs—us=rot, department—part=dement, sending—end=sing, protean—rote=pan, limped—limp=led, honestly—nest=holy, martinet—tint=mare, heighlon—nip=hen, maniple—nip=male, addend—den=add, pleasant—east=plan, infancy—fancy=in, botany—tan=boy. Superintendent.

13—

e v e

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r

SOLVERS TO FEBRUARY 1ST PUZZLES.

"Arry 'Awkins," Dickens, Lily B. Pelton, Viola Cook, Dick, G. E. K., A. E. J.

ADDITIONAL SOLVERS TO JANUARY 16TH PUZZLES.

Geo. Lawson, A. E. J., J. McLean, Lizzie Conner, "Teledo," "Dickens," C. B. M., Esther Craig, Ethel, Jessie and Peter Hyde, R. H. Clarke. ("Ethel" and Esther C. to Jan. 2nd.)

COUSINLY CHAT.

"Boz"—I am pleased to hear that you find our circle interesting, and hope you may long continue to occupy a place within it. Are you the same person who used to solve several years ago? The name is similar, and your success denotes practice. Yes, you are somewhat late in starting for this quarter.

"Simple Simon."—Like "Boz," your work was too late for more than a word last issue, but I extend you a hearty welcome, as your contributions are a great addition to our column. Several puzzles can be sent together or two or three for each issue, as desired. In the latter case it is not much trouble to send solutions too, and "the more the merrier," you know.

Lizzie Conner.—Some of the puzzles you mentioned are the ones which aroused my suspicions. They looked familiar, and several others were rejected because I felt certain of them. I think we shall have no further trouble from that source!

Viola and Lily are two new solvers whom we are pleased to welcome.

R. H. C.—I am not sure whether I acknowledged the receipt of your card or not, but I hope you will come again.

Geo. L.—Your work was too late for name to appear in proper issue. "OGMA."

## MISCELLANEOUS.

## British Columbia Central Farmers' Institute.

The first meeting of the Central Farmers' Institute of British Columbia convened at the office of the Department of Agriculture, Victoria, on Friday, February 3rd. District Farmers' Institutes were represented by one delegate each, as follows: A. E. Reeves, Alberni District; Major J. M. Mutter, Cowichan; Rev. Mr. Taylor, Nanaimo; W. H. Hayward, Victoria; W. H. Laidner, Delta; C. D. Mogridge, Surrey; Langley; A. S. Vedder, Chilliwack; G. W. Beebe, Kent; W. J. Harris, Maple Ridge; A. Hawkins, Matsqui; D. Graham, Okanagan; C. B. Harris, Kamloops; Mr. J. R. Anderson, Deputy Minister of Agriculture; and Mr. R. M. Palmer, Fruit Pest Inspector, also attended and took part in the discussion.

Sessions were continued on Saturday, 4th, and Monday, 6th, inst.

A great range of subjects concerning the agricultural interests of the Province were dealt with, and the work of the meeting naturally divided itself into two divisions: (1) Matters to be dealt with by the Provincial Government; and (2) recommendations to local Institutes in regard to subjects recommended to be considered at local Institute meetings.

Under the first heading, resolutions were passed and submitted to the Minister of Agriculture, suggesting important amendments to the Farmers' Institute and Co-operation Act, providing for the subdivision of the present Institute districts, some of which were considered to be too extensive for effective work. Also for the amalgamation of existing agricultural societies with local Institutes, without prejudice to the "existing rights, privileges and appropriations" enjoyed by such societies.

The compulsory teaching of elementary agriculture in the rural schools, the publication of worthy papers presented at Institute meetings, the maintenance of annual grants to the Board of Horticulture and Fruit Growers' Association, the placing of a representative exhibit of B. C. production in the Imperial Institute, London; the placing of exhibits of botany and forestry in the Department of Agriculture, Victoria; the providing of facilities so that farmers and others could procure analyses of soils, foods and manures at Government expense, legislation to define the size of fruit packages, and to compel the stencilling of the same with the name of the grower of the fruit contained, were asked for, after the subjects had been thoroughly discussed, and by means of a delegation presented to the Hon. Mr. F. C. Cotton, Minister of Agriculture, who stated that he was desirous of doing all he could for the benefit of the farmers of the Province, that he would give the matters brought before him his serious consideration, and, as far as possible, put the recommendations made into effect.

A resolution was carried as follows: Recommended, "That the taxation on wild lands be increased so as to cause those who hold such lands for speculative purposes to either improve these lands or sell out to those who will do so."

A very lively debate followed on the evils of the present state of affairs in this connection in many districts. It was forcibly pointed out that the *bona-fide* settler, while carrying most of the burden of taxation, made the land of the speculator valuable, while the latter did nothing. In regard to the Provincial Department of Agriculture, after a very long discussion on its work and possibilities, the following resolution was carried: "That, as it is learned that the Agricultural Department may be reorganized, this meeting suggests that such organization is required, and that the Minister of Agriculture be requested to create a Board of Agriculture, of which three members should be elected by the Central Institute, two by the Government, and that the Minister of Agriculture and a permanent Secretary should be *ex-officio* members.

In regard to the Noxious Weeds Act, several amendments were suggested to increase its efficiency, especially in regard to Canada thistle, tumbling weed, and mustard, and to make the Act operative against crown lands as well as private owners.

Another very important question considered was that of cheap loans to farmers. The act passed for this purpose at the last session of the Provincial Legislature had proven unworkable. It was considered that loans should be made direct to the farmers under the decision of commissioners to be appointed who would act as valuers, the money advanced to be spent in the actual improvements and a low rate of interest charged. The advantages of the New Zealand system of loaning was pointed out, and after a long discussion the following resolution was carried:

"That the Provincial Government take into serious consideration the advisability of procuring money for farmers at a low rate of interest, the New Zealand plan being recommended as deserving their earnest attention."

The foregoing resolutions were also submitted to the Provincial Government and promised favorable consideration at their hands. A resolution recommending district Institutes to co-operate in the sale and purchase of stock and produce was carried unanimously after a good discussion on the benefits to be derived from this practice.

The question of fruit shipments from the Province to Manitoba and the Northwest Territories was dealt with, and the reasons for the failure of some of last season's operations in this line considered. Mr. B. Gordon, of Winnipeg, fruit broker, attended the session at which the subject was discussed and gave some practical advice in regard to packages, grading of fruit, methods of packing, and the shipping of plums arrived in bad condition at Winnipeg. He advised the greatest care in selecting fruit for shipment and the marketing of the fruit through the regular trade channels. California methods were recommended to be followed as closely as possible. A hearty vote of thanks was accorded to Mr. Gordon for his advice. In connection with the fruit shipping question the following resolution was presented and carried unanimously:

"That pressure be brought to bear upon the Dominion members of Parliament for B. C. to induce the Dominion Government to give the same assistance to B. C. farmers and horticulturists, particularly in regard to cold storage accommodation."

A motion was put to the meeting and carried unanimously: "That in the opinion of the Central Institute transportation companies receiving land or cash bonuses should have their freight rates fixed by legislative enactment"; and in regard to passenger service the following resolution carried unanimously: "That in the opinion of the Central Institute the same treatment as regards return passenger fares should be granted by the C. P. R. in all parts of British Columbia, and that copies of this resolution be sent to each member of the Dominion House of Parliament and to the C. P. R. Superintendent."

Other subjects which received considerable discussion were: "The drying of the Fraser River lands," concerning which it was stated that much of the work hitherto done had been useless and thousands of dollars had been thrown away, as much of the dyke built at Matsqui had subsided into the river; "The sale of adulterated food products imported into the Province in competition with pure articles manufactured here"; and "The desirability of establishing small experimental stations in different parts of the Province was affirmed by resolution and shown to be very necessary in view of the great diversity of soil and climate of the various sections. The Game Act was discussed at length and the enforcement of its regulations asked for. On the evening of the last day of the session a number of the members of the Provincial Legislature attended the meeting, when explanations were given as to the various suggestions which had been made to the Government, and assistance to have these made operative was promised. Mr. A. E. Reeves acted as secretary throughout the meeting, and at its close was accorded a hearty vote of thanks. Votes of thanks were also given to the chairman, Mr. W. H. Hayward; to Mr. J. R. Anderson, and to Mr. R. M. Palmer, for valuable services rendered, concluding a most successful meeting, which is likely to have a very important effect upon the agricultural future of the Province.

## Maritime Notes.

There is a very general complaint among the farmers here that the hay is not feeding out well, and notwithstanding the large crop which has been harvested, many are afraid they will be short of feed before spring. I am experiencing the same trouble myself. Mows which in former years used to feed a certain number of cattle through the winter are now nearly empty. The cause of this is to be found in the excessively wet summer of last year. Very little hay was housed without having received some rain, and much of it got a good soaking, which washed a great part of the nutrients out of it and made it light and brittle. Unfortunately, the farmers here cannot afford to use millfeeds to any extent, as the prices are almost prohibitive.

In one of my former letters I spoke of the increasing attention which was being paid to the improvement of stock in the Maritime Provinces. I have had the fact brought rather forcibly to my attention lately. I have recently written to six breeders in Nova Scotia with a view to purchasing a bull for our agricultural society. I have heard from five of them, and they all say that they have sold all they had to dispose of, and that they cannot supply the demand. One of these breeders is just about going to Ontario to buy a carload. This is good news, as it shows that the desire for improvement is extending, and that it is already under way. While there is no demand for the class of stock we are now raising, there is a good market for well-bred, well-finished animals. This is shown by the butchers of our principal markets going outside the Province to procure animals. Last fall, when large numbers of two and a half year old steers were selling here at from \$15 to \$20 per head and were being sent to the Halifax market, Halifax butchers were in Ontario buying steers and paying as high as six cents per pound live weight, with the added cost of freight. Now, these men would not go that great distance from home if they could get the animals they require here. This trade with Ontario is increasing greatly, while we are losing the best of our markets. We must improve our stock, or we will soon have to quit beef-raising altogether.

A meeting of the Halifax Board of Trade was held Jan. 31st in the interest of a large flour-milling enterprise which is being projected for that city. Much encouragement was given to the scheme, and a number of merchants expressed their intention to help by taking stock. In view of the fact that nearly all the flour used in Nova Scotia is imported, it is strange that mills have not been established long ago. If I am not mistaken, the New Glasgow mills are the only regular flouring mills in Nova Scotia. They are equipped with the most improved machinery, and have a capacity of 400 barrels per day.

A meeting of the ratepayers of Parrsboro was also held a short time ago to consider the granting of a bonus to any company starting and operating a woolen mill there. It was resolved to authorize the council to grant a bonus of \$2,000, with exemption from taxes for five years, to any company with a capital of not less than \$15,000 who would establish and operate a two-set mill, employing not less than twenty hands. We already have several large woolen mills in Nova Scotia that are doing a good business and have earned an enviable reputation for themselves, but they do not give the farmer much encouragement to increase his flock of sheep, as they only take wool in exchange for cloth and will not take unwashed wool at all. It does not take many sheep to provide a farmer with all the cloth he can use, and unless he can sell his surplus wool he is not likely to produce it.

The St. John's says that the McCready Manufacturing Syndicate, of London, Eng., has gone extensively into the business of desiccating eggs, and are now looking for an opening in the Maritime Provinces to establish a branch factory. A representative of the company who was in Ottawa the other day wanted to find a locality where eggs could be purchased wholesale at eight cents per dozen, to any company with a capital of not less than \$15,000 who would establish and operate a two-set mill, employing not less than twenty hands. We already have several large woolen mills in Nova Scotia that are doing a good business and have earned an enviable reputation for themselves, but they do not give the farmer much encouragement to increase his flock of sheep, as they only take wool in exchange for cloth and will not take unwashed wool at all. It does not take many sheep to provide a farmer with all the cloth he can use, and unless he can sell his surplus wool he is not likely to produce it.

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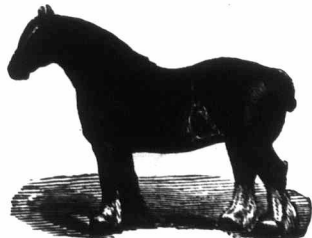
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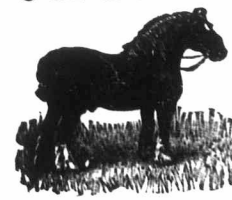
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ages and of the best breed-  
ing strains. In the pedi-  
grees will be found the  
names of such sires as  
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The Country and Hunt Club of Toronto

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April 13th, 14th and 15th, 1899

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great substance and weight, with excellent quality,  
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Experienced farmer with wife on a farm  
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LONDON, ONT.FOR SALE:  
3 Fine Young  
CLYDESDALE STALLIONSwith breeding as good as any in this  
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CLYDESDALE STALLIONS.One a winner at the Royal Northern Show,  
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Rising three years old; also some Fillies and Mares  
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We are now offering a limited number of imported  
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Ayrshires from our show cows. Shetland ponies and  
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1 Berkshire Boar, of Snell breeding, weighing  
250 pounds, extra quality, \$15. 12 Yorkshire  
Boars, good ones, weighing from 150 pounds to 250  
pounds, at \$12 to \$15 each. All stock registered and  
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10 SHORTHORN BULLS 10

By Indian Statesman 2901, from 10 to 20 months.  
Twelve young cows or heifers with calves by side or  
in calf. Twelve ram and 20 Shropshire ewe lambs,  
sired by (Imp.) Flashlight. Also, Berkshire boars  
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OFFER FOR SALE the stock bull  
Redman = 21765 =,sired by Tofthills (Imp.) = 11113 =,  
dam Canadian Duchess of Gloster  
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lot of young bulls by Caltness, from good milking  
dams. Some splendid Leicester ewes and rams for  
sale also.A. W. SMITH,  
-on MAPLE LODGE P. O., ONT.Shorthorns Bull 3 years old, Tofthills Boy, by  
Imp. Tofthills, out of a Canadian  
Duchess of Gloster cow. Bull 15 months, by Tofthills  
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POLTRY—Golden and Silver Wyandottes, Barred  
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Half a dozen young bulls, and as many heifers and  
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Red and roans. Imported Prime Minister  
heads my herd. -on

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It has often occurred to us that if farmers  
could only get out of the old rut of shopping on  
credit at small stores where a high price has  
to be charged, and commence to deal on a  
cash basis with large co-operative establish-  
ments where the bulk of business done al-  
lows of small margins of profit, a great stride  
towards easier circumstances could be made.  
Store bills are always alarmingly larger than  
one expects, and not uncommonly disturb the  
peace of a house when they arrive. Almost  
everything a farmer needs, outside of live  
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**CATTLE**—One registered Jersey Bull (yearling), grandson of a 20-pound cow; Six registered Jersey Cows; Five Grade Jersey Cows; Two Grade Jersey Heifers.

**SHEEP**—Four registered Cotswold Ewes; Ten registered Ewe Lambs; Five registered Yearling Rams.

**SWINE**—One imported sow, Premier Belle, aged; One yearling Sow, by Victor XII. (will make show sow); Two Boars out of imported Premier Belle, sired by Imp. Hiawatha, four months; One registered Boar, ten months; One registered Sow, yearling; One registered Sow, eight months; One registered Boar, eight months; Two registered Boars, ten months; One registered sow under one year.

**FIVE HORSES and FOUR COLTS.** All Farm Implements, Grain, etc., will be sold at the same time.

TERMS: Seven months credit on approved notes.

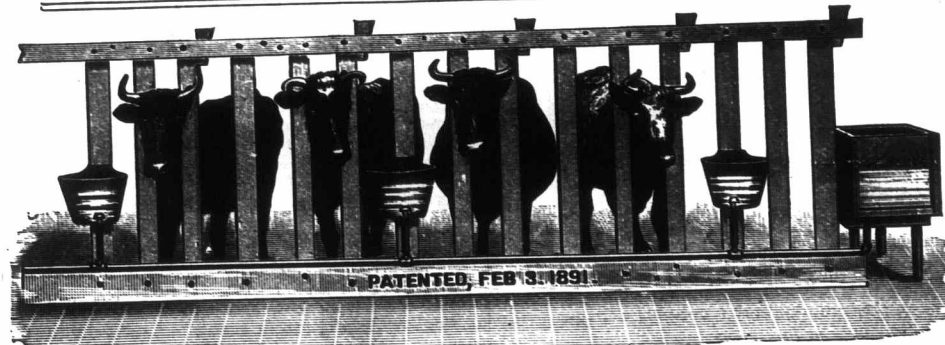
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 Railway Stations: Snelgrove, C. P. R., two miles; Brampton, C. P. R. and G. T. R., four miles.

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OUR entire herd of Shorthorns, consisting of 30 head, comprising such well-known Scotch families as Nonpareils, Minas, Jilts, Cecillas, Bessies, and Duchesses of Gloster. Sired by the best imported Cruickshank and Campbell bulls. Among the lot are some very fine show animals, bred from imported stock, as well as cows that are very heavy milkers. The young things are a choice lot, sired by such imported bulls as British Statesman, Comet, Golden Crown, and Grand Sweep. In all ten bulls will be offered, also the imported bull, British Statesman, a first-class show bull, bred from one of the best milking strains in Scotland. See Catalogue, which will be sent on application. All will be sold without reserve, as Mr. Pearson is giving up farming.

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Form, Flesh, Substance, Pedigree... All Right.

**John Dryden, BROOKLIN, ONT.**

#### MOUNT ROSE STOCK FARM

Young Shorthorn bulls, heifers and cows for sale. Prices right.

**J. W. Hartman & Sons, Elmledge P. O., Ont.**

#### Ten Shorthorn Bulls FOR SALE,

Seven red and three roan, from 10 to 16 months old. In a herd of 95 head, no white calves since 1892.

**THE HERD HAS PRODUCED** such bulls as Topsman, Banker, Lord Stanley, and Moneyfuffel Lad, all of them

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

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

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

#### H. K. FAIRBAIRN, Rose Cottage Stock Farm, Theford, Ont., OFFERS FOR SALE

1 SHORTHORN BULL, 16 months old; 4 bull calves, 3 to 6 months old; 4 heifers in calf, 2 years old; sired by Great Chief = 16988 =, and Indian Brave.

#### 4 SHORTHORN BULLS

One choice two-year-old, and three from four to eleven months, all in fine form and sired by Elvira's Saxon 21064.

**R. MITCHELL & SON, Burlington Station, Nelson P. O.**

### SHORTHORNS FOR SALE

HERD ESTABLISHED 1855.

A number of Young Bulls, Cows and Heifers for sale. Herd headed by Imported Christopher = and Duncan Stanley = 16361 =. Grand milking cows in herd.

**JAMES DOUGLAS, -om CALEDONIA, ONT.**

#### Scotch Shorthorns For Sale:

90 HEAD TO SELECT FROM. We are offering four young bulls by Valkyrie, and a number of cows and heifers (including some show heifers), from such sires as Valkyrie = 21806 =, Young Abbottsburn's Heir = 15947 =, and Imp. Mariner = 2720 =, served by Imp. Diamond Jubilee (Vol. 15) now at the head of herd. Farm 1 mile north of town.

**T. DOUGLAS & SONS, Strathroy Station and P. O.**

#### SHORTHORNS 9 BULLS, 4 HEIFERS,

Mostly Scotch-bred, and got by such bulls as Kinellar Sort (Imp.), Northern Light (Imp.), Prince and Prince Bismark. Prices right. Correspondence Solicited, and Visitors Welcome.

**G. A. BRODIE, Stouffville Stn., G. T. R. BETHESDA, ONT.**

#### SPRINGFIELD FARM

HERD OF Shorthorns, Oxfords, AND Berkshires. Young bulls and Heifers on hand. Also a few choice Berkshires.

**CHAS. RANKIN, Wyebridge, Ont. SIMCOE Co.**

#### 7 - SHORTHORN BULLS - 7

SCOTCH BREEDING. Good growthy ones from 5 to 15 months. Also an aged bull. Would spare a few heifers. Prices very moderate. Write—

**SHORE BROS., White Oak, Ont.**

#### SCOTCH SHORTHORN BULLS AND HEIFERS

HERD ESTABLISHED IN 1872. Such sires as imported Royal George and imported Warfare have put us where we are.

**A. & D. BROWN, ELGIN COUNTY, -om IONA, ONTARIO.**

### GOSSIP.

We call attention again to the great sale of Shorthorn cattle from the herd of R. & S. Nicholson, of Sylvan, Ont., five miles from Parkhill station, G. T. R., on Wednesday, March 8th.

Shorthorn breeders and farmers generally should bear in mind the dispersion sale of the Valley Home herd of Shorthorns of S. J. Pearson & Son, Meadowvale, Ont., March 22nd. See the advertisement in this issue.

Attention is directed to the closing sale of the estate of the late J. G. Snell, of Snelgrove, Ont., on Monday, March 20th. The sale is made up of registered and high-grade Jerseys, registered Cotswolds and Berkshires, seed grain, and all the farm implements.

Six imported Ayrshire bulls, eight to ten months old, are advertised for sale by Mr. W. W. Ogilvie, near Montreal, who has one of the largest and best herds of imported up-to-date Ayrshires in Canada. For particulars write Mr. Robert Hunter, Manager, Lachine Rapids, Quebec.

Mr. James Dalgetty has, through an agent, notified us of his shipment of sixteen Clydesdale stallions, which he expects to land at the Black Horse Hotel, Toronto, about the 1st of March, particulars of which it is intimated will be published in the advertising columns of the FARMER'S ADVOCATE.

From H. Smith, Springhurst Farm, Hay P. O., Ont.: "Among the young bulls I am offering in this issue of the ADVOCATE are two yearling months old that are toppers. One of these is Village Prince, by the prize bull New Year's Gift, and out of Village Fairy, one of the best of our Village Blossom cows. The other is Free Lance, from a sister of the handsome steer, Free Trade, I exhibited at the Xmas shows, and is almost his exact counterpart except that he has a mossy roan coat. Free Trade is making unusual progress, and is now pronounced by many the best bullock they ever saw; he has already been sold for next Xmas delivery to Pat Curtin. Some of the heifers I am offering have been prizewinners in hot company, and look as if they would be able to win again."

A. & G. Rice, Currie's, Ont., write:—"We have been making so many sales from our Holstein herd that we scarcely get time to report them. We have just had that veteran Holstein breeder, Mr. Henry Stevens of New York, to visit us and our herd. Mr. Stevens is well known as the owner of the cows De Kol 2nd, official test 26.57 pounds of butter in seven days, and Netherland Hengerveld, official test 26.66 pounds in seven days; having a son of each, and from inter-breeding he has got some very richly-bred heifers. To make with these, as an out-cross, he considers Calamity Jane's son as what he wanted. Though Calamity Jane's official test of 25.1 pounds of butter in seven days is somewhat less, still it is amongst the half dozen highest ever made; besides, her test was made after being shipped back and forth to a public test, and she also had to her credit the winning of the Provincial Dairy Test for four years, and making each time large records under all sorts of conditions. Her show-ground record of 85 pounds milk in one day, 164 pounds in two days, and 19.31 pounds of total solids, is the highest ever made. We were exceedingly loth to put a price upon this bull, but as we had most of our cows bred, and are allowed to retain an interest in him, so we can use him three months next fall, we accepted Mr. Stevens' very tempting offer. We believe this is the first Holstein bull to go from Canada to head a herd, and he goes to the head of a first-class herd. The quality of our stock may be judged from this. We had also the pleasure of a visit from Mr. D. O. Mahoney, Renton. The veteran Etnice Clay had a bull calf only a few days old, and as this gentleman has a nice little herd of Holsteins building up, he was shrewd enough to see the worth of just such a youngster to head his herd, and secured it. Mr. Theodore Mancekivell, of Dereham Township, Oxford Co., was another caller. Mr. M. keeps 50 to 75 cows, so is an extensive dairyman, even in that great dairy township, and can appreciate a good thing, which he got in a son of Daisy Texal 2nd, that made such a large record in Brantford test for heifers, viz., 68 pounds in one day, 134 pounds in two days (highest for age). Then his neighbor, Mr. Boyce, came along and secured a yearling bull, whose dam gave at five years old 11,179 pounds milk in one year, and made under official test 17 pounds butter in seven days; and another bull from dam of equal record, a half-brother, we sold to Mr. Robt. Pedegrew, Ratho, Ont. And still another yearling, Netherland Pietertje Paul, we sold to Mr. Walter Schell, one of our neighbors, who has been a large feeder of export beeves, feeding 40 to 50 head each winter, and now he is turning his attention to dairying, does not believe in half measures. Here we have sold four bulls inside 10 days, right in our own county, a testimony to the worth of our stock we greatly appreciate. Mr. Aaron Walton, Rothsay, was the purchaser of a fine yearling bull, Blossom's Jewel Paul, as was also Mr. J. N. Brintnell, Canifon, who got Mercena's Pet Paul, a prizewinner at the large fairs. These three last are all from the same sire as Calamity Jane's Paul—i.e., Sir Paul De Kol Clothilde—whose 19 nearest relatives average 22 pounds of butter in seven days. Mr. Francis Stauffer, Washington P. O., purchased Dew Drop Clothilde, the heifer that won 2nd in Brantford test; she made under official test for seven days 11.9 pounds butter, giving as high as 40 pounds milk, and testing 3.4 per cent. to 4 per cent. fat, which is good for a two-year-old. Mr. C. A. McArthur, Sarnia, purchased Netherland Jewel Pietertje, a fine five-year-old cow which we guarantee will give a good account of herself. Yearling bulls are getting rather scarce on this ranch. We have a grand lot of bull calves from two months to six months old."

## BELLEVILLE BOGLE & JEFFERS, BUSINESS COLLEGE PROPRIETORS.

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

1. Bookkeeping.
2. Shorthand.
3. Typewriting.
4. Telegraphing (Commercial and Railway Work).
5. Civil Service Options.

Students may commence telegraphing on the first of each month, and the other departments at any time.

**J. FRITH JEFFERS, M. A., Principal.**  
Address: BELLEVILLE, ONT.

## SHORTHORNS

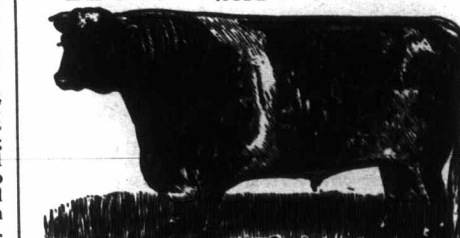
OF THE Crimson Flower and Minnie Strains



And from such sires as Scotchman 2nd, Duke of Laverder, Premier Earl, Indian Chief, and Clan Campbell. A few splendid young bulls ready now. Cotswold sheep.

**DAVID BIRRELL, Greenwood, Ont.**

1893. 1899.



**SHORTHORN Bulls, Heifers, Cows** Some very choice.

**WM. LINTON, AURORA, ONT.**

## SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Imported Blue Ribbon = 17065 = and the famous Moneyfuffel Lad = 20521 =. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply **T. E. ROBSON, Ilderton, Ont.**

## SCOTCH-TOPPED SHORTHORNS.

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

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

## SHORTHORNS 5 BULLS 5 HEIFERS 5

Sired by Revenue 21052 and Oxford (Imp.) 2725, and out of grandly-bred dams. Farm one-half mile from station: C. P. R. and G. T. R.

**ROBT. DUFF, MYRTLE.**

## ROBERT MILLER, STOUFFVILLE, ONT.,

Importer and Breeder of Shorthorns and Shropshires

Offers young bulls and heifers, rams and ewes of the most approved breeding and finest quality, at moderate prices. Station, Telegraph, Telephone, Post Office, three minutes' walk.

## SHORTHORN CATTLE AND LINCOLN SHEEP.

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

**J. T. GIBSON, DENFIELD, ONT.**

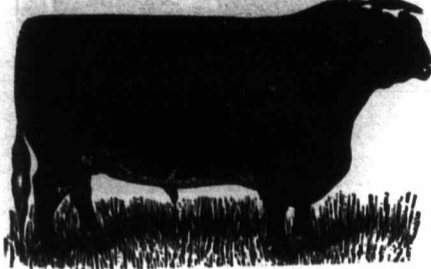
W. D. FLATT, HAMILTON P. O. and TELEGRAPH OFFICE,



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

served by imported bull, Golden Fame - 29056 - also, a few cows with calves at foot. Farm 6 miles from Hamilton. Catalogue sent on application. Visitors met at G. T. R. or C. P. R. if notified.

ARTHUR JOHNSTON Greenwood P. O. and Telegraph Office,



OFFERS FOR SALE 17 FIRST-CLASS SHORTHORN BULLS YOUNG Big, good, and in fine form. Also cows and heifers of various ages. All of which will be sold at moderate prices. Send for catalogue.

BERKSHIRE BOARS AND SOWS FOR SALE Claremont Station, C. P. R. Pickering Station, G. T. R.

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS. FOR SALE: 4 young bulls of the choicest breeding and good quality, and from A 1 dairy cows. Wm. Grainger & Son, - Londonboro, Ont.

Six-Young Ayrshire Bulls - Six FOR SALE! From eight to ten months old; all imported in dam, and all from good herds. Will sell them right. Address

ROBT. HUNTER, Manager to W. W. Ogilvie. LACHINE RAPIDS, QUE.

Choice Ayrshire Bulls & Calves FOR SALE. One bull 5 years, by an imported sire and dam. One bull calf 10 months old. Bull calves at \$11 each, when taken from 3 days to 9 days old.

J. A. JAMES & SON, NILESTOWN, ONT.

AYRSHIRE BERKSHIRE CATTLE. PIGS. The bull Tom Brown and the heifer White Floss, winners of sweepstakes at World's Fair, were bred from this herd. Young stock for sale. Also Leicester sheep & Berkshire swine.

D. BENNING & SON, Glenhurst Farm, Williamstown, Ont.

MAPLE CLIFF Dairy and Stock Farm.

AYRSHIRES BERKSHIRES, TAMWORTHS, Booking orders for spring litters.

R. REID & CO., HINTONBURG, ONT. Five minutes' walk from Cen. Expl. Farm, Ottawa.

AYRSHIRES AND YORKSHIRES. A CHOICE FIT FOR LIGHT-COLORED BULL SERVICE.

Young bull calves, from imported stock. Young sows in pig. A bunch of young sows ready to mate. Two bears four and five months old. Orders booked for February pigs and Ayrshire calves. Quality guaranteed right, as well as prices.

ALEX. HUME & CO., Menie P. O., Ont. Importers and breeders. Head's Station, G.T.R.

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

DONALD CUMMING, LANCASTER.

For Sale An Ayrshire Bull, 3 years old, from the stock of the late Thos. Gny. Write or call on - MARTIN McCARDILL, York Co. Sutton West, Ont.

GOSSIP.

John Isaac, Markham, Ont., reports having a consignment of Clydesdale horses leaving Glasgow on the 18th of February, and expects them home about the 6th of March.

Mr. J. Bergin, Cornwall, Ont., writes: - "My sale of Herefords on the 13th was satisfactory. A two-year bull brought \$130; nine-months calves, \$85 and \$101; cows, \$80, \$70, \$66; grade cow, \$76; and the sale occupied about an hour and a half, and realized \$1,003.

The Canadian Horse Show, under the joint auspices of the Canadian Horse Breeders' Association and the Country and Hunt Club, will be held in Toronto, April 13, 14, 15. Send for prize list to Henry Wade, Secretary, Toronto.

The Boston Horse Show, which is to be held on April 17th to 22nd, inclusive, offers \$19,000 in prizes. The classes are for light breeds, including Thoroughbreds, Trotters, Hackneys, Carriage, Coach, Saddle, and double delivery teams. We notice Dr. Andrew Smith, Toronto, is appointed to judge Thoroughbreds and assist in judging several other classes, and Mr. James A. Cochrane, Hillhurst, Que., is to judge Hackneys. The Secretary of the Show is Mr. Frank Seabury.

Mr. John Davidson, Ashburn, Ont., writes: "The young Clydesdale stallion Prince of Kinellar (Vol. 21st), advertised for sale in this issue, is very fashionably bred, his dam being got by King James (4474), by Darnley (222), and his dam was by Never Mind Him (557), whose sire was Prince of Wales (673). Prince of Kinellar was got by Prince of Erskine (9647), whose dam was Hatton Beauty, by Darnley (222), out of the noted breeding mare Hatton Bella (the dam of the noted breeding horse Lord Erskine (1744), by Time o' Day (375)). Prince of Erskine was got by Prince of Albion (6173), by Prince of Wales (673). Prince of Albion was sold when 2 years old for \$3,000, or \$15,000, the highest price ever paid for a draft horse. His full brother, Prince of Kyle, was sold at the same age for \$10,000. It will be seen from the above that Prince of Kinellar's breeding is of the best, which, combined with the quality and size which he possesses, should make him a very desirable horse to breed. We bred nine mares to him and seven have proved to be in foal, and only one of the seven required to be bred the second time. The two that missed were mares that had lost their foals."

RED POLLED CATTLE.

A catalogue of the entire herd of Red Polls, the property of the late J. J. Coleman, has been circulated. This, perhaps the best herd in England, will be dispersed at auction at Easton Lodge Farm, near Norwich, on March 28th. The females number 48 and the bulls 12, all of high merit and popular breeding. The sale will be conducted by Messrs. Hann & Co., 7 Princess St., Hanover Square, London W., who will purchase and ship animals for foreigners.

A SUCCESSFUL FAIR ASSOCIATION.

The Western Fair Association is happy in its financial situation, and well it might be when it is remembered that it has an almost entire set of new buildings, as well as a cash balance of \$8,496, with no liabilities. At their annual meeting, held on February 15th, it was recommended to lay by \$5,000 to meet any such misfortune as fire or adverse weather during the time of holding the exhibition. Lt.-Col. W. M. Gartshore was re-elected President, and the same board of directors was continued, except that ex-Mayor J. W. Little was appointed to take the place of Wm. Yates. The Secretary of the Association is Thos. A. Browne, London.

DEATH OF MR. M. W. DUNHAM.

The death of Mark Wentworth Dunham, of Oakway Farm, Wayne, Illinois, on Feb. 11th, has closed a brilliant career. He was the most extensive and successful breeder of heavy draft and coach horses in America, and probably the greatest in the world. His business ventures in the importation and breeding of these classes of horses were of a colossal nature and evidenced a strong will and matured judgment. His ambition was satisfied with nothing less than the highest standard of merit in the animals he handled and in the position he occupied as a breeder. Mr. Dunham was in his 57th year, and leaves a son aged 22, who will continue the business.

THE DRUMMOND SALE OF AYRSHIRES.

The reports furnished us of Mr. D. Drummond's sale of Ayrshires at Montreal, on Feb. 16th, are incomplete, in that the addresses of purchasers are not given. We are informed that the attendance was large and the bidding brisk, the prices for cows running from \$75 to \$125, while the two-year-old heifer Nellie Osborne of Burnside \$307, winner of eight first prizes at the leading shows in Ontario and Quebec in the last two years, and daughter of the World's Fair first prize cow, imp. Nellie Osborne, brought, according to one account, \$415, the purchaser being Mr. Wylie, and according to another report \$425, the buyer being Mr. R. B. Angus. The average on the lot is said to have been about \$115.

MR. F. BONNYCASTLE'S SHORTHORNS, COTTAGES, AND BERKSHIRES.

During a visit at Mr. Bonnycastle's farm, near Campbellford, Ont., we took a look over the stock, and were pleased at seeing one of the freshest flocks of Cotswolds anywhere to be found. Among them were some strong and splendidly covered young stock of both sexes. The half dozen young rams are a lot hard to equal, and among them may be found material for showyard honors for some time to come. Berkshire swine also occupy a prominent place on the farm, as well as the Anchovy family of Shorthorns, for which more space is under consideration during the coming season.

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East Indian mission, the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections; also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and being to all who wish it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 820 Powers Block, Rochester, N. Y.

TROUT RUN STOCK FARM.

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

MEADOWSIDE FARM, J. YULL & SONS, Props., Carleton Place.

Breeders of high-class, deep-milking Ayrshires. Sweepstakes young herd at Ottawa. Shropshire sheep from prizewinning stock. Berkshire pigs and Barred Plymouth Rocks. Young stock for sale. Visitors met at Queen's Hotel. Give us a call.

CHOICE AYRSHIRE BULLS FROM IMPORTED STOCK.

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

WM. WYLIE, 228 BLEURY ST., MONTREAL, OR HOWICK, P.Q.

Breeder of high-class Ayrshires. Young stock always for sale; bred from the choicest strains procurable. Breeding stock selected from the most fashionable strains and prizewinning stock of the day. Farm located at Howick, Que. 5-1-y-o

6 AYRSHIRE BULLS from 7 to 10 months old. By Douglas of Loudoun 1334, and out of descendants of imported Red Rose. F. W. TAYLOR, Wellman's Corners, Ont.

INGLESIDE HEREFORDS. UP-TO-DATE HERD OF CANADA!

TAMWORTHS

Orders booked for Spring Pigs. Pairs not akin. Send for Illustrated Catalogue. Address, H. D. SMITH, COMPTON, QUE.

Buttonwood Farm Jersey Herd

OFFERS six richly bred young bulls from showing winning dams, and such sires as King of Highfield and Violet's Leo, both sweepstakes bulls. Settings from B. P. Rocks, Black Minorcas, and Grey Dorkings. Correspondence solicited.

S. WICKS & SON, MOUNT DENNIS, ONT. Farm 7 miles from Toronto market.

FOR SALE. Some choice Jersey Bulls and a few young cows.

at very low prices, quality considered. Also eggs from B. P. Rocks and Bk. Minorcas in season. Write for prices. Trio of Bronze Turkeys. W. W. EVERITT, BOX 552, CHATHAM, ONT.

FOREST HERD OF JERSEYS.

High-class individuals, richly bred in the blood of noted performers of the St. Lambert and Tennessee blood, such as Sheena's Lilly Flagg (1,047 lbs. butter in a year), Bison's Belle (1,028 lbs.), Landseer's Fancy (936 lbs. 14 1/2 oz.), Oonan (22 lbs. 2 1/2 oz. in 7 days), Ida of St. Lambert (30 lbs. 2 1/2 oz.).

Cows, Heifers in Calf, Heifer for Sale Calves, and Young Bulls at fair prices. Come and see, or write - H. FRALEIGH, FOREST, ONT.

Willow Grove Herd of Jerseys

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

HANDSOME A. J. C. BULL CALF

Dropped 8th Sept. (1898); sire Jubilee Rover, dam Matriona of St. Lambert. Also, 4 choice young Berkshire sows pigs. WM. CLARK, Meyersburg, Ont.

MEADOW BROOK JERSEY HERD. For Sale: Jersey Heifers; Tamworths, one lot 3 months old and one litter Arrowood Jan. 11, from splendid pair of white Wyandottes. EGGS EDGAR SILCOX, SHIEDDEN, ONT.

GLEN ROUGE JERSEYS. WILLIAM ROLPH, Markham, Ont., offers two Jersey Bulls and Heifers (pure St. Lambert), out of tested cows. Grand individuals. Prices right. 23-y-o

BRAMPTON JERSEY HERD.

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

2 HOLSTEIN HEIFERS 2

One year old, at \$40 each, reg. Berkshires and Tamworths

Two months old, at \$5 each, not akin, and registered. Also: Collie dogs and W. Wyandotte cockers. Drop a card before buying elsewhere.

D. J. GIBSON, Bowmanville, Ont.

NORTH HASTINGS HOLSTEIN HERD

Contains blood of De Kol 2nd, Pauline Paul, Pieterje Hartog, Mechthilde, Inka, and Kornidye strains. Headed by a son of Manor De Kol.

Now Offering Kornidye Queen De Kol's Butterboy (dropped July 15th, '98), by De Kol 2nd's Butterboy 2nd, and out of a sister of Kornidye Queen (23 lbs. 7.76 oz. butter and 518 lbs. milk, official test).

J. A. CASKEY, Madoc, Ont., N. Hastings Co.

"GEM HOLSTEIN HERD." STOCK FOR SALE

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

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

MAPLE HILL HOLSTEIN-FRIESIANS

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

G. W. CLEMONS, ST. GEORGE, ONT.

Holsteins, Tamworths, and B. P. Rocks.

An offering 1 yearling heifer in calf, 2 August bull calves, 1 two-year-old heifer in calf. Am booking orders for spring pigs from prizewinning sows and imported boars. Stock of best quality and breeding. A. C. HALLMAN, New Dundee, Ont.

Brookbank Holstein Herd

50 CHAMPIONS FOR MILK AND BUTTER. 50 A number of desirable young BULLS on hand, from one to eight months old, from our great milkers. Write for just what you want. Females of all ages.

A. & G. RICE, Currie's Crossing, Oxford County, Ontario.

4 HOLSTEIN-FRIESIAN BULLS

Apply from 9 to 12 months old, of choice breeding. William Suhring, Sebringville, Ont.

GRAPE GRANGE FARM.

Aberdeen (Polled) Angus Bulls, Cows, and Heifers. C. W. HARTMAN, CLARKSBURG, - ONTARIO.

GUERNSEYS

Two Choice Bull Calves AND Five Heifers for Sale. - ALSO -

Tamworth and Berkshire Pigs. W. H. & C. H. McNISH, LYN, ONT.

GUERNSEYS.

This is the dairy breed for ordinary farmers. Large, vigorous, and hardy, giving plenty of rich milk. Several fine young bulls for sale at very reasonable prices. A few heifers can be spared.

Address - SYDNEY FISHER, 17-y-o ALVA FARM, KNOWLTON, P. Q.

ROCK SALT for horses and cattle.

Per 100 lbs., 70c., or 500 lbs., \$3.00, Toronto. Cash with the order. Also in car lots. TORONTO SALT WORKS, Toronto.

HERD. High-class A. sows and heifers and heifer calves; young bulls. He cows in calf; shires.

Bull & Son, BRAMPTON.

WORTH'S 2

ville, Ont.

HEIN HERD

Paul, Pie- and Korndyke or De Kol.

De Kol's

pped July 15th, and, out of a 7.76 oz. butter

N. Hastings Co.

HERD."

SALE

and Holstein- choice young animals, all that we will reasonable

P. O., Ont. Toronto.

L. SIANS

Kol 2nd, winner of all breeds in lbs. milk in one matje DeBoer, 63 at 14 years old; years old; Daisy the great test

GE, ONT.

Worth's, and Rocks.

yearling heifer in all calves, 1 two-calf. Am book-spring pigs from sows and imported best quality and

HALLMAN, Ont.

bin Herd

R. 50

S on hand, from at milkers. Write all ages.

rossing. unty, Ontario.

AN BULLS choice breeding.

Bringingville, Ont.

YS

Bull Calves for Sale.

shire Pigs.

McNISH,

EYS.

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orses and cattle. 100 lbs., 70c., or 500 the order. Also in

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SPLENDID MUTTON. GOOD WOOL. GREAT WEIGHT.

This highly valuable English breed of sheep is unrivalled in its

Rapid and Wonderfully Early Maturity,

possessing, too, a hardness of constitution adapted to all climates, whilst in the quality of

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HENRY DUDDING, RIBY GROVE, GREAT GRIMSBY, LINCONSHIRE, has always for inspection and sale from the largest and most noted flock of pure Lincoln Longwool Sheep in the country, both Rams and Ewes of all ages. Representative specimens from this flock have secured for many years past at the Royal Shows champion and other prizes; whilst they have also at both the Paris Exhibitions, Vienna, Amsterdam, Chicago, Palermo, secured champion awards, and at all the leading shows in Australia, New Zealand, Canada, and the States, Riby sheep and their descendants have secured the highest honors. Wool is a leading feature in the flock, its quality being amply testified by the fact that wherever exhibited it has each time secured the premier prize including that at Windsor in 1889. The record of its careful breeding and consistent success is worldwide, and the present members of the flock are fully equal to any that have preceded them during the past 130 years in which it has been in existence, descending from father to son without dispersion. The flock holds the record for the highest price ram of 1896 (i. e., 1,000 gs.), and for the highest recorded average for an auction sale of fifty-two rams (i. e., £36 19s.) at the annual sale in July, 1896. A grand selection of yearling and other sheep on offer, sired by the most carefully selected sires obtainable, in which are contained all the best strains of the present day. Telegrams: "Dudding, Keelby."

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6 - BOARS READY FOR SERVICE - 6 In-pig sows--bred to boar

12 lately imported by J. E. Brethour. 12

A large number of young boars and sows on hand, and 20 sows to farrow this spring. My stock contains the noted Marian blood--the prizewinners.

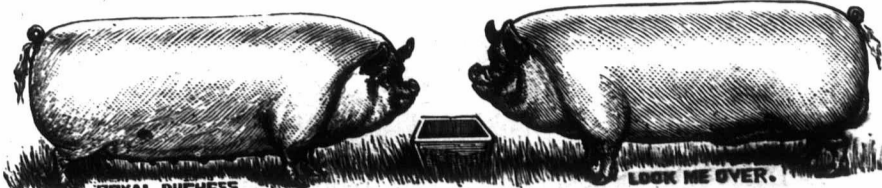
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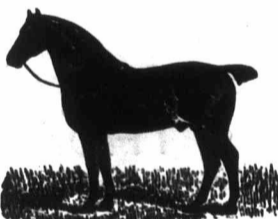


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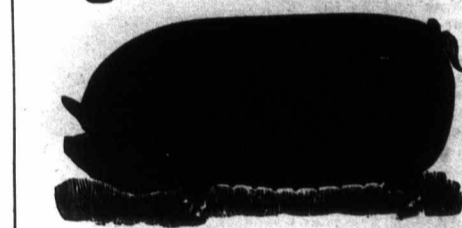
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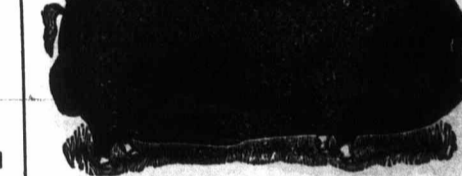
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Five months old, sired by imported Corwin Ranger—1065—; d. Kent Beauty—1204—, by imported Black Joe—708—. Sows all ages. Booking orders for fall pigs.  
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Brood sows: young stock, both sexes. B. P. Rock Cockerels, L. Brahmas, Rouen Ducklings, Bronze Turkeys at reasonable prices. Farm three miles east of town.  
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 Also, a choice lot of fall sows and sows due to farrow in March and April. Am booking orders for spring pigs from the sweepstake herd of the leading exhibitions of Ontario and Quebec in 1897. We pay express charges to your station, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Drop a card before buying elsewhere.  
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One boar 9 months, 1 boar 8 months, 8 sows 8 months, 10 sows 1 month, 10 boars and 10 sows 2 months, one yearling sow in pig. Write for prices if it is pigs you want.  
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Of both sexes. Also five pair Foulness pigs; six pair of good Rothen and Pekin ducks; one pair Golden B. Poland (McNeill's).  
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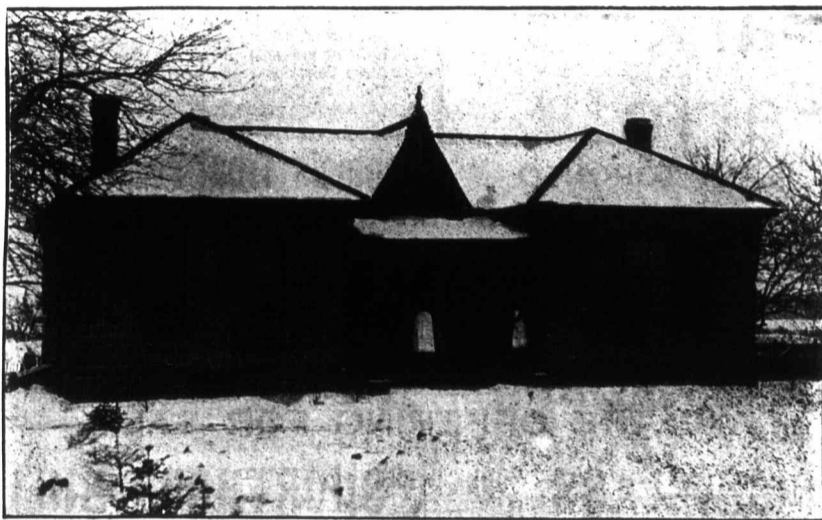
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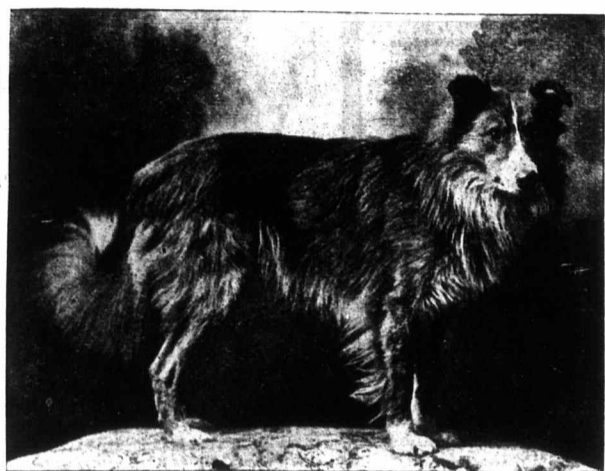
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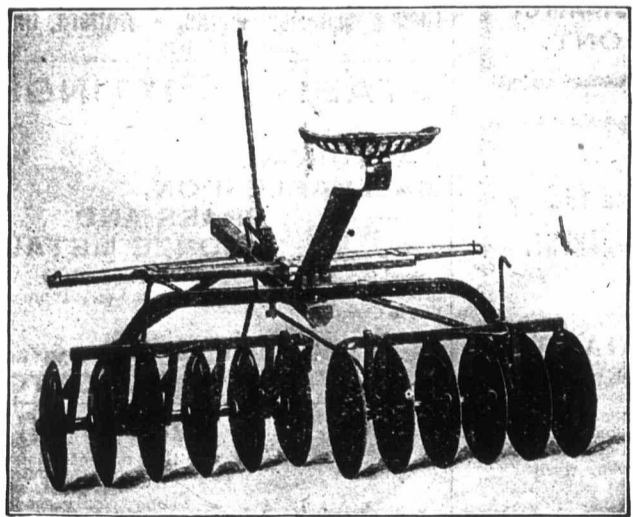
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### Ayrshire Breeders' Association Annual Meeting.

The first annual meeting of the Amalgamated Dominion and Canadian Ayrshire Breeders' Associations was held at Montreal, February 15th, the President, Mr. R. Ness, in the chair. The attendance was very good, most of the leading Ontario breeders being present, as well as a large number of Quebec breeders.

The report of the Secretary was then read. It was, in part, as follows: "The past year has been an historical one. The breeders of Ayrshires, previous to a year ago, were recording animals in the Dominion Herd Book with two distinct classes of pedigrees, namely, those that traced to importation on side of both sire and dam, and those that could not be traced on the dam's side clearly to an imported cow, the latter being published in what we called the appendix, although, doubtless, if dead men could speak, several of this class could qualify for a higher standard. Owing to the neglect of keeping private records the history of several families of imported Ayrshires has been lost track of, especially in New Brunswick and Nova Scotia, as well as nearer home. At the annual meeting last year a resolution to discontinue the registration of pedigrees in the appendix was adopted.

There is no doubt that amalgamation at first has caused a great disappointment to some of the breeders, as, unfortunately, several pedigrees in the Canada Book were the same as those that were in the appendix of the Dominion Book, and consequently had to have the knife used to cut them out also. It would give the committee on the standard of pedigrees great pleasure if they could meet someone who could clear up the early history of some of the cattle bred and raised in this immediate neighborhood.

The reason why this stand has been made is that the directors of this Association do not wish to record any animals in the new Canadian Book that will not record in the American Book. The standard now is the same, and no doubt a much larger trade will be done in the future with our American friends, so it would be useless keeping on record animals that would not record with them. We also wish the American Government to recognize our certificates at the lines by the customs authorities, and, without the high standard we are aiming at, it would be useless to make the attempt.

Members.—The membership last year numbered 82, 11 of these being from Quebec since amalgamation, the income from which amounted to \$164. The members' fees to the Canada Association, previous to amalgamation, were from 57 members, and are accounted for in the statement of that Association.

Registrations.—We have been paid for 1,115 pedigrees during the past year, 418 of these coming from the Montreal office.

Herd Books.—The third volume of the Dominion Book was issued late in 1897, the fifth volume of the Canada Book in 1898. This makes eight volumes from the two Associations, so that the next volume will be called the ninth volume. We now have altogether 1,915 pedigrees ready to publish in volume nine, which can be made up to 2,000 if necessary.

The financial statement for the year showed a balance on hand of \$246.67.

It was moved by F. W. Hodson, and seconded by Wm. Stewart, Jr., "That a committee be appointed by the Canadian Ayrshire Breeders' Association to meet a committee from the American Breeders' Association, and go over the standard of both books, with a view of making them precisely the same, if they are willing to co-operate with us in the matter." Carried.

It was moved by W. W. Ballantyne, and seconded by Thomas Drysdale, "That the committee appointed to wait on the American representatives be composed of F. W. Hodson, Robert Ness, and Henry Wade." Carried.

It was moved by J. C. Smith, and seconded by Joseph Yuill, "Whereas this Association has learned that purchasers of Ayrshire cattle for exportation to the United States are put to much inconvenience and delay in shipment because of the necessity under present regulations of registering in the American Herd Book in order to pass the customs."

Therefore resolved,—"That inasmuch as the standard of the Canadian Ayrshire Breeders' Association is precisely the same as that of the American Record, and that such cattle to be useful in the United States must, in the end, be recorded there, this meeting is of the opinion that every interest should be subserved and properly protected by admitting Ayrshires on presentation to the customs authorities of properly accepted certificates of registration signed by the registrar under the control of the Department of Agriculture of Ontario;

Resolved, further,—"That a committee consisting of Messrs. F. W. Hodson, W. F. Stephen, and H. Wade, be hereby appointed to enlist the co-operation of the American Ayrshire Breeders' Association in presenting this view to the proper authorities at Washington."

Delegates to Exhibitions.—The following were chosen delegates to the different exhibitions: Ottawa Central—J. C. Smith, Hintonburg; Joseph Yuill, Carleton Place; Western, London—A. Kains, Byron, and R. S. Brooks, Brantford; Industrial, Toronto—W. W. Ballantyne, Stratford; Wm. Stewart, Jr., Menie.

Judges.—It was decided to adopt the two-judge system for all fairs where Ayrshires are judged. The following judges were appointed: Ottawa—W. W. Ballantyne, Stratford, and A. Drummond, Petite Cote; London—Daniel Drummond, Petite Cote, and J. C. Smith, Hintonburg; Toronto—F. S. Peer, Mt. Morris, N. Y., and A. Kains, Byron.

Officers Elected.—As the term of office of the Eastern directors expired, the following were elected: President, R. Ness, Howick; Vice-President, A. Kains, Byron. Directors, Messrs. Robt. Ness, Howick; John Morrin, Belle Riviere; N. Lachapelle, St. Paul Hermitic; T. D. McCallum, Danville; W. F. Stephen, Front River; A. Drummond, Petite Cote; R. Hunter, Maxville. Vice-Presidents: For Ontario, J. C. Smith, Hintonburg; Quebec, W. C. Edwards, Rockland, Ont.; Manitoba, Geo. Steel, Glenboro; Assiniboia, C. W. Peterson, Regina; British Columbia, R. J. Mackie, Eburne; P. E. Island, F. G. Boyer, Georgetown; N. S. C. A. Archibald, Turro, N. S.; New Brunswick, M. H. Parlee, Sussex, N. B. Executive Committee: Eastern division—Nap. Lachapelle, A. Drummond, and R. Hunt-

er. Western division—Wm. Stewart, Jr., W. W. Ballantyne, and Joseph Yuill. Revising Committee—F. W. Hodson, A. Drummond, Joseph Yuill, Henry Wade, Robert Ness. Auditors: Ontario, F. C. Complin; Quebec, A. Drummond. Secretary-Treasurer, Henry Wade, Toronto. Eastern Secretary, J. P. L. Berube, Montreal.

After quite a lengthy discussion on the matter of the appendix pedigrees, it was moved by W. W. Ballantyne, seconded by A. Kains, "That a committee be appointed to investigate the matter of appendix pedigrees, and report back to the meeting. Carried.

Moved by J. Lockie Wilson, seconded by Mr. Boden, "That the committee to look into the matter of the Bonnie Scotland pedigree consist of Jas. Johnston, R. Ness, Thos. Irving, and H. Wade, Secretary. Carried.

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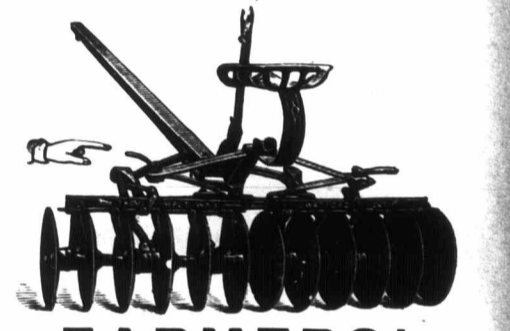


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H. L. Hutt, } Judges.  
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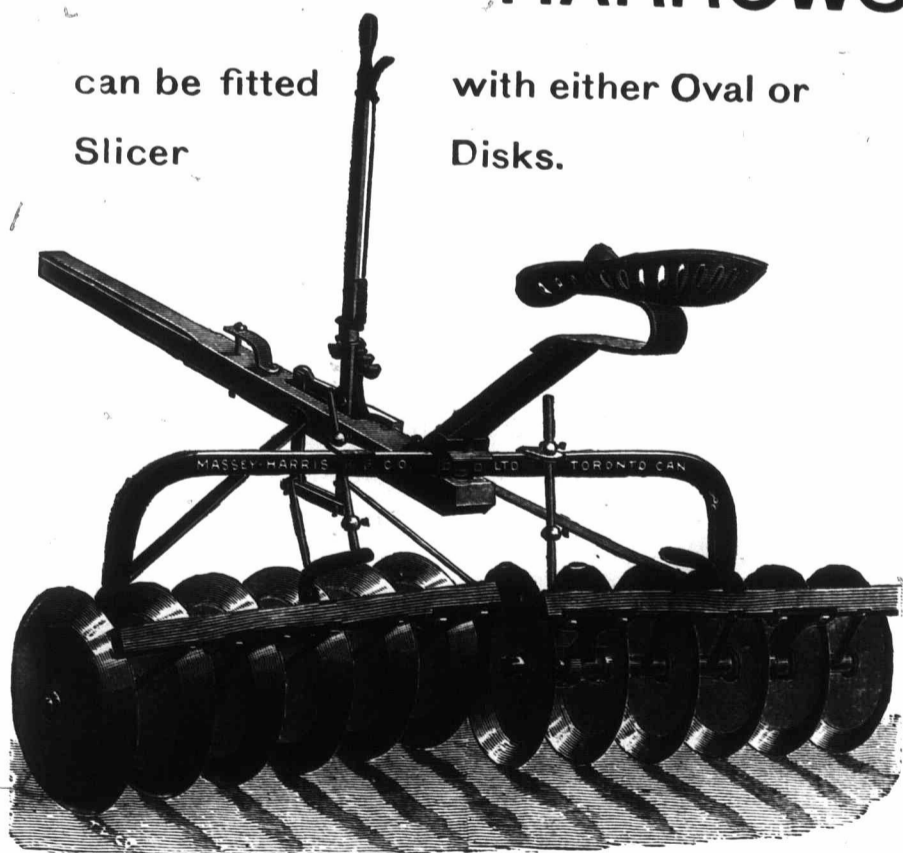
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### NOTICES.

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

**Wisconsin Farmers' Institute.**—The report of the 12th annual closing Farmers' Institute held at Janesville, Wis., March 8, 9 and 10, 1898, is rightly titled A Handbook of Agriculture. Its 250 pages are packed with highly practical matter from the tongues and pens of specialists in many of the branches of agriculture. It is helpfully illustrated and carefully edited by Mr. Geo. McKerrrow, Superintendent of Farmers' Institutes in Wisconsin.

**American Southdown Record, Vol. VII.** has been issued by the Secretary, John G. Springer, Springfield, Ill. The book indicates that Southdown interests are alive, as it contains the pedigrees of 2,000 sheep, numbering from 9,001 to 11,000, besides a large number of transfers. There are also given a number of illustrations of Southdown sheep, some of which would have been better suppressed if the advancement of the breed were the object sought. The volume on the whole is a credit to the Association, of which Mr. John Jackson, Abingdon, Ont., is a director, and Mr. T. C. Douglas, Galt, Ont., is a vice-president.

**A Long-Felt Want.**—Those interested in registration of live stock will welcome the new advertisement of Mr. R. W. James, in whose establishment at Bowmanville, Ont., the proper appliances have been added for the manufacture of ear tags of all descriptions for cattle, hogs, and sheep, as well as the proper ear punches for each size. Mr. James also manufactures an improved fanning mill, with special rolling screen to remove tares, and a handy truck with bag-holder combined. Parties requiring any of the above will consult their own interests by applying for his printed circular and price list. We might add that members of the FARMER'S ADVOCATE staff have personally known Mr. James for some time and can fully endorse his claim. See his advertisement.

### GOSSIP.

**Wm. E. Turner, York Co., Ont.**—"I think the FARMER'S ADVOCATE is the best farm paper printed."

**J. W. Hartman & Sons, Elmhedg, Ont.**, write: "Our ad. has brought us lots of inquiries and numerous sales of both Shorthorns and Berkshires. The stock boar, Black Knight—4257—sired by Baron Lee 4th 3414, is getting extra fine stock. Miss Kennedy, sired by Prince Highclere—3582—dam Daisy Dean—3474—by Enterprise (imp.)—1378—, has recently farrowed a litter of eleven extra fine pigs, got by Black Knight—4257—We recently shipped an extra boar to William King of Newbury. He is highly pleased with him. Our Shorthorns are in fine form. We find we can nearly double our stock since we have got a silo. The cattle are looking as well as if on June pasture. Think it would pay every farmer to have a silo. The demand for bulls is never better. We have sold all out. One is going as far west as Edmonton, N.W.T., to Mr. T. Cascadden. He is also getting a very fine young boar pig. Have a few cows and heifers yet to spare."

### MR. JOHN FULTON'S TAMWORTHS.

For several years Mr. John Fulton, Jr., Brownsville, Ont., has been quietly breeding a choice herd of Tamworth swine which now compare favorably with the best herds of the breed. Two boars have been in use, the older one being Brown Duke, by Imp. Ganhill Princess 2nd, his dam being Imp. Sun Hill Queen, sired by Duke of Oxford, dam Imp. Woodland Queen. Both boars have the desired length, with plenty of the proper quality of bone, and are the type which is now so desirable in order to furnish breeding pigs that the present trade demands. Among twelve choice sows that are due to farrow this spring is the four-year-old sow, Jennie, sired by Imp. Sun Hill Reliance, her dam being Imp. Dorchester Heroine. This sow is sister from the same litter as the grand sow that won first at the Toronto Industrial show in 1897, which she very much resembles. The other sows are mostly daughters and descendants of Jennie and are an exceedingly good lot, as should be expected from their high-class breeding. Mr. Fulton has sold a great many pigs in the United States, and has therefore recorded the majority of the herd in the A. T. R.

### NOTABLE STALLIONS AT SERVICE.

In this issue Mr. R. S. Fulton, Brownsville, Ont., advertises three noted stallions for service, which intended breeders will do well to inspect before the season of 1899 is entered upon. The first of these is the many-times sweepstakes and World's Fair champion Hackney stallion, Jubilee Chief. Although this horse's show career has been almost unprecedented in the amount of his winnings since he first made his debut at the Toronto Industrial in his four-year-old form in 1891, yet we consider that it is in the breeding stud that he has achieved the greater success. And it is not in the Hackney classes alone that his offspring have carried victory to his credit—although his champion colt, Banquo, and his sweepstakes filly, Mona's Queen, have both in turn beaten the best imported competitors—for if the prize lists of the Toronto Industrial and the Toronto Spring Horse Show are examined there will be found still greater triumphs in the grand array of half-bred harness horses that have carried such a number of winnings during the last few years. From the 121-hands Hackney pony, to high-stepping cobs, and still more highly-prized, trappy pairs and tandem teams, all show that he is a wonderful sire mated to mares of all sizes.

The next to mention is the slashing big Standard-bred horse, Big Chief 2532, Rule 6, Vol. 14, A. T. R. This horse is a dapper brown, standing 16 hands 2 1/2 inches, and weighs 1,400 lbs. He has a good way of going. In breeding, he is got by Fred Wilkes, a son of Brown Wilkes—203—, his dam being Lizzetto, by Chestnut Joe, he by Hambletonian 10. Bred in such producing lines, together with his size, he should prove a most desirable sire.

Last on the list is what is known as the guideless trotter, John Henry, a horse that has proven himself so level-headed that he made his mark of half mile in 1:07 in London, 1888, when he went alone without lines. He is registered as Arabas 20183, sire Old Rooker 7415, his dam being Maud S, by St. Nick, he by Caledonian Chief.

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The Greatest Output in the World is the Greatest Guarantee—  
WE SOLD  
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machines in the season just past and shall sell more in 1899.  
The name "McCormick" means greatest value every time for the Farmer's money.  
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## IF WEST'S FLUID

IS PROPERLY USED IT IS A POSITIVE PREVENTIVE FOR SUCH DISEASES AS

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TORONTO, - - ONTARIO.

Agents wanted in all counties.

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TEMPERANCE ST., TORONTO, CANADA.

Patrons: Governor-General of Canada, and Lieut.-Governor of Ontario. Fee, \$25.00 per session. Apply to ANDREW SMITH, F.R.C.V.S., Principal. 18-2-y-om

## GOSSIP.

The Royal Agricultural Society of England will hold its Annual Show for 1899 at Maidstone, July 17 to 23.

Mr. James Bowman, Guelph, Ont., writes under date of Feb. 13th '99: "I have sold to W. D. Shattuck, Calgary, Alta., our 1st prize Aberdeen-Angus bull calf at Toronto last fall. He was sired by our 1st prize and medal bull, and his dam was the 1st prize cow."

At Mr. John Parnell's sale of Shire horses, near Rugby, England, Feb. 9th, 42 animals averaged £135. The highest price, 310 guineas, was paid for the four-year-old mare Dunsmore Gold Dust, by Hitchen Conqueror, and Methold Rose, by Bury Victor Chief, made 300 guineas. Eight other mares and fillies sold for 200 to 250 guineas, and the 2-year-old stallion Rokeby Egbert for 190 guineas.

Mr. Israel Groff, Alma, Ont., when sending us plan and description of the stock barn he erected last summer, says he has sold 24 two-year-old steers fed in it at 8 cents per pound, to be delivered in March. They are a good lot. He also says his stock are wintering well. His eleven-month-old bull calf, from Duchess of Atholstane and got by Royal Sailor (imp.), is a right good one, strong and fleshy, fine in quality, and well covered with a great coat of hair.

G. A. Brodie, Bethesda, Ont., writes: "The Shorthorn trade has been good and brisk this winter and prices much higher than usual. The following is a list of recent sales: Four heifers and one bull to T. Andrews, Cambridge, Nebraska, U.S.A.; one bull to W. D. Monk, Ottawa, Ont.; one bull to Jas. Patterson, Aylesford, N.S.; two bulls to R. Miller, Stouffville, Ont.; one bull to D. H. Russell, Stouffville, Ont.; one heifer to W. Stover, Ringwood, Ont.; one heifer to Edward Meyer, Elmira, Ont.; one bull to Mr. Noble, Bradford, Ont. I have still nine bull calves for sale between 9 and 14 mos. old, and four heifers between 6 and 18 mos. old. They are a fine lot of animals of a good deep red color, good handlers and thrivers and well-bred, quite a number being got by Imp. Kinellar Sort and from Scotch-bred cows."

H. Cargill & Son, Cargill, Ont., write: "We have recently sold the following bulls: Diamond Jubilee (imp.), a massive red one, a good doer and handler and a show bull sure, to T. Douglas & Son, Strathroy. He weighed, just before shipping, 1,840 lbs., and will not be two years old until 21st March. Baron's Pride (imp.) to Thos. Speers, Oak Lake, Man.; a grower, strong calf, with grand back, good level lines, strong character, and will make an impressive sire, as he has plenty of spirit. Some time since we sold to A. J. McArthur, a good red bull out of Myrtle 4th (half-sister to Capt. Robson's show heifer, Myrtle 6th), sired by Royal Member. He is a smooth calf of good quality and size, and should do some one good. Have also sold him Jubilee Jr., a rose calf out of Josephine S, sired by Royal Member, which, although somewhat undersized now, will grow out of it and will be heard of some day. His mother was sold when he was but a few days old."

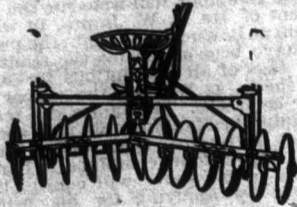
# DAVID MAXWELL & SONS, ST. MARY'S, ONTARIO,

Manufacturers of

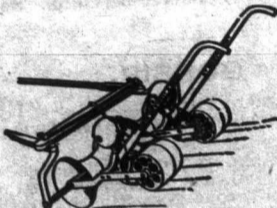
## HIGH-CLASS FARM IMPLEMENTS



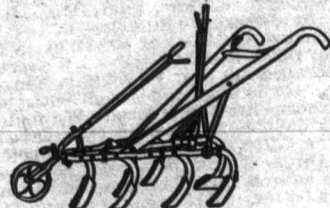
THE MAXWELL BINDER.



DISK HARROW.



TURNIP SOWER.



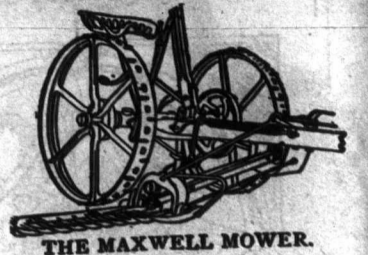
SCUFFLER.



Binders, Reapers, Mowers,  
Hay Rakes,  
Hay Loaders, Hay Tedders,  
Disk Harrows,  
Scufflers, Turnip Sowers,  
Turnip Slicers and Pulpers,  
Hand and Power  
Straw and Ensilage Cutters,  
Churns,  
Wheelbarrows,  
Cider Mills, Corn Shellers,  
Pea Harvesters,  
Lawn Mowers, Etc.

Send for Illustrated Catalogue.

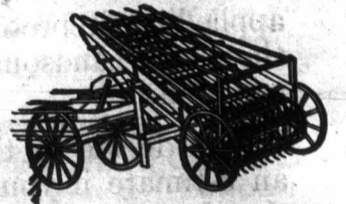
AGENTS WANTED  
IN ALL UNOCCUPIED TERRITORY.



THE MAXWELL MOWER.



TEDDER.



LOADER.



# CLEAN "ALPHA" SWEEP

## AT SIOUX FALLS

The superiority of "Alpha" disc made butter has become so pronounced and so firmly established that every competitive butter contest of any importance has become an "Alpha" clean sweep. This has been the history of every Annual Convention of the National Buttermakers' Association since its organization in 1892. The 1899 Convention at Sioux Falls this week has confirmed previous results.

We are just informed by wire that First Prize, with all accompanying awards, medals and honors, has gone to A. W. McCall, of Creston, Iowa, with a score of 97, and Second Prize and honors to O. P. Jensen, Wells, Minn., with a score of 96½.

And further, that out of 229 entries scoring above 90, or, in other words, all high-class butter entries, 206 were positively "Alpha" disc made, with some of the few remaining in doubt and probably so.

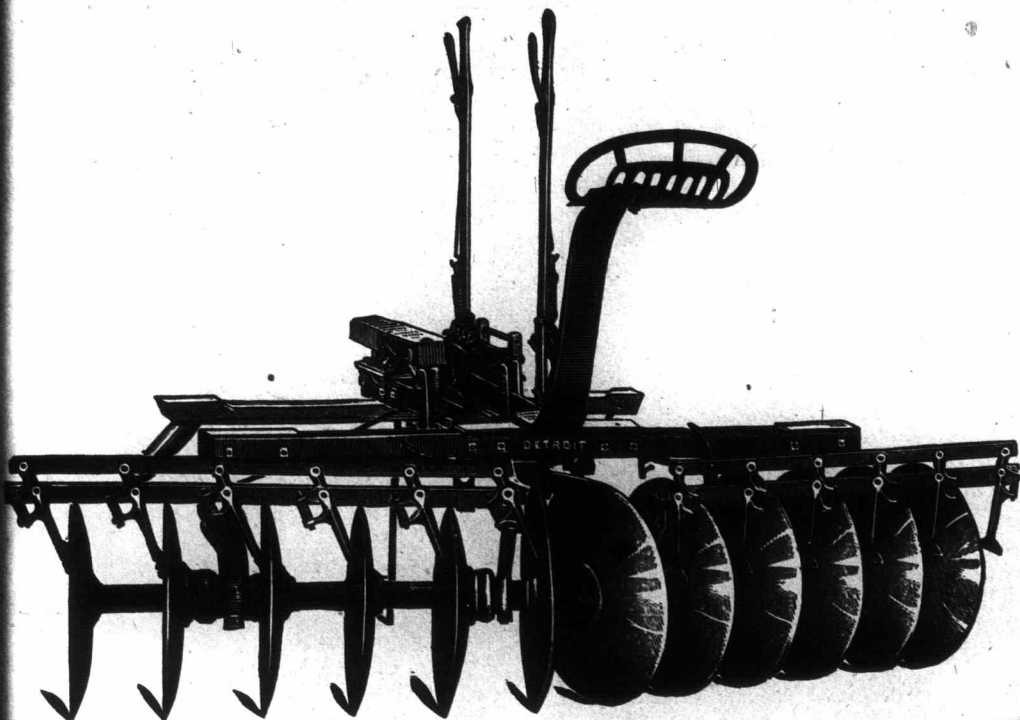
Our representative adds that the convention is a big, enthusiastic one, and that so far as separators are concerned, the "Alpha" is first, last, and everywhere—everybody in sight being an "Alpha" man—just as must necessarily be the case in such a representative gathering of intelligent, wide-awake, and up-to-date creamerymen and buttermakers who know the difference between separators from their own use of them.

We congratulate the buttermakers generally upon the success of their convention, and the prize-winners particularly upon their deservedly successful exhibits.

### THE CANADIAN DAIRY SUPPLY CO.

327 COMMISSIONERS ST., MONTREAL.

**FROST & WOOD CO. (Limited),**  
 HEAD OFFICE AND WORKS:  
**SMITH'S FALLS, - ONTARIO.**



**THE DETROIT DISK HARROW.**

Made in different sizes: 16, 18 and 20 inch plates; double steel frame; adjustable scrapers; light draft; cuts an even depth. No weight on horses' necks. Patented device for changing pole for two, three or four horses without removing any bolts. This is the most popular and perfect working harrow in America. Call at one of our agencies and see sample. Order early. Stock selling fast.

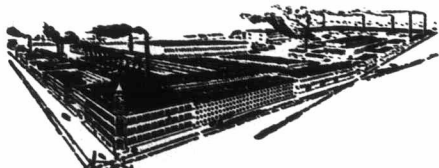
Toronto Branch 77 Jarvis St. Winnipeg Branch: Market Square.

...THE...

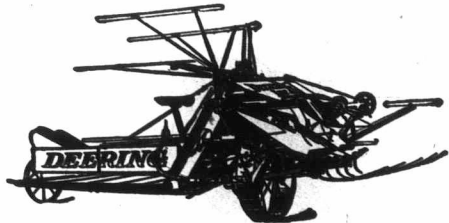
**MACHINES**

.. THAT MADE ..

**AMERICA FAMOUS!**



"A CITY IN ITSELF."—The factory of the Deering Harvester Company operates many miles of railroad and trolley lines with its own engines and trolley cars. It has its own fire department, electric lighting and power plant, telephone, telegraph and printing offices.



THE DEERING FACTORY produced the first successful harvester, the first twine binder, the first all-steel machine, the first light-draft machine, and as a fitting climax of forty years' successful experience it has produced the "Deering Ideal"—the most perfect binder ever made.



THE LIGHT-DRAFT ERA in the history of harvesting machinery began in 1891, when the Deering Company offered for sale the Deering Ideal Mower equipped with roller and ball bearings. Every competitor ridiculed the idea for several years; now all are fighting for first place among our imitators.

"LIGHT DRAFT IDEALS" is the title of our 1899 catalogue of Deering machines. It is handsomely printed and illustrated. Send for one—it's free.

**DEERING HARVESTER CO.**

Permanent Branch House:  
**LONDON, ONT.**

Main Office and Factory:  
**CHICAGO, U.S.A.**

**GOSSIP.**

Capt. T. E. Robson, Ilderton, Ont., has purchased from James Burns, Greenbank, Ont., a roan yearling Shorthorn bull, by Moneyfuffel Lad - 20521 - and out of Isabella 10th - 15076 - by imported Vengarth. The Captain thinks this young bull is equal in quality to and has as few faults as any bull he has ever owned, which is saying a good deal, since the champions of the leading show in Canada in the last four years have stood at the head of his herd.

Mr. D. De Courcey, Barnholm, Ont., breeder of Chester White hogs, in renewing his advertisement, reports his pigs in good shape, the young stock on hand growing out satisfactorily and the breeding sows promising a large increase this spring. Mr. De Courcey is a capital judge of the approved pattern of hogs and a skillful breeder of that sort, having kept up-to-date with the improvement in type required to produce the bacon hog, and his stock will measure up to a high standard along that line, being lengthy, deep bodied, smooth in shoulders and having heavy hams and strong, straight limbs.

Rock Bailey, Union, Ont., writes: "I have just sold four Jersey cows, the result of the advertisement I had in the Advocate; two to F. H. Lawson, Niles town, viz. Mokena of Oak Grove, No. 92650, sire King Hugo of St. Annes 16396, dam St. Lambert's Beauty 41069; this is a very fine cow; price \$200; also Queen of Maplehurst 89229, sired by Oak Grove Stoke Pogis 26905, dam Rose of Oak Grove 53352; price of this cow \$100. Mr. Lawson has in these two cows something that he should feel proud of, for they are as nice as anybody has. I also sold A. F. Jackson, of Downsview, Ont., Irene W 112034, sired by King Hugo of St. Annes; dam Mauline of Oak Grove 68874, a full sister to Mokena of Oak Grove; a perfect beauty; also Princess Hugo of Aylmer 136335, by King Hugo of St. Annes; dam Queen of Maplehurst. Mr. Jackson should also feel proud of these two beautiful cows. My Jerseys are doing well for this cold weather. I would advise any one that has anything to sell to advertise in the Advocate."

**T. DOUGLAS & SONS' SHORTHORNS.**

A profitable half day might easily be spent by the enthusiastic Shorthorn admirer on the extensive farms of Messrs. T. Douglas & Sons, near Strathroy, in Middlesex Co., Ont., among their one hundred or so head of Shorthorn cattle. Their foundation stock was obtained among the very first in the breed in Western Ontario, and improved as fast as the times would admit by Mr. Douglas, Sr., and when his family of sons became interested the industry was prosecuted with renewed vigor, and fresh blood introduced in females as well as sires. A glance over the pedigrees showed us among the 45 breeding cows, the Fashion and Duchess strains were in predominating numbers, and, according to the generation to which they belong, they justly lay claim to three and four Scotch topped sires. Much stress has been laid upon the importance of desirable sires, and each has been chosen with due consideration. Of the get of imp. Rob Roy (18363) three females still remain, while three times that number trace directly to imported Mariner 2720. Following him came Young Abbotsburn's Heir 15947, and Valkyrie 21806, both of which the owners look upon with pride of the long row of promising young females credited to these worthy sires. Of the latter many flattering words may be said, tracing, as he does, to a family of showyard performers; his dam, Vanity 24541, by Village Hero, was one of the great show cows of the day, winning first honors at Toronto Exhibition, while Village Blossom's (a near relative) record has scarcely been equalled. She won honors, not only for herself, but for the country. The cause of the death of Valkyrie, Mr. Douglas recently visited the herd of Messrs. Cargill & Sons, and purchased at the stiff price of \$550 the red imported bull, Diamond Jubilee, coming two years old in this month. He was bred by Mr. Marr, Cairnbrogie, Scotland, sired by Sigmund 2nd (6868), dam the only one of the most famous family in the Moneymusk herd of Sir Arthur Grant, Bart., Aberdeenshire, having produced many valuable sires and prizewinners. Jenny Lind 4th, of this family, won the champion plate at the Cheney Agricultural Association's show, 1898, as the best animal in the show of any age or breed. This cow was sold at John Lee's sale in January for \$400. Diamond Jubilee combines all the elements of a show bull, being exceedingly straight in his lines, long and level in his quarters, thick-fleshed, a capital handler, and having a model head. He is large for his age, but is without a suspicion of coarseness, and yet with sufficient masculinity to carry the weight of the best sire, and we are confident he will make his mark as one of the best bulls of his day. Many very fine individuals of all ages may be seen among the females, and from point of breeding and productiveness perhaps little preference can be given. Among the animals led out for our inspection we feel at liberty to specially mention the seven-year-old red cow, Bessie Dorn 21628, by Mariner (imp.) 2720, dam Nellie Dorn 12075. She possesses superior quality and style, coupled with dairy excellence, which is evident from the thrifty condition of her calf. Her last year's roan heifer is estimated among the best in the herd. Maud of Hyde Park 16339, by Scottish Victor (imp.) 2730, and out of Jessie 9358, is credited with many early-maturing, thick-fleshed offspring; in fact, one of the most promising in the herd is her yearling dark roan heifer by Valkyrie. Among the nine Valkyrie two-year-olds ten yearlings and 25 calves may easily be selected the foundation of a splendid herd, strong in constitution and vigor, and carrying a wealth of natural flesh rarely met in one herd, coupled with the uniformity only obtained from the services of strongly bred sires. A few of Young Abbotsburn's Heir's youngsters are also looked forward to with pride, and their owners regard his services as having been very valuable. The firm report a very active demand during the past few months, and find themselves compelled to change the wording of their ad. from 15 Shorthorn bulls to some two or three, and include females in their offering. The winter sales include twelve bulls, one each to B. Hilker, Port Elgin, Ont.; M. J. Cav. Delaware, Ont.; James Brown, Glen Willow, Ont.; E. Hatherly, Lapeer, Mich.; John Hardy & Son, Kent Bridge, Ont.; Wm. Ireton, Moosomin, Assa., N.-W. T.; Fred. Shields, Wisbeach, Ont.; W. R. Elliott, Hespeler, Ont.; Alex. McNeil, Napier, Ont.; Thos. Caverhill, Anneck, Ont.; and two to Gordon & Ironside, Winnipeg, Man.

**HORSEMEN! THE ONLY GENUINE IS**



See large advertisement on page 424, Sept. 1st (1898) issue, and which is of unusual interest to the readers of the FARMER'S ADVOCATE. And any horseman interested in a reliable remedy can well afford to investigate the matter.

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

**EPPS'S COCOA**

GRATEFUL COMFORTING  
 Distinguished everywhere  
 for Delicacy of Flavour, Superior Quality, and Nutritive Properties. Specially grateful and comforting to the nervous and dyspeptic. Sold only in 1-lb. tins, labelled JAMES EPPS & Co., Ltd., Homoeopathic Chemists, London, England.

BREAKFAST SUPPER  
**EPPS'S COCOA**

GET THE VERY BEST OIL!

YOU KNOW HOW IT WAS LAST YEAR.

**ROGERS' "PEERLESS" MACHINE OIL**

WON 12 GOLD MEDALS FOR FARMERS' USE ON AGRICULTURAL MACHINES AND GENERAL PURPOSES. HARDWARE AND GENERAL STORES SELL IT TO THEIR BEST TRADE. DON'T TAKE ANYTHING ELSE, GET "PEERLESS."

QUEEN CITY OIL CO., Limited, TORONTO.  
 SAMUEL ROGERS, President.

**CHAMPION EVAPORATOR**

For MAPLE, SORGHUM, CIDER, and FRUIT JELLIES. Has a corrugated pan over firebox, doubling boiling capacity; small interchangeable syrup pans (connected by siphons), easily handled for cleaning and storing; and a perfect automatic regulator. The Champion is as great an improvement over the Cook pan as the latter was over the old iron kettle hung on a fence rail.

THE G. H. GRIMM MFG. CO.,  
 84 WELLINGTON ST., MONTREAL.

**\$8 to \$15 MACHINE**  
 to weave your own fence of Galvanized Steel, Coated, Black Steel, Spring Wire, or Red Wire, 2 1/2 inches high, at 25 Cts. per Rod. 300 buys wire for 100 rods. Agents Wanted. Catalogue Free. GASTEN Wire Fence Mfg. Co. Box 6, Mt. Sterling, O.

S. CHAPUCH, Box 12, Hildgetown, Ont. General Agent for Ontario. FRED SMITH, Box 16, Brandon, Man. Agent for Manitoba and N.-W. Territories. No duty on wire.

**YOU CAN USE**  
 Coiled Spring, Cable, Barbed or Smooth Wire in our  
**\$10 MACHINE**  
 And Build the BEST Wire Fence at 16 to 24 Cents per Rod.  
 Agents Wanted. Write for Catalogue BOWEN CABLE STAY FENCE CO. Box 58, Newark, O., U.S.A.

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

FOR SALE: A MANITOBA FARM, close to Church, Schools, Elevator, and Flour and Lumber Mills; 326 Acres, 135 arable; large Frame House and Buildings; or exchange for Fruit Farm in South Ont. Apply to  
 GEO. A. DAVENPORT, Millwood, Man.

**C**OLOR and flavor of fruits, size, quality and appearance of vegetables, weight and plumpness of grain, are all produced by Potash.

## Potash,

properly combined with Phosphoric Acid and Nitrogen, and liberally applied, will improve every soil and increase yield and quality of any crop.

Write and get Free our pamphlets, which tell how to buy and use fertilizers with greatest economy and profit.

GERTIAN KALI WORKS,  
93 Nassau St., New York.

### IMPORTANT TRUTH

FOR STOCK RAISERS.

**LUMP JAW** has been transformed from an incurable to an easily curable disease. The entire credit for this wonderful result is due to

#### Fleming's Lump Jaw Cure.

When this remedy was discovered no other real cure was known. No other positive cure is yet known. FLEMING'S CURE was first introduced in Saskatchewan, and from there its reputation has spread over the entire continent. It is the only remedy endorsed by leading ranchers, shippers, and stock journals. It is positively guaranteed; money is returned if it fails. One bottle usually cures one to five cases.

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

GET FLEMING'S LUMP JAW CURE AND BE CERTAIN OF RESULTS.

SENT ANYWHERE BY MAIL. TREATISE AND REPORTS SENT FREE.

**FLEMING BROS.,**  
CHEMISTS,  
ST. GEORGE, ONTARIO.

### BUTTER, HONEY, JAM!

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

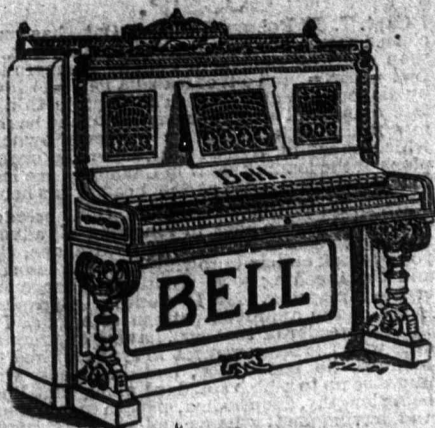
### Antiseptic Ware

WRITE FOR CATALOGUE AND PRICES.

#### THE E. B. EDDY CO., LIMITED,

Hull, Montreal, Toronto, Quebec, London, Hamilton, Kingston, St. John (N. B.), Halifax, Winnipeg, Victoria, and Vancouver, St. John's (Newfoundland).

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.



## BELL Pianos and Organs

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

The BELL ORGAN AND PIANO COMPANY, Limited,  
OVER 75,000 OF OUR INSTRUMENTS NOW IN USE.  
GUELPH, ONT.

## HAMILTON Engine and Thresher Works

COMPOUND AND SIMPLE TRACTION AND PLAIN ENGINES,

THRESHING MACHINES, CLOVER HULLERS, HORSE POWERS, SAWMILLS,

WITH ALL LATEST IMPROVEMENTS. ALSO

ROADMAKING MACHINERY, STONE CRUSHERS, ROAD ROLLERS AND GRADERS.

FOR DESCRIPTIVE CATALOGUES, PRICES AND TERMS, APPLY TO

**Sawyer & Massey Company, Limited,**  
HAMILTON, ONTARIO.

## Famous Evaporator or Feed Boiler

FOR POULTRYMEN, STOCK-RAISERS, AND DAIRYMEN.



Does the Quickest Work with Smallest Cost.

Boiler is made of galvanized steel, thoroughly tight and removable for cleaning.

Fire-box, grates and linings are made of cast iron, which will not burn out quickly.

Body is made of steel, which heats quickly, and is properly protected against warping and burning out.

#### DIMENSIONS, ETC.

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

The Newest and Most Successful Boiler Made in Canada.

THE M<sup>C</sup>CLARY MANUFACTURING CO.,  
London, Toronto, Montreal, Winnipeg, and Vancouver.

If your local dealer cannot supply, write our nearest house.



### Sheep Shearing Revolutionized.

#### New Chicago SHEEP SHEARING MACHINE.

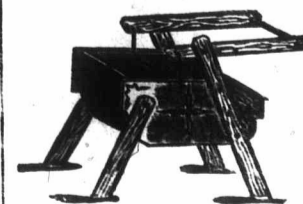
Greatest Machine ever Invented. Price, \$25.

(Used and endorsed by the Editor of the American Sheep Breeder.)

Don't butcher your sheep. Saves 1/2 to 1 lb. more wool per head.

Drop us a postal and we will tell you all about it. We also make Horse Clipping Machines. Chicago Fixable Shaft Co., 138-160 Huron St., Chicago.

### Vollmar's Perfect Washer



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

PHILIP VOLLMAR, CHATHAM, ONT.

Live Agents Wanted.

PLEASE MENTION FARMER'S ADVOCATE.



## Persicatic Sheep and Animal Wash

For the complete and effectual removal of all insects or vermin peculiar to sheep and cattle. Powerful without being harsh; immediate in effect, without any irritating effects; it leaves the animal refreshed and in good spirits after use; does more than destroy the pests, it completely removes all traces of their attacks; healing sores or boils, curing open sores and leaving the skin whole and sound. Mr. G. A. Brodie, a prominent stock-raiser of Bethesda, Ont., used it with great success in castrating lambs, the wash healing the wounds rapidly and keeping the maggots away. He considers it the most effectual wash in the market, and heartily recommends it to farmers generally.

If your dealer hasn't it, write us for it, and tell us of anything special in the ailments of your flocks or herds and we'll advise you how best to use it.

THE PICKHARDT RENFREW CO., Limited,  
STOUFFVILLE, ONT.



## FREEMAN'S FERTILIZERS

Great Reduction In Prices.

CATALOGUE FREE. The W. A. FREEMAN COMPANY, Limited, HAMILTON, ONTARIO.

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

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

## The Frost Wire Fence Co.

WELLAND, ONT., CAN., Manufacturers of The Frost Wedge-Lock Spring-Wire Fence, Frost Coiled Spring Wire, and Frost Steel Gates. Agents Wanted.

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

CURED TO STAY CURED ASTHMA Dr. HAYES, Buffalo, N. Y.