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The Farming World



AND CANADIAN FARM & HOME

Office of Publication:

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MARKHAM, ONT., October 9th, 1902.

To whom it may interest:—I am a graduate of the Home Correspondence School, and wish to express my appreciation of the courses and the excellent training given by the School. Under their guidance I studied Stenography, and so well was the work laid out and so beneficial the instruction I received, that, by studying only two hours per day, I was able to complete the course in three months. I then studied Touch Typewriting, completing this course in six weeks. I found both courses not only simple and instructive, but decidedly interesting, and this interest was sustained throughout the course by the helpful suggestions and individual assistance I received from the School. Almost immediately after receiving my Diploma I was offered a position with the King-Richardson Co. of Toronto. Here I had every opportunity of examining the different courses and learning more of the methods of teaching employed by the School. Not until then did I fully realize what a great work the School was doing, and the letters of appreciation that were daily coming in from students and great rates only served to show that great results were bound to follow. After I had been with the King-Richardson Co. for several months, I was offered a position with the Six-Wheel Wagon Co. of Markham, and left the city in June. Since that time I have been offered positions with the Algoma Central Railway Co. of Sault Ste. Marie, and the Steele, Briggs Seed Co. of Toronto, but at each intimation of leaving my salary has been increased, and I am still with the Six-Wheel Wagon Co., receiving an excellent salary, with prospects of further advancement.

I am confident that whatever success I have attained in my work I owe to the Home Correspondence School, and I believe it to be far superior to a Business College in that it teaches and develops perseverance and self-reliance, which go a long way towards making any work a success. I can without hesitation recommend this School to all who wish to fit themselves for higher and more responsible positions, and I believe there is no surer, safer and easier road to knowledge and success than the H. C. S. opens up through its well planned courses.

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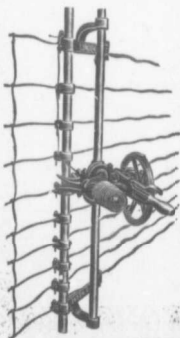


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John—"Ah, ye should get married, Janet, an' then ye would ha' some one to look after ye."

Janet—"Me! Me got married! Sev' an' I'm good as married now. I na' a parrot that swears somethin' awful, an' a monkey—that chews an' smokes, an' what more could I ha' if so be I was married?"

The Farming World

And Canadian Farm and Home

VOL. XXII.

TORONTO, FEBRUARY 16, 1903

No. 2

Keep American "Culls" Out

IS it not about time that something were done to check the supply of cheap useless horses that are coming into Canada, chiefly into the West, from the United States? The bulk of these horses are not worth more than \$5 to \$10 each, and come in on the very low duty of \$3.00 each. Hundreds of this class of horses are being brought in every week. They are of no practical use to the farmer who buys them and yet they injure the sale of the better class of horses bred in this country.

The most annoying part of it is that, while our American friends can send their "culls" over here at a mere nominal duty, we cannot send the poorest kind of an old, broken-down horse into Uncle Sam's domains for less than \$30 duty. One of these useless "bronchos" can be brought in here at a duty charge of about \$3.00, but the same animal cannot be taken back one hour later, to where it properly belongs for less than \$50. This is certainly not fair to Canadian farmers; and the government should take action at once to remedy matters. If nothing else can be done raise the minimum valuation at which horses shall be allowed to come into Canada to \$100 or \$150 each. This would prevent these cheap, trashy horses from coming in and would be no hardship upon anyone who wishes to bring in good animals.

But there is, perhaps, a more serious grievance still. At the Clydesdale meeting it was stated, that hundreds of stallions were being brought into the West from the United States and sold at high prices for breeding purposes. There would be no complaint as to this if the animals were of a quality calculated to improve the horses of the West. But they are not. They are chiefly the "culls" of Uncle Sam's breeding "studs" sent over, to be got out of the way, and for which high prices are received from Western farmers and syndicates. A great many of them are crossbred Percheron horses, registered in a stud book that is not recognized even by the leading breeders of the United States as being of any value whatever. The United States authorities do not recognize this stud-book, and yet animals registered in it, are accepted by the Canadian authorities and allowed to enter this country free as breeding animals. Besides, num-

bers of so-called Clydesdales and Shire horses are brought in as breeding animals that are not eligible to register in Canadian herds-books. These are some of the grievances that Canadian breeders, and rightly so, are complaining of. It is now up to the government to do something to remedy matters.

But what is to be done? Resolutions were passed at the different horse-breeders' meetings, asking that the government place the same duty and the same restrictions on horses coming into Canada from foreign countries, as such foreign countries place upon horses brought into their country from Canada. In the case of cheap horses, there are none brought into Canada except from the United States. As to breeding stock, Canada imports large numbers of horses every year from Great Britain. But these are all eligible to be registered in Canadian stud-books and, therefore, the importing of good horses would not necessarily be interfered with. A part of the resolution is not very clear, however. The United States authorities have recently put a new interpretation upon their custom laws, by which no animal will be allowed in free of duty unless the importer himself is going to use it for breeding purposes. Canada is hardly ready for a restriction of this kind, and we do not think the breeders want it. All they are asking for is that all breeding animals brought into Canada shall be eligible for registration in Canadian stud-books, or books recognized in Canada.

But what about the Western farmer, who will be affected more, perhaps, than any other, if the regulation asked for is granted? From what we have been able to learn of Western conditions, restrictions along the lines indicated would be of the greatest benefit to him. It is certainly only a waste of good money to invest even \$10 in a cheap "broncho." As to breeding stock, the class of American stallions that are being sent into the West from the south of the line are not calculated to raise the standard of Western horses. A better class of horses could be secured in Eastern Canada at less money. We have heard of cases where some of these inferior American stallions have been syndicated at \$3,000 and \$4,000 each. For this money the Western farmer should be able to get some of the very best of Canadian and imported stock.

Farmers Ask for Relief

During the past few days, the farm help question has received considerable attention. The Dominion Grange discussed it and also ways and means of remedying it. The York County Council also gave it their best attention. A special committee was appointed to wait on Premier Ross and ask him to take immediate steps to relieve the situation by sending agents to Great Britain to procure suitable farm laborers for Ontario. In the discussion which followed, it was pointed out that if farmers would erect separate houses for their men, it would not be so difficult to get or keep help. Thos. Southworth, Director of Colonization for Ontario, addressed the County Council on the subject, referring to the efforts his department is making to relieve the situation.

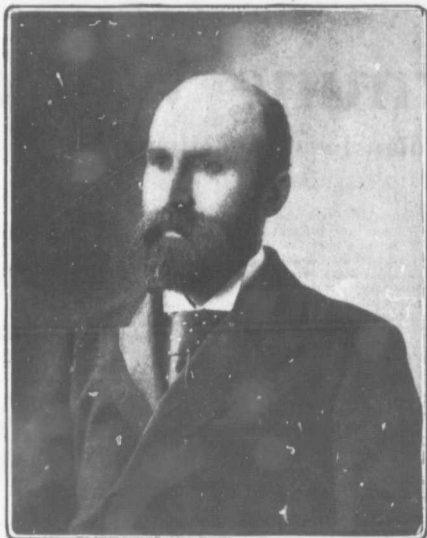
As spring approaches, this subject becomes more acute. It is certainly time that steps were taken to relieve the situation. Farmers may do something themselves, by arranging more regular hours for work, and by making provision for a married man. All things being equal, the married man will give better satisfaction and will remain longer in a situation than a single man. Once settled comfortably in a little home of his own he will not be in a hurry to leave unless some very big inducement is offered.

Prefers Ontario

An interested visitor at the stallion show, last week, was Dr. Medd, Willerdale, Ont. Dr. Medd was, until a few months back, manager of the Waverree Stock Farm, Minnesota, where is kept one of the best Galloway herds in the Western States. He has recently purchased a large farm north of Toronto, where he intends entering upon the stock-raising business on a large scale.

Agricultural College Examinations

The results of the Christmas examinations at the Ontario Agricultural College on the work of the fall term are out. We have not space this issue to publish the names. Seventy-one passed in the first year, sixty in the second year and twenty-four in the third year. This is the largest class the College has ever had, which speaks much for the growing popularity of this valuable institution.



The Industrial's New Manager

Dr. J. Orlando Orr has been appointed manager and secretary of the Toronto Industrial Exhibition to succeed H. J. Hill, who retires owing to ill-health. Dr. Orr is the son of Mr. W. A. Orr, formerly of Vaughan township, where the new manager was born in 1861. He was educated at the public and high schools of this city and is a graduate of Toronto University. He was elected alderman in 1890, and was reelected for 1891-92-93, retiring after completion of the latter term.

Since 1890, Dr. Orr has been actively associated with the Industrial Fair, and was Vice-President of the board in 1902. He has made a close study of the exhibition and the conditions governing it for sev-

eral years back and should therefore be well qualified to fill the responsible position of manager and secretary. His fellow-directors have always had the greatest confidence in him, which influenced them very strongly in making him their unanimous choice for the new position.

Dr. Orr is personally known to many readers of the Farming World, who will easily recognize the new manager in the fine photo-engraving which accompanies this article.

Though not in direct touch with them in past years, we feel assured that the agricultural interests of the Industrial will receive every attention at the hands of the new manager.

A Commendable Scheme

The action taken by the Canadian Horse Breeders last week towards securing a suitable arena for holding horse shows and similar exhibitions should commend itself to the good judgment of everyone interested in the development of the live stock industry of Ontario. The scheme for a special charter that will enable the Association to receive stock subscriptions and manage an enterprise of this kind seems a most feasible plan for securing this much needed accommodation. A strong committee was appointed to push the matter, and before another year we hope to see erected a suitable

building centrally located in Toronto.

The proposal is to ask the local government or the city to supply the site. Considering the great advantages to Toronto by having such a building we think the least the city could do would be to supply the site.

The local government might assist in the way of a grant towards the cost of the building. In making any appropriation, however, the government should insist on having, not only an arena for the horse show and other attractions, but a suitable auditorium where practical talks could be given on

live stock and kindred subjects.

The scheme seems a good one and will receive our hearty support so long as it is run in the interests of horse breeding and of the live stock industry of this province.

Nova Scotia Fruit Growers

Just as we were making up the forms, our special report of the Nova Scotia Fruit Growers' Association arrived, but owing to lack of space, we shall have to hold it over till next issue. The convention was a most successful one. President Biglow, in his address, stated that 1902 had been one of the most disappointing seasons in the history of the Association. The cold, wet months of May and June being responsible for a reduction of the export crop to 70,000 bbls. of inferior fruit, while the average yearly export amounts to 300,000 barrels.

Live Stock Chief at St. Louis

Canadian breeders will be glad to learn that F. D. Coburn, Secretary Kansas State Board of Agriculture, has been appointed Chief of Live Stock at Louisiana Purchase Exposition to be held at St. Louis in 1904. Mr. Coburn is especially well qualified for this work. He knows live stock well and all the technicalities of the trade. He is a born organizer and a safe counsellor, and we feel sure he will look well after the live stock interests of the continent. We have frequently published articles from Mr. Coburn's pen in these columns, and which have been full of interest and profit to our readers.

Asks for Railway Commission

An important deputation waited upon the Government at Ottawa on Wednesday last to ask for the appointment of a railway commission at the coming session. The deputation was well received and came away with Sir Wilfrid's promise that the Minister of Railways would introduce a bill for the appointment of such a commission at the next session. Those comprising the deputation were: Toronto Board of Trade—Hugh Blain, and J. D. Allan. Manufacturers' Associations—Robert Munro, Montreal; J. O. Thorne and R. J. Young, Toronto. Cattle Dealers' Association—John Dunn, Toronto. Ontario Fruitgrowers' Association—W. H. Busting, St. Catharines; H. W. Dawson, Toronto; D. L. Wilson, Seaford. United Fruitgrowers of the Niagara Peninsula—D. J. MacKinnon, Grimsby. Dominion Grange—W. F. W. Fisher, Burlington. Farmers' Association—L. E. Anna, Scarborough; J. Lockie Wilson, Alexandria.

"And your stepfather told you to get out into the world and earn your own living? He should have given you a helping hand."

"He gave me a helping foot." — Cleveland Plain Dealer.



Awarding Clydesdale Sweepstakes, Spring Stallion Show, Grand's Repository, February 6th, 1903.
The winner is Stately City, first to the left of picture.

The Spring Stallion Show

This show, held in Grand's Repository February 4th, 5th and 6th, was a decided success. The large attendance of farmers, buyers and breeders, showed that it was needed. This was so marked that even those who opposed the movement had to acknowledge that it was supplying a needed want. All the available stable space at Grand's was more than filled and the overflow had to be accommodated in other parts of the city. The building, while well fitted for a sale stable, was too confined for an exhibition and visitors were crowded unduly in their endeavors to obtain a sight of the animals. This, it is hoped, will be avoided in future by the erection of suitable show buildings.

The exhibit of Clydesdale aged stallions was the best that has been seen for many years—if indeed it was ever excelled in Toronto; 34 entries in this class made the judging seem very small, and as it was impossible to get these into the ring, the class was divided and the four-year-olds entered in a class by themselves. The quietness of the horses in such crowded quarters amazed many of the visitors.

The class for Canada bred was only fair. The rule made in this class that all animals to be eligible must be recorded grades has many opponents and does not seem to commend itself as in any way calculated to improve the breed. It is made to give breeders, who are grading up from any kind of foundation, a chance to win a few dollars of prize money—but it is doubtful if the game is worth the candle. There were some good animals in the classes under this head, but they were but few and would have been noticed had the class been open to all animals Canadian bred.

Shires were few and did not do honor to this grand old big English breed. The pair of young blacks recently imported, foaled in 1901, promise to help the breed in Canada and one of them though not the

English type was made champion of the breed.

AGED CLYDES

Eleven filled the arena as full as could be safely done, and when they had gone through their paces half a dozen more were brought in and then a short test of eight was made. It was a difficult thing for the judge to work in such a crowded place, but it was conceded that the short cut was fairly well made with one quite marked exception—which few good judges could understand—Graham Bros. had the champion Young Macqueen (2990) bred by R. B. Ogilvie, Wis., U.S., the winner at the International, in Chicago, last December, but they did not bring him out, but relied on winning with Stately City (3362) and his great quality of feet and pasterns easily put him in first place. He is a gay mover and carries his crest with grace and has splendid front and hind ends—so good are they that they look a trifle far apart. He came out in beautiful bloom. He is a bay with white markings and is by Prince Romeo (8144). Smith & Richardson, of Columbus, had second and third place with a fine pair, well brought out but lacking the quality at the ground of the first horse, but both thick good horses with good bodies and backs. King's Cross (3153) was second, a dark bay with blaze and white sock. He is by Sir Everard (5355) and out of a Prince of Wales mare. Duke of Cornhill (3155) stood next, a bright bay with four white markings. He is by Duke of Rothsay—(9191)—The fourth horse was much admired for his quality, but had not the size of those above him. He has good feet and pasterns and is by the Great Prince of Albion (6178), a dark brown, with white face and four white feet, owned by R. Beith, M.P., Bowmanville. Fifth place went to another son of Sir Everard (5353) owned by J. B. Hogate, Sarnia. Sixth, a dark horse Laird of Cragie (3378), by Ethiopian (5750) and out of a

Prince of Alvia mare. He is owned by Smith & Richardson, and shows considerable quality. Seventh went to Sir Oswald (3631) a brown with white markings and a big good horse, owned by W. J. Squires, Mitchell, Ont. Eighth place went to Pride of Morning (3576) by Baron's Pride (9122) a good bay, out of bloom. He is owned by O. Sorby, Guelph, while at the end of the row stood Climax (3622) owned by Wm. Colquhoun, Mitchell, Ont., a bright bay with two white socks and a really good specimen of a draft horse. He is by Baron's Pride (9122) out of a Lord Erskine (1744) mare. Those outside the ribbons in this class were many of them better than many of the prize winners in other classes.

FOUR YEAR OLDS

This was a class made by the directors to relieve the overcrowded aged class and comprised about a dozen very good young horses. Smith & Richardson were fortunate enough to win first in this class with Pioneer, a big bay with dark markings and a little white behind. He has a thick heavy body, is by Sir Arthur (10445) dam by Lord Erskine (1744). R. Beith, M.P., had second for Peveril (3613), by The Prior (10470), a bay with four white feet and with fair quality. Third to same owner for Star of the Roses (3614) by King of the Roses (9927), a bay with white socks behind and fairly good pasterns. Fourth to Graham Bros. for Border Sentinel (3641) by Mont-rane Sentinel (10034), a good thick fellow with good feet. Coynachie (3623) came next, another bay with four white feet and good strong legs, he is by Blacon Macgregor (10167) and is owned by Wm. Colquhoun, Mitchell. Sixth went to Primrose Pride (3355), a son of Baron's Pride (9122), and a good one out of a Darnley (222) mare. He is thick and well coupled and should be a good breeder. Seventh was for Gallant Lorne (3407), a dark brown with one white foot. He by Prince Gallant (6176) and

owned by Graham Bros. Eighth to Caroon Jamie (3590), owned by J. B. Hogate, Sarnia, Ont.

THREE-YEAR OLDS

This was a very good class of 17, and they were the first to be judged and made a good impression on the visiting public. First went to Graham Bros., for Cairnhill (3645) a black horse with three white feet, a thick, well built fellow, but not a popular winner as many preferred Cecil (3552) as having rather better quality of feet and pastern. He is a bright bay with white markings and is by Macara (6992) out of a mare by Cedric (1087) and was bred in America and foaled in Britain. He is owned by Robert Ness, Howick, Que. Third went to Smith & Richardson, for Lavender (3375), a big brown fellow with the cart horse size so much desired. Fourth went to Craig Stamp (3365), a colt with big, broad bone, but a trifle plain in the quarters. He is owned by Graham Bros. Fifth to O. Sorby, for Florist (3573) a chunky fellow, a brown with dark legs. Sixth to Hugh Semple, Hereward, for Silver Prince (2935) by Gay Prince (10759), a bay with four white socks and admired by some. Seventh to Kitchener (2933) owned by Swan Smith, Montreal, a high standing fellow with big bone. Eighth to J. B. Hogate for Black Benedict (3563).

TWO-YEAR OLDS

There were but four shown out of a class of eight entries. J. B. Hogate was fortunate enough to get first place with Royal Park (3595) by Montrave Mac (9958), Glencris (2847) by Macqueen (5200) out of Cherry Sweet by Cedric (1087) was second. He is well bred and was admired by many. He was bred by Graham Bros. and is owned by John A. Turner, of Calgary. Third went to a half brother owned by J. W. Cowie, of Markham, and fourth to a third son of Macqueen (1087). The former is called Alexander Macqueen and the latter named Lyon Macqueen and is owned by J. H. Millard, Altona. They were a fairly good lot of fair quality.

CANADIAN BRED

These are confined to animals graded up from mares of no particular breeding, and all Canadian bred animals tracing to imported mares are excluded from the class. As might be expected the class was by no means uniform and while some showed fair quality, others very much the reverse. It is a question whether it is very good policy to encourage a special class that are graded up from scrub mares and are certain to throw back in some instances to undesirable types. In the aged class there were nine entries and first went to J. G. Clark, Ottawa, for Woodruff Ploughboy, a great big thick bodied horse with good life and fair action. He was a winner at last

Ottawa exhibition. Second went to F. Russell, Cedarville, for Lord Aberdeen, a bay with three white socks and pretty good quality about his pasterns. Third to Merriment 2nd, a smaller horse with good movement. W. F. Brown, V.S., Lindsay, had the fourth in the dark bay Granite Lad, and Geo. Issacs, Bowmanston, fifth place for an upstanding bay with blaze on face and three white stockings. Sixth to Ed. Hoy, Orchard, for Gordon Anderson, a bright bay with four white legs which might have helped him farther forward, but he was out of sorts a bit and showing a stiff gait. The three-year-olds were a lot of ten. First went to Graham Bros., for Pride of Eastfield, a light bay with white markings behind. Second went to Lord Donald, bred by Wm. Rae, St. Paul, and owned by Eaid & Everett, Simcoe. Smith & Richardson, Columbus, had a pair of big ones that were fancied by many especially the fourth prize one a get of Macqueen (5200). Fifth went to D. Bennett, Russellton, and sixth to James Gostlin, Lindsay. In the two-year-olds Macqueen 2nd, exhibited by J. W. Cowie, Markham, was first, a bay with three white legs, second to Charming Prince, bred by H. McCraig, Aberfoyle, and one many thought good enough to win, while third went to Robt. Davies, Toronto, for Roy Sensation, by Lyon MacGregor. Fifth to D. Carstairs, Bowmanston, for Prince Pearl, a bay with three white feet. There were but three yearlings. Macqueen's Best, a bay with four white feet, was placed first, but the second a black named Proud Gordon with four white legs and a big splash of white on his belly, showed up well. The former is owned by J. W. Cowie, Markham, and the second by James Leonard, Schomberg. Third went to Simon Marshall, Lindsay, for a bay with white markings, plainer about the pastern.

SHIRES

The show of Shires was not large, only three in the aged class. First went to Flagship (17347), a well coupled bay horse bred in England, sire Timon (5394) dam by Priam (1767). He was a clear first and a good serviceable type. Second went to J. B. Hogate, Sarnia, for Nateby Monarch (18957) by Tartar 2nd (15385), a black of medium quality. Third to George Lennox (261) by Lennox (7574), a chestnut with long flowing tail that looked smaller than his rivals.

Only two three-year-olds and the same in two-year-olds, all four owned by Morris, Stone & Wellington, Ponthill, Ont. In the former a fine big bay named Bank Statesman was first. He is by Carltonie (13946). Second to Vulcan 2nd, a brown with four legs white to the knee. The younger are a fine pair of blacks of good Shire type and much alike, as they are both by Locking Harold (16799) and both out of dams by Bar None William (10903). One is named General Favorite and the other Coronation,

the former was the winner in England and the latter was first here and was champion of the Shires with Flagship named as reserved. The Clyde championship went to Statey City, with the black colt Cairnhill, second.

The Auction Sale

The sale of stallions and mares after the show on Saturday morning was not a huge success. There were a great many private sales made during the show and buyers evidently had secured what they wanted or were not anxious to handle those offered by public auction.

Two Clydesdale stallions were sold. One of these was Kitchener, exhibited by T. Swan Smith, of Montreal, in the two-year-old class. He is sired by Baron Blantyre, dam Quittie. The bidding was slow at \$5 jumps, finally reaching \$475, at which figure Kitchener was sold to Mr. Graham, St. Mary's, Ont. The other was Border River (imp.) owned by Robert Davies, Toronto. This horse is a nice type and a pretty actor. He is sired by Prince of Millfield, dam, Rosedale. As a foal he cost \$2,000, and carried away the red ribbon at several important Scottish shows including Glasgow. As a two-year-old he won first at Toronto and other Canadian shows. He is now rising eight years old and guaranteed a sure getter. The bidding started at \$250 and crept up slowly to \$480, at which figure he was sold to A. H. Eckford, High River Ranch, Alberta, who secured a bargain. Mr. Davies disposed of Border River because he wished to get new blood in his stallion.

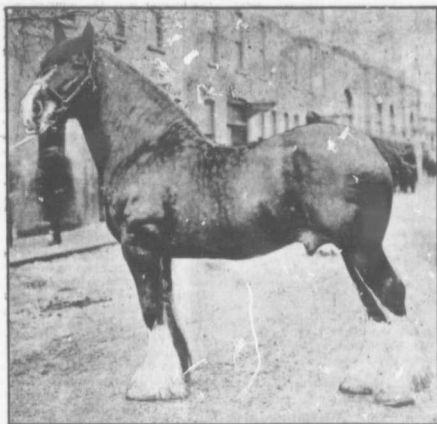
A bay Hackney stud, rising three-year-old, also owned by Robt. Davies, sold for \$375 to A. Merry, Toronto. A pair of Clydesdale mares of good breeding, though badly fitted, sold for \$180 to Mr. Mr. Eckford. They were owned by A. Madill, Streetsville. A rather nice bay mare also owned by Mr. Madill sold for \$167.50 to Mr. Johnston.

The above prices must not be taken as a true indication of the market value of the animals sold as many buyers had filled their orders during the show.

Markham Seed Fair

A seed fair, under the auspices of the East York Farmers' Institute, will be held at Markham, Ont., on February 20th. Addresses will be delivered by F. W. Hodson, G. C. Creelman, C. A. Zavitz and G. H. Clark. A large amount of seed of different varieties will be offered for sale.

"I know that a great many people do not like business," said a chancy sweep, "but it suits me." After due acknowledgment of the courteous smiles of his audience, he went up the flue.—Baltimore American.



Stately City—Champion Clydesdale and first in the aged class, Spring Stallion Show. Owned by Graham Bros., Claremont, Ont.

The Eastern Ontario Fair

The management of the first Eastern Ontario Live Stock and Poultry Show, held last week at Ottawa, are to be congratulated upon the success of their first venture. Though only about six weeks elapsed between the issuing of the prize list and the holding of the show, the sections were pretty well filled up with creditable exhibits. The exhibits of live stock and poultry, together with the cattle for the sale, were sufficient to take up all the accommodation provided.

The show was held in an old building in the centre of the city. Though somewhat dark and gloomy, it served fairly well for a beginning. Another show should not be attempted in the same quarters, for if the exhibits increase at all, as they no doubt will before another year, there would not be room for them. It is now up to the city of Ottawa to provide a new building in time for next year's show. It would certainly prove a good investment for the city. If some better accommodation is not provided, the Eastern Show cannot hope to become the permanent success it should be.

The attendance was good. In fact, on Wednesday, during the sale it was almost impossible to get within seeing distance of the sale ring. A great many members of institutes were present, taking advantage of the special rates to the show.

THE LIVE STOCK

There were two exhibitors in the fat cattle classes, W. C. Edwards & Co., in pure bred Shortorns, and James Leask, Greenbank, in grades. Among Edwards' lot were a couple of prize winners at the

Toronto, London and Ottawa shows. The exhibit was creditable and well brought out. Leask's exhibit was, as usual, in the pink of condition. The white steer, shown at Guelph last December, was on parade, and looked very well indeed. This one should stand a good chance for the sweepstakes at Guelph next fall. Mr. Leask's 1st prize steer under one year, was a full brother to the sweepstakes carcass steer at Guelph. A dairy test was held in which 9 cows competed.

The chief exhibitors in the sheep

classes were John T. Gibson, Denfield, in Lincolns; A. W. Smith, Maple Lodge, in Leicesters; John S. Richardson, South March, in Oxfords; D. G. Hamner & Sons, Mt. Vernon, in Shropshires; R. H. Harding, Thorndale, in Dorsets, and Hamner and Gibson in grades and crosses. Most of the lots had not been shown before. Mr. Smith showed one of the first-prize Leicester pen, get of one ram, at Chicago in 1902. Over half of the sheep sections were filled and was a very creditable display all through.

Only three breeds of swine were shown, Yorkshires, Tamworths and Berkshires. J. E. Brethour, Burford, had an exhibit of 25 Yorkshires, all in good show condition. He captured the chief awards in all the sections, and especially in the export bacon hog class, securing the sweepstakes for the three best export bacon hogs. Reid & Co., Hintonburg, made a nice showing of Yorkshires, Tamworths and Berkshires, carrying off the chief prizes in the two last named. H. Stewart had second place in grade export bacon hogs.

POULTRY

The poultry show was the best ever held at Ottawa, or under the auspices of the Eastern Ontario Poultry Association. The accommodation was far too small, and new quarters will have to be provided for poultry another year. Though the entry fees were twice what they were last year, the entries were away ahead. The show was particularly strong in utility breeds, chiefly in Rocks and Wyandottes. Competition was strong, many winners at Toronto, London and Boston being present. There was a great show of Orpingtons, both buff and black. C. J. Daniels, Toronto, had the sweep-



Pioneer—First in four-year-old Clydesdale class. Owned by Smith & Richardson, Columbus, Ont.

stakes in this class. The show of water fowl was good, especially geese. Turkeys made a very good showing.

EDUCATIONAL

The same lines were followed as at Cuelph and Amherst in the way of lectures and practical talks. Those who took an active part in this work were the President, A. W. Smith; Hon. John Dryden, Prof. Deane, Prof. Day, J. A. Ruddle, J. E. Brethour, F. C. Hare, F. H. Gisborne, A. G. Gilbert, W. R. Graham, J. H. Grisdale and Lt.-Col. McCrae. The meetings were well attended, especially on Wednesday and Thursday. An important educational campaign has been begun in the Ottawa district, which will, no doubt, result in much good in improving the live stock of that part of the province.

The Ottawa Sale

Never has a better auction sale of stock been held at Ottawa than that which took place on Wednesday, February 11th. The sale was well attended, the bidding was brisk, and under Auctioneer Jackson's wielding of the hammer, the different lots were sold in short order. The animals offered, mostly Shorthorns, as only one Ayrshire was sold, were not in as good average condition as they might have been. The breeding was, however, good and individual merit high. The lots were much younger than those offered at former sales, and the results show that it is the young, thrifty, well bred animal that is wanted. The sale averaged \$11 each, and more could have been sold.

The following is a list of the sales made, the first named being the contributor, and the last named the buyer.

The White Squire—36122—Calved Mar. 29, 1902; D. McDowell, Shawville, Que., to J. E. Brethour, Barford, Ont., \$135.

Pickering Gloster—44223—Feb. 10, 1901; John Bright, Myrtle, to J. W. Lawn, Campbell's Bay, \$110.

Scotchman—45466—May 11, 1901; John Bright, to W. R. McCluchie, \$125.

Melrose—41139—June 21, 1901; J. J. Smith, Enniskillen, Ont., to R. Miller, Stouffville, \$125.

Rancher—44777—July 12, 1901; S. Burnett, Greenbank, to Alex. Stewart, Waba, \$110.

Hiaawatha—44803—Oct. 10, 1901; S. Bray, Enfield, Ont., to Wm. Gerry, Perth, \$140.

Bull—Calved Oct. 1, 1901; James Leask, Greenbank, sold for \$125.

Oshawa Boy—45445—Oct. 26, 1901; John Bright, to M. Ryan, Almonte, \$90.

Enfield Councillor—44538—Nov. 22, 1901; W. G. Ormiston, Enfield, to J. H. Wilson, Waba, \$150.

Bonnie Raglan—45444—Dec. 15, 1901; John Bright, to Chas. A. Wert, Waba, \$80.

Prince Royal—42444—Jan. 29, 1902; Jno. Jackson, Scugog, to M. Smith, Pakenham, \$100.

Moneyful—42444—Mar.—44985—James Leask, to T. A. Grierson, Ardley, \$90.

Silver Mist—43798—April 1, 1902; T. McDowell, to E. Faulkner, Valleyfield, Que., \$105.

Golden Robe 2nd—45443—April 10, 1902; Jno. Bright, to T. C. Stark, Pitt's Ferry, \$140.

Bold Archer—44872—May 1, 1902; W. Ormiston, Jr., to Columbus, to John Blair, Rideau View, \$95.

Bonnie's Heir—45447—May 14, 1902; John Bright, to Wm. Patterson, Almonte, \$135.

Enfield Enterprise—44539—May 15, 1902; W. G. Ormiston, to W. T. Hodgins, Hazeldean, \$100.

Red Dipper—44875—May 26, 1902; W. Ormiston, Jr., to H. M. Mather, Hurdman's Bridge, \$95.

Clear Grit—45135—May 29, 1902; Jas. Jackson, to E. E. Wilson, Kenmore, \$90.

Statesman—43800—June 6, 1902; T. McDowell, to Wm. Hodgins, Portage du Fort, \$95.

Four Shorthorn bulls, not in catalogue, belonging to W. Ormiston, sold at \$125, \$95, \$90 and \$125 each.

One Ayrshire bull, calved Nov. 28, 1901, owned by Hon. Senator Owen, Montreal, sold for \$37 to A. McTavish, Balderslo, Ont.

Buy Some Good Stock

Mr. A. H. Eckford, of High River Horse Ranch, Alberta, who is at present in Toronto, made a purchase of four registered pure bred Shorthorn cows at Flatt's sale, Hamilton. Mr. Eckford is extensively engaged in horse breeding, but also runs a considerable herd of Shorthorns, his bulls only being pure bred, imported stock. He speaks of the four cows just secured as a beautiful lot, which we can well understand when it is remembered that the fifty-two head disposed of at the sale averaged \$450 per piece.

Mr. Eckford also purchased from Messrs Stone & Wellington, Fonthill, two yearling Shire fillies, and two yearling Shire colts, all from imported stock and backed by good pedigrees.

Selecting Seed Grain

Mr. John Fixture, farm foreman, gives the following method of selecting, cleaning and storing seed grain at the Central Experimental Farm:

We select enough grain of the largest, heaviest and best yielding sorts that we can secure, also select from the best we have on hand, plant these side by side the first year in rows, one foot apart. The seeds are dropped about six inches apart in the row. The land is kept clean until harvest. When the grain has ripened all the best plants are selected and a second selection made by taking the best heads of each plant.

These are threshed, thoroughly cleaned and screened. After the second year we usually have sufficient seed to sow several acres. When selecting for field crops, after the grain is threshed it is put through a fanning mill. The sieves are arranged so as to allow all the coarse material to go over the back of the machine and screens are set to take out the small grain and seeds at the same time. We put on all the wind possible and blow all the light grain over the back end of the machine.

If the grain is not of the best quality, we put it through the machine again, close off the wind, put in all the sieves to act as screens and run the choice grain over the back end of the machine. With this operation there should be no small grain or weed seeds left. We ascertain what quantity is required for spring seeding, weigh it out, bag it up and keep it in perfectly dry, clean bins that are rat and mouse proof until time for sowing.

New Brunswick Seed Fair and Stock Sale

A new departure for New Brunswick will this year be made when the Carleton County Agricultural Society will hold a seed fair at Woodstock, N. B., on the 26th, 27th and 28th March and the Canadian Pacific Railway, through its agricultural agent, will hold an auction sale of Shorthorn bulls on the 27th. Great interest in both events is being taken by the farmers of the St. John Valley, and it is hoped that much improvement, both in seed grain growing and in stock improvement will result. If results are satisfactory, this fair and sale will undoubtedly become an annual institution.

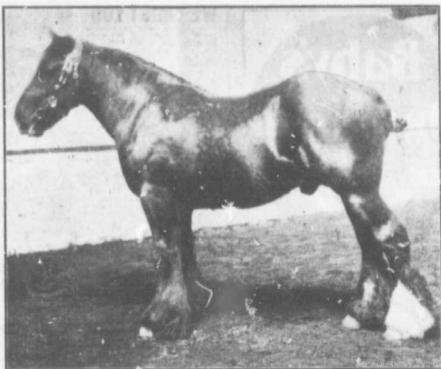
Prince Edward Island

Severe weather up to the latter part of January. Farmers are busy, some laying their ice, and others hauling loads to and from the city. Business is good. Markets are well attended. Much change in prices. Turkeys sell for from 10c. to 11c. per lb.; eggs, 22c. to 24c. per doz. Potatoes, 75c. per pair; geese, 9c. to 10c. per lb. Smelt fishermen are hauling in money, or money's worth. One man's catch one day lately was 600 lbs. Mails have been very irregular during the month of January. The Stanley has been ice bound for some time, but efforts are being made to clear her.

Many of our farmers sell their milk at the Charlottetown Condensed Milk Factory. This factory has a capacity of 10,000 lbs. of milk per day, and about 20 hands are employed in it. The average price paid throughout the year is \$1.11 per cwt. One farmer brings in milk regularly all winter to the value of \$4.00 per day, and is paid \$1.12 every month. The demand for the condensed milk, cream, and coffee is rapidly increasing. Strict cleanliness is observed throughout every department of the factory.

It is said that Mr. Judson Webster, of Marie, is the owner of a very industrious hen. Last season she netted him somewhere about \$13.00.

Agricultural meetings will be held in different sections of the country during the month of February. The speakers will be: Prof. J. W. Robertson, A. McKinnon, Chief of Fruit Division; C. A. Zavitz, O.A.C., Guelph, and Harold Jones, Maitland, Ont.



Coronation-Sweepstakes Shire and First Prize Two-year-old.
Owned by Morris & Wellington, Fonthill, Ont.

Manitoba and the West

Live Stock Meetings.—Western Honey.—Ontario Horse
Breeders Should Look After Western Trade.

(By our Western Correspondent.)

Winnipeg, February 9th, 1903.
The completed programme of the annual meetings of the Stock Breeders' Associations has now been issued. It gives full details of the meetings as outlined in the Farming World of February 2nd. In addition to the speakers there mentioned (Messrs. J. H. Grisdale and Duncan Anderson), we find the following well-known names on the list: S. A. Bedford, Supt. Exp. Farm, Brandon; C. W. Peterson, Sec. Territorial Live Stock Associations; Angus MacKay, Supt. Indian Head Exp. Farm; Lt.-Col. McCrae, Guelph, Ont.; Fred Torrance, V. S., Winnipeg; S. J. Thompson, Provincial Veterinarian, Winnipeg; Geo. Steel, M. P. P., Glenboro, Man.

The short course in stock judging, from February 20th to 27th inclusive, is expected to attract a large class who have hitherto avoided the conventions, viz., the young men. The following quotation from the programme sufficiently explains the methods of instruction to be followed:

"The sessions will open each day at 9 a.m. and 1.30 p.m. Lectures, illustrated by representative animals of the several breeds of horses, cattle, sheep and swine, will be given by the experts in charge, and the use of the score card fully explained. The members of the class will then be supplied with score cards upon which to score up the individual animals, following which there will be further discussions."

Each day's practical instruction will be followed by an evening lecture along the same lines.

Among other subjects on the programme we notice an address

on Agricultural Education, by J. A. M. Aikens, K. C., a member of the Agricultural College Commission. This address, however, will scarcely anticipate the report of the Commission by more than a few days, if at all, which will detract somewhat from the interest and importance of this gentleman's remarks.

The benefits of organization have appealed to almost every class of producers in Manitoba and the Territories. There remain, however, the bee keepers, who will fill up the blank on the 24th inst.

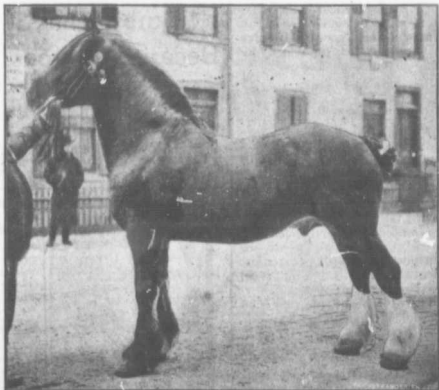
There will then be no excuse for any farmer not belonging to an association, or several of them. The committee in charge of the arrangements for organizing the new association is headed by Mr. S. A. Bedford, Supt. Brandon Exp. Farm. This gentleman is a most enthusiastic apiarist. It may be truly said of him that he finds the bees the most interesting live stock on the farm.

MANITOBA HONEY

is, of course, only locally known, as there is not nearly enough produced to meet the demand, and large quantities are yearly imported from Ontario. But when obtainable, it fetches fancy prices, owing to its remarkable flavor and aroma. The question has not been sufficiently investigated to enable a definite statement as to what plant or plants are the source of this superiority. When the new association has got down to business, we may hope for information of that kind. In the meantime, and notwithstanding our ignorance of its source, we are proud to say that, from personal knowledge, the best honey in this market to-day is the Manitoba product.

MORE ABOUT ONTARIO APPLES

Just another word about apples. As nearly as we can judge, the stocks now on hand here are sufficient to meet the ordinary demands of the trade for the balance of the season. We therefore wish to warn shippers against making consignments without first consulting the consignees and ascertaining whether the goods can be satisfactorily disposed of. There have been too many shipments of apples (especially of low grade stuff) sent up here on speculation for the good of the trade, and the result has been an unfortunate number of auction sales of Ontario apples.



Woodruff Ploughboy, First Prize Canadian bred in Aged Class Spring Stallion Show.
Owned by J. T. Clark, Ottawa, Ont.

There is, however, one class of apples that may safely be shipped at any time. Really first-class apples, sound, free from scab, worm holes, and bruises, put up in small packages, always bring a good price. Such goods make their way anywhere. They are a source of satisfaction to grower, shipper, wholesaler, retailer and consumer.

GOOD OPENING FOR STALLIONS

There is a grand opening in this province for enterprising stallion breeders who have surplus stock to dispose of. The stallion "syndicate" has "caught on" with the farmers and these bodies are being organized in all parts of the province. It is said that much inferior stock is being sold in this way at high prices. As most of the horses sold are brought in from the United States we think it would be good business, and practical patriotism as well for the Ontario breeders of Clyde and Shire stock to make an effort to capture some of this trade. The chief principles to be observed in doing business with a syndicate are, 1st, credit at 8 per cent. secured by joint notes adds \$1,000 to the price; 2nd stallions are sold to syndicates by the ton, not on their merits or performances. The bigger the horse, the bigger the price. The horse syndicate is not scheduled for discussion at the Horse Breeders' meeting, but it's "dollars to doughnuts" that the subject takes up more time than anything mentioned in the programme.

We notice the announcement of the early retirement of C. W. Peterson from the position now held by him as Deputy Commissioner of Agriculture for the Territories. We understand that Mr. Peterson will take up his residence at Calgary, where he has extensive interests, and that the Inter-Pacific Western Exhibition will be under his management. Your correspondent has no definite information on the subject, but hopes to hear that Mr. Peterson will continue to act as Secretary of the Territorial Live Stock Associations, for which he has done so much good work.

National Good Roads

The National Good Roads Association will meet at St. Louis, Mo., on April 27 till May 2, 1903. The important subject to be discussed will be "The betterment of the common roads." The different nations of the world interested will be represented at this convention, which will, to a certain extent, be preparatory to a still greater demonstration at St. Louis in 1904, during the World's Fair.

Ninety-five per cent. of every load by railroad, steamship or express, must be carted in a wagon or truck over a highway. It costs the farmers of the United States nearly three times more than those of Europe to market an equal tonnage of farm products over primary roads.



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With 3 one large beautiful genuine packages of 1 lb. each **Wash** needs to sell for up at 10c each. For your trouble you will give you a beautiful little Wash with both hands on which is elegantly mounted in a silver case. **Edna** (Lansdown, Toronto, Ont., Ont.) "My Wash is a perfect beauty. I was given a **Wash** card today and we will send you the Wash package. A beautiful little Wash with each package. It is a beautiful little Wash. I will send you the Wash card in a few minutes." **THE DOMINION SEED CO., DEPT. 22, TORONTO, ONTARIO.**

FREE GOLD RING

Give us your name, **Francis** (Toronto, Ont., Ont.) and we will give you a beautiful little Wash with both hands on which is elegantly mounted in a silver case. **Edna** (Lansdown, Toronto, Ont., Ont.) "My Wash is a perfect beauty. I was given a **Wash** card today and we will send you the Wash package. A beautiful little Wash with each package. It is a beautiful little Wash. I will send you the Wash card in a few minutes." **THE DOMINION SEED CO., DEPT. 22, TORONTO, ONTARIO.**

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where spraying is not attended to, but have trees more or less deteriorated through ravages of insect or fungicide pests. You could not expect much from a tree infested with parasites, as twig in cut, which shows San Jose Scale natural, and magnified. We do not magnify the merits of the

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when we say it is absolutely the best in the world. Gold Medals and First Prizes in every contest we have entered, including Pan-American, give us license to say this, and it will give us pleasure, and be of profit to you, to write us for our 80 page book, "A Gold Mine On Your Farm," which contains valuable formulas and information; it is free. **SPRAMOTOR CO., Buffalo, N. Y., London, Can.**



First Prize Yearling Cotswold Ewe, Chicago International, 1902.
Shown by E. F. Park & Son, Burgesville, Ont.

The Lambing Season

By A. W. Smith, Maple Lodge, Ont.

Upon the care and attention the flock or ewes get, and the thoughtfulness of the shepherd for the comfort of the little lambs, depends very largely the profit of the flock for the year.

Very much has already been done before lambing time, with the ewes to make or mar the season's success. If the ewes have been mated with the rain, in good thriving condition, then we can reasonably expect a large increase, and if proper care has been given them since, in the way of exercise and wholesome food, clover hay and pea straw for roughage and a few roots as succulent food, we can count upon strong, vigorous lambs. Then it remains largely with the shepherd to carry the young lambs through, and have them in good shape for the market. When lambing time comes, the shepherd cannot be a ten hour a day man, and he will not want to be if he is a good shepherd.

TWINS AND TRIPLETS

If the ewes have had proper care and treatment there will be a lot of twins and triplets to look after. Very many consider that these are not desirable, and would prefer one good lamb from each ewe to two or three that may not be so large when they are dropped. In Great Britain a shepherd's success is largely estimated by the percentage of lambs to the number of ewes he can bring to maturity, and if reasonable care be given them in our own country, undoubtedly the twins pay the best. The man who is breeding from grade ewes, will succeed in having his twin lambs average up well with the single lambs when 6 or 7 months old, and I venture to say that amongst the winners at our shows 50 per cent. of the lambs are twin lambs.

If the ewes are vigorous as they

should be, there will not often be much trouble in lambing. Some breeds, with fine head, notably the Leicesters, very rarely require any assistance, and nature should always be allowed to do its work in its own way, if possible, and only in extreme cases (and they do occur sometimes, such as when the lamb comes wrong and first or, as it sometimes is, doubled up in some unnatural way) should the shepherd interfere.

WHERE SKILL IS NEEDED

Occasionally when there is difficulty in lambing, it is followed by inversion of the womb, or, as commonly styled "putting out the lamb bed." When this occurs the ewe should be turned on her back and elevating the hind end, the parts protruding, after having been bathed with quite warm water, to which has been added a few drops of creolin) should be put well back to their place. After which a small dose of laudanum should be given, about the same quantity as would be given to an adult person. This usually quiets the ewe and prevents straining. Sometimes, however, they will persist in straining, and displace the parts again, in which case it is very difficult to treat them successfully, as inflammation generally is set up in the parts, and followed by blood poisoning they die. However I have succeeded in saving them by sewing up the passage excepting small space for water to pass out. The young lambs should get a little milk from the ewe as soon as she has licked it, after which there is usually very little more trouble. If the ewe was not much with the lambs they should be given a little cow's milk. If triplets, this is nearly always necessary. It is very seldom a ewe with twins cannot feed them, if she is properly at-

tended to. The ewes should be fed very liberally, with roots, grain and clover hay, and the lambs have access to a little oats, bran, and oil cake, their tails cut when 10 or 12 days old, and they will grow right along.



Look After the Ewes

Experience has shown that most of the ailments of pregnant ewes during winter time and at lambing are due to improper feeding and management. There may be some troubles, such as grubs in the nostrils, etc., that the feeder may not be responsible for, still if he were watchful, he could guard against them to a large extent. But there is no need whatever for the loss of pregnant ewes in the great majority of cases.

One way of injuring the ewe is to pamper her too much. Often when a ewe is to lamb early, she is kept penned up in a small yard and at night put in a warm stable. This is a mistake. It softens the ewe and renders her susceptible to disease, and unfits her for the lambing time. Ewes treated in this way are often constipated, and, especially so, when fed corn in the absence of succulent food, such as silage or roots. There is a tendency on the part of all pregnant ewes to become sluggish and costive, and lack of exercise intensifies it.

All sheep, including pregnant ewes, do best when given merely a shelter to run into during very bad weather. They should be protected from moisture from above and below at all times in winter. Bran and crushed oats are good foods. See that plenty of exercise is given daily in finding their hay and grain. Give corn only in slight quantities in cold weather, and give succulent food of some sort regularly. Attention to these points during the winter season will greatly lessen the loss of pregnant ewes.



Treatment of Sheep Scab

As this disease is contagious, isolation of the infected ones becomes a necessity. Clipping is necessary at any season, but, of course, this must be followed by suitable protection in winter.

Dipping is the most satisfactory cure. There are cheap and effective coal tar dips that give good results when properly used. For flocks of 100 or less, a barrel with suitable dripping board works all right. For large flocks, however, a long narrow vat through which the sheep may be driven is necessary.

About two minutes' immersion is necessary to soften the scab and permit the dope to penetrate to all the hiding places.

Dipping to be effectual must be repeated at intervals of 12 to 15 days. Usually three dippings are sufficient, but it should be remembered that the dip will not kill the eggs.—Prof. John Spencer.

Cattle, Sheep and Swine Breeders

The annual meetings of the Dominion Cattle, Sheep and Swine Breeders' Associations held on Jan. 29th and 30th were well attended. The report of the secretary, Mr. A. P. Westervelt, which applied generally to the work of the three organizations, dealt with several matters, the most important of which was developing trade in the West. He recommended that agents be appointed in Ontario, at points 40 or 50 miles apart, for the purpose of buying pure bred stock, intended for the West, and that other agents be appointed in the West to secure orders for stock. As a means of meeting the expense, it was proposed that 5 per cent. be charged on the selling price of each animal, this 5 per cent. to be divided in equal proportion between the man securing the order in the West and the agent selecting the animal in Ontario. It was also recommended that \$600 be appropriated for advertising Ontario stock in the West. Arrangements are to be made under which there will be a bank guarantee for sales made. Over 40 cars of stock had been shipped East and West last year. The Eastern Winter Fair had been organized. The auction sales during the year had been successful.

CATTLE BREEDERS

Arthur Johnston presided at the Cattle Breeders' meeting. The proposal for a Dominion Exhibition in 1903 was recommended. Lt.-Col. McGillivray referred to the growing tendency to defraud in the prize ring. The frauds at the Winter Fair at Guelph had been nothing short of a scandal. A committee was appointed to revise the rules and regulations so as to put a stop to further fraudulent practices. A motion asked the Dominion Government to use its influence to secure the removal of the embargo against Canadian cattle in Great Britain. As there was considerable opposition to such action being taken, many being of the opinion that more attention should be given to developing the dressed meat trade, the motion was withdrawn. The old officers were re-elected.

SHEEP BREEDERS

The treasurer's report showed a deficit of \$734.35, which aroused some comment, many advising the necessity of devising some scheme to increase the membership of the Association. The total receipts were \$2,111, of which \$111 was from members' fees, and the balance government grant. Of the expenditures \$1,275 went for prizes at the Winter Fair. R. H. Harding was re-elected President, and the other officers are the same as last year.

SWINE BREEDERS

In contrast to the sheep breeders the swine breeders have a surplus of \$1,499.03 on hand. The

total receipts were \$6,496.87. The Association is to make a grant of \$300 towards prizes for swine at the Toronto Industrial, provided the Fair Association contributed a like amount; the \$300 granted to be apportioned among the different breeds in the following manner: For Berks, Yorks and Tams, \$65 each; for Duroc-Jerseys and Chester Whites, \$35 each; other breeds, \$35 all told.

The total swine recorded was 6,222 of which 2,872 were Yorkshires and 1,412 Berkshires.

Expert judges at local fairs came in for some attention. Superintendent Creelman stated that out of 400 Fair Associations 52 had joined the circuits for expert judges. One hundred to 150 were expected to join this year, and good men were needed for the work. In the discussion which followed it developed that many had the impression that the short course in live stock judging at the Agricultural College was intended to train young men to be expert judges. Prof. Day pointed out that such was not the case. The course was not to prepare men as expert judges, but to give them a start from which they could build upon in further perfecting themselves in judging live stock.

Major Hood, who was again

elected President, in his opening remarks referred to the good year in swine just past. Prices had been more stable, there being less fluctuation than in other years. The Association granted \$75 to assist in advertising the stock in Western Canada. The other officers were re-elected.

PROVINCIAL WINTER FAIR BOARD

The chief topic discussed at the meeting of the Directors of the Provincial Winter Fair was the abuse of the privileges enjoyed by members of Farmers' Institutes. Complaints were directed particularly against the South Wellington Institute, which last year used 1,600 institute tickets. There was much discussion and many suggestions as to the best way to remedy matters. The plan most favored was that all institute tickets to the show beyond 300 should be charged for at \$1.00 each. The matter was referred to a special committee. The officers were re-elected and the following additions were made: Executive Committee, J. H. Saunders of London, Lt.-Col. McGillivray of Usbridge, and G. C. Creelman of Toronto; Committee on Swine, D. C. Flatt of Mill Grove; Dairy Committee, G. C. Creelman; Reception Committee, Lt.-Col. McGillivray.

It was decided to have a breeder and butcher as judges in cattle. Wm. Crealock, Toronto, was appointed the butcher judge.

For Cheese and Butter Makers

Provide Ice for Creameries Now

The Dairy Division at Ottawa has issued a circular to the press strongly urging owners of creameries to store ice for next season's work. This is all the more urgent in view of the fact that several applications for the government bonus of \$100 had to be refused last season because no ice had been provided. Moreover, there were a number of complaints during the past summer that butter sent in refrigerator cars was found on reaching Montreal, to be at a higher temperature than the cars themselves, thus showing that it had not been properly cooled at the creamery before being shipped. Professor Robertson stated at Brantford that orders would be given the railway authorities another season not to take butter on refrigerator cars unless it were at a temperature of 40 degrees or under when brought to the shipping point.

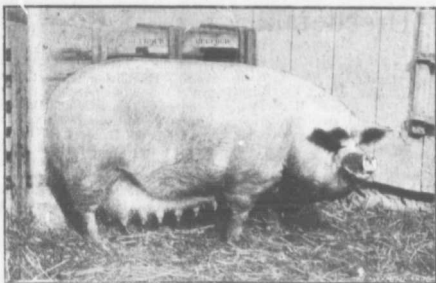
Creamery men who neglect to provide ice-houses and cold storage rooms and to provide material for keeping them at the proper temperature for storing butter, stand to lose a lot of money next season. And right well they should. Ice, ice-houses and cold storage rooms are essentials in the successful operation of a summer creamery. To neglect these is to put the business in jeopardy and to run the

risk of bringing serious loss to the patrons, and at the same time greatly injuring the reputation of Canadian dairy butter.

Plans for ice-houses and cold storage at creameries can be had by application to the Department of Agriculture at Ottawa. If the work is done in compliance with the departmental regulations a bonus of \$100 will be granted. There is, therefore, no excuse for neglect in this matter. If you have not made provision get to work at once.

Dairy Instruction in Eastern Ontario

The Dairymen's Association of Eastern Ontario have issued a circular to factory owners and makers outlining the work of instruction for 1903. Instructors will have charge of only twenty-five to thirty factories. No factory will receive instruction unless it contributes \$15. All instructors will be under the direction of General Instructor Puhlow, who will be responsible to the Department of Agriculture. A special course for instructors will be given at the Kingston Dairy School before the season opens. By thus systematizing the work, it is hoped to greatly improve the quality of cheese made.



Oak Lodge Julia 7th—380—bred by J. E. Brethour, Burford, Ont. This sow sold for \$23 at the Gravelly C. sale last August to H. N. Hills, Gambier, Ohio, the highest price ever paid for a pig at a public auction in Canada. This sow won the championship at the Van-Amer can in 1901.

The Bacon Hog on Top

It would be well for Canadian farmers to remember that the Americans are year by year giving more attention to the bacon hog. They are buying more hogs of the bacon type than they did five years ago.

The Nebraska Experiment Station has just issued a bulletin giving the results of experiments in feeding hogs of the fat and bacon types. The reasons for issuing this bulletin are set forth in the first sentence as follows:

"The increased demand for pork cured as bacon has led to the development of the so-called bacon breeds of swine, by which is meant hogs that will produce a maximum amount of lean meat with a minimum of fat."

In the experiments Tamworths represented the bacon types. Two lots were used, representing two litters. The pigs (5 lots in all) were fed for six weeks, each lot being given one-quarter acre of alfalfa pasture and the same grain ration, namely, ground wheat 40 per cent., wheat shorts 40 per cent., and ground corn 20 per cent. The pounds of grain consumed per pound of gain by each lot were as follows: Duroc-Jerseys, 3.76; Poland Chinas, 4.22; Berkshire-Tamworth cross, 3.84; first lot of Tamworths, 3.53; second lot, 4.18.

A second feeding experiment of eight weeks was also conducted with the following result, the ration being the same: Duroc-Jerseys, 4.96; Poland Chinas, 5.07; Berkshire-Tamworth cross, 4.68; first lot of Tamworths, 4.90; second lot of Tamworths, 5.52.

Both experiments show that the first lot of Tamworths more than held their own in cost of a pound of gain. The second lot, it is explained, were older and larger hogs than in lot one, which will explain their increased cost of gain. The Berkshire-Tamworth cross in the second experiment was the lowest in cost of gain.

The value of this experiment lies in the fact that it was conducted in a state where the thick, fat hog

predominates, and therefore there could be no prejudice in favor of the bacon type, as some claim exists in this country. And yet the bacon type stands on top as to the economical production of a pound of gain.

Skim Milk for Pigs

I wish to call the attention of dairy farmers to the high value of skim milk for furnishing bone building material for the growing pig. One hundred pounds of milk contain seven-eighths of a pound of bone material. Nature intended milk for the young calf; that is, the cow's milk is for the purpose of nourishing a calf; now if you feed that to a pig, there is the material in that milk which is intended to build up the bone of the calf, and it will build up the bone of the pig.

When we use corn we use a material that is weak and lacking in bone material; the exclusive feeding of corn gives us pigs that have weak bones. The supplementing of corn with skim milk gives us a combination food, which is very strong in bone building material, and the farmer should not forget that fact. You who complain of too fine bone, bear this in mind. When you come to the fattening process you don't need that bone-making material so much, and you don't get its value to yourself so much as with the younger pigs.

Aim then to use skim milk for your growing pigs, but you must be careful not to use too much. From one to three pounds of skim milk with each pound of grain is about the right proportion. If you use 8 or 9 pounds of milk to each pound of grain you don't get the milk.—Prof. Henry, Wisconsin.

Address Wanted

Will Mr. Alex. Foulston, Simcoe Co., Ont., kindly send his postoffice address to this office? He was kind enough to say a good word for the Farming World which appeared on page 17, December 15 issue. It will be to his advantage to send his address.

Spreading Manure in Winter

In these days of scarce labor the farmer should economize his time as much as possible. He can do this by doing in the winter many things that might be left till the busy season. Why not get the manure on the land in the winter? It will save a lot of work later on.

Many farmers do not haul manure on the land in winter because they think a large share of it will be wasted. If, however, the land is level, there should be no waste by hauling manure directly from the barns and spreading it on the fields. If the field were hilly, there might be some loss by washing in the early spring before the frost is out. But even here the loss is not as much as one would naturally suppose. Manure wastes most by heating and by leaching. If it were to be drawn to the field and dumped in piles there might be some waste by heating; but where spread directly from the wagon, this loss will be avoided. Where manure is left in the barnyard there is great loss by leaching. The liquid portion of the manure is worth at least twice as much as the solid, and a large portion of this is leached away by being left for many months in the yard, exposed to rains and snows.

The liquid portion contains the greater part of the potash. Through lack of potash many fields of heavy grain lodge and become nearly worthless. Manure, when first made, is the best. There is no way that it can be put on the ground as cheaply as when drawn directly from the barn, where the snow does not interfere with spreading it evenly.

If manure cannot be hauled directly to the fields, some provision should be made to store it properly, so that there will be as small an amount of waste as possible. The farmer cannot afford to neglect this. The manure on the farm is of the utmost importance in maintaining the fertility of the land.

Short Crop of Garden Seed

It is always good advice to buy garden seeds early. The season of 1903 will be just the time to practise this advice, as it is reasonably certain that some of the stocks will be sold out very early; in fact, for cucumber and melon seed, the market is already bare, and orders are filled at a 20 per cent. ratio. Peas and late sweet corn are also a very short crop, some varieties of peas, notably Gradus, are not for sale at any price. The stocks of other seeds, as onion, beet, etc., are about the average. Radish is more plentiful than last season. With \$2 per pound for cucumber and melon seed, it won't pay to plant for the bugs, and with \$10 per bushel for peas, it is ditto for the lice. So first come, first served, is the motto; get your seeds early.—Ed. Van Allen, Albany Co., N. Y.

With the Horse Breeders

Canadian Horse Breeders

The annual meeting of the Canadian Horse Breeders' Association was held at Grand's Repository on the evening of February 5th. There was a good attendance and the meeting was one of the most successful ever held. Dr. Andrew Smith presided. Secretary Wade's report was satisfactory. He referred to the fairly successful year the horsemen had had. Many thanks were due Walter Harland Smith for his kindness in giving the use of his repository free of charge for the purpose of the stallion show which had been such a great success. The total receipts of the year were \$5,297.73, and after paying all expenses there was a balance on hand of \$4,680.44.

A communication from a New York lawyer asking for some assistance in defending a case against U. S. Custom authorities in connection with a recent importation of horses was very properly laid on the table. \$50 was voted towards the live stock association car and \$250 to the Toronto Industrial Fair. A resolution was adopted favoring a Dominion Fair for 1903.

A resolution was unanimously adopted asking the Government to place the same duty and the same restrictions upon horses coming into Canada from certain foreign countries as such foreign countries impose upon horses brought into their country from Canada.

This resolution brought out much discussion, but all were agreed that a serious grievance existed which should be removed at once if Canada expected to make any headway in the breeding and raising of high-class horses. A committee, comprising Robt. Beith, M. P., Lt.-Col. McCrae, Lt.-Col. McGillivray, Wm. Smith, and Dr. Andrew Smith, were appointed a deputation to wait on the Government at Ottawa and present the views of the breeders.

On motion of Lt.-Col. McCrae, a resolution was passed authorizing a special committee to expend up to \$100 in securing specialists in horse-breeding from the United States and elsewhere to give lectures to the institute workers and expert judges during the judging class to be held at the Agricultural College the last two weeks of March.

The directors of the Association comprise the representatives from the various allied associations as follows:

Thoroughbred Association—Dr. A. Smith, Toronto; Wm. Hendrie, Jun., Hamilton; Harness Hunters and Carriage Horse Society—W. E. Wellington and Ald. O. B. Sheppard, Toronto. Hackney Horse Breeders—Thos. Graham, Claremont, and H. N. Crossley, Rossau. Trotting and Pacing Horse Association—George Pepper and Samuel McBride, Toronto. Clydes-

dale Horse Association—Peter Christie, Manchester, and F. Richardson, Columbus. Shire Horse Association—James Henderson, Belton, and J. M. Gardhouse, Highfield. Draught Horse Association—Thos. McMillan, Constance, and James Mitchell, Goderich. Canadian Pony Society—H. M. Robinson, Toronto, and E. C. H. Tisdale, Beaverton.

DIRECTORS MEET

At a subsequent meeting of the directors the following officers were elected:

Dr. A. Smith, president; H. N. Crossley, first vice-president; Thos. Graham, second vice-president, and Mr. Henry Wade, secretary-treasurer.

The representatives to the Toronto Horse Show are Messrs. McBride, Gardhouse, Christie, Hendrie, Robinson, Wellington, Ald. Sheppard, Crossley, Pepper, and Dr. A. Smith.

The arrangements with the Military and Hunt Clubs in managing the Spring Horse Show will be the same as last year, only \$1,750, instead of \$2,000, will be granted for prizes.

Clydesdale Horse Breeders

A well-attended meeting of the Clydesdale Horse Breeders' Association was held at Grand's Repository on the evening of Feb. 3. The President, Lt.-Col. McCrae, was in the chair. The report of the Secretary-Treasurer, H. Wade, showed that there were 694 registrations and 278 pedigrees transferred from the Scottish Herd Book. The total showings increased from 132 more than in 1901 and 358 over 1900. More importations of Clydesdale horses were made than in any previous year. A large number of Canadian-bred mares were recorded. One team with a purely Canadian pedigree had sold for \$1,200. Vol. XI of the Stud Book had been sent out. The Secretary recommended that a fee of 50 cents be charged for transferring animals from the Scotch appendix to the regular Herd Book. The receipts of the year totalled \$2,194.96, and after paying all expenses there was a balance on hand of \$1,051.10.

The proposal for a Dominion Exhibition for 1903 was endorsed and several matters resulting from correspondence left over for the new board to deal with.

The election of officers resulted as follows: Wm. Smith, Columbus, President; F. W. Hodson, Ottawa, First Vice-President, and Mr. Henry Wade, Secretary-Treasurer. Provincial Vice-Presidents, O. Sorby, Guelph; Robert Ness, Howick, Quebec; J. A. S. McMillan, Brandon, Man.; J. A. Turner, Calgary, Alberta, and A. Mutch, Lumsden, Assa. The directors are Thos. Graham, Claremont; A. G. Gorm-

ley, Unionville; John Vipond, Brooklin; John Bright, Myrtle; P. Christie, Manchester; A. Boag, Churchhill, and J. M. Gardhouse, Highfield. Delegates to the Toronto Exhibition, Robert Beith, M.P., and William Smith; Ottawa Fair, Peter Christie and David McCrae; Western Fair, Alex. Innes and James Henderson; to the Horse Breeders' Association, William Smith and Peter Christie.

The new President, on taking the chair, referred to the organization of the Association seventeen years ago. Lt.-Col. McCrae was its first President and he was the second. It looked now as if history were repeating itself, as he was again succeeding Mr. McCrae. He referred to the great need for some central meeting place for the live stock interests and advocated the erection of a large building on one of the government properties in Toronto, where the Department of Agriculture could be located and stock shows held.

An animated discussion took place in regard to the regulations in force in bringing horses from the United States into Canada. The unanimous opinion of the breeders was that something should be done towards equalizing the regulations as between Canada and the United States. At the present time the Americans had things all their own way and could whip any kind of cull stock into Western Canada as registered stock. A deputation consisting of Messrs. R. Beith, M.P., R. Ness, D. McCrae and the President, was appointed to interview the Government in the interests of the Canadian Horse Breeders.

Shire Horses

Mr. W. E. Wellington presided at the meeting of the Shire Horse Breeders' Association, held on Feb. 5. The secretary-treasurer's report showed a very satisfactory state of affairs. The president's address dealt with the past year's work of the association, and urged horse breeders to take a more active interest in the work.

The following officers were elected—President, W. E. Wellington; Vice-President, James M. Gardhouse, Weston; Second Vice-President, William Hendrie, Jun., Hamilton; Directors—Messrs. James Henderson, John Gardhouse, H. N. Crossley, J. B. Hogate, D. Wilkie, Barry and Bawden; Secretary-Treasurer, F. C. Wade; Delegates to the Industrial Exhibition, Messrs. H. N. Crossley and John Gardhouse; Western Fair, London, Messrs. F. C. Wade and J. B. Hogate; Central Fair, Ottawa, F. C. Wade; Horse Breeders' Association, Messrs. J. M. Gardhouse and Henderson.

The Pony Men

The Canadian Pony Society met on Feb. 4, and elected the following officers—President, Major A. B. Lee; Vice-Presidents, W. H. Knowlton, Dr. S. Hodgson, Directors, T.

Graham, E. C. Tisdale, W. R. Davies, T. V. Foster, H. N. Crossley; Treasurer, Gerald Wade; Secretary, H. M. Robinson; Directors to the Breeders' Association, H. M. Robinson and E. C. H. Tisdale; to the Industrial Exhibition Board, H. M. Robinson. A \$25 cup was offered to the Industrial Fair for the best pony and outfit, the cup to be won three times by the same exhibitor. For the Spring Show \$25 was set aside for the best saddle pony, this cup also to be won three times.

Hackney Horse Breeders

The Canadian Hackney Horse Breeders' Association met on Feb. 3 at Grand's. The Secretary's report showed an increase of 20 in registrations, an increase of funds and general prosperity. The meeting endorsed the proposal for a Dominion Exhibition in 1903. A silver cup valued at \$30 will be given at the Calgary Show, \$50 to the Toronto Industrial and \$50 to the Toronto Horse Show.

The officers for 1903 are: T. A. Graham, Claremont, President; E. C. Attrill, Goderich, First Vice-President; E. C. H. Tisdale, Beaverton, Second Vice-President, and Henry Wade, Toronto Secretary-Treasurer. The directors are H. N. Crossley, Rosseau; R. Beith, M.P., Bowmanville; R. W. Davies, H. M. Robinson, Dr. Andrew Smith, R. Bond, Geo. Pepper, all of Toronto; J. Miller, Stonyville, and Dent Dalton, Delhi. The provincial representatives are: R. Davies of Toronto, Jas. E. Cochran of Hillhurst, A. M. Rawlinson of Alberta, J. A. S. McMillan of Brandon and J. R. Frink of New Brunswick. The representatives to Fairs are E. C. H. Tisdale and George Pepper to Toronto, Adam Beck, M.P.P., and E. C. Attrill, Western Fair, London; R. Beith, M.P., Ottawa; R. Ness, Montreal Spring Horse Show; John Macdonald, John Holderness and Robert Bond, Woodbridge. Thomas Graham and H. N. Crossley were appointed delegates to the Horse Breeders' Association.

Harness, Hunter and Saddle Horses

Thanks to the generosity and hospitality of the president, Walter Harland Smith, the members of the Harness, Hunter and Saddle Horse Society were treated to a dinner on the occasion of their annual meeting on February 2nd. The dinner was given in the show-room at Grand's and fully one hundred were present. A number of addresses were given by the horsemen present.

The election of officers resulted as follows: President, Walter Harland Smith; First Vice-President, Ald. O. B. Sheppard; Second Vice-President, T. A. Crow; Directors, W. E. Wellington, J. J. Dixon, Thomas Graham, H. N. Crossley, Robert Bond,

S. B. Fuller, Geo. Pepper, W. T. Merry, Thos. Hodgson, Adam Beck; Treasurer, Hy. Wade; Secretary, H. J. P. Good; representatives to the Industrial Exhibition Association, W. Harland Smith, W. T. Merry; representatives on the Board of the Horse Breeders' Association, W. E. Wellington and Ald. O. B. Sheppard.

A resolution was passed thanking the Industrial Exhibition As-

sociation for increased accommodation and approving the holding of a Dominion Exhibition this year. It was resolved to give a \$50 cup for the best harness horse at the Industrial Exhibition this year. Mr. T. A. Crow volunteered to give a \$50 cup for the best saddle horse, and Ald. O. B. Sheppard said he would give a solid silver cup for a class to be decided upon by himself, the President and Vice-President.

Of Interest to Live Stock Men

Holstein-Friesian Breeders

The annual meeting of the Canadian Holstein-Friesian Association was held at the Palmer House, Toronto, on February 3rd. There was a large attendance, and the meeting was one of the most successful ever held by the Association. The report of the secretary-treasurer was most satisfactory. The total receipts for 1902 were \$2,683.81, and the total expenditure \$1,499.41, leaving a balance on hand of \$1,184.40. The total registrations were 883, or 189 more than in 1901. The bulls registered now total 2,612, and cows 4,039. Twenty-six new members were added during the year.



A Prize Winner at the Guelph Winter Fair, 1902. Shown by John Brown, Galt, Ont.

After the report was adopted, the president, Mr. C. A. Gifford, introduced Prof. Dean, of the Agricultural College, who gave an interesting address on official tests. He suggested improvements in the methods of conducting yearly tests by breeders, by having some competent official appointed who would visit any breeders' stables where he saw fit and check the weights of milk and test the milk, if necessary.

Considerable discussion took place as to the advisability of having one or more judges at the larger fairs. The majority were in favor of continuing the one-judge system. The Dominion Government was memorialized to appoint a railway commission.

The officers for 1903 are: President, H. Bollert, Cassels; First Vice-President, James Rettie, Norwich; Second Vice-President, Matthew Richardson, Caledonia; Third Vice-President, R. S. Stevenson, Ancaster; Fourth Vice-President, A. C. Hallman, Breslau. Directors—B.

Mallory, Frankford, and Edward Adams of Carleton West. Auditors—J. H. Patten of Paris, and Wm. Suhring of Sebringville. Secretary G. W. Clemens of St. George was re-elected. The representatives to the different fairs' boards are the same as last year. A committee was appointed to select judges for Holsteins to be recommended to the different fair boards.

Manitoba Live Stock Judging Class

In addition to the information given in last issue by our Western correspondent as to the live stock judging course at Winnipeg, Feb. 20-27 next, Live Stock Commissioner Craig sends us the following on the same subject:

All classes of live stock, including light and heavy horses, beef and dairy cattle, sheep and hogs will receive attention. As far as possible animals representative of the prominent breeds of stock most popular in Manitoba will be procured for illustration purposes, and one day or more will be devoted to a study of each class of stock with the animals before the audience. These classes will be open to all, and it is expected a large number of the breeders of the province as well as farmers' sons, will take advantage of this stock judging school. Members of the Territorial Live Stock Associations will also be welcome.

Live Stock Dealers

At the annual meeting of the Dominion Live Stock Dealers' Associations, held recently in this city, resolutions were adopted asking for a railway commission, for further steps to be taken towards securing the removal of the cattle embargo and commending the action so promptly taken by the Hon. Mr. Fisher, to prevent the introduction of the foot and mouth disease into Canada.

The Dominion Grange

The annual meeting of the Dominion Grange was held at the Albion Hotel, Toronto, on Feb. 4-5. About fifty were present. The chief event was the address of the President, Jabel Robinson, M.P. He dealt with the tariff, the Canadian coal fields, taxes, Government lobbying, transportation and rural delivery. He strongly advised that a trial of rural free delivery be made by the Post Office Department.

New Brunswick Farmers and Dairymen

Important Information for Maritime Farmers—Fruit Culture and Stock Breeding

The New Brunswick Farmers' and Dairymen's Association held two meetings this year, one at Woodstock, Carleton Co., on Jan. 26th and 27th, and the other at Sussex. Formerly the association met at Fredericton, but only a comparatively few people were reached. This year a change was made with a view to reaching more people and the success of both meetings amply justify the change.

When the President, Mr. Jos. R. Taylor, took the chair at Woodstock, he was greeted by a packed house. He spoke of the advancement made along agricultural lines in the province during the last year and of the success which had attended the efforts of the association. The association was of value to the farming community in the way of disseminating information which in many cases he knew was being put to practical use.

Replying to the address of welcome by the mayor, the Hon. L. P. Farris, Commissioner for Agriculture, congratulated the county of Carleton on securing the association. He referred to the great agricultural possibilities of this part of the province which were far greater than those of any other section, although he did not think that Carleton was taking advantage of them as she might. Too much hay and oats were shipped out of the country in the raw state and not enough attention was paid to dairying and pork production. The output of cheese and butter of the province during the last year amounted to over \$300,000. Pork production was fast on the increase and a movement is now on foot to have a pork packing establishment in operation in the province in the near future. His department, Mr. Farris said, was anxious and willing to do all they could to assist the people and he believed that the system of institute work established was of great importance and was doing much good.

IMPROVEMENT OF AGRICULTURAL FAIRS

Mr. F. W. Hodson, Dominion Live Stock Commissioner, spoke upon the "Improvement of our Agricultural Exhibitions." The work now being done by the Agricultural Societies did not extend far enough, for the \$1,000 which they were annually receiving from various sources. The objects of the founders were:

- 1.—Importing and otherwise procuring seeds, plants and animals of new and valuable kinds.
- 2.—Offering prizes for essays on questions of scientific inquiry relating to agriculture, horticulture, manufactures and the useful arts.
- 3.—Awarding premiums for excellence in the raising of, or the introduction of stock, etc.
- 4.—Carrying on experiments in

the growing of crops, the feeding of stock or other branch of agriculture, or by testing any system of farming through arrangements with one or more farmers of the section in which the society is organized.

Clause one, the speaker said, had received very little attention, excepting in the Maritime Provinces. He did not think it was advisable, however, to change breeds as had been done in the east. A Shorthorn bull should not be purchased by a society one year and a Jersey or Ayrshire next. He advised making a selection as to what breed would best suit the conditions under which we are to work. It was by following the proper system that England has become famous for having the best breeds of cattle in the world. It has been reported to me, said Mr. Hodson, by Institute speakers sent out by my department that some societies in the Eastern Provinces, had done more harm than good, because of changing breeds each time they purchased a bull and the result has been that there is now a breed of cattle which is practically valueless to the people.

Clause two has been entirely overlooked although it is a very useful feature. As to clause three he thought a great improvement should be made. Clause four has been introduced into Ontario during the last year.

DOES NOT APPROVE OF HORSE RACING

Mr. Hodson did not approve of horse racing, but thought that hurdle and water jumping by farmers' sons should take its place. Teaching the art of riding and driving should be a feature of all our exhibitions. A gymkhana would be of valuable assistance in attracting and educating those who attend our shows.

The judging of animals by expert judges was doing much toward advancing the quality of our shows, by fixing proper ideals in the minds of exhibitors.

The speaker next touched upon exhibitions run on purely educational lines. He instanced the Provincial Winter Fair, and showed the standing in 1890, as compared with what it is to-day. He strongly advised getting the boy interested in the fairs if we expected to make them popular. It is to the interest of every man to help the work along.

SOILS AND THEIR CULTIVATION

This was the subject of a practical and instructive address by Mr. C. A. Zavitz, of Guelph. Samples of seed and clay were shown to illustrate his address, the speaker giving the chief characteristic of each and the effects of a soil being made up largely of sand, which he claimed was open and any fertilizing material added would readily

pass down through it and be lost. Beside this, it would draw the heat and the soil moisture would evaporate. If clay formed the larger part of our soils, these losses would not so readily occur. These two substances are not available plant food. A sample of humus was shown, which should show in the soil from 3 to 10 per cent. This substance would hold plant food and moisture from leaching down beyond the roots of plants.

Cultivation has much to do with making plant food available and he strongly urged upon farmers the necessity of doing the work properly in order to get the best results.

A lively discussion took place at the conclusion of Mr. Zavitz's address, which brought out much valuable information.

DAIRY FARMING AND COOPERATION

The afternoon session of Jan. 27th was addressed by Mr. C. T. Almond and J. F. Tilley, Dairy Superintendents. Mr. Almond, talking upon the dairy industry from the farmer's standpoint, denounced the practice of selling the raw materials from the farm and not replacing the fertility drawn from the soil by these crops. In King's County, where conditions were not so favorable as in Carleton, factories are run on strictly co-operative lines, which placed the farmers in a position to obtain all there was in the business. In order to get the greatest profits the best animals should be secured and then fed and cared for in a thorough manner.

Mr. Tilley followed, taking up the lesson and results of co-operative dairying in New Brunswick. In 1890, only a few cheese factories were in existence, all having a system of their own for manufacturing, with the result that none of the product could be exported, as the quality was not such as would command the highest prices.

The counties where the dairy work is operated upon strictly co-operative lines are the counties that are making the greatest advancement, because of the increased profits, and so long as the farmers are content to allow the factories to remain in the hands of private parties just so long would they be unsatisfied with profits. If patrons expected to get their cheese and butter manufactured cheaply, they must send a large supply of milk. The cost of operating and maintaining a factory was practically the same when a

SUNLIGHT SOAP

REDUCES EXPENSE

\$5,000 Reward will be paid by Lever Brothers Limited, Toronto, to any person who can prove that this soap contains any form of adulteration whatsoever, or contains any injurious chemicals.

small quantity was received as when a large quantity. A general discussion took place on these two addresses, bringing out many valuable points.

FRUIT CULTURE

The evening meeting was addressed by W. Saxby Blair, horticulturist, Experimental Farm, Napan, N. S., on "Fruit Culture." Much stress was laid on grafting and spraying. Bordeaux mixture was of invaluable assistance to orchardists if properly mixed. When improperly done the blue stone would settle to the bottom very quickly, when the mixture was of little use.

W. T. Macoun, Horticulturist, Central Experimental Farm, followed Mr. Blair confirming him in the points brought out. He thought a grand work could be done in developing this branch of farm work, if it was intelligently carried on. He referred to the varieties of apples best suited to the country and markets, giving the chief characteristics of each variety. Markets and marketing was the next subject discussed by Harold Jones, of Maitland, Ont. He told of the market requirements and the prices obtainable if they got what was asked for.

POTATO CULTURE

Mr. Macoun also talked on the principles of potato culture, giving some valuable information—the preparation of land, fertilizing, seed, etc.—explaining how the plant got its food through the leaves and the effects of destroying them by the use of too strong a solution of Paris green. The speaker referred to several experiments made at the farm at Ottawa, which had given very gratifying results.

BREEDING AND FEEDING DAIRY COWS

G. H. Gridale's address on the selection, breeding and feeding of profitable dairy cows, was one of the most instructive lectures during the series. He emphasized the great necessity of making proper selection of breeding animals. A good cow could easily be made unprofitable by improper feeding. A standard should be set for your herd, and if by proper feeding this could not be reached, the poor cows should be got rid of. He strongly advised keeping daily records, for this was the only way the profits or loss could be determined. No man could successfully carry on a business without keeping an account of the expenditure as well as the receipts.

Mr. F. W. Hodson's address on pig feeding was very thoroughly discussed from all points. The speaker referred to the proper type to be fed, which would, in a great measure, determine the profits at the end. He had no use for the long razor-back, whose head would balance the rest of his body. This class could not be profitably fed, and was not wanted by the trade.

SEEDS AND SEED SELECTION

Mr. G. H. Clark, chief of seed division, Ottawa, spoke on this topic, showing the great necessity of having good seed. From his charts he was able to show the audience the results of his seed investigation last season, samples of which had been secured from local merchants. The test made by Mr. Clark was for vitality and quantity of pure seed. In some cases, he found as high as 35,000 weed seeds per pound. He strongly advised the farmers to purchase nothing but the best quality if they wanted good results. Mr. Clark's address was well received and thoroughly discussed.

Mr. Gridale again spoke on the production of beef cattle, referring to the many experiments he had made with different breeds and different foods. He spoke of the uniformity of the Shorthorns, as

well as the many good qualities of the Herefords, Devons, etc. He did not think it advisable to undertake to make beef and milk from the same cow. The question was pretty thoroughly discussed by B. M. Fawcett and others.

THE SUSSEX MEETING

The officers for the ensuing year were elected at Sussex, where a two-days' session was held at which the same speakers and addresses were given as at Woodstock, together with addresses by Harvey Mitchell, Dairy Superintendent, and by Frank C. Hare, on profitable poultry farming, both of which were excellent.

The officers for 1903 are: President, Mr. C. F. Rogers, Woodstock, N. B.; Vice-President Geo. J. Dickson, Napan; Corresponding Secretary, Thos. A. Peters, Fredericton; Recording Secretary, A. G. Dickson, Napan; County Vice-Presidents—St. John, E. R. Patchell; Kings, John Raymond; Westmorland, W. W. Fawcett; Albert, E. C. Gidert, Charlotte; Geo. Mowatt; York, P. C. Powys; Carleton, C. L. Smith; Sunbury, N. Wilmot; Queens, S. L. Peters; Northumberland, Clifford Galloway; Victoria, David Currey; Madawaska, Peter Colin; Gloucester, David Richards; Restigouche, John Dawson.

Breeding in Bees

During the last few years good stock has again come to the front. The prices of twenty or thirty years ago have not been realized, it is true, but there has been encouragement in breeding animals of good blood. All along the line from the stallion to the barn-yard fowl we in a measure recognize the value of ancestry, and breeding. I say all, yet is it all? Are there not many who keep a few colonies or hives of bees, to whom a bee is a bee neither more or less? More than that, are there not those who keep a large number of colonies, who as far as practice is concerned, put no value on the variety or strain of bee? Why is it? Partly carelessness and thoughtlessness. If the principle of blood applies to one line of farm stock why not to all? To wait for an answer to the question would mean to forever halt here.

We may speak of the manifest difference in appearance in cattle

and horses and so on, yet the same is true of bees. Many may answer, yes as to color, but there the perceptible difference ceases. I say no. We come across many who have powers of observation sufficient to distinguish the white man from the Indian and the negro, but how often we meet those to whom one Indian appears the same as another, to whom a negro is simply a negro; and many make a constant comparison between certain people of their own race, seeing but little dissimilarity when the close observer sees but little resemblance. From such we would not expect the faculty of seeing marks of difference between bees of the same color. But bees vary in color, shape of body, manner and characteristic just as greatly as any other stock.

After some twenty years of experience with bees, and after having tried at great expense many strains of bees, I do not hesitate to

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say that bees can be judged by outside appearance, action, when on their feet and on the wing, just as correctly as a horse. There may be difficulty in deciding between certain ones, but the same holds good in dairy cattle and others. We know that one cow will give her owner twice the return another will. The same holds good with bees. Again and again I have had stocks, who, on account of individual characteristic, have given twice the return of that of others.

In bees we want returns in honey, beeswax or bees. I had one strain of bees which gave me just about the same as another, but one gave me an increase of one colony or 100 per cent whilst the other gave only the honey. This is why I add bees to the list. Short lived bees are not desirable. Good honey gathering, longevity, not easily swarming, gentleness, good defenders of their home and stores and hardiness, are very desirable points. Bees that do not readily run on the combs, when smoked, and are not too easily discouraged from brood rearing are also very desirable.

Wintering qualities also vary much in bees. To get the best results in farming operations we must have the most suitable stock and then manage it properly. The same holds good with bees. What is a dollar or so paid for a good queen when we can have twenty, thirty or forty more pounds of honey in the season from a colony. Why not buy a cow for twenty dollars, and merely because she is a cow and will give some milk, when with the same care and food another will give you twice the return to milk?

To get the best results the beekeepers in a district must unite and take action, as the virgin queen is impregnated on the wing and may meet the drone from an apiary a mile or more away. Once mated, as keepers, we all know that during the lifetime of the queen there is no second impregnation.—R. F. Holtmann, Brant County, Ont.

The Value of Clover

We must grow more clover to save buying feed; to lessen fertilizer bills; to improve our farms and the health of our live stock.

Clover does all this, more universally, perhaps, than any other of the family of legumes—that great and good family of plants that gather part of their nitrogen from the atmosphere. They are the plants that seem willing to work for their living. However, the real credit for hard work should be given not to the clover, but to the millions of bacteria that live in the nodules found upon the roots of clover, beans, peas, etc. These have the power to transform the free nitrogen of the air—which plants cannot use into nitrates, the form that all plants can use. The great reason why white, red and sweet clovers, alfalfa, beggar weed,

peas, beans and vetches, are soil enrichers is that these little bacteria like to live upon them rather than upon the roots of other plants.

NECESSARY SOIL CONDITIONS

Sometimes the bacteria will not live even upon the roots of the plants mentioned. This occurs when the condition of the soil is not right. If the ground is too wet, the bacteria are drowned; if it is too hard and compact they are smothered; if it is sour they are poisoned; if too dry they are choked. Where these conditions prevail it is folly to waste good seed trying to grow clover. The seeds cannot grow well where the bacteria will not thrive.

Many a man has tried over and over again to get a catch of clover and failed, when if he had made the soil conditions right the clover might have run in of itself.

Almost any soil can be made to grow clover. If it is too wet, under-drain or ditch it. If too dry and hard, add vegetable matter, by plowing under a crop of cowpeas, rye, or strawy manure, to make it more spongy and better able to hold moisture. If it is too light and dry and is full of vegetable matter, compact thoroughly with roller when seeding and have plenty of available plant food for the clover to get a quick start. It it is too sour, harrow in twenty bushels of lime per acre, or a ton of wood ashes, or to tons of stable manure. It is better to make a small piece of land right and get a good stand of clover than to waste seed on large areas.

THE VARIOUS KINDS

The clover family is a large one and adapts itself to a wide range of conditions and uses. The medium red clover is usually best for a hay crop on good clover soil, the alsike for wet or heavy land and mammoth clover for a green crop to plow under. The crimson clover for a catch crop where it will grow, alfalfa for well-drained limestone soils for soiling or for hay and white clover for permanent pasture.

Clovers differ widely in their season of ripening and length of life. Crimson clover is a one-year plant; red clover a two-year plant, while alfalfa will live for years. The farmer who seeks to make use of these clovers in the right way, will find that his farm is growing richer and his stock healthier and more productive.

They are doing much for us. They would do the same for you. Always keep clover seed on hand as you would flour in the pantry. Make the waste places glad by a covering of green.—J. E. Rice.

Miss Lulu Finnegan—"I will give you the answer in a month, Pat."

He—"That's right, me darlint; get plenty av time to think it over. But tell me wan thing now—will it be yes or no?"—Judge.

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In the Poultry Yard

How to Run an Incubator

1. The Incubator.—Procure one of reliable manufacture. Don't experiment with a machine because it is cheap. Either hot air or hot water are good, providing they are made right.

2. Place for the Incubator.—Any good, dry cellar is the best place, as it is more easy to keep an even temperature there, which is very essential. The machine must be placed perfectly level, especially if it be a hot water machine. This procures a good circulation of water and thus evenly distributed heat in the machine. Have the floor either ground or cement. This will prevent the possibility of jarring.

3. Care of Lamp.—Have a safety lamp. Central draught is good. Trim and fill twice a day.

4. Thermometer.—Have a tested thermometer. This is important.

5. Eggs.—Be sure they are fresh, not over ten days old, if possible; fresher if convenient; the fresher the better. If kept longer, keep in a cool place (40 deg. to 50 deg.), and turn every day. Place the eggs on their sides in the machine.

6. Temperature in Machine.—Exercise great care during whole hatch, but especially during the first week, as this is the most delicate time. During first week, keep the temperature at 102 deg., never over 103 deg. Some variation either way is not necessarily fatal if not too prolonged, but don't run any unnecessary risks. During the next two weeks run the machine at 103 degrees. Evenness of temperature is the principal guarantee of success.

7. Turning the Eggs.—Turn twice a day for first two days, then once a day till the 19th day, after which close the machine and leave closed till most of the chicks are out. In turning the eggs, change position of egg trays by alternating from one side of the machine to the other.

8. Moisture.—If moisture pans are supplied with the machine, put water at 103 degrees in, on the 17th day and remove when chicks begin to come out.

9. Ventilation.—Ventilators should be open during entire hatch. If the room is cold, close them partly, but never wholly. Good strong chicks cannot be hatched in stale air.

10. Airing Eggs.—In very cold weather do not air at all. If temperature is moderate commence to cool on 4th day for a few minutes every morning till the 17th day, then cool for 20 minutes in room at 60 degrees. Close doors of hot water machine and cool eggs outside. In hot air machine, cool them by leaving door open with eggs in the machine. Keep thermometer on the eggs and don't cool below 85 degrees. In general 90 degrees to 92 degrees.

11. Testing Eggs.—Have an egg tester. Don't go it blind. Test

on 7th to 9th day, according to color of egg shell. Remove all infertile eggs. It will give the rest a better chance. An egg containing a live germ, after being incubated a week is quite evenly clouded, but lighter at the small end, has the air space at the large end clearly defined, and the line marking the air space remains fixed as the egg is turned before the light. An egg containing a dead germ may show more faintly clouded than a fertile egg, as if less advanced, or the germ may be discernible, black, and unstable, not dark red, and in a fixed position, as in a live germ. As decomposition proceeds and the egg becomes decidedly rotten, it appears more unevenly clouded and the line of the air space tends to remain level as the egg is turned before the light. A novice must expect to make mistakes in testing, but give the egg the benefit of the doubt. Test twice, remove all infertile eggs first time, then on 17th day remove all rotten ones.

12. When Chicks are Coming Out.—Don't open the doors of machine unnecessarily. Remove chicks as soon as dry if they pant, but if it is cold, remove a few at a time as they become too much crowded for comfort.

THINGS TO BE AVOIDED

- (1) Jarring eggs while in incubator.
- (2) Too much moisture.
- (3) Too little moisture.
- (4) Too high temperature.
- (5) Too low temperature.
- (6) Cold draughts over eggs while out of incubator.
- (7) Poorly fertilized eggs.
- (8) Handling the eggs too much before the chicks come out.

Finally—Eternal vigilance is the price of success.

W. D. C., Niagara.

To Get Rid of Rats

Take a kettle with perpendicular sides, or an old milk pail. Fill about half full of chaff and then throw in some corn, cheese rinds, crusts of bread, etc., and stir it into the chaff. Put in a position so rats and mice can easily get in and out.

Feed them well in this way a week or so. Then empty the can and fill half full of water, scatter a little chaff over the surface and the rats will not know the difference. They will jump in as usual and a fight begins at once, each trying to get on the other's back to keep out of the water. This attracts the rest, thinking they are finding something good, and they jump in to get their share—to their sorrow.—J. A. Martin.

Doctor—Put out your tongue. Little Colin—No fear! I did that to the teacher yesterday and got a spanking.—The Spatula.

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Orchard and Garden

Peas and Raspberries

I grow early peas between raspberry rows. I plow a furrow half way between the rows in the fall and scatter in this furrow barnyard compost and let it lay through the winter. As soon as the ground is dry enough in the spring I work these furrows down with a harrow going several times on one strip to mix the soil and compost well together. I then sow the peas in a drill made in the centre of this prepared soil, covering the seed with a corn plow.

Every few days I go down the rows with a light harrow and just as the peas are coming up, run over them with the smothering harrow; then keep well cultivated. Peas are picked and marketed before it is time to gather the raspberries. The peas help the soil, the crop is profitable and the vines come in just right to mulch the raspberries. —A. B. Judson, Huron Co., Ont.

Effects of Liming Soils

The application of lime to soil for the purpose of increasing its productivity, is still believed by many to be in its infancy, as to the beneficial effects of such a method. Some believe that the lime itself enters into the crop as a food element, but while this is true to a certain extent, others advance the theory that it is the action of the lime on the other and more important elements that results in any benefit.

The elements of plant food, nitrogen, potash and phosphoric acid, are present in all soils in comparatively large quantities, but they are combined with what is known as insoluble or unavailable compounds. Cultivation, drainage and liming are the things that tend in a great measure to release and render available much of the plant food, while manuring the land by ploughing under green crops is also very essential.

ON DIFFERENT SOILS

The heavier and richer the soil, the greater the results from the application of lime. A drained swamp for instance, needs little or no fertilizer, being in itself a manure, but by the action of lime, the vegetable matter in the soil is more quickly decomposed and potash and phosphoric acid are liberated to a considerable extent, so the crop can easily partake of them. If lime had not been applied, the crop would have grown all to top or vine form, the nitrogen being in excess, and the other elements not properly balanced. In a lighter soil or one poorer in humus, such as a good clay or sandy loam, the application of lime will result in setting free potash and phosphoric acid, the potash because lime decomposes the silicates it is usually combined with, and the phosphoric acid by preventing it from becoming unavailable when soluble and also making it more available

or easier to take in by the growing crop.

On the lightest and poorest soils liming may not always be beneficial, but where used in connection with green manuring, it always results in great improvement. Wherever sorrel or mosses are found in abundance, it is a pretty sure indication that the soil is deficient in lime, while on the other hand, if clovers and other plants of the same class are plentiful, liming may not be required, as these plants only thrive where there is sufficient lime in the soil for their growth.

As to the plants or crops which are greatly benefited by an application of lime to the soil, there is some difference of opinion, but it is generally agreed that leguminous plants, embracing peas, clovers, beans, etc., are most benefited. Grains and grasses need less lime, but wherever they have a tendency to lodge or grow weak and spindling, lime is absolutely necessary. Many of the fruits and vegetables need lime, or the beneficial results that arise from its application. Cabbage and onions are greatly benefited, not only by its effects but by its being a destroyer of disease and insects to a considerable extent. In fact, the application of lime to the soil will result in all growing stronger and stocky and ripening much earlier than if none were to be applied.

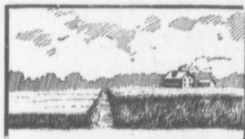
The application of lime does not lessen the necessity of applying plant food in the form of manures and fertilizers, but it renders the elements contained in the manures and fertilizers, as well as that contained in the soil, more available for plant food.

SOURCES OF LIME

There are many ways in which lime can be applied to soil. Wood ashes, phosphates and land plaster are for the most part composed of lime, but the best form of lime is burnt, or quick lime. When slaked by the action of the air, it becomes a fine white powder and should be spread on the land as soon as possible. Air slacked lime can often be bought at a much lower rate, but as it is not so quick in its effects, a greater quantity is needed to be effective.

It can be applied in early spring or fall and if put on the land and well harrowed in just before planting clover, peas, or beans, it is especially beneficial. The quantity to be applied depends mainly on the condition of the soil. If the soil is very sour, or full of humus, sometimes a ton an acre is not too much. One good liming is usually all that is necessary in five or seven years, as it is not so quickly used or washed out of the soil as are most fertilizers and manures.

Using more lime would lessen much the expense in buying fertilizers as lime is a key that unlocks the fertility of the soil.—E. Mackinley, Halifax Co., N.S.



This illustration was made from the photograph of a field of Timothy. The portion on the left was not, that on the right was, fertilized with

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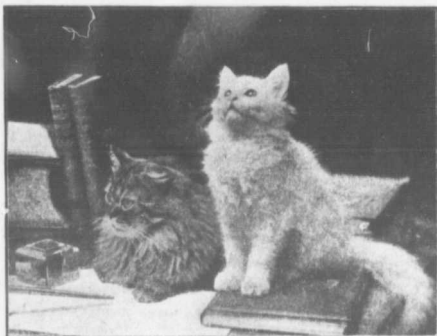
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Star Gazing.

The Promotion of Jeb Stark

A Story for Boys

Jeb Stark lay beneath the shade of the only tree in Scaly City which afforded any real protection from the blighting sun of an August day in Arizona. Not 20 feet away the tracks of the M., K. and T. road trembled before the eye in the heat haze beating up from the cinder roadbed. In the distance the lonely passenger shanty loomed out of the treeless waste, the ugliest object in an ugly prospect. Early in the morning Jeb had finished his "chores" about the shanty. For a time thereafter he had considered taking a nap in the "waiting room" on one of the side benches, but Krause, the operator, was in such an uncertain temper that a moment's reflection decided him on the wiser course of keeping out of sight. He betook himself, therefore, to the scraggy shelter previously mentioned, and carried with him into his retirement his two dearest possessions (sacred because they in themselves represented the highest pinnacle of his ambition), a battered old telegraph sounder and key and a coil of wire. Jeb was some day going to be an operator, and these were the means to his end.

With the agility born of long practice he had shinned the nearest telegraph pole and made a working splice to the main-line wire. From the moment that was done and the instrument adjusted a lonely Arizona wail in the midst of a sandy desert basked in the fascinating details of a world far beyond his ken. Absorbed in what to most people would have been dry and uninteresting enough, the routine of train orders and business messages held him interested to a point where he became oblivious to what was going on about him.

Therefore he failed to notice a thick-set man in blue overalls and jumper, who suddenly appeared out of the plain and glided into the office of the shanty. From there he emerged in a minute or two, preceded by the operator, neatly tripped up with clothesline and a broom-handle, after the approved method of the plains. It was not until they were close upon him that Jeb saw the pair. His first instinct was to hide his instrument as much from Krause as the outlaw.

"Who's the kid?" the stranger asked Krause sharply as they came to a halt in front of him.

"My help," the operator answered surlily.

"Sonny," the other said, addressing Jeb, "we're a-going down the road a piece, and if you want to grow up to be a man like your pap, don't you take no notion to see what we're about. See?"

As he spoke the outlaw readjusted the handanna handkerchief across his nose and mouth and with a shove sent Krause forward down the track in the direction of Miner's Gulch, a soft-stone cutting, not more than a quarter of a mile from the station.

* * * * *

"Well, I reckon Krause is drunk again," the operator at the Junction muttered to himself as he banged away at the key of his sender in a vain effort to raise the Scaly City office "Something's sure the matter," he said aloud, for the comfort of the sound of his voice gave him in his perplexity.

"No answer from Scaly; No. 10 due in six minutes. What shall I do?" was the message he sent dir-

ect to the train dispatcher at the head of the line.

Before he had had time to receive an answer from his chief, the Junction operator was further puzzled by the slow, irregular ticking of the instrument on the Scaly City circuit. At first he could not make out anything from the jumbled beats of the sounder, save that something was materially out of gear in the system. As he listened, however, his trained ear began to pick out here and there a letter of the message that was coming through.

"Scaly City; Robbers is here, Krause is killed. Jeb—Scaly City; Robbers is here, Krause is killed, Jeb—" was the repeated warning that finally revealed itself to the Junction man's bewildered brain.

"I have you—I have you—I have you"—he clicked back, as soon as the full meaning of what he had heard dawned upon him. Darting to the corner of the office he seized a red flag and tore up the main track in the direction from which the mail would approach in a scant minute and a half.

The conductor and chief mail clerk were both hanging from a step as the train ground by the operator in coming to a stop.

"What's the matter?" they asked in one breath as soon as they could get within hailing distance of him.

The operator repeated his experiences of the last ten minutes, and the three hurried to the office for instructions from headquarters.

"Word from Scaly robbers. Flag No. 10; proceed cautiously" with empty cars and effect capture," was being ticked off over and over again as they came in.

The mail was hastily transferred from two cars into a third; a day coach and smoker were emptied of passengers, and the loaded cars backed out of harm's way down a siding. With the dummy train in tow the locomotive started for Scaly City, with six heavily armed mail clerks distributed over the tender and in the cab as a guard.

The engineer felt his way cautiously down the line, ready at a moment's notice to bring his train to a standstill. No sign of anything out of the ordinary was to be seen as they came in sight of the shanty. The fireman and two mail clerks made their way carefully towards the building to investigate. On the floor lay Krause's revolver. The room was in confusion, and there had evidently been a struggle. Not stopping to search further, the men hurried back to the locomotive and reported.

Without a word the engineer started his machine ahead down the track. Furthermore, he no longer ran at a cautious crawl, but opened the throttle wide and plunged away as if making up time on his regular schedule. The

clerks got their revolvers ready and waited. At the gulch they were flagged as the engineer had expected they would be. As the locomotive slowed up in passing, the head mail clerk shot the man with the flag dead. A fusillade from the side of the track was returned by the other men on the locomotive, and then silence, save for the steady pant of the engines as the train moved on.

Two of the clerks tossed the dead man roughly on top of the coal in the tender and started with their companions on a run in the direction in which the robbers had disappeared. They were just in time to see four men jump on bronchos and ride for dear life across the plains.

"What can have become of Krause?" the chief mail clerk asked as they gazed disconsolately after the retreating figures.

"May be they took him with them," one of the number hazarded.

"Taint likely," the chief answered. "They've got enough to attend to in getting away without luging him along."

"Spread out and we'll beat the gulch," the engineer said. "We can only spend to minutes at it, but if he is anywhere about we can turn him up in that time."

The men moved out fanlike across the gulch, peering behind the rocks and lowering bushes to see if by any chance he had been killed and his body disposed of in that way.

One by one the party returned to the locomotive with no news of the missing man. The engineer held down his whistle rope for a good two minutes and waited five more for results. As nothing came of it the trip back to Sealy City and the Junction was resumed.

As they neared the platform at Sealy City a lonely little figure stood silhouetted in the twilight against the passenger shanty. It was Jeb.

"I want to git outer here," he said, tearfully, as he climbed into the cab. "There ain't nothin' going to keep me around this place."

"What happened, sonny?" one of the clerks asked, as the dummy train ran swiftly back towards the Junction.

Then between sobs, despite his prairie training, for he wasn't a very big boy, Jeb told of watching Krause disappear in the gulch in the custody of the robber.

He had sent the message down the line as well as he could with the old sender and his knowledge of the code. It had taken him a long time to make sure that anyone had it, though, and even then he did not know where it had been received, as he knew nothing of the calls. After the Junction's reply had reached him, he said, he ran to the head of the gulch by a roundabout way and saw the robbers ride up on their ponies. There were four of them, not counting the man who had Krause in custody. From their gestures he said they seemed to be arguing about something. At any rate they

shook their fists in Krause's face, and one man finally knocked him down and fired a pistol at him. Hence, Jeb said, he concluded they had killed him. He was afraid the robbers might catch him if he stayed any longer, so he went back to the station and reached there just after the dummy train had left for the gulch.

While Jeb had been telling his story the chief mail clerk had climbed over the coal to the body on the tender. He came back pale and with body all a-quiver.

"We got the wrong man, boys," he said; "it's Krause up there."

The other men on the locomotive were moved according to their na-

tures. Some swore sympathetically, while others simply shook their heads. The engineer did neither of these things. He opened the throttle a trifle and remarked: "Well, he flagged us for them, didn't he?"

"Yes," someone assented. "Well, he got his wages."

Jeb spent that night with the operator at the Junction. The next morning Albright received this message:

"Send that boy Jeb that stopped the mail last night down to this office. I can use him.—James Brock, Dispatcher."

—J. P. Hebard, in New York Evening Post.

Hints by May Manton

FANCY STOCK COLLARS, 4321

Number One combines a plain stock with a curved over portion and is made of mousseline with bands of silk, dotted with French knots, and further enhanced by applique of lace. Uprights of tiny silk-covered wire keep it in shape and the over portions are laced together with narrow ribbon.

Number Two is made of lace with bands of panne velvet and includes ties of Liberty with lace ends.

Number Three is somewhat plainer than the others and is made of

size is for number one $\frac{1}{2}$ yard, for number two $\frac{3}{4}$ yard, for number three $\frac{1}{2}$ yard, for number four $\frac{3}{4}$ yard and for number five $\frac{1}{2}$ yard.

WOMAN'S FIVE GORED FLARE SKIRT WITH HABIT BACK 4206

Perforated for Dip in Front.

Flare skirts with habit backs are among the latest of fashion's decrees and can be relied upon as correct both for immediate wear and the coming season. The graceful model shown is adapted to all dress, suit and skirt materials, but



4321 Fancy Stock Collar Medium Size.



4206 F. v. Gored Flare Skirt, 22 to 30 Waist.



4313 Child's Nightgown, 2 to 8 Yrs.

silk, enriched by either embroidery worked into the material or by motifs of lace or of silk applique. The plain stock is finished at the top with a turn-over portion, and at the lower edge with ties that are knotted at the centre front.

Number Four shows a deep point at the centre and allows of many combinations and materials, but as shown is of fillet net with bands of satin and a single motif of lace at the front. It is held in shape by strips of collar bone stitched to the wrong side.

Number Five is somewhat severe in cut but can be made more or less so as the material is lace or silk. The original is of heavy Venise lace bound with silk bands, but embroidery Oriental bands and what not can be substituted. The under stock is plain, the upper portion being finished and mounted over it.

The quantity of material 18 inches wide required for the medium

in the original is of taffeta with bands of cloth stitched with corticelli silk. The trimming is novel and, besides being arranged to give a flounce effect, serves perfectly to conceal the closing at the back when an invisible effect is desired. When such is not the case the skirt can be closed by means of handsome buttons and buttonholes that are arranged at intervals for its entire length. The skirt is cut in five gores that are carefully shaped and are fitted without darts. The upper portion is absolutely snug and smooth but below the neck the skirt flares freely and gracefully. The closing is made at the centre back seam beneath the trimming.

The quantity of material required for the medium size is 6 $\frac{1}{2}$ yards 21 inches wide, 6 $\frac{1}{2}$ yards 27 inches wide, 5 yards 44 inches wide or 4 yards 52 inches wide when material has figure or nap; 3 $\frac{1}{2}$ yards 44 inch-

es wide or 2½ yards 54 inches wide when material has neither figure nor nap.

The pattern 4206 is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure.

CHILD'S NIGHT DRAWERS, 4313

This garment is made with a waist portion that closes in centre back, the lower edge being faced and provided with buttons to which the drawers are attached. The waist consists of front and backs, fitted by shoulder and underarm seams, and long sleeves that are gathered into wristbands, through which the hands slip easily. At the neck is a turn-over collar. The drawers are gathered into bands at the ankles and again at the belt, through which buttonholes are worked, the openings at the sides being reinforced by a continuous facing.

The quantity of material required for the medium size (4 years) is 3½ yards 27 inches wide or 2½ yards 36 inches wide.

The pattern 4313 is cut in sizes for children of 2, 4, 6 and 8 years of age.

The price of each of the above patterns post-paid is only 10 cts. Send orders to The Farming World, Morang Building, Toronto, giving size wanted.

Our Longfellow Club

First, it had to be decided who were fitted to join the club. Some of the younger children were rather disappointed at first, when the third class was set as the limit. But this afterwards proved to be a very successful arrangement, as it was a great incentive to the lower grades to reach the third class. There, the teacher very wisely suggested that the pupils' older brothers and sisters, who had left school, should be invited. It is almost unnecessary to add that they all took advantage of this invitation.

The teacher proposed to begin with the poem, Evangeline, and in order to get the boys interested, to also read some of one of Henry's books. Accordingly, one of the best readers of the school was appointed to assist in the reading aloud. The "little teacher" was unanimously appointed president, and one of the older pupils recording secretary.

The following Tuesday was one of suppressed excitement for all the school children. During the day, the girls took the school lamps out of the old, dusty cupboard, and cleaned them until they fairly shone. At 4 o'clock, the boys filled the great box-stove with wood, so that there would be plenty of coals to make the fire at seven. Every child was there before the appointed time, eager, expectant and joyful. How different the old schoolroom looked to them in the flickering lamplight! The great long stovepipe really looked quite black, and the walls did not

seem half as smoky and grimy. The very seats seemed to assume a new dignity to the children as they sat there listening to the sweet voice of "little teacher," as she read the musical lines of Evangeline. The very queen seemed to smile down from her dust-blackened frame, as if she, too, were pleased to be present at the first meeting. After the reading, they, all together, discussed what had been read. Those who wished asked questions, but the explanations generally fell to the lot of the president.

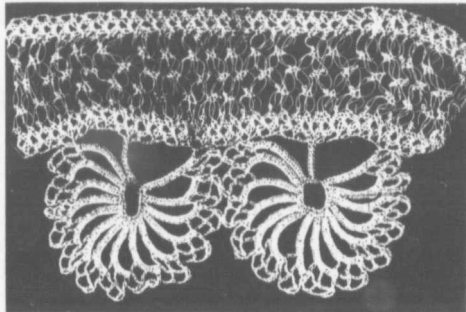
The first meeting was a decided success. Little Tommy Baker, in his eagerness to express his delight to his teacher, said to her in one long breath, "When I went home last week and told mother about it, she said she just thought it would be better if you'd go an and learn us plain writin' and 'rithmetic 'thout botherin' with no new-fangled nonsense, but dad said he knew it would be good, if you was runnin' it, just by the way you climbed through the mud before it froze up, and now I know dad was right." Tommy's conclusion expressed the sentiments of all.

As the meetings were continued during the winter, many new features were added, and consequently the interest and attendance increased. The older members wrote essays on the poems, which had been studied and read for them for the benefit of the society. Everyone was given some little thing

to do, and in this way, all felt that they were some part of the club, and took more pride in making each evening a success. Many of the shorter poems were committed to memory, and the younger members often recited them on the platform. One of Scott's best novels was read, the teacher explaining such parts as could not readily be understood by all. After a time, singing also became an interesting feature of the programme. —Bobolink, Ontario.

Views of Farm Homes Wanted

We desire to make the home department of this journal as valuable and as interesting to our readers as possible. The fine appearance and good quality of paper used in The Farming World enable us to give special attention to illustrations. We would like to secure a number of interior or outside views of Canadian farm homes. We believe that Canada can show a larger percentage of comfortable farm homes per head of the population as any other country, and we would like to prove it in this department. If you have any good photos of home views in which the outline is clear and distinct send them along. We shall see that they are returned in good condition and if any are worthy we will have them published giving the name and address of the owner.



Improved Irish Lace

CHAIN 28

Row one—A shell (2dc, ch. 3, 2dc.) in fourth stitch, two knot stitches, catch into middle of chain, two knot stitches, shell in last stitch of chain. Row two—Ch. three, shell, one knot stitch, catch in knot, two knot stitches, catch in knot, one knot stitch, shell, catch into hole at end.

Row three—Ch. three, shell, two knot stitches, catch, two knot stitches, shell, catch into hole at end.

Repeat rows two and three until

you have nine rows of shells.

Chain thirty—Catch back into tenth stitch of chain, chain fourteen, catch into sixth shell of border, turn, put twenty-four single crochets over chain, catch into ring, ch. four, dc. in sixteenth chain, ch. four, dc. in twentieth stitch of chain, ch. four, dc. in last stitch. Turn, ch. four, dc. on dc., ch. four, dc. on dc., twenty-four singles over chain, repeat between stars twelve times. Work up stars with singles. Make six rows like third and second rows and catch to scallop.—Joyce Cavendish.

Only One Way is Right

"My boy," said Uncle Hiram, once while giving me advice,
 "The saw that doesn't wobble is the one that cuts the ice.
 The saw that close applies itself within its narrow groove,
 Will soon or late fulfill its work by keeping on the move.
 When halfway through, temptation may beset it, like as not,
 To leave the place that seemeth hard and seek a thinner spot;
 But shifting saws will learn, at length, when failure they invite:
 There's many a way o' doin' things, but only one way's right!"

"And bear in mind, my boy, through life, it tempted tasks to shirk,
 Success is but a second crop, the aftermath of Work.
 A lubricator tried and true is Per-severance Oil,
 And Fortune's smile is rarely won except by honest toil.
 A safe cross-cut to Fame or Wealth has never yet been found,
 The men upon the heights to-day are those who've gone around
 The longest way, inspired by the sayin' somewhat trite:
 There's many a way o' doin' things, but only one way's right."

I knew my Uncle Hiram had achievement's summit reached;
 I knew him as an honest man who practised what he preached,
 And so I paid the lesson heed, and rapid attention gave,
 When, in an added after-thought, he said: "My boy, be brave!
 Act well your part; tenaciously to one straight course adhere;
 Though men declare you're in a rut,—work on, and never fear;
 You'll realize, when you, at length, have reached achievement's height:
 There's many a way o' doin' things, but only one way's right!"
 —Roy Farrel Green, in Success.

The Man Who Fights Alone

The fellow who fights the fight alone,
 With never a word of cheer,
 With never a friend his help to lend,
 With never a comrade near—
 'Tis he has need of a stalwart hand
 And a heart not given to moan—
 Oh, brave and grim is the heart of him,
 The fellow who fights alone!
 God bless the fellow who fights alone,
 And arm his soul with strength,
 Till safely out of the battle rout
 He conquering comes at length,
 Till far and near into every ear
 The fame of his fight is blown,
 Till friend and foe in the victor know
 The fellow who fights alone.
 —New York Sun.

Making Meal for Porridge

I have been told by good authority that the various meals of which we make our porridge, requires more cooking than they get by boiling, and that only very strong and healthy stomachs can digest them properly, but if the meals are baked first, they are made all right. I have tried baking corn meal in a hot oven with the grate on the bottom, and stirring occasionally to keep it from burning. It should be a little darker yellow when done, and an hour should be long enough. Porridge made of this is sweet and delicious. We put in a handful of wheat flour and think it an improvement. Rice cooked in the same way is a great improvement, and easily digested.
 H. W. Agnew, B. C.

Quilting on Sewing Machine

I do my quilting on the sewing machine instead of by hand. If the comforter or quilt is not unreasonably heavy, it is easily done, and in two or three hours, what used to take a day. The comforter should be pretty well basted, then I loosen the tension and lengthen the stitch, put the quilt under and follow whatever design you like as a guide. I commence about four inches from the edge, stitching lengthwise. I have a quilter with my machine, but it is not always quite satisfactory, but use it when it is.
 H. W. Agnew, B. C.

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—AT—

Guelph, Ont., February 25th 1903

SELECTED STOCK. Nothing but good representatives of each breed will be allowed to enter and be put up for sale. Orders to buy may be placed with the Secretary, and will be honorably discharged.

REDUCED PASSENGER RATES
 SPECIAL RATES TO BUYERS

For copy of rules, catalogue, and full particulars, apply to

A. W. Smith, President,
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A. P. Westervelt, Secretary,
 Parliament Bldgs., Toronto.

When writing to Advertisers mention THE FARMING WORLD.

1898, to Mr. White, \$175. The bulls sold at from \$75 to \$140 each.

The big sale of Holsteins and Holstein grades, the property of the E. D. Tillson estate, Tillsonburg, Ont., to be held on March 5th, is worthy of special attention. It furnishes a splendid opportunity to secure some of the best strains of dairy cattle to be found in the Dominion. The late E. D. Tillson had made a special study of the dairy cow, not only the breed, but also of the individual animal. For years he had, perhaps, one of the best milking herds on the continent. His annual reports of the work at Annandale Farm, which were frequently published in these columns, always attracted interest. The records, though large, were genuine, and Mr. Tillson's cows were taken as standards for many a farmer to reach up to.

It is this same herd and descendants of it that are to be sold. Parties desiring good Holsteins and grades with the milking qualities specially developed cannot do better than attend this sale. As will be seen in the announcement elsewhere in this issue, a number of high-class males and females will be offered, including DeKol's, Mercedes and other noted strains. The sire of most of the younger stock is Calanthe Abberkirk 2nd, No. 1110, Vol. 3, a grand yearling at the head of the Annandale herd. Twenty-two pure-bred and seven-teen grades will be sold.

HORSES

Among the many noted sales made at the recent stallion show, was that of J. M. Gardhouse, Highfield, Ont. He sold to Mr. Warren, of the Northwest Territories, one stallion, one mare and one yearling filley, all Shires, six Shorthorn cows, ten registered Leicester ewes and one ram. All Mr. Gardhouse's stock are of good quality and our Western friend had to pay a good round sum in order to secure this lot.

Our Annual poultry number will be out on March 1st. Look out for it!

Address: THE FARMING WORLD, TORONTO

Horse Health



is one of the most important things for every farmer to consider.

Dick's Blood Purifier

will build up a run down horse.

It tones up the system, rids stomach of bots, worms and other parasites which undermine an animal's health.

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(and other noted Prize Boars)

I was awarded the above honors, besides 10 other prizes, at the late Toronto Exhibition. The great growth and size of my boars, at the different ages, was I feel complimented on by the best judges, many of whom secured the success of my boars, and I think I had the HEAVIEST HOGS on the grounds of ANY BREED in almost every class, and at every age. I have a grand lot of young boars, ready for service, young sows bred to prize boars, and young pigs from my best sires sows and boars, all for sale very reasonable. Come and see them, or send for picture of my winners, showing part of the group that won at Toronto. W. H. DURHAM, York Lodge, East Toronto P.O., Canada.

Maple Lodge Stock Farm

Scotch Shorthorns, Choice Milking Strains, Prize Winning Leicesters, Young Stock for sale—imported and home bred.

A. W. SMITH, Maple Lodge P.O., Ont.

FOE SALE

Large English Yorkshires. Boars fit for service; sows ready for sale. These and sows 8 weeks to 3 months old, from imported and Canadian bred sows. Write

JAMES A. RUSSELL,
Precious Corners, Ont.

PURE BRED STOCK

I have just now in fine condition a number of specially good animals, and shall be glad to quote prices and give full descriptions if stockmen will let me know their wants. For many years I have given the most careful personal attention to the selection and improvement of my herd. At present I have for sale 3 SHORTHORN BULLS from fine milking strains; colors roan and red; sires from five to seven months. Stockmen will also be interested in 7 AYRSHIRE BULLS which I have for sale. These are fine animals, ranging from seven to eleven months old. They are a fine dairy type, sired by "Blair Athol" and "White Prince." I have also AYRSHIRE COWS and HEIFERS, all ages, many of them sired by such bulls as "Dominion Chief," "White Prince" (imported), and "Silver King." I offer a fine lot of YORKSHIRE BREEDING SOWS and YOUNG PIGS two to four months old; also BOARS FIT FOR SERVICE, proper baun type.

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Large White Yorkshires

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Address H. J. DAVIS, WOODSTOCK, ONT.

Importer and Breeder of Scotch Shorthorns and Large White Yorkshires.

Holsteins and Holstein Grades for Sale

The Annandale Herd of pedigreed Holsteins and choice Holsteins in grades will be offered for sale by public auction at Tillsonburg, on Thursday, March 5, 1903, beginning at 11 a.m.

List of Pedigreed Animals

BULLS
General McDonald, No. 1910, Vol. 5, Sire, Calanthe Abberkirk 2nd, No. 1110, Vol. 3, Dam, Mountain Duchess, No. 738, Vol. 5, Age, 2½ yrs.
Jesse's De Kol, No. 2216, Vol. 6, Sire, Nathaniel De Kol Fieger, No. 2772, Vol. 3, Dam, Woodland Jesso, No. 2699, Vol. 5, Age, 2½ yrs.
Calanthe Abberkirk 4th, No. 2385, Vol. 6, Sire, Calanthe Abberkirk 2nd, Dam, Sjt Slepje Queen, Age, 3 months.
Annandale Calanthe 2nd, No. 2411, Vol. 6, Sire, Calanthe Abberkirk 2nd, Dam, Mountain Duchess 2nd, Age, 7 months.
Duke of Portland, No. 2344, Vol. 6, Sire, Count Mink Mercedes, Dam, Mendamin's Dairy Barrington, Age, 1 year, 5 months.
Annandale Duke 2nd, No. 2381, Vol. 6, Sire, Calanthe Abberkirk 2nd, Dam, The Annandale Mercedes Queen, Age, 3 months.
Annandale Calanthe 3rd, No. 2385, Vol. 6, Sire, Calanthe Abberkirk 2nd, Dam, Charwell Mercedes Queen, Age, 2 months.

COWS

NAME	NO.	VOL.
Mary Ann	698	1
Charwell Mercedes Queen	834	2
Sjt Slepje Queen	834	2
Mattie Tension Queen	737	2
Mountain Duchess	738	2
The Annandale Princess	1148	3
The Annandale Mercedes Queen	1802	3
The Annandale Triumph	2321	4
The Annandale Queen	2282	4
Lady Inverness	2207	4
Mountain Duchess 2nd	2300	4
Princess Diane De Annandale	3134	4
Annandale Duchess 2nd	3210	4
Annandale Beauty 2nd	3723	5
Lady Inverness 2nd	3779	6

With the exception of some of the older cows, the sire of the above heifers and cows, also of the grade cows and heifers, was Calanthe Abberkirk 2nd, No. 1110, Vol. 3, a magnificent bull and splendid stock getter, standing at the head of the Annandale herd of the late E. D. Tillson for several years.

The extended pedigree of this bull shows the Annandale Herd descend from ancestors well developed along the lines of milk and butter.

In addition to the thoroughbred stock the following list of exceptionally choice grade Holsteins will be offered: 50 cows, 25 of them fresh and balance due to calve during March, April, May and June; 10 call by pedigreed sires, 5 heifers due to calve in April, 17 yearling heifers, 13 heifers 3 months to 2 months, all from thoroughbred sires; 1 Holstein grade bull, coming 2 years; 1 Holstein grade bull, coming 1 year; 1 Holstein grade bull, 7 months; 12 steers, coming 2 years; 2 farrow cows; 1 Tilsonborn is easy of care, being on the Wash-burn Grand Trunk Railway, near the T.L.E. & P. Ry. The Annandale Farm buildings are in the corporation, a few minutes walk from the station of road mentioned.

Terms—Eight months' credit will be given on approved 1st and 2nd without interest, 6 per cent. per annum discount allowed for cash. Lunch served at 1 p.m.

L. V. GARNER, Auctioneer.

TILLSON ESTATE, LIMITED, TILLSONBURG, ONT.

one made somewhere in the United States that will show one row of seed and fertilizer at each side of the row, but we do not know the address of the maker. If any reader can supply the information required we shall be glad to hear from him.

3.—Gasoline engines are certain to come into more or less general use for farm work. There are in great demand in the United States for this purpose, and are becoming more popular in Canada. They have several advantages over the ordinary steam engine both as to cheapness and utility.

SICK CAT

We have a cat that has broken out on its head and feet. Always biting and scratching itself. Wants to be outside. What is the matter with it?

—J. H. S., Mulgrave, Ont.
It is hard to state from the meagre account given what is the matter with the cat. The scratching and biting would indicate that the outbreak is a dry one. The following simple remedy has proven satisfactory in several similar cases: Make a thick paste of gunpowder and train-oil and apply it to the sore spots say three times a day. If the cat licks the ointment off so much the better. A diet of bread and milk will suit best till the soreness has gone. If this treatment does not prove effective send fuller particulars.

HORSE WITH LUMP ON FETLOCK

While driving a month ago my horse frightened, and jumping quickly, sprained the hind fetlock. No hair came off nor was there any cut. The horse showed lameness, which afterwards went away. I bathed it and rubbed liniment on, but there is a thickening and lump on the cords above the fetlock. I don't want to blister or take the hair off, but want something to absorb the lump away.
—D. D., Fairville, N.B.

It is hard to prescribe definitely a course of treatment without knowing more about the nature of the lump, whether it is hard or soft. Evidently the horse sprained itself severely, but an after-swelling in such cases is generally accompanied by inflammation and consequent lameness. You say the horse is not lame. You cannot go wrong, however, in applying iodine liniment morning and night to the affected portions. If not sore to the touch, a minute or two spent frequently in gently rubbing with the hand will be found effective. As to bandaging, you will have to use your own discretion as to tightness, which would be regulated by any existing inflammation. If the horse is a valuable one, and the iodine treatment does not prove effective, it might be well to consult a competent veterinary surgeon.

PIN WORMS IN HORSES

In replying to an enquiry in last issue on this topic, by some mistake raw linseed meal was substituted for raw linseed oil as one of the ingredients for the purgative to be given. As the oil and turpentine were mentioned above, readers will, no doubt, have recognized that using the word "meal" instead of "oil" was an error.

SKIN DISEASE IN HORSES

I have an old mare about seventeen years of age that is troubled with some kind of skin disease, affecting particularly about the mane and root of tail, also inside of thighs. She is rubbing and scratching continually; also keeps very thin. I also have two colts affected the same way. What is

the probable cause, and the remedy for the same?—H. A. I., Fern, Ont.

Itchy skins on horses are caused mostly, when not due to mange or hen lice, by a heated, surfeited condition of the body, and which manifests itself by the horse scratching and biting the itchy parts continually. A good remedy for such cases is a purgative made as follows: Barbadoes aloes, 5 drachms; ginger, 1 drachm; gentian root, 1 drachm; syrup of soap, enough to combine the foregoing; powder and mix. Make a ball and give as one dose.

When the horse has finished purging give a tablespoonful of the following in bran mash night and morning 4 ozs. Epsom salts, 2 ozs. nitrate of potash, 4 ozs. linseed meal, mixed together. Wash the horse well with soap and water, and when dry sponge over with vinegar. If practicable, give green food for a month.

PARASITIC BRONCHITIS IN SHEEP

In Feb. 2nd issue, G. H. K., Elgin Co., reported a rather peculiar case of scours in his sheep. On the advice of Prof. Day, who replied to his enquiry, a post-mortem examination was held by a competent veterinary. A copy of the veterinary surgeon's report and specimens of the lungs and their contents have been received, and

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Stud.



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Responsible to produce this year or no more.
The safest last Blister ever made. Takes the
place of all blisters for mild or severe cases.
Removes all Blisters or Blisters from Horses
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As a **HUMAN REMEDY** for Rheumatism, Sprains, Sores, Burns, etc., it is invaluable.

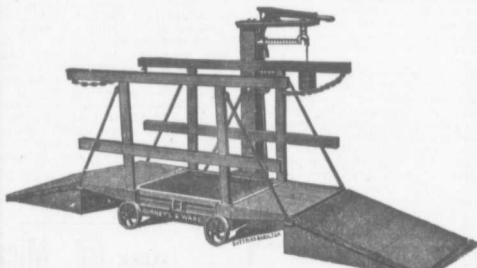
WE GUARANTEE that one tablespoonful of **Caustic Balsam** will produce more actual results than a whole bottle of any liniment or specific cure mixture ever made. Every bottle of **Caustic Balsam** sold is warranted to give satisfaction. Price \$1.00 per bottle. Sold by druggists and sent by express, charges paid, with full directions in French. Send for descriptive circulars, testimonials, etc., address: **THE LAWRENCE-WILLIAMS COMPANY, Limited, 21 Front St. West, Toronto.**

YOU CAN FEED 4 STEERS OR 3 OTHER RATIONS
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OF FEED. We furnish you **STAVES**, one piece, full
depth of slots. Our **FREE** book, "Slots and Slaves," has full details, and much of interest
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90 Wellington St., Toronto.

Please send me particulars, price, terms, etc., for a scale which will weigh about
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P.O.

we have pleasure in stating that he has diagnosed the case correctly. The disease is what is known as parasitic bronchitis, caused by a small fine worm getting into the lungs, increasing in number till the animal has to succumb. It is not positively known how they get into the lungs, but it is supposed to be by breathing in the germ producing the worm.

G. H. K. asks if he can pasture the same field next season as he did last. The probabilities are that the severity of winter's frosts would destroy the vitality of the parasite in the fields so that it might not be perpetuated. But, to make sure, it would be as well not to pasture on the same field. There is a great danger, however, of the disease being perpetuated from the present surroundings of the sheep. Every care should be taken to disinfect the premises.

If the veterinary has not advised other treatment, prepare the following:

Six ounces sulphate of magnesia, 4 ounces nitrate of potash, 4 ounces sulphur, and 4 ounces sulphate of iron. Mix and give a single handful to each sheep in oat or cornmeal once a day for a week; then wait three weeks and repeat. Burn turpentine on pine shavings under their noses so as to make them breathe the fumes.

SKIN DISEASE IN YOUNG STEERS

Some of my yearling steers seem to have some kind of skin disease. I first noticed it on top of the shoulders. They would be wet as if sweating, and then it would work down on both sides of the shoulder and along the back, and the steam would arise all the time. It seems to scab over under the hair and then crack, and sometimes the scales will come off. The hair comes off on top of the shoulder. They get very thin and weak. I have lost one. They seem to have a good appetite.—J. F. C., Man.

You do not state how you feed or shelter the steers in question, yet the skin trouble may be caused by some food irritant or condition of the stable. A search would also be made for lice which commonly produce irritation of this sort in young cattle. Would give each a dose of Epsom salts in warm water—half pound in quart of water. Follow with half ounce of hypochlorite of soda twice daily in feed or water for one week, then once daily for a week or ten days. Allow access to salt and flowers of sulphur mixed together. See that stables are clean and well ventilated and use white wash freely. Wash skin with sheep dip and then apply a mixture of flowers of sulphur in a fine linseed oil made of a creamy consistency and to each pint of which add one ounce of oil of tar, and two drachms of carbolic acid.

ABOUT RURAL LAW

In this column will be answered for subscribers, free of charge, questions of law. Make your questions brief and to the point. This column is in charge of a competent lawyer, who will, from time to time, publish herein notes on current legal matters of interest to farmers. Address your communications to "Legal Column," The Farming World, Toronto.

GOVERNMENT LANDS IN MANITOBA

1. If A. buys a half section of land in Manitoba, and says for it could the authorities prevent him from trading in another name? If so what could they do to him?



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and it pays to have a fence that is accident proof.

The No. 7 Top Wire in Page Fences is break-proof at 3000 pounds' strain—common wire same size at 1700 pounds.

Page Fence Wire is tempered to stand that strain. Its coil takes up summer slack and gives spring for winter tension, and acts as a cushion to meet accidental strains.

"Page Fences wear best"

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2. Would the law be the same in the Territories?—G. D., Nelson, Manitoba.

We see no reason why A. could not have the land granted to someone else for his use. But if A. under cover of this is acquiring more land than the regulations allow, he can be compelled to give it up. And we can conceive that in so acquiring the land he may lay himself open to the charge of fraud.

The same rule would hold in the Territories.

PASTURAGE CHARGES

Last spring I took in a colt to pasture at \$1.50 per month. In the fall I notified the owner to come and settle and take the colt away. He came but did not bring any money, so I did not let the colt go. He has been promising to come and settle and take it away ever since, but does not come. I left word at his residence about a month ago that if he did not come that week I would raise the price to \$1 per week. The horse is worth \$100. How am I to get my money and get rid of the horse? Can I charge \$1 per week after notifying him?—J. R., Essex, Ont.

Send a notice to the owner of the horse that the pasturage charges will be \$1 a week after a certain date.

After that date you can charge the increased rate. Then send him notice to take the horse away by a certain date or you will sell it to pay pasturage charges.

ACTION FOR DAMAGES

R. R., Lambton Co.—The recovery or non-recovery of damages against A. will all depend on the evidence as to the character of the partner and as to the facts in the case. In any event A. cannot be forced to marry this person.

TENANCY

I have a tenant living on my farm who rented the house and garden for one year. Time will be up in March; occupant, a woman. How will I proceed to get rid of her?—J. F. G.

If the farm was rented for a stated term of one year only and not by the year, you need not give any notice, as the occupant is bound to yield up possession when the year expires.

"Yes, sir; he's de champeen scrapper of dis ward."

"Why, doesn't he go to school?"
"Oh, his mother thinks he's too delicate."—Harper's Bazar.



For Flat or Steep Roofs. It is Waterproof, Fireproof, quickly and very easily laid, and cheaper than other roofing.

MICA ROOFING CO., 101 Rebecca Street, Hamilton, Canada

The Canadian Produce Markets at a Glance

The highest quotations of wholesale prices for standard grades of farm produce in the leading markets on the dates named. Poorer stuff lower.

Date	Toronto	Montreal	St. John	Halifax	Winnipeg	Victoria
	13	12	9	8	9	1
Wheat, per bushel.....	\$ 0 72	\$0 71½	0 00	\$ 0 00	\$ 0 74½	\$ 1 05
Oats, per bushel.....	33	37½	43	42	28	50
Barley, per bushel.....	47½	48	.....	.....	34	50
Peas, per bushel.....	73	78	.....	.....	.....	1 50
Corn, per bushel.....	53½	58	.....	.....	.....	1 00
Flour, per barrel.....	4 50	4 40	4 00	4 00	4 20	6 00
Bran, per ton.....	17 00	18 00	20 00	21 00	15 00	24 00
Shorts, per ton.....	18 50	20 00	23 00	24 00	17 00	25 00
Potatoes, per bag.....	1 00	1 00	90	85	67	75
Beans, per bushel.....	1 50	2 00	.....	.....	.....	2 40
Hay, per ton.....	9 50	9 00	10 00	9 00	6 00	14 00
Straw, per ton.....	5 50	6 50	.....	.....	.....	10 00
Eggs, per dozen.....	19	20	22	21	22	40
Chickens, per pound, d.w.....	14	12	14	13	12	60 each
Ducks, per pound, d.w.....	15	16	.....	.....	.....	10 75 each
Turkeys, per pound, d.w.....	14	15	16	15	15	30
Geese, per pound, d.w.....	10	10	13	13	10	25
Apples, per barrel.....	2 00	2 25	.....	3 00	3 50	1 75
Cheese, per pound.....	13½	13½	13	.....	13½	20
Butter, creamery, per pound.....	24	21½	23	23	21	40
Butter, dairy, per pound.....	18	18½	19	19	24	35
Cattle, per cwt.....	5 10	5 50	8 d.w.	.....	4 00	9 d.w.
Sheep, per cwt.....	4 00	3 75	7 d.w.	.....	3 50	11 d.w.
Hogs, per cwt.....	5 90	6 25	8 d.w.	.....	6 50	11 d.w.
Veal Calves, per cwt.....	6 00	6 00	8 d.w.	.....	.....	12 d.w.

Our Fortnightly Market Review

The Trend of Markets—Supply and Demand—The Outlook

Toronto, Feb. 13, 1903.

General trade conditions continue to improve, orders show a larger volume and prospects for spring trade are very encouraging. Canadian products came to the front in Great Britain last year as they have never done before. Canada seems to be coming to her own in a way that few expected not many years back. Money is in larger supply at 6 per cent. on call and 5 1-2 on time. Discounts rule at 6 to 7 per cent.

Wheat

The wheat situation is, generally speaking, a little better than when we last wrote. Prices are firmer. Since Feb. 1, Armour has unloaded the bulk of his May wheat, and things at Chicago are a little more settled. The old country markets have ruled firmer the last ten days. The visible supply in sight in Canada and the United States is now 48,447,000 bushels, as against 52,999,000 bushels at this time last year. The world's supply in sight is nearly 23,000,000 less than last year at this time. Locally the market has ruled fairly firm, with red and white quoted at 72c, middle freights, goose at 67c., and spring at 72c.

Cearee Grains

The oat market holds its own, and prices, if anything, are higher than when we last wrote. The barley market rules steady at 44c. to 47c., as to quality. Peas are quiet, though prices show high quotations. Corn shows nothing new. Canadian is quoted at 45 to 45 1-2c. West.

Feed Stuff

Ontario bran is in good demand. Shorts still keep scarce. Considerable Manitoba bran is selling in the East.

So ds

There has been much excitement in the English red clover market of late, Canadian seed being particularly inquired for. The cause is due to the general shortage in the world's crop and the increased demand from the continent along with active buying in England. Seed trade is very active

at Montreal. Timothy seed is very plentiful in Lower Canada, and is quoted at Montreal at \$3 to \$4.50 per cwt., as compared with \$6.50 to \$7 at this time last year. More Alsike is offering than for some time back, at \$6.50 to \$7.75 l.o.b. at Ontario points. Red clover sells wholesale at Montreal at \$6 to \$7.50 a bushel.

Potatoes and Beans

Potatoes rule firm at quotations in table, and will likely continue so till new crop. Beans are firmer. In a jobbing way primes are selling at Montreal at \$1.95 to \$2 a bushel.

Hay

Generally, the supply of hay is

more liberal. Americans continue to buy largely at Quebec points which helps to keep up prices. At table quotations the market rules steady, though inferior grades are very much lower than these quotations.

Apples

The export apple trade is not the most satisfactory. Where the fruit has landed in good condition on prompt delivery, shippers have nothing to complain of. Of late at Liverpool and Glasgow a great many shipments have arrived in bad condition. There is reported to be larger stocks at Ontario points than many shippers imagine. The total exports so far this season total 2,021,869 bbis. as against 649,772 bbis. for the same period last year. The increased output has been to some extent offset by the increased demand in Britain, where, owing to the lower prices, consumption has increased.

Dairy Products

The cheese market holds strong and it would not be surprising if prices went even higher than at present. Estimated stocks in Canada and Britain as compared with this time last year show a decrease of 135,500 boxes. To the surprise of many in the trade the exports from New York have increased of late. It is stated that some English houses have been picking up all the under grades they could at New York. The outlook for the season of 1903 is very very bright.

The butter market is devoid of any special interest, though an easier feeling prevails. Stocks, however, are not large, and should the least export demand spring up, present stocks would soon disappear. However, these stocks for the local trade are a kind of drag on the market. Holders have been waiting for a better export demand, but as it has not come they are putting their supplies on the market.

Live Stock

Deliveries of live stock, generally speaking, have not been large on To-



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"I wish my owner used one, but he does not, and I am fed cold, sour skim milk, which accounts for my poor condition."

MORAL: If dairymen wish to raise healthy calves and also to get all the cream out of the milk,

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Silver composition pen
given free for the purchase of 12 large packages of **Wheat Pen Seeds**.
ALL FREE
We will guarantee to give you the best quality of seeds for your farm. We have selected the best quality of seeds from the best sources in the world. We have selected the best quality of seeds from the best sources in the world.



FREE
Combination knife and tool set
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We will guarantee to give you the best quality of seeds for your farm. We have selected the best quality of seeds from the best sources in the world. We have selected the best quality of seeds from the best sources in the world.

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Given to any boy or girl who writes a letter to the editor of this paper. We will guarantee to give you the best quality of seeds for your farm. We have selected the best quality of seeds from the best sources in the world. We have selected the best quality of seeds from the best sources in the world.



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ronto market. Last week trade was generally good, excepting for exporters, which were inclined to be slow. The bulk of these sell at \$4.50 to \$4.75 per cwt. A very choice load of exporters sold at \$5.10. Drivers will have to buy exporters, excepting very choice ones, so as to sell them here at \$4.75. Butchers' cattle go off fairly well, good to choice selling at \$4 to \$4.65 per cwt. Feeders and stockers sell better than anything else. Heavy leaders are wanted by farmers. Stockers, weighing from 350 to 400 lbs., are wanted for the Northwest. These are worth about \$3.50 per cwt. Feeders, 1,000 to 1,100 lbs. each, sell at \$4, and light ones \$3.00 to \$3.50, and poorer quality at \$2.75 to \$3 per cwt. Milch cows and springers sell at \$30 to \$50 each. Veal calves are scarce.

Prices during the past week have ruled firm for sheep. Lambs are a shade higher at \$4.50 to \$5.40 per cwt.

Though hog receipts have not been large, the prices dropped last week to \$5.90 for select and \$5.65 for lights and fats. Some thin prices will go lower. American hogs still continue high, \$7.25 being paid at Buffalo on Thursday last.

Horses
On Feb. 10, an important sale of workers and draft horses was held at Grand's Repository. About 100 head were sold. The attendance was good and fair prices were paid. The highest price was \$205 for a really good type, down to \$75 for some old, half-worn-out horses. They were purchased by Northwest and Ontario farmers and by the lumber camps. There is more enquiry for drivers. Country horse buyers complain that some Institute speakers are telling the farmers that they can get \$25 each for horses every day in Toronto. It is only the very best quality that will command this figure, and farmers should not expect to get that figure for every horse they have to sell.

Winnipeg Markets

Winnipeg, Feb. 9, 1903.
February is the dull month of the year. This year is no exception to the rule, though this year's 'dullness' is ahead of the busy season of some years. In the country there has been a general falling off, but Winnipeg has not felt this so greatly owing to the large number of visitors in the town at this time of the year. The Wholesale trade is also busy getting out spring orders. Everybody is hopeful for a prosperous year.

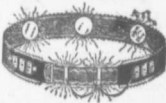
Grain
There is nothing doing in wheat, prices quoted are purely speculative. Wheat.—Cash, No. 1 hard, 74 1-2c.; May delivery, No. 1 hard, 77 1-2c.; No. 1 and No. 2 Northern are quoted 2c. and 3c. lower than No. 1 hard. Oats.—Oats have gone up 1c., though there is plenty of this grain to be had at lower prices at shipping points. Farmers are selling at 19 and 20c. at country points, but there are no cars obtainable to bring them forward. Farmers are offered 26 and 27c. for feed and 28c. for milling oats on the street here. Barley.—A rise here also. Brewers are now offering 34c. for their quality, and feed barley is worth 26 and 27c. on the track here.

Flour and Feed
Flour.—Best Hungarian Patents are quoted at \$2.10 per sack of 48 lbs., delivered; Glensra patent, \$1.95;

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THE PROF. MORSE'S BELT is a sure cure for Nervous Weakness, Kidney, Liver and Stomach Complaint, Rheumatism, Lame Back, Pain or Aches in all parts of the body. Wear the belt while you sleep, and in the morning you will feel years younger than when you go to bed.

Beware of those who ask you to pay from \$10 to \$40 for an Electric Belt, not half so good as the Prof. Morse's, which we sell for only \$5.00. We have only one price. We do not ask you \$40 dollars first, and if you do not buy, try and sell you the same belt at any old price.

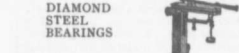
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Stallion Show Notes

Messrs. Graham's black colt, Cairnhill, arrived in Toronto at 10 a.m., on Wednesday, and entered the ring at 1 p.m., where he succeeded in bearing away the red ribbon in class 1, section 2—foals of 1900. Considering that the animal had been sixteen days on the water, coming from the Old Country, and five days in a horse-box from New York to Toronto, the performance is quite unique, and reflects credit on Mr. John Anderson, who brought him out. A very satisfactory future may confidently be predicted for Cairnhill. He was bred by John Struthers, Longhouse, Hurlford, Scotland, and shipped out by Wm. Taylor, Parkmain, Scotland. Sire, Ethiopia; dam, Bess of Longhouse by Sterling.

Mr. J. B. Hogate, of Sarnia, Ont., disposed of his two-year-old bay colt, Royal Park, to Mr. Thomas McLaughlin, Brussels, Ont., the price secured being very satisfactory. Royal Park was foaled in May, 1901, and bred by George McHarg, Barnheys, Ayrshire, Scotland—sire, Montrose Mac; dam, Lady Alice by Gallant Poteth. The colt is a particularly attractive animal.

Messrs Graham Bros. of Claremont, Ont., sold their three-year-old colt, Lord Brilliant, to Mr. F. T. Shipman, Birch Hall, Sask.—the price secured beating the four figures. Lord Brilliant is a fine type of horse, and Mr. Shipman may be congratulated on his selection. The colt is sired by Lord Rosebery; dam, Trinket.

Messrs. Graham also sold their bay colt, Craig Stamp, foaled May, 1900, to Mr. Peter Robertson, Killarney, Man. Craig Stamp was bred by James Milroy, Craig Whitehorn, Scotland, and imported by the enterprising exhibitors. Sire, Up to Time; dam, Mayflower, by Cairnbrogie.


Mr. O. Sorby, of Guelph, disposed of his bay colt, Charming Prince, to Mr. Richard Watson, North West Territory. This very likely animal was foaled in May, 1901, and bred by Hector McCraig, Aberfoyle, Ont. Sire, Lord Charming; dam, Fanny Grandeur, by Grandeur.

Mr. Hugh Semple, Hereward P. O., Ont., sold Silver Prince, a remarkably fine dark-bay colt of his own breeding, to Mr. W. S. Adams, Morden, Man. This animal, though not fitted for show purposes, is well worth the substantial price secured. Silver Prince was foaled in May, 1900—sire, Gay Prince; dam, Molly Darling, by Lord Wilton.

Mr. Richard McLelland, Metz, Ont., closed with Mr. Robert Davies, Toronto, for the bay colt, "Royal Sensation," foaled June, 1901, and bred by Jos. Barnett, Victoria Square, Ont. Sire, Lyon MacGregor; dam, Jane of Markham, by Goldfinder.



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This is because they work with such a high pressure that the fine spray is forced into every hole and corner, and it stays there. These high grade machines cost no more than the inferior kind. Yet the results from these are so much more satisfactory.
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No.	Holds	CHURNS
0	6 gal.	4 to 5 gal.
1	12 "	1 to 3 "
2	15 "	2 to 7 "
3	20 "	3 to 10 "
4	25 "	4 to 15 "
5	30 "	5 to 20 "
6	40 "	8 to 30 "

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Windsor Salt

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GIRLS, would you like to have this beautiful dressed doll? If so, send us your name and address on a post card and we will send you one day, large, beautifully colored packages of Sweet Pea Seeds postpaid. Sell them at 10c, each, return us \$1.20 and we will immediately send you the most beautiful Doll you have ever seen. Doll is fully and fashionably dressed, including a stylish hat, undergarments trimmed with lace, stockings and cute little slippers ornamented with silver buckles. She has lovely golden curly hair, pearly teeth, beautiful eyes and jointed body.

Eva Gilbey, New Westminster, B.C., said: "I received your pretty Doll and was very much pleased with it. It is perfect beauty and far exceeded my expectations."
Lillian Toronto, Newdale, Man., said: "I received the Doll and think it is a fine Princess. It is the prettiest Doll I have ever had."
Gretta, Richmond, Bonaville, Bay, Newfoundland, said: "Thanks very much for my beautiful Doll. I am sure I shall possess with it."

GIRLS, just stop and think what a truly wonderful bargain we are offering you. You can get this lovely big Doll completely dressed for selling only ONE DOZEN packages of Sweet Pea Seeds. Each package is beautifully decorated in 12 colors and contains 42 of the rarest, prettiest, and most fragrant varieties in every imaginable color. They are wonderful sellers.

Everybody buys.
Maggie, Stouffville, Shelburne, Ont., said: "I sold all the seeds in a few minutes. It was a great success."
Mary, Toronto, New Mills, Ont., said: "I no longer opened my post box then I had all the seeds that I want for my children."
A 20c certificate free with each package. Girls, write us at once and this beautiful Doll will be your very own in a short time.
Prize Seed Co., Dept. Toronto

The Razor Steel

Secret Temper, Cross-Cut Saw



We take pleasure in offering to the public a saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A saw to cut fast must hold a keen cutting edge.

This secret process of temper is known and used only by ourselves. These saws are simple ground, this back, requiring less set than any saw now made, perfect taper from tooth to back.

Now, we ask you, when you go to buy a saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other saw is as good, ask your merchant to let you take them both home and try them, and keep the one you like best. Silver Steel is no longer a guarantee of quality, as some of the poorest steel made now is branded silver steel. We have the sole right for the "Razor Steel" brand.

It does not pay to buy a saw for one dollar less and lose \$10, a day in labor. Your saw must hold a keen edge to do a large day's work. Thousands of these saws are shipped to the United States and sold at a higher price than the best American saws.

MANUFACTURED ONLY BY
SHURLY & DIETRICH
GALT, ONT.



BOOK SALT for horses and cattle, in ton and car lots. Toronto Salt Works, Toronto

FREE PERCUSSION GUN



Given for selling only 20 packages of Sweet Pea Seeds, in this case. The package is beautifully decorated in 12 colors, and each one contains 42 of the rarest, prettiest and most fragrant varieties in every imaginable color. Everybody buys. Mary Lappin, Newmarket, Man., said: "The Seeds were like gold."
A 20c certificate free with each package. This beautiful Doll is 91 inches long, has bright silver hair, improved look and haunches and highly polished wood. It is especially nice and sturdy than any other one with specific form. Write us a Post Card to-day and we will send the Dolls postpaid. We guarantee you this Doll for selling \$1.20 worth. But we have only a few left, we have not time to write here to let you see them all. Write at once if you want one.
Prize Seed Co., Dept. 202, Toronto, Ont.