

MANITOBA AND WESTERN EDITION

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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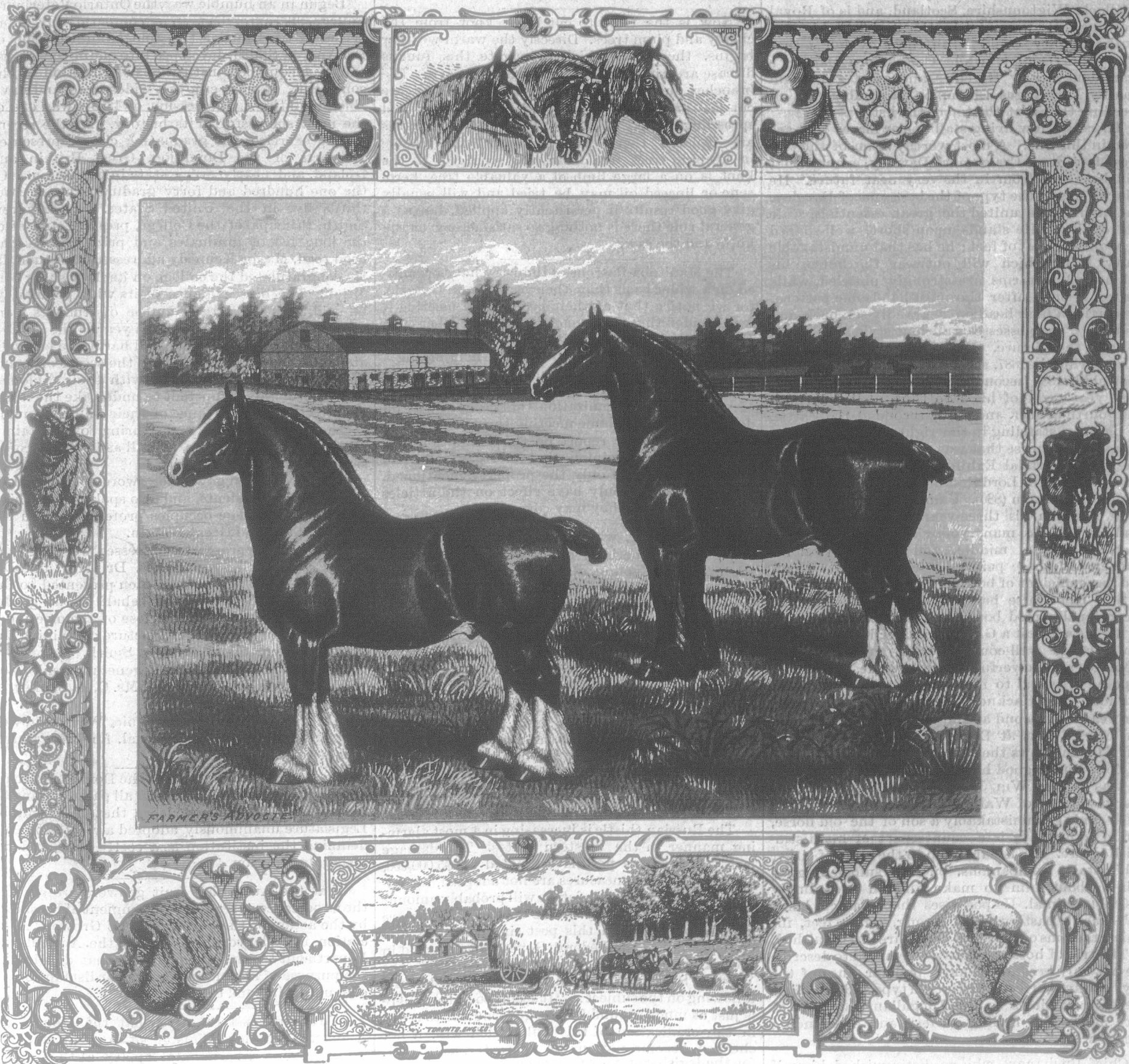
* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE. *

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"CRAICKMORE DARNLEY" (5667) AND "UAMVAR",
TOPGALLANT CLYDESDALES, THE PROPERTY OF MR. T. W. EVANS, YELVERTON, ONTARIO.

Topgallant Clydesdales.

The year 1893 will long be remembered in Canada as an off year in the importation of Clydesdales; fewer horses of this breed were brought over during last season than in any other year, perhaps, since their introduction. However, the well-known importer and breeder, Mr. T. W. Evans, of Yelverton, broke the ice, and brought out three very superior horses, which in point of excellence are far beyond the average in merit, and in the near future will doubtless occasion winners of the past seasons to look well to their laurels. In more favorable times, while Clydesdale breeders and importers were in the hey-day of their prosperity, it required long figures to bring out horses sufficiently good to carry winnings, and those who have held the fort in the show yards of past years did so at no small cost. At present it requires considerable pluck and enterprise to venture to paying long figures, yet Mr. Evans has evidently dealt with no niggard hand, for horses that can receive a premium for a district in the best breeding grounds of Scotland cannot be purchased without a large outlay, and it is from among this class that these horses have been selected.

In the illustration on the first page of this issue are portrayed two grandly finished horses, these are Craickmore Darnley and Uamvar. The horse in the left foreground is Craickmore Darnley (5667). This horse was bred by Mr. Wm. McMaster, Challock, Wigtownshire, Scotland, and is of Royal breeding. He was sired by Darnley (222), his dam by the Mighty Druid (1120), the only horse that ever beat Darnley, while Craickmore Darnley's granddam was by Hercules, and great granddam was by Lochfergus Champion—a combination of breeding that is at the top of the list.

There are few living stallions or mares that are bred in this line. A most worthy scion of the two great families is Craickmore Darnley, a horse that will be heard from in the very near future. He follows closely the type of the best sons of Darnley, and in him are united the great essentials, scale and quality. He stands upon short, well-shaped legs, and the best of feet; he has that unmistakable flinty bone which will outwear the horse, his thighs and forearms are strongly muscled, while his top is built after the most handsome pattern. He carries a high head on a grandly-set neck and shoulders, and possesses sufficient style and action to finish the picture. He won third at Stranraer as a yearling in 1887, second at Stranraer as a two-year-old in 1888, second as a three-year-old at Ayr. Last year a colt of his won third at Kilmarnock and fourth at Ayr, and a filly second at Dalbeattie.

Uamvar, standing in the right background, is a four-year-old horse that was very much admired at the last Industrial Exhibition. He was sired by that great son of Lord Erskine, Lord Ailes, his dam being by Topsman (886). Uamvar was considered a great horse in his three-year-old form just after landing, but, like many young horses just shipped over, he wanted middle, and had also lost his feather. In these points he has quite recovered, and has sufficient of both to satisfy the most severe critic. This horse has grand feet and legs, and exceptionally good bone, and stands well enough on his *kitts* to suit a Glasgow judge; he has a grand top, strong, well-coupled back, grand, sloping shoulders and powerful quarters, while his manner of going is second to none—in fact, goes at knee and hock like a Hackney. He won third at Kilbride as a yearling, second at Maryhill as a two-year-old, and carried first at Drymeh, Stirling, Bucklyvie and Killeen shows the same year.

Yet another good horse is Blythe Prince, 8478. He was bred by Wm. Jno. Wilson, Stranraer, his sire was Prince of Wales (673), dam by Lord Lyon (489). This is unmistakably a son of the old horse, and in many ways is a counterpart of his distinguished sire. He is hardly up to the scale of either of his stable companions, but has sufficient good points about him to make him an exceedingly desirable animal. He possesses that clean cut bone, well-placed pasterns and strong, large feet, for which the sons of Prince of Wales are distinguished.

The trio of horses we have attempted to describe are not only bred in the most popular lines of the day, but are perfectly distinct in type and breeding; therefore, visitors to the Topgallant Stud are at once assured of finding variety and outstanding excellence.

Chief Buchanan, who so distinguished himself as head of the live stock department at the Western Fair, has left the United States for Buenos Ayres, S. A., where he has assumed the duties of United States Minister to the Argentine Republic.

The slaughter of tuberculous cattle still continues in New York State. During the past week 130 cows were killed, and claims were made against the State for \$6,352. The Attorney-General thinks that these claims should not be paid when a post-mortem examination proves the cows to be diseased, the value of such cows being nothing or less than nothing. The courts have not as yet decided this interesting question.

Among the questions which are most frequently asked is, "What Luck?" This is applied to the lamb crop, the spring litters of pigs and the general well-doing of foals and calves. But good luck is often merely another name for care and attention. Without carefully laid plans things are apt to go astray. It is prompt attention to details that prevents the losses from creeping in and destroying the bright prospects for the season's success, whether it be in stock breeding and feeding or in grain production.

"The Phylloxera to be Stamped Out" is the heading of a long article in the Australasian on this subject. A Board of Management has been appointed by the government to investigate and take measures for the extermination of this pest. It is not known to what extent the disease has already spread, but it is thought that it can be easily kept under control, though there are rumors that a much larger portion of the vineyards of Australia are effected than was at first supposed to be the case.

Now is the time to cut black knot from the cherry and plum trees. Directly the warm weather begins, the spores which propagate this fungus disease are ripening and spreading the evil. The branches should be burned as soon as they are cut to prevent the spores from ripening and spreading the disease. Wherever orchards are isolated there will be but little trouble in keeping trees free from this scourge. If the knot is on a large limb of a valuable tree, kerosene or linseed oil may be tried and will usually give good results if persistently applied, but as a general rule there is nothing so satisfactory as the knife and the saw.

The Manitoba Patrons of Industry have organized on a wider basis than their brethren in Ontario, for we notice that at their last annual meeting it was decided that all farm organizations other than Patrons shall have a right to send delegates to any convention called for the purpose of nominating a candidate. Such delegate must be in sympathy with the Patron platform and represent the number of votes in his organization the same as Patron delegates. At the same meeting the committee on legislation, in their report on the Exemption Act, gave it as their opinion that mortgages on real estate should cover only the property mentioned, and liens should only have effect on the articles or animals which they may cover.

Every breeder, whether of cattle, horses, sheep or pigs, will sometimes be called upon to assist at the birth of the young, although generally speaking all animals get along better when left to themselves, unless something is radically wrong. When it is deemed necessary to assist in these cases, the operator should exercise the greatest care to have the hands and arms perfectly clean and well smeared with carbolized oil, which can be procured at any drug store at a small cost. The floor should be covered with clean, fresh bedding. Many seemingly unaccountable deaths occur from blood-poisoning, carried into the system of the dam from the dirty hand of the careless operator, or absorbed into the system of the young animal through the naval cord coming in contact with the same hand or the foul stable floor.

The Russian thistle is increasing in a most alarming manner in the Western States. The damage last year by this pest is estimated at \$5,000,000, and if repressive measures are not adopted, the annual damage in the near future will probably amount to \$25,000,000 annually. The separate States are unable to cope with this pest single handed, and have petitioned the Federal Government for aid in the extermination of this great enemy of the Western States. The Orange Judd Farmer has the following on the subject:—"It seems to us that there is just as much ground for the government to assist in the eradication of this evil, which will, if not checked, become national in character, as there is for the legislation now on our books with reference to any animal diseases, or for the contemplated legislation on roads. If, however, this aid is refused, the States should do their level best to carry on the work, and the sooner this is done the better it will be."

Canada's Columbian Victors.

Our handsome plate picture of prize-winning Ayrshires at the World's Columbian Exhibition, Chicago, 1893, has been completed, and is now being mailed to all purchasers and persons who have sent us the name of one new subscriber. We feel sure that the friends of the FARMER'S ADVOCATE will appreciate this work of art, as it has been pronounced by competent judges to surpass anything in the line of live stock portraiture hitherto attempted in America. We can heartily congratulate our artist and the engravers upon the way in which the work has been executed. In order to bring it within the reach of as many as possible, we will forward it to every reader sending us one new subscriber, accompanied with \$1. To non-subscribers the price of the picture is put down at \$1. The large number of our readers who have been so long expecting "Canada's Columbian Victors," will doubtless overlook the delay that has occurred in completing the work as soon as it reaches their hands.

A copy of this beautiful engraving should adorn the home of every farmer in Canada.

Ontario Veterinary College.

Begun in a humble way, the Ontario Veterinary College, Toronto, has, in a comparatively short period of time, under the able administration of Dr. Andrew Smith, developed into one of the largest and best equipped institutions of the kind on the continent. It now enjoys a widespread and enviable reputation. The session of 1893-4 was one of the most successful in its history. At the recent closing exercises the graduating class represented all parts of the Dominion, Great Britain and Ireland, and nearly every state in the Union. Of the one hundred and forty graduates, about two-thirds live in the United States. Dr. Andrew Smith, Principal of the College, presided, and after the long list of graduates and prize-winners had been read, Mayor Kennedy addressed the students. He congratulated the college on its flourishing condition. The best evidence of its wide popularity, he said, was the large number of students from other lands in attendance each year. The importance of veterinary science could hardly be exaggerated, and he was confident that the scores of young men who were now leaving with their diplomas were thoroughly competent to undertake the work. He pressed the importance of their still continuing to be students, and in endeavoring to maintain a proper walk in daily life, as well as in their professional character.

Principal Caven gave a few words of counsel to the departing students, and also spoke of the high standing the college occupies professionally in the United States and Great Britain.

Short and appropriate addresses were also delivered by Mr. J. L. Hughes, Dr. May and Dr. Thorburn. The prizes were then presented to the winners. Mr. Blackwell, on behalf of the graduating class, presented at the close of the meeting a large and beautifully framed picture containing the photographs of the class to Dr. Smith.

The gold medal for the best general examination was carried off by a Canadian, Mr. C. A. Sankey, of Boissevain, Man.

Mr. A. W. Whitehouse, Laramie, Wyoming, won the special prize, a silver medal, for the greatest number of first prizes.

The popular feeling against the Dominion Senate appears to be on the increase in all parts of Canada, for from one exchange we learn that the Manitoba Legislature unanimously adopted a resolution condemning the institution as a costly farce, and advising its abolition.

That the Australian fruit growers are alive to the importance of securing government aid is shown by the action of the Cohuee Fruit Growers' Association in endeavoring to induce the Agricultural Department to send an expert to that district for the purpose of instructing the orchardists in the art of fruit drying and canning.

We are pleased to state that the Hon. A. R. Angers, Dominion Minister of Agriculture, has established an experimental apiary at the Central Experimental Farm, Ottawa. The apiary will be directly under the supervision of Prof. Jas. Fletcher, the Dominion botanist and entomologist. This is a step in the right direction, and bee-keepers and farmers will appreciate this move in their behalf.

A Successful Silo.

AN INTERESTING LETTER FROM DR. HARRISON, OF NEEPAWA, MANITOBA.
To the Editor of the FARMER'S ADVOCATE :-

DEAR SIR,—I have yours of 27th inst., asking about our success in making ensilage at our stock farm, at Newdale, on the M. & N. W. Ry. I may say that it met our fullest expectation. We (for I have a partner, Mr. John L. Cook) were led to go into cattle breeding from so many store cattle being in the country and no market for them, since the scheduling of Canadian cattle. Before making a move, we visited Mr. Bedford, of the Experimental Farm, at Brandon, to learn how making ensilage had succeeded with him, because we felt that this was the key to the whole business. So confident were we after our interview with him, that we put up a large bank barn, 60 x 70, stone foundation, basement to hold 56 head, with nine-foot ceiling, and an addition one storey to hold 60 head more. In the north-east and north-west corners of the barn, we placed our silos, 11 x 12 feet inside and 24 feet deep, by placing in end joists 2x10, 16 in centre, and lining first with good, dry shiplaps, then a coat of building paper, and then another course of shiplaps; this completed the silos. They rest on the ground in the basement, and extend up into the barn above. The floors of the silos are puddled clay, which got smooth and hard.

We planted twelve acres North Dakota flint corn on the 25th and 26th May, on good, well-worked out stubble land. The summer treatment of the corn was as advised by Mr. Bedford. By the 20th of August we had a full stand of corn averaging about six feet; the corn was glazing in the cob. This we cut and bound in loose sheaves with a Massey-Harris open back binder on 21st and 22nd August, and in the following days drew in and put through the cutting box and elevated into one silo, filling it to the top, and next day when it had settled we covered with layers of cut hay two feet deep, to exclude air. We opened the silo about 10th November, and found that we had not over 200 pounds of waste, the balance to last feed was as good as I ever saw. About freezing, there is no danger; it is hot enough to hold in any weather, except perhaps a little on the top after the cover is off, but that does not hurt. We tied our cattle in, 116 head, about 1st November, they took to the ensilage at once, and began thriving as they would have done in good rich pasture. We were sorry we had not more. This year we are putting in fifteen acres peas and oats, and same of corn, for ensilage. The peas and oats will go in bottom, corn on top, and have no fears of result. The Dakota corn is a good, hardy variety, and if well-worked and kept clean will give an abundant return. As to cost of silo, anyone can work out the size he wants and prices of lumber. As to cost of corn, that depends a good deal on who works it, and how he manages, same as any other crop.

I agree with you that cattle feeding must in the near future be one of our important industries, and that its success depends a great deal on ensilage; roots are too expensive. Our coarse grains must be condensed into cattle, hogs, butter and cheese, to overcome our excessive freight rates. This is one of the ways to beat the C. P. R. Again, no land will stand successive croppings of wheat, it must wear out. The sooner our farmers look these facts in the face and lay their course accordingly, the fewer of them will complain of hard times and short crops.

Yours very truly,
D. H. HARRISON, of Harrison & Cook,
Newdale, Man.

Flax Growing.

BY BOB BARCLAY, BALMORAL.

I should have liked to have seen more notice of this crop in the columns of your very useful periodical, and regret that some of our enterprising brethren do not extend to us their various experiences.

From what I know I would strongly recommend every farmer to give it a trial this season, if they should only try as much as serves their own home wants, as this would not only be a good test, but also would insure them having their cattle, sheep and hogs in the best of order and health. This cereal does well on almost any class of ordinary soil. It is most useful upon breaking in, thoroughly pulverizing and leaving the land in excellent order for wheat. But as a matter of course, it yields a heavier and finer crop upon old or cultivated ground. I could give you many instances where it has done well in the province, but will content myself by relating the experience of Mr. A. Wood, of Foxton. He has grown flax for the last seven years. At first he confined himself to an acre or two for his own requirements, but finding it do so well he tried six acres in 1892, which yielded him 130 bushels; and last year he sowed nine and a-half acres, from which he threshed out 200 bushels. His two last crops followed oats; he allowed one bushel of seed per acre. He had no difficulty in selling out all he grew at \$1.25 per bushel, mostly for seed. These are facts worth knowing. How is it that so few of our intelligent farmers do not grow more flax? Mr. Wood says he is going to put down twenty acres in it this year.

A Pointer for Young Men with Limited Capital.

Editor of FARMER'S ADVOCATE —

DEAR SIR,—You kindly asked me some time ago to let you know what I thought of the Northwest as a home for young men with very limited capital. I shall now try and give you a short account of what I think to be one of the best and safest ways for a young man to start out here. I would advise all such to take a situation, say on a sheep ranch if possible, that is to say if he inclines to sheep. He will be able to earn \$30 per month or so. These earnings he can put into sheep in the fall of the year and hand them over to some person who will take them on shares from him, the person having himself a small flock, but not enough to give his whole attention to (this addition, with perhaps another such, will enable him to do so.) He must, however, have a written agreement with the party who takes them in hand. I enclose such an agreement, which you can use at your discretion.

Yours, &c., T. M. B.

AGREEMENT BETWEEN A AND B, ALTA., N. W. T.,
DATE, 1ST OCT., 1894.

A agrees to take care of one hundred yearling ewes (said ewes being the property of B) and their increase for the term of three years from the date hereof. He will provide all the feed, shelter and rams necessary for said sheep, shear them, sack or ball the wool, and deliver it yearly for shipment at whatever railway station he ships his own from. He will bear any loss there may be among the original hundred (100) sheep, and will, on or about the 1st Sept. of each year during the term of this agreement, make good any such losses with other sheep of about the same description and value. As recompense for this service he agrees to accept one-half the lambs and one-half the wool from B's sheep. The division of lambs and wool shall be made as follows: At lambing time the said A will mark with paint all the lambs dropped by B's ewes, and at weaning time, say on or about the 1st Sept., these shall be divided as equally as possible with regard both to quality and sex, and the said A will then mark those allotted to B with a notch cut in front of one ear, or the same mark as the original (100) sheep. If said B cannot be conveniently present at the dividing of the lambs, C will act for him, and, in any emergency affecting these sheep, the said A is authorized to consult said C, and to act upon any suggestion he makes. At time of shearing the sheep owned by B shall be separated from all others, and the wool shorn from them kept and packed by itself and shall then be equally divided. At end of every season, say immediately after weaning, the said A will make an accurate inventory showing exactly the number and approximately the ages of all the sheep belonging to B then in his possession, and will mail a copy of said inventory to said B. Should the said A at any time think it desirable to dispose of any defective sheep from B's lot he is at liberty to do so, and will replace them from his own bunch or account satisfactorily to B for them.

(Signed) A.
B.

Prize Essays on Weeds.

The following notice has been received from the Department of Agriculture, and is one of the results of the animated discussions that took place in the House during last session on the all-important topic—weeds.

We understand it is the intention of the Department to publish the prize essays in bulletin form, along with other information pertaining to weeds; also illustrations of the most important varieties. In the circular, two important weeds have been omitted: The rag weed, or as it is often called the club weed, is becoming a very troublesome pest in many parts of the country; the seed is about the same size as wheat and very difficult to clean out of wheat. We are surprised that this weed is not included in the act among the noxious weeds, as it is much worse than wild buckwheat, and the tumble weed (Indian Head variety) is as near our borders as is the Russian thistle, and should receive a share of attention.

The following is the circular—:

"In order to direct the attention of farmers in Manitoba to the dangers arising from the spread of noxious weeds throughout the province, I have decided to offer prizes for the best essays on "Manitoba Weeds and How to Destroy Them," as follows—:

1st Prize.....	Cash.....	\$25.00.
2nd ".....	".....	15.00.
3rd ".....	".....	10.00.

Prizes may be competed for by any resident of the province. Special notice is given to all the Farmers' Institutes in the province, with the hope that many essays may come from the members.

It is requested that the list of weeds be confined to French Weed, Canada Thistle, Wild Mustard, Wild Oats, Wild Buckwheat, Couch Grass and Russian Thistle.

The most practical information in the smallest compass of words is wanted.

Essays must be sent to the Department of Agriculture and Immigration on or before the 1st day of June, 1894. Mark envelope "Essay, Noxious Weeds."

The essays will be submitted to a committee of practical men, who will award the prizes.

When prizes are awarded, the prize essays will be published in bulletin form for general information to the public.

THOS. GREENWAY,
Minister of Agriculture and Immigration.

The Institutes.

LITTLE MOUNTAIN

Farmers' Institute, to be organized on April 25th, at 4 o'clock p. m., in the Little Mountain school house, in the municipality of Rosser, just a few miles west of Winnipeg.

NAPINKA

Farmers' Institute, to be organized in Graham's Hall, Napinka, on May 1st, at 7 o'clock in the evening.

BOISSEVAIN

Farmers' Institute, to be organized in the Masonic Hall, Boissevain, on May 2nd, at 1 o'clock p. m.

BELMONT

Institute turned out in large numbers to hear Mr. Bedford's lecture on March 26th. All thoroughly appreciated the lecture.

KILDONAN

Institute held their second meeting on March 22nd, when able and interesting papers were read by Thos. McIntosh on "Potato Culture" and by P. McColman on "Root Culture." Lively discussion followed.

BRANDON.

The last winter meeting was held on March 24th. After the reading by Mr. Wilson of his excellent paper on "Agriculture in the Public Schools," which appears in another column, the following discussion took place—:

Mr. Leech, sr., said he regretted that it had taken him all his life to learn what might to a certain extent have been learned in a few years. Mr. Keaster was opposed to pen and ink farmers. Men wanted to be practical and should be able to learn all they needed to know between the plough handles. He had done well every year he had been in Manitoba. He thought that the time in schools might be more profitably spent than in teaching agriculture. Mr. Wilson said he agreed with Mr. Keaster that agriculture should be practical; it should be taught in no other way. He explained that it could take the place of other subjects that were taught at present that were no use, and emphasized that the text book should not be put in the hands of the pupils. Mr. Cliff, an old school teacher, was called on, and he pointed out the benefit of practical teaching, instancing botany; that if the plant was in the school room the lesson was taught in much less time than from the text book and had a more lasting effect. He said education in a calling improves a man in that calling, but that does not say he was intended for it. It was a great mistake putting children at a calling for which they were not intended. H. Nicol thoroughly believed in agricultural education. He thought children must be dull indeed if such education did not do them good. He did not see how education of any kind could do anything but good. He thought farmers did not value their calling as they should. They should look on themselves as the most important factor in this country. Mr. Noble, of Blythe Institute, was at one with Mr. Wilson's paper. He thought the farmers lacked scientific knowledge. He had never farmed till he came to Manitoba twelve years ago. He had learned more by attending institutes and reading in the last year than in the eleven previous ones. He thought farmers were in the dark. He instanced France and what agricultural education had done for her, and as we were so far from market our margins were small, and we therefore needed it more. He hoped it would not be long before his children were studying agriculture at school. The discussion closed by D. F. Wilson reading a paper on the subject, which we hope to publish in an early issue.

The following resolution was passed:—"That this institute heartily concurs with the resolution passed by the Local Legislature regarding agricultural education, but regret that they did not take some immediate definite action in the matter.

BIRD'S HILL

Farmers' Institute was organized on April 4th, with a membership of 80. R. E. A. Leech, Secretary of Central, officiated as master of ceremonies, and the election of officers resulted as follows:—President, R. R. Taylor; vice-president, George Chudleigh; secretary-treasurer, Wm. Walter. Directors—Miss C. Cutton, E. Hoddinott, J. B. Ashley, N. S. McGregor, W. S. Lister, J. N. Bottomly. Auditors—Henry Taylor and A. J. Kayle. Mr. Waugh then addressed the meeting on gardening, after which Mr. H. McKellar, Chief Clerk of the Department of Agriculture, delivered an interesting address on general farm topics, which was well received, after which the meeting adjourned to meet again on the 28th inst., at 7.30 p. m.

A Patrons' Supply Company.

Notice is given in the last Manitoba Gazette for incorporation of "The Patrons' Commercial Union," to carry on the business of dealers in farmers' supplies, agricultural implements, and in grain and farm produce. Portage la Prairie to be headquarters; capital stock, \$100,000, in \$25 shares. The applicants are: C. Braithwaite, W. C. Graham, C. J. Green, Portage la Prairie; K. McKenzie, sr., Burnside; Wm. Cowler, Poplar Point; F. McArthur, Westbourne; D. W. McCuaig, Oakland—all farmers.

The Spring Stallion Show.

The Eighth Annual Spring Stallion Show, which opened in Toronto on Wednesday, March 28th, was, in point of the quality of the entries, more successful than any of its predecessors. Notwithstanding the fact that horse breeding as an industry is less remunerative than formerly, yet there were far more No. 1 animals in every class and a much better selection could have been made in almost any line of breeding than in any year since the inauguration of this show. Nothing can prove more emphatically the indomitable energy and enterprise of Canadian horse breeders than the fact that they continue to import and breed such a high class of animals. This feature was not only observable in one or two classes, but it was conceded by all present that never before had such a variety of grand representatives of each of the breeds been brought out for public examination. In fact, all that is required to make the show successful from every standpoint is a suitable building, which it is understood may be expected before another year.

CARRIAGE AND COACH STALLIONS.

As usual this class was comprised of horses of different breeds, and we earnestly hope that in the future those who have the management of our leading exhibitions will see their way clear to make a better classification. Heretofore this class has been the dumping ground for animals of any breeding that come within the pale of a horse over 16 hands, possessing clean legs and carriage type. This show was no exception to the rule, for this class comprised Yorkshire Coach, Cleveland Bay, German Coach, French Coach, and horses of mixed breeding.

In the section for horses foaled previous to January, 1891, fourteen out of the sixteen entered responded to the call for inspection before Messrs. Asa Choate, Port Hope, and W. S. Plank, V. S., Uxbridge, to whom the post of trying on the ribbons had been assigned. A lot of capital horses they were, and it was evident from the outset that the task of selecting the winners was anything but an easy one. However, after a thorough inspection, the prizes were awarded as follows:—The first was sent to Thos. Irving's (Winchester) imp. Prince Arthur, by Baron Rothsay 981, a horse which has won many sweepstake prizes at previous shows and exhibitions. Prince Arthur was in capital form; he has grand coaching conformation, carries himself well, and is decidedly one of the most handsome horses brought out in a Canadian show ring. The second ribbon was given to Picador, an imported German Coacher owned by the Milton German Coach Horse Co., Milton, Ont. This was an upstanding horse that moved equal to anything in the class, but he lacked middle. Mr. Robert Ness, Howick, showed a right useful one in the imported French Coacher Maltot. This horse carried himself with fine action and was very much admired. He went higher than anything in this class. He is a horse of good conformation, head and neck nicely placed, capital rib, and feet and legs that would stand any endurance. Mr. Ness had also another good French Coacher, named Busnel, that was anything more than equal to his stable companion in appearance standing, but he did not move with quite as good action. The committee placed him fourth.

Thos. Irving was given the highly commended ribbon for imp. Ingmanthrope Forester 2nd, a particularly smooth, nicely finished horse, but he lacked the bloom of those placed before him.

Mr. McMillan's (Erin) Shining Light was given 6th ribbon. This horse is rising 9, yet he retains much of the wonderful finish which has placed him at the top at so many previous meetings.

Messrs. Lowes Bros., Brampton, had forward a right good useful horse in Stanton King, by General Stanton—a sire, by the bye, which has left a lot of good ones throughout Ontario, that have gone to New York at remunerative figures. In the section for stallions foaled subsequent to January, 1891, Mr. C. N. Blanshard, V. S., Appleby, had the only entry in imp. Terrington Boy, a very nice horse, while Mr. Irving's Prince Arthur carried sweepstakes for the best coaching stallion at the show.

STANDARD-BRED HORSES

Were next on the list, and of horses of this breeding foaled previous to Jan. 1st, 1891, eleven came forward. Mr. F. Walker, Coldwater, Mich., was called to assist the two gentlemen who officiated in the coaching class.

Graham Bros., Claremont, were awarded first premium on the beautiful horse Deacon 17380, by Bishop 1688, the sire of a number of good ones in the 2.30 list, while Deacon's dam, Sally Geaves, also contributed her share, she having produced two in the list. Deacon is a handsome horse that should breed exceedingly well, as he has size and conformation that would lead one to suppose that he should produce selling horses, even should they not develop exceptional speed.

Messrs. Kidd Bros. (Listowel) Oliver Wilkes 10647 was sent the blue ribbon. He is individually a good horse and showed a good gait on the line. Robert Porfeous' (Simcoe) The Wasser 7733 was awarded the third premium, while Thomas Lee (Toronto) captured fourth place with Sim Watson, Jr. The highly commended went to William A. McBride's (Toronto) Willie Douglas, and the commended was sent to George E. Hughes' (Charlottetown, P. E. I.) Physician Boy. In the ring for standard-bred stallions foaled subsequent to January, 1891, four horses were forwarded, among which S. G. McCully's (Toronto) Altoner was awarded

first, Geo. Jackson & Sons' (Downsview) Sylviago won second, Fisher & Co.'s (Harriston) Karon won third, Morris, Stone & Wellington's (Font-hill) Pelman Boy carried fourth.

THOROUGHBRED STALLIONS

Were next on the programme of the day, with Dr. Andrew Smith, V. S., Toronto, and Mr. Arch. Wilson, Paris, awarding the ribbons. Nineteen entries had been made in the section for stallions foaled previous to January, 1891, with two absentees, leaving 17 for the judges to choose the prize winners from. To Kidd Bros. (Listowel) Ten Broeck, Jr., by Ten Broeck, was sent the first premium. This is a good strong horse, which, if the staying qualities of his sire are taken into consideration, should be expected to prove a great hunter sire. Brown & Gilkinson's (Brampton) Woodburn, by King Alfonso, gained second place. To Peter & Alex. Holmes' (Beechville) imp. Pillarist, by Trappist, the third was given; Joseph Duggan's (Toronto) The Chicken, by Pheasant, the fourth, and J. W. Murray's (Toronto) June Day, by Falsetto, highly commended while the commended ribbon was given to Trick, from Percy & Young's (Bowmanville) stable.

THE HACKNEYS.

By far the most attractive department of the first day's show was that of the Hackneys, and the judges, Mr. J. T. Gibson, Denfeld, and Dr. Quin, Brampton, found that they had no light task assigned them in choosing the winners. Nine stallions foaled previous to January 1st, 1891, had been entered, three of which were not forwarded. However, the remaining six made up by far the best class that has yet appeared in a Canadian show ring. These were:—Messrs. R. Beith & Co.'s (Bowmanville) Ottawa, sired by Lord Derwent 2nd (1034), dam May Flower (76), and from the same stable also came imp. Jubilee Chief (2122), sire Pilot, dam Queen of the Forest (297); Messrs. Graham Bros. Kilnwick Fireaway (imp.), sire Lord Swanland (1834), dam Trip, by Tripaway (2206); Messrs. D. & O. Sorby's imp. Square Shot (27), sire Great Shot 2nd (1490), dam Myrtle (256); H. N. Crossley's (Rosseau) imp. Fireworks (3802), by Wildfire (1224), and Crouch & Son's (Lafayette, Ind.) imp. The Duke (2039), by Highflyer (1006). With such a galaxy of notables it was evident that the judges would find no small difficulty in making a proper choice upon which to place the ribbons. There was Ottawa, already twice champion over all Canada, and Jubilee Chief, sweepstakes at the World's Fair, Chicago, in addition to one in Canada, both in the best form we have yet seen them, but to our minds Jubilee Chief was going the better of the two. There is precision about the all-round action of the latter that not only carries him well, but attracts the eye as he is coming and going, while it pleases equally well from the side. Kilnwick Fireaway was also at his best and moved smoothly and attractively. He is a horse that has few faults, either going or standing. He not only attracts the crowd, but scales high from the judges' standpoint.

Square Shot had as many admirers as any in the ring; he may have been a trifle gross in condition, but his legs were of the finest, with such grandly muscled second thighs and forearms one seldom sees. His quarters are powerful yet beautifully moulded, his back, ribs and shoulders none can criticise, while his head and neck give a finish to the picture. There were some who faulted his action in that he did not pick up quick enough, yet all acknowledge that he went as high and as true as any in the party; he goes with a stride that carries him along, while he has such substance as will always find him friends, and there is a reality and quality in his make-up that had he been placed higher none could have faulted the decision.

Wonderfully improved is H. N. Crossley's imp. Fireworks; in fact there were many who hardly recognized in him the three-year-old colt that he exhibited at last fall's exhibition. Fireworks is sired by Wildfire (1224), dam Pretty Poll (4574), by Superior (1410), and bids fair to yet make a difficult competitor, while his breeding is such that he is a most desirable horse in the stud.

Crouch & Sons' (Lafayette, Ind.) imp. The Duke is a strong horse, but had not the finish or style of going of those previously mentioned.

The prizes were awarded as follows:—Ottawa, 1st; Kilnwick Fireaway, 2nd; Jubilee Chief, 3rd; Square Shot, 4th; Fireworks, 5th.

Hackney stallions foaled in 1891.—S. H. Hastings was forward with the nicely formed horse imp. Star of Mepal 2nd, by Star of Mepal, dam Queen of Denmark (4610), by Telegraph (826). The same exhibitor also showed Black Nobleman, bred by himself and sired by imp. Young Nobleman (2323), dam imp. Norfolk Duchess.

Hackney stallions foaled subsequent to Jan., 1892.—Messrs. R. Beith & Co. had a right good one in Banquo, by Jubilee Chief (2122), dam imp. Mona. This colt has beautiful action, and has developed wonderfully since last fall. He was very much admired. Lord Rosebury, from the same stable, is also by Jubilee Chief, dam imp. Florence, and Mr. Hastings had another entry in a colt by imp. Nobleman, dam imp. Norfolk Duchess. The prizes were given in the order named, and to Ottawa was given the sweepstakes.

SHIRES.

Shire stallions foaled previous to January, 1891, was the first ring called the second day of the show, for which nine entries had been made, the only absentee being the excellent sweepstakes horse Bravo, owned by Mr. H. N. Crossley, Rosseau.

Messrs. Morris, Stone & Wellington's Pride of Hatfield was placed first. This was a four-year-old horse by Lincolnshire Lad; the same parties also winning third with Prince Charles, bred by themselves. The second ribbon was given to Messrs. Jas. Gardhouse & Son's imp. Garfield 2, a horse that has worn well and is wonderfully fresh considering that he is 12 years old. Mr. H. N. Crossley's (Rosseau) six-year-old imp. horse Headon Bannaut was given fourth, while the fifth and sixth went to Mr. Garbutt's (Thistle town) imp. Blagdon Marquis and (imp.) Flydi King 2nd. In stallions foaled subsequent to January, 1892, Messrs. Jas. Gardhouse & Son won first place with imp. Duke of Blagdon, and Messrs. Morris, Stone & Wellington second with Frederick Williams, of their own breeding.

IN CANADIAN-BRED CLYDESDALES.

Stallions foaled previous to Jan., 1891, were a beautiful lot of horses. R. D. Dundas, Springville, scored a first with McLaws, sired by imp. General Wolfe (5800), dam imp. Forest Queen. This was a grand, good horse, possessing both substance and quality. Alex. Cameron's (Ashburn) The Tartar, by imp. Eastfield Chief, dam imp. Mildrum Meg, gained second. D. & O. Sorby's Prince of Eyre, bred by the exhibitors and sired by imp. Boydston Boy, dam imp. Jane Eyre, carried the third premium. James MacDonald's Richmond 2nd, by Richmond gained fourth place. A wonderfully useful ring of horses was that of Canadian-bred stallions foaled in 1891. Here Graham Bros.' The Cameron, by imp. Tannahill, dam imp. Ivy, was given first place. He is a horse with clean, flashy legs and good back, and moved particularly well. He was closely followed by John Vipond's Erskine Style, by imp. Erskine, dam imp. Brooklyn Metal. Erskine Style is a capital horse, possessing thickness and quality, and moves extra well. Job White was third with a good upstanding horse named Ashburn Hero, by imp. Tannahill. The fourth ribbon was given to John Cowie's Brown John, by imp. Brown James; the very highly commended ribbon being sent to A. K. Tegart's (Tottenham) Peerage, by imp. Lord Wilton.

In colts foaled subsequent to 1892, Alex. Cameron was given first with Grand National, by Tannahill, and Robt. Davies' Corsock 2nd gained second.

The sweepstakes for Canadian-bred Clydesdales was given to Graham Bros.' The Cameron.

IMPORTED CLYDESDALES.

More than usual interest centred in the class for imp. Clydesdale stallions, as several new comers appeared on the scene for the first time. Seventeen entries had been catalogued, and fifteen of these faced Messrs. Robert Beith, Arthur Johnston and John Duff, who had been selected to tie the ribbons, a position that from the onset it was evident would prove no insecure.

Messrs. D. & O. Sorby's Grandeur was evidently the favorite with the crowd outside, for he had already won sweepstakes at last spring's meeting, a position that he was entitled to hold, as he was clearly an outstanding first. He was in better bloom than ever. He has the best of feet and pasterns, and if possible he has improved at this point, while his top piece was in best form possible. Grandeur was also going his very best, and standing or moving was a clear first.

Graham Bros. Queen's Own, the first horse drawn, was, if anything, carrying less flesh than when he was last seen, but none could discount his feet and legs, for they were as flash as a four-year-old's, while his grand Clydesdale character at once stamps him as a breeding horse of the first order.

Robert Ness, Howick, P. Q., being anxious to measure swords with Ontario horsemen, had entered Lawrence, by Prince Lawrence, dam Rose of Balhall, by Lord Lyon, and a strong competitor he proved. Lawrence is a wonderfully smooth finished horse, and he was going fully as well as the best in the ring. He lacked the scale of his more fortunate competitors, otherwise the decision might have terminated differently.

Mr. T. W. Evans' (Yelverton) Crackmore Darnley was placed fourth, and yet it seemed as though the judges were loath to place so good a horse so far down. Crackmore Darnley was sired by Darnley, and unmistakably follows the type of his illustrious sire. He stands on short, flash legs, with a top piece that has any amount of substance, while his grand character makes him a most desirable breeding horse.

Mr. Jno. Davidson carried fifth premium with the right good horse, Tofty, bred by Mr. S. Campbell, Jr., Tofthills. Tofty was sired by Botany, a horse almost identical in blood to Darnley. He is a horse of wonderful scale, capital feet and legs, grand style and action. He is only rising four, and will doubtless be heard from later.

Mr. Jas. H. Wilson's (Lifford) Lewie Gordon, by McCamon, came next. He was in grand form above, looking as fresh as ever.

It would be impossible to describe all the excellent horses that failed to be placed higher up. Among these was an excellent young horse, Uamvar, exhibited by T. W. Evans, and Tannahill, from the stables of Alex. Cameron, Ashburn. Through the unfortunate ruling by which the produce of imported mares had to be shown in the Canadian-bred class, and the absence of imported stallions in the younger classes, the prizes for three and two-year-olds went a begging, while the breeders of stallions from Canadian-bred mares, anticipating the strong show made in Canadian Clydesdales bred from imported mares, failed to appear.

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Progress of Tariff Reform.

The last budget speech of the Finance Minister at Ottawa indicates that in Canada, as it was in Great Britain, the reformation of the fiscal system proceeds very slowly; but the Canadian, like his sturdy and indomitable British forefather, having put his hand to the plow, is not disposed to turn back until a clean, straight furrow is struck out. President Braithwaite, of the Manitoba Patrons of Industry, sums up the new Canadian Tariff as follows:

"The tariff is lowered on several articles of necessity to the farmer. We find also that it is lowered in a corresponding scale with regard to his products, and we figure out that one will nearly counterbalance the other. If so, then the farmer is where he was; but we find the manufacturer, wherever the duty on his manufactured article is lowered, has raw material made free or reduced correspondingly. The Government loses duty and will make it up by some other taxation, so that, while the Government may call it scientific protection, we farmers simply call it a case of 'as you were.'"

A good grafting wax may be made by melting over a slow fire, 1 pound resin, ½ pound beeswax and ¼ pound beef tallow. When all melted stir well and pour into a bucket of water at about the temperature of 70°. When cool enough pull like taffy, roll in balls of about half a pound each and lay away in a cool place.

Timely Notes for April—No. 2.

WIFE'S PORTION.

What is it? A comfortable home, a reasonable amount of work and recreation, sufficient allowance for dresses and a little to put by, little conveniences for saving labor, etc., or is it a slave's life, with no end to the work, grudgingly supplied clothing and that of the poorest, no leisure nor labor-saving appliances, and no pay? Now doesn't your wife deserve at least as much consideration as your hired man? Doesn't she deserve more—a great deal more? Isn't it a fact that a great many—far too many—farmers' wives die prematurely, broken down by over-work, neglect, and want of sympathy? Reader, is yours going that way, or is she contented with her lot? Try the experiment of giving her a regular allowance of so much money—say as much as you would pay a hired girl to do the same amount of work—provided (as the lawyers say) that you could get any hired girl to do so much. Buy her every labor-saving contrivance, just as readily as you would buy a mower or horse-rake for yourself—and you will find your farming will be more remunerative, and even an enticing calling. Don't save money by skimping your wife. Do without something outside the house. Better to buy a washing machine than a buggy. Better to have a happy, contented wife than that high-stepping horse that you really can do without. I am prompted to pen these words by noticing the deaths of two very capable women, broken down by over-work, and I can see several others round me who are prematurely aged. Their husbands don't see it. They are not really unkind, they are simply thoughtless. But the fact remains, and is patent to unlookers.

SOLD AGAIN.

Mr. Foster has again sold the farmers over into bondage. By a reduction in the duty on implements and another reduction on iron, he has left the manufacturers as well off as before. But the farmer will be little, if at all benefited, for the duty of 20 per cent. is still prohibition. The only real concession is the placing of lumber on the free list. This would be a real boom if we could break the combine, and so get lumber at its real value. Still, let us be thankful for even a quarter-loaf. *Ad valorem* instead of specific duties is an advantage, though slight. Why are not agricultural cords and twine and wire made free? It is very evident the government has only got a half-fright by Mr. Joseph Martin's return for Winnipeg. Let us send down a few more like him to Ottawa.

OBJECT LESSONS AT SALES.

Having a little leisure lately, I have attended a few sales, and find that stock are selling at good, even extravagant prices when well wintered. And well-bred horses, unless well up in weight, above 14 cwt., are decidedly low. Pigs ditto. Brood sows have in every instance fetched outrageous prices, so much so that it would be a paying business to keep a lot of sows until heavy in pig and then auction them off, at about three times their value. I have only come across one lot of sheep, really good ones at that, and they went begging. In a left-handed sort of a way, the very farmers who keep scrub bulls themselves show their appreciation of good blood by giving high prices for grade stock! The same man who keeps a miserable scrub bull will go to a sale and cheerfully give \$15 or \$18 for a good grade yearling heifer, while scrub stock of same age bring \$6 to \$10 apiece. Isn't this penny wise and pound foolish? Would it not be cheaper for him to buy a good bull himself for \$100, and breed his own grades? But, perhaps, he thinks it cheaper to let someone else do the rearing.

GENERAL.

Has the past winter proved to you that you cannot starve any money out of stock of any kind? Has it proved to you that cattle do with considerably less feed if kept in the stable all the time? Or are you one of those who try to warm up the barnyard by keeping your animals outside and simply build stables to look at, and in deference to public opinion?

Don't put in your seed until the ground is dry enough to work freely—"plough dry, harrow dry, sow dry," is a good maxim.

Plant a few early potatoes, also onions, parsnips and carrot. INVICTA.

Rain Making a Failure.

Secretary Morton has finally put the last nail in the coffin of the rain making scheme by issuing a circular, from which we take the following:—"I have to inform you that in no case did they pass the merely experimental stage, and that prospect of ultimate success is not such as to justify farmers or other citizens in rain making experimentation. In this determination, judgment and opinion I am supported by the scientists and other alleged experts in meteorology connected with the United States weather bureau. The bombardment of the skies for water, as carried on by this department, did not produce results calculated to inspire the hope that any method of concussion can be made commercially successful in precipitating the moisture from the clouds."

The Illinois State Veterinarian has discovered a number of cases of glanders in that state. Over fifty horses, including a number on one farm, have also been killed and cremated in Arizona on account of infection with this disease.

The Outlook for Pork.

Replying to your letter re price and prospects of hogs, we would say that the price having been almost unprecedentedly high all over the world, the natural effect has followed: Farmers have gone into the raising of them very freely. Our greatest competitors are the Danes. The industry there of hog raising and converting the same into bacon for the English market has increased enormously in the last few years. The bacon curers have killed as many as 15,000 in one week.

The aim of the agents of curers in Canada is to bring up the price of Canadian bacon to a level with the Danish. They have not yet succeeded in this. The large supply of the latter has brought down the price with a run, and at the price we are now paying for hogs we can barely get our own money back again, and some weeks there is a serious loss.

For years past we have paid the highest prices in the summer, say July and August, and while the prices current the last two years need not be looked for, we think that they will bring a fair price. Farmers should bear in mind that the price of grain is extremely low, therefore they can afford to sell their hogs at comparatively low prices. There is no doubt that in future packers, whether for local or export demand, will have to discriminate very severely between heavy fat hogs and lean sizeable. Thousands of the hogs we have bought this winter have not only made no profit, but they have robbed the same number of lean hogs of the profit they have brought. The most desirable hog for the bacon curer is about 180 lbs., live weight, long and full of flesh. As we have often mentioned, the mere weight of a hog does not make it desirable or valuable, it is the condition. At the present time buyers in England discriminate between fat and lean bacon to the extent of at least one cent per pound of the live weight of the hog. To advise farmers to sell their hogs in the condition we have named is simply to urge them to the course that will be the most profitable, for not only will the animal bring a higher price per pound, but it will cost the farmer much less to dispose of them in that condition, as the experiments on government farms both in Canada and the United States abundantly prove.

We do not think that the new tariff on pork will affect the market at all seriously, and do not think it will be to the farmers' interest to go out of pork raising, or even to lessen it to any considerable extent. We are much obliged to you for the interest you have shown in this matter, and if there is anything further on which you desire information or our opinion, command us. Yours truly,

WM. DAVIES.

[NOTE.—The above letter, from Mr. Wm. Davies, of Toronto, will be read with great interest by all who are raising hogs for breeding purposes or for feeding. However, unless the farmer can contrive some means whereby the cost of raising his grain can be reduced, it is not very comforting to tell him that he can afford to sell hogs at low prices because the price of grain is low.—Ed.]

Leaner Hogs Again.

Having read with considerable interest the remarks by Wm. Davies, of Toronto, in your issue of February 20th on "Leaner Hogs Wanted," we may say the wide experience of this extensive exporter of hog products to the Old Country markets should be of great assistance to our farmers, who will take precaution to prepare themselves with the class of hogs wanted for the export trade.

We have seen a letter written by Geo. Matthews, of Lindsay, Ont., also an exporter, which gives his experience, and it is practically the same as that of Wm. Davies. There is no doubt on one point: It will not be long until hog products are exported from Manitoba to the Old Country markets, and it certainly would be a wise thing on the part of the farmers to prepare themselves, so they can supply the packers with the class of hogs that will be required for these markets. As near as we can learn, the kind of hogs required are long, lean hogs, weighing from 150 to 220 pounds live weight. A portion of Mr. Matthews' letter reads as follows:—

"I believe that our farmers can and will in course of time supply the packers with the right kind of hogs, and although it will take time to do this, still, when they find their pockets are touched and they cannot sell fat hogs for the same price as lean, the difficulty will soon be overcome."

I would repeat that by lean hogs we do not mean store hogs, but properly fattened hogs with small shoulders and a large proportion of lean in their sides.

The farmers should remember three things:—1st, The breed. A long lean hog—the Berkshire or Suffolk are not suitable, but by judiciously crossing them with the Tamworth and Yorkshire they will answer very well. 2nd, The feed. Any kind of grain, but not exclusively any one kind, along with some mangolds or turnips in winter and green feed in summer. 3rd, Let them have some room to move about. Feed them at a distance from where they sleep, so they will have to walk. They grow better and leaner by having exercise.

Yours truly,

J. Y. GRIFFIN & Co., Winnipeg, Man.

A Regular Delivery Preferred.

In reply to your letter of 2nd inst. we would say that in our opinion the right class of hogs for the English market would always have a steady demand and obtain a reasonable price. The English market requires the hogs long and not too fat, about 1 to 1½ inches fat on the back, with thick bellies and good plump hams. If the farmers would weigh their hogs frequently, and as soon as they weigh between 160 and 200 pounds live weight deliver them and avoid rushing in smaller and larger hogs, the supply would be more regular, and the prices would keep better. We find that the great fault is, that as soon as the hogs are dropping a little all classes are rushed in to the market.

THE CANADIAN PACKING CO., John H. Ginge.

Chatty Stock Letter from the States.

FROM OUR CHICAGO CORRESPONDENT.

Top cattle, \$4.75; top hogs, \$5.10; top sheep, \$5.25; top lambs, \$6.00. This is a decided improvement over a month ago. As compared with a year ago prices are fully \$1.00 lower on cattle, \$2.00 and \$2.40 lower on hogs, and 25c, and 50c, lower on sheep and lambs. However, the prices for live stock show up very well indeed, considering all things.

The sheep market is fully \$1.50 higher than a month ago, and the sheep feeders who a few weeks ago thought there was no good in the outlook, and that they might as well "cut loose" one time as another and save feed, are feeling very much like kicking themselves. Even the cheap grades of sheep are selling better. One lot of 1,211 Oregon sheep, averaging 87 lbs., sold on feeding account at \$3.60 for 100 lbs.

The cattle situation has also mended in an astonishing degree, and feeders and shippers are not putting on such long faces. Cattle feeders, it is true, are not making any money, but people in other lines of business have not complained very loudly this past year if they could keep from losing much. It is said the owners of Texas cattle fattened on cottonseed meal have suffered losses of \$5 to \$15 per head on the season's work, but mainly on account of the sharp competition for meal and cottonseed hulls, which ran prices up to a point at which no profit could be made, unless bonanza prices were obtained for the beef. The marketing of cottonseed cattle is about over for the season, and there will be quite a gap between the last of them and good grass Texas beves. The severe drouth in Southwestern Texas is doing great damage to the cattle interests down there. The cattle are too thin to stand moving to good pasture. The Wyoming and Montana ranchmen are not buying very freely of Texas cattle so far, but they will want a good many. The winter has been very severe in Colorado and Wyoming, but favorable in most parts of Montana.

Horsemen are feeling decidedly better, though the prices for plugs and common horses, which are so abundant, have not advanced much as yet. At a recent sale of good coach horses here a number of pairs sold at \$500 to \$1,350. Several foreign gentlemen have been buying horses on the Chicago market lately, and something like 100 head of coaches and drivers were sent forward one week destined for Dublin, Edinburgh and Havre. At the sale in question one hundred and nineteen head were disposed of at an average of \$277.96. The following were among the best prices realized:

Pair brown geldings, W. Osborne, city	\$ 940
Pair chestnut geldings, W. Randolph, city	550
Pair bay geldings, W. Peters, Manistota, Mich.	1,250
Pair chestnut geldings, W. McDonald, city	700
Pair brown geldings, H. Peabody, city	725
Gray gelding, G. S. Gaylor, city	420
Black gelding, E. A. Hill, city	500
Pair chestnut geldings, J. Dupes, city	1,350
Pair brown geldings, J. R. Walker, city	650
Brown gelding, A. Stephen, Edinburgh, Scotland	1,175
Brown gelding, J. Arnheim, Pittsburg, Pa.	725

The indications point to better conditions in the general live stock trade.

The first three months of 1894 Chicago, Kansas City, Omaha and St. Louis received in round numbers 5,752,000 head of cattle, hogs and sheep. Cattle receipts at Kansas City, compared with a year ago, increased 69,000, while Chicago decreased 76,000, Omaha 44,000, and St. Louis about 12,000. Receipts of hogs at Chicago the first quarter of 1894, compared with a year ago, increased 570,000; Kansas City increased 170,000; Omaha, 32,000, and St. Louis 69,000. Chicago increased 140,000 sheep, and St. Louis 21,000, while Kansas City decreased 2,200 and Omaha 18,000, compared with a year ago. Of 5,752,000 head of cattle, hogs and sheep received at all four markets for the three months, Chicago had 3,450,000.

A Lesson from Tuberculosis.

The present tuberculosis scare will not have been wholly bad if it leads breeders and dairymen to provide better sanitary conditions for cows.—Hoard's Dairyman.

The scare will not be wholly bad if it leads to more rational methods of breeding on the part of some of the special purpose dairy cow breeders. They have sapped the constitutional foundations of their cattle by breeding too young and in-breeding. Animals have been mated without regard to relationship, and following that with an unnatural system of forcing, it is not to be wondered that a ruinous predisposition to this alarming disorder was developed.

Prof. Saunders' Report.

The advance report of the Director of the Dominion Experimental Farms contains as usual a vast amount of valuable information for the farmer. This pamphlet comprises a short account of the workings of the different experimental farms, a report of Prof. Saunders' work at the Columbian Exhibition, together with the results of the different experiments carried on at the Central Experimental Farm at Ottawa. A very interesting and instructive table of the constituents which are taken from the soil by ordinary farm products is given. As far as possible these figures are compiled from analyses made by the chemist of the Experimental Farm, supplemented by information obtained from American Experimental Stations and German experimenters. As the figures will be of great use for reference, we give them in full:

	Nitrogen in lbs.	Phosphoric Acid in lbs.	Potash in lbs.
A wheat crop of 25 bushels per acre, with 2,200 lbs. of straw, takes—			
For the grain weighing 1,500 lbs.	28.50	12.68	8.54
" " straw " 2,200 "	12.03	4.96	10.57
Total	40.53	17.64	19.11
A barley crop of 35 bushels per acre, with 2,000 lbs. of straw, takes—			
For the grain weighing 1,680 lbs.	33.26	13.28	8.86
" " straw " 2,000 "	12.22	3.86	19.39
Total	45.48	17.14	28.25
A crop of oats of 50 bushels to the acre, with 2,200 lbs. of straw, takes—			
For the grain weighing 1,700 lbs.	32.13	10.48	8.05
" " straw " 2,200 "	13.90	4.74	24.83
Total	46.03	15.22	32.88
A crop of Indian corn grown for fodder purposes to the period when the ears are in the late milk or glazing stage, takes from the soil for each ton—	5.80	2.96	6.54
A crop of turnips takes from the soil for each ton of roots grown—	3.80	1.86	5.50
A crop of mangels takes from the soil for each ton of roots grown—	3.03	1.84	7.66
A crop of carrots takes from the soil for each ton of roots grown—	2.35	2.22	6.53
A crop of sugar beets takes from the soil for each ton of roots grown—	4.79	1.92	9.06

By multiplying the above figures by their value per pound, which is given by a Cornell University Bulletin as follows:—Organic Nitrogen 15 cents, Phosphoric Acid 5 cents, and Potash 5 cents, each farmer can estimate for himself just how much of his capital which is invested in the fertility of his farm he is disposing of each year.

EXPERIMENTS WITH MANURES.

For the past six years Prof. Saunders has been quietly carrying on experiments in the testing of barnyard manure, different kinds of phosphatic manures, nitrate of soda, salt, land plaster, mixed manure, and no manure on wheat, barley, oats, potatoes and roots. In this report he gives the results of the past six years' labor, as follows:—

While a period of six years in the testing of the effects of manures on crops is altogether too short to permit of drawing positive conclusions on any point, yet when a considerable degree of uniformity is found in the results throughout the series they may justify an experimenter in calling special attention to them.

The results throughout the whole series in uniformly large average returns serve to confirm the correctness of the view generally held as to the beneficial action of barnyard manure. It is, however, worthy of note in this connection, that in its application to wheat, barley and oats, manure used fresh from the barn has produced a higher average of grain than an equal weight of manure which has been well rotted. In the barley plots the fresh manure also gives a heavier weight of straw, while in the oat and wheat plots the advantage, as far as the crop of straw is concerned, is slightly in favor of the rotted manure. In corn, roots and potatoes, there was practically no difference in the results obtained from fresh and rotted manure. These facts when carefully compared indicate a considerable advantage thus far in the use of fresh manure over that of rotted weight for weight, which is a most important point in the economy of manures, since during the process of rotting manure loses about 40 per cent. of its weight, and to this loss must be added the cost of twice handling, and usually that of turning once or twice during the process of fermentation. The explanation of this rather unlooked-for result probably lies in the fact that the liquid portions of the manure, the richest in nitrogen, have much of their most valuable constituent volatilized and lost during the process of rotting.

The unmanured plots show fairly uniform results throughout, the slight differences being easily explained by variation in soil. The results seem to show that mineral phosphate untreated, no matter how finely ground, has little or no effect as a fertilizer, and that the effects observable where nitrate of soda and wood ashes are used in conjunction with the untreated mineral phosphate are probably due entirely to the action of these added fertilizers. There is, however, no doubt that the mineral phosphate when treated with sulphuric acid and rendered soluble by being changed to the superphosphate is a most valuable addition to the fertilizing constituents of the soil.

It would appear that when the finely ground mineral phosphate is intimately mixed with barn-

yard manure in an active state of fermentation and composted for several days, better results are obtained than would be expected from the proportion of manure used, and it is probable that under these circumstances some portion of the mineral phosphate is rendered soluble by the action of the ferments in the decaying manure.

The addition of highly nitrogenous fertilizers, such as nitrate of soda and sulphate of ammonia, while usually producing a fair increase in the weight of grain, has a more marked effect on the weight of straw, which is increased very considerably. It is somewhat singular that the inferior quality of superphosphate of lime has given in nearly all the tests better average results than have been obtained from the use of the more costly quality: no explanation can yet be offered for this unlooked-for result.

The experiments with the use of common salt alone, and land plaster or gypsum alone, have resulted in better average yields than was expected. These results are most probably due in large measure to the influence which both these substances exert in liberating potash in the soil, by reducing insoluble potash compounds to soluble forms, and also of influencing the texture of the soil so as to enable it to retain more moisture. The use of salt alone seems to be specially beneficial to the barley crop. The tests made with sulphate of iron on grain crops have also given better results on the average than was looked for. Some of the less favorable results obtained from the use of artificial fertilizers, which from the nature of their constituents are known as complete fertilizers, are unexpected and disappointing and cannot at present be explained. In all probability the experience of a few more years will throw further light on the subject.

SEED TESTING.

During the past season the vitality of some 1957 samples of seed grain and seeds have been tested, the samples varying all the way from 100 to as low as 4 per cent. of good seed. Samples to be tested should weigh not less than an ounce, and may be forwarded to the Experimental Farm by mail, free of postage.

TESTS OF DIFFERENT VARIETIES.

In the tests of different varieties the following varieties came out ahead:—

Wheat—Thirty varieties; Herison's Bearded, Preston, Dions, Pringle's Champlain and Wellman's Fife.

Barley—Two-rowed, 12 varieties; Thanet, Swedish female with Baxter's Six-rowed male, and Improved Chevalier. Six-rowed, twelve varieties; Swedish female with Baxter's six-rowed male, and common six-rowed.

Peas—Twelve varieties; Canadian Beauty, Prussian Blue and Prince Albert.

Turnips—Fourteen varieties; Marquis of Lorne, Prize Purple-top and Carter's Elephant Swede.

Mangels—Ten varieties; Champion Yellow Globe, Giant Yellow Intermediate, Mammoth Long Red.

Carrots—Eleven varieties; Mammoth White Intermediate, Improved White Short, Giant Short White, White Belgian and White Vosges.

Sugar Beets—Eight varieties; White Green-top Brabant and French.

Potatoes—Sixty-one varieties; Burnaby Seedling, Geo. McKinzie, Seattle, White Beauty, Crown Jewel and Holburn Abundance.

SPRAYING FOR RUST.

The spraying of plots of oats and wheat with copper carbonate as a preventative of rust was unsuccessful.

SMUT.

Experiments both in Ontario and the Northwest emphasized the importance of the treatment of seed grain with copper sulphate as a remedy against smut. For further particulars, see page 132 last issue.

A report of the plantations of forest trees and analysis of water is also given. Altogether it is an exceedingly valuable report, and we would advise every farmer to write for a copy.

Test Your Seeds.

It is a good plan to order your seeds early and then test their germinating power. A little time and trouble exercised at this time of the year will often save months of vexatious delay later on in the season, and perhaps make all the difference between a good crop and one that will not pay for cultivation. The following experience will illustrate this point:—Last spring one of our most progressive and painstaking farmers, after buying his seed corn, thought that it did not look altogether right, so he obtained a box of mould, set it in the kitchen window and planted twenty-five grains, when his suspicions were confirmed by finding that only about one-half the seed would grow. He therefore condemned the whole lot and bought fresh, which proved all right. His neighbors, who did not take the precaution to test their seed, sowed the first lot, with the result that their cornfields were patchy, only about one-half growing. In this way double the amount of labor in cultivating and keeping the land clean was required for only half the crop. Professor Saunders, in his report, states that the samples sent to him to be tested varied all the way from 100 per cent. of good seed to samples in which only 4 per cent. of the seeds would germinate. It will certainly pay to test the germinating power of all seeds before sowing.

Popular Geology.—No. 4.

BY PROF. J. HOYES PANTON, M. A., F. G. S.

We shall now account for how the rocks after deposition in water become hardened:

1. By the action of substances in them, such as lime, silica, or iron. We see this illustrated in the case of using lime in mortar, and plaster of Paris in forming ornaments upon the ceiling of rooms, and lately the material used in making pavements. At first these materials are soft, but on exposure to the air they harden.

2. By heat. This is shown in the manufacture of brick from clay.

3. By pressure. 4. By drying.

5. By substances derived from the decomposition of shells, corals, etc.

6. By the presence of springs, containing iron, lime or silica in solution in the deposits. These conditions present, where soft material was collecting, would soon tend to consolidate it.

In giving the characteristics of Aqueous rocks the term fossil was used. This requires more than passing notice, because fossils become of great importance in identifying the age of a rock formation.

Fossils may be defined as relics of animals or plants imbedded in rocks, and is as equally applicable to any trace of the entombed object as to the whole.

How formed:—1. Where only partial change has taken place in the object after it has been imbedded. This is probably the simplest form of fossil we find.

2. Moulds.—In this case the plant or animal has been buried in the deposits, and afterwards entirely decomposed, leaving nothing but an empty space, its shape, to indicate where it was imbedded. When these deposits harden, it may be ages after, the rock in splitting will show a mould.

3. Casts.—These occur where some infiltrating material, such as lime, iron or silica in solution, has gained access to the mould and completely filled it; so that when the whole is hardened rock and comes under the examination of geologists, casts are readily knocked out of the rock. This is a very common form of fossil in the rocks around Guelph, Elora and Galt.

4. Replacement.—In this form you find the most complete fossils of all. The entombed object in this case does not at first entirely decay and the empty space fill up, but the filling up, or better, replacement, takes place the moment a particle decays; and thus you have the object replaced, particle by particle, with so much exactness that the very structure of the eye is retained. Many fossils of this kind consist of silica.

5. Impressions.—These appear in the form of ripple marks, footprints, and raindrop markings. We can see how this could have taken place, if we visit some shore where the tide passes out, leaving bare a muddy bottom for hours before it returns. Birds may walk over this and leave their footprints in the mud, which hardens by exposure to the sun long before the return of the water. When the tide returns it covers these tracks over with mud, etc., and the impressions are thus imbedded. Had a brief rainstorm occurred while the water was out, the markings of the raindrops would be entombed and not revealed until the whole, as hardened rock, is split open, when the impressions made upon it while soft mud would show themselves upon the stone.

What we can learn from fossils:—

1. The relative age of the rocks which contain them. Some animals long ago only flourished for a few periods; some did not appear till nearly all the rocks were made. Among the most interesting fossils in this connection are some crablike creatures called trilobites. They flourished during four periods, and then passed out of existence. The mastodon did not appear till twelve periods had passed, so that, geologically speaking, the mastodon is a much more recent animal than the trilobite, that died out in the seventh period.

2. The nature of the deposits in which the remains were buried. Animals have particular conditions in which they flourish, consequently we can infer the surroundings when we find the fossils; that is, whether the deposits were laid down in shallow or deep water, salt or fresh, warm or cold, river or lake.

3. Climate.—This can be inferred to some extent by a study of such fossils as the corals. Corals cannot exist in water that falls to a lower temperature than 68°; they live in clear salt water, not deeper than 120 feet. On the shores of Lake Erie we find 75 species of fossil coral. When these creatures flourished in Ontario it must have been a climate such as that where we see corals now, and thus vastly different from the climate of to-day. We find mastodon and mammoth remains in parts of our province. The remains of these huge, elephant-like creatures indicate another climate in our province, when they thundered along through our forests, than what we now have. Wherever coal of the carboniferous period is found, its composition shows that it has been formed from the same species of plants. Now we find coal in Greenland, the Arctic regions, United States, Australia, Britain; this

indicates a similar climate in all these places at the time when the coal beds were forming.

The preceding facts illustrate how stones by the wayside can become a great source of interest to us, by revealing some of the strange conditions of our beautiful province in the years long receded into the past, when corals flourished in the sea in which the rocks of our country were being deposited, and a more tropical climate prevailed than that which we see to-day.

Rocks after their formation are subject to more or less change, so that the earth's crust is not always the same. Some of these are illustrated as follows:—

1. Elevation.—In modern times the west coast of South America has been raised, and a similar change has been observed in Norway and Sweden.

2. Subsidence.—Greenland is sinking. Cape Breton and some parts of Nova Scotia are also being submerged. We are safe in saying every place has been below the sea at one time or the other.

3. Denudation.—This takes place when any portion of the earth's crust is bared, so as to expose a fresh surface and thus come under influences that have a tendency to disintegrate and decompose the rock. We are indebted to these agencies for soil, and as they are of great importance in the explanation of the origin and formation of soil we shall leave their consideration for our next communication.

Bronze Turkeys and Plymouth Rocks.

PROPERTY OF MR. M. MAW, WINNIPEG.

The cut below, which was specially prepared by the FARMER'S ADVOCATE from original photos, represents a pair of Bronze Turkeys and a pair of Plymouth Rock fowls from the well-known yards of M. Maw, Main St. north, Winnipeg.

The turkey cockerel weighed 20½ pounds, and the hen 19½, at the late poultry show, where they were first in their classes. The Plymouth Rock cockerel is the 93½ point "Hero," so much admired at the late show, and winner in a strong class. The pullet is one from Mr. Maw's breeding pen of P. Rocks.



PRIZE-WINNING MAMMOTH BRONZE TURKEYS AND PLYMOUTH ROCKS, THE PROPERTY OF M. MAW, WINNIPEG.

Mr. Maw is well-known to most of our readers as a practical writer on poultry subjects, contributing frequently to the columns of the ADVOCATE.

The breeds kept by him are Banded Plymouth Rocks, White and Silver Laced Wyandottes, Bronze Turkeys and Pekin Ducks.

Necessity of Good Tillage.

BY WILLIAM WALLACE, NIVERVILLE.

Soils are differentiated by their chemical composition and their mechanical texture. These qualities are natural to and inherent in soils, but both are modified by cultivation. It is the part of the farmer so to modify them as to produce the best possible results.

The virgin soils of Manitoba and the Northwest Territories may be considered perfect as regards their chemical composition, that is to say they contain all the elements,—nitrogen, phosphates, potash, etc., essential for the growth of plants. These soils may be described as rich, black loams, varying from the heavy or clay loams of the Red River Valley and some other districts to the light and sandy loams further west. They owe their exceptional fertility chiefly to the large amount of nitrogen in their composition. They are rich in this substance throughout the full depth of the black surface soil. There are, therefore, large supplies to draw upon, but these are not all immediately available for plant life.

Nitrogen, like the other constituents of the soil, is mostly in an insoluble condition, and until it undergoes a chemical process called nitrification, it cannot be assimilated by plants. Not to go into details as to this process, which is not yet thoroughly understood by chemists, it may be stated shortly that by the action of some vegetable ferment the oxygen of the air unites with the nitrogen in the soil and forms nitrates, which contain nitrogen in such a form that it can be taken up by the roots of the plants and assimilated by them.

Nitrification is promoted or retarded very much by the mechanical condition or texture of the soil. This should be such that the atmosphere has access

as deep as the rootlets extend, that a sufficient amount of moisture should be present, but that the soil should not be chilled by an excess of moisture. Nitrification ceases when the soil is frozen, and is most active during the heat of summer, and no doubt the rapid growth of vegetation in Manitoba is due to the brilliant sunshine which warms the soil and promotes this process.

A consideration of these facts shows the supreme importance of good cultivation. It must have occurred to the intelligent observer that the great difference in the yield of crops in the same district on adjoining farms, or even between different fields on the same farm, could not be due to any difference in the quality of the soil, because no such difference existed, and he must have been forced to the conclusion that the cause lay in the different modes of cultivation. This conclusion must have been brought forcibly home to him, if he compared the yield of the crops on the Experimental Farms at Brandon and Indian Head with the average yield in Manitoba and the Territories.

This subject of the proper cultivation of the soil has to some extent been discussed at the farmers' institutes and in the agricultural journals, but it is by no means exhausted, and it claims much greater attention than it has hitherto received. A good deal has been said and written lately on the advantage of applying farmyard manure to the soil. While we by no means undervalue this, and deplore the custom of burning the straw which should be fed to live stock, we believe that at the present stage of agriculture in the Canadian Northwest the question of good cultivation is of more immediate practical importance to the farmer.

Whether to plow deep or shallow is a question that cannot be answered in a word, but as the varying circumstances require. The question of shallow breaking and back-setting seems to be the best method of bringing the prairie into cultivation, and good crops for two or three years are, as a rule, the result. The reason is that in the upper two or three inches of soil there is sufficient plant food that can be made available by exposure to sun and air for several crops of wheat. The firm condition

of the soil below that depth is favorable for the wheat plant, which, while being a fibrous rooted plant, has also somewhat of a tap root, which penetrates to a considerable depth, and thus secures a firm hold, a necessity for a plant which is long in the straw and heavy in the head.

After a few crops it is necessary to plow a little deeper to bring up fresh soil. This should be done gradually, not more than an additional inch in any one year, as much injury may be done by bringing to the surface too much of the crude raw soil, which it would take several seasons to ameliorate. As the tendency of our summers is rather to be too dry than too wet, the future cultivation should be such as to conserve sufficient moisture in the soil during the growing months. There may be a difference of opinion as to the best method to accomplish this. We would suggest the following as a *modus operandi* for a short rotation:

We will suppose that the land has grown wheat for six or eight years in succession, and requires summerfallowing. Without fixing a date for plowing we would say plow when the bulk of the weeds are beginning to bloom, before the seeds are formed. Plow six inches deep with drag chain or rod to lay all the weeds in the bottom of the furrow, so that no vestige of them is seen on the surface. Harrow each day's plowing as it is done. Harrow repeatedly in dry weather, just as any crop of weeds is breaking through the surface. The result will be a compact, moist and warm soil, with about an inch of dry, pulverized earth on the surface, acting as a mulch to prevent evaporation. Wheat drilled in on this land next spring will almost certainly yield a good crop, although the season should be a dry one. For the following crop, after harvest, burn the stubble, disc and harrow, and in the spring drill in wheat. The burning of the stubble is sometimes a difficulty. If it cannot be left sufficiently high to burn, cut as low as possible, so that the stubble will not interfere with cultivation. For the third year's crop plow last week of May, and sow same day with oats or barley. This completes rotation. The land has been kept compact and moist for wheat, and the weeds have had no great opportunity of getting the upper hand. By this plan one-fourth of the cultivated area of the farm is summerfallowed each year, which we think a fair proportion.

Buildings are about to be erected at the Ontario Agricultural College, Guelph, for poultry. One will be 136 x 15 feet, the other 115 x 15, one story high. The office will be in the centre of the larger building, and will be two stories high.

Seeing in ADVOCATE that W. A. Dunbar, V. S., recommends liquid mixture for destroying lice on animals, I may say "Persian Insect Powder" is sure death, and may be applied in the open air at 50° below zero or 120° in the shade. Dunbar's mixture cannot be used when the weather is cold. I have used this for ten years on cattle, horses, sheep and poultry.—R. MUCKLE, West Selkirk.

QUESTIONS AND ANSWERS.

Veterinary.

ANSWERED BY DR. MOLE, M. B. C. V. S., 200 ADELAIDE STREET, TORONTO.

PARASITES IN SHEEP.

HENRY PAGET, Nova:—"We have had four ewes die this winter. 1st. Had no gall, only the empty bag. 2nd. The lungs were considerably under the normal size and grown to the sides of the chest. 3rd. The lungs were much inflamed. 4th. The liver was quite rotten, it also had a grub in its head. Three out of the four were very bad with ticks, besides being covered with small white lice, not unlike the hen louse. What are the symptoms of grub in head, and how should they be treated?"

There is no doubt that the death of these sheep was due to parasites or worms. 1st. Probably due to the *Fasciola Hepatica*, whose habitation is situated within the ducts of the liver. This disease often breaks out upon low-lying cultivated lands, especially if the summer has been backward. 2nd, and 3rd. Died from pleurisy, due to exposure and low condition of the animal induced by the parasites. 4th. Not only suffered from the attack on the liver by the fluke, but also from another form of parasite known as the *Cœnurus Cerebralis*, more frequently met with in autumn and winter. The lice are the *Tunna Cœnurus* of the dog, so to prevent the disease you must attend the dog by giving two or three doses of vermifuge or worm medicine.

This hydatidæ of the sheep is contained within a sac and developed in the brain, surrounded by a watery fluid. The symptoms are well described as to the general conditions, and it only remains to say the disease is known in the Old Country as turnside, and gets its name from the animal turning round, according to the side affected. For example, if the worm is situated on the left side of the brain, the animal will turn to the right, and vice versa.

For treatment. It is almost a hopeless task to treat the sheep, as they are so badly affected. When the symptoms evince themselves, remove the whole flock at once from the pasture they are in up to high dry lands; give a liberal supply of salt and sulphate of iron. This may be found a suitable purge; Epsom salts, two ounces; Ginger, one drachm; gentian, two drachms; chloride of lime, half a drachm. To be given in a pint of warm water or gruel, and an entire change of food.

Legal.

FARM ON SHARES.

REGRET:—"Rented my farm on shares, giving horses and machinery to work it, said horses and machinery to be returned in as good state as when received, ordinary wear and tear excepted. Now the lessee wants to use my horses for his private interests, such as working on another farm, jobbing, etc. Can he do so?"

If the horses and machinery were, under the terms of the agreement, to be used only on the farm rented, they cannot be used elsewhere or for other purposes.

FARM LEASE.

A MANITOBA SUBSCRIBER:—"A leased a farm off B, and B assigned the lease to C, the mortgagee. If B be back in his interest, can C seize any of A's crop, over above the rent, for any interest that may be due to him?"

It is very probable that the mortgagee can, but it depends wholly upon the terms of the mortgage. It would be necessary to see the lease, the assignment and the mortgage before answering with certainty.

PAYMENT OF NOTES.

ANXIOUS:—"An implement company in Winnipeg sends me a notice to meet their agent at D. and settle for \$53.00, amount owed them. I met agent on date named, whereupon he demanded \$60.00, I paid it, but when I got home, I found two notices only asking for \$53.00, and even that at my way of reckoning was too much. I wrote to agent to send me a written statement of how he arrived at \$60.00. He says the company is charging twenty-four per cent. on overdue notes. Can they do so? I wrote the company, but can get neither an answer nor my note from them, although I settled it last October."

The company can charge twenty-four per cent. if you agreed to pay it, but not otherwise. You should not pay the money due on a note to anyone who cannot give you the note. Did you get a receipt from the agent? How are you going to prove payment, if you have neither the note nor a receipt, if the payment is denied?

Miscellaneous.

IS RAPE AN ENSILAGE CROP?

THOS. H. INGRAM, Duhamel:—"Can you or any of your subscribers tell us through your paper if rape is of any value as an ensilage crop? Will so soft a vegetable keep in a silo? If so does it retain sufficient of its natural flavor for stock of all kinds to relish it?"

All experience up to this date indicates that corn is the most desirable crop for ensilage purposes. In Manitoba and the Northwest an early maturing sort is necessary. Without being able to speak from actual trial, we would not recommend anyone to put rape in a silo. Even if it did not rot it would sink into a soft, pulpy mass. Like turnip tops, its flavor would condemn it for dairy cows. We might add that an attempt to ensile turnips at the Vermont Experiment Station resulted disastrously.

SALTING BEEF.

A subscriber enquires for the best way of pickling beef for summer use, and asks if a water barrel would answer for pickling it in.

If possible get a molasses barrel, but if you have to use a barrel that has been used for water, be very particular to thoroughly rinse out with boiling water. Now select good, fat, juicy beef, cut in pieces not too large, and after putting a layer of salt in the bottom of the barrel, pack in the beef closely, applying plenty of salt to each layer (do not be afraid of salt). Then make a strong brine that will float an egg, and when cold pour into the barrel till the meat is covered; put weights on to keep the beef down. Add to brine an ounce of saltpetre to barrel of beef, and a quart of molasses or pound or two of sugar, if any other than a molasses barrel is used.

If after a time the brine looks bloody, drain off and add new or re-boil, skimming off all impurities. Keep in a cool place and you will find you have a fine quality of corned beef, which makes an agreeable change from salt pork.

RATION FOR A MILK COW.

SUBSCRIBER:—"I have a fresh calved cow that was making nine pounds of butter, but now she is not making more than four pounds, the quantity of milk remaining about the same. I am feeding about eight pounds wheat meal, four pounds bran, ten pounds sugar beets and sixteen pounds of oat hay per day. The cow has plenty of salt and water each day, and is kept in a warm, well-ventilated stable. The cow eats well but is very thin, and seems stiff when let out to drink. Kindly let me know if I have been feeding a properly balanced food. I have had the idea that the food had no effect upon the per cent. of butterfat, but only upon the quantity of milk."

The digestible matter in your ration is as follows:—

	Dry matter.	Albuminoids.	Carbo-hydrates.	Fat.
4 lbs. bran.....	3.70	.40	1.62	.12
8 lbs. wheat.....	6.88	.88	5.12	.08
10 lbs. sugar beets.	1.90	.10	1.60	
16 lbs. oat fodder..	13.76	.96	7.04	.16
Total.....	26.24	2.34	15.38	.36
Nutritive ratio 1:6.9.				

This is a very fair ration upon which your cow should do well, though we would prefer one a little higher in albuminoids and with less of the carbohydrates, which would give a narrower nutritive ratio. The German standard calls for 24 pounds dry matter, 2.5 albuminoids, 12.50 carbo-hydrates and .40 of fat. Nutritive ratio, 1:5.4.

This standard could be attained by increasing the amount of bran and diminishing the wheat, or by feeding one or two pounds of cottonseed or linseed cake instead of wheat. The same object could be obtained by feeding clover hay instead of about one-half of the oat fodder.

We cannot suggest anything further in regard to the treatment of the cow, except that you would have a better mixture for the production of milk if it contained a larger proportion of succulent food, as roots or ensilage, but it is not probable that either of these foods can be obtained in larger quantities at Calgary.

There is much difference of opinion at present in regard to the effect of the food upon milk. The general idea is, however, that each cow has a certain limit of butterfat to which her milk may be increased by good feeding and care, but beyond this point it is impossible to go, at least in a limited period of time. What this limit is can only be determined by experimenting with each individual cow. Both practice and science go to show that it is the man who feeds his cows generously who has the richest milk and in the largest quantity.

In any case your cow should show no such sudden decrease in the per cent. of butterfat as a result of feeding, and for this reason we would be led to suppose that it was due to ill-health, for it is generally held that sickness, cruel usage or other shock to the nervous system of the cow will have the effect of seriously reducing the amount of butterfat in the milk.

We would advise you to give the cow special care in regard to shelter, feed and attendance. See that the oat hay is clean, sweet and free from must. Keep her bowels open by means of laxative food, as bran mash, roots, linseed meal, etc., or if necessary, a dose of salts. If you do not see an improvement in a few weeks write again, describing the symptoms fully; but if the cow should become worse, it would be well to consult a veterinary surgeon.

FERTILIZERS ON CORN.

J. B. WEBSTER, Florence:—"After reading the experience of J. H. S. in the last ADVOCATE, I thought I would give my experience with home-made fertilizers. I cleaned out the privy and put the contents in a box and mixed with leached ashes and hen manure. I put it on a piece of corn just as the corn was pointing through the ground, about a teaspoonful on each hill close by the corn, and covered it as fast as put down with a little earth. I also applied hen manure alone on some rows, while others were left untreated as a test. I could see no difference in the rows so treated—the corn appeared neither better nor worse for the manure. The manure was put on the next day after it was mixed, and the ground kept clean and free from weeds. I was greatly disappointed at the result of my experiment, and would like if you or some correspondent would kindly let me know through the ADVOCATE the cause of failure."

ANSWERED BY PROF. A. E. SHUTTLEWORTH, CHEMIST, AGRICULTURAL COLLEGE, GUELPH.

In my opinion Mr. W. made at least two mistakes in handling and applying the manure. First, ashes contain a good deal of lime, and for this reason should not be mixed with manures rich in nitrogen, as that from privies and hen manure; secondly, the mode of application on the hill—just covered by a little soil, and after the plants were up—was wrong. Thus treated and applied, much of the nitrogen may have escaped through the action of the lime liberating ammonia. By being applied over the roots, close to the stem, it was not readily available. Roots grow out from the base of the stalk in all directions, and collect food through the extremities of the rootlets. Had the mixed hen and privy manures, without previously mixing with ashes, been spread upon the surface and worked into the surface soil before planting, good results should have followed.

GRADING UP TO PURE-BRED.

JOHN MILNE, Sec. Upper Kintore Dairy Association, reports that in discussing the different breeds of cattle, the members were not very sure as to what constitutes a pure-bred animal, or how many crosses of pure-bred blood on common stock would be necessary to produce a pure-bred animal. He further states—"As the members are all subscribers of your valuable paper, the *Advocate*, would you kindly answer through the columns of the *Advocate*?"

In answer to the above, we think it probable that this association has confused the terms pure-bred (registered animal) and practically pure-bred as they are used by many agricultural writers and speakers. Four or five crosses of a pure-bred bull on grade cows, if care and judgment has been used in the selection, will produce a herd of cattle which for all practical purposes are pure-bred, but they will not be entitled to registration as such. To become eligible for registration in the herd books, cattle must be bred from registered dams and sires.

SUPERPHOSPHATES, CRIB-BITING, GUANO AND DRAIN OUTLETS.

SUBSCRIBER, Bridgeville, N. S.:—"1. How can I prove good superphosphate, and how much should be applied per acre? 2. What remedy would you advise for cattle hooking horses and other stock; also give remedy for crib-biting horses? 3. How much guano is allowed per acre on gravelly soil? 4. What is the cost of the Pedlar roofing material? 5. How can I close a ditch or drain, made in low places where there is quicksand, so that it will not choke up?"

1. There is no way in which a farmer can test superphosphates, except by practical experiments on small plots. The wisest plan is to buy only upon a guaranteed chemical analysis. The amount applied per acre will vary with the purity of the superphosphate and the nature of the soil and the crop to be grown. Best results will doubtless be obtained from an application of 200 or 300 pounds per acre. 2. Cut off the horns with a fine saw, or if hopelessly vicious, cut its throat. To cure a crib-biter, smear the front of the manger with aloes or other bitters. Cover all exposed woodwork with sheeting. Place a small revolving roller above the front of the manger, so that the teeth may at once slide off, or apply a metal muzzle bent over the horse's nose, so that he cannot take the edge of the manger between his teeth, but sufficiently open that it will not interfere with his feeding. 3. Guano, from its great variation in composition, should only be purchased upon a guaranteed analysis. About 300 pounds is usually applied per acre. 4. We have sent your name to the Pedlar Roofing Co., who will send you price list and full particulars. 5. The outlet to a tile drain is the most important part, for, if it becomes choked up, the whole drain is useless, and is just so much money thrown away. In the first place there should be plenty of fall, so that the water will drop clear of the tile. A strong floor of plank or stone should be placed below to receive the flow and to prevent undermining. A plank box may be made to fit around the tile, or stone or brick may be built around the tile, both at the outlet and a short distance up the drain.

In cases where it is not possible to get sufficient fall to prevent the backing up of the water at some seasons of the year, it would be a good plan to build a plank box for the drain to discharge into. In this box any quicksand or silt from the drain would collect and could be cleaned out as often as necessary, and in this way prevent the choking up of the drain.

SPRING RYE FOR PASTURE.

D. S. SMITH, Petitcodiac:—"What do you think of sowing rye on poor land for pasturing in the summer, as I will be short of pasture land?"

Spring rye, which is a modification of fall rye, would be as good a crop as you could try under the circumstances, though it is idle to expect good results from poor land. Work the land thoroughly, and sow as early as the weather will permit at the rate of three bushels per acre.

On the above subject Mr. Wm. Rennie, Farm Supt., Agricultural College Farm, Guelph, says:—"I do not consider rye a profitable crop to grow for pasture. We have a few acres on the farm that I am seeding down, mostly with red clover and Alsike. The rye is intended to be cut for green feed. As a rule farmers do not value clover sufficiently high. I consider it superior to any grain for either pasture or for soiling purposes. When plowed under it restores fertility to the soil."

THE RED POLLS.

H. A. M. asks: "If there are any Norfolk Red Polled cattle in this country, and what we would think of them for Manitoba?"

We know of no Red Polls in Manitoba. They should make a very serviceable breed here, as they are very good general purpose cattle.

REMEDIES FOR PEA WEEVIL.

F. SEHBASS:—Kindly let me know if there is any way in which bugs in peas may be killed without injuring the seed.

The better plan is to obtain seed which is free of bugs. If this is impossible, or if the peas are of a special variety, the bugs may be killed by soaking the seed in hot water for twelve hours. The water should be made sufficiently hot to be made uncomfortable to the hand, but it should not be scalding. The vapor of bi-sulphide of carbon is an effective remedy, but owing to the very inflammable and poisonous nature of the gas, it can hardly be recommended for general use. An article from the pen of Prof. J. Fletcher, Ottawa, giving a very full history of the pest, together with remedies, will appear in an early issue of the *ADVOCATE*.

Mixed Farming.

[Paper read by Mr. Joseph Hawksworth at the Morris Farmers' Institute, E. D. No. 2.]

The time has come when the farmer will have to raise a greater variety of produce, so that in case of a partial failure of the wheat crop or low prices, we will have something to depend on. Our labor would be divided more evenly throughout the year, and laborers could be employed the whole year round at moderate wages, instead of our having to pay very high wages through harvest and threshing. In this way more laborers and consumers would be kept in the country. We could cultivate our lands better, and sow and reap to avoid frosts.

To cultivate to advantage, I think not less than 100 acres should be taken, as so much machinery and implements are required. It depends, however, greatly on the force and capital employed; a system can hardly be laid down year by year, there are so many changes in the seasons; the amount that can be cultivated and harvested *properly* will be about the right number of acres, and *large yields* should be our aim. If it costs \$8.00 per acre to produce a crop of wheat, and we get but 15 or 16 bushels per acre, the returns are small; but by adding a little more labor in cultivation, the yield might be brought up to 25 or 30, which would make a good profit on the cost of production. Wheat is likely to be low in price for a number of years to come, and we will have to have better cultivation to make a profit. A less yield than 15 bushels per acre is a loss to the farmer at present prices. To keep the land in condition for large crops, we will have to "summer-fallow" and follow a rotation of crops, and raise more stock and seed down to grass. I would plow the summerfallow *deeply*, as soon as seeding was over, or before the weeds got too high to turn under well, and harrow as soon as possible after the plow, and repeat the "harrowing" directly weeds made their appearance. I would plow *shallow* again about the last of July or beginning of August, and harrow down well. I would repeat the harrowings if weeds started. Those having stock might, however, adopt another plan, by drilling in about a peck of oats or barley per acre on the fallow; this would make good feed when the grass gets dry; the stock would harden down the soil by tramping over, and what stubble remains will prevent the soil from drifting through wind storms in the spring. Plowing stubble land immediately after a crop is cut, when the weather is hot, will start a great number of weeds, and will be of benefit to the next crop.

I think it will be wise to adopt "mixed farming," but wheat raising should take the lead, as our soil and climate are so well adapted for hard wheat, and in connection with wheat cheesemaking and hog raising should be important parts of our industry. Let us take pattern by Ontario, make a good article, and it will find a ready sale. We have Russia and India with their cheap labor, and Argentine and Australia and our neighbors across the line with their effective machinery; but with our rich soil and the latest and most improved implements and machinery we need not fear the competition.

By a good selection of cows and careful management there is money in cheese and buttermaking. If there is a profit in cheesemaking and stock-raising in the older provinces, where pasture costs \$2.00 or \$3.00 per acre for the season, then there certainly should be here, where so much good grass is going to waste every year.

I think we should raise all the kinds of stock we need, instead of importing and paying the cost of shipping. In hogs, it would be well to begin with what is sought for by packers. The Tamworth and Yorkshire are said to make the most desirable pork, and to build up a trade this point should be considered. I know of no country where barley can be grown so cheaply as here, and it is said to make better pork than the American corn-fed. I have had the best results in hog raising to have the pigs born about the last of April, and let them run with the dam on a pasture till October, having a pen with plenty of good feed to keep them growing, and then about the first of October close them in the pen and feed about two months and a-half on corn and peameal; each hog was weighed before, and after they were killed they dressed off on an average about twenty-three pounds, the least was nineteen pounds to the hundred. I think forty cents per bushel can be made of barley to feed to hogs at

present prices of pork, if handled right. It certainly is a mistake to sell our feed grain at such low rates to be shipped out of the country, and then purchase part of our pork, mutton and poultry from the East. We should rather turn our feed grain into a more condensed form, such as beef, pork, cheese, butter and eggs, which would save a great amount of expense on freight.

It is a loss every year to waste our stable manure. I would haul it out from the stable in the winter on a plot of ground, plow it down in the spring, and plant it with potatoes and turnips.

To be successful in farming it requires thought and labor; we should always try to produce the best and aim at perfection, and look after small things as well as large; we allow things to go to waste; we purchase what we could do without; we let our stock lose in the fall and winter nearly all they gain in the summer; we complain of monopolies and combines, and justly too; we look to government and other sources for help when we might help ourselves; we should be careful of what we have in good times as well as in bad, and what we have to do, do it *promptly* at the right time.

We can help ourselves at the ballot-box, but we send representatives to the Dominion and Provincial Houses of Parliament who foster monopolies and combine, and keep up high tariffs, and squander and plunder the public monies. We vote more for "party" than honesty, and for fluent tongue than the level head.

Agriculture in the Rural Schools.

Read by Gilbert Wilson, Principal of Brandon Collegiate Institute and Public Schools, before the Brandon Farmers' Institute on March 24th, 1894.

WHY AGRICULTURE SHOULD BE TAUGHT.

Agriculture should be taught in the rural schools, in the first place, because it would be to the highest interest of education itself. At present the study of natural science is wholly excluded from the programme of these schools, yet the study of inductive science is a necessary element of modern education. If we are to have natural science or natural study on the course for rural schools, we must choose that department which will afford the largest amount of material for observation and investigation, namely, agricultural science. The pupils have ready at hand varieties of soils, plants and animals, the main materials with which agricultural science deals.

After an elementary course on these, the pupils would be prepared to discuss the *art* of agriculture and the principles that underlie the practical work of the farm. Here, too, the pupils will be dealing with what is within their experience and wholly familiar to them; for they have not only seen all farm operations, but most of them have also either performed or helped to perform them.

Thus the first part of the course would be the direct study of nature itself; the second part, the study of the utilization of nature. The first part would give exact knowledge of nature, and then the second part would apply that knowledge to the practical home life of the pupil.

Agriculture should be taught in the rural schools not only because it is the subject at present most needed on the course of study, but also because it is the branch of knowledge most useful to Manitoba. There has been a great deal of nonsense in the Winnipeg papers about the necessity of the government establishing technical schools for the training of skilled mechanics. There is only one kind of technical school that would be of any practical value in Manitoba, and that is an agricultural college. This province requires skilled farmers, not skilled mechanics or more lawyers and doctors. It is, therefore, the bounden duty of the government to establish and maintain an agricultural college.

Briefly then, agriculture should be taught in rural schools, first in the interest of education itself, second, in the interest of the commercial development of the province.

WHAT SHOULD BE TAUGHT.

The following is an incomplete outline of what might be taught:

Part I. (a) Soils—States and properties of matter; the formation of soils; the composition of soils; physical analysis, sand, clay, humus; chemical analysis, organic matter, inorganic matter; plant food in the soil; active and dormant constituents of soil, how dormant ones are made active; action of air, water, frost, plants and earthworms upon the soil.

(b) Plants—Essentials of plant life, air, moisture, warmth, light, soil; structure of plants; composition of plants; nature of plant food; sources of plant food; how plants obtain food from soil; how plants obtain food from air; growth of plants; seeds and their germination; effect of seed formation on the other parts of the plant; more complete study of wheat, oats, barley, hay and other crops; diseases of crops; remedies; weeds, how recognized, how exterminated.

(c) Animals—Characteristics of animal life; animal physiology; principles of breeding, laws of heredity; principal breeds of cattle, sheep, pigs and horses; special adaptation of each breed; principles

of feeding based on structure of animal, composition of animal body, and composition of various foods; adaptation of different foods to produce (1) growth, (2) strength, (3) flesh, (4) fat, (5) milk; constituents of milk, butter, cheese; fowls, different kinds, different breeds of each kind, adaptation of each; more complete study of animals commonly raised.

Part II. Farming as an art cannot be taught in the public schools. This can be done only at an agricultural college and the farm connected therewith. But the rural schools can do very useful work by deducing the laws of agricultural practice from the actual farm operations that come within the range of the pupil's experience. For instance, the following would be some of the points to come up for discussion:

(a) Soils—Purposes of ploughing; best time to plough, and why; when and where deep ploughing is advantageous, and why; when is shallow ploughing better, and why; uses of the cultivator, harrow, roller; the purposes of drainage; where necessary, and where not necessary; drainage in Manitoba; reasons for rotation of crops; rotation best suited to Manitoba; values of different kinds of fertilizers, manures, green manures, such as buckwheat, peas, beans, rye, corn, clover; artificial manures, such as bonedust and salt.

(b) Plants—Necessity of good seed; how to test seed; treatment of seed to prevent smut and other diseases; quantity of seed per acre; wheat, place in rotation of crops, after peas, flax, etc.; preparation of ground; drill or broadcast; amount of seed per acre; time to sow; best fertilizers, etc. In a similar way all the other crops would be discussed.

(c) Breeding; law of heredity; careful selection of breeding animals; care of young animals; kind of horses suited to needs of Manitoba; the breeds of cattle, (1) suited for dairy purposes, (2) suited for beef market; foods, (1) to make animals grow, (2) to make them fat, (3) to make cows give most milk; the management of milk; the necessity of cleanliness, etc. In short, the management of farm animals of all kinds would be discussed in the same way.

HOW IT SHOULD BE TAUGHT.

Agriculture must not be taught from a text book. If it is, it will lose its educational value, and what is still worse, the pupils will get a dislike for agriculture. The subject must be so taught as to give the pupils a scientific knowledge of farming and a real liking for it.

The pupils must study nature, not a text book. The only book required will be one in which to set down their observations and conclusions. The pupils themselves will bring the materials for study, such as samples of soils, samples of hay and grain, samples of hay in their different stages of growth, etc. Lessons could be frequently given out in the fields. In these ways a living interest would be fostered, which could never be obtained from the use of a text book. In many cities and towns the pupils at school grow and care for all sorts of flowers. There is no reason why the pupils in country schools should not experiment on a small scale with different grains and roots. Many of them would carry on other experiments at their own homes. All this would tend to give not only a scientific knowledge, but also a genuine interest in farming.

HOW TO INTRODUCE IT.

The first requisite for the introduction of agriculture is that the teachers know something of (1) the subject itself, (2) the right method of teaching it. It will, therefore, be necessary to make agricultural science a compulsory subject in all teachers' examinations. It might be put in place of the physics and botany now on the course. If this were done, the apparatus and laboratories of the collegiate and intermediate schools would be used to train prospective teachers in the science of agriculture. Then, after passing their examinations, the normal schools would give instruction in the best methods of teaching the subject.

As it will be some time before these changes can bring any practical results, and as the present teachers of the province should be given opportunities to prepare for teaching agriculture, the Department of Education might appoint a specialist to conduct teachers' institutes at different points throughout the province, or to conduct a summer session as has been successfully done in Ontario. As the teachers of the provincial normal school will be holding a series of teachers' institutes soon, it might be well to petition that one of the topics dealt with be, "Nature Study with Special Reference to Agriculture." By taking some such measures as these, the subject might be introduced almost immediately.

In conclusion, after agriculture is made a part of the course, the trustees should be careful to appoint only teachers qualified to take that subject, and the parents should encourage their children by taking an interest in that part of the school work.

Portage Summer Fair.

A meeting of the directors of the Portage la Prairie Agricultural Society was held on March 21st, at which all the directors but one were present. The question of holding a show this year was fully threshed out, and it was finally decided to hold a summer fair on the 19th and 20th of July, the week previous to the Winnipeg Industrial, and it is probable the Brandon Fair will immediately precede it.

Butter and Butter Making.

BY MRS. JOSEPH YULL, MEADOWSIDE FARM, CARLETON PLACE.

We are of the opinion that Canadian butter will not take the place in the British market that our cheese does, until it is made in creameries and made in winter. We strongly recommend fitting up cheese factories for the manufacture of cheese in summer and butter in winter. If patrons would have their cows calve in the months of November and December, their milk may be made into cheese in the summer and butter in winter. If the right breed of cows are kept and fed properly, they will milk well all winter and pretty well all summer.

There are only four points necessary for the manufacture of good butter. Two of these belong to the men and two to the women. The two that belong to the men are:—1st, The right breed of cattle for the purpose intended. 2nd, The feed.

The two points that belong to the women are attention and cleanliness. First select the best breed of cattle best suited for your purpose. This being done, next comes the feed. When I speak of feed, I mean water as well as food. When cows are milking, feed nothing but sweet and wholesome food; do not allow cows to eat at the stable door. I do not mean to say that horses' bedding is bad for young cattle, or for cows that are not milking, but it is not fit for cows that are giving milk. Allow your cows to get nothing but the purest water, and of that as much as they will drink, at least twice a day.

The milk from our common Canadian cows, when grass fed, contains 87 per cent. water. The cow has no inside filter to purify water. Therefore, if the water is impure, the impurity goes straight into the milk. If a cow drinks 100 pounds of impure water, 87 per cent. of the impurities of that water will be found in the milk. Never allow your cows to drink water that you would not drink yourself.

We will take it for granted that the man has done his part, that is he has fed and watered his cows properly. Next comes the woman's part. First is the milking. Now I do not wish to be understood as saying that the women should do the milking, but I think the women should see that it is properly done, for I am afraid if it is left to the men, sometimes it will be done in a very slovenly manner. The milking should be done with clean hands. The cow's udder should be rubbed clean with a cloth before commencing to milk. Strain the milk as soon as possible after milking. I consider the separator is the proper way to take the cream out of the milk, but if you have no separator, strain the milk into cans 8 inches in diameter and 20 inches deep, add enough water, heated to 130 degrees Fah., to bring it up to 98 degrees Fah., the temperature of the milk when taken from the cow. Place it in water sufficiently cold to bring it rapidly down to 40 degrees Fah. In summer the cream will be all at the top in twelve hours. In winter it requires 24 hours. Skim with a tin cup. Put the cream into a crock or tin can. Keep it below 55 degrees Fah., until you have enough cream to churn. Twenty-four hours before you have enough cream to make a churning, take half a gallon of cream, heat it to 60 degrees Fah., keep it in a warm place to ripen. Warm all the cream you intend to churn to 60 degrees Fah., then add the half gallon of ripened cream, stir thoroughly, put on the cover until it is ripe enough for churning, which should be in about 24 hours. Churn as soon as the cream is slightly acid. Never allow it to rise above 64 deg. Fah. in winter and 58 degrees Fah. in summer.

If your cream has been taken off without any milk—we always skim some milk with the cream so as to float the butter in the churn—but if there is no milk in your cream add one-quarter part as much water as you have cream, to float the butter.

THE KIND OF CHURN TO USE.

Use a churn without any breakers in it. The smoother and plainer the inside of the churn is the better. This holds good with all milk dishes and dairy utensils. The plainer they are, the easier it is to keep them clean. We use a No. 5 Daisy churn, which churns ten gallons of cream. All our instructions, such as the amount of cream to ripen, the quantity of water to use, are based on ten gallons of cream. The quantity can be changed to suit the amount of cream churned.

HOW TO PREPARE THE CHURN.

Scald with hot water, and in summer rinse with cold water after scalding. Take one yard of best cheese cloth, run a wide hem across each end and three plaits in each side so as to form a bag; run a wooden rod through each hem; hang it in the churn and strain the cream through it.

If butter color is to be used, this is the stage at which it should be put into the churn. It depends a good deal on the kind of food that is being fed whether you require to use butter color or not. If cows are fed well-matured ensilage, very little butter color will be required, but if your customers want it colored, color it for them. There is a very close connection between the eye and the appetite, therefore always put up your butter in the most pleasing form possible. We have used Wells-Richardson's and Hanson's butter color, and found them both to give good satisfaction. One teaspoonful is enough for ten gallons of cream.

If your churn requires a higher temperature,

raise it either by placing some cream in a tin dish and set it into a pot of hot water, keeping it thoroughly stirred. The fault of this method is that the butter made from the part of the cream which it heated, if it has been raised above churning heat, will be soft. If you prefer heating the cream, heat all the cream to the required temperature. We raise the temperature by adding water at 130 degrees Fah. There can be no rule laid down for the temperature at which to churn. That depends to some extent on the temperature of the room in which you churn, the time of the year and the churn you use. In summer we churn at from 58 to 60 degrees, and in winter at from 62 to 64 degrees Fah. Churning should be done in from 30 to 35 minutes. When the particles of butter are the size of flaxseed, put half a pail of cold water into the churn to separate the butter from the buttermilk. Turn the churn round half a dozen times, draw off the buttermilk; allow it to pass through a fine strainer to catch any particles of butter that would otherwise escape. Then put the pin in and put three pails of cold water, at from 40 to 45 degrees Fah., into the churn; then put on the cover and churn for half a minute at the rate of 100 revolutions per minute, so as to break up the butter into small particles. Draw off the water and repeat the water process, then put in two pails of water, at 52 degrees Fah. in winter and 45 degrees Fah. in summer, with two teaspoonfuls of salt in them. Turn the churn a few rounds and draw off the pickle. By this time the butter granules will be as fine as hayseed.

Salt to whatever degree your customers desire. We use best Liverpool salt, one ounce to every pound of butter. The salt should be sifted into the churn through a fine hair sieve; put on the cover, turn the churn half round for a few times slowly, to allow the salt to mix thoroughly with the granulated butter. Turn the churn around slowly, removing the pin occasionally to allow any pickle to drain off that may gather in the churn. Turn until the butter is formed into rolls, by that time the butter and salt will be thoroughly mixed. Lift the butter into a butter bowl with a wooden ladle. Let it stand for eight hours. The hand should never be allowed to touch the butter. Cut the butter down through with a butter ladle. If white specks appear in the butter, work them out with pressure, but if the cream has been strained and has not been cooked in heating, or the water has not been put into the churn hot enough to cook the cream, and the churning stopped when the particles of butter were no larger than flax seed, there can be no white specks in the butter. If no white specks appear, the butter is worked enough. Put up your butter into whatever kind of packages your customers require it. We find that half pound prints suit our customers best. We print the butter as it comes from the churn, without any more working, in half-pound prints, and wrap in parchment paper with our name and address on it. We have two boxes fitted up with wooden trays like egg boxes, which hold 30 pounds each. While one of these boxes is away being emptied, we are filling the other. We get 25 cents per pound the year round for our butter.

For the benefit of those who wish to pack their butter, I will tell you how we used to pack ours.

HOW TO PREPARE THE TUB.

Fill it with fresh buttermilk. Let it stand for twelve hours. Empty out the buttermilk and wash with cold water, using a brush. I would say here that butter-makers would find it a great advantage if they would use a brush instead of a cloth when washing dairy utensils. Fill with boiling pickle, and let it stand for twelve hours. Scour with coarse salt, rinse with cold water, put in a half tea-cup of salt, two tablespoonfuls of white sugar, and one of saltpetre; cover with a piece of cloth, then it is ready for the butter.

When filling the tub, keep the butter high in the centre, so as to run the pickle to the outside of the tub, as that is where butter spoils first. After the first churning is put in, cover with a cloth with an inch of salt over it to exclude the air. When adding each churning remove the cloth, and put it on again until the tub is filled. Fill to within one-quarter of an inch of the top; cover with two-ply cloth, press the cloth well down around the edge; cover with the following mixture:—One pound salt, 2 ounces white sugar, and 1 ounce saltpetre. Wet with boiling water, allow it to cool before you use it, then spread it over the top of your tub. This will become perfectly hard and air-tight. Have a rough box in your milk room, large enough to hold all the butter you will make in the season. As soon as the tub is filled, put it into the rough box and cover with coarse salt to keep it from the air. Although we tell you how we packed and kept our butter, we do not recommend packing. We make butter as already described, and have shipped it to Ottawa for three years, a distance of 30 miles, without using ice when shipping.

[NOTE.—We would suggest instead of ripening a fresh "starter" every time, that the buttermaker set aside in the cool milk room, in a glass sealer or other clean vessel, a small quantity of the ripened cream taken out just before churning. A quantity of buttermilk drawn off just after the churn stops has been found by many to give equally good results as sour cream for a "starter." More convenient than skimming off the cream with a tin cup is to draw off the skim milk through a tap at the bottom of deep setting can, and finally the cream.—Ed.]

Injurious Insects.

BY JAMES FLETCHER, DOMINION ENTOMOLOGIST, OTTAWA.

As the warm days of spring come round again, in the yearly circle, all nature revives; the birds come back to enliven the woods and waysides with their cheerful songs, the buds burst and leaves and flowers open out to make all nature beautiful. Springtime is a season of activity, hope and happiness. None can appreciate this so well as those who are fortunate enough to live in the country. A matter of importance for a farmer when planning his year's work in the spring is to prepare for the many insect enemies which annually reduce to a greater or lesser degree every crop he grows. There are certain common sense rules which must be borne in mind. If a crop of any kind has been severely attacked one year by injurious insects, it is manifestly unwise to grow that crop on the same land the following season. Every crop has its special enemies, and it is seldom that these pests attack plants of a different order; for instance, the Hessian Fly, which attacks wheat, barley and rye, will not attack roots; the Turnip Flea will not injure grain crops, and the Pea Weevil, although so injurious to pease, does not attack any other crop. This points out the wisdom and advantage of a systematic rotation of crops.

Another general principle which must be borne in mind is that all insects take their food in one of two ways: they either have jaws with which they bite off and masticate pieces of the plant, or they live on the juices of plants and animals which they suck up through a hollow tube or beak. Those which eat the foliage of plants may be kept in check by the application of poisons to the foliage. For the second class, remedies must be used which are of a preventative nature, or which will kill by merely coming in contact with the bodies of the insects. Such remedies we have, and the most appropriate for the various crop pests will be described from time to time during the summer in this series of articles, when treating of the insects of each month.

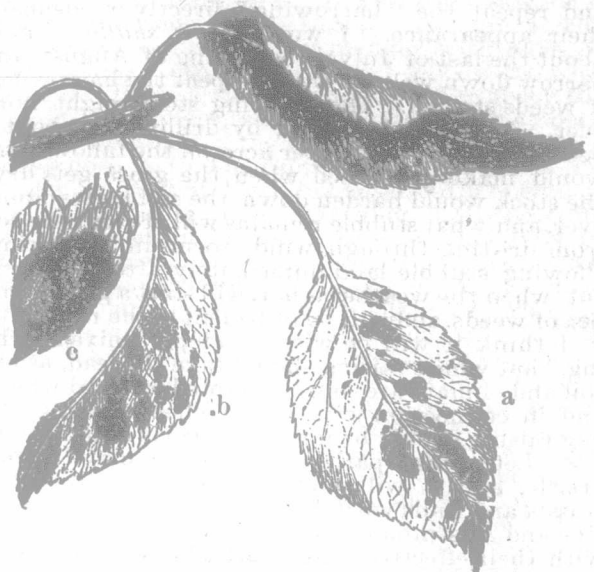
The insects which will demand attention first are the following:—

THE EYE-SPOTTED BUD-MOTH (*Tmetocera ocellana*, Schiff.)



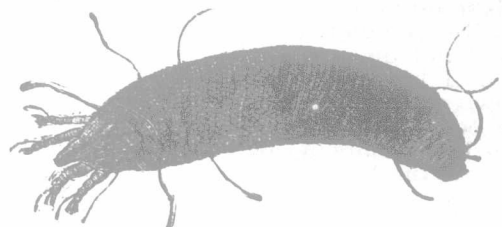
This insect passes the winter as a half-grown caterpillar, protected by a silken covering which it spins over itself in the autumn. It emerges from its shelter in spring and attacks the opening buds, and frequently does much harm.

Remedy.—Spray in spring before the flower buds open with Paris Green, 1 lb. in 200 gallons of water. This is one of the few insects which demand that trees should be sprayed with poison before the flowers drop. Spraying fruit trees when in blossom should never be practiced on account of the danger of poisoning bees.



THE PEAR-LEAF BLISTER (*Phytoptus piri*, Nalepa.)

An insect which is becoming widespread and injurious in Canada is the Pear-leaf Blister-mite. The attack is recognizable by corky, blister-like thickenings on the leaves of pear trees. These are red at first, but turn brown later. They are frequently attributed to the attacks of some parasitic fungus. This is owing to the exceedingly small size of the insect which causes them. It is a minute mite which is here shown enormously enlarged.



Its size is so small that it can only with difficulty be detected with the naked eye. Each blister is the home of large numbers of the mites, and has in the centre a minute hole through which the young mites escape and start new galls, so that they soon increase rapidly in numbers. The mites live within the galls until the drying of the leaves in autumn,

they then migrate to the buds at the ends of the twigs, where after working their way beneath the bud scales they pass the winter, and on the bursting of the buds in spring attack the young expanding leaves.

Remedy.—Spray with Kerosene emulsion just at the time the buds burst.

[Readers who find a weed or plant with which they are not familiar can have it identified and obtain advice in regard to its injurious qualities by sending a sample either to this office or to Prof. Jas. Fletcher, Experimental Farm, Ottawa, who will be pleased to furnish such information.—Ed.]

Fighting Counterfeit Dairy Products—A Note of Warning.

"Skimmed cheese" and "filled cheese" have done the United States dairy industry very serious and lasting damage, but with the development of those colossal dressed meat establishments has sprung into existence a far more deadly menace. Bogus butter (butterine or oleomargarine as it is called) has at last roused the American butter dairymen into action. Everywhere it meets the honest product, and threatens the life of the honest business. In self-defence the dairymen are now forced to struggle against this gigantic fraud, which has behind it all the millions and all the power of the dressed beef magnates, whose "original packages" of fraudulent butter flood the Republic in every direction. Two organizations have lately been organized to fight the common enemy. One of these, "The National Dairy Union," was born at Chicago and declares war along the line of legislation. Stringent laws will be sought and enforced. The second organization sprang into existence at Cleveland, and is called "The National Dairy Congress," which proposes to awaken the country by a campaign of education mainly through existing dairy associations and the like. The one attacks the fraud through the legislator by the power of the voter; the other has in view the betterment of the practical dairyman by education, as well as his protection.

Now that Canadian butter dairying has begun the march of progress in real earnest, the FARMER'S ADVOCATE would warn those engaged therein to be on the constant watch against a repetition here of what has occurred in the United States. Especially is it necessary to guard against the first, insidious encroachments of the enemy. From the Dairy Commissioner all along the line let there be unceasing vigilance. Bogus dairy products must be rigidly kept out of this country, and any attempt, whether as an adjunct of a dressed meat enterprise or otherwise, to develop the bogus trade here be stamped out at the very outset. Let legislation and whatever might in the future have a possible bearing upon this business be closely watched. Canadian cheese has won a world-wide reputation as an honest, high class product. So let it be with Canadian butter. Forewarned is forearmed.

A Few Hints Regarding Tomatoes.

BY BOB BAROLAY, BALMORAL.

Nearly every nurseryman and seedsman have what they call their leader, and I think it would not be a bad plan for every gardener or farmer owning a garden to follow their example as regards their vegetables, and have for their leader the tomato; I especially recommend this variety, as it may be said to be a combination of fruit and vegetable, and can be used as such in many different ways. In the green state you can make them into the finest pickles of different descriptions, and also produce from them the most magnificent preserves, either as jelly or in the whole state, while in the ripe there is nothing makes finer catsup or is more delicious in the raw state with pepper and salt, along with a good steak, or indeed with any other piece of meat. While this vegetable can be adapted so, and is a favorite with almost everyone, it is also one of the best under cultivation (notwithstanding the would-be-medical-scare of producing cancer) for the entire human system, and is far superior to stoned fruits, either green or dry, for our rising generation on account of its easy digestion. There is no end of varieties of this most estimable eatable, but there are only a few of them that will succeed in Manitoba, and give thorough satisfaction to the growers. I have grown and cultivated this class more or less for over a dozen years in different localities throughout the province, and am prepared to give advice with every confidence, having derived it myself from personal experimenting on many different kinds.

Out of the multitude of sorts advertised there are only a few which I can safely recommend, which are, in order of merit, Dwarf Champion, Ruby, Stone, Steele's Earliest of All and Atlantic Prize in the larger varieties, and Yellow Plum, Red Cherry and Winter Cherry or Strawberry in the smaller sorts.

I would take this opportunity of warning the readers of the ADVOCATE against being carried away by clap-trap advertisement and prizes offered for large tomatoes by many really unknown and unreliable seedsmen in the east and across the border. My experience, as well as that of many others, teaches me that it is much safer and more satisfying to deal with respectable merchants at home, and there are plenty of them.

Hog Raising.

READ BEFORE VIRDEN INSTITUTE BY JAMES WELLS, ESQ., VIRDEN.

I look upon hog-raising as one of the means of freeing Manitoba from its present state of "agricultural depression." When we come to consider the present state of affairs in this country, surely all will admit that it is time that different methods were adopted by the farmers of Manitoba. Heavy freight rates and the long distance that our wheat has to be carried to market, and also our expensive machinery, take the cream off our profits in this line. Let us grow less wheat (then what we do grow will have a chance to receive better attention and thus be of a better quality) and more coarse grain. This will give us an opportunity for keeping more stock. By feeding stock we condense our products, so that we should save largely upon "freights." I think that we might find an unlimited market for all the hogs that we can produce.

From statistics we find that Great Britain imports annually nearly 500,000,000 lbs. of bacon and hams, and of this amount Canada only sends one and one-quarter of one per cent. (1¼), while the United States sends 79½ per cent., or, according to the population, five times as much as we do. We have already pork-packing houses, established so that we can in this country produce a finished article, and in this way we lessen freight.

Let us go systematically about it. Do not rush into the business headlong because prices may be good just at the time. But start and keep as many pigs as we can manage conveniently, and increase as we have facilities for taking care of them, and not get frightened and quit the business should prices go down sometimes. Let us strive to have our hogs ready for the market when the prices are likely to be the highest. Last winter at one time dressed pork was quoted in Virden at \$4 per cwt.; a few weeks later on it was quoted at \$7.40 per cwt.

It is claimed that pigs give much greater return (in weight) than cattle from an equal amount of grain. It is also claimed that hog raising in connection with dairying is the most profitable way of raising pigs, as they can consume the surplus milk to advantage. The two combined in this country should bring in good returns, at least where there is a family with enough help to attend to it properly.

We will now make a comparison between hog raising and wheat growing. According to tests made at the experimental farms we can make 400 pounds of hogs (live weight) from 25 bushels of wheat. This at 5 cents a pound (the price a short time ago here), would bring \$20, or just double the amount that the wheat would have brought if sold in the market at the same time. And further, according to similar tests, if the pigs had been kept in connection with dairying, thus getting skimmed milk or whey, 20 bushels of wheat would have made the 400 pounds of live weight in the hogs, worth \$20, or \$1 a bushel for our wheat. Sometimes we may find it profitable to sell our wheat, even at 40 cents a bushel, and buy bran and shorts as a substitute. The same may be said of coarse grain. When oats are 30 cents a bushel we may sell to advantage and buy cheaper feed. Men who have good appliances and experience in the business have their pigs come early in the spring, and at 6 to 8 months have them weigh 160 pounds to 220 pounds live weight. This is considered the most suitable size for the market, and also hogs kept longer than that do not put on flesh so profitably. Another point is to aim at having a hog with a large proportion of lean flesh instead of fat. This may be influenced considerably by the kind of food given. Bran, shorts and peas are considered excellent food in this respect.

As Manitoba is comparatively a new country, we must adapt ourselves to circumstances in the meantime. I think it a very good plan to give our growing pigs and brood sows the grain in the sheaf, as the cost of threshing and crushing grain is quite an expense. Fed this way and with access to pasture we can raise them profitably. A person keeping many pigs should hold over some grain to the next season, lest a failure of crops should take place.

Agriculture in the Schools.

It is with great satisfaction that we note that our educationalists are alive to the importance of having agriculture taught in the public schools of the Province of Manitoba, as evidenced by the following resolution passed at the last meeting of the Advisory Board, upon motion of Dr. Bryce seconded by Prof. Cochran:—

"That the committee on curriculum having decided to recommend agriculture as a subject to be placed on the course of studies for schools, and the legislature having passed a resolution in favor of agriculture being taught in the schools, the board appoints the mover and seconder and Dr. Montgomery a committee to consider to what extent agriculture may be introduced in the schools, and what steps should be taken to have it taught successfully."

We believe the only way to inspire our boys and girls with a due appreciation of the importance of agriculture, is to show them that it is a science worthy of their best powers, and that it is not all "chores" and drudgery. As Governor Hoard says, "The farm has been supplying brains for all other professions long enough." We recommend to your careful perusal Mr. Wilson's able paper on this subject, which appears in this issue.

Government Creameries.

It has been intimated that the Federal Government has in contemplation the establishment of several dairy schools throughout Manitoba and the Northwest, following the plan that has worked so admirably in the Eastern Provinces under the able management of Prof. Robertson. Such schools would be of incalculable benefit to this western country, and would be enthusiastically supported by young men anxious to learn the improved methods of butter and cheesemaking. As the conditions of the Eastern and Western portions, vary very materially, we think stations should be located centrally, one East and one West.

There is now no doubt but that very many sections of this country are well adapted for dairying, and we believe that the manufacture of creamery butter will in time be one of our leading industries. But we would urge that the utmost caution be observed in establishing factories, bearing in mind that factories cannot be a success financially with less than from 300 to 500 cows within a reasonable distance, that skill and business ability are required to operate the factory, products of the highest quality only bring satisfactory results, and that skill and eternal care and vigilance are absolutely necessary in the breeding, feeding and handling of the cow, and in the care of the milk till it is delivered to the factory.

Factories started prematurely generally lead to failure and disgust, and it takes long years to overcome the prejudice thus engendered. Better far to wait a year or two (in the meantime procuring necessary cows, stabling and appliances), and then make a right start.

Mr. T. R. Varden, writing in the Carberry Express, advances strong arguments, showing the advantages that would accrue if dairy farming were more generally practiced. He advocates the establishment of creameries throughout the province by the Government (does not say whether Federal or Local), butter to be made at a nominal figure, in order to establish the industry, then when the farmers are in a position to take hold of them, the Government to sell out at cost. To our mind this savours too much of paternalism, and we do not think such a course necessary, believing that little difficulty will be found to get good live men or companies to take up the business just as soon as there are the requisite number of cows and the farmers have made up their minds to give their hearty support to such an undertaking.

Dairy schools could not only educate butter and cheesemakers, but their most important work would be the vast amount of practical knowledge they could disseminate along these special lines.

By all means let us have the Dairy Schools.

Is the Good Feeder Encouraged?

At a Farmers' Institute meeting, held in Dorchester Township, it was raised as an objection to the Babcock Test that it did not do justice to the man who furnished his cows a generous supply of good food. In support of this contention it was cited that a patron of a certain cheese factory who let his cows pick their subsistence from the road side last summer sent in the richest milk. Possibly so. It was observed during the drought in more than one place that as the milk supply from certain herds dwindled down it showed a rather higher fat percentage. An abnormal case was mentioned by a speaker at the same meeting where four cows gave a mess of milk at one milking that tested a phenomenally high per cent. of fat, but there were only 18 lbs. of it from the whole four cows! At the next milking the quantity increased, but the fat percentage dropped down one-half. At one factory where the Babcock was used last season to divide the proceeds, there were two patrons with the same number of cows each, living near neighbors. One herd furnished milk testing from one-half to three-quarters of one per cent. higher than the other the season through, but the man with the lower testing milk received by far the more money. On account of the greater quantity of milk furnished he far outstripped his neighbor in the number of pounds of fat sent in to the factory. It is not the percentage of fat, but the pounds of fat produced that tell the tale. The Babcock Test without the scales is not an adequate test of a cow's performance as a milker. Hence the careful dairyman who selects and feeds his cows generously and judiciously will most certainly be rewarded over and above the man whose cows pick the bare, brown herbage of the roadside or of his own fields if dry weather has put them in that condition. Moreover, if his drop of rich milk, providing it is rich, is well cared for he is certainly entitled to be paid for it at its full cheese-making value. If, however, he continues to starve his cows their usefulness in keeping him from starvation will soon be gone, while his more generous neighbor and his herd will continue to thrive. One careful factoryman reports that not only was a good flow of milk maintained in the Fall, but the fat percentage was improved when the cows were given a run on second growth clover and the fat percentage lowered when they were put on other feed. On being returned to the clover the quality again improved. Once and for all, farmers may make up their minds that if a cow is to elaborate a generous supply of good milk she must have the raw material—plenty of good feed to do it with.

Early Cheese—Can the Quality be Improved?

BY J. A. RUDDICK, SUPT. EXPERIMENTAL DAIRY, WOODSTOCK, ONT.

The early make of Canadian cheese has, generally speaking, been an unsatisfactory product, inasmuch as the quality is almost invariably inferior to that of the later made goods. Were it not for the fact that the stock of cheese is lower at this time of the year than at any other, consequently the demand keener, there would be more difficulty experienced in disposing of these cheese than is now the case. But I think there are good reasons for supposing that this extra demand is likely to fall off considerable in the future. There is a growing preference for old cheese noticeable among consumers, and since we have succeeded in making cheese having better keeping qualities, along with improved facilities for keeping them, there is nothing to prevent this demand from being filled. Hence, the maker of early cheese will find his troubles on the increase unless something is done to improve the quality.

Doubtless there is something in the character of the milk at this season of the year which unfits it for the making of strictly fancy cheese. Yet it seems to me that a great deal of the trouble may be overcome, and improvement made in the quality, if the patrons only exercised greater care in handling the milk and some cheesemakers understood better what modifications it is necessary to introduce into the process of cheesemaking in order to produce certain desirable qualities in the cheese.

To the patron we must first look for improvement in the quality of the milk as delivered at the factory. Let him bear in mind the fact that during the warm, moist weather of spring we have in the atmosphere the condition most favorable for the growth and development of those organisms and germs of ferment which are the cause of all changes that milk undergoes after it is drawn from the cow—even the common souring. While cows are being milked in the stable there is always some danger of "stable odors" being imparted to the milk, if proper precautions are not taken to ensure good ventilation, with cleanliness in milking, etc. Where ensilage is fed from a silo in or near the stable there is always more or less smell from it, which, although not at all disagreeable in itself, is not a desirable flavor in milk; yet if exposed to this odor any length of time there is great risk of it being affected and tainted by it. Look out for decaying animal or vegetable matter that may have accumulated during the winter, and keep the milk away from any appearance of this kind of thing. There is more danger of milk souring in the spring than in the summer or fall, the temperature being the same, or in other words, it will sour quicker in a given length of time during spring weather than it will later on.

There are also flavors due directly to the food eaten by the cow which are injurious, such as musty hay or corn fodder, decaying roots, or potatoes, even if perfectly sound. The latter should never be fed to milch cows without being cooked. When the cows are first turned out on the fields after being fed on dry feed all winter, they are so eager for something green and fresh that they will eat weeds and herbs of rank flavor which they will not touch at all when the pastures become better. It is evident, therefore, that it is more difficult to produce good milk in the spring than it is later in the year. The best remedy is greater care and vigilance in every detail of the work. It will pay to see that everything is attended to in the best possible manner, because it means better cheese and more money.

The cheesemaker finds in the spring that if he would suit the demands of the market he must make a mild flavored cheese that will cure quickly and be ready for the buyer as early as possible. These requirements of the market being somewhat different from those existing at other seasons of the year, it is obvious that some modifications of the process of making are necessary in order to meet them. It is here that many of our makers fail, owing to a lack of a proper understanding of the particular effect that certain changes in the process of making will have on the resulting product. The careful maker is always on his guard against a surprise by the rapid development of lactic acid in the milk or curd so common at this season. He is also very watchful of the milk as it is received, and the temperature being rather low, objectionable taints or odors are not always easily detected. There are two kinds of taints and odors; first, those due directly to the food eaten by the cow, and second, those due to contamination after the milk has been drawn. They may be distinguished, it is said, in the following way:—The first, or "feed flavors," are most noticeable immediately after the milk is drawn from the cow and never get any worse, while the other kind are not present at all at first, but only appear after the germs have had time to grow and develop in the milk.

It is necessary to draw the whey with less acid on the curd than for summer cheese; not because it requires less acid, but on account of the faster rate at which it develops it is necessary to keep it in check to a certain extent in order to secure a result uniform with the summer practice. The ripening of cheese depends very largely upon three things, viz.: Moisture, temperature and salt. Moisture is an essential condition for the growth of those ferments which constitute the curing process. A high temperature is also a more favorable condition than a low one, while salt, owing to its antiseptic qualities, has the effect of retarding the curing in proportion to the amount used. This

ripening process commences in the vat or sink, and, in fact, it proceeds very rapidly at this stage on account of the extra moisture in the curd, the high temperature and absence of salt. Since we want a quick curing cheese in the spring we can always secure the same by leaving slightly more moisture in it, using less salt and keeping up the temperature in the curing room. The curd should be allowed to "mature" fully as much, if not more, than at other seasons of the year. In this way a close, solid, yet "meaty" cheese can be made, a cheese which will break down quickly. Of course it will not take so long for the spring curd to mature, owing to the more rapid development of the process, and the absence of that class of fermentation known to cheesemakers as "gas" in the milk at this time of the year.

To sum up I would say, use enough rennet to produce coagulation fit for cutting in 15 to 20 minutes; this will help to retain a little extra moisture. Keep the curd warm, over 82° Fah., until time arrives for milling. Use about 1½ to 2 lbs. of salt per 1,000 lbs. of milk, varying the amount according to the amount of moisture in the curd. Allow the curd to cool down after salting and before putting to press to 80° or 85° Fah. Keep temperature in curing room about 70°. Be careful and not carry these modifications too far into summer, but gradually make the cheese firmer, increase the salt and lower the temperature in the curing room almost from the start.

NOTE.—Just after calving milk should not be used till in good condition.—Ed.

Poultry on the Farm.

BY MRS. IDA E. TILSON, WEST SALEM, WIS.

An ancient symposium meant a conference or conversation of philosophers at a banquet, but nowadays there are symposiums on every subject and in every place imaginable. Perhaps some of the things said at recent Institutes by different poultryers, myself included, might form a sort of symposium and interest many others.

Being asked whether a hen-house could be made too warm in winter, I said: "Not too warm, but too close." In the discussion following, all who had tried tubular ventilation from the lower part of house heartily endorsed it. People are sometimes confused about the location of foul air, which was formerly said to rise, and indeed does rise as thrown off warm, which is why man's nose and that of many animals point downward, so as not to breathe again that just exhaled. But carbonic acid gas when cooled is very heavy and becomes the lowest stratum in any room or house. Dogs have died in foul caves and rooms where upright men remained alive. Some poultryers have a slide at bottom of tube to shut up the latter during severe windy times. One recommended for top a whirling vane, which made to turn broadside toward wind would shut off too direct a draught. Others had caps on top, thus modifying the force. I, myself, have been trying one capped and one uncapped ventilator, with the result that the latter now wears a cap too. "Go thou and do likewise." Some who feared the heavy, foul gases would not rise, had found the outside, cold, condensed air did come in, displace and force them up. With such constant ventilation, those gases are carried off promptly, as they first descend and collect, before "thick enough to cut with a knife." A stable mentioned was sheeted, papered and boarded, all on the outside, with studding left exposed inside. The space between two studdings was boarded over, except a few inches at bottom, next a part of the plate cut away on which rested the two corresponding rafters, and then the space between these two rafters also boarded over, till mouth of a ventilator in the ridge was reached, covered and inclosed, thus preventing the cold air from falling directly down, but conveying it by a continuous tube to the floor, which tube, as you have seen, followed outline of roof and wall, with only one turn, where roof met wall. In New Jersey, the paradise of poultry, they are either plastering or ceiling up hen-houses. A house with ceiled walls could have, between any two studdings, a few inches left open down low, thus getting the same tube, and if no ventilator already existed in roof, put one directly overhead, near eaves. I think this utilization of wall spaces in ventilating takes more time than to nail up a separate tube, but is neat looking, out of the way, and resembles plans employed in houses for people. I consider very ingenious the stove-pipe ventilator, regulated by damper, just come to my notice in one of your three "prize essays," all admirable. Whenever not enough draught, increase height of ventilator above roof, like the big mill chimneys, and, like them, fasten or anchor securely. Two or three poultry rooms were described as each on the lower floor and forming a part of the barn or carriage-house, in which cases tubes carried up into the open attics seemed sufficient. I heard nothing said about rats or mice running down, but an iron grating could be used at bottom, as in dwelling-houses. Wire netting is too fine for much passage of air either way. Biddy is far more valuable now than a thousand years ago, when, according to an old book, she was worth one penny; "a cock, two pence; a chicken, sheaf of oats, or one farthing, till it roosts, afterwards half a penny until it shall lay or crow." If there ever should come overproduction in quantity, there never can be of quality. So do everything possible to make your hens comfortable, for I believe that will prove the most expensive house which is the most uncomfortable. Nothing surpasses the old-fashioned side draughts and top

ventilators in making swelled heads and eyes among poultry, and in sowing the seeds of a crop of disease we have no granary or market for. Giving four or five square feet of standing room per hen as suitable dimensions for house, I was asked why not reckon by cubic feet, and consider extra height a compensation for lack of floor space. Extra height makes more air to warm at a time; less ground room means little chance for exercise. Fresh air admitted gradually through a proper ventilator is easiest warmed, and exercise is the condition of winter health and egg production. By the way, I was even asked whether there is any difference between the expressions "winter production of eggs" and "production of winter eggs," but I decline to tolerate any such term as "winter eggs." Mine are made as nearly like summer ones as possible.

A gentleman said his little nephew had a device he called, in imitation of baby jumpers, a "chicken jumper," consisting of a string suspending a turnip or cabbage, which easily whirled and each biddy tried to peck as it came round her way. Then my experience was called for. Now, it is a true fact my hens would rather loaf than run after such a common thing. I never could make it work, but have better success with a sheaf of oats or wheat, or a hog's head. Upon remarking to a witty friend that a certain paper was very soothing, she inquired whether I took it stewed or fried. So an eastern poultry writer who gave chopped straw as the secret of winter egg production drew out considerable discussion on how he used or fed it, till he explained the straw merely covered his grain ration, and made biddy scratch for a living.

As there is an annual crop of beginners in the poultry business, so the old question of breeds has a sort of perennial, evergreen interest. Being asked whether I would use Oochins or Brahmans as sitters, I replied that their fluff kept early settings warm, but later I should employ nothing with such dirty, clumsy, crushing feet. A cross of White Leghorns and Brahmans, and another of Brown Games and Buff Cochins, made me excellent sitters in days gone by. When yellow skin *versus* a pinkish or bluish hue came up, I did not find an opportunity to say that although northern and western markets still demand the former, I am reading that Philadelphia and Baltimore now prefer the latter. Whoever has not eaten a Langshan or Houdan, or even a Poland's fairly greyish flesh, better do so, proving the paler skin as acceptable to his mouth, and yellow effects somewhat "in his eye."

Poultry House Ventilation and Feeding Lime.

Mr. B. H. Garner, Maxville, sends a long criticism on the poultry prize essays, in which he says:—"I advise all readers to beware of that death-trap, the ventilator, for this one device will do more harm than all the rest of the essay will do good." He considers the ventilator as utterly useless and in all cases the cause of draught. He then questions the use of oyster shells as follows:—"Yes, it may fill the bill of fare, but otherwise it is of no use, for fowls receive all the lime they need for the production of egg shells from vegetable matter in a soluble state."

If Mr. Garner will look up the analysis of vegetable matter and eggs, he will see that the large amount of lime in the egg shell must be provided by some material which contains more lime in its composition than vegetable matter, such as limestone grit, oyster shells, ground bone, etc. An experiment conducted at the New York Experimental Station proved that lime in some form was necessary for the production of eggs, that oyster shells are a convenient and in most cases a cheap source of this material, and that if broken limestone was used as grit it would not be necessary to feed oyster shells or other material containing lime. To keep fowls plentifully supplied with sand or gravel of a limestone nature amounts to the same thing.

More About That Butter Cow.

Mr. Parkinson sends us word that his Shorthorn cow, "Prairie Queen," of whose buttermaking powers mention was made recently in the ADVOCATE, has, at the end of sixty days under test, given 3,189½ lbs. of milk and 145½ lbs. of butter, making a daily average of over 53 lbs. milk and nearly 2½ lbs. butter. After getting well started the cow took sick and her milk dropped off very considerably, and, although she afterwards picked up considerably, she never fully recovered her milk yield. This cow is seven years old this spring, and while not pedigreed, pure-bred sires of the best milking strains of Shorthorns have always been used in building up the family to which she belongs. Her feed consists of hay, oat sheaves, bran and shorts, a few turnips up to February 1st, when the supply gave out, and subsequently a few boiled potatoes and a little flaxseed boiled and mixed with the bran and shorts; all t h e water she would drink twice a day; milked three times a day, at 6 a.m., again at 1 p.m., and at 8 p.m. Milk set in deep crocks and in shallow pans. A barrel churn is used.

Everyone interested in dairying should not only read, but study that instructive little book, "Dairying for Profit, or the Poor Man's Cow," which may be obtained from the authoress, Mrs. E. M. Jones, Brockville, Ont. Price, 30 cents. Over 62,000 copies have been sold, and in order to further stimulate its circulation, we will give two copies to every old subscriber sending in his own name (renewal), and that of one new yearly subscriber, accompanied by two dollars.

"I am for west," remarked the plain-clothes man. "There are several quiet little villages up there."
"And I am for north," said I; "because there are no hills there, and our friend says that he did not notice the carriage go up any."

"Come," cried the Inspector, laughing; "it's a very pretty diversity of opinion. We have boxed the compass among us. Who do you give your casting vote to?"

"You are all wrong."

"But we can't all be."

"Oh yes, you can. This is my point," he placed his finger in the centre of the circle. "This is where we shall find them."

"But the twelve-mile drive!" gasped Hatherley.

"Six out and six back. Nothing simpler. You say yourself that the horse was fresh and glossy when you got in. How could it be that, if it had gone twelve miles over heavy roads?"

"Indeed it is a likely ruse enough," observed Bradstreet, thoughtfully. "Of course there can be no doubt as to the nature of this game."

"None at all," said Holmes. "They are coiners on a large scale, and have used the machine to form the amalgam which has taken the place of silver."

"We have known for some time that a clever gang was at work," said the Inspector. "They have been turning out half-crowns by the thousand. We even traced them as far as Reading, but could get no further; for they had covered their traces in a way that showed that they were very old hands. But now, thanks to this lucky chance, I think that we have got them right enough."

But the Inspector was mistaken, for those criminals were not destined to fall into the hands of justice. As we rolled into Elyford Station we saw a gigantic column of smoke which streamed up from behind a small clump of trees in the neighborhood, and hung like an immense ostrich feather over the landscape.

"A house on fire?" asked Bradstreet, as the train steamed off again on its way.

"Yes, sir!" said the stationmaster.

"When did it break out?"

"I hear that it was during the night, sir, but it has got worse, and the whole place is in a blaze."

"Whose house is it?"

"Dr. Becher's."

"Tell me," broke in the engineer, "is Dr. Becher a German, very thin, with a long, sharp nose?"

The stationmaster laughed heartily. "No, sir, Dr. Becher is an Englishman, and there isn't a man in the parish who has a better-lined waistcoat. But he has a gentleman staying with him, a patient, as I understand, who is a foreigner, and he looks as if a little good Berkshire beef would do him no harm."

The stationmaster had not finished his speech before we were all hastening in the direction of the fire. The road topped a low hill, and there was a great wide-spread white-washed building in front of us, spouting fire at every clink and window, while in the garden in front three fire engines were vainly striving to keep the flames under.

"That's it!" cried Hatherley, in intense excitement. "There is the gravel drive, and there are the rose bushes where I lay. That second window is the one that I jumped from."

"Well, at least," said Holmes, "you have had your revenge upon them. There can be no question that it was your oil lamp which, when it was crushed in the press, set fire to the wooden walls; though no doubt they were too excited in the chase after you to observe it at the time. Now keep your eyes open in this crowd for your friends of last night, though I very much fear that they are a good hundred miles off by now."

And Holmes' fears came to be realized, for from that day to this no word has ever been heard either of the beautiful woman, the sinister German, or the morose Englishman. Early that morning a peasant had met a cart containing several people and some very bulky boxes driving rapidly in the direction of Reading; but there all traces of the fugitives disappeared, and even Holmes' ingenuity failed ever to discover the least clue as to their whereabouts.

The firemen had been much perturbed at the strange arrangements which they had found within, and still more so by discovering a newly severed human thumb upon a window-sill of the second floor. About sunset, however, their efforts were at last successful, and they subdued the flames, but not before the roof had fallen in, and the whole place been reduced to such absolute ruin that, save some twisted cylinders and iron piping, not a trace remained of the machinery which had cost our unfortunate acquaintance so dearly. Large masses of nickel and of tin were discovered stored in an outhouse, but no coins were to be found, which may have explained the presence of those bulky boxes which have already referred to.

How our hydraulic engineer had been conveyed from the garden to the spot where he recovered his senses might have remained forever a mystery were it not for the soft mould, which told us a very plain tale. He had evidently been carried down by two persons, one of whom had remarkably small feet and the other unusually large ones. On the whole, it was most probable that the silent Englishman, being less bold or less murderous than his companion, had assisted the woman to bear the unconscious man out of the way of danger.

"Well," said our engineer merrily, as we took our seats to return once more to London. "It has been a pretty business for me! I have lost my thumb, and I have lost a fifty-guinea fee, and what have I gained?"

"Experience," said Holmes laughing. "Indirectly it may be of value, you know; you have only to put it into words to gain the reputation of being excellent company for the remainder of your existence."

The Science of Home.

If it is desirable that a woman should develop not only every talent that she has, but every fine and pleasant taste, by all means let her do it, only she must remember that her first talent of all is that of being a woman, and that the domestic arts, through the events of her life that keep her much at home, are primarily woman's arts. It does not follow that she must make bread all the time because she knows how to do it, or that she must sweep a floor, or dust a room, or sew a straight seam, because she can tell from experience how it should be done. But if she does not know how to do these things, and to direct others how to do them, if need be, she is by so much less a woman.

The science of home is the first of all sciences; it makes all other sciences possible, and it is something that every woman should make her own, for, until we live without bodies, it is to be confessed that the arts which make the body comfortable have also much to do with the growth of the soul.—*Harper's Bazar.*

Just after the war, a gentleman was stopping at the house in which Col. Ellsworth was shot. Upon coming to the stairway down which Ellsworth came with the captured flag in his hand, he, like many before him, cut off a piece of the stairs as a souvenir. The landlady happened to be near and saw him do it, whereupon she angrily exclaimed: "I do wish the people would let my stairs alone! That is the third pair that has been put up since Ellsworth was killed."

THE QUIET HOUR.

"The Watered Lilies."

The Master stood in his garden,
Among the lilies fair,
Which His own right hand had planted,
And trained with tenderest care.
He looked at their snowy blossoms,
And marked with observant eye,
That His flowers were sadly drooping,
And their leaves were parched and dry.
"My lilies need to be watered,"
The Heavenly Master said;
"Wherein shall I draw it for them,
And revive each drooping head?"

Close to His feet on the pathway,
Empty and frail and small,
An earthen vessel was lying,
Which seemed no use at all.
But the Master saw, and raised it
From the dust in which it lay,
And smiled as He gently whispered,
"This shall do My work to-day."

It is but an earthen vessel,
But it lay so close to Me.
It is small, but it is empty,
That is all it needs to be."

So to the fountain He took it,
And filled it full to the brim;
How glad was the earthen vessel,
To be of some use to him.

He poured forth the living water,
Over His lilies fair,
Until the vessel was empty,
And again he filled it there.

And so the lilies were watered,
Until they revived again,
And the Master saw with pleasure,
His labor had not been vain.

His own hand had drawn the water
Which refreshed the thirsty flowers;
But He used the earthen vessel,
To convey the living showers.

And unto itself it whispered,
As he laid it down once more,
"Still will I lie in his pathway,
Just where I lay before;

Close would I keep to the Master,
Still empty would I remain,
And perhaps some day He may use me
To water His flowers again."

Faithfulness in Small Things.

"Life affords but few opportunities of doing great services for others; but there is scarcely an hour in the day that does not afford us an opportunity of performing some little, it may be unnoticed, service."

O Lord, at Joseph's humble bench,
Thy hands did handle saw and plane;
Thy hammer nails did drive and clinch,
Avoiding knot, and humouring grain.
Lord, might I be but as a saw,
A plane, a chisel, in Thy hand!
No, Lord! I take it back in awe;
Such prayer for me is far to grand.
I pray, O Master, let me lie
As on Thy bench the flavored wood;
Thy saw, Thy plane, Thy chisel, ply,
And work me into something good.

—G. Macdonald.

What matters where your feet stand, or wherein your hands are busy, so that it is the spot where God has put you, and the work He has given you to do? Your real life is within—hid in God with Christ—ripening and strengthening, and waiting.—*Whitney.*

"Despise not thou small things:
The soul that longs for wings
To soar to some great height of sacrifice, too oft
Forgets the daily round
Where little cares abound,
And shakes off little duties while she looks aloft."

It is for Life—not so much, even, for Death—that we are to be "ready." Ready for God's call, that comes to us in an hour when we think not, and demands all the strength we should have grown to, to enable us to decide and act. Ah! the many foolish ones, who, with lamps untrimmed, are in no plight to meet the exigence of circumstances, or the flash of opportunity, but are swayed hither or thither into ways that were never planned for them in God's projection of their lives, but wherein they stumble, or are left, darkly, while His golden moment goes by.—*Whitney.*

"God sets some souls in shade, alone,
They have no daylight of their own,
Only in lives of happier ones
They see the shrine of distant suns.
God knows. Content thee with thy night,
Thy greater heaven hath grander light.
To-day is close. The hours are small,
Thou sit'st afar, and hast them all.
Lose the less joy that doth but blind;
Reach forth a larger bliss to find,
To-day is brief: the inclusive spheres
Rain raptures of a thousand years."

"The highest duties oft are found,
Lying upon the lowest ground,
In hidden and unwanted ways,
In household work, on common days,
Whate'er is done for God alone,
Thy God acceptable will own."

The Hearth Fire.

If the world seems cold to you,
Kindle fires to warm it;
Let their comfort hide from view
Winters that deform it.
Hearts as frozen as your own
To that radiance gather.
You will soon forget to moan,
"Ah, the cheerless weather!"

—Lucy Larcom.

MINNIE MAY'S DEPARTMENT.

Minnie May offers a prize, "The World's Fair Cook Book," referred to in 1st April ADVOCATE, for the best essay on "How to Keep Friends." All communications to be in our office by the 21st of May.

How to Cook Husbands.

A good many husbands are utterly spoiled by mismanagement in cooking, and so are not tender and good.

Some women go about it as though their husbands were bubbles, and blow them up. Others keep them constantly in hot water. Others let them freeze by their carelessness and indifference. Some keep them in a stew by irritating ways. Others roast them, and some keep them in pickle all their lives.

It cannot be supposed that any husband will be tender and good, managed in this way, but they are really delicious when cooked properly.

In selecting your husband you should not be guided by the silvery appearance, as in mackerel, nor by the golden tint, as in salmon.

Be sure and select him yourself. Do not go to market for him, as the best are always brought to the door, and it is far better to have none unless you know how to cook him. Get a preserving kettle of the finest porcelain, or if you have nothing but earthen ware it will do with care.

See that the linen in which you wrap him is nicely laundered and well mended, with the required number of buttons tightly sewed on. Tie him in the kettle with a strong silken cord called comfort, as the one called duty is apt to be weak and they are likely to fly out and be burned and crusty on the edges, for husbands, like crabs, must be cooked when alive.

Make a steady fire of love, neatness and cheerfulness. Set him as near this as agrees with him. If he should smoke or fizz, do not be anxious; some husbands do this until they are quite done.

Add a little sugar in the form of what confectioners call kisses, but no vinegar or pepper on any account.

A little spice improves them, but it must be used with judgment.

Do not stick him with any sharp instruments to see if he is tender. Stir gently, watching all the while, lest he should lie too flat and close to the kettle, and so become useless.

You cannot fail to know when he is done, if thus treated you will find him very digestible, and will keep long, unless you become careless and put him in a cool place.

"We may live without music and art,
We may live without conscience and live without heart,
We may live without friends, and live without books,
But civilized men cannot live without cooks."

If Mother Would Listen.

If mother would listen to me, dears,
She would freshen that faded gown,
She would sometimes take an hour's rest,
And sometimes a trip to town,
And it shouldn't be all for the children,
The fun, and the cheer, and the play;
With the patient droop on the tired mouth,
And the "Mother has had her day!"

True, mother has had her day, dears,
When you were babies three,
And she stepped about the farm and the house
As busy as a bee,
When she rocked you all to sleep, dears,
And sent you all to school,
And wore herself out, and did without,
And lived by the Golden Rule.

And so your turn has come, dears,
Her hair is growing white,
And her eyes are gaining the far-away look
That peers beyond the night,
One of these days in the morning
Mother will not be here,
She will fade away into silence—
The mother so true and dear.

Then, what will you do in the daylight,
And what in the gloaming dim?
And father, tired and lonesome then,
Pray, what will you do for him?
If you want to keep your mother,
You must make her rest to-day;
Must give her a share in the frolic,
And draw her into the play.

And if mother would listen to me, dears,
She'd buy her a gown of silk,
With buttons of royal velvet,
And ruffles as white as milk,
And she'd let you do the trotting,
While she sat still in her chair,
That mother should have it hard all through,
It strikes me isn't fair.

MARGARET E. SANGSTER.

Prize List of Subjects for Essays.

HELEN M'DONALD, THAMESVILLE.

- (1) Neglected Opportunities.
- (2) Importance of Accuracy.
- (3) How to Keep Friends.
- (4) Women in the Light of History.
- (5) Trifles.
- (6) Self Improvement.
- (7) The Ideal Home.
- (8) Power of Habit.
- (9) The Elements of Success in Life.
- (10) Economy in Dress.
- (11) Power of Conversation.
- (12) Duty.

UNCLE TOM'S DEPARTMENT.

Parliament Buildings, Ottawa.

The Government buildings at Ottawa are situated on a high cliff overlooking the Ottawa River. They were begun in 1860, the corner stone being laid by H. R. H. the Prince of Wales in that year. There are three buildings, viz.,—The House of Commons and the Eastern and Western blocks. The House of Commons, the largest of the three, stands in the centre, but further back from Wellington street than the other two. In it the members of Parliament and the Senators meet for the dispatch of business. Where the members meet (the lower chamber it is called) is a very large place with galleries extending all around. These galleries are divided into five parts, viz.:—The Speakers' Senators', civil servants', ladies' and public galleries. Tickets of admission may be procured for the asking from any of the members or officials. Immediately back of this chamber is the reading-room, where almost all of the newspapers printed in Canada are on file, another attraction being the beautiful paintings, conspicuous among which is one of Lord Dufferin. Passing through a corridor we reach the Senate or Upper Chamber, where the Governor-General opens and prorogues Parliament. This apartment is beautifully furnished, but wears a very sombre look as compared with the Lower Chamber. From here another corridor, adorned with life-sized paintings of former Speakers of the Senate, leads to the library, which is one of the greatest attractions in all the buildings. It contains over 500,000 volumes and is considered the most unique building on the continent. Besides the places already mentioned in the House of Commons, there are also the speakers', housekeepers' and members' rooms and numerous offices.

The Eastern and Western blocks are used for offices for the ministers, deputy-ministers and civil servants in the different departments.

The grounds comprise twenty-five acres and slope gently from the House of Commons to Wellington street. They are beautifully terraced, having well-kept drives and walks, also beds of the choicest flowers. North of the House of Commons is a summer house, from which the river can be seen for miles, the Chaudiere Falls, Suspension and C. P. R. bridges, Rideau Canal and locks. Below the summer house and about quarter way down the cliff is the far-famed Lovers' Walk, part of it hewn out of the solid rock. It is a beautiful place, and well may Canadians be proud of the Dominion buildings at Ottawa.

The estimated cost of the buildings and grounds, exclusive of Langevin block on south side of Wellington street, is \$7,000,000.

The Old Story.

[LIFE'S CALENDAR.]

Client—"Your fee is exorbitant. It didn't take you a day to do the work."

Lawyer—"It is my regular fee. I am not charging you for time, but for the cost of my legal education."

Client—"Well, give me a receipt for the cost of your legal education, so the next fellow won't have to pay for it, too."

A Chance Shot.

"Brother Gotrox," said the Rev. Mr. Wilgus, "did you ever reflect that your wealth is not really your own—that it is but committed to your hands as a trust yet to be accounted for?"

"That is the way I got hold of most of it," answered the great man, surprised into sudden candor, "but I don't see how you discovered it."—Indianapolis Journal.

Puzzles.

PRIZE PUZZLE.

I—MALTESE CROSS.

01	02	03	04	05
06	07	08		
34	09		40	
35	36	10	11	41
13	14	15	16	17
18	19	20	21	22
37	38	23	24	43
39		25		45
	26	27	28	
	29	30	31	32
		33		

From 1 to 5, a kind of type; 6 to 8, a beverage; 10 to 12, an exclamation; 35, 36, a verb; 41, 42, a useful article; 43, 44, 1 of 10 and 1 of 20; 37, 38, a preposition; 29 to 33, foul; 25 to 28, a verb; 34 to 39, an Indian chief; 35 to 38, encountered; 10 to 22, Bible name; 10 to 18, 22 to 24, nicknames; 12 to 24, part of a name; 41 to 43, a busy insect; 40 to 45, parts of the body; 3 to 17, the first; 25 to 31, wagers; 15 to 16, one of Haggard's novels; 18 to 21, what this puzzle is. Centrais—From 3 to 31, things that once learned are rarely forgotten; from 13 to 21, a flower.

HARRY A. WOODWORTH, Parrsboro, N. S.

2—RIDDLE.

In heaven and also on earth I dwell,
With the heathen Chinese and the Christian as well,
Yet I never linger with mortal man,
Though where there's a child my face you may scan.
No height is so great that I cannot climb,
Yet down in the depths I spend my time;
I dwell in a monarchy, live on a throne,
But to kings or to queens no allegiance I own;
Thought of horror and hatred I form a part,
Yet people's eyes wear me near their hearts;
And though of death I am a share,
No home is complete till my presence is there.

ADA ARMAND.

A Short Sermon on Gifts.

Do not wait for holidays. Give birthday gifts to those you love or trifling anniversary gifts.

Give by all means out of the plentitude of your heart and purse. Give wise gifts. In your own home circle some little thing, fashioned and designed by your own hands, and worked with joyous secrecy, will give more pleasure than anything bought in a shop. To the poor give money, if you do it wisely and know the recipient; to the rich send a card or a bunch of chrysanthemums. To the children—this is a very sweet point—give what you think each individual boy or girl most desires. The gun-desiring boy may not hanker after the symbol of the diluvian navy that anchored on Ararat, and the proud possessor of many dolls may possibly yearn for a growling mechanical bear or a live white mouse. Study the children's wants. Find out what they most wish for, and then play fairy godmother to your heart's content.

Gifts should not be too costly. Expensive gifts upset the equilibrium of things generally, for they necessitate a return in kind, and so degenerate into commerce, even as our system of "wedding presents" shows signs of doing. It is a curious fact that the first "gift" of man to woman was probably a flower—there were no jewelers in Eden.

Names in ornament, especially pet names, are valuable, pretty and poetical. Meditate on this. Let your gift have the high value of being purely personal; not a thing merely bought in a shop, but something "thought out." First, what does he or she most want? Secondly, how shall I make that gift recall me to him or to her? A birthday or anniversary gift should be a token of affection of some sort. Not cost, but love, should be the inspiration that prompts you in the thoughtful selection of your outward and visible sign of your inward and spiritual friendship.

If, for example, a rich friend condoles with you on your "financial worries," sympathizes with your sadness and hopes that

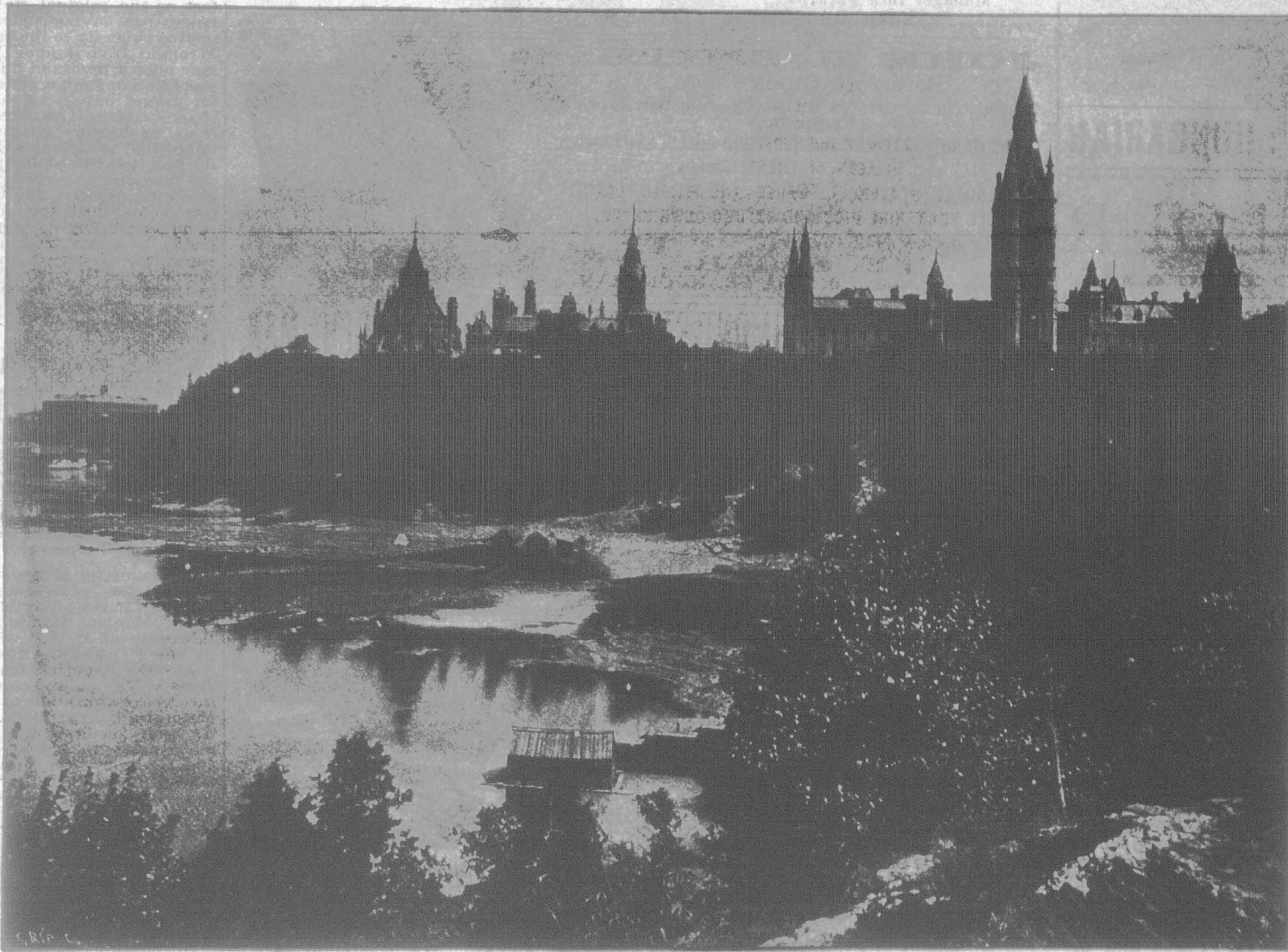
"better times will come," while making no effort to relieve or assist you, that is an example of hypocrisy. O condolence and comfortable advice of the common-sense order is too often a vicious gift. Better a check or a turkey. Better a sausage than sentiment. So then you will bear this in your gentle minds, that a gift or present is a bond, a tie, for all time—a true love-link—and that its value is never intrinsic, but spiritual. The great man who saw far down into the depths of human thought said nothing wiser than this:

"Rich gifts wax poor when givers prove unkind."

Shared.

I said it in the meadow path,
I say it on the mountain stairs,—
The best things any mortal hath
Are those which every mortal shares.
The air we breathe, the sky, the breeze,
The light without us and within,—
Life with its unlocked treasures,
God's riches,—are for all to win.
The grass is softer to my tread,
For rest it yields unnumbered feet;
Sweeter to me the wild rose red,
Because she makes the whole world sweet.
Into your heavenly loneliness
Ye welcome me, O solemn peaks!
And me in every guest you bless,
Who reverently your mystery seeks.
And up the radiant peopled way
That opens into worlds unknown,
It will be life's delight to say,
"Heaven is not heaven for me alone.
Rich though my brethren's poverty,—
Such wealth were hideous! I a'n blest
Only in what they share with me,
In turn I share with all the rest."
LUCY LARCOM.

PARLIAMENT BUILDINGS, OTTAWA.



3—CHARADE (Phonetic).

Two the evening sky when the sun seeks the west,
With what glooming ONES are the cloudlets dressed,
If I only could, I'd like to THREE one,
To make a robe, wouldn't FOUR like to see one?
But such foolish notions we'd better SIX,
And not be trying impossible tricks,
I hear the COMPLETE of the curfew bell,
So I'll end this FIVE and say farewell.

ADA ARMAND.

4—CURTAILMENT.

My FIRST is a king, long years now dead,
By whom much innocent blood was shed;
My SECOND appears a man of fame,
THIRD and FOURTH would stand for a person's name;
My LAST is so small it is never in view,
Yet you carry it around every day in your shoe.

CHARLES S. EDWARDS.

Answers to March 15th Puzzles.

1—A Well. 2—Recondite, Once Tried. 4—A Riddle. 5—Also.

Names of Those Who Have Sent Correct Answers to March 15th Puzzles.

Thos. W. Banks, Geo. W. Blyth, A. R. Borrowman, James Speers.

The prize-winners for best answers to puzzles for the last three months are: 1st, Josie Sheehan; and 2nd, Joshua Umbach.

Husband—"What stuff this pudding is! Where did you get the recipe?"

Cultured Wife (calmly)—"When speaking of directions for preparing foods, you should say receipt. When referring to medical prescriptions, you may, if you choose, use the term recipe, from the Latin *recipere*—take."

Husband—"I used the word correctly. This pudding was a dose."

ROYAL CROWN SOAP

HAS NO EQUAL!

Beautiful Picture for 25 Wrappers.

ROYAL SOAP CO'Y,
Winnipeg.

OGILVIE'S HUNGARIAN GRANULAR CREAMY FLOUR

HAS NO EQUAL.

Makes more Bread per Barrel. Economy is Wealth

DIRECTIONS.
We insist upon a greater quantity of water being added than you have been in the habit of doing with soft ground flour, making the sponge to the consistency of a THIN batter. For BAKERS' BREAD use $\frac{1}{2}$ to $\frac{1}{4}$ less yeast. HOME-MADE BREAD $\frac{1}{2}$ to $\frac{1}{4}$ less than formerly. Keep the dough much softer than usual. DO NOT MAKE IT STIFF. Salt is a most important factor in regulating fermentation, and in bread-making during cold weather $\frac{1}{2}$ to $\frac{1}{4}$ less salt is necessary than would be during the warmer months. This is due to the difference between artificial and natural heat.

TRY IT!
YES. TRY SHOPPING BY MAIL.

Thousands of cash buyers all over Canada are concentrating their orders on our letter-order department with profit and satisfaction to themselves. Try us on any of the following articles. You send your money with your order and we will deliver all of the following articles, postage prepaid, to your nearest post office:— Dr. Williams' genuine Pink Pills, 35c. per box. Dodd's Kidney Pills, 40c. Carter's Little Liver Pills, 20c. Ayer's Pills, 20c. Hood's Pills, 20c. Beecham's Pills, 25c. Siegel's Pills, 20c. Warner's Pills, 20c. Pierce's Pellets, 30c. Ordinary Syringes, 65c. Fountain Syringes, \$1.40.

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Sterling silver stick pins, 15c. each. Solid gold stick pins, 50c. each. Rolled gold stick pins, 25c. each. A rolled gold brooch with pearl setting, only 25c.
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PRINCE ROYAL =10525=

To prevent inbreeding this imported roan Shorthorn bull, combining great substance with rare symmetry, quality and rich breeding. Write or come and see.
H. NEWMARCH,
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GREAT CLOSING-OUT SALE

SHORTHORNS

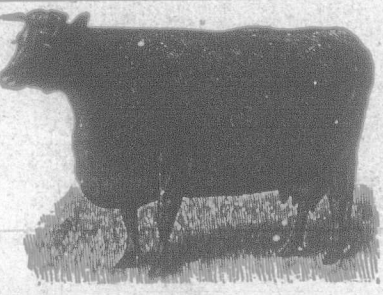
: From the Bow Park Herd, :
WEDNESDAY, APRIL 25

This sale, which will be held at Bow Park, BRANTFORD, ONT., will include all the animals now on the farm, which, with the exception of four cows, are all young. The heifers, a beautiful lot, are in calf to Lord Outhwaite (a son of the celebrated cow Lady Isabel) and one of the best show bulls on the continent. The young bulls are very promising, being thick, low down and full of hair. Sale will commence at 1 o'clock p. m. Conveyances for intending purchasers will meet trains at Brantford on morning of the sale. Catalogues may be had after April 10th on application to the undersigned, and at the Globe office, Toronto.

TERMS—3 and 6 months' credit on approved endorsed notes, or cash with discount at 6 per cent. per annum.

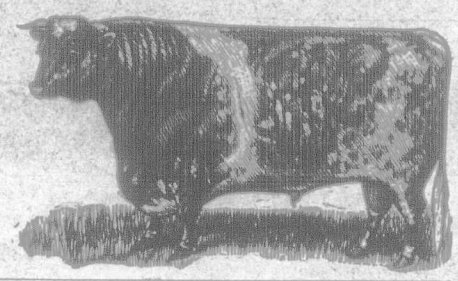
JAMES SMITH, Manager Bow Park, BRANTFORD, ONT. 7-a-om
MOWAT, DOWNEY & LANGTON, Solicitors for Vendors, TORONTO.

JOHN E. SMITH, Beresford Stock Farm, Has now, in the CITY OF BRANDON, at his new Stock Emporium, SHORTHORN, CALLOWAY and HEREFORD BULLS, also COWS and HEIFERS of THESE BREEDS. GLYDESDALE STALLIONS, MARES AND FILLIES, LARGE WHITE YORKSHIRE PIGS AND OXFORD-DOWN SHEEP. Prices low and terms easy. Write or wire.
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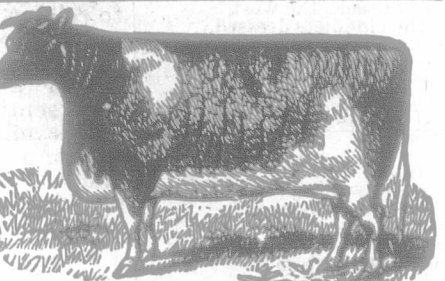
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HAS NOW FOR SALE AT VERY MODERATE PRICES
13 YOUNG BULLS
Intending purchasers will be met at Winnipeg on receipt of letter or telephone. Telephone No. 249 GILL. 64-1-f-m



MAPLE GROVE FARM
ROSSER, - MANITOBA.

WALTER JAMES & SONS

BREEDERS OF
SHORTHORN
CATTLE
Bates and Cruick shanks.
Correspondence invited. Quite a few yearling grade cattle for sale cheap. 51-y-m



PIONEER HERD of SHORTHORNS
WALTER LYNCH, Prop., Westbourne, Man.
Fifteen first and one second herd prizes in sixteen years. A choice lot of young bulls for sale. 46-2-y-m

STEEL BROS.
Glenboro, - Manitoba,
BREEDERS of AYRSHIRE CATTLE
Choice Young Stock For Sale. 64-2-y-m

R. J. MITCHELL,
Polson Avenue, - Winnipeg, Man.,
BREEDER OF

BERKSHIRE PIGS
Bronze Turkeys and Plymouth Rocks. 61-y-m



EMPEROR OF CANADA 5589
R. MCKENZIE, High Bluff, Man., Breeder of Pedigree Holsteins and Large English Berkshire Pigs. Numerous first prizes at Winnipeg and local shows. One young Bull for sale; sired by Emperor of Canada, out of Vida Rooker (imp.) Will now receive orders for shipments of spring pigs; pairs supplied not akin. Correspondence solicited. 66-

HENSALL FARM

Shropshires and Berkshires.
JAS. ELDER, Virden, Man.
Young pigs for sale. As the proprietor intends going into dairying, he will sell off the lot of Shrops cheap. Some are imported. 65-1-f-m

Dick's Condition Powders
Fattens Horses and Cattle
Dick & Co., P. O. Box 482, Montreal.

IT PAYS TO ADVERTISE :

— IN THE —
FARMER'S ADVOCATE
— AND —

HOME MAGAZINE.

0-0-0-0-0-0
If you have anything to sell, : :
SEND AN ADVERTISEMENT to
The William Weld Company
WINNIPEG, MANITOBA.

NOTICES.

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

Waghorn's Guide, issued first of every month, contains a wonderful ten cents' worth of information, including R. R. time tables revised up to date, post offices, stage routes, municipalities, with names and addresses of clerks, and schools with names and addresses of secretaries, besides lots of other things you want to know.

THE AERMOTER MILL.

In many parts of the States windmills are very extensively used by farmers for pumping water, grinding feed, and other such like purposes; and doubtless as the farmers here get wells sunk and permanent buildings up they will also harness the wind for similar purposes, for in this country wind is almost as sure a crop as ice. One of the best and most extensively used mills is the Aermoter Mill, sold in Winnipeg by George Rice, who has erected a mill about 30x30 and 20 feet high, upon which he has a 16-foot steel wheel, which drives all the machinery, consisting of a machine for the manufacture of process flour for making from bread, the demand for which, Mr. Rice says, he cannot supply; a crusher for making cracked wheat for porridge, two crushers for chopping feed, a green bone crusher for grinding bones for poultry, and a circular saw. The Aermoters are built in several sizes, plain and geared; can be erected on barns or on separate steel towers. We know of several farmers who have had these mills in operation for some years, and they are entirely satisfied with the results.

ONE THOUSAND DOLLARS OFFERED.

Although the statement made a few weeks ago that certain notes given in payment for stoves had been raised, was promptly contradicted by us, the correction has not traveled as fast as the original statement, a number of newspapers having copied the latter, and failed to give publicity to the amending article. The Wrought Iron Range Company, of Toronto, now offer a thousand dollars for the slightest proof that any notes given to them in payment for ranges have been raised or altered in any shape or form. As a result of our investigations we became satisfied that it would be impossible to raise this Company's notes, from the fact that the selling price is printed across the face, and the words spelled out. We are also informed that the Company holds all its own notes until due, and does not discount them under any circumstances. It is only justice to a reputable firm that every newspaper which copied the original statement should promptly publish the correction as well as this offer, and we have no doubt all such papers will do so as soon as their attention is directed to the case.—[St. Thomas, Ont., Evening Journal.

STOCK GOSSIP.

We have just received a copy of the catalogue of the entire herd of Bow Park Shorthorns, which will be offered for sale by auction at Bow Park Farm, Brantford, on April 25th. The dispersion of this well-known herd, which has won such phenomenal success at the various exhibitions in this province and the United States, will afford farmers an opportunity of purchasing choice animals that should not be neglected. Send for catalogues. See advertisement in this paper.

The engraving of the handsome pair of Silver Wyandottes, represented in our issue of April 6th in the advertisement of W. D. Lawrence, Morden, Manitoba, son of Alexander Lawrence ex-M. P. P., was specially prepared by the FARMER'S ADVOCATE. The original stock was imported from Dr. Beckett, New Jersey. The pullet scored 94 points, winning the Association's medal as best pullet at the Manitoba, Poultry Show. The cockerel scored 92, and won first in his class. Master Lawrence makes a specialty of Laced Wyandottes, and his birds were pronounced by the well-known judge, S. Butterfield, as being quite equal to anything on the continent.

MONTREAL Sept. 4th.
TO THE PUBLIC:—In my practice, and in the capacity of Veterinary Editor of the "Family Herald and Weekly Star," I have had occasion to test the merits of "Dick's Horse and Cattle Medicines." I have found them so thoroughly reliable that I have prescribed them in hundreds of cases, in all of which they proved highly satisfactory. R. W. GRAHAM.

A WORD TO SHEEP AND CATTLE MEN REGARDING "LITTLE'S NON-POISONOUS LIQUID SHEEP AND CATTLE WASH."

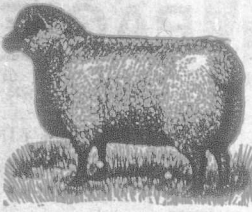
This Dip is non-poisonous; is of uniform strength, never varies. It is perfectly safe, as being non-poisonous, no danger can occur from animals licking themselves. It does not stain the wool, but, on the contrary, improves it and adds to its value. It destroys ticks and all insects instantly. A sure cure for scab; a most valuable remedy in outbreaks of "Foot and Mouth Diseases," "Pleuro-Pneumonia," and infectious diseases among cattle. In these cases the Wash will be found most valuable as a disinfectant and germicide, at once preventing the spread of the malady if liberally used. It is cheap, convenient and effective, as certified to by the thousands of stockmen who use the Wash in all parts of the world, and by the enormous increase in sales; in fact, no farmer, let alone stock-breeder, can afford to be without it. Read what some of our Canadian stockmen say about "Little's Sheep and Cattle Wash":—

FROM A. TELFER & SONS, PARIS, ONTARIO.
Having used "Little's Sheep Dip and Cattle Wash" on both Sheep and Cattle, we take great pleasure in recommending it to others, as it is the best we have ever used. We also find it a most excellent wash for wounds and sores on Horses, Cattle and Sheep.

FROM J. Y. ORMSBY, V. S.,
Mgr. Isaleigh Grange Farm, Danville, P. Q.
I have now been using "Little's Sheep and Cattle Wash" for some four years, and I can truthfully say that it is by far the best preparation I have ever used for destroying lice on Horses, Cattle and Hogs, or any animals. Its special advantages in my eyes are, that while it is not only sure but sudden death to all kinds of external parasites, it is also clean and easy to use, and so cheap, when we consider how long a tin will last, that no farmer, not to speak of stock-breeder, should be without it.

Shropshire Sheep, Ohio Imp. Chester Whites and Large Yorkshires

At half price, from such sows as Lincoln Lass 5th (418), imported in dam; her dam, Lady Duckering imp. (415), being first at World's Fair, Glad-iator imp. (413), 1st at Toronto and 2nd at World's Fair, is sire of my young sows. My Yorkshires have never been beaten in Manitoba by fair decision. Did not compete at Pilot Mound. My breeding sow gained 5 firsts and 2 seconds, and boar 1st at Winnipeg Industrial last July. No culls shipped. Stock guaranteed as described. 62-y-m J. OUGHTON, Crystal City, Man.



BERKSHIRES



JOHN A. ROSS, BUTTERFIELD, MAN.

I can supply now a few of different ages of excellent pedigrees. Booking orders for spring delivery. Write for what you want. 62-y-m

REGISTERED IMP. LARGE YORKSHIRE PIGS

I send out nothing but the best. Made a clean sweep in thoroughbred pigs last fall at Fort Qu'Appelle, Indian Head and Regina fairs. Prices low. Address, B. WOOLHOUSE, Loon Creek, N. W. T. 67-m

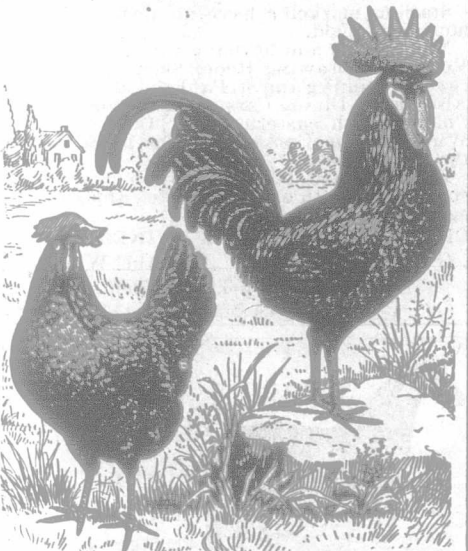
IMPROVED LARGE YORKSHIRES

Orders taken for summer and early fall pigs at greatly reduced prices. For sale, from imported Boar. Prices away down. Correspondence solicited. RIDOUT & PERCIVAL, Selkirk, Man. 50-y-m

EGGS : FOR : HATCHING.

- Golden and Silver Hamburgs... \$3 per setting
Light and Dark Brahmans... 3
Buff and Partridge Cochins... 3
Langshan and Houdan... 3
Golden and Silver Wyandottes... 3
Blue Andalusians & Buff Leghorns... 3
Barred P. Rocks and B. Minorcas... 3
White and Brown Leghorns... 2
Pit Games... 2
Cornish Indian Games... 4
Black Sumatra Games... 4
Black and Brown Red Games... 3
Rouen and Pekin Ducks... 2 per 11.
Bronze Turkeys... 3
Toulouse Geese... 3
A fair hatch guaranteed. Address, AUSTIN POULTRY FARM, AUSTIN, MANITOBA. WM. JONES, Prop. 63-y-m

MINORCA AND BRAHMA EGGS \$2 PER SETTING.



1st, 2nd and 3rd for young Brahmans, and 2nd for young and old Minorcas at last Industrial Exhibition. 1st on Black Minorca Cockerel, 2nd on Pullet, and 3rd on Light Brahma Cockerel, and 2nd on Pullet, at the recent show held by the Manitoba Poultry Association. A. CURLE, Pembina Road, 66-m FORT ROUGE.

E-G-G-S LIGHT : BRAHMAS

Only \$2 per 13. Orders booked and filled in turn as received. WM. BRAMMALL, 375 Jarvis Ave., WINNIPEG. 66-f-m

Bronze Turkeys, Mammoth Pekin Ducks, Plymouth Rocks, White and Laced Wyandottes.

I keep the best only. At Manitoba Poultry Association Show my B. P. R. Cockerel Hero scored 93 prizes, winning first \$10 special in strong competition. White Wyandotte hen, "Lily White," scored 95 points, winning challenge cup for best hen any variety. Bronze Turkey Cockerel Champion 1st, weight 2 3/4 lbs., ten months old; Bronze Hen 1st, weight 19 1/2 lbs.; Pekin Ducks, 1st old, 1st young and special-11 exhibits, 11 prizes. Birds and eggs for sale. Write and send stamp for reply. 61-y-m M. MAW, Winnipeg, Man.

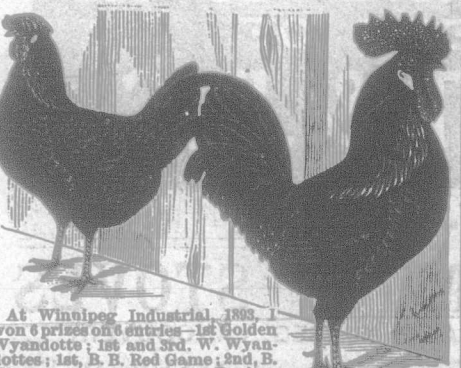
LIGHT : BRAHMAS LANGSHANS only.

EGGS from 1st prize breeding pen Light Brahmans (at recent Manitoba Poultry Association Show, average score of hens 90 1/2) at \$3 per 13. Other pens at \$2 to \$5 per 13. Langshans from imported birds at \$2.50 per 13. Address-

C. M. RICHARDSON, FARMER'S ADVOCATE, WINNIPEG, MAN. 66-f-m

REID'S : POULTRY : YARDS

Golden Wyandottes, White Wyandottes, Black Minorcas, Black Red Game, Light Brahmans and Barred Plymouth Rocks.



At Winnipeg Industrial 1893, I won 6 prizes on 6 entries-1st Golden Wyandotte; 1st and 3rd W. Wyandottes; 1st, B. B. Red Game; 2nd, B. Minorcas. At Manitoba Poultry Show, 1894-9 entries and 9 prizes; 1st and 2nd, W. Wyandottes; 1st breeding pen B. B. Red Game; 1st Golden Wyandotte cock, 2nd hen, and 1st on B. Minorca hen. EGGS IN SEASON. Send stamp for catalogue. THOS. REID, 293 Lizzie St., WINNIPEG.

EGGS FOR HATCHING

Prize Winning Buff Cochins, Blk. Spanish, W. Leghorns, W. Wyandottes, Cameo Bantams and Mammoth Pekin Ducks. SENT SAFELY. PRICES REASONABLE. A. M. MATHESON, 65-f-m BRANDON, MAN.

BOUNDARY : ST. : POULTRY : YARDS.

Single Comb Brown Leghorns won 6 prizes; 3 firsts at Winnipeg Industrial, 1891, '92, and '93, also 1st on Breeding Pen at the Manitoba Poultry Show, 1894. The 1st prize cockerel and pullet were also from my stock. Eggs-S. C. B. Leghorns... \$2 per 13
Pekin Ducks... 2 " 11
L. Brahmans... 2 " 13
One P. Rock Cockerel... 4
Three Pekin Drakes... 1.50 each. Orders promptly attended personally. No circular. Send stamp. Address, A. WILLIAMS, Boundary St., WINNIPEG, MAN. 67-y-m

BUY THE BEST.

Single Comb White and Brown Leghorns, the champion Layers. Our pens are headed by 1st prize cockerel, scoring 92. Pullet and hens scoring 93. Brahma pen headed by 2nd prize cockerel. B. B. Red Game. Hen scoring 94; acknowledged by Judge Butterfield to be the finest in Canada. Eggs, \$2.50 per setting. Show birds with score cards for sale. HANBY BROS., 67-b-m 220 Notre Dame St., WINNIPEG.

WHITE LEGHORN POULTRY YARDS

Boyd Avenue, Winnipeg, Man. My birds have won prizes at Winnipeg Industrial, 1892, '93, and at Manitoba Poultry Assn. Show, March, 1894. EGGS FOR HATCHING, \$2 per setting. A few birds for sale, including 2nd prize cockerel at recent show. W. A. PETTIT, Breeder of S.C. W. Leghorns.

McCLURE'S POULTRY YARDS

White Leghorns and Light Brahmans. GET OUR CATALOGUE AND PRICE LIST FOR 1894. 63-m J. McCLURE, 448 Carey-St., Winnipeg.

WINNIPEG : POULTRY : YARDS

S. WISE, PROP. BREEDER OF PRIZE-WINNING Golden Wyandottes At Manitoba poultry show, March, 1894, I won 1st on hen, 1st and 3rd on cockerels-score, 94 and 91 1/2; 1st and 2nd on pullets-score, 93; and 92 by Butterfield. Eggs from prize matings, \$3 per 13, \$5 per 26. Also high-class B. P. Rocks; eggs, \$2 per 13. Address- 633 Ross Ave., WINNIPEG.

FORT ROUGE POULTRY YARDS Eggs for Hatching

From Barred and White Plymouth Rocks, Silver and Gold Laced, Black and White Wyandottes, Light Brahmans, Langshans, \$2 per setting of 15 eggs. Bronze Turkeys, \$3 per 9 eggs. Pekin Ducks, \$2 per 11 eggs. My breeding pens contain birds that won 11 first, 5 second and 3 third prizes at Winnipeg Industrial. Also, in recent show in Wesley Hall, 15 entries, 15 prizes and Gold Medal for best breeding pen in the show. A few choice birds and Rabbits for sale. Write S. LING, Proprietor, Winnipeg, Man. 47-y-m

An Unparalleled Record

AT THE Manitoba Poultry Assn. Show, 1894, my SILVER WYANDOTTES WON Pullet, 1st, 2nd & 3rd; Cockerels, 1st & 3rd; Hens, 2nd & 3rd; Breeding Pen, 1st, & Medal for Highest Scoring Pullet at the Show. Eggs from prize-winning birds, \$3 per setting; from other pens, \$2, which are the same stock, but not shown. W. D. LAWRENCE, 67-f-m MORDEN, MAN.

Emerson Poultry Yards.

Five Breeds of best Imported Stock-Light Brahmans, B. Langshans, B. P. Rocks, B. Minorcas, W. C. B. Polish. Eggs from ten grand breeding pens, \$2.00 per setting. Young stock for sale. J. SULLIVAN, 64-f-m - Emerson, Man.

CARBERRY POULTRY YARDS.

Light Brahmans (Duke of York and Felch Strain.) A FEW CHOICE COCKERELS AND Eggs for Hatching. W. ATKIN, 64-f-m Carberry, Man.

TO MY FRIENDS & PATRONS.

I have as many orders now booked for eggs as I can fill. I have to turn away some of my last year's customers that got eggs and were so well satisfied with the stock. I am importing some other breeds. H. K. SAVITZ, Prairie Poultry Farm, Carberry, 60-y-m Man. Breeder and Importer of High Class Poultry STOCK FOR SALE. 30-1-y-m E. W. DAITON, Virden.

POULTRY MEN! GREEN CUT BONES

Warranted to double the egg production. Our BONE CUTTER reduces green bones fine enough for little chicks. MEDAL AND DIPLOMA AT WORLD'S FAIR, and, as far as we know, the only one worthy of mention. Get our circulars also of HAND STONE CRUSHER for making grit out of stone, shells, broken crockery, etc. Pure Limestone Grit, in sacks, \$1 per 100 lbs. Our CLOVER CUTTER finest made. Write for circulars. Webster & Hannum Cazenovia, N. Y. 66-2-c-om

MAY WE SEND YOU FREE OUR CATALOGUE OF HARNESS & SADDLES

It contains cuts, descriptions and prices. We have a larger trade in these goods than any other firm in Canada. We sell them in every Province and Territory. We guarantee prices lower than any local dealer can possibly give. We ship them with privilege of examination before paying for them. We have every style of harness, from dog, goat or pony to heavy and extra heavy, double and single; also gents', boys' and ladies' saddles. Address THE SUPPLY CO., NIAGARA FALLS, ONTARIO



TORONTO, MONTREAL, NEW YORK AND ALL POINTS EAST.

DIRECT CONNECTION WITH STEAMERS FOR EUROPE, CAPE TOWN, SOUTH AFRICA And HAWAIIAN ISLANDS.

AUSTRALIA FROM VANCOUVER.

SS. Arawa... April 16 SS. Warrimoo... May 16

CHINA and JAPAN FROM VANCOUVER.

Japan... April 23 China... May 14

W. M. McLEOD, City Passenger Agent, 471 Main street; J. S. CARTER, Depot Ticket Agent, or to Robert Kerr, General Passenger Agent.

STOCK GOSSIP.

Every reader of the ADVOCATE is cordially invited to make use of the "Gossip" column. Chronicle all important sales of pure-bred stock. Let people know of any praiseworthy accessions to your stock. If you have been successful at fairs or other competitions, let it be known.

Mr. C. M. Richardson, whose ad. appears in this issue, has added to his yard of Light Brahmans a cockerel, selected for him in Ontario by Mr. Sharp Butterfield, to head a pen of particularly select females, one pullet of which was imported from the yards of Mr. Wm. Hodgson, Brooklin, Ont. The cockerel, though evidently a late hatch, is a bird of wonderful quality, perfect in hackle, comb, and with that beautiful fan tail so much sought for in this breed; in fact he is almost perfection.

We learn that Mr. Bedford has secured for the Experimental Farm some fine specimens of poultry, a trio of Light Brahmans, the cock and one hen being from the yards of R. Dolbear, Winnipeg, the other hen from W. Rutherford, Garry street, Winnipeg. He also got the second prize White Leghorn pullet from W. Pettit, Winnipeg, and third prize Barred Plymouth Rock cockerel, which scored ninety-three points at the poultry show, from H. A. Chadwick.

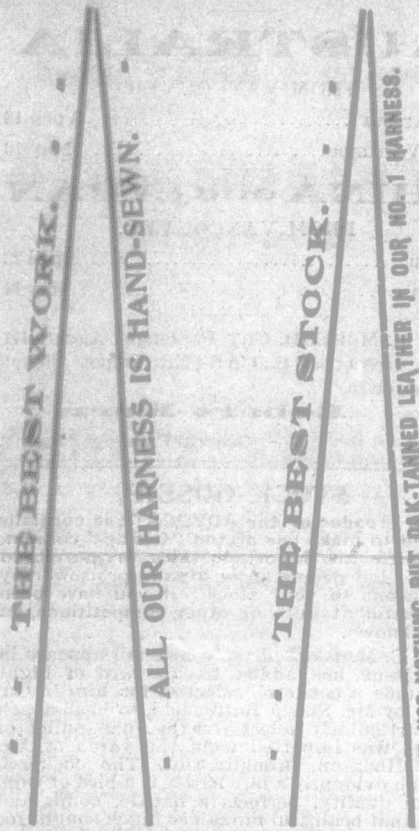
John Hettle, M. P. P., President of the Manitoba Dairy Association, recently attended some crowded meetings in the south-western portion of the province. At Pipestone it is proposed to organize a joint stock company to establish a cheese factory, upwards of three hundred cows being available. At Melita a most enthusiastic meeting was held to discuss the advisability of establishing a creamery, but Mr. Hettle thinks there are not cows enough in workable distance of the town just yet.

T. Reid, who has long been advertising poultry in the ADVOCATE, reports a lively trade in birds and eggs this spring. The late poultry show has created great interest in the hen. He has sold a trio of Black Minorcas to the Hon. Thos. Greenway, Crystal City. Mr. Reid has recently added, by importation from Ontario, four magnificent Golden Wyandotte pullets to his already strong pen of this popular variety. He says each of them is good enough to score 92 points. It will be remembered that his first prize G. W. cock scored 92 points at the poultry show.

D. Fraser & Sons, "Lake Louise Farm," Emerson, have just completed a sale to Gallagher & Sons, the Winnipeg butchers, of the pair of three-year-old steers which won first prize at the last Industrial. These steers now weigh about one ton each, and the price obtained is five cents per pound live weight now; the steers to be delivered between now and Christmas, the purchasers to pay for the keep. And yet people say, "Oh! there is no money in beef cattle."

Mr. Jas. Lawrence, Clearwater, Man., sends the following notes of sales:—"I arrived home from Ontario with my cattle safe, and have made the following sales: One Shorthorn bull to Thomas Coughlin & Sons, also, to the same party, Beatrice of Rock Lake; to Mr. G. T. Vipond, Killarney, Maude Lansdowne 12465, and her heifer calf; to Mr. James Miller, Nings, the yearling show heifer, Bridget. In Yorkshires the following sales have been made: Mr. Cochrane, Manitou, 1 sow; W. E. Baldwin, Manitou, 1 hog; Mr. Anderson, Togoch, 2 hogs and 2 sows; Mr. Motheral, Manitou, 1 hog and 1 sow; Mr. Joseph White, Pilot Mound, 2 hogs; Mr. Hall, Pilot Mound, 1 hog and 1 sow; Mr. Playfair, Baldur, 1 hog; Mr. Torrence, Antler, N. W. T., 1 hog; Mr. Bate, Lyleton, 1 hog; Mr. G. T. Vipond, Killarney, 2 sows; Mr. E. H. Carter, Portage la Prairie, 1 sow; Mr. Cullume, Birdle, 2 sows and 1 hog; Mr. John White, Cartwright, 1 hog; Mr. Graham, Pomeroy, 1 hog; Mr. Crayston, Glinora, 1 hog; Mr. Carbery, Clearwater, 1 hog; Hon. T. Greenway, Crystal City, 1 hog; Mr. Montgomery, Dakota, 1 hog and 1 sow; Mr. Stancombe, Holmfield, 1 sow. We have about twenty extra good pigs yet on hand which we will send to purchasers on approval, as we never ask for pay until we know that our customers are satisfied with their bargain."

PRINTING HORSE BILLS
 HORSE BILLS
 HORSE BILLS
 HORSE BILLS
 HORSE BILLS
 WINNIPEG.
 R. D. RICHARDSON
 TWO POINTS



ABOUT OUR HARNESS

PEIRCE'S HARNESS MANUFACTORY,
 278 James Street, Winnipeg, Man.
 Cheapest House in Manitoba. Send post card for prices.

SPRING SUITINGS!

Large Assortment to make a selection from.

PRICES TO SUIT.

GEO. CLEMENTS,
 MERCHANT TAILOR,
 480 Main Street, 44-y-m Winnipeg.

BEAUTIFY YOUR HOME.

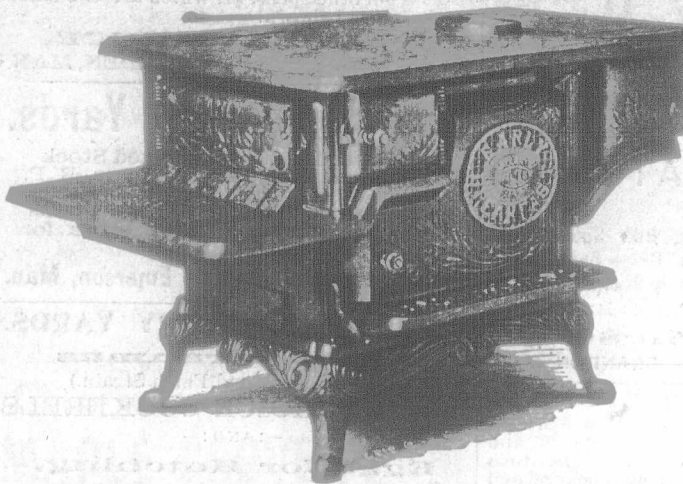
At Maywood Farm, Sec. 32, Tp. 19, R. 21, may be seen the improvement of a little taste and work in tree planting, where you can get the following, or they will be shipped at Regina, F. O. B.:-
 Maple & Ash, 3 years, \$20 per 1,000
 Balm of Gilead, 2 & 3 years, 20 "
 " " poles 10 ft. long for ploughing under, \$5 per 100.

Address—
 JOS. WYLLIE,
 68-a-m TREGARVA P. O., Assa.

ADVERTISE IN THE FARMER'S ADVOCATE AND HOME MAGAZINE.

HAVE YOU USED?
RICHARD'S
PURE SOAP
 IF NOT. WHY NOT? IT IS THE BEST & CHEAPEST ESPECIALLY ADAPTED FOR USE IN WATERS OF MAN. N.W.T. & B.C.

McCLARY'S FAMOUS STOVES
 (LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER)



HAVE BEEN TESTED BY THE PEOPLE for nearly HALF A CENTURY!

TAKE NO OTHERS said to be just as good.

If your local dealer does not keep them, write us

THE McCLARY MFG. CO. WINNIPEG, MANITOBA.

WANTS.

One insertion of six lines in this column, \$1; three insertions, \$2.50, in advance. Contracts not made for more than three consecutive insertions.

TO SELL an A1 Mixed Farming 160-acre Farm, 20 miles from Winnipeg; half farm broken and fenced; near church and school. Apply to D. W. McIVOR, Winnipeg, Man.

PURCHASER for Farm (160 acres) near to city of Winnipeg; will sell on very liberal terms. Apply Box 214, Winnipeg.

TO SELL Pure-bred Shropshire Ram Lamb of first-class breeding and a good one. Address, G. C. WELD, care Farmer's Advocate, Winnipeg.

SEEDS Keith & Co., P. O. Box 333, - WINNIPEG.

SEEDS on commission, we do not handle. Our Seeds grow. We prove them in our own grounds.

NOTHING BUT THE BEST! Try some GROCERY SEED in a box and see what percentage grow. A. BOWERMAN, WINNIPEG, MAN. Florist, Seedsman & Gardener. Illustrated Catalogue sent free.

DRINK THE "LIGHT OF ASIA" TEA

In one-pound packets at 50c, or a handsome canister of five pounds for \$2.50. The finest tea on the market. Sold only by

W. H. STONE, Grocer, 622 Main St., Winnipeg. Send for samples free by mail.



SUMMER SPORTS Tennis, Cricket & Base Ball Outfits, Bicycles & Sundries CATALOGUES ON APPLICATION. THE HINGSTON SMITH ARMS CO. Guns and Sporting Goods, 62-y-m Winnipeg, Man.



CAPACITY, 200 HOGS PER DAY. HOGS - PURCHASED - ALL-YEAR-ROUND.

NORTHERN PACIFIC R.R.

TIME TABLE—Taking effect Monday, March 5, 1894.

MAIN LINE.					
READ UP.		READ DOWN.			
NORTH BOUND.			SOUTH BOUND.		
Freight No. 1st. Daily.	St. Paul Ex. No. 107. Daily.	Miles from Winnipeg.	St. Paul Ex. No. 108. Daily.		
1.20p	4.00p	0	Winnipeg	11.00a	5.30a
1.05p	3.49p	3.0	*Portage Junct.	11.12a	5.47a
12.42p	3.35p	9.3	*St. Norbert.	11.26a	6.07a
12.22p	3.21p	15.3	*Cartier	11.38a	6.25a
11.54a	3.03p	23.5	*St. Agathe	11.54a	6.51a
11.31a	2.54p	27.4	*Union Point	12.02p	7.02a
11.07a	2.42p	32.5	*Silver Plains	12.13p	7.19a
10.51a	2.35p	40.4	*Morris	12.30p	7.45a
10.38a	2.11p	46.8	*St. Jean	12.45p	8.25a
9.23a	1.51p	55.0	*Letellier	1.07p	8.12a
8.00a	1.30p	65.0	*Emerson	1.40p	10.12a
7.00a	1.15p	68.1	*Pembina	1.52p	8.58p
11.05p	9.15a	108	*Grand Forks	5.25p	8.58p
1.30p	6.25a	223	*Winnipeg Junct.	9.25p	1.25p
	3.45p	453	*Duluth	7.55a	
	8.30p	470	*Minneapolis	7.05a	
	8.00p	481	*St. Paul	7.35a	
	10.30p	583	*Chicago	9.35a	

MORRIS-BRANDON BRANCH.					
READ UP.		READ DOWN.			
EAST BOUND.			WEST BOUND.		
Ex. No. 129. Mon, Wed. and Friday.	Ex. No. 128. Tu, Thu. & Saturday.	Miles from Morris.	Ex. No. 127. Mon, Wed. and Friday.		
1.20p	4.00p	0	Winnipeg	11.00a	5.30p
7.50p	12.25p	10.	Morris	2.30p	8.00a
6.53p	12.02p	10.	*Love Farm	2.55p	8.44a
5.49p	11.37a	21.2	*Myrtle	3.21p	9.31a
5.23p	11.28a	25.2	*Roland	3.32p	9.50a
4.39p	11.03a	33.5	*Rosebank	3.50p	10.23a
3.53p	10.54a	39.6	*Miami	4.05p	10.44a
3.14p	10.33a	49.0	*Deerwood	4.25p	11.44a
2.51p	10.21a	54.1	*Altamont	4.41p	12.10p
2.15p	10.03a	62.1	*Somerset	5.00p	12.51p
1.47p	9.49a	68.4	*Swan Lake	5.15p	1.22p
1.19p	9.35a	74.6	*Indian Springs	5.30p	1.54p
12.57p	9.24a	79.4	*Mariapolis	5.42p	2.13p
12.27p	9.10a	86.1	*Greenway	5.58p	2.52p
11.57a	8.55a	92.3	*Baldur	6.15p	3.25p
11.12a	8.33a	102.0	*Belmont	7.00p	4.15p
10.37a	8.16a	109.7	*Hilton	7.18p	4.53p
10.13a	8.00a	117.3	*Ashdown	7.35p	5.23p
9.45a	7.53a	120.0	*Wawanesa	7.44p	5.47p
9.38a	7.45a	123.0	*Elliot	7.55p	6.04p
9.05a	7.31p	129.5	*Rounthwaite	8.08p	6.37p
8.28a	7.13p	137.2	*Martinville	8.27p	7.15p
7.50a	6.55a	145.1	*Brandon	8.45p	8.00p

PORTAGE LA PRAIRIE BRANCH.

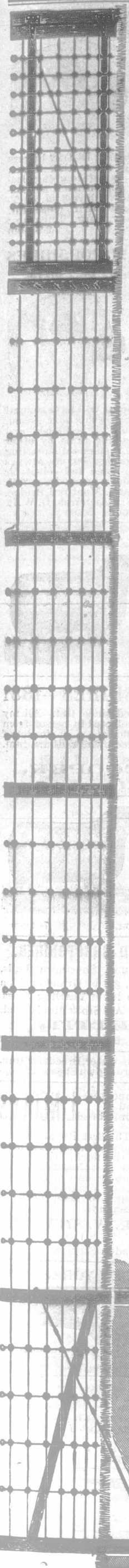
PORTAGE LA PRAIRIE BRANCH.			
READ UP.		READ DOWN.	
EAST BOUND.			WEST BOUND.
Mixed No. 144. Monday, Wednesday and Friday.	Miles from Winnipeg.		Mixed No. 144. Monday, Wednesday and Friday.
5.30 p. m.	0	Winnipeg	9.00 a. m.
5.15 p. m.	3	*Portage Junct'n	9.15 "
4.43 a. m.	11.5	*St. Charles	9.44 "
4.30 "	13.5	*Headingley	9.54 "
4.07 "	21	*White Plains	10.17 "
3.15 "	35.2	*Eustace	11.05 "
2.43 "	42.1	*Oakville	11.36 "
1.45 "	55.5	Portage la Prairie	12.30 p. m.

Stations marked * have no agent. Freight must be prepaid. Numbers 107 and 108 have through Pullman Vestibuled Drawing Room Sleeping Cars between Winnipeg and St. Paul and Minneapolis. Also Palace Dining Cars. Close connection at Chicago with eastern lines. Connection at Winnipeg Junction with trains to and from the Pacific coast. For rates and full information concerning connections with other lines, etc., apply to any agent of the company, or CHAS. S. FEE, H. SWINFORD G P. & T. A., St. Paul. Gen. Agt., Winnipeg. H. J. BELCH, Ticket Agent, 486 Main Street, Winnipeg.

HALL'S LIVERY, FEED & SALE STABLE. FIRST-CLASS in every particular. Portage La Prairie MAN. 49-y-m



H. TOOHEY, Livery, Feed and Sale Stables. Orders by Telegraph promptly attended to. Horses on hand for sale or exchange. Special rates to Commercial Travellers, 47-y-m Manitou, Man.



THE LOCKED-WIRE FENCE CO., INGERSOLL, ONT.

The accompanying Cut represents five panels of fence and gate of the LOCKED WIRE FENCE.

Each panel represents one rod (16 1/2 feet), 7 wires, 4 steel stays. The crimp in the wire, in combination with steel clamp, when locked acts as a spring, adjusting the fence to heat or cold.

PERFECTLY - Safe, Stronger, Better AND CHEAPER than any other fence.

This, without doubt, the best fence on the American continent.

All persons having wire fences erected in the past, should use the stays and steel clamps of the Locked Wire Fence Co. on them. The crimp consumes all the slack, makes the fence tight, and adds over 100 per cent. to its value at a very small cost.

We desire to inform the farmers and public generally that we are prepared to supply the material or erect this fence throughout the Dominion of Canada.

THE BEST FENCE MADE FOR Farms and Railroads.

FARM RIGHTS FOR SALE.

Agents Wanted In every Township. Send for circulars and particulars. Address THE LOCKED-WIRE FENCE CO.

ALL-STEEL OLDENBURGH COACH HORSES



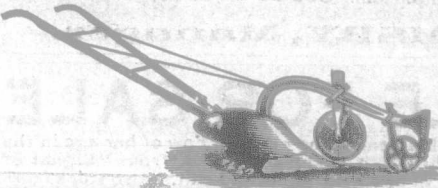
OH DEAR! HOW FORCEFUL THOSE BOYS ARE

WIND MILLS

Our Sectional Power Mill is a Wonder! Write for particulars. Mention this paper. GOULD, SHAPLEY & MUIR COMPANY, Ltd. BRANTFORD, CANADA. COCKSHUTT PLOW CO. (Ltd.), Winnipeg, Man., Agents for Manitoba and N. W. T.

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THE STANDARD PLOWS FOR THE NORTHWEST.

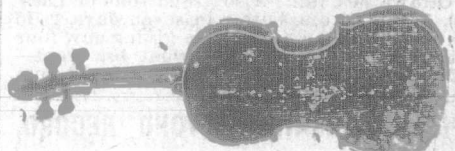


Our new Combination Breaker and Stubble Plow leads all competitors. We claim superiority in cleaning qualities and ease of draft. Our popular J. G. C. Sulky and Columbia Gang are in constant demand. If you need a Plow, or think of purchasing a Wind Mill, write us before you buy.

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Value guaranteed. Sent C. O. D., with privilege to examine.

J. FRANK GRUNDY, P. O. Box 259, WINNIPEG, MAN.

All kinds of Musical Instruments at lowest possible prices. Mention this paper.

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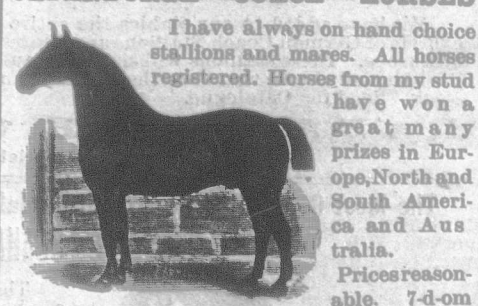
CRADLE CHURN. PAT. NOV. 28, 1892.

For sale by hardware dealers generally. If your dealer does not keep them write to B. R. HAMILTON & CO., Patentees, Neepawa, Man.

D. & O. SORBY, GUELPH, ONTARIO, BREEDERS AND IMPORTERS OF FASHIONABLY BRED CLYDESDALES

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

6-2-y-om



I have always on hand choice stallions and mares. All horses registered. Horses from my stud have won a great many prizes in Europe, North and South America and Australia. Prices reasonable. 7-d-om

ED. LÜBBEN, Sürwürden, Granddukedom of Oldenburg, Germany.



ROBERT NESS, WOODSIDE FARM, Importer & Breeder of Yorkshire Coachers, French Coachers, Clydesdales, Shetlands and Ayrshire Cattle. Prices suit the times. ROBERT NESS, Woodside Farm, Howick P.O., P.Q. 5-y-om

GUERNSEYS

This is the Dairy breed for ordinary farmers. Large, vigorous and hardy, giving plenty of rich milk. Imported Bull Benefit, son of Vice-Prov. Morton's famous butter cow Bienfaitrice 4th, heads the herd. Address: SYDNEY FISHER, Alva Farm, Knowlton, P.Q. 16-2-y-om

H. CARGILL & SON, Cargill, Ont.

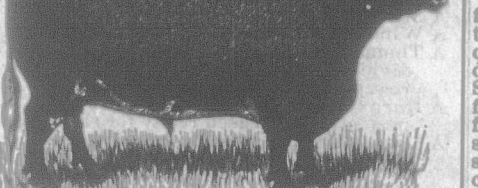
SHORTHORNS. Two imported bulls are now at the head of our herd. Stock of both sexes and different ages from the best imported and home-bred cows now for sale. 11-t-om

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D. D. WILSON, Ingleside Farm, SEAFOETE, Ont. IMPORTER AND BREEDER OF SCOTCH SHORTHORNS.

Imported stock from the herds of Wm. Duthie and W. S. Marr for sale; also Canadian-bred from imported bulls and out of imported dams. Farm one mile from G. T. R. station. 7-f-om

IMPORTING.



I have left for England, and expect to return the first week of June with a carefully selected lot of Oxford and Suffolk sheep, having decided to breed those two breeds, kept on different farms. I also expect to visit several noted Shorthorn herds, and, if not brought with this shipment, will shortly import a few Scotch Shorthorns of the best families. W. B. COOKBURN, Green house Farm, ABERFOYLE, ONT. 3-l-om

SCOTCH-BRED SHORTHORNS FOR SALE

6 Choice Young Bulls And the Imported Cruickshank Bull ABERDEEN HERO, Their sire. Also some nice Young Heifers, From one year old up. Prices to suit times. 20-2-y-om SHORE BROS., White Oak.

Deep Milking Shorthorns

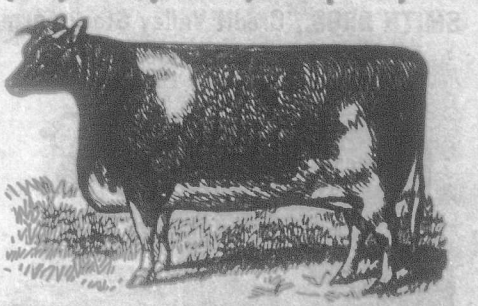
MR. GRAINGER, Lonsdale, Ont., offers for sale some exceedingly good cows and heifers. (Fair Maid of Hullett 2nd, now at test at Chicago, is only a fair specimen.) Dams made thirty pounds of butter in seven days. Come and see them; they are good ones. 14-2-y-om

WESTRUTHER PARK

Herd of Bates Shorthorns, consisting of Oxford, Barrington, Waterloo, Gwynne, Darlington, and other families, has outgrown the place and must be reduced in numbers. Four yearling bulls and a number of females for sale, at lowest prices and on liberal terms. Farm a mile from the station. JOHN IDINGTON, Stratford. 2-y-om

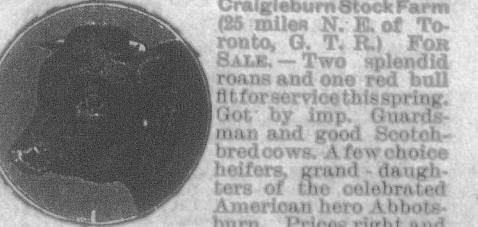
CRUICKSHANK SHORTHORNS of the Duchess of Gloster family. A few straight-bred young bulls and heifers by imp. Duke of Lavender. THOS. ALLEN & BROS., OSHAWA, ONT. 8-2-y-om

ARTHUR JOHNSTON, Greenwood, Ont.



(SEVENTEEN GRAND BULL CALVES)

Offers seventeen bull calves, now ready for service, besides two exceedingly good imported yearling bulls and an excellent lot of young cows and heifers, all of which will be sold at moderate prices. Send for Catalogue, Greenwood P. O. and Telegraph Office, Claremont Station on the G. T. R. Parties met at either station on shortest notice. Come and see my cattle. 8-2-y-om



Craigleburn Stock Farm (25 miles N. E. of Toronto, G. T. R.) FOR SALE. - Two splendid roans and one red bull fit for service this spring. Got by imp. Guardsman and good Scotch-bred cows. A few choice heifers, grand daughters of the celebrated American hero Abbot's burn. Prices right and correspondence promptly answered. 2-2-y-om GEO. A. BRODIE, Bethesda, Ont.

FOR SALE

Daisy Chief - 1874 - coming four years old; a son of noted Indian Chief - 11108 - and one of his best; a first prize-taker wherever shown. Having to soon make a change on account of his own get coming on, we will sell reasonably, although regret having to do so. A few young cows, heifers and bull calves for sale, and a choice lot of Berkshire sows and pigs for sale. Also a Cleveland Bay mare, five years old, a good specimen of that class; two crosses from (imp.) horses, and out of half-bred carriage mare; just the kind to breed from. Write for prices or come and see stock. Visitors welcome. No sale no harm. A. J. C. SHAW & SONS, Camden View Farm, Thamesville. 12-2-y-om

SHORTHORNS, BERKSHIRES,

Shropshires, Plymouth Rocks & Bronze Turkeys. Write me for prices on the above. I have a grand litter of Berkshire Pigs now ready for sale. H. CHISHOLM, Montrose Farm, Paris, Ont. 18-2-y

SHORTHORN BULLS

Sired by imp. Prince Royal, and from dams with all imported crosses, also cows and heifers. J. & G. TAYLOR, Rockwood P. O. & Station. 6-2-y-om Farm close to station.

SHORTHORNS

We have seven bulls from twelve to fourteen months old, from our best sires and dams, of choicest Scotch breeding, that for hair, color, size, feeding qualities, constitution, general style and character cannot be equalled, and we will sell them low. Also some show heifers for sale. JOHN MILLER & SONS, Brougham, 12-2-y Ontario.

BULLS.

A few grand Shorthorn bulls for sale at Maple Lodge Stock Farm; 12 to 15 months old. Thick sappy fellows. Dams are first-class milkers. JAS. S. SMITH, 5-2-y-om Maple Lodge P. O., Ont.

SUNNYSIDE HOLSTEIN-FRIESIANS

Choice animals, either sex, all ages, for sale at any time. Correspondence solicited. Address: McDUFFEE & BUTTERS, Stanstead, P.Q. 16-y-om

CHOICE HOLSTEINS FOR SALE

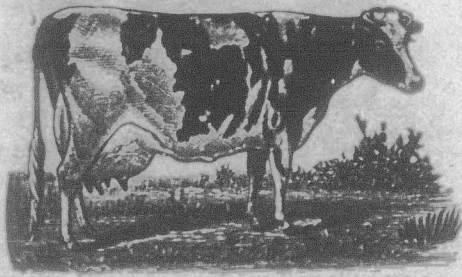
My stock bull Amsterdam, by Netherland Statesman Cornelius, dam imp. Verasina, also a nice yearling dam, imp. Breezy 200, sire Amsterdam. 6-2-y-om JOHN A. LINE, Sherwood. I WILL SELL HOLSTEIN BULL CALVES

Dropped in February and March, if taken before three weeks old. AT \$15 EACH.

If required to register them, purchaser to pay registration fee.

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



This is the place to get stock of best quality at reasonable prices. We have seventy-five head, including prize-takers; best strains, cows and heifers, with large milk and butter records young bulls of superior quality. Send for catalogue. 8-2-y-om

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Our herd of Holsteins was never so complete as now. Bargains in all ages and both sexes. We have young bulls fit to head the best herds in Canada. We have a choice lot of young Tamworth Pigs ready to book orders. Write at once for prices and catalogue. 12-2-y-om

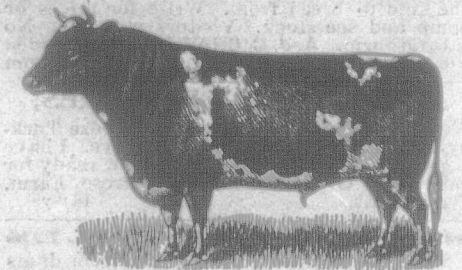
A. C. HALLMAN & CO.
 New Dundee, Waterloo Co., Ont.
 Shippery: St. Petersburg, G.T.R., and Ayr, C.P.R. 12-2-y-om

HOLSTEIN-FRIESIAN CATTLE

Netherland, Aagie and Atris blood, along with others all of the best strains of producing blood. Write for particulars. Young Bulls and Heifers of the above tribes on hand. A grandson of Netherland Prince now for sale. 10-2-y-om

G. W. CLEMONS,
 St. George, Ont.

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We have the oldest established, largest and best herd of Ayrshires in Canada. Choice young stock for sale at liberal prices. Satisfaction guaranteed. **JAMES DRUMMOND & SONS,** Petite Cote, Montreal, P.Q. 8-2-y-om

Prize-Winning AYRSHIRES FOR SALE.



I have at present one of the largest and best herds in Ontario, which has been very successful in the prize ring. They are all good milkers and of a large size. Bulls, cows and heifers for sale always on hand. **JAS. McCORMICK & SON,** ROCKTON, ONT. 20-2-y-om



Champion Dairy Herd of Ayrshires at various government tests. Prize winners at the World's Columbian Exposition, Chicago. Write MESSRS. ROBERTSON & NESS, Howick, Que. 19-y-om

PURE-BRED AYRSHIRES

NICOL & SON,
 Cataraqui, - - Ontario.
 6-d-om Pure-bred young bulls for sale.

W. M. & J. C. SMITH,
 Fairfield Plains, - - Ontario.
 -BREEDERS OF-

First and Second Prize Ayrshires AT THE WORLD'S FAIR.

Morino Sheep, Poland China Pigs and Poultry. Stock for sale at reasonable prices. 2-2-y-om

AYRSHIRES FOR SALE

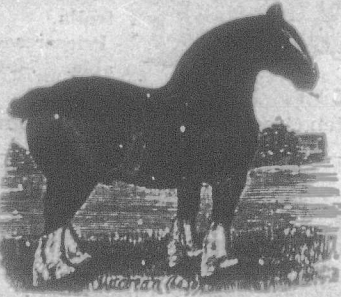
One two-year-old bull, one yearling bull, and a number of calves. All eligible to pedigree. Write for prices or come and see stock. Hoard's Station, G. T. R. F. W. Taylor, 8-a-om Wellman's Corners, Ont.

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We have added to our stables the entire lot of the German Government World's Fair exhibit of German Coach Stallions and Mares, and now have the greatest show in America or Europe. These stallions will sire the grandest Coach and Carriage Teams ever seen. We have the only horses that sire the 16 to 16 1/2 hand sellers. We also handle Trotting and Pacing stock. Send for Catalogue.

LAFAYETTE STOCK FARM,
 J. CROUCH & SON, Proprietors, LaFayette, Ind., U. S. A. 6-2-om

The Most Celebrated Stud of Clydesdales and Hackneys in Canada is owned by **GRAHAM BROS., - CLAREMONT, ONT.,**



The choicest animals that money and experience can buy, and well qualified to maintain the reputation of our stud for importing. More first prize and sweepstakes winners at the leading shows in Canada and the United States than all other establishments of its kind in the Dominion. The Clydesdales have immense size, large flat bone, with style, quality and choice breeding combined. The Hackneys have fine colors, style, quality, high knee action and choicest breeding. The home of the Champion Clydesdale Stallion, Queen's Own, and the Champion Hackney Stallion, Firefly. Parties wishing the best animals at reasonable prices are cordially invited to examine our stock. Catalogues free.

GRAHAM BROS., CLAREMONT, ONT.
 25 miles east of Toronto, on C. P. R. 7-b-om

ISALEIGH GRANGE FARM, DANVILLE, P. Q.

SOLD AGAIN! Three of the four Guernsey bulls advertised by us are sold and delivered. We still have one more, the 3rd prize calf at the World's Fair, now fourteen months old—a dandy. Lowest price, \$300.

IMPROVED YORKSHIRES.—We claim to have the longest, deepest and most typical LARGE YORKSHIRES in AMERICA, and the reason is we have paid more money and imported more pigs from the best herds in England than any two Yorkshire breeders on the continent. Orders booked now for spring pigs. Two very handsome COLLIE BITCHES, seven months old, \$10 each. Address, 9-y-om

J. Y. ORMSBY, Manager.

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Bred for butter. G. sons and g. daughters of "Massena," the greatest cow of her age in the world, 3,000 lbs. milk and 854 lbs. butter in her 16th year; also stock from "Signal of Belvedere," whose dam made 20 lbs. 8 ozs. butter in one week on second calf. Also stock from the greatest living prize bull, Canada's Sir George, whose dam made 28 1/2 lbs. butter a week and 57 lbs. milk a day. Splendid bulls, six months old and registered, \$100 each.

MRS. E. M. JONES, Brockville, Ont., Can.
 Mrs. Jones' great book, Dairying for Profit, 30c. by mail. Address, ROBT. Y. BROWN, Agent, Box 324, Brockville, Ontario, Canada. 8-y-om

PURE ST. LAMBERT JERSEYS

FOR SALE—Sons and double g. sons of Jolie of St. Lambert and Jolie of St. Lambert 3rd and 4th, winners of the sweepstake dairy tests at Toronto, Kingston and Quebec; also the Advocate special silver service prize for the three best dairy cows of any breed, beating the cows that won these prizes before and breaking all previous records. Jolie of St. Lambert has shown 3.82% and 4.22 lbs. butterfat in 24 hours, and Jolie 3rd 3.91% fat. Some of these bulls are sired by Jolie of St. Lambert 3rd's Son 29731, the sire of the four calves that swept everything before them at Toronto, London and Ottawa last fall. Also grand sons of Lady Fawn of St. Annes (Victor Hugo's best daughter), 16 lbs. 12 ozs. butter in seven days, 2,715 lbs. milk in 88 days when 15 years old. The dams of some of these bulls are giving now four to five gallons of milk per day. Prices from \$60 to \$125. Please state just what you want—age, etc. Apply to **W. A. REABURN, STE. ANNE DE BELLEVUE, P.Q.** 6-2-c-om

YOU NEVER HEARD OF THE LIKE BEFORE—BARGAINS BEYOND RECORD.

We have a 14-inch ensilage cutter with 10 feet of carriers, all complete, for \$45 00
 A Mercer Binder, complete, for 85 00
 A Wind Mill, complete to pump, not including derrick, for 30 00
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 A Little Giant Thresher and 2-horse tread power, complete, for 230 00
 We can send you a 2-horse tread power separately.

PEDLAR'S PATENT SHINGLE.

GALVANIZED STEEL.			PAINTED STEEL.		
Quality.	Weight.	Price per Sq.	Quality.	Weight.	Price per Sq.
XXX	100 lbs.	\$6.00	XXX	90 lbs.	\$4.10
XX	90 "	5.50	XX	80 "	3.85
X	80 "	5.00	X	70 "	3.45

Please don't quote these prices to agents and then complain because they can't give them at same price. We do not expect to repeat these prices again. Order quick whatever you want. These are no second-hand inferior goods, but are right in every respect. Cash with order for these goods. Soliciting your hearty co-operation, we are, yours respectfully,
GRANGE WHOLESALE SUPPLY COMPANY (Ltd.),
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BERKSHIRES.
 A few good Ayrshire bull calves and heifers, Berkshire boars and sows. For particulars write
Whiteside Bros.,
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A. McCALLUM & SON,
 Sprucehill Farm, Danville, Que.
Pure-Bred Ayrshires & Berkshire Pigs.
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WOODROFFESTOCK AND DAIRY FARM.
 Ayrshire Cattle. A choice lot of young Bulls and Heifers of the richest milking strain now on hand. Correspondence solicited. Address, J. G. CLARK, Ottawa, Ont. 18-L-om

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WILLIAM ROLPH, Markham, Ont., offers Twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. 19-y-om

HANDSOME JERSEY BULL CALF FIT FOR SERVICE FOR SALE CHEAP.
 Grandson of One Hundred Per Cent. Register A. J. C. C.
F. BIRDSALL & SON., S. a-om BIRDSALL, ONT.

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

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 Ont. **ROBERT REESOR,** importer and breeder of A. J. C. C. Jerseys of the choicest breeding, with the bull Jay St. Lambert 32813 at the head of the herd. Stock of all ages on hand and for sale. 16-2-y-om

HEREFORDS

WRITE TO
F. A. FLEMING, 5-y-om Weston, Ont.

Ingleside :- Herefords.

ANXIETY 4th, and THE GROVE 3rd Strains,
Prize Winners for '94!

SPECIAL OFFERING OF
CHOICE YOUNG BULLS,
 A very - - - - - Also
 Address: **H. D. SMITH, JAY,**
 Farm, 2 1/2 miles, Ingleside Farm, G.T.R. Station. COMPTON, Que. 18-2-y-om

SHROPSHIRES.

Foreign buyers are invited to visit the Wolf's Head Flock, as there is always a good selection of ewes and rams for sale, and we handle none but the best, and can supply select specimens for breeding or exhibition purposes, and residing in the centre of the Shropshire Sheep Breeding District buyers are assisted in selecting from other flocks. Write for prices or visit us before going elsewhere. Visitors met by appointment at Baschurch Station, G. W. R. Address—J. & T. THONGER, Wolf's Head Farm, Nesscliff, Baschurch, Shrewsbury, Eng. Telegram: Thonger, Nesscliff. 2-2-y-om



BEAM - HOUSE - SHROPSHIRES

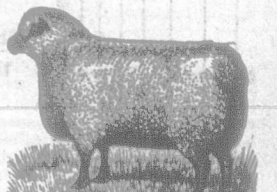
This is the Home of the Blue Bloods.

WM. THOMAS offers for sale Rams and Ewes from his famous flock, which has sent so many winners to our leading shows, and here also was bred Mr. A. O. Fox's noted ram "Blue Blood Yet" which so ably piloted Mr. Fox's flock of Shropshires at the World's Fair. Wm. Thomas will have several grand shearing rams for sale this next season, sired by his grand old sheep "Blue Blood," and also a grand lot of shearing rams by other noted sires; also about 150 splendid shearing ewes to select from. Foreign buyers always welcome. If not able to come and select for yourselves, write and obtain prices from **WM. THOMAS, The Beam House, Montford Bridge, Salop.** Railway Station: Baschurch, G. W. R. 2-2-y-om



SHROPSHIRES - FOR - SALE

My whole flock of 60 head of imported Rams and Ewes, a few home-bred Shearing Rams, and a choice lot of lambs of both sexes. Also a choice lot of young Yorkshire Pigs. **T. H. MEDCRAFT,** Sparta, Ont. 19-y-om

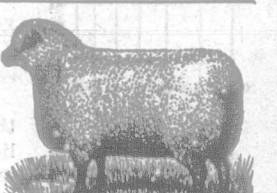


1881—SHROPSHIRES—1881

My flock is established since 1881. All my ewes are imported and selected in person from the most noted English flocks. A choice lot of shearing lambs and lambs sired by a Bradburn ram. Write for prices to **JAMES COOPER,** Kippen, Ont. 14-2-y-om

SHROPSHIRE EWES

And their lambs for sale by car lots; also a very choice Short-horn Bull calf, ten months old. **W. S. HAWKSHAW,** Glanworth P.O., Ont. 7 miles south of London. 7-tf-om



SHORTHORNS AND SHROPSHIRES.

For sale, seven young Shorthorn bulls, from 8 to 12 months old, got by Grand Fashion—15404—; also a choice lot of Yearling Ewes due to lamb in March. All Stock Registered. **W. G. PETTIT,** 13-y-om Freeman P.O., Burlington Str., G.T.R.

LINCOLNS

Imported and Home-bred **LINCOLNS**
 The first Royal winner, Royal Chester, at the head of the flock. Ewes from the best English flocks, such as those of Dudding, Bailes, Wright and Clark. Rams to head flocks a specialty. **R. W. STEVENS,** LAMBETH, ONT. 5-y-om London Station.

IMPROVED : LARGE : YORKSHIRES

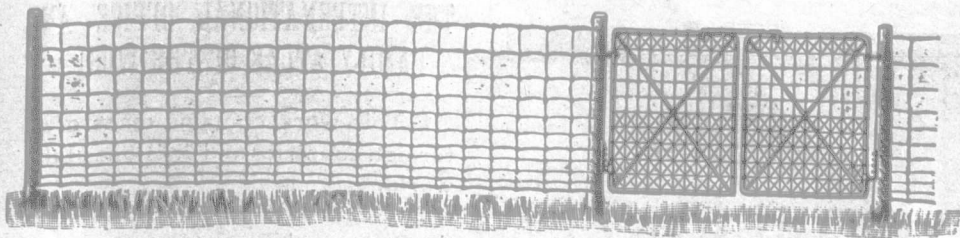


The largest herd and the most profitable type of Yorkshires from the feeder's standpoint in America. Over fifty sows bred to seven different stock boars for the spring trade. Pigs for exhibitors purposes a specialty. Stock shipped to order are guaranteed to be as described. Personal inspection solicited. **J. E. BRETHOUR,** Burford, Brant Co., Ont. 3-y-om

YORKSHIRE PIGS

Of the best type and pair not to be at all seen. **H. T. SON,** Travellers. 4-y-om





RETIRED FARMERS.

We often read of retired merchants, retired lawyers, retired clergymen and men retired from pretty much all of the avocations of life, but how often do we hear of retired farmers? And yet there are more retired farmers in our country than all others who have retired with a competence.

GIVE THE BOY A CHANCE,

and in that case they are pretty sure of some income from the property, and if they still reside upon the farm their wants are still kept within their income.

Now all over our country in nearly every town are representatives of this class, who, having secured what to them looks like a competence, have retired from what they think the hardest of work. They do not comprehend that to men of active habits, who all along through life to mature years have had control of property and were thoroughly interested in something worthy of their closest attention, that to retire from all this there could be other than rest.

ELECTED TO SOME COUNTY OFFICE

and often filled that office very acceptably to their constituents. And they should—they have natural ability, pluck and endurance, and the salaries are sure. But with all such the time comes when they have to decide which they will do—go back to the farm or find something in the city to do American tenure of office, and especially county offices, is short lived.

WE REFER TO THE BUILDING OF FENCES.

Carpenters build barns, blacksmiths do the smithing, clergymen preaching, and so on through the whole list. Time was when leading men in many communities did the preaching; when log cabins were in style and ox teams the swiftest means of transportation, there was but little demand for carpenters and smiths. But all this is changed, and now in the progress of American civilization the modern

FENCE SALESMAN

is evolved. And he has come to stay. Look at the growth of the Page Woven Wire Fence business. Five years ago this business was almost unknown, except near its birthplace. And there it was thought to be a rich subject for local jokers, and lots of fun, too, they had. But to-day how is it? Why, it is discovered that there is a legitimate field for this enterprise. That the fence has merits peculiarly its own, and when in the hands of the right man, is wanted in almost every section where grass grows and domestic stock is kept.

We have but just begun. A year ago this company were running fifteen looms. To-day twenty-four are doing their best day and night, and ten more are nearly completed. Now what does this mean? What can it mean except that the demand is growing for the product?

Here is a chance for this class of retired farmers to get in on the ground floor of a business, for which they of all men are qualified by a life-long experience. They have had to do with fencing all their life, and are consequently good judges of almost any question pertaining to it. They can urge that fence from a practical standpoint which must serve a customer best for his wants, and thus be able to do such customer a double service. They know how posts should be set and can urge good work, and if need be, take the shovel and show just how to do it. Experience has taught them in the past something how taut to stretch the fence, and their acquaintance with tools enables them to quickly use such as are furnished by this company. Sunshine don't hurt them nor dirt scare them. And to all these natural advantages they may add that of personal acquaintance with many of their intended customers. Honorable acquaintance means respected confidence, and confidence means comparatively easy selling. If a little time is wanted they know whom to trust.

Many such men have tried it and are building a growing trade, and interested parties can write us for names. This business is growing and growing rapidly when most other business is stagnant.

Three times as much already contracted in Ontario for '94 as was sold during the whole of '93. Do these retired farmers or such farmers' sons see anything in this business for them? If they do and want to do anything this year they must get at it soon, for now is the time. Now, before posts are cut too short or other plans made, get your business done, but till later will be like planting corn in the middle of the season.

Many have written us and we have written them, but we are not getting any more letters. Address—THE PAGE WOVEN WIRE FENCE COMPANY (Limited), WALKERVILLE, ONT.

LARGE IMPROVED YORKSHIRE PIGS and Holstein Cattle.

We breed nothing but the best, and sell cheap, and guarantee satisfaction or ask no pay. Come and see us, or write for prices and be convinced.



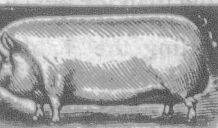
FLETCHER BROTHERS, Oxford Mills P. O., Ont., Kemptville St'n, C. P. R. 6-2-y-om

THE MARKHAM HERD

Farm at Locust Hill Station, C. P. R. Registered Improved Large Yorkshire and Berkshire pigs. As we do not intend to exhibit, we will now sell a choice lot of show pigs of each breed.

J. G. MAIR, Howick, P. O., BREEDER AND IMPORTER OF IMPROVED LARGE YORKSHIRES.

I am breeding from nothing but stock imported from the well-known herd of Sanders & Speiser. At Montreal Exhibition, young stock of my breeding took all the highest honors. Orders now booked for fall litters.



Registered Improved Chester White Swine & Dorset Horned Sheep are my specialties. Cleveland (Imp.) No. 320, whose sire won sweepstakes at the World's Columbian Exposition, heads the herd. Young stock ready to ship, and guaranteed as described. Write for particulars, etc., to R. H. HARDING, Mapleview Farm, Thorndale, Ont., Middlesex Co. 18-1-y-om

TAMWORTH PIGS.

We are now prepared to furnish pigs from imported sows and boars not akin, of the best strains obtainable. Reduced rates by express.

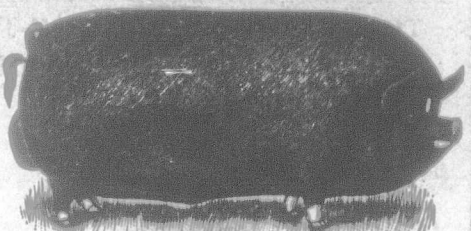
H. George & Sons, 7-y-om CRAMPTON P. O., Middlesex Co.

IMPROVED SUFFOLK SWINE, THOROUGH-BRED HORSES, DURHAM CATTLE AND SOUTHDOWN SHEEP.

A grand lot of Suffolk Pigs, all ages, for sale at prices to suit the times. A. FRANK & SONS, The Grange, four miles from Cheltenham Sta., C. P. R. & G. T. R. 24-2-y-om

T. TEASDALE, Concord, Ont., breeder of high class Berkshires. Some fine pigs October litters, both sexes, for sale. Also fine lot young pigs farrowed in March. Come and see my stock, or write for prices and description. 6-y-om

Gold Medal Berkshires.



Spring pigs from 3 first-class imported boars, and from imported sows and their daughters. Young boars and sows of October litters ready to breed. Large English Berkshires. Also Jersey cows, heifers and calves. Address—

J. O. SNELL, EDMONTON, ONT. 8-y-om

C. T. Garbutt, box 18, Claremont, Ont., imp. and breeder of Berkshire Pigs and Cotswold Sheep. Promising young pigs of October and January litters. Sows in farrow. Imp. boars in use. Write your wants. Stock all recorded and guaranteed as described. Special rates by express. 6-2-f-om

BERKSHIRES AND YORKSHIRES.

Choice stock for sale at reasonable prices. Orders filled in rotation. Inspection invited. Write for prices. THOMAS WATSON, Springvale, Ont. 8-2-y-om

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

S. COXWORTH, CLAREMONT, ONT.,

Breeder and Importer of Berkshire Hogs. Twenty young sows for sale, bred to my three stock boars, Highclere Prince, King Lee, and Champion Duke, Imp. Write for prices or come and see my stock. Station and Telegraph Office—CLAREMONT, C. P. R. 8-y-om

C. R. DECKER, Chesterfield, Ont.

A number of young boars fit for service; also some six weeks old (choice) and some choice sows in farrow mostly from imported boar. Prices reasonable. Call and see stock, or write for prices. G. T. R. Station, Bright, Ont. 15-2-y-om

THE HOME OF THE BERKSHIRES.

J. G. SNELL & BRO., Edmonton, Ontario.

Now is a good time to order pigs from litters farrowed this year. We never had so many fine sows to breed from as at present. Can supply a few pigs from litters farrowed in January and February. These will be right for the fall exhibitions where prizes are given for pigs of this year. We have also for sale some young boars fit for service. Write for descriptions and prices. 2-y-om

H. J. DAVIS, Woodstock, Ont., Breeder of High-class Large Berkshire and Imp. Large White Yorkshire Swine, Short-horn Cattle. - A grand lot of young pigs ready for shipment of both breeds; also boars fit for service from prize-winning stock. Stock shipped to order. Satisfaction guaranteed. Young Bulls generally on hand. 8-y-om

THE OXFORD HERD OF REGISTERED POLAND CHINAS

Our herd of Improved Poland-Chinas won 36 first, 18 second and 6 third prizes in 1893, including the Herd prize at Montreal and Toronto, for best boar and two sows, any age. Stock, both sexes and all ages. Pairs and trios not akin for sale at all times. Correspondence solicited or inspection of herd invited. 15-y-om W. & H. JONES, Mount Elgin, Ont.

Duroc-Jersey Swine

Are the best all-round hog known. Nosquealing; quiet disposition; good grazers; defeated the Berks and P. C. on all points at Mich. Agr. Coll. test. Pigs for sale. Address, P. B. LAMARSH, Wheatley, Ont. 4-2-y-om

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SAILING WEEKLY BETWEEN MONTREAL AND LIVERPOOL DIRECT. From Montreal every Wednesday at daybreak. From Liverpool every Saturday. These Steamers have First-class Accommodation for Saloon, Second Cabin and Steerage Passengers.

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Each steamer carries a duly qualified surgeon and experienced stewardess. The attention of Importers of Horses and Live Stock generally is directed to the fact that these steamers have the highest record for the successful carriage of the same, and a trial shipment is solicited. For freight or passage, apply to R. W. ROBERTS, H. E. MURRAY, Manager, 21 Water St., General Manager, 8-L-om Liverpool, Montreal.

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100 Rods BUCHANAN FENCE CO. SEND STAMP FOR CIRCULAR \$35.00 SMITHVILLE 8-L-om

NORTHERN PACIFIC CHEAP R. R. and FREE GOVERNMENT LANDS ACRES in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. PUBLICATIONS, with Maps, describing fine farming, fruit, hop, grazing and timber lands mailed FREE. P. B. GROAT, Gen. Emigration Agt. N. P. R. R. 34 St. Paul, Minn. 6-2-b

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With Unbreakable Axles and Unbreakable Arms.

THE BEST MADE ON EARTH. So said the Judges on Vehicles at the WORLD'S FAIR,

Who awarded us a GOLD MEDAL AND DIPLOMA

Over the heads of numerous old and extensive builders in the United States and Canada.

Van Allen's Patent Giant Arms Throw all the load directly on the arms, and the arms are also unbreakable, because they are the best refined

MALLEABLE IRON,

Warranted as strong, more durable and lighter running than Steel Skeins. These Giant Arms completely revolutionize the building of wagons. Our 3-inch Malleable Giant Arm Wagon is

WARRANTED STRONGER,

Though less in price, than any ordinary 2 1/2 to 3-inch cast-iron arm wagon, and our 2-inch Malleable Giant Arm Wagon is warranted stronger than any ordinary 3-inch cast iron arm wagon, and less in price.

THE DEMAND for these wagons is so great that though we are turning out 19 per day, we are taxed to the utmost to supply it. Send in your orders early.

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Water tanks specialty, and shipped to all points. Correspondence and shipments promptly attended to. All kinds of cooperage.

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ULCERURE

A new Chemical Compound discovered by Dr. Warnock, Member of Royal College of Veterinary Surgeons, England; Fellow of the Glasgow Veterinary Medical Society.

A NEW DISCOVERY,

With a specific chemical action, for the immediate cure of wounds and ulcerated sores on Horses, Cattle, Dogs, etc., such as Barb Wire Cuts, Collar and Saddle Galls, Cracked Heels, Frost Bites, Foot Rot, Rope Burns, Mallenders, Sallenders, Broken Knees, Ring Worm, Scratches, Scalds, Cuts, Burns, and all foul and putrid sores of all descriptions. Recommended by the largest stock owners in Canada.

A. E. WALDON & CO., Chemist, Calgary, Alta. 5-y-o-m



NOTICE TO THE FARMERS OF CANADA!

Chatham, Ont., March 15, 1894. Although the Grange Wholesale Supply Co., of Toronto, are advertising Chatham Fanning Mills for sale, they are doing so without any authority from me, and have no arrangement with me to supply them, and I have never sold them a mill since I have been in business. MANSON CAMPBELL.

ONTARIO VETERINARY COLLEGE

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The most successful Veterinary Institution in America. All experienced Teachers. Session begins October 21st. Apply to the principal, PROF. SMITH, V.S., Edin., Toronto, Can. 273-2-y

EAST LAKE MANUFACTURED BY METALLIC ROOFING CO TORONTO ILLUSTRATED CATALOGUE FREE STEEL SHINGLES 5-y-om

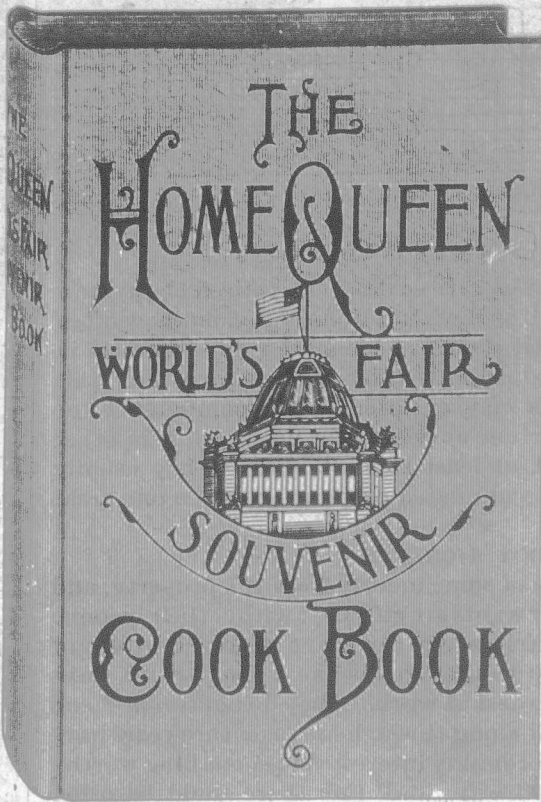
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WE WOULD DRAW our readers' attention to the very best cook book that the combined skill and ingenuity of 200 of America's foremost women could devise. It contains two thousand choice recipes, and almost every recipe is over the autograph signature of a lady manager or the wife of a governor, and representing the different States, and contains as well about 100 photogravure portraits of the lady managers and other choice contributors.

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A fine, large, cloth-bound volume replete with valuable information, and a book that will be constantly referred to in any intelligent household.

Price, \$4.50. This fine Atlas will be sent postage paid to any one sending us in the names of four NEW paid subscribers.

If any person wishes to purchase either of these books, we will sell the Cook Book for \$2.50, and the Atlas \$4.50.

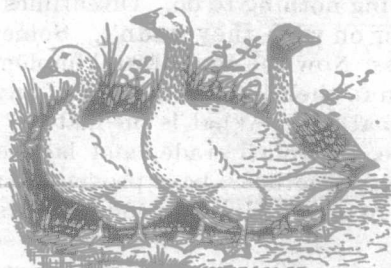
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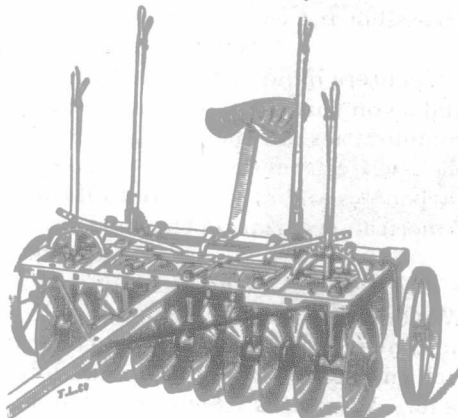
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That is what we give you. Goose, Duck, Hen and Turkey. Write us what you have, or send samples.

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Manufactured at Beamsville Agricultural Implement, Engine and Boiler Works. Write for Prices, Circulars, etc., to H. TALLMAN, 4-t-om Beamsville.

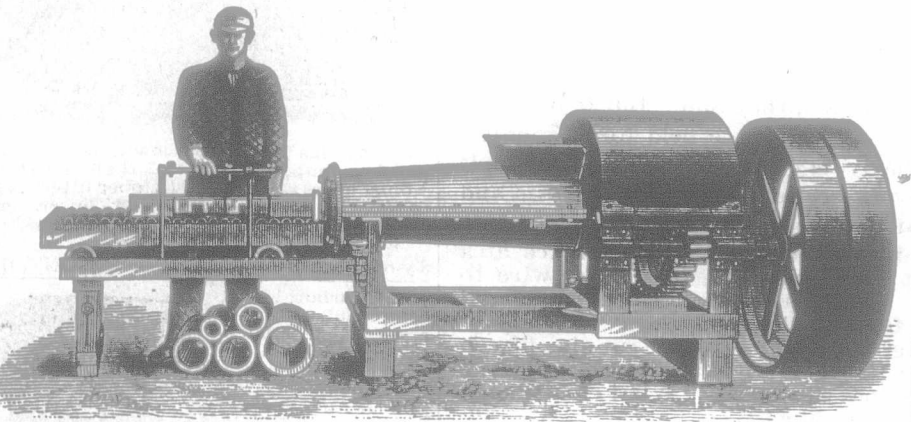
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Feed your plants on Freeman's High-grade Manures and you can depend upon your plants feeding you. Freeman's High-grade Manures contain plant-food in a soluble form, and in such proportions as will nourish your crops from beginning to finish. Send for catalogue for 1894, giving experience of leading Canadian and American farmers with fertilizers. Remember, Freeman's Manures head the list. Buy them. Have no other.

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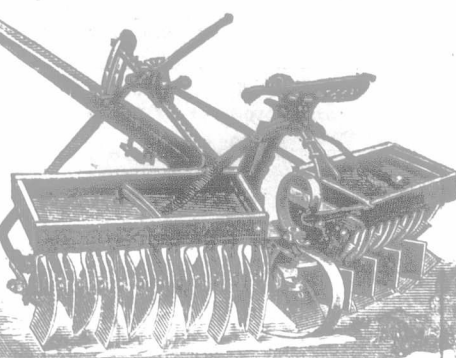
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It has no equal for pulverizing hard clay lumps. It is beyond question the best machine for making a seed bed on inverted sod. For preparing fall plowing for spring seeding, especially in heavy clay soil, where the land is baked or become hard and difficult to move. For cutting up and pulverizing any kind of stubble land, either for the purpose of starting foul seeds or fitting for seeding. It is unquestionably far superior to anything in the market for cultivating any kind of land that is very difficult to subdue. Where every other tool has failed the Spade Harrow will be found to be just the machine. We also manufacture...

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THE Fly Horn Trap

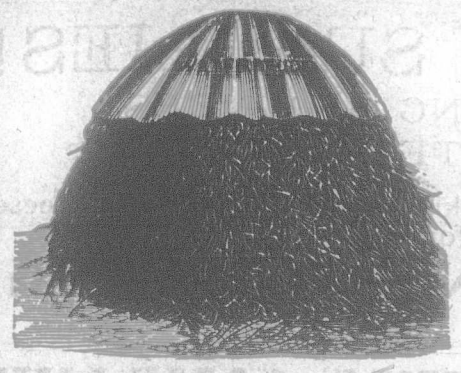


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HAY AND GRAIN CAP.
THOROUGHLY WATERPROOF.
The most practical, cheap and efficient hay and grain cap yet introduced. Not necessary to fasten down. Almost indispensable on grain when using a self-binder.

VEGETABLE AND FLOWER COVERS
For Transplanted Plants.
Stack Covers,
Built in sections. Diam. at bottom, 8 feet, by about 5 feet deep.
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Quickly, Thoroughly, Forever Cured
by a new perfected scientific method that cannot fail unless the case is beyond human aid. You feel improved the first day, feel a benefit every day; soon know yourself a king among men in body, mind and heart. Drains and losses ended. Every obstacle to happy married life removed. Nerve force, will, energy, brain power, when failing or lost, are restored by this treatment. All small and weak portions of the body enlarged and strengthened. Victims of abuses and excesses, reclaim your manhood! Sufferers from folly, overwork, early errors, ill health, regain your vigor! Don't despair, even in the last stages. Don't be disheartened if quacks have robbed you. Let us show you that medical science and business honor still exist; here go hand in hand. Write for our book with explanations and proofs. Sent sealed, free. Over 2,000 references.

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You get this one on every label of
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Ready Mixed Paint,
and we guarantee it to be the best in Canada. Paint your house with it every time. Buy no other. 40 different shades.

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Leads, Colors, Varnishes, etc. 7-y-om

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Established 1882.

There is no place in Canada where the season is longer than here. Hence we get trees brought to the fullest maturity. Have in fruit.

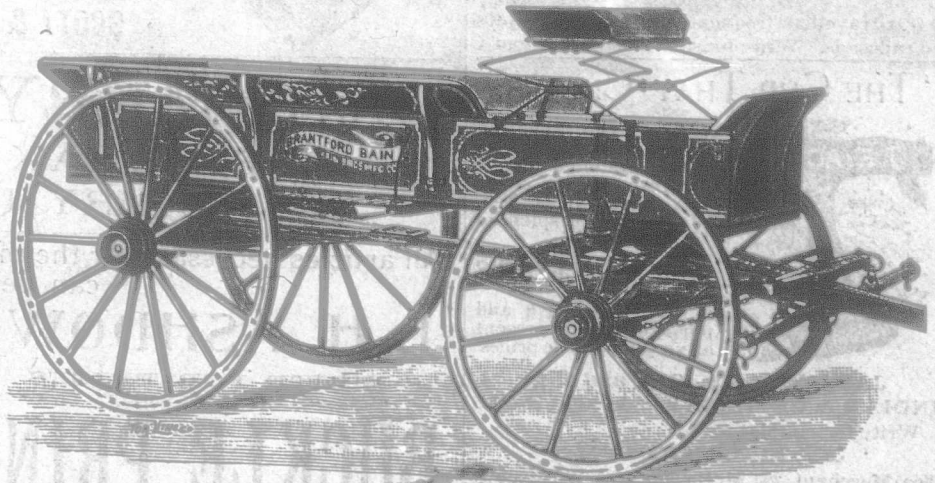
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IF HE'S SICK AND YOU CAN'T TELL WHAT'S THE MATTER
He surely Needs **MAUD'S CONDITION POWDER**



PRICE, 25c. AND 50c. PER PACKAGE.
We offer to mail for 10c. a regular 25c. package to anyone who wishes to try them before purchasing a supply.

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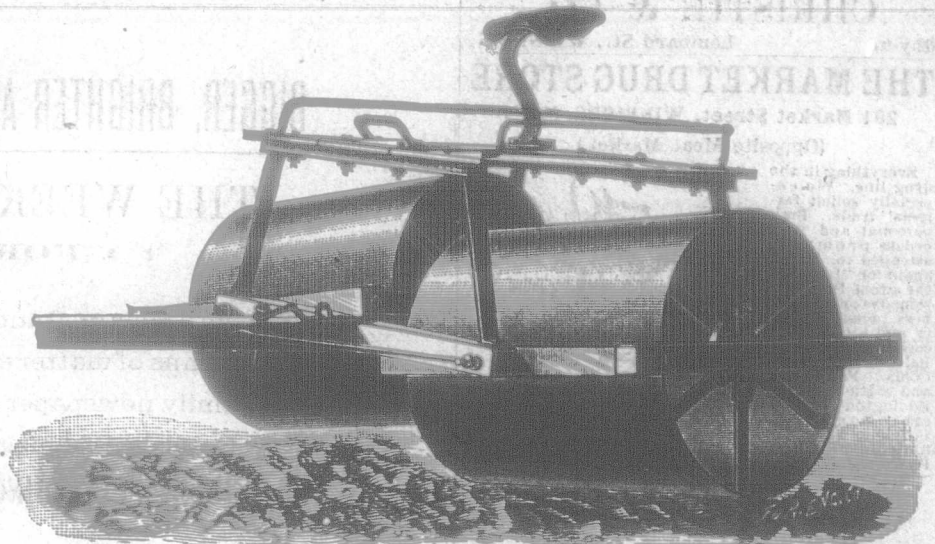
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Because it will pay you to buy it. It is finely finished, well-proportioned, light-running, durable, superior quality. There are thousands of farmers who are well pleased with their BRANTFORD BAIN WAGONS. Write us for prices, or call on our agents.

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Farmers can now secure this Celebrated Land Roller direct from us at NET WHOLESALE PRICES, which has been reduced from \$50 to \$33. Cash to accompany order. Each machine is warranted perfect, and if not found satisfactory the machine can be returned to us and the money will be refunded. Farmers who wish to club together and order enough machines to make a car load can secure special club rates. Write us for our terms for clubbing. We have made this special reduction with a view to giving the Farmers of Canada the benefit of manufacturers' prices and allow no commission to agents. Send your orders direct to **T. T. COLEMAN, SOLE MANUFACTURER, SEAFORTH, ONT.** Mention this paper. 341-om

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Were received at
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STEEL HOTEL AND FAMILY RANGES, CARVING AND STEAM TABLES, BROILERS, MALLEABLE WATERBACKS, ETC., ETC.

This Style Family Range is sold only by our Traveling Salesmen from our own wagons at one uniform price throughout Canada and the United States.

Made of MALLEABLE IRON and WROUGHT STEEL and will LAST A LIFETIME if properly used.

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Outfittings and "Home Comfort" Hot-Air Steel Furnaces.
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Founded 1864. Paid up Capital, \$1,000,000.
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NOTICES.
Messrs. Stanley Mills & Co., wholesale merchants, Hamilton, Ont., are making a special offer in this issue of various articles to be sent by mail. The prices quoted are low. We can recommend our patrons to give them a trial.

BRIDGETON, NEWAYGO CO., MICH.
February 1st, 1894.
Buchanan Fence Co., Smithville, Ohio.
I have had 200 rods of fence built, and received the congratulations of stockmen and others, saying that it is the best wire fence they ever saw. I have just closed a contract to have four miles put up before the middle of April next. Besides being a good, durable fence, it is the cheapest fence ever built.

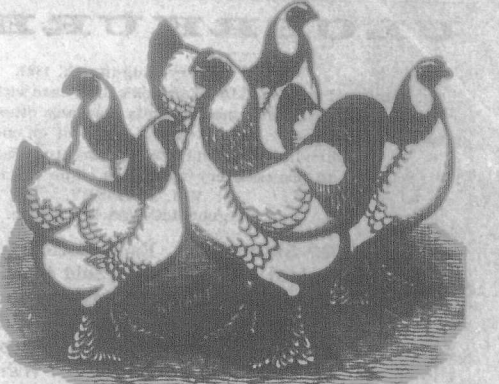
J. M. STOW, M. D., MANAGER,
D. W. Squires' Stock Farm.
AGRICULTURAL COLLEGE, MICH., Nov. 24, 1893.
J. W. Buchanan, Smithville, Ohio.
DEAR SIR:—We are very much pleased with the Buchanan Fence. Its efficiency and low cost cannot fail to commend it to all stock farmers. We are preparing to build more next year. Your fence combines more good qualities with fewer bad ones, than any fence with which I am acquainted. I am very truly yours,
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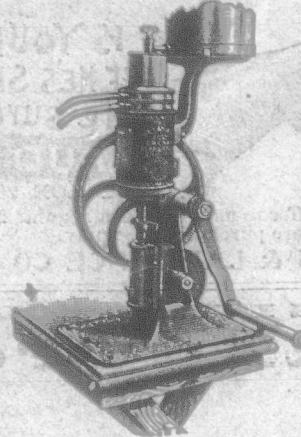
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