

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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DECEMBER 5, 1901.

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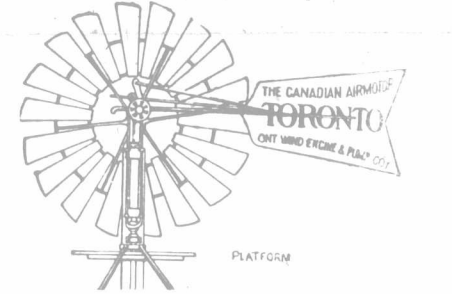
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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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Vol. XXXVI.

WINNIPEG, MANITOBA, DECEMBER 5, 1901.

No. 539

The Agricultural Societies.

December 9th is the date set by statute for the annual meetings of the Manitoba Agricultural Societies, at which will be submitted the financial reports, etc. All business concerns have a stock-taking and thus find out where they stand, and it is in order for the Agricultural Societies to do likewise; not only so, but it might be well to plan for the coming year's work. Too often such important matters as the revision of the prize list is left until the summer-time, when it is often difficult to get a corporal's guard together. If there is one thing that might well be revised, it is the prize lists. A uniform classification for the local shows would be a good thing, and any move looking to such a condition of things would be commendable. It would not be a hard matter for each society to have a delegate attend a meeting of Agricultural Society members in Winnipeg at the time of the live-stock meetings and strike off a prize list up-to-date in its arrangement and suitable for all the local shows. Another question of great import to the societies is the question of judges. At the majority of the fairs the judging is a farce and entirely defeats any educational benefit the local show might confer. In this connection the Department of Agriculture might well select and send out expert judges. Such a scheme would involve the arranging of fair dates in circuit to avoid the far too frequent clashing, which spoil some fairs and cause hard feelings. The new regulations in force amend the Institutes will tend to snuff out the weaker ones, and it is a question whether a similar enactment could not be introduced to snuff out, not necessarily the small fair, but those not doing good work. As it is now, some of the societies are just vehicles for the handing out of so much public money, for which value is not received by the community. With respect to the expert judges for local fairs, one man might judge all the live stock, another the roots, vegetables, grains, etc., and in each case give reasons for their decisions. The societies might as well do away with the attempt to hide an exhibitor's identity, as is now done by a complicated system of numbered tickets. Such efforts at secrecy are of no value with regard to live stock (or anything else, for that matter), and are reflections on the honesty of both judge and exhibitor. All prize tickets should have the owner's name written on them, as a great deal of interest is often taken in an exhibit when the onlooker knows who the exhibitor is.

Apart judges, some societies still hang on to the antediluvian system of a form of jury. The single-judge system is the only fair and correct system of judging. The Department of Agriculture might well add a section to the Agricultural Societies Act, that "no prizes be awarded to any males unless pure-breds." In some rare cases we believe the society would be better to close up their annual show and devote the money to bonussing first-class stud males for their districts.

Now will be the time for all the Agricultural Societies to pass resolutions and go on record with regard to the Agricultural College, and thus show the Government that such an institution is really desired by the people. The members of the societies should let no political bias enter into such an important matter. As the annual meeting is the time for the members to speak out, it would be well if a strong stand was taken by every society against the so-called attractions at the first place, the local show vendors and the best attractions, and the expenditure of \$200 to \$2000 by any local shows in such a

sheer waste of money and no educational benefit is derived therefrom. Several local shows this year made an attempt to have attractions, which were in the main so poor, ranking no higher than the performance of the street-corner quack medicine vendor, that we believe the directors will not again attempt it. Given a good board of directors and a live secretary, the local fair should afford a holiday to the neighborhood and a chance to see whether any improvement is being made in the live stock of the district. The societies fortunate enough to own exhibition grounds might well look more closely after them. Trees should be planted and the weeds and grass should be mown before the show, suitable enclosures made for judging (for horses, oblong will be the preferable shape, and thus enable the judge to see their action in the proper way). The societies might well encourage bringing the exhibits before the judge in better shape, broken to lead, etc., and insist that no prizes be awarded when the stock is unworthy. The enforcement of such a rule may cause a little trouble at first, but will undoubtedly work wonders for the show eventually. More attention should be given to pens, stalls, etc., and what are put up should be convenient, with doors, etc. A loading chute costs very little money and will aid in bringing out exhibits. Many people keep their stock at home because of the difficulty in loading or unloading it. A refrigerator for the dairy exhibit should in all cases be provided. We cannot do better than refer our readers to page 671, Nov. 5th issue, for helpful suggestions as to how to make a clean and successful fair.

Live Stock Association Meetings.

As winter draws on, the stockman begins to think of the bill of fare to be served up at the annual meetings in February. There is at the present time a veritable hunger for up-to-date live-stock training, and the Associations knowing that to be the case might well endeavor to appease that hunger by getting capable men to give lessons in stock-judging at the morning or afternoon sessions. Such instruction is needed, and would be greatly appreciated by many beginners as well as by most of the veteran breeders. Representative specimens of several of the prominent breeds of cattle, horses, sheep and swine would have to be brought in and a suitable building secured so that those present would have ample opportunity of seeing the animals while the instructor indicated the characteristics of the individuals, and the breeds to which they belonged. Of course, the services of men thoroughly qualified to take up this work would have to be secured. Such men as Prof. Cusack, of Iowa; G. E. Day, of Guelph; W. L. Carlyle, of Wisconsin; J. H. Grisdale, of the Dominion Experimental Farm, Ottawa; or Alex. Galbraith, the noted Clydesdale breeder, Wisconsin, who have made stock-judging and lecturing on that subject a specialty, would ensure the success of such an innovation as suggested.

Any person who has stood at the ring-side of our local shows will know the need for such instruction. To see men undertake to pass judgment on horses without ever having those animals walked and traced in a straight line to and from them, would discourage any horse-breeder. As a rule, the majority of the so-called judges seem to be of the opinion that an all-round education is necessary for carrying on a profession, and that such an education is worth the attention paid to it. At the present time the only way to get such an education is to get it

from men capable of discriminating between the good and inferior stuff, and the stock-judging lessons would certainly help us to attain our object. While Agricultural Societies may make honest efforts to get the best judges available, owing to the expense they are often debarred from getting capable men and have to fall back on some person from the ringside, whose qualifications are nil. Given a start at the Association's gathering, many men would soon be available as judges, who, even if they did make mistakes, as all judges are liable to do, would in the main give a superior service than the societies have heretofore been able to get.

Farm Siftings.

Ye editor evidently does not believe in the retirement of the farmer from active duties to become a town parasite, in which opinion we humbly concur. If the farm is good enough to spend the early part of life on, it is surely suitable for one's declining years. The troubles of the retired farmer with a family begun at once on going to town to live. The young people pick up the vices, such as laziness and night hawking, first thing, and in the mad race for distinction in the little social vortex of the country town often become artificial in manners and long-time debtors. Unfortunately, good manners and sound brains do not always accompany a spick-and-span suit or the latest style of hat.

In this year of plenty of rough feed, the weed seeds may be overlooked. Many practical men rate pigweed seed pretty close up to flax as a useful laxative and adjunct to other feeds. In this connection, I think the farmer wise who sells his grain at an elevator where it is cleaned before weighing and where he gets the screenings back.

Better to sell some of the stronger feeds this fall and buy bran with the proceeds. Bran is a bone builder, and keeps the blood cool and prevents constipation. No stockman can do without bran.

The fall and winter sales will give one an opportunity to pick up a good brood mare, some store pigs or needed implement. Cattle seem to be in demand at sales, and pigs will doubtless be clamored for next spring.

A friend of mine who owns and exhibits good stock waxed enthusiastic to me the other day over the probable results of the establishment of a Provincial Agricultural College. Said he: "Judges' work will tend to become uniform and breeders will know where they are at, instead of, as now, new ideals and types being called for from year to year at the shows."

In view of the many fatalities from threshing machines this season (as chronicled in the papers) and the slow work done by lots of machines, I would suggest that if we do have an Agricultural College, that good practical instruction be given in the running of engine and separator. Ignorance in the bigbear of threshing to day. First-class threshers are too few, greenhorns are plentiful.

It is common the idea come of the fellows here in the Old Country, of hog breeding, and how we should conduct it in Canada. I have in mind several thoroughbred sows, travelled in district and far from where I live, whose progeny are about as miserable wood as one would find anywhere. Too small for wean and bear, and too fat to get a fat pig large enough. We got some of your own medicine, Old Country style, and that's your fault at far as ENTER PRIMOS.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

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WINNIPEG, MANITOBA.

Conditions of Cattle Ranching in the United States.

No phase of agricultural life anywhere, except perhaps in Australia, has ever possessed the romantic and adventurous charm of American cattle ranching. When out beyond the Platte, and down toward the Rio Grande, and westward into New Mexico and Arizona, the great plains were open and the "grass of Uncle Sam" as free as air, men with ginger in them could lay the foundations of fortunes with no other capital than a pony, a cow saddle, a rope and a branding-iron. They required no land, and seldom cared for more than a few acres for the ranch house, and a place to keep the "chuck wagon," and other inanimate parts of the "outfit." If they chose they could range an area as wide as France. The Americans took the business from the Mexicans and extended it northward to Wyoming. There was nothing to prevent it. In that day the cowboy told the visiting Englishman: "This is God's country, and there ain't no fences."

Those times are going, or have already gone. Barbed wire and the settler have changed it all. The few acres that sufficed for the bunkhouse and saddleroom are not enough where free grazing is passing away. The cattle king must own his grazing ground, and the cowboy has been tamed into a mender of the fences he once despised. Railroads have done away with the long drives to shipping points, fences have spoiled the roundup, and branding pens are helping on the obsolescence of the lariat. In large sections of the cattle country every small town has its stockyard and spur track.

This doesn't mean that the cattle business is on the wane. Far from it. Its outlook is now brighter than it has been for ten years. Prices are better at home, and the demand abroad is strong. European shipments of cattle on the hoof increased uniformly down to 1897, and though they have diminished slightly since then, the financial returns have been relatively better. In the last five years the average value of meat products exported, principally to Great Britain and Germany, has been over \$111,000,000, and of live animals over \$11,000,000. But the range cattle business no longer offers opportunities for the accumulation of such colossal fortunes as it once did, nor, where so much more money capital is required than formerly, does it offer opportunity to so many men with only their hands and brains to aid them.—Frank M. Todd, in Ainslee's.

Wintering Strippers.

To the Editor "Farmer's Advocate":

I herewith send you results of an experiment in wintering strippers.

I always have my cows calve early and run with their calves all summer, taking the calves into the stable in the fall and wintering the cows in the bush dry. Last fall I wished to try if it was worth while stabling them and giving them extra feed for butter in the winter. I took two good average cows and kept an account of the extra cost over wintering out and what weight of milk and butter they yielded. They did not have the chill taken off their drinking water and the milk was simply set in shallow pans. The prices are for feed delivered here. In the first week of February my supply of shorts was getting low, so I gave them extra bran, with bad results. I then got corn and oil meal in place of shorts, increasing the butter and cost, but not the milk, as per list:

WEEKLY TOTALS FOR TWO STRIPPERS CALVED APRIL 20TH AND 27TH, 1900.		1900.		1901.		
	Bran, at \$15. lbs. lbs.	Shorts, at \$17. lbs. lbs.	Corn, at \$23. lbs. lbs.	Oil meal, at \$27. Total cost per week.	Milk, at 10c. per 100 lbs.	Butter, at 25c. lbs. lbs.
Dec. 24th to 31st	28 22	42 22	42 21	\$0 40	125 4	\$1 12
Jan. 24th to 31st	28 47	42 22	42 21	60	189 57	1 60
Feb. 1st to 7th	42 22	42 22	42 21	50	100 4	1 10
Feb. 21st to 28th	63	42 21	42 21	123	190 8	2 19

At the end of February they were putting on flesh rapidly, but I had to let them go dry in March, as they both calved early in May, 1901. I fancy there might be a combination of the second and fourth rations, which, while cheapening the latter, might give as good results.

FRANK LONGBOTTOM.

Eastern Manitoba.

Ed. Note.—From cows that had suckled calves all summer one would not expect very good results as winter milkers under any circumstances, but this record shows that such cows can be made to pay for the extra feed. Our correspondent does not state when he began to feed these two cows. If it was not until December 24th, they doubtless had by that time shrunk in flesh and in milk flow, and would not respond to feed as readily as if they were liberally fed and carefully housed from early fall as soon as the pastures got dry and the nights cool. Perhaps Mr. Longbottom will give us some further particulars regarding this test, and also tell us how the grain ration was fed and what fodder was used, as doubtless the effects of the grains fed would be modified by the fodder ration. The bad results following the increased bran ration would also be worthy of further investigation. We hope our correspondent is making further tests along similar lines this winter.

Getting People to Eat Mutton.

In conversation with a man who breeds and feeds mutton sheep extensively, the question arose why there is not a greater demand for mutton. The reason is not hard to find, especially when one keeps in mind an often-voiced complaint that the flavor is too strong. This strong flavor comes from the old Merino foundation of many of the grade flocks in the country, and, as expressed by the gentleman referred to, the only way to overcome the undesirable flavor is to breed exclusively from sires of mutton breeding. The use of rams containing Merino blood, whether Delaine, Rambouillet, or American Merinos, will entirely defeat the object desired by increasing the distaste for mutton, which now, unfortunately, too often exists. In Canada, mutton is the main object in sheep-breeding, wool the side issue.

Institute Meetings in Manitoba.

A series of Institute meetings has been arranged by the Department of Agriculture for the month of December. These meetings are at points along the lines in Southern Manitoba and around Winnipeg. Meetings are to be held along the main line and in Northwestern Manitoba in January and February. After this date, meetings will be held as follows: Pilot Mound, Dec. 7, 2:30 p. m.; Crystal City, Dec. 9, after annual meeting; Cartwright, Dec. 10, 7 p. m.; Killarney, Dec. 11, 7 p. m.; Deloraine, Dec. 12, 7 p. m.; Melita, Dec. 13, 7 p. m.; Hartney, Dec. 14, 2:30 p. m.; Souris, Dec. 16, 7 p. m.; Wawanessa, Dec. 17, 2:30 p. m.; Belmont, Dec. 18, 7 p. m.; Baldur, Dec. 19, 2:30 p. m.; Swan Lake, Dec. 20, 2:30 p. m.; Miami, Dec. 21, 2:30 p. m.

Speakers—H. D. Smith, D.A.S., Winnipeg; R. G. O'Malley, Provincial Noxious Weed Inspector, Selkirk; Dec. 9, S. J. Thompson and C. A. Murray, and Stonewall, Dec. 9, H. McKellar and J. J. Lovell.

Flavor in Dairy Products

The removal of odors from milk may be accomplished by greatly increasing its surface in a space containing none of the odors which the milk contains. Aeration of milk has for its purpose the above rather than the exposure of milk to the air, as the presence of air hinders the escape of odors rather than favors it. If milk could be exposed in a vacuum their escape would be more complete and more rapid. The escape of odors from milk depends upon the rapid motion of the odor molecules in it, which forces them to escape whenever they approach the surface with sufficient velocity to overcome the surface attraction, and the division of the milk into a large number of small streams increases the chances for the odors to escape in proportion to the increase of the surface. The finer the streams of milk, the farther they are apart, and the longer the stream is in falling, the more complete will be the removal of odors be. Where there can be a movement of air over the milk surface or among the streams of milk this will favor the removal by carrying the odor molecules away and thus prevent them from re-entering the streams. The higher the temperature, the greater the molecular movement, hence the deodorizing (getting rid of odors) process should be applied as soon after the drawing of the milk as possible, before it has had time to cool and the molecular motion to slow down.

If the aeration is carried on in the barn or stable, where there are many objectionable odors, it should be borne in mind that the same conditions which favor the escape of odors with which the milk may be charged when drawn are the best conditions to permit it to become charged with odors from outside, hence a current of pure air should envelop the aerator.

Cooling Milk.—The advantage to be derived from cooling milk immediately after being drawn is that the growth of germs which may have got into the milk and which have the property of developing odors will be hindered. The object of cooling milk, then, is not to remove odors, but to prevent their formation; and from the principles enunciated above, aerating should be done first, to be followed by the cooling process. Milk so treated, even with comparatively simple and inexpensive appliances, is enabled to be put on the market in better shape and with longer keeping qualities than if the aerating and cooling are omitted.

Territorial Institute Meetings.

Under the Territorial Agricultural Societies Ordinance, one of the most important duties of such societies is the organization of meetings for the discussion of subjects of interest to farmers. In fact, no society can now receive a grant for membership without having held at least two Institute meetings during the year.

The following meetings have been arranged: Macleod, Dec. 9th; Medicine Hat, Dec. 11th; Maple Creek, Dec. 12th; Prince Albert, Dec. 10th; Saskatoon, Dec. 11th; Osler, Dec. 12th, and Rosthern, Dec. 13th.

In referring to these meetings, the Department of Agriculture refers to the subject as follows: "The Department has a special object in view in organizing the meetings in the Saskatchewan district, namely, to discuss with farmers the advisability of bringing into the district a shipment of grade swine for feeding purposes. Representations have been made to the Department, asking to have such a shipment made, somewhat along the lines of the scheme that was carried out with such successful results along the Calgary and Edmonton line last year. It is stated that there is a scarcity of store hogs particularly in the vicinity of Rosthern and Hague, to consume the screenings and inferior grains of this year's enormous crop. If the Department finds that there is a general desire on the part of farmers for Departmental action, and that satisfactory arrangements can be made with the transportation company and land corporations interested, it is understood that an effort will be made to obtain in Eastern Canada, as soon as the spring opens up, several carloads of superior store pigs, which will then be sold to the highest bidders by public auction, subject to a low upset price, at the most important points north of Saskatoon. The Department was asked to have this shipment made during the present fall, but it was considered that accommodation available on the farms would be such as to render winter feeding anything but a profitable venture, and it was therefore decided to postpone action until the coming spring, and in the meanwhile to ascertain the views of the farmers interested."

Programmes of the 35th annual meeting of the Minnesota State Horticultural Society have been received. The meetings will be held in Minneapolis on Dec. 3, 4, 5 and 6. The programme is an elaborate one, and in conjunction with the Horticultural Society, the State Forestry Association and the Beekeepers' Association will hold their annual meetings.

Our Cattle Trade.

In further considering the question of extensive stock-raising in the Province of Manitoba, it may be well to review present conditions, so as to decide what action should be taken by farmers in order to start right. It is well known that an Act was passed at the last session of the Imperial Parliament to the effect that contract beef for the army was to be furnished from home-bred cattle only. Prior to the passing of this Act, there was a market for our rough cattle from Canada—that is, for good, straight beef cattle, but lacking in that perfect form and finish that catch the eye of the English buyer. The consequence is that exporters have been compelled to discriminate between what may be called well-bred and scrub cattle. This discrimination is not on account of their fitness for the block, for the scrub bullock may be as fat as the other, but the flesh is not in the right places to make the carcass valuable from the English retailer's point of view. This question of shape, form or build has been so often described that it is hardly necessary to repeat the characteristic points in this article. It is produced, however, only by proper breeding. A perfect Shorthorn is the type. Our nearest approach to it is got by the use of a Shorthorn bull with well-graded-up females of the same breed, or by the use of a pure-bred Hereford bull with high-grade Shorthorn females. The discrimination above referred to amounts to from 1c. to 1½c. per pound, live weight. In other words, the selected ranch cattle for the English market are worth at point of shipment, Winnipeg weights, \$3.75 per cwt., while the others, so-called scrubs, are only worth \$2.50 per cwt. This difference has alarmed stockmen on the ranches, hence their strong protest against the British Act re Army supplies of contract beef. It seems strange that with all we know and have heard about English tastes, and the willingness of the English to pay the highest price for what suits them, we should go on raising and supplying what suits our fancy and then try to educate the appetite of the consumers. The Americans tried to educate the English to eat filled cheese; the Canadians improved the quality of their cheese as much as possible to satisfy the taste of the English consumer and virtually captured the market from the Americans. It is simply absurd to talk about educating an Englishman as to what "roast beef" is or should be. Those who try to induce or advise "Old England" that any kind of beef will do for her soldiers in order to prop up their own industries are commencing at the wrong end. Better commence at the other end. Breed right and feed right, then merit will command the price.

There has been too much indiscriminate purchasing of stocker yearlings in Manitoba during the past few years for the ranches, as well as in those brought from Ontario. The type of these cannot be changed on the ranches.

When buyers of stockers cull out as severely as exporters are now culling out, and pay for merit according to type, the cattle trade will be in a much healthier condition, and the greatest possible impetus will be given to the breeding of high-grade and pure-bred stock. The future outlook of beef-breeding types in Manitoba and the Territories was never brighter than at the present time. Circumstances are impelling stockmen along lines that make for their greatest success. Manitoba farmers intending to raise more stock and continue doing so as a part of their regular farming operations, must have more stable accommodation. This is a somewhat expensive outlay, for our building materials are costly. A start should, however, be made, and planned so that additions or wings can be added and still be, as a whole, a convenient arrangement. Then attention must be given to the selection of stock: a glance back to what has already been said on the subject of breeding and you have the principal points to be attended to. Lastly, feeding. This topic has been presented time and again by the "Advocate." I shall not, therefore, touch much upon it, except to say that all rules and specified rations for feeding may fail in giving best results unless there is a close study of each individual animal from day to day and the necessary changes in food to keep them in a healthy condition. The aim should be to turn off all animals at when two years old, weighing from 1,200 to 1,300 pounds. This should never be lost sight of from the time the calf is dropped until it leaves the farm and you have the money received from it in your pocket.

HUGH McKELJAR,
Capt. of Agriculture, Winnipeg.

Secretary Coburn, of Kansas, on the Hog.

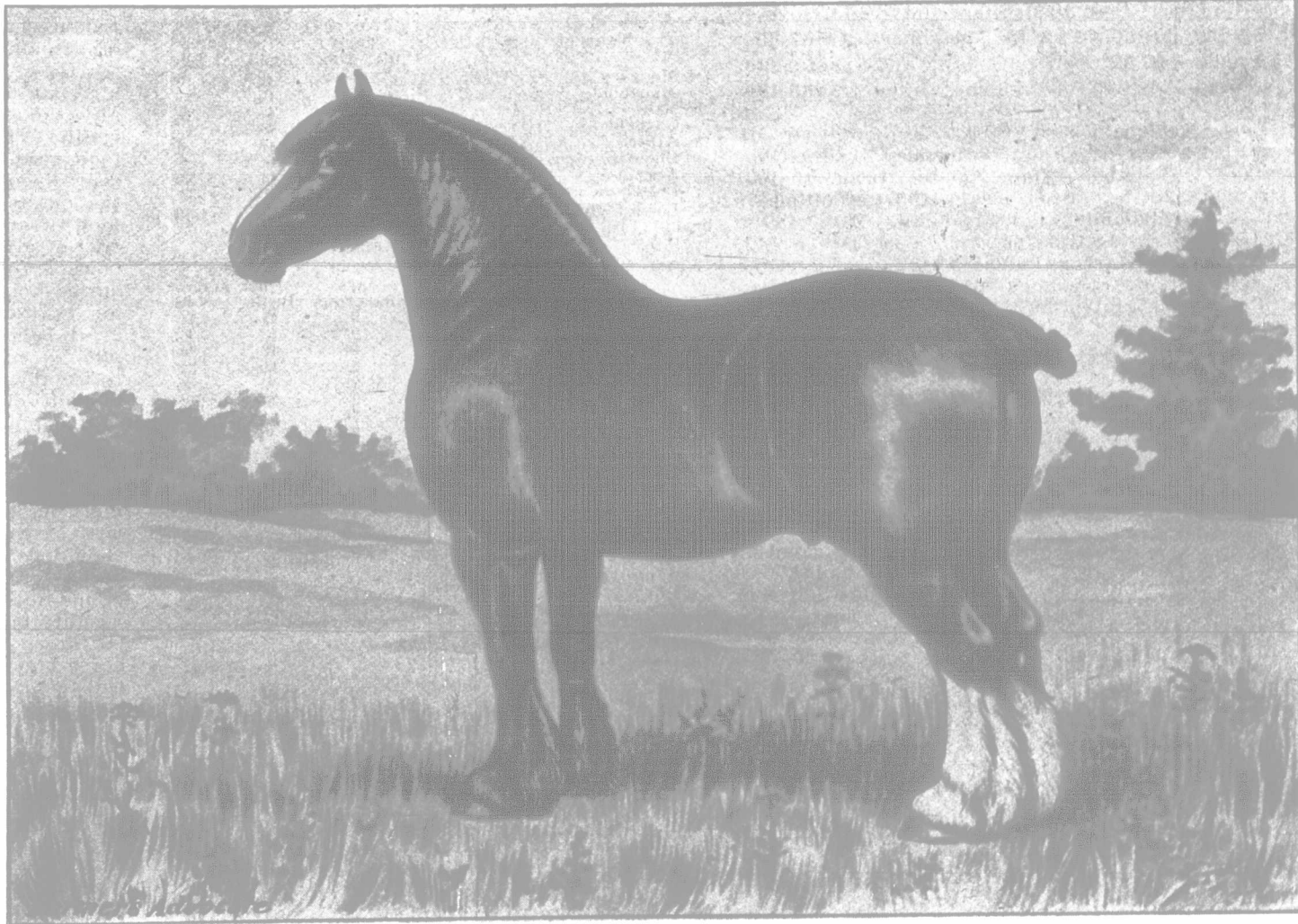
It has been said that in the American hog we have an automatic machine for the reduction of the total volume of corn. It is a machine that oils itself; it reduces the volume of corn ten-fold and quadruples the value thereof. A brood sow is the incarnation of a safe investment, a bucolic bond whose coupons are frequent and large litters of pigs. The hog is a harvester, a condenser and manufacturer of nams, lard, illuminating oils, brushes, glue, buttons, bacon, whistles, soaps, souse, sausage, and satisfaction. The well-bred American hog is a mint, and the yellow corn is the bullion coined into golden coins. He has become a thing of beauty and joy forever as long as a mortgage is to be lifted, a house to be built or piano bought. Instead of being driven through muddy lanes, he now rides in wagons and railway cars, and thence goes on a tour of the world. In all civilized lands he is at home. He camps with the soldiers under every flag, and sails with the sailors before every mast.

At \$2.75 a hundred the hog is a disreputable fellow of debased morals and unclean habits. But at \$7.25 all this is reversed. He becomes an interesting gentleman if not a scholar, entitled to the deference we show to a distinguished and wealthy relative. He is given the right of way, and possesses the fat of the land. He soon ceases to associate with rural porkers. He becomes a plutocrat and gets into the hands of the

the roving robber eagle, and would in the minds of many, make a better symbolical national animal. His snout turning the soil is emblematic of industry, while the beak and talons of the eagle speak of cruelty and piracy. The pig is thrifty and industrious; the eagle accumulates neither flesh nor feathers. The pig is amenable to civilizing influences; the eagle is wild and untamable. The pig is agricultural; the eagle symbolizes nothing. The pig eats just what is set before him and never complains. He never uses tobacco, and, unlike men, he behaves best when he is well corned. Though he knows nothing of mathematics, he is great on square root, and though he cannot write, he is the true knight of the pen.

Worms are the hog's bitters, and bugs and beetles his quinine. But of all the luxuries he gets, none can compare with that wonderful compound—dishwater—composed of everything under the kitchen roof. It is all rot to talk about the hog being naturally cleanly. He is a scavenger by nature. He will not, as theorists declare, go to the babbling brook, but will desert it every time for a mud wallow. The hog is, however, more cleanly than most dogs which are kept as pets by so many men and women.

No one ever saw a hog so indifferent to the common proprieties as to smoke cigarettes in the presence of human beings or chew tobacco or drink. No lady pig ever lavished her affections



PRINCE STANLEY [2443].

Second-prize three-year-old Clydesdale stallion at the Winnipeg Industrial Exhibition, 1901. Sired by Grandeur [1729] 58202; dam Miss Stanley (2307) 5877.

THE PROPERTY OF A. & G. MUTCH, CRAIGIE MAINS, LUMSDEN, ABSINIBOIA.

cut-throat packers, who eventually bleed him to death.

Isn't it funny that a man toils year after year to get some land so that he may raise corn to feed the hogs that he may sell them for more land on which to raise more corn to feed more hogs for more land, etc., etc., etc.? The advance in the swine industry has been wonderful, but not more so than in its literature. It is the fashion to ridicule the hog, to insist that he is the dire author of leprosy and consumption and scrofula and other ills. But this is merely prejudice, and still is the rural ceiling festooned with sausages and smokehouses fragrant with ham and bacon. The hog has been under the ban of many religions, and some persons have been known to prefer the martyr's stake to the pork steak. He is the staff of life, the arch enemy of famine, the poor man's best friend. What is more unctious than his grunt of satisfaction or more penetrating than his squeal of remonstrance. He is playful and graceful; he keeps cheaper and grows faster than any other animal on earth.

America is the home of the hog, which is the logical deduction of our civilization. An editor has said that no man who lived on a hog diet ever abused his family. Waterloo was lost because the enemy had bacon, and Ingalls would have been returned to the senate if he had not lived on oatmeal and baked apples.

The pig is quiet and Christianlike, exemplifying the peaceful virtues of our country more than

on pugs or lapdogs. She may not be all she ought to be; her home may not be what it might be; but none of its incompleteness comes from her motherly influences being wasted on sore-eyed poodles.

Government Forestry Work.

Mr. E. Stewart, Superintendent of the Forestry Branch of the Department of the Interior, along with Mr. Norman Ross, who has been spending the summer in the Territories in the interests of the Department, called at this office recently on their way east. Mr. Stewart informed us that they had applications from over 500 persons for trees in Manitoba and the Territories, and as far as possible these parties would be supplied next spring with the varieties considered most suitable to their respective localities. For this purpose they had secured a supply of about 500,000 trees. In view of the growing interest in the work of the Department, preparations had been made to grow a much larger number of trees next year. A hundred bushels of ash seed and some elm and native maple has been secured. Throughout the greater part of the West the seed of the maple had not this year been good, so that they had to be content with a very much smaller supply than they desired. This year in the Territories about 10,000 trees had been planted under supervision of the Department, and a like number in Manitoba, all of which plantations had been

inspected and had done remarkably well. Next year, applications for trees would not be entertained after May 1st. During the winter, Mr. Stewart said the members of his staff would be ready to visit Institute meetings to give instruction and advice on the subject of tree-planting.

Economic Records of Holstein-Friesian Cows.

FROM JULY 6 TO NOVEMBER 1, 1901.

This class of records are made in connection with official testing by experiment stations. Reports are made of four weeks' feeding, but to economize space we give only that of last week—the week of the official test. During this week the cow is fed not less than during the previous week, and for the last two days not less per day than during the earlier days of the week.

In the following list the kinds and total amounts of food and products are for seven consecutive days' work of a few of the highest producers of the different ages:

Topsy Barber 46955, age 3 years 7 months 8 days: Food consumed—114.25 lbs. grain mixture (3 parts gluten meal, 2 parts bran, 1 part cotton-seed meal) and 713 lbs. soilage. Products—Milk, 430 lbs., containing 16.858 lbs. fat.

Clothilde Lunde Artis 39867, age 6 years 2 months 5 days: Food consumed—40 lbs. soilage (oats and peas), 46 lbs. soilage (oats and clover), 43.82 lbs. bran, 43.82 lbs. pea meal, 11.97 lbs. oil meal, 40.32 lbs. oatmeal, and pasturage. Products—Milk, 474.3 lbs., containing 15.933 lbs. fat.

Lady Longfield 3rd 39945, age 6 years 1 month 24 days: Food consumed—186.9 lbs. ensilage, 391.3 lbs. soilage, 56 lbs. bran, 49 lbs. corn meal, 28 lbs. gluten meal, 10.5 lbs. oil meal, and 14 lbs. ground oats. Products—Milk, 487.4 lbs., containing 15.517 lbs. fat.

Netherland Hartog DeKol 50832, age 2 years 26 days: Food consumed—61.75 lbs. grain mixture (3 parts gluten meal, 2 parts bran, 1 part cotton-seed meal), 20 lbs. soilage, and pasturage. Products—Milk, 300.8 lbs., containing 12.702 lbs. fat.

Hengerveld DeKol Maid 50827, age 2 years 1 month 17 days: Food consumed—3 lbs. grain mixture (3 parts gluten meal, 2 parts bran, 1 part cotton-seed meal), 24.5 lbs. grain mixture (56 parts corn meal, 62 parts oatmeal), and pasturage. Products—Milk, 287.9 lbs., containing 11.616 lbs. fat.

Paula Jewel 3rd 49162, age 2 years 8 months 5 days: Food consumed—321.5 lbs. soilage, 76.5 lbs. bran, 10.5 lbs. oil meal, and 4 lbs. ground oats. Products—Milk, 257.5 lbs., containing 10.535 lbs. fat.

May Welsrijp Hartog 51040, age 1 year 10 months 4 days: Food consumed—23.49 lbs. wheat bran, 35.25 lbs. gluten feed, 11.76 lbs. cotton-seed meal, 60 lbs. potatoes, and pasturage. Products—Milk, 307.4 lbs., containing 9.065 lbs. fat.

Maggie Beets Lady DeKol 52500, age 1 year 10 months 23 days: Food consumed—23.49 lbs. wheat bran, 35.25 lbs. gluten feed, 11.76 lbs. cotton-seed meal, 60 lbs. potatoes, and pasturage. Products—Milk, 278.3 lbs., containing 8.943 lbs. fat.

Brandon Experimental Farm Test.

Below, in tabulated form, is given the results of the uniform test plots of grains and field roots at the Brandon Farm. These tests are carried on on 1-20 acre plots, all sown the same date and under exactly similar conditions as far as possible. The yields are on the whole most satisfactory. Rust seems to have been the one cause of injury reported, and, as Superintendent Bedford says, the season has furnished excellent opportunities to test the rust-resisting qualities of some of the varieties of grain.

WHEAT.

The yield of wheat has been slightly above the average. The presence of rust has, however, reduced the productiveness of many of the varieties. Of the seventy-one varieties sown, goose wheat, as usual, heads the list, followed by four cross-brand varieties. The soil was a sandy loam, summer-fallowed.

Name of variety.	No. of days maturing.	Yield per acre.
		Bush. Lbs.
Goose	112	42
Crown	106	38
Admiral	108	37
Progress	106	37
Clyde	102	36
Red Fife	111	36
Monarch	109	36
White Russian	111	36

Lowest yield—Japanese; matured in 93 days; yield, 16 bush. 10 lbs.

OATS.

The yield of this grain is not quite an average one, but the quality is excellent. Many kinds were more or less injured by rust.

A total of 27 varieties was sown. The soil was a sandy loam.

Name of variety.	No. of days maturing.	Yield per acre.
		Bush. Lbs.
Early Main	102	91
Improved American	102	90
White Giant	103	89
Danish Island	101	89
Wide-awake	103	89
Siberian	101	88
Golden Beauty	104	88
American Triumph	101	87
White Schonen	101	87
Wallis	103	86
Lincoln	101	85
Banner	103	85

Lowest yield—Milford; matured in 99 days; yield, 31 bush. 6 lbs.

PEAS.

As usual, the crop of peas was a prolific one, and the sample is unusually perfect in shape and bright in color.

Fifty-seven varieties sown. The soil was a clay loam, summer-fallowed.

Name of variety.	No. of days maturing.	Yield per acre.
		Bush. Lbs.
Paragon	121	43
Gregory	126	42
Macoun	127	41
Picton	115	41
Victoria	126	41
New Potter	122	39
Mummy	122	39
King	116	38

Lowest yield—Elder; matured in 129 days; yield, 16 bush. 30 lbs.

BARLEY.

Owing to the prevalence of rust, the yield of barley was not up to the average of this farm.

SIX-ROWED BARLEY.

Name of variety.	No. of days maturing.	Yield per acre.
		Bush. Lbs.
Mensury	95	48
Mansfield	87	47
Yale	91	47
Garfield	95	46
Albert	87	44
Phoenix	87	44
Argyle	91	43
Potschora	91	41

Lowest yield—Hulless White; matured in 87 days; yield, 16 bush. 12 lbs.

TWO-ROWED BARLEY.

Name of variety.	No. of days maturing.	Yield per acre.
		Bush. Lbs.
Jarvis	91	47
Gordon	95	43
Harvey	94	42
Dunham	91	41
Clifford	91	39
Fulton	94	36
Logan	96	35
Leslie	93	35

Lowest yield—Kenver Chevalier; matured in 97 days; yield, 17 bush. 24 lbs.

FIELD ROOTS.

With the exception of carrots, all kinds of field roots have given good returns. It is interesting to note the very much larger yields of field roots from the early sowing as compared with later seeding.

The potato crop is by far the best for a number of years, and the quality all that could be desired.

All the field roots were grown on rich sandy loam.

POTATOES.

Name of variety.	Yield per acre.
	Bush. Lbs.
Hale's Champion	737
I. X. L.	623
Sabeen's Elephant	619
Columbus	616
Daisy	597
State of Maine	597
Prolific Rose	590
American Wonder	586

TURNIPS.

Name of variety.	Sown May 16.	Sown May 30.
	Yield per acre.	Yield per acre.
	Tons. Lbs.	Tons. Lbs.
Hall's Westbury	31 1,624	16 1,792
Hartley's Bronze	30 1,512	15 1,680
Prize Winner	30 720	17 320
Mammoth Clyde	27 1,704	15 360
Prize Purple-top	26 1,064	14 1,040
New Arctic	26 536	11 1,760
Sutton's Champion	26 272	13 400
Magnum Bonum	26 8	12 1,872

MANGELS.

Name of variety.	Sown May 16.	Sown May 30.
	Yield per acre.	Yield per acre.
	Tons. Lbs.	Tons. Lbs.
Half-long Sugar White	16 400	38 560
Mammoth Long Red	37 1,768	29 80
Selected Mammoth Long Red	37 1,240	26 272
Giant Yellow Globe	36 1,920	34 1,172
Norbitan Giant	35 488	20 128
Yellow Intermediate	34 1,168	13 1,720
Half-long Sugar Rosy	32 680	24 1,368
Prize Mammoth Long Red	31 1,360	24 576

CARROTS.

Name of variety.	Sown May 16.	Sown May 30.
	Yield per acre.	Yield per acre.
	Tons. Lbs.	Tons. Lbs.
Giant White Vosges	21 240	12 1,080
Half-long White	20 480	15 800
Ontario Champion	20 480	13 840
White Belgian	19 1,690	13 1,720
New White Intermediate	19 1,690	12 640
Yellow Intermediate	17 1,640	11 880
Improved Short White	15 1,680	14 1,040
Long Yellow Stump-rooted	14 1,920	12 1,520

SUGAR BEETS.

Name of variety.	Sown May 16.	Sown May 30.
	Yield per acre.	Yield per acre.
	Tons. Lbs.	Tons. Lbs.
Red-top Sugar	30 984	29 1,136
Danish Red-top	29 344	28 232
Danish Improved	27 1,704	28 496
Wandelaar	25 160	22 1,672
Vilmorin's Improved	29 1,184	18 1,752
Royal Giant	18 460	18 696
Improved Imperial	18 460	26 1,856

Feeding and Watering Horses.

Many of the diseases of the digestive organs of the horse are caused by errors in feeding. Comparatively speaking, the horse's stomach is a very small organ, having an average capacity of but from three to three and a half gallons; and as a very important part of the process of digestion—viz., what is called chymification, or the conversion of the food into chyme—takes place here, it is necessary that intelligence be exercised in feeding, in order to preserve health and comfort. Chymification is performed by the action of the gastric juice (a secretion of glands in the lining membrane) on the contents of the organ. This juice is slightly acid, and during digestion is secreted in large quantities. It acts upon the nitrogenous and saccharine portions of the food, rendering them fit for absorption, while the starchy matter and fat pass unchanged into the small intestine, to be there acted upon by the secretions of the liver and pancreas. In order that the food may be acted upon in a normal manner by these juices, it requires to remain in the stomach for considerable time, and if anything interferes with digestion either in the stomach or intestines, such as undue excitement, violent exercise soon after a meal, an over-distention of the walls of the organ by an overfeed, the forcing of the undigested material out of the stomach by a large quantity of water being introduced therein, etc., etc., the comfort and health of the animal must suffer.

Horses should be fed at regular hours. Regularity in feeding is more important than is generally thought. All food given should be of good quality. For horses not doing much work, the food need not be of an expensive sort; rough or coarse food answers very well in such cases, but the quality should be good; dusty or musty food of any sort should not be given. The quantity of grain given should in all cases be in proportion to the amount of labor the animal is required to perform. The somewhat popular opinion that a horse should be fed a given ration of grain, and that the same whether working or idle, is entirely wrong. The function of food is to supply nourishment to the tissues, and the amount of nourishment depends upon the waste taking place, and it goes without saying that the waste or consumption is less in an idle horse than in one that is working; hence the amount of food, especially grain, should be correspondingly less. Even to idle horses a sufficient quantity of coarse food, as hay, or its equivalent, should be given to prevent hunger. The quantity of hay required in 24 hours is said to be one pound for every hundred pounds of the animal's weight, but experience tells us that we cannot lay down any fixed rule in this matter, but each horse should be given according to his peculiarities. As a rule a horse will take rather more than this with safety. The appetite as well as the digestive powers of horses differ materially, especially in regard to coarse food. The common practice of keeping hay in the manger or rack before a horse all the time cannot be too highly condemned. An animal should not have placed before him at once more food of any kind than he will eat with a relish, say in an hour or at most an hour and a half. After the lapse of this time, unless the horse be taken out, any food remaining should be removed, and then he will have an appetite for his next meal; while if he be left standing with the hay before him, he will keep nibbling at it, tossing it out of the manger with his head, tramping on it, etc., thereby rendering it foul and unfit for himself or any other animal, and he will not have the necessary appetite for his next meal that is essential not only for enjoyment, but in order that he may receive the full benefit of the meal. The stomach requires rest as well as the muscles, and if more or less constant eating takes place, the organ is kept in a correspondingly active state, and hence will not perform its functions in a satisfactory manner. Not only is it better for the animal to receive a limited supply, but there is much less waste. I find that horses that are used for driving or riding purposes do better when fed hay only twice daily, receiving nothing but a grain ration at noon. For horses used for slow work, it is probably wise to feed hay three times daily. The quantity of grain to be given depends, as before stated, upon the amount of work performed. For a horse of 1,200 lbs. or thereabouts, doing ordinary work either on the road or in the field, a gallon of oats at a feed is considered about right; for smaller or larger animals the quantity should be less or more, according to size. I think it will be generally admitted that oats give better results than other grains. When expedient, I also think that better results are obtained from crushed or chopped oats than from whole. Still, other grain, as barley, rye, corn, or even wheat, ground and mixed with the oats in fair proportions, give good results; but oats, where obtainable, should be the basis of the grain ration for working horses. Besides hay and grain, a horse should have at least one feed of bran, either dampened or dry, each week. Some feed

a small the oat ably re by relis ally time w not be roots every c straw to a l change violent derange cases may be the ow an own ney wi give hi on the sto causes less pr probab to feed and the tra tax a few c subject after e few mi for dig a horse being s will sta digesti less a be very we kno stituti as to r digesti unabl As with fe should the pr he has cise an he sho only, s quench that a or on water. freely, brough driver, him to water after n horse o thirsty probabl and th the int upon they w In suc meals. digesti course certain allow weathe driver his ho wrong drink, princip stated, not b appeti Dia Simon his Re sand C been t at Sa has no transf rest o Queen rines run se In the traini field seeme of hay and I dem a wise and I can't stand I should

A small quantity of bran regularly, mixed with the oats when they are fed whole. This is probably good practice, but I prefer giving the bran by itself. It makes a variety, and the horse relishes it, for he likes a change of food occasionally as well as other animals. In winter, or any time when a little grass or other green food cannot be obtained, it is good practice to feed a few roots, as a small turnip or a carrot or two, every day. In changing the food, as from hay to straw or from straw to hay, from one variety of grain to another, or in commencing to feed grain to a horse not accustomed to it—in fact, any change should be made gradually. Sudden or violent changes are very productive of digestive derangements. Many serious, and often fatal, cases of acute indigestion are caused by what may be called mistaken kindness on the part of the owner. For instance, it is not unusual for an owner, who contemplates making a long journey with a horse unaccustomed to driving, to give him a double ration of grain and then start on the journey. The extra quantity of grain in the stomach, combined with the extra exertion, causes an attack of acute indigestion, which, unless promptly and energetically treated, will probably prove fatal. In such cases it is better to feed the animal rather less grain than usual, and then, in order to compensate him for the extra tax upon the system, feed more liberally for a few days after the journey. It is dangerous to subject a horse to hard or fast work immediately after eating a full ration of grain. At least a few minutes, say half an hour, should be allowed for digestion. Neither is it good practice to give a horse a full ration of grain immediately after being subjected to severe exercise. Some horses will stand it all right, while others will not. The digestive powers of horses vary greatly, and unless a person knows his horse very well he should be very careful on these points, and even though we know our horse, it is dangerous, as the constitutional condition of the animal may be such as to render him at certain times more liable to digestive derangement than at others, and we are unable to tell just when such conditions exist.

As to watering horses, my opinion is that, with few exceptions, when a horse is thirsty he should have all the nice pure water he will drink; the principal exception being immediately after he has been subjected to excessive or severe exercise and is very warm and thirsty. In such cases he should be allowed to drink a limited quantity only, and after he has cooled off be allowed to quench his thirst. However, it is very seldom that a horse at ordinary work, either on the farm or on the roads, is too warm to be allowed water. In hot weather, of course, he will perspire freely, and I have often known horses to be brought in from the field in this state, and the driver, thinking him too warm to water, take him to the stall and feed him, and not give any water until he was brought out again to work after noon. This I consider is cruelty. The poor horse certainly cannot enjoy his meal while he is thirsty, and will not eat heartily; then he will probably drink large quantities after the meal, and this has a tendency to force the food into the intestine before it has been properly acted upon in the stomach. Horses should have all they want to drink before meals, and again after. In such cases they do not drink much after meals. Some horses will suffer from colic or indigestion if allowed water after meals, and of course such must be made an exception of. It certainly is good practice, where practicable, to allow water between meals, especially in hot weather. In regard to watering horses, if the driver considers what he likes himself, and treats his horse as he does himself, he will not go far wrong. Whenever he feels thirsty he wants a drink, and he is safe in assuming that the same principles apply to his horse, and, as before stated, there are few instances in which it will not be safe to allow his horse to gratify his appetite.

The King's Race Horses.

Diamond Jubilee, the four-year-old son of St. Simon and Perdita II., who carried the colors of his Royal owner to the front in the Two Thousand Guineas, the Derby, and the St. Leger, has been taken out of training and sent to the stud at Sandringham. The close of his racing career has not been what one might have wished, for, transferred to the Duke of Devonshire, like the rest of the King's racehorses at the death of Queen Victoria, he ran for the three £10,000 races this season, but could not do better than run second in one and fourth in the two others. In the course of the three years that he was in training he won five races worth about £31,000, including the sums which he received for running second. The King is now in the unique position of having three full brothers in his stud: Florad II., whose first lot of three-year-olds has been of rare and singular merit; Persimmon, whose stock have not made so good a beginning; and Diamond Jubilee himself. Nor must it be forgotten that another brother, Sandringham, who had been very highly tried, but could not stand training, was sold for a large sum for the best in America.

Horse Training and Education.

This is my favorite season of the year for harnessing the green colts.

As mentioned in a previous article, "When training a colt do not forget to study his disposition and always avoid quarreling with him." For instance, if he is a spirited fellow and wants to go, let him do so with all his might if no other gait will suit him. So many men try to teach a horse to go steady by holding him back. This is one of the things that is so hard to compel a colt to do in harness. Now, just try to force him to go steady, and see him balk and flounder and show all kinds of ugliness. He has been bred to go—then do not quarrel with him about that. To start a colt in harness is a very important event in his life. Then we must make a good preparation of harness and a strong two-wheeled rig; one that will not be easily upset. Any man that is able to do any kind of tinkering can get an axle and a pair of strong wheels. Put upon them a pair of poles 10 ft. 6 ins. long; set them wide apart on the axle, and place a strong crossbar back far enough so that an ordinary tug will reach it at full length; place a whiffletree upon this bar; now fasten a seat as low down as possible. What I want is to give an idea of measurements, etc., and leave the reader to imitate the common road cart to finish the rig out. In such a cart a man can sit behind the wildest horse, in a smooth field, and feel comparatively safe. This is one of the great secrets in training—fix your trappings in such a way that you feel safe, and then, and not until then, are we ready for any green colt. I nearly always use the cart.

In training saddle horses, we find many who are not expert enough in the business to mount

caps, using revolver, and at last the shotgun. Ride into the city; take after a street car, but be sure that there is not one chasing your horse too; chase the cars around for awhile, and then let him chase a steam engine for a change, and he will soon begin to think that he is "cock of the walk." You may recommend him to a customer when he has been educated in this way.

SANDY COLTS.

Kindly forward your renewal subscription to-day for the best and most attractive agricultural paper published—the "Farmer's Advocate."

Three Old Horses.

Referring to the old English horse portrayed in our November 5th issue, Mr. A. R. G. Smith, of Waterloo County, Ont., sends us a photograph of three old white horses in his possession, and writes as follows:

"These three horses are still alive and in better shape now than they have been for years. They are white; when they were young they were iron-gray in color. They are aged, respectively, twenty-eight, twenty-nine, and thirty years. They are the offspring of one mare. The two oldest are "Argentiles," a Lower Canadian horse, a descendant of "St. Lawrence." The youngest one is by "Clydesdale Jock." The oldest one, "Polly," took my father and mother from their wedding, on Jan. 31st, 1877. A few days ago I drove the youngest one to a place thirteen miles from here, and came back the same afternoon. She did not seem a bit the worse of the drive. These horses have been working constantly, doing the farm work and on the road until last year, when we decided to let the oldest pair ease off. We had a team of horses, each seven years old, that never worked until the previous year. We expected the old mares to die, but they never did. If we worked them they would work, but if they were



A TRIO OF FARM MARES, AGED 28, 29 AND 30 YEARS.
OWNED BY A. R. G. SMITH, NEW HAMBURG, ONTARIO.

and stay with a wild horse. To such a one I would say, be cautious. Work around him for a while before you attempt to ride him. Substitute a dummy for a man at first—any person can make one. It is made like one end of a sawhorse—simply two sticks crossed and fastened together. Just make one, set it upon the colt as a man would sit; fasten a strap or rope to the feet as a belly band; use a crupper, running straps from the latter to the top of each stick or arm; then put on the reins and fasten to the bridle-bit and let him go in a training yard or shed. When he has been harnessed in this manner a while you may attach a long line and guide him for short spells, giving rest between. This treatment will prepare him for some outdoor exercises, after which he may be ridden by any ordinary horseman. Now all this schooling may not make him a first-class saddle horse. Saddle horses are born and not artificially made altogether, and tastes differ somewhat. One man likes a pacer, and another does not, and so on. Some people would not ride on a saddle, and would prefer walking. Generally speaking, the latter is a man who does not know a saddle horse when he sees one. A genuinely good saddle horse is a luxury. Green colts that would make good saddlers are not too plentiful in this country. When you find one you find a prize, but it takes lots of patience and skill to make him a top-notch even then; but when you get him there you may expect a good long price for him if you choose to part with him. He may be taught to lope by holding him firmly and touching his shoulder continually with the riding-whip. Practice him in a lane; place a pole upon the ground across the roadway, and ride him over it; have it raised up an inch or two, and repeat. By gradually raising the pole we teach and practice the horse to take a good hurdle. Get him accustomed to firearms by snapping gun

idle for a day or two they had to be broken over again. The oldest one is shod all around. I use her to drive to the post office, four miles from here. She was a kicker, and was fed in the stable for twenty-four years. Of late years she has become less furious, and we let her out to pasture. She is still the "boss" horse, and nothing delights her more than to get at the watering-trough and keep the other horses away. The other horses are all afraid of her. The oldest ones were always driven together. They were a great team. My uncle, Mr. J. Cook, now governor of Berlin jail, told me recently that in the year 1883 he drove a man from Hamburg to our place to see them, and he offered father four hundred and fifty dollars for the team, but he wouldn't sell them. Mr. Ferguson, the undertaker, of London, Ontario, wanted to buy them, but as father positively refused to sell them, he made no offer. These mares were raised on our farm, and have been in our possession since they were foaled. The two oldest ones never had a colt, but the youngest one had four colts, one of which we sold as a two-year-old for one hundred and thirty-five dollars. To give you an example of what they still do, I may say that I was drawing cordwood to-day with the team of which the youngest horse is one. Her mate is her own daughter, which is in its twentieth year.

Amongst other good things in the address of President Frank H. Whitney, at the annual meeting of the Illinois State Swine Breeders' Association, was the following: "Get all the fancy points you can, but do not sacrifice size and quality to them. A strong back and loin, large heart-girth, and a good set of legs, are more to be desired than an ear that has just the proper proportion and shape, or a tail with the requisite number of white hairs."

Great Interest Taken in an Agricultural College.

A great amount of interest has been taken in the subject of an Agricultural College for the Province, and it is to be desired that no mistake will be made in the organization of such an institution. A commission to thoroughly investigate the whole matter may in the end prove economical, and the report when given will no doubt receive the attention it will deserve.

Any move that will raise the standard of agriculture as a calling, and help to make it more profitable, is of the greatest importance. A statement was made some time ago by a cabinet minister that "the boys from the east came West to fill positions in the towns." It is to be hoped that this is only partly true, and that many of them look to the farm for profitable and congenial employment. It surely must not be inferred that the rural population is to be recruited only from foreign immigration. There always will be some—and it is well that it is so—who will have a desire to go to the city and earn a living, or perhaps seek to gratify some honorable ambition in some calling more to their taste and for which they are better fitted than agriculture. But the farm is of tremendous importance in Manitoba. Not to the forest, the workshop, or the mine, but to the field must we look for our wealth, and upon the product of the farm the whole structure of our material well-being rests, and the future would be gloomy indeed were bright days not in store for the people upon the farm.

A generation who have not enjoyed some of the advantages within reach of younger people, are anxious to see those who are coming upon the stage educated, well trained and intelligent. Of course, no amount of educational facilities will avail unless the spirit is found among the people to take advantage of them; but we believe such a spirit exists in many a bright young man on the farm. Lord Roseberry lately said that the nation that is satisfied is lost. "Rest and be thankful is a motto which spells decay."

A college where instruction would be given in what is essentially important to agriculturists would be in the interest of the whole Province, and such a college should be able to give a degree or diploma that a graduate would be as proud of as a B. A. The college to fulfill the purpose of its creation should be entirely distinct in its character, with a staff especially fitted for their work. The initial expense will be rather heavy, and the financing is perhaps the greatest difficulty as far as the Government is concerned. With a growing expenditure and a revenue not very elastic, economy is a necessity. But where the way is made so easy for those looking toward what is known as the "professions," something might be done to make agriculture more of a "profession."

An article appearing in the "Advocate" of October 21st seems to be eminently practicable and worthy of the greatest consideration. We cannot know what the future holds, but we look forward hopefully, believing in our country and its people, and express a wish, in the words of an English statesman, that our Province will have a people strenuous, educated, law-abiding, God-fearing—the foundation, the real and truest foundation for a people. ROBERT FORKE.

Municipality of Pipestone.

The Moosomin District.

Coming well within the fertile belt of the Territories, this district embraces a number of fine farms, a few of which we were permitted to see. At the time of our visit the panorama presented was one of bluffs, stacks and comfortable farmsteads. Jas. McMullen, with a section of land, is just starting in to breed Shorthorns, and has erected a large barn with basement to accommodate the horned stock. Neighboring him is Arthur Crisp, whose barns were filled with hay and whose bins were being filled with wheat, 200 acres of which yielded over 5,000 bushels of good wheat. The stone house and farmstead is set off with a plantation, fruit bushes being well in evidence in the garden. Further along the road, the extensive buildings and large herd of Dan Osborne are seen. This up-to-date farmer is a strong believer in straw and roots as a ration and feeds a large number of cattle every winter. A pure-bred Shorthorn bull is kept and the stock thereby improved. Nearby is to be found an illustration of what persistent effort will do. Chas. Indahl came into the district a few years ago with very little and now has a fine half-section and a good stone house and basement barn. Turning north, the Stanley district is come to, a district given over more strictly to wheat. One notices here great room for improvement of the farmsteads in the way of tree-planting. In this district, as in many others, the need of a first-class heavy draft stallion is sorely felt and breeding operations hindered thereby. The farms of R. J. Plin, J. W. Young, Jno. Tyke and Wm. Moran show careful attention to up-to-date methods, the first named devoting considerable attention to tree-planting and cattle-feeding.

The Northwest (Canada) Entomological Society.

The third annual meeting of the Northwest Entomological Society was held at Lacombe, Alberta, on November 9th, 1901. The chair was taken by the Vice-President, the Rev. M. White. Many letters were received in support of the meeting.

After the close of the discussion consequent on the president's address, Mr. Howson P. Foulger, of Urquhart, near Lacombe, and Dr. A. E. Jamieson, of Lacombe, were elected members of the Society, and the officers of the Society for 1902 were elected. The officers for 1901 were re-elected, with the exception of Mr. W. Wenman (one of the Council), who has left the country, Mr. Foulger accepting office in his place.

The chairman then called upon the president of the Society, Percy B. Gregson, for his address, which we give, as follows:

We have now completed the third year of our existence as a Society, and it has become the custom to review the progress we have made during the preceding year, and to consider what good we have done. By thus taking stock, as it were, of our conduct we gain some light on the course we should pursue in the forthcoming year. In this vast new country, a Society like ours to become popular has to enlist the sympathy and interest of the settler, and to do that it must give a reason for its existence and must show that its labors are identical with the farmer's welfare. When this is clearly understood the Society becomes a popular organization, and this is one of the reasons why we have our annual meetings. The chief work of the Society is to study and to help the farmers themselves to study the life habits of the insects of this country. The time has passed when such a study was looked upon as an evidence of lunacy, and I believe we shall see within the next few years the introduction into every school in the country of a system of nature study. The young people must be encouraged to take an active interest in the subject. The study of insects, as well as of wild plants (including weeds), is emphatically one which develops the powers of observation and tends to make us all brighter men and women.

Some idea of the practical value of this subject to the farmer may be formed from the fact that the damage done by insects last year to the farming and gardening industries in North America amounted to many millions of dollars, and a glance presently at the list of injurious insects for 1901 will show that the Territories are sharers in this great loss. Farmers, as a rule, are wide-awake enough to anything which threatens their pocket, though it is strange how indifferent many of them seem when their crops are threatened by insects or weeds. I have in mind several cases which have occurred this year of the wholesale destruction of turnips and cabbages by insects when a few cents' worth of hellebore (1½ oz. to a pailful of water) or of Paris green would have saved the crop, and farmers are just as culpable in the matter of weeds. I met with one gentleman who was growing stinkweed in his garden as a choice flower.

The question, therefore, now arises, "How does the Society propose to assist the farmer?" and in answering this let us first see what we have already done. In the Society there are two branches of study—entomology and botany. Under entomology is included insects (noxious, beneficial, harmless, etc.), and under botany is included the study of the food plants of different insects, and also the study of weeds and other wild plants. What, therefore, we have done has been to attend farmers' meetings when requested and address on insects or weeds. There have been about seven of these addresses, besides some written addresses, given this year at different places. Secondly, we have distributed to every affiliated agricultural society (except, of course, to those quite recently affiliated with us) a collection of ripe seeds (in little labelled bottles) of nearly every species of noxious weed within the Territories. This should prevent any one from growing them as ornaments, and will enable any farmer, by applying to the secretary of his agricultural society, to see what sort of weeds he has in his seed grain. Thirdly, the Dominion Entomologist, Dr. James Fletcher, has offered two prizes (standard works on entomology) to the young folk of Lacombe district for (1) the largest collection of insects and (2) the best collection of noxious and beneficial insects, and the Society has supplemented these prizes by a cash prize of a dollar for the best collection of wild plants (including noxious weeds). There have been several young competitors. Prize No. 1 has been won by Master Benj. H. Howell, of Lacombe; prize No. 2 by Master Dalton E. Tipping, of Waghorn; and that for wild flowers and weeds (a very excellent collection) by Miss Lucy McLellan Howell, of Lacombe. Fourthly, a field club has been formed of some of the young folk, under the Society's auspices, for entomology, and by the example these young people set many of the prejudices against insects will, it is hoped, be dispelled. For instance, with what horror the dragonfly is often regarded. We hear them called "the fly's darnin'-needles," and that they will sow

up little boys' eyes and ears; and we hear of caterpillars and beetles that they will bite us, and many other similar prejudices exist. These prejudices really are harmful, because they lead our young folk into errors, and on account of these prejudices many insects are ruthlessly destroyed which should be preserved, and on account, too, of them are young folk conceive a distaste for studying their habits. In addition to this, the secretary of the Society has written (as replies) many scores of letters of advice on special noxious insects to farmers individually, with the remedies.

Within the last year several agricultural societies have affiliated with—i. e., have become supporting and subscribing members of—the Entomological Society. This is particularly acceptable, because our object is to benefit the farmer; we are bound up with his welfare, and we welcome most cordially every such reciprocation of our efforts. The names of the affiliated societies are the Wetaskiwin, Lacombe, Red Deer, Innisfail, Olds, Calgary (Inter-Western Pacific), Regina, Moose Jaw and Central Saskatchewan. These in return for their financial support and influence have the right to claim addresses from the Entomological Society at their Institute or other meetings. The funds of the Society (\$1 membership fee), which are supplemented by an annual grant from the Territorial Government, are devoted wholly and solely to developing the work of the Society—not one cent being paid to any officer of the Society.

Let us now turn to the next part of our programme—"How shall we proceed in the future?" I think that the course I have just outlined should be further pursued. Every feature of it, particularly that of encouraging the younger people, can, I believe, be extended with benefit to the country. Addresses will be given willingly whenever requested by affiliated agricultural societies. Further prizes will be offered for competition, and these competitions will be thrown open to the young folk throughout the Territories. With regard to the schools, I may say that the teachers (3) in the Lacombe school are actively interested in the work of the Society, and the trustees of that school give every encouragement, and we hope to extend this interest to teachers in certain other schools next year, and personally I invite every one (teachers and their pupils, and farmers and their young folk are especially welcome) to come to my residence and inspect under my supervision the collections of the Society. There, besides many beautiful insects, they will see represented very many of the noxious and beneficial insects from all parts of the States and Canada, and learn the remedies.

More agricultural societies will next year be invited to affiliate with the Entomological Society. This, as Mr. Peterson observes in his letter, is also a step in the right direction and in accord with the spirit of the law under which the agricultural societies are formed, and with the sentiment of the Department. Perhaps it is almost too Utopian, but my wish would be that every settler in the country should know what the Society exists for, and that every agricultural society should be affiliated with it. The distribution of collections of weed seeds will be extended, and a collection of named pressed noxious weeds will be prepared for each affiliated agricultural society. By the help, too, of kind collectors I am endeavoring (though much pressed for time and means) to form collections of named noxious and beneficial insects for distribution in the same way. I want every troublesome insect sent in to me for that purpose every year. The Society will provide the cases and pay all postages. It would be my wish to start a museum of weeds and insects with every agricultural society and school in the Territories.

(To be continued.)

Guernseys in the Model Dairy.

In comparing the results of the Model Dairy test, the Guernseys, no doubt, won laurels of no mean distinction, and that fact may give many the impression that Jerseys as dairy cattle are inferior. However, the question ought to be considered as to whether the two classes entered the test in the same condition.

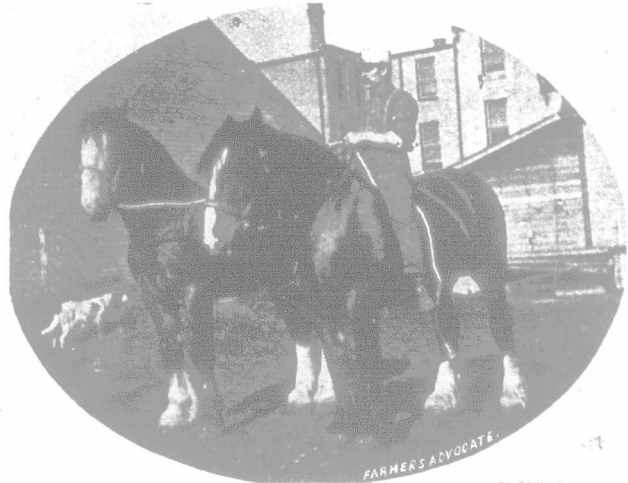
Certainly the Guernseys deserve credit, and have richly repaid the efforts of their champions, who in the way of preparation "sowed seed in seed-time." Having been present at the Model Dairy barn the first day of the test, I was struck with the splendid appearance of the Guernseys, which looked as though months of careful work had been expended upon them. Three of their number freshened in April on the Pan-American grounds.

The Jersey breeders who exhibited had not the privilege of specially striving beforehand for honors in the test, as the matter of testing Jerseys was taken up and the cattle chosen but three weeks before the test opened. This, of course, gave them no preparation whatever, and their condition did not compare favorably with the Guernseys, as two of them had been milking since March 1st, one was in calf when the test opened, and another was due to calve the second week of the test.

The Guernseys were far superior to any in

breed-type, and were models of dairy cows. The phenomenal work of that wonderful cow, Mary Marshall, easily won the day for her breed. But when one considers profit, there is a Jersey, May Queen of Greenwood, which I think is worthy of special mention. This cow was served before she entered the test and is now nearly seven months in calf. She has a profit of \$47.46, and stands seventh in the list. The profit of the cow, Mary Marshall, is \$59.41, which gives her a margin of \$11.95 over May Queen of Greenwood. If one stops to consider the actual return of these two cows, he will be impressed with the meagerness of the margin to offset the value of the progeny.

I have no desire to have the inference drawn



CLYDESDALE STALLIONS AT BRANDON.
Billy Smith exercising them.
PROPERTY OF ALEX. GALBRAITH, JANESVILLE, WISCONSIN.

from the foregoing remarks that Guernsey cows have a low place in my estimation. On the contrary, I will say that although we have but eight Guernseys in milk, in our herd of 40 milking Jerseys or in our herd of 20 milking Ayrshires it would be difficult to pick eight better dairy cows. One of our Guernseys had only been home from quarantine three weeks when she gave 49 lbs. of milk per day, testing 4.7 per cent. butter-fat.

J. B. KETCHEN.

This issue of the "Farmer's Advocate" is a fair sample of the rich stores in reserve for subscribers. We will appreciate your renewal.

The Contest of the Cows.

The result of the six-months dairy test at the Pan-American Exhibition may at first sight, and without proper consideration of the circumstances, seem to many disappointing. Compared with many of the records that have been published of the tests of individual cows, they may appear unsatisfactory, since we have authentic records of single cows giving up to 20,000 lbs. of milk and of others producing over 1,000 lbs. of butter within a year, while the highest record of milk by one cow at the Buffalo trial was 8,140 lbs. and the highest product of estimated butter 354 lbs. in the first six months of lactation. The impression will doubtless prevail with many that the best cows that could be found were selected and included in the Pan-American test, and that the result is a fair measure of the capabilities of the best cows of the breeds participating in the contest. A fair consideration of the circumstances will show that such is not a reasonable conclusion. It is well known that a large majority of the best cows in pure-bred herds are bred to produce their calves in the autumn, for the reasons that, if required for show purposes at the fairs, being fresh, they will be in the best condition for that purpose, that their calves will be well forward to show as under a year at the following year's shows, and will be long yearlings and two-year-olds in the shows of succeeding years, and the bull calves the best age for selling and for service at the end of the year. This fact, it will be admitted, largely limited the choice from among the best cows, and the selection was necessarily made from such as were available that had calved in the spring or were due to freshen about the time of the commencement of the trial. Then there are the additional facts that American cows of two of the principal dairy breeds were not represented, that Canadian cows were hurriedly selected in the last few weeks before the opening of the show and that but few of them had even been tested to prove their capabilities.

The disadvantages the cows labored under in respect to feeding and surroundings must also be taken into consideration. They were taken away from their comfortable homes, their companions, and their familiar feeders at the end of

April, and fed by new feeders, kept all summer in stables with open doors, subject to the nervous irritation and excitement incident to the passing of a constant stream of visitors, and the attacks of myriad flies in a temperature which at times ran up to over 100 degrees, causing positive suffering and a distinct shrinkage in milk secretion.

It should also be remembered that the feeding was not conducted with the object of securing the largest possible quantity of milk or butter, but the greatest profit, on the food consumed, and for this reason cheaper foods were used than would have been had the object been the greatest quantity, and doubtless time was lost in the effort to adapt the feed to the cows and the cows to the conditions to obtain the desired end. With all these disadvantages to contend against, it must be conceded that the cows did good work and demonstrated that milking cows can be fed at a profit even under adverse conditions, for while the price allowed for butter—25 cents per pound—was high, the price charged for feed was also higher than that of the average of years on the farm. In estimating the profits in the test, no account was taken of the skim milk, the buttermilk, or the manure, these being allowed to offset the cost of labor.

Taking the record of the herd standing third on the list for profit in butter-fat as an average of the best of the herds, we find that the five cows gave an average profit on the six months' feeding of \$44 each in round numbers. Granting that cows will milk ten months in the year, and allowing that the average production of the herd cited for the remaining four months would be \$25, we may figure an average profit for such cows of \$69 for ten months' work. While there is nothing in this showing that may not be equalled by good management by any intelligent and careful dairy farmer, it will bear discounting considerably and yet demonstrate that dairying is one of the most profitable branches of farming, if not decidedly the most profitable, that the average farmer can engage in.

The "Model Dairy" has served to teach some important lessons, among which is that for profit there is more in the individual cow than in the breed, that there are grand good cows in most if not all the breeds claiming to be either special dairy or dual purpose, that milk and butter can be produced at a good profit, and that it is unsafe to judge of a cow's capability for profitable work by any less reliable method than the use of the scales and the butter-fat test. Lessons may also be learned from a study of the feeding of the cows, which is another story and will bear discussion, but probably the most outstanding is that of the great value of corn ensilage as a cheap, palatable and profitable food for cows, not only for winter feeding, but for summer use as well.

Shorthorns in the Model Dairy Test.

From the result of the very extensive test made in the Model Dairy at the Pan-American Exhibition, considerable satisfaction may be claimed for the breeders of Shorthorns, whose aim it is to produce that which is in so very great demand amongst those engaged in general farming and dairying—a cow that will produce stock of first-class quality for the export beef trade, and while in milk be very profitable as a dairy cow.

There is very great encouragement, also, to those dairy farmers who in increasing numbers are striving by the use of Shorthorn bulls from the best dairy strains available to retain the milking qualities of their herds while very largely increasing the value for beef of the stock they raise, the advisability of this course being more and more apparent as the already large demand for stockers of good class is increasing. It has been found that the increase in value of the young cattle sired by a Shorthorn bull, when sold, as in most cases they must be, on the dairy farm, because of lack of room on the farm, at about one year old, makes a handsome profit in addition to the milk products.

These farmers, then, have good reason to think they are on the right lines when they consider the showing the Shorthorn cows have made in the most extensive test made in America. Taking the showing of the Shorthorns, the only cows for which—in Canada—is made the claim of dual purpose, as compared with the average of the four dairy breeds we have largely in use in our country, we find the average per cow in the production of total solids, which we presume is most desirable in our great cheese industry, the Shorthorns were only 57 cents less per head in total production for the whole period of six months, which if the gain in live weight, at three cents per pound, be added to each, then the Shorthorns lead with \$13.79 to their credit. If the cost of food be reckoned, the profit would be in favor of the other herds by 65 cents per cow for the same period.

If a difference of one half cent per pound for the increase in live weight be allowed the Shorthorn for superior quality of beef, which is reasonable, the result would again be in favor of the Shorthorns by 81 cents.

Without doubt, in America, for the production of butter-fat the dairy breeds have very large individual records, in excess of those made by the Shorthorns, yet it is with averages the farmer or dairyman has to deal, and it is encouraging that the Shorthorn has made so good a showing.

It was with difficulty cows in reasonable shape for going into a test could be picked up just at the last moment. But, to be sure, all the breeds would have this to contend with, less or



YEARLING SHORTHORN HEIFER, DIAMOND QUEEN.
PROPERTY OF JOHN MORGAN & SONS, KERRWOOD, ONT.

Essentials to Success in Buttermaking.

One of the great secrets to success in securing the best buttermaking results where the old-fashioned shallow-pan system of setting the milk is followed, is that the milk should be set for creaming as soon after being drawn from the cows as possible. As is well known, cream rises most rapidly in a falling temperature, and experiments show that milk which is allowed to become cool before being set never yields so large a percentage of cream as that set directly after being drawn from the cow. The best quality of butter is always obtainable from the cream which first rises, as such cream consists of the larger butter-fat globules contained in the milk, and the larger the fat globules the better the quality of the butter.

more, and we will have to suppose each got a fair average.

Much more attention is each year being given to the development of dairy qualities in the Shorthorns in Canada, and we shall hope before long to see them in the place they have in the dairy shows in Great Britain—at the very top.

There is room enough for all breeds of value, and the farmer will change only when he sees more profit available, and the result of the Model Dairy test gives him a pointer.

The five Shorthorn cows were able to stand a good third in competition with strictly dairy herds, for production of milk solids, and at the same time make a gain in weight of 802 pounds, showing they retain the beefing quality while taking a good place at the pail.

A. W. SMITH.

Superintendent Clemons on the Model Dairy Test.

I may say that, in my opinion, there are two lessons forcibly impressed on the student of the "Model Dairy" figures, viz.: That butter can be produced at a good profit under adverse circumstances when good judgment is used; and "that individual excellence counts for more than breed in cheap production."

I wish it to be remembered from the first, that the Guernseys were, I believe, fitted for eighteen months for this test, while the Canadian herds were selected the last three weeks, before the test commenced, which was a serious disadvantage to them. Taking the Canadian herds individually, the Jerseys were handicapped at starting, in that Rexina of Maple Grove did not calve until May 7th, losing a week's production, while her feed was charged against her for this period.

Primrose Park's Prude, the best cow in the herd, was very erratic at first, fed quite poorly, and seemed to be homesick. I think she had been used to a deal of "fussing and petting" when a family cow. The Ayrshires were a very even and typical herd, the best in the barn in this respect.

Kirsty Wallace of Auchenbrain seemed, in the first part of the test, to be lacking in vigor, due, I think, to excessive forcing.

The Shorthorns were a fairly good lot. Miss Molly, the best one of the herd, was very thin in flesh, and lost considerably in production on that account.

The French-Canadians, who were a surprise party, suffered somewhat from the presence of the miniature cow, La Bouchette, who, though due to calve about Dec. 15th, yet did very well.

Meg, of the Holstein herd, lost through sickness early in the test, and never regained this loss. Inka Mercedes De Kol, who was not four years old till July 26th, 1901, had her third calf in March, and just finished an official test of 14,069.65 lbs. of butter-fat in a week, which was certainly a great strain on a cow before entering a food test. Prof. Robertson picked her as the best cow in the herd.

Hulda Wayne was only four years old on Aug. 20th, 1901; was shipped to the Pan the day after she calved, and yet stood second in the herd, and thirteenth in the grand total. I think this stamps her as a rare good three-year-old. Beauty of Norval, the best one of the herd, was like "Primrose," very erratic at the beginning, refusing to eat ensilage at all. Yet she proved her worth by standing second in total production, and her staying qualities by leading the barn the last month of the test.

The Holsteins and Jerseys were showing the best staying qualities, and had the test been for nine months, would have overhauled the Guernseys.

The Holsteins and Ayrshires plainly demonstrated their superiority for cheesemaking and for the milkman, and had skim milk been taken into consideration in connection with the production of butter, as it certainly should, they would prove themselves equally as serviceable as the Channel Islanders in the production of butter.

I have compiled a table showing the value of the four leading dairy breeds in the production of butter, taking the profit on butter-fat produced, and profit on skim milk at 15c. and 20c. per hundred. It certainly is worth 15c., and many claim the latter figure is more nearly correct. I allow the manure and buttermilk for the labor. In compiling these tables I considered the Holstein and Ayrshire milk as showing 18 per cent. cream, and the Guernsey and Jersey as showing 22 per cent., which I think a fair average. I took the profit on fat, as this credits the cow with all she produces, leaving no losses to imperfect churning, accidents, etc. The churning at the dairy was largely experimental, sometimes almost farcical. It was shown that the cream from different breeds required very different treatment in order to thoroughly separate the butter.

The tables, taking skim milk into consideration, are as follows:

Guernseys	21,159.32 lbs. skim milk, at 15c.	\$ 31 73,	20c. at =	\$ 42 31
	Profit on butter-fat	230 10		230 10
Total		\$261 83		\$272 41
Jerseys	21,019.93 lbs. skim milk, at 15c.	\$ 31 57,	at 20c. =	\$ 42 09
	Profit on butter-fat	225 44		225 44
Total		\$257 01		\$267 53
Ayrshires	27,056.88 lbs. skim milk, at 15c.	\$ 40 58,	at 20c. =	\$ 54 11
	Profit on butter-fat	217 68		217 68
Total		\$258 26		\$271 79
Holsteins	32,192.92 lbs. skim milk, at 15c.	\$ 48 28,	at 20c. =	\$ 64 28
	Profit on butter-fat	210 56		210 56
Total		\$258 84		\$274 94

W. W. CLEMONS.

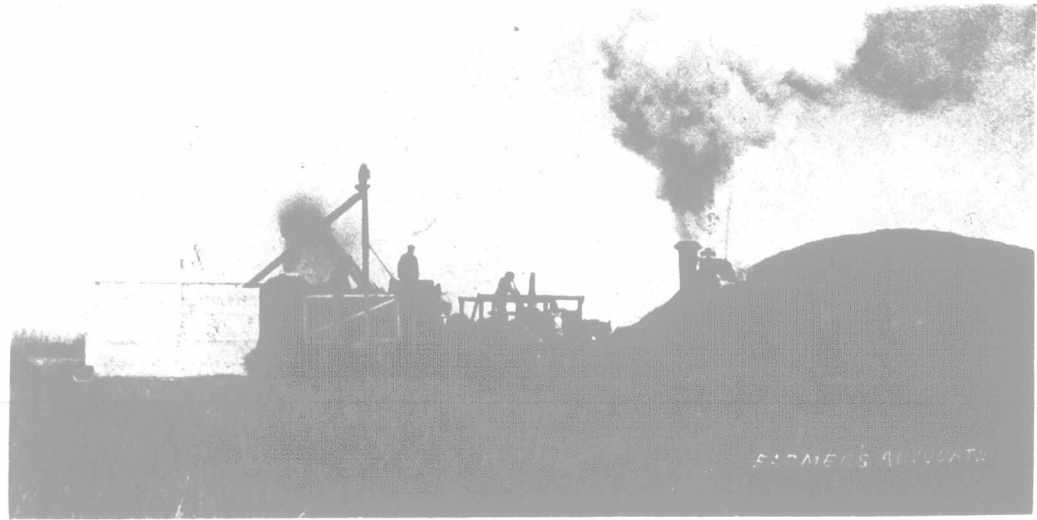
The Farmer's Pocketknife.

The suggestion has been frequently made that we should offer a superior pocketknife, suitable for farmers and farmers' boys, as a premium for obtaining new subscribers to the "Farmer's Advocate." Everybody on the farm wants a good strong knife every day of the week, but for a long time our difficulty has been to find just what suited us in size, quality and appearance, as well as the necessary strength. However, when in England during the past summer, the Manager of the "Farmer's Advocate" visited several of the leading cutlery manufacturers of Sheffield, and finally made an arrangement with Messrs. J. Beal & Sons to submit several samples, and out of these one was finally selected, an engraving of which (being an exact representation of the knife) appears on another page of this issue. A special order was given for their manufacture, and we are now in a position to offer the premium for which we look for sharp competition among our readers everywhere. The handle is beautifully made of the popular metal, nickel, highly polished and strongly riveted, and the blades are of the finest steel, every knife being fully warranted. A duplicate of this knife cannot be obtained in Canada or the U. S., and being nickel-plated, and the name "Farmer's Advocate" being stamped on the side of the handle, makes it conspicuous and easily identified. It is by all odds the handsomest and most valuable pocketknife ever offered in this way, and one may be secured by sending us the names of two new subscribers to the "Farmer's Advocate," accompanied by \$2. Send in the names and the cash at once, and the knife will be mailed you, securely boxed and postpaid.

Large Farms and their Management.

THE SENATOR PERLEY ESTATE.

Big yields of grain are the distinguishing features of the wheat farms of the Territories, farms which, on the average, have a bigger acre-



THRESHING OUTFIT ON FARM OF SENATOR PERLEY, WOLSELEY, ASSINIBOIA. SPOUTING THE GRAIN DIRECT INTO PORTABLE GRANARY.

age than those in Manitoba. A few miles, north and west of Wolseley is the farm of Senator W. D. Perley & Sons, comprising 4,320 acres, the major portion of which yet remains unbroken. The crop this year yielded 14,000 bushels of wheat and 6,000 of oats, all of which is stored in portable granaries, into which the grain is spouted right from the machine. There are 15 of these granaries, each 14 feet square and 9 feet to the plate. Two of the joists are longer than the building and serve to attach a pair of wheels at one end and a large roller to the other, by means of which, when emptied, they are drawn off the land. Senator Perley has his own threshing outfit, a 32-inch Case separator with blower, band cutter, and high bagger, which is run by a small-sized traction engine. In the spring the stubble is burned off and the seed put in with a disk drill, harrowed, and again harrowed after the grain is up. The rotation adopted is to break and take off two crops, then plow, take off a crop, seeding down to grass with the last grain crop. Four-horse teams are used for all the implements, the work done calling for the employment of about forty horses. As the farm consists of prairie and rolling land, broken occasionally by ravines, some of which are dammed for the water supply, it is suitable for stock-raising purposes. One hundred head of cattle are kept, of which forty cows are milked, their product being worked up into a first-class article of butter, which is furnished to the C. P. R. dining cars at 25 cents a pound. The creamery is a well-equipped one, 22 feet square, power to operate being got from a one-horse tread. At the time of our visit plans for large barns were in course of preparation, stone and other building materials being accumulated. One basement stable is 136x53 feet. The cows are fed hay and grass, no grain; steers are sold off the grass at 2 1/2 years old for \$30 apiece, their first winter's ration being hay. The second winter's straw. In addition to the other crop,

1,000 bushels of potatoes were harvested; in potato cultivation, up-to-date implements are used, planters, cultivators and diggers. Many bluffs, in which are sloughs, give variety to the farm landscape, and in order to preserve them, they are brushed well out on the inside, Bromo grass being sown around the outside. Senator Perley is a New Brunswicker, and started life on the prairie at an age when some men are supposed to retire from active duties. Speaking of the prospects for money-making on Western farms, Mr. Perley states that a yield of 10 bushels of wheat to the acre at 50 cents per bushel pays the cost of growing. On the Perley farm wheat averaged slightly over 38 bushels to the acre.

With your renewal send one or two new subscribers to the "Farmer's Advocate," and earn a valuable premium.

A Notable Milking Record.

There are few finer herds of dairy cattle in England than that kept at Tring Park, where a specialty is made of developing the milking properties of the stock and where careful records are kept from day to day of the performances of the animals comprised in the herd. The breeds kept comprise Red Polls, Jerseys, and Shorthorns, and during the year ending with the closing week in September the herd contained 43 Red Polls, 36 Shorthorns, and 31 Jerseys, all of which had been in the herd for the whole year. In addition to these, a number of cows and heifers were also purchased during the season; for the latter separate returns had been kept. The milk record of the herd for the past year has just been issued, and it shows that the 43 Red Polls kept produced an average of 680 gallons of milk, the 36 Shorthorns an average of 650 gallons, and the 31

Jerseys an average of 630 gallons during the twelve months.

The best average yield in the case of the Red Polls stood to the credit of an eleven-year-old cow which was on her eighth calf and which, during the 306 days over which her period of lactation extended, produced 1,080 gallons of milk, or an average of over 3 1/2 gallons per day. Another, an eight-year-old cow, which had been in milk for 201 days, produced 699 gallons of milk, or an average of about 3 1/2 gallons per day; while a third which had been in milk all through the year produced 1,180 gallons, or a daily average of about 3 1/4 gallons.

The best of the Shorthorns had to her credit the very fine yield of 1,160 gallons of milk in 320 days, or an average of over 3 1/2 (32.26) gallons of milk per day. Several of the other cows of this breed produced on an average over three gallons of milk per day, but their net average fell slightly short of the fine performance of the Red Polls.

Quite a feature of this milking record is the good show made by the Jerseys. As a breed, Jerseys are noted more for the quality than for the quantity of the milk produced by them. An average yield of 630 gallons per year over a whole herd of 31 must, therefore, be considered very remarkable. One of the Jerseys in this herd gave the great yield of 1,050 gallons of milk in 324 days, or an average of about 3 1/4 gallons per day for a whole season. This is by far the best performance for a cow of this breed that we have come across for some time. The cow which gave this fine yield was calved in 1888 and has produced no fewer than 12 calves, so that she affords an admirable exemplification of the force of the old saying that the good breeder is usually a good milker.—Farmer's Gazette.

The Manufacture of Beet Sugar.

(Continued from page 703, Nov. 20th issue.)

Of late we have heard a good deal about beet-sugar factories, and the one thing more than any other which has struck the most of us has been the immense cost of the plant. From half a million to \$800,000 that it costs to build and equip a factory seems a vast sum to spend for the carrying out of a simple process. No one, however, who has seen one of these factories will wonder at their costliness. They are immense structures of brick, with steel framework and cement floors, scarcely any wood being used in their construction. The costly vats and evaporating pans, diffusion cells, carriers, driers, etc., are all on a gigantic scale.

There are three main divisions in a sugar factory: the beet sheds, the factory proper, and the lime kiln. In some cases there is a fourth—a cooper shop, where the sugar barrels are made. Usually each of these divisions is in a separate building. A beet shed is a long, low building, with several driveways, on either side of which unloading can be done, besides one or two tracks for cars. When empty, 80 or more team-loads can be unloaded at once. Capacity, 10,000 tons and upwards. The beets are floated from the sheds to the factory by water running in narrow sluiceways. They are then washed in warm water by machinery, elevated to the top floor, automatically weighed and dumped into the shredder.

The shreds are about the size of a large straw. They are conveyed to the diffusion battery, a long row of steel cylinders, where 95 per cent. of the beet juice is washed out by the forcing of warm water through the shredded beets. The liquid is then mixed with lime, and carbonic acid gas passed through it. By this means the impurities present are rendered insoluble and are extracted by filtering. After being treated with sulphur fumes to further purify and bleach it, the liquid is boiled down. This is done in vacuum pans, the heat being applied by steam pipes passing through. Upon leaving the last vacuum pan, the mass, partially crystallized, is passed to the crystallizers, where the process is completed as far as possible. The sugar and molasses are separated in the centrifugals. These resemble immense cream separators, except that the walls of the bowl are of fine wire gauze hooped with perforated steel, through which the molasses flies, leaving the sugar inside. The sugar is then dried and barreled. In 18 hours from the time the beets enter the factory the sugar drops.

The lime kiln needs no description. When asked why they did not buy lime already burned, the answer was that they not only wanted lime fresh, but it must be burned in a special way. At Bay City the limestone used is brought from a distance by train, as only limestone of a certain purity will answer.

A 1,000-ton beet-sugar factory requires each day over five million gallons of water, and in a season of 150 days, 22,000 tons of coal, 2,500 tons of coke, and 9,000 tons of limestone. The working season, called the campaign, begins about the middle of October, and except for two or three stops to clean up, or a break, continues night and day, Saturday and Sunday, for 100 to 150 days. The daily output is about 800 barrels of refined sugar. No other kind is sent out. In working over molasses, brown sugar results, which is again refined to the desired grade.

The waste products hitherto have been pulp and molasses. The pulp has been allowed to accumulate and rot; the molasses run into the river. This waste will not long continue, however. One factory-owner said that in a few years' time they expected to make enough out of their waste to run the factory. When asked why the farmers did not haul away the pulp for stock food, he said: "Because they're no good. That's why." A milkman near Bay City, who keeps 13 cows, uses it regularly. He gives to each cow about three bushels per day, and finds that it saves his hay, increases his milk yield, and has no bad results. The molasses, a certain remainder of which it has been found impossible to crystallize, is now being bought up by a firm which is building a large factory for the manufacture of alcohol from this by fermentation and distillation.

Four years ago the first beet-sugar factory in Michigan was built; now there are 13 in operation, four more contracted for, and several projected. The first factories had a capacity of 350 to 450 tons of beets per day, now there are none less than 600 and most of 800 tons capacity. There was considerable trouble and several months delay before the capital for the first factory—which was built in Bay City—was secured. Amounts of \$1,000 and even less were accepted. When the second factory—also in Bay City—was projected, capital \$500,000, a million dollars was offered in one evening.

There is no question of the popularity of the beet-sugar industry among the farmers and capitalists of Michigan. Whether it will meet with the favor in Ontario remains to be seen, and will be known very soon. One important factor in the question is the price given for beets, which while the conditions continue must be lower here than in the States. Owing to tariff regulations,

sugar is cheaper and coal dearer in this country. The Michigan farmer receives this season \$4.50 per ton for beets 12 per cent. standard. The price in Ontario in contracts already made is \$4.00. On the other hand, much more use would be made of the pulp here, and while our climatic conditions are similar to those of Michigan, the soil is, we believe, superior, and certainly as farmers our people are not willing to take a second place to anything on the continent.

If your renewal subscription to the "Farmer's Advocate"—the handsomest and most helpful paper published—has not been remitted, please do so at once.

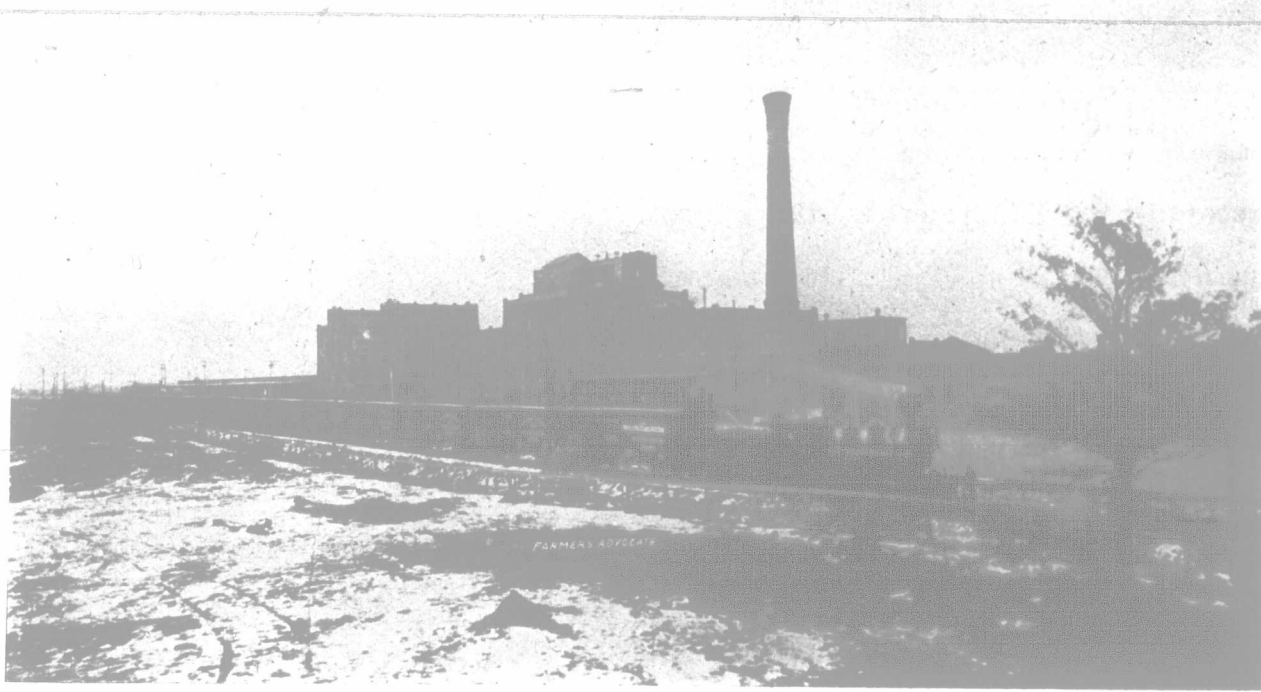
Sheep and Shepherds.

BY J. M'CAIG.

There are two principal causes or sets of circumstances that make differences in sheep. The first set of circumstances embrace conditions of soil, climate and elevation which, acting in combination, evolve and preserve classes of sheep differentiated from those of places with a different set of physical conditions. Great Britain has been peculiarly fruitful in the production of many differentiated and contrasted breeds. Classified on the basis of differences due to physical causes, British sheep are frequently designated as the plains, upland, and mountain breeds. This classification is almost equivalent to a classification on the basis of weight, for, generally speaking, there is a gradual decline in weight from the plains sheep that feeds on fat pastures to the mountain sheep that travels far over rough ground for a scanty bite. It is important to appreciate the differences that arise from physical circumstances. Heavy breeds of sheep are not naturally the best

are the choosing of sires, the culling and selection of ewes, and the character and quantity of both summer and winter feeding. It is by reason of the care in some cases and absence of care in others that we have such diversities in the character of the sheep flocks of the country. One man may be a first-class feeder, and know little about breeds. Such a shepherd will have a flock of strong sheep of mixed character and countenance: some of approximately correct long-wool type, Leicester or Cotswold, some bald and some with nice frontal lock. Others will be mixed Cotswold and Leicester, with something of Leicester face, but with a bunch of foretop added to it. Others will be mottled in countenance, the product of a South-down, Shrop. or Oxford ram on the long-wool ewes. And others, again, may show a couple of crosses of the dark-faces and be pretty nearly uniformly brown in face and be smaller and more densely coated than others of the flock.

Another shepherd may be strong on the breeding side and be a poor feeder (though this is not as common as being a good feeder and poor breeder). He may fancy the Cotswold, and have a well-fleeced lot of ewes of good blood and markings, but that are not kept up to the right weight. The wool parting on the back will be rather too evident by reason of the back not being covered with flesh. Want of generous feeding shows faster on the heavier breeds than it does on the middle-weight sheep. Many a man has become enamored of blood in both cattle and sheep, and has backed his faith by paying fancy prices for improved stock, but grows nothing but scrags and runts. It is always safer for a man to begin small and with stock of moderate cost, unless he excels in the matter of care and management. If a man has to learn both feeding and breeding at the same time, high-class stock is almost sure to deteriorate with him.



BEET-SUGAR FACTORY, BAY CITY, MICHIGAN.

for a hilly, scant farm, and the man who introduces such a breed into such an environment will find his stock deteriorate. They will cease to be good types of the breed chosen.

The second set of circumstances operating to make differences in sheep are care and management. A wild animal carries a rather fixed and constant set of qualities and properties. It does not vary much from generation to generation, and having seen one specimen of a particular class of wild animal, you can readily recognize the species any time afterwards. If there are differences among the same species, these are due to physical causes alone. The task of transforming and improving a wild animal is slow and difficult at the beginning, but every change makes further change easier than the last one. The sheep is already a highly-improved animal. Compared with cattle, the only other meat animal of similar habits and physical organization, the elimination of offal has been greater in the case of the sheep than in the case of the cow. Sheep being, then, the embodiment and fruit of considerable art, their susceptibility and impressibility are very great. They have, so to speak, an acquired habit of easy change. This is a blessing to the skillful shepherd and a bane to the shiftless one. There will always be plenty of work and good pay for the former class of men in repairing the injuries and losses worked on our sheep stock by the latter class of shepherds.

To a great many men a sheep is but a sheep, and it is nothing more. There is little or no discrimination except in the broadest and most obvious features, such as those of color, size, and congested properties of fleece. But the differences due to differences in care and management are very striking even in the same breed. The matter that is under the control of the breeder

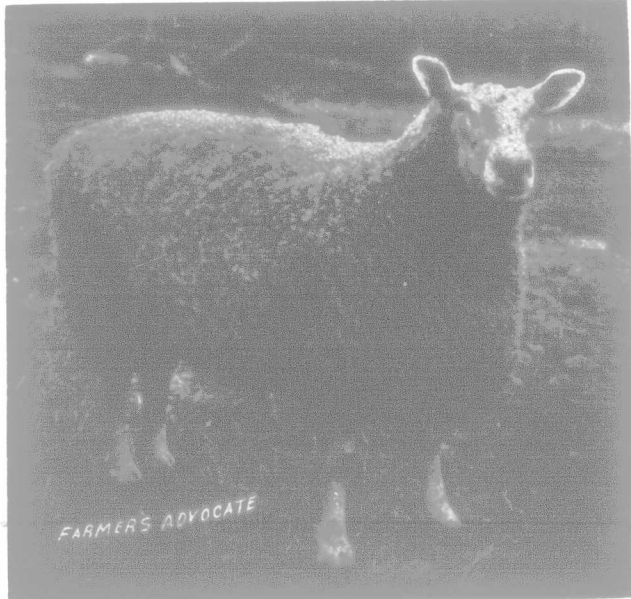
Besides the man who knows breeds, but not management, and the one who knows management and not breeds or breeding, there is a third class, who do not know either one or the other. This class of men is the class that hopes to get bread by some other way than the sweat of their brow, and who are looking to get something out of their sheep without putting anything in. Their sheep are usually a bunch of run-out, mixed, grade long-wools, with long legs, light bodies, and kempy, neglected coats. They are usually allowed to run on the road. The ram with them is oftener cross-bred than pure-bred, the lambs are neither docked nor castrated. How easy it is, after seeing sheep in all classes of environment and circumstances, such as the rape field, the ranges, the roadside, and the exhibitions, to exactly know the kind of man the shepherd is for care and management throughout the year. On the basis of a survey of a flock, shepherds might be divided into four classes:

1. The class that illustrate almost total neglect with respect to both breeding and feeding.
2. The kind that feed well, but have little knowledge of breeds, and so have not evolved an ideal or favorite sheep for themselves. Such men usually despise books and agricultural papers, and fail to recognize that facts are facts, whether they are recorded in books or gained from experience.
3. The kind that know something of breeds and breeding, and that talk a good deal, and leave the care of the flock to someone else. Professional shepherds are almost unknown in this country, apart from owners, and it very rarely happens that anyone can give the fullest satisfaction to the fastidious sheep-owner. The opportunities are larger for the workingman here, compared with what they are in the Old Land. On account of the larger available areas of free lands, it is easy

for any man to become a proprietor on his own account.

4. The last class of shepherds is the lot who are at the top of their business in both breeding and feeding; who know their favorite breed in every detail, and who know other breeds pretty well besides, and recognize in them excellencies on a par with the excellencies in their own, but suited to different circumstances, uses and environment. They are always open for information from books, papers, their neighbors' experience, and are, above all, awake to the excellencies, defects and peculiarities of their own breed and flock. It is to this last class that the higher task of selection and improvement of the general sheep stock of the country specially belongs. They are afraid to sell a bad sheep, and prize the patronage of old customers.

To which class do you belong?



DAISY OF HIGHFIELD.
Typical Leicester ewe. (See Gossip, page 753.)
BRED AND OWNED BY J. M. GARDHOUSE, HIGHFIELD, ONT.

Jerseys in the Pan-American Dairy Test.

In my opinion, the value of the test to the ordinary dairyman and farmer has been over-estimated, owing chiefly to the fact that no true test of a cow's capabilities can be made in a shorter term than one year.

The rule of 9c. a pound for total solids is not a just one, as the solids in milk containing 5 per cent. butter-fat are worth more than that in 3-per-cent. milk, thus discriminating against the richer milk.

This short-term test, however, has confirmed some well-known facts:

1. That there are two distinct classes of cows—the beef producers and the butter producers—and you cannot profitably have the two qualities combined in the same animal.

2. There is a great difference in individual members of the same breed. Dairy men should keep an accurate account of the milk produced by each cow, making frequent Babcock tests.

Taking everything into consideration, Jersey breeders need not feel disappointed at the outcome of the test. The cows in the test are somewhat below the average, owing to the fact that wealthy Americans buy up all high-testing Canadian Jerseys as soon as they hear of them. I have orders now from several breeders on the other side for any large producers I can find. It was therefore a very difficult matter for Mr. Elderkin to secure high-class cows that came in just at the right time. They had no preparation whatever: two had been milking since March 1st, one of them being in calf when the test opened and another due to calve the second week of the test. This last-mentioned cow did not seriously get down to work until the last month. On the other hand, everything natural and artificial, even to the placing of the electric fan at a certain angle, combined to the best interests of the Guernseys.

The thanks of Canadian breeders are due Mr. Elderkin and his associates for their untiring efforts to further the best interest of our stock at the Pan-American.

R. REID.

We have frequently referred in these columns to the highly absorptive properties possessed by milk, and the danger of contamination when milk is so placed that injurious odors of any kind are allowed to come into contact with it. For this reason dairy farmers and cow owners generally should make arrangements for having milk removed from the stables as soon as possible after being drawn from the cows. This is especially important at this season of the year, when the animals are housed, and when, owing to a variety of obvious reasons, the risk of contamination is considerably greater than during the summer or autumn months.

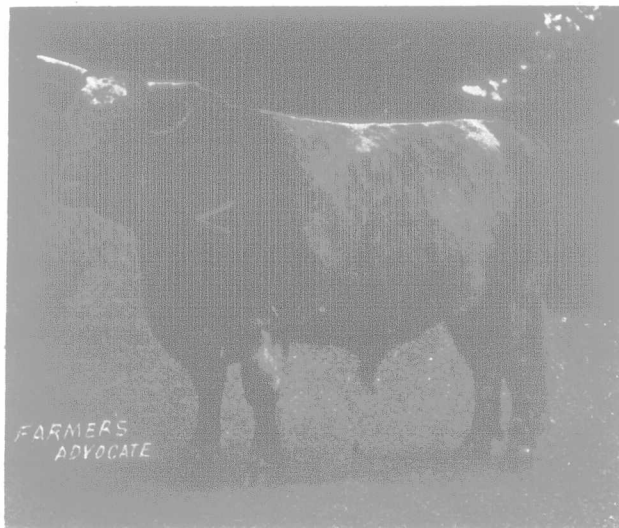
The Ripening of Cream on the Farm.

There is more butter spoiled on the farm by having the cream improperly ripened than from any other cause, as the flavor of the butter is made before the cream goes into the churn. Cleanliness, of course, is also of great importance. As a rule, the farmers' wives keep their milk and cream clean enough; but that is not the only item of importance. The ripening of the cream is of equal if not of greater importance than the eternal vigilance that is needed to keep perfectly clean all vessels that come in contact with the product.

Some may think that I lay too much stress on this subject of ripening; but I do not think so, from what I have seen of the quality of butter made by housewives that are clean and careful to see that foreign substances or dirt does not get in. And then, not knowing anything about the varieties of bacteria their cream contains, they proceed, innocently enough, to help the bad ones on with their work of multiplying by making the conditions favorable for their growth. This is done by placing the cream crock or pail in a warm place, usually beside the kitchen stove, and keeping it there from the first or second skimming to the last, to let it sour or ferment enough, as I heard one woman say.

As a rule, there is nothing so very offensive about the butter made by these good women, while it is fresh; but it distinctly lacks that fine, delicate flavor that can so easily be obtained by using a good lactic-acid starter or culture. Any cream that has not been pasteurized contains both good and bad bacteria. These left to themselves will do the work for which they are adapted. The good ones, or lactic-acid bacteria, will do their work of souring or ripening the cream; but during this process the bad ones have not by any means been idle, and the result is a bad-flavored butter.

On the farm, of course, we cannot readily obtain a culture that is just right in all respects; but with a little care and good judgment we can



BARON ABBOTSFORD 76087.
Two-year-old Shorthorn bull, winner of first prize, Royal Show, Cardiff, 1901. (See Gossip, page 751.)
PROPERTY OF MR. WM. BELL, ALNWICK, NORTHUMBERLAND.

easily secure one that answers the purpose very well. Some people make a practice of using buttermilk to ripen their cream, but I find that the flavor is not as good as it is when I use thickened skim milk which has a good clean acid flavor. It is worse than useless to use a culture that has not a good flavor, so be very careful what you put in your cream. Twenty-four hours before churning, I skim about one inch from the top of my culture (as that portion is very likely to contain undesirable germ life), and then break the remainder up as fine as possible before adding it to the cream, so that it will mix more readily.

Now, how much culture shall we use? This largely depends on our circumstances. I use about one pint of culture to a quantity of cream that produces from seven to eight pounds of butter, and raise the cream to 65 or 70 degrees by placing the can in a pan of hot water, stirring it constantly until the desired temperature is reached. If you wish to ripen your cream in less time, use more culture and raise your cream 5 or 10 degrees higher. On the other hand, if you wish to take more than twenty-four hours in which to ripen it, use less culture, and keep it at a lower temperature. By evening the cream should be slightly thickened. I then give it a thorough stirring, and place it where the temperature will fall to 50 degrees Fahr. or lower, to check the formation of more acid, as too much acid is injurious to the flavor of the butter.

In the morning your cream will have a thick, smooth, glossy appearance, and a pleasant acid taste. When you have cream in this condition, it is a very good plan to add a pint or two to the cream you are gathering for the next churning; keep it cool until you have sufficient gathered, and the day before you churn, warm it to that as described above. This method can be practiced

from one churning to another very satisfactorily as long as the flavor keeps right; but if it shows any signs of going wrong, make a fresh start with a skim-milk culture.

By the way, how many readers of the "Farmer's Advocate" agree with the methods of handling butter described by "Farmer's Wife," in an article on "Home Buttermaking," in August 20th issue? I have watched these columns for some time, hoping to see some comment on the article referred to; but as none has appeared, I would like the privilege to make a few remarks.

What surprises me most of all is the many operations "Farmer's Wife" puts her butter through to remove the buttermilk. Now, if her butter is in the granular form, as it should be, when she puts the salty water on, gives the churn a few turns and draws the water off, repeating this operation until the water comes off clear, the buttermilk must be removed. But she goes on describing her method of dressing the buttermilk out: after this is completed, she proceeds to wash it. There are three things I would like to know:

First—Where does the buttermilk come from that she dresses out?

Second—If she dresses it out, what does she wash it for afterwards?

Third—How does she keep the butter from becoming greasy, when she puts it through all of those operations?

DAIRY MAID.

The busiest season for the "Farmer's Advocate" staff is approaching, and you will confer a favor by prompt renewal.

Individual Effort.

We appeal to the readers of the "Farmer's Advocate" in a matter of mutual concern. At this season of the year time is an important factor, but during the latter part of December, when the rush of renewal subscriptions is on and His Majesty's mails are overtaxed with the carriage of holiday literature and gifts, it becomes still more serious. During the year now nearly gone our first and constant aim has been to render our readers individually and the cause of agriculture in general the very best and most helpful service possible. The way in which the cordial appreciation of our readers has poured in by every mail has made our work a pleasure and has decided us to attempt still larger and better things for 1902, beginning with a magnificent Christmas number (to be issued on December 20th), which goes without any extra cost to all our subscribers. All new subscribers for 1902 are also entitled to a copy until the extra supply being printed is exhausted. We therefore confidently request the co-operation of all our old subscribers to facilitate our work at this busy season by promptly attending: 1st, to renewing. Do that



BUTTERCUP'S PRIDE.
Yearling Shorthorn bull.
PROPERTY OF MR. WM. BELL, ALNWICK, NORTHUMBERLAND.

without delay. RENEW NOW. Your subscription will be dated from the present date of expiry, so you cannot lose, and it will aid us and our staff wonderfully. 2nd. Along with your renewal, or by an early subsequent mail, can you not send us in one or more new subscribers, and in that way secure some of the valuable premiums we are offering? You may have some neighbors who would enjoy the reading of the "Farmer's Advocate" regularly, but who heretofore have not been subscribers. You may benefit yourself, them, and us by sending in their subscriptions for 1902.

THE WM. WELD CO., Ltd.
Winnipeg, Man.

Advantages of Cream Separators.

A number of letters having been received at this office desiring information regarding the advantages to be derived from the use of the cream separator over the older-fashioned methods of creaming milk, we publish herewith the statements of a number of farmers and farmers' wives who have had experience with the separator, giving their opinion, and their reasons for the same.

FIVE YEARS' EXPERIENCE WITH SEPARATOR.

I have used a separator for over five years, and I would not part with it if I could not get another.

I think a farmer would be safe in getting a separator if he had from 7 to 10 cows, for which a hand separator would be sufficient with a capacity of 25 gallons per hour.

I consider the power separators the better. As for myself, I have been using the horse tread-power, which is a three-horse power. I only use one horse for running the milk, and the power can be used for cutting feed or grinding grain. I think if I were getting again, I would get a gasoline engine, which would run it steadier.

I consider that with the separator I get more of the cream off the milk, sweeter butter and more of it, and it commands a better price in the market.

Unless it is run perfectly smoothly it will not do its work properly. We have never used any but the regular separator oil, and we have never had any trouble. I have put some on, more or less as needed, every time it is run. For cleaning the bowl, after the new milk, we run through about 1 quart of skim milk, then (in the winter time) about 2 quarts of boiling water, which is put in after the power is stopped and while it is vibrating. In the summer time we use cold water. Then, we have a regular brush for cleaning it with. For the tinware, they are first washed with cold water, then scalded.

We never had any testing done, but there is no cream rises on the skim milk when it is left standing.

We merely turn a screw in the bowl of the separator one way to thicken, the other way to thin it.

We have an Alexandra separator, number 71, which, I think, is the most durable, easiest handled and easiest cleaned of any which I have seen. Any boy is able to handle it.

Robert H. Judd.

CLEANER AND QUICKER CREAMING.

I consider that any one having 8 to 10 cows will be fully justified in investing in a separator. I have used a National hand separator for the 9 cows I milked this year with entire satisfaction and would not think of going back to the old system of creaming by gravitation. I have milked the 9 cows and separated the milk myself all within 2 hours. A hand separator is sufficient for handling the milk of 15 cows, and perhaps more. I have had no experience with power separators. Among the advantages of the separator over other methods of creaming milk are that it is cleaner and quicker, and that more cream can be gotten from the milk, as (especially in warm weather) it is hardly possible to get all the cream by setting it either in deep cans or shallow pans. Another advantage is that you have the milk sweet and warm for feeding to the calves, without the labor of carrying it to the house, heating it, and carrying it back again to the barn.

For best results I find that the separator should be run a little faster than the agents state is necessary. I use separator oil, adding a little coal oil if it gets thick or does not run freely. For cleaning, I take out the inside of bowl and clean thoroughly immediately after using each time, first washing with warm water, using a brush, and then scalding it with hot water and drying it. I have had no test of the skim milk made. For securing a thicker cream when cows are in flush of milk, I turn the screw down one turn, and I find that the butter comes quicker when the cream is thick. For thinner cream, when cows have been longer in lactation and giving less milk, open the bowl a little by turning the screw back. I think it is important that the cream gathered for a churning should be well mixed and then allowed to stand at least 5 or 6 hours before churning.

Mrs. Joseph Robson.

HAND SEPARATOR SUFFICIENT FOR 15 TO 20 COWS.

In my opinion, any farmer keeping five good cows and manufacturing their milk into butter the year round, cannot afford to be without a separator. A hand separator is sufficient for 15 to 20 cows if its capacity is 25 to 30 gallons per hour.

I have had no experience with power separators, but I always have considered that tread power would be much harder on a separator than hand power.

The principal advantage of a separator is skimming more cream out of the milk than by ordinary practice, but it is also a great advantage to be able to feed the milk to calves, etc., without any further trouble—carrying, skimming, heating, etc. Always run separator at as high speed as the printed instructions allow, being sure to have the milk at about the same temperature as it came from the cows, even if it be necessary to add a little hot water in very cold weather. It is a good plan to warm the bowl before starting with a little warm water. I have always used a rather light oil, applying just a little each time before using.

We have never had the skim milk tested for butter-fat, except to set it in creamers and put it in cold water, to find out if we were losing any quantity of cream. Sometimes there would not be any sign of cream; other times there would be, I suppose this could only be accounted for by the milk being run through at too cold a temperature or at too slow a speed, or perhaps both.

My practice of regulating the thickness of the cream has been to increase the inflow of milk for thin cream or decrease the inflow for thick cream.

I would like to say further, while I have never regretted getting a separator, yet there is work in connection with it that needs to be attended to regularly, and that by the male portion of the household. Persons who can wholesale their milk or send it to a good cheese and butter factory 9 or 10 months in each year, can perhaps make nearly as much money, considering their outlay and labor, as if they had a separator.

R. H. Harding.

bowl, and for cream 22 to 26 per cent., turn it one turn out of the bowl.

I have always used the Alpha separator and it has given me entire satisfaction. I use a No. 3 Alpha with a tread power for from 50 to 60 cows.

P. H. Lawson.

A SEPARATOR FOR SIX COWS.

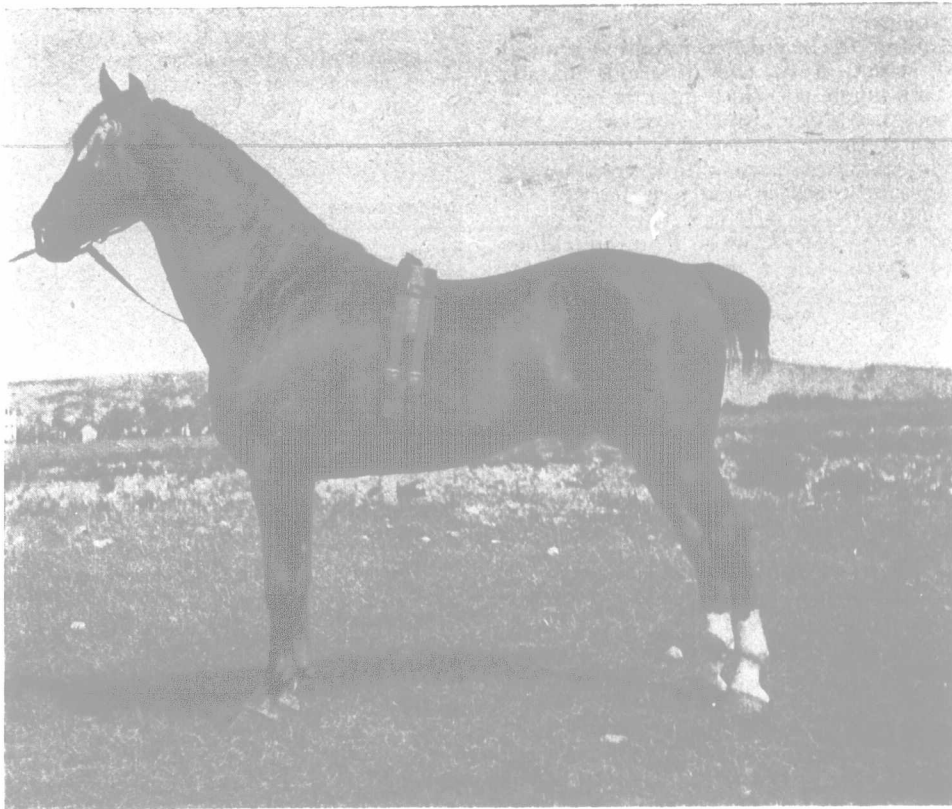
I think a separator would pay a person keeping six cows. A separator might be operated by hand for as many as ten cows, or say from 325 to 450 pounds per hour.

I prefer a hand separator for up to ten cows; a power for more, but cannot suggest what power to use. The advantages over pans are a more even cream is obtained, also a greater quantity; no heating of milk for calves, and it is always sweet. Over the creamer and ice; the increase in quantity is not so great, but it saves the heating of milk for feeding and the milk is fed at an even temperature.

Every separator has to be run at the speed required by that make of separator. The motion must be even and the milk must not be allowed to pass into the bowl till speed is up and must be kept as nearly at that speed as possible while separating.

Pure separator oil, with half coal oil, is applied to all the bearings every time it is used. Flush out once a week with coal oil, and wash the bowl in lukewarm water and brush with brushes for that purpose, and when thoroughly washed scald and wipe dry.

Have had samples of milk tested by Babcock test, but set a pan to see if any cream rises.



ROBIN ADAIR II.

Winner of the challenge cup as best Hackney stallion, any age, at the New York Horse Show, 1901.
PROPERTY OF MR. ROBERT BEITH, BOWMANVILLE ONT. (See report on page 738.)

EXPERIENCE WITH TREAD-POWER SEPARATOR.

I consider that ten cows will warrant any farmer in using a separator. I think a hand separator may be used satisfactorily with 25 cows. A No. 2 Alpha will skim from 350 to 400 lbs. per hour.

For more than 35 cows I prefer a power separator. I have a tread power which has given good satisfaction. I run belt to a shaft and then to the separator to stop any jar that may be caused by the running of tread power.

One great benefit or advantage of the separator over other ways of skimming milk is that it takes far less time to take care of the cream than it does of the milk, and the skim milk is always sweet and warm for the calves, and 20 per cent. more butter will be made with a separator than without it, and the cream has a far better flavor. Care should be taken to not start the separator too quickly, to always allow it to stop of its own accord, and to maintain a regular speed during operation. I use separator oil with good satisfaction, oil always before starting and while running if necessary.

I run a little hot water through when I am finishing up, and find it removes the milk and cream and makes it much easier to clean. I wash the separator immediately after using and dry every part thoroughly, and find no trouble in keeping it clean. A little sal soda in the water helps to make it easier to wash.

The skim milk tests about one-twentieth of one per cent.

For skimming cream from 35 to 40 per cent., I set the screw one turn in past the flush of the

Every separator is supposed to be set to skim properly before leaving the factory, and if a thicker cream is desired turn the cream screw slightly to the left, and if thinner turn it to the right. I run a thicker cream than set at the factory (11 lbs. butter from 35 lbs. cream). Have animal heat out of cream before adding to what you have, and stir thoroughly when adding it. Cream must not be churned in less than 24 hours after the last has been added (I think it is better if left 36) and not till cream is well ripened, as quantity of butter is less.

John Waugh.

SATISFACTORY EXPERIENCE WITH SEPARATOR.

A hand separator of 300 lbs. per hour capacity would be sufficient for 8 to 10 cows, and one with a capacity of 500 or 600 lbs. per hour for 20 cows and up.

We have used a power separator of 600 lbs. capacity for eight years; have run it with a tread power all that time, and both have given the best satisfaction. The advantages of the separator are saving of time between the cow and the churn, sweeter and cleaner cream, close skimming, a saving of at least 20 lbs. of butter per week on a herd of 20 cows. The operator should run the machine exactly the number of revolutions per minute required by directions. Oil all the running parts each time the machine is used with the best quality of separator oil, and clean the bowl with a brush made for the purpose.

We test skim milk occasionally, and find that 1-20 to 1-10 of 1 per cent. is very good, close work. We prefer to have the machine set to make

moderately thin cream for buttermaking. Always fill the bowl full of clean warm water before starting to get up speed, then when the milk is turned on the water escapes into the skim-milk can. W. C. Shearer.

THE SEPARATOR A LABOR SAVER.

Regarding the advantages of a cream separator, I would say that a good deal depends on the people as well as the number of cows. If they don't take much interest in the making of butter, and there is only one person as a usual thing to milk the cows, they are better without one, but if the farmer as well as his wife is willing to be on hand at milking time, or two of the family, then five or six cows would warrant them in getting a separator. One of the large hand ones will easily handle the milk of twenty cows. Have seen a 500-lb.-per-hour machine separate the milk of twenty-five cows. There are machines of that capacity which are quite easily run and which separate clean. Have not had any experience with a power, and for at least twenty cows would not be bothered with one. There are quite a few advantages over all other ways of skimming milk. First, I would mention the increased number of pounds of butter to be had. Our experience is that with an ordinary cow one pound a week more can be got. Another is the excellent condition of the milk for calves and pigs. Then, again, perfect control of the cream can be had if ice is used, and then a better quality of butter can be made. Perhaps at this point it would not be out of place to mention that a great deal depends on the handling of the cream for the making of good butter and for getting all the butter out of it. The separator also saves a great deal of work.

Any one thinking of buying a machine should make a careful selection of the different makes, and not trust too much to what agents say, but have them tested at home and know what you are doing before buying.

The separator that we have skims very clean. With an ordinary milk tester one can hardly see a trace of butter-fat in it, so little that we can't estimate it. I have tested milk from machines that did not do so well by a great deal. In setting up the machine a good foundation is necessary. A solid block of wood set in the ground about two and one-half feet and the hole filled up with alternate layers of stone and gravel well pounded in, makes a good one. See that the machine is perfectly level and solid, so that it will not shake while working. Don't get a cheap oil, but get the best hand-separator oil to be had. Have found that the oil used in a large power separator is too heavy for a hand machine. It makes a great difference in the easy running of it. With each machine there are directions about the number of revolutions per minute, and it is best to stick to the rules about the speed and regularity pretty closely, as that makes a difference in the clean skimming of the milk and for getting a uniform thickness of cream. The right thickness will be found after ripening the cream. If too thin it will be thicker at top than at the bottom; if too thick you will not be able to stir it properly. Each machine has a set screw to regulate the thickness of the cream. About the right thing is a little thicker than the deep-setting system.

We have not much trouble in washing the parts. Use stiff brushes for cleaning, occasionally using a little soda in the water. In conclusion, I would say, make a careful selection of machines and then go ahead, and don't be discouraged over a few failures, and you will never regret buying a hand separator.

Arthur W. Baty.

Canadian Winnings at New York Horse Show.

At the New York Horse Show at Madison Square Gardens last week, in unusually strong competition, the few Canadian horses entered were successful in winning a number of very important awards, prominent among which was the record made by the Hackney stallion, Robin Adair II., owned and exhibited by Mr. Robert Beith, ex-M. P., Bowmanville, Ontario, who was given first place in a great class of aged horses, and later in the week captured the sweepstakes challenge cup, valued at \$1,000, for the best Hackney stallion of any age in the show, a magnificent achievement, considering the brilliant company in which he competed. Robin Adair II. is a chocolate-chestnut in color, with white hind feet; 16 hands high, and weighs 1,300 lbs. in working condition. He was sired by Rufus, and his dam, Fantail, was by Denmark. He was imported by Rawlinson Bros., Albertá, N.-W. T., as a yearling (at which age he was a prizewinner in England), and was used in their stud extensively. Mr. Beith, while making a tour of the Northwest last summer, saw him shown in lean condition at the Calgary show in July, where he won the championship, and recognizing superior merit in the horse, purchased him and a dozen of his progeny, which still further impressed him with the value of the horse as a sire. Though in his 11-year-old form, and never having been shown since a yearling except at the local show and having

had little training, he was taken to the Pan-American Exhibition, where he was given second place, but the "Farmer's Advocate," in the report of the show, predicted that with a little more training, if he appeared at the New York Show he would take a better place. Mr. Beith's cash prizes at this show, in addition to the cup, amount to \$475.

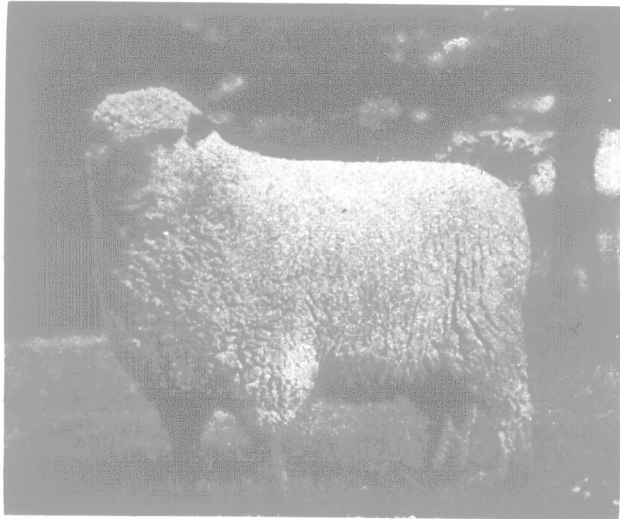
Other successful Canadian exhibitors at New York were: Mr. Geo. Pepper, Toronto, who with his saddle and jumping horses won close to \$1,000 in prize money; Crow & Murray, also of Toronto, with horses in similar classes, who won \$475; Mr. Adam Beck, London, who won \$395, and Mr. L. Meredith, London, who won \$200.

A Short History of the Oxford Downs.

BY HENRY ARKELL, BRUCE COUNTY, ONT.

Having been often of late asked the history and origin of the Oxford Down sheep, and being an Oxfordshire man and a breeder of this class of sheep and, in my boyhood days, personally acquainted with many of the originators of the breed and having collected a few facts from some of the breeders in the "Old Land," I give you and your readers the benefit of my knowledge and inquiry.

The origin of the Oxford Down was the deliberate crossing of two distinct breeds and types of sheep. Mr. George Adams, of Pidnell Farm, Berkshire, England, in referring to this fact, says: "We do not claim it to be the only breed now in high favor which is founded on a cross, but it differs from almost all others inasmuch as this fact is its special pride and boast." In the year 1828, about the time of the founding of the Royal Agricultural Society of England, Mr. John Hitchman, of Little Milton, Oxfordshire, England, an extremely successful breeder, commenced to cross the Cotswold with the Hampshire Down. In fact, the idea seemed to occur almost simultaneously to several distinguished sheep-breeders to unite in one breed the diverse qualities of the



EARL OF FAIRFORD 2nd No. 21368.

Typical Oxford Down yearling ram, in breeding condition. Bred by J. T. Hobbs, Maisey Hampton, Fairford, Eng. NOW OWNED BY AND AT HEAD OF THE FLOCK OF MESSRS. HENRY ARKELL & SON, TRESWATER, ONT.

long- and short-wooled sheep, combining the high mutton qualities with the weight of the long-wools. This ideal was in a large measure accomplished by the breeders of this (the Oxford Down) breed a little later on; and was more successfully carried out by those of the present day, as I will endeavor to show by a few facts and figures a little further on.

The names of the other gentlemen referred to are, first, Mr. Samuel Druce, of Eynsham, who commenced to cross in 1833; also Mr. John Gillett, of Brize Norton; Mr. Wm. Gillett, of South Leigh; Mr. Nathaniel Blake, of Stanton, Harcourt, and Mr. J. T. Tuynam, of Whitechurch Farm, Hampshire, a year or two later. These men, with the exception of the first and last named, all lived within a few miles of each other in the neighborhood of the town of Witney, so celebrated for the manufacture of blankets. Forty years ago the writer visited this town weekly, attending the grain market held there, also enjoying the privilege of looking over the flocks and partaking of the hospitality of nearly all the gentlemen named. And well do I remember the expression of a leading butcher on examining some fat wethers exhibited for sale on the market in the town of Bampton, Oxfordshire: "These are the sheep for the butcher."

Mr. Tuynam, of Whitechurch Farm, Hampshire, took a prominent part in pressing the claims of this new breed of sheep upon the public. In the Farmer's Magazine of 1810, he issued a challenge to breeders, offering to submit 25 wether lambs drawn from a flock of 300 to an impartial trial for nine months for the purpose of testing the value in both mutton and wool of the different breeds. He proposed to stake £25 sterling money on the issue, believing that his Oxfords would beat all comers. His challenge does not appear to have been accepted. In the same communication Mr.

Tuynam stated that his breed of sheep, originating in the improved Cotswold ram and the fine-bred Hampshire Down ewe, had been established for nine years, which would place his earliest efforts in 1830 or 1831.

In the Journal of the Royal Agricultural Society for 1853, Mr. Samuel Druce, of Eynsham, writing in May of that year, said it was then nearly twenty years since he had begun crossing between the Southdown and the Cotswold, and he published a table showing the superiority both in mutton and wool value of the then new breed over Cotswolds, Leicesters, Hampshires, and he even adds Southdowns. His figures are endorsed by the high authority of Mr. Philip Pusey, a gentleman who spared neither money nor pains in agricultural experiments and pursuits, upon whose grounds the great world's trial of agricultural implements was held in 1851, and who afterwards became an ardent advocate and breeder of Oxford Downs. Mr. Pusey remarked that the great difference in favor of the Oxford Down arose from their superior quality and therefore higher price per pound of the mutton as compared with the long-wooled sheep and the greater weight of wool and mutton as compared with the short-wooled sheep. "The advantage of the breed both then and now," says one of the most prominent breeders in the Old Land to-day, "could scarcely be stated more concisely than as thus expressed by Mr. Pusey." A most successful Gloucestershire farmer of my intimate acquaintance, writing me in May last, says: "I purchased ram lambs from Mr. Tuynam in 1838 and 1840, and the breed is holding its own here (England) to-day. I may add my own testimony that they are not only holding their own here in my own neighborhood and Province of Ontario, but are steadily gaining ground wherever they have been intelligently handled. The great drawback in introducing and using this and all other established breeds is that men will use a grade sire after the first cross, which is a backward rather than a forward step; but when pure-bred sires are continually used, there is progress and success. Sheep-men in the West are beginning to realize this. The demand for the Oxford Down is steadily increasing, to be used as a cross with fine-wooled ewes for mutton purposes. A friend of mine writes me from Wyoming (U. S.) that he had gone out to the mountains to see some cross-bred Oxford lambs, the produce of some rams he had sold and sent out there a year ago. He says they are beauties, many of them weighing from 90 to 100 pounds each, while his neighbors who kept the fine-wools have lambs weighing from 40 to 60 pounds each. The cross-bred or grade Oxfords sold there (Wyoming) for \$1.40 each; the fine-wools had to be kept over until another year. For many years the new breed was known under various names; that most in use for a time was Down Cotswolds. It was the year 1857, at a meeting of breeders held in the City of Oxford, that the title Oxfordshire Downs (now shortened to Oxford Downs) was adopted. It will be observed that in the two methods of crossing previously given, there was a slight difference: Mr. Druce using the Southdown and Cotswold, Mr. Tuynam the Hampshire and Cotswold. Mr. Druce used, no doubt, the coarser type of Southdown, and Mr. Tuynam the finer type of Hampshire. The Messrs. Gillett used, I believe, the Southdown, as did also Mr. Blake. The success of their labors may be gathered from a report of Mr. Clare Sewell Read, on "The Farming of Oxfordshire," published in the Royal Agricultural Society's journal in 1854. He refers to the Oxford Downs as "The glory of the country, the most profitable sheep to the producer, the butcher, and the consumer." He gives an interesting account of the breed and summarizes its chief recommendations in terms which hold as well now as they did thirty-five years ago. Such, at least, is the opinion of another prominent breeder, Mr. George Adams, of Pidnell Farm, England.

Some account of the history of the breed in the show-yards of the Royal Agricultural Society of England may be gathered from the list of prizewinners which appears in the present volume of that Society. It was not until 1853, at Gloucester, when a special prize was offered by the Hon. R. H. Clive for Shropshires or any gray- or black-faced short-wools that there was any favorable opening for Oxford Downs in the prize list. At that show the first prize for aged rams was won by an Oxford Down. Again at Warwick in 1859, in the class, "Short-wools not Southdowns," the first prize was won by an Oxford Down. In 1862, at the first great metropolitan show, the breed was for the first time placed on its rightful footing in distinct classes, and since that period the Oxford Down section has always formed a prominent feature of the Royal Show. In the same year, 1862, the Smithfield Club (Fat Stock) also provided separate prizes for the Oxford Downs. For twelve years, at their annual meeting, a silver cup was offered for the best pen of Oxford Downs, Shropshires or cross-bred wethers. This prize was won five times by the Oxford Downs, once by the Shropshires, and six times by cross-bred sheep of various descriptions. In 1872 and again in 1875 and 1887 Oxford Downs won the fifty-guinea cup for the best

sheep in the show. In 1893, Mr. Brassey won the sweepstakes over all breeds at the Royal Show with a yearling ram.

Then we may follow their record in the showing both in the United States and Canada. At Detroit in 1892, Mr. Arkell, of Arkell, Ont., Canada, won the \$100 prize for the ten best mutton sheep with fifteen entries, all breeds competing. In the same year Mr. Arkell won the champion cup over all breeds with Minnie Mills at Detroit, and in 1893 the Cooper Cup at the Fat Stock Show held at Guelph, Ont., Canada. We might continue to give instances of how that in later years the Oxfords have won honors both in the show-ring and at the experiment station, but the reputation and attention which they won wherever they have gone has made that task unnecessary. In the more carefully-nurtured flocks of the breeders of the east or upon the rough ranching lands of the West they have become as firmly established and as favorably known as any other breed.

Chicken Fattening and Profits.

The Department of Agriculture at Ottawa has received returns regarding the first shipment of 2,592 fattened chickens sent this season. These were fattened at the poultry-fattening station at Bonville, Quebec. They were sold in Liverpool, wholesale, at fourteen cents per pound, and the net returns were equal to \$1.31 per pair of chickens at Montreal.

The experiments at the Whitby, Ont., fattening-station go to show that as a rule farmers hold their chickens too long to reap as much profit from them as they ought. The younger a chicken can be placed on the market the more money can be made out of it. According to recent experiments, the cost of feed for one pound of gain in live weight for a chicken three months old is four and one-half cents. If the same chicken is kept until twenty weeks old the cost of feed per pound of gain in live weight is six and three-quarter cents. A saving of two and one-half cents per pound can thus be made by selling a chicken when it is three months old instead of waiting until it reaches the age of five months. The experiments also show that a chicken fed in crate makes more gain than a bird that is left running around. This denotes that greater profit is made by feeding a chicken in crate when young than by allowing it to run outside.

QUESTIONS AND ANSWERS.

- 1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.
- 2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.
- 3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.
- 4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

Veterinary.

SUSPECTED CONGESTION OF THE LIVER—INFLAMMATION OF THE CROP.

1. I am sending you a piece of the liver and lungs of a cockerel that we noticed ill and killed to see what was the matter with it. It also had one of the eyes badly swollen. Kindly tell me what was the matter with it, and if hot feed would cause the sickness?

2. We had a hatch of incubated Black Spanish chickens come off in June. They seemed to do all right for three weeks; then they grew stupid. Their crops filled up with a frothy, watery matter that seemed to choke them. Only a few of them lived and they did not grow well after. Could you tell what ailed them? M. D. P., Assiniboia.

Ans.—1. The pieces of lung and liver submitted were in too advanced a state of decomposition to give much help in arriving at a reasonable diagnosis. The symptoms are too meager to aid one in making more than a guess at the trouble. From our experience and the specimen submitted, we should suspect congestion of the liver. This disease is quite common in poultry and is the result of lack of exercise, or taking tainted food, infective diseases, and obstruction to the circulation of blood by disease of the heart and lungs. It is often seen in birds in a very fat condition. A post-mortem examination shows the liver to be enlarged, engorged with blood, tender and easily crushed. Prevention is better than attempted cure. Epsom salts, 20 to 30 grains, may be given as a purgative, to be followed with daily doses of bicarbonate of soda, two grains at a time. Hot feed, if given in large quantities, would likely be a cause.

2. The Black Spanish chicken died from inflammation of the crop. The disease may be caused by overfeeding or irregular feeding. The treatment should be with a view to getting rid of the irritant, by emptying the crop; then give 2 grains of subnitrate of bismuth, and 1/2 grain of bicarbonate of soda in a teaspoonful of water. Keep birds without feed and give 1 to 1/2 grain of colicine daily for two or three days.

RINGBONES?

Will you tell me what is the matter with a colt's hind legs? They appeared all right while sucking the mare. When I weaned him I turned him in a box stall. His hind legs got very large between the hoof and fetlock joint. They seem sore and stiff and seem to be getting hard. In harvest time I worked the mare and kept the colt in the box stall with only a half door. The colt used to rear up and get his front feet over the door; his hind feet often slipped, and he would fall. Would that be the cause of the blemish, or what would be the cause, and what would be best to do? I pared off his hoofs and gave him exercise by turning him out for a while every day. I noticed him lame first about three weeks ago. SUBSCRIBER.

Portage la Prairie.

Ans.—The enlargement of the hind pasterns of your colt is probably due to his rearing over the door and throwing a greater strain on the joints than they were able to stand. In young animals such enlargements often disappear. The enlargements will need the application of a blister, such as biniodide of mercury, 1 dram; cantharidine ointment, 1 ounce. The blister should be well rubbed in and the colt tied so that he cannot bite the blistered parts. Clean, sweet lard should be applied daily. Would advise consultation with one of your local veterinarians if your colt is at all valuable.

POLL EVIL—DEBILITY.

I bought a horse about year and a half ago. Teamster drove him all winter and never noticed anything wrong with him. In spring I noticed a hard lump about two inches behind his ears, about half the size of an egg. The lump is as hard as a bone. Worked hard last winter, but did not work half the summer. Is well fed while working; run on grass in summer. Sweats easy, and

FILLY WITH SWOLLEN LEGS.

I have a fine two-year-old mare that got kicked on the hind legs about three months ago, and the insides of her legs just below the hock still remain swollen. What can I do for them to reduce swelling, or will it ever leave? SUBSCRIBER.

Ans.—Apply a blister composed of 2 drs. each of powdered cantharides and biniodide of mercury and 2 ozs. vaseline. Clip hair off the swollen parts, and rub the ointment well in. Tie her so that she cannot bite the parts. In 24 hours rub well again, and in 24 hours wash off and apply vaseline. Let her head down now, and apply vaseline every day until the scale comes off. Blister in this way once every month, all winter, unless the swelling disappears in the meantime.

THUMPS IN PIGS.

I noticed in your valuable "Advocate," the disease "thumps in hogs" mentioned. Will you kindly describe symptoms, cause, and treatment? W. PARKE.

Ans.—A condition known as thumps in pigs is a form of indigestion and usually due to over-feeding. The pig becomes dull and stupid, and in many cases the brain becomes congested, when there will be symptoms of delirium. The bowels are constipated and appetite impaired or wholly gone. Want of exercise and high feeding is the cause. If the brain be affected, throw cold water on the head or bleed from the jugular vein or cut the ear or tail. Give a purgative of linseed oil, and injections of warm water with a little soap per rectum. Give nothing to eat until the bowels act freely.



A GLIMPSE OF THE C. P. R. STOCK YARDS, WINNIPEG.

keeps thin. Feeds well. Age, about 11 years. Oxdrift.

Ans.—The lump is the result of a bruise to the poll, which if allowed to go on and break would result in a case of poll-evil. The part should be blistered with biniodide of mercury, 1 dram; clean lard, 1 ounce; well rubbed into the enlarged parts and greased regularly every other day. The blister may be repeated in two weeks if necessary. The sweating and thinness may be due to a variety of causes—too long coat of hair, his teeth may be out of order. Use the following: Quinine, 3 drams; tincture of the perchloride of iron, 1 1/2 ounces; water to make 1 pint. Give three tablespoonfuls in half a pint of water twice a day.

DISEASED OVARIES IN COW.

I have a pure-bred Shorthorn cow, 9 years old, which calved last April, and in June came in season and was served by the bull. In three and six weeks after, I was suspicious that she was in season, but she did not show much sign. After that she came around two or three times, every three weeks, and was served but failed to get with calf. Then she came irregularly, sometimes in two and sometimes in four weeks, and for a month past she seems to be in season all the time, or at least every few days. Can you tell me the cause of her failing to get with calf? Will she be likely to breed again? Would you advise me to let her go awhile before breeding her, or should I keep on letting the bull serve her? ENQUIRER.

Ans.—In cases such as you describe, the trouble is generally some derangement in connection with the ovaries. We would advise you to let the cow go at least two months before breeding her again, and in the meantime, give her in her feed, twice daily, one tablespoonful of the fluid extract of black haw.

COLT INJURED BY BARB WIRE.

One month ago one of my yearling colts got tangled in a barb-wire fence, and got badly cut on the inside of the hock joint. I have kept the wound washed with clean warm water and castile soap, with a little carbolic acid. The leg has swollen badly from the hock down to the fetlock. The cut is not a deep one, but much torn and ragged. It appears to be doing all right, but the edges can't come together because of the swelling. What can I do to reduce the swelling, as I am afraid it will stay that way if it is not attended to? H. D. P.

Ans.—The leg should be well bathed with hot water, to which add half a cup of vinegar to every pail of water. Bathe well three times a day, and keep the leg well bandaged from the foot up to the hock, which include in the bandage, and only remove when bathing the leg. For the wound, which, no doubt, by this time has become chronic, use hydrarg bichloride (corrosive sublimate) 40 grains, dissolved in 8 ounces of water. Apply with a feather three times a day.

CEREBRAL TROUBLE IN COW.

I have a cow which is subject to a fit. When the fit is coming on she commences to breathe very heavily, and in a short time she appears to become rigid and falls down. At this stage respiration seems to almost cease, and she lies as though dead for perhaps ten minutes. After the first effects of the fit are over she rises to her feet and appears to be blind, and is very stupid for some time. Can you say what is the cause, and give me any cure? ARCHIBALD MALCOLM.

Ans.—Your cow has some brain affection. Probably there is a growth upon the brain, and possibly only an occasional engorgement of the blood vessels. If the latter, purging and bleeding will give relief. If the former, nothing can be done, and it is probable it will kill her.

FOUL IN FEET OF CATTLE.

Some of my cattle, which we ranched out, were affected with a peculiar disease in the feet—swelling to an excessive extent, after which bealing ensues between the hoofs and at top junction with fetlock joint. In one of my own the side of the hoof completely rotted away, and proud-flesh protruded largely. I cut away the proud-flesh, bathed freely in hot water, and applied a lotion of vitriol. What is the disease?

Your very practical paper now appears one of our necessities on the farm.

Yours truly, ROBERT C. BRANDON.

Ans.—Your cattle have foul in the feet, caused by irritation between the clouts. This disease is produced when cattle are pastured on damp ground, especially when they walk through water and then through coarse grass or rushes; or it may be caused by walking through liquid manure or other irritating substances. Treatment consists, first of all, in removing the cause. In the early stages clean out well between the clouts and apply a little carbolized oil (made of 1 part carboic acid to 20 parts sweet oil) twice daily. In more advanced cases poultice with boiled turnips until the acute soreness is removed, and then use the oil. If eruptions, followed by proud-flesh, occur, apply a little butter of antimony once daily with a feather until the proud-flesh has been removed. In some cases, notwithstanding treatment, recovery is slow and there will be a sloughing of a triangular portion of skin and flesh, and in extreme cases there is a sloughing of the hoof, as you describe, but if the cause be removed and treatment given early, recovery usually takes place quickly.

DEFECTIVE VISION IN COLT.

I have a colt 5½ months old. Shortly after she was foaled, we noticed that the pupils of both eyes were of a light greenish-blue color. This was very apparent late in the afternoon when the light got weaker and the pupils expanded. In a strong light, it was not very perceptible. She blunders sometimes into things as though short-sighted, but judging from her actions, I do not think she is blind. During the last two or three weeks the left eye has got much clearer-looking; the right remains the same. The eyes are not weak or watery looking, and there is no film. It is the coloration right inside the eye. She is a good big colt, and has been and is doing very well. Is it chronic blindness, or can anything be done for it?

W. E. S.

Ans.—The condition of your colt's eyes is congenital, and nothing can be done. From symptoms given, I do not think the colt is blind, but vision is defective. The eyes may be normally weak, and if so they will be liable to occasional attacks of inflammation from trivial causes, and may eventually become blind, but all that can be done is take good care of the animal, and if it should be attacked with inflammation of the organs, keep in a partially-darkened stall, bathe with warm water, and put a few drops of the following lotion into each eye twice daily: Atropia sulphate, 3 grs.; distilled water, 1 oz.

Consult the label on your paper, and in renewing, remit accordingly.

Miscellaneous.

A SETTLER WITH \$500 WANTS ADVICE.

Should like your advice under the following circumstances: I am about to apply for a free grant of 160 acres, brother ditto. We purpose working together, starting wheat and adding stock as progress is made. Our capital is really very small, some \$500, and we therefore wish to locate where we shall be handy to wood lot for building and fuel. What district would you recommend to fill these requirements, without giving us clearing to do on our grants. We may say that pleasant and varied scenery, whilst not being, of course, a necessity, would be an inducement in preference to the continuous prairie of this immediate neighborhood. Do you think the above-mentioned figure is sufficient to start on in a modest way?

Regina.

Ans.—It is not the province of the Farmer's Advocate to advise any man where to locate, as opinions and tastes differ as widely on such matters as upon the selection of a wife, a matter far too personal for us to venture upon. Such an enquiry as above can only be answered in a very general way. Many men have started on our fertile prairies with as limited capital as mentioned by R. D. T., and have achieved success; but they are mostly men who understand the conditions or are quick to see the requirements, who labor hard and persistently and live most frugally. While unforeseen calamities may overtake any man, success does not depend so much upon location as upon individual effort and applied knowledge. If R. D. T. and his brother are newcomers, with little knowledge of the agricultural conditions of the country, and brought up in surroundings of comfort or luxury, without experience of what the unromantic, strenuous life of the pioneer settler is, they would probably be

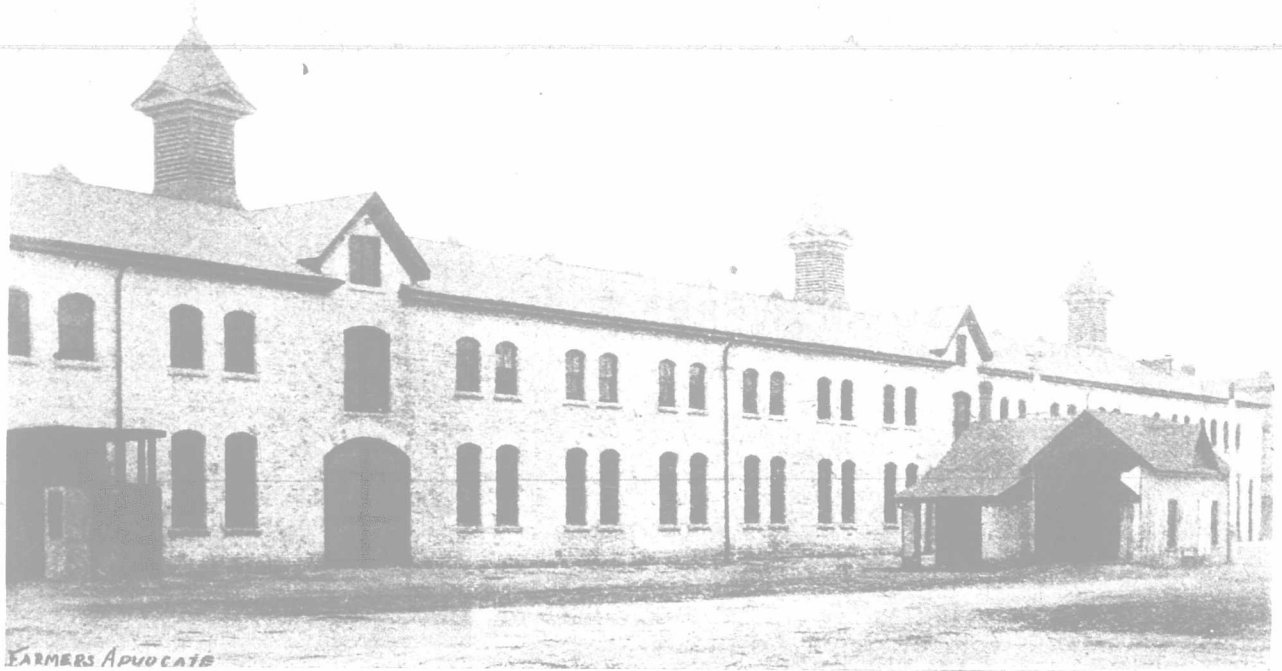
wiser to buy some of the cheap railroad lands as favorably located as possible, the payments to be made in small instalments, and then the brothers can readily find employment that will help to increase their capital, while at the same time giving them a fuller knowledge of the conditions of the country before undertaking the breaking up of their land. The land, if well selected, would be increasing in value while they were increasing their store of knowledge and capital, or, if after a year or so, it was thought advisable to locate in another locality, the land could be resold without loss. In taking up free-grant land now it is difficult to find good locations convenient to railroads, and the conditions of homesteading imply immediate occupation of the land. For the benefit of R. D. T. and many others like him, we should be glad to have some of the successful settlers who started with \$500 or less tell how they did it.—Ed. F. A.

SILAGE CROPS.

Will some of your readers kindly give me their experience with clovers, peas, oats and rye, etc., for ensilage? Such points as at what stage the crop should be cut, whether hauled immediately or allowed a few hours to wilt, and how the ensilage compared with corn ensilage in weight of crop per acre and value for feed, would be of special value.

Silverthorn, B. C.

Ans.—Early varieties of corn have always made good ensilage on this farm, especially if wilted a few days before cutting up. We have repeatedly tried oats and peas mixed for ensilage, also horse beans, soya beans and cow peas, separate and mixed, but have never succeeded in making palatable ensilage from any of them. We have tried them both fresh and wilted, but in every instance they came out of the silo mushy and



WINTER FAIR BUILDING, GUELPH, ONT.

with a bad odor. The last time the horse beans and cow peas were used they were placed near the bottom of the silo and about fifteen feet of corn placed over them, but the result was the same. I have seen very fair ensilage made from rye cut just as soon as the head was formed and wilted just a little before being put into the silo; if wilted too much, the rye will fire-fang and spoil. Clover cut in full bloom and placed in the silo at once, and weighted with several feet of corn, or with weights, will generally make good ensilage, but if left unweighted it will not pack sufficiently to exclude air and will spoil.

Brandon Exp. Farm.

S. A. BEDFORD.

DORSET HORNED SHEEP.

Would you kindly give me some advice about Dorset sheep? Are they a good general-purpose animal as to wool, size, and are they harder to keep than some other breeds?

S. O. R.

Ans.—The Dorset is one of the oldest known breeds of English sheep, having been preserved unmixed from a very remote period. They have some very valuable traits, the chief of which is their fecundity. Under favorable conditions the ewes will raise two sets of lambs in a year, but it is not generally considered practicable or advisable to attempt such crowdings. Early-winter lambs bring a high price in the market, and it is quite practicable, by having the ewes in fresh condition in spring, to have lambs born in September and October, which will be very profitable to sell at about Christmas. Experienced Dorset breeders in America consider it undesirable—indeed, a mistake—to have lambs born later than April or before September. Dorsets are hardy as well as prolific, producing a large proportion of twins, and are not harder to keep than other breeds, but are good feeders and pay for good feeding in juicy, lean meat, while the ewes are great milkers and force their lambs along rapidly while young.

FARM GOSSIP.

Sugar Beet Analyses.

Prof. Shuttleworth's analyses of the average specimens of beets grown on the trial plots in the various districts of Ontario in 1901 show the following results as to sugar content and purity, and the table also gives the yield per acre.

The following are the results of the various experiments:

	Per cent.		Yield per acre.	
	Sugar.	Purity.	Tons.	Lbs.
Alvinston	15.19	86.1	21	876
Belleville	15.7	88.8	16	1,728
Cayuga	16.2	88.2	14	1,665
Clinton	14.8	86.7	16	662
Dunville	15.13	88.15	15	523
Lindsay	16.4	87.3	15	131
London	15.6	88.1	17	59
Mount Forest	15.6	86.7	19	590
Port Perry	16.6	89.3	15	156
Peterboro'	17.3	90.6	16	180
Walkerton	15.4	88.4	18	1,701
Whitby	15.8	89.1	22	83
Berlin	14.6	85.8	18	1,398
Simcoe	14.5	86.4	14	610
Waterford	15.3	86.5	17	317

Mr. Little's Shorthorn Sale.

We again call attention to the advertisement of the dispersion sale, on Dec. 18th, of the entire herd of Shorthorn cattle belonging to Mr. S. G. Little, Hagerman, Ont., 18 miles from Toronto. The herd consists of 34 head, 24 females and 10 bulls, the latter a good, strong, fleshy lot, of good age for service. The catalogue has not reached us at this writing, but we know the foundation stock was well selected, and that high-class imported and Scotch-bred bulls have been used in their breeding, and we feel sure they will be found to be a very useful lot of cattle, and we know that Mr. Little is not expecting fancy prices, but is prepared to let them go at the people's own prices. Buyers may depend upon fair and honorable treatment, and will get good value for their money. The location is convenient to Toronto, and the terms, nine months' credit, or five per cent. per annum off for cash, are easy. Send for a catalogue giving full particulars.

Chicago Markets.

Chicago, December 2nd.—Most of the really good to choice steers on offer went between \$6.50 and \$7.30. Below these a very fair to good style of 1,200 to 1,450 lb. steers went at \$5.90 to \$6.35; coarse and underfat 1,200 to 1,300 lb. grades, \$5.25 to \$5.85; very fair, fat, light steers, \$5.50 to \$6; good many medium-fleshed and coarse steers at \$4.50 to \$5.25, with common, thin, light killers, \$3.60 to \$4.40.

Sheep.—Sheep and lamb receipts to-day included about five double decks of fresh rangers, with a good many hold-overs. The market was steady on fat sheep and lambs. Some export stock was bought at \$3.10 to \$3.60 for ewes, and \$4 to \$4.25 for wethers.

Hogs.—A fair to good grade of strong-weight mixed sold largely within a range of \$5.65 to \$6.15.

Christmas is coming—so is the beautiful Christmas number of the "Farmer's Advocate." Moral: Forward your renewal.

Montreal Markets.

Cattle.—A pair of prime large steers were bought for shipment to Britain at 12c. per lb., but very few of the others brought over 1c. per lb., and from that down to 3c. for pretty good cattle. Common stock were difficult to sell, and brought from 2½c. to 3c. per lb.

Sheep.—Sheep sold at from 2½c. to a little over 3c. per lb., and the lambs at from 3c. to 3½c. per lb.

Hogs.—Fat hogs sold at about 5½c. per lb., weighed off the cars. A few choice ones brought 6c. per lb.

Buffalo Markets.

East Buffalo, Dec. 2.—Hogs.—Demand active; market firm; Yorkers, \$5.70 to \$5.80; mixed packers, \$5.90 to \$6.00; heavy, \$6.10 to \$6.15.

Sheep and lambs.—Offerings, 11 cars; firmer; top lambs, \$3.10 to \$5.15; culls to fair, \$3.75 to \$5.00; Canadas, \$4.70 to \$4.75; sheep, \$3.25 to \$3.30; wethers and yearlings, \$3.60 to \$3.75.

British Markets.

London, Nov. 25.—United States cattle, 6½d.; Canadian sheep, 5d.; cattle made 5½d. to 5½d. on Saturday.

Liverpool, Nov. 25.—Canadian cattle, 5½d. to 5½d.; sheep 5½d. Cattle fair; sheep slow.

Premium Announcement

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 4. Lives and Labors of Eminent Divines. *Chas. H. Parkhurst, D.L. Moody, Ira D. Sankey, P. P. Bliss and Eben Fourjee*. 360 pages.
 5. Reference Family Bible (cloth binding); size, closed, 7 x 10 inches. 1,140 pages.
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- Nos. 1, 2, 3 and 4 profusely illustrated. Any one will be given for sending

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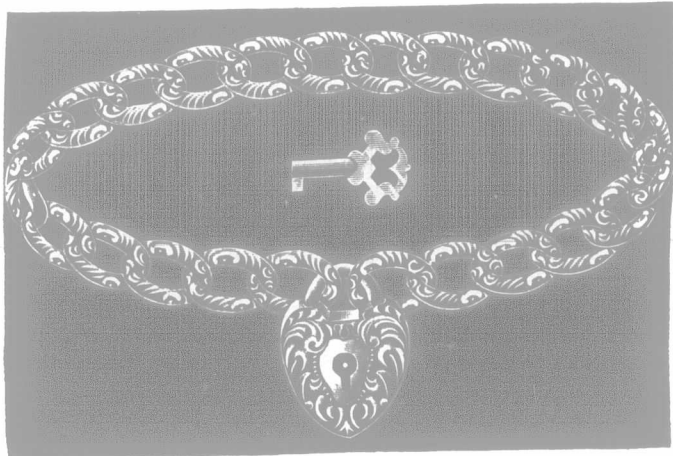
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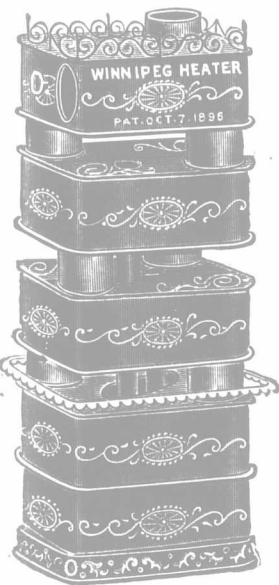
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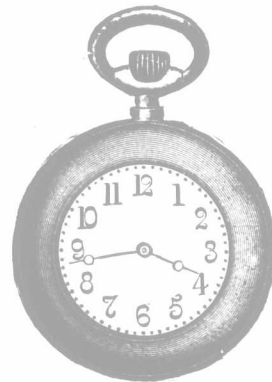
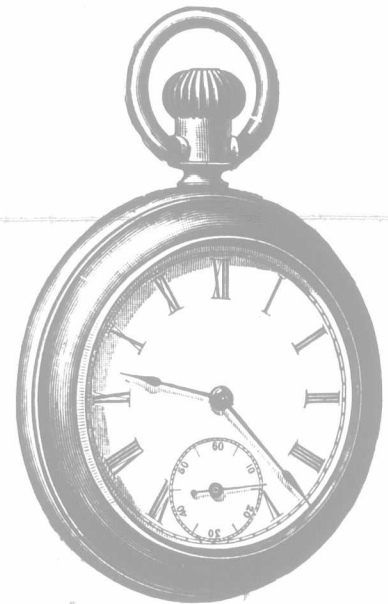
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Along the path of a useful life Will heart's ease ever bloom; The busy mind has no time to think Of sorrow, or care, or gloom; And anxious thoughts may be swept away, As we busily wield a broom.

—Louise M. Alcott.

White Hands.

Six young ladies of a graduating class were gathered around a window overlooking pleasant grounds, and talking very eagerly about the future. Their plans were various, reaching onward with no thought of grief or sorrow. Wealth, admiration, fame, were among the attainable. Music and art would each have its devotee. One would continue her studies at a higher institution; another would become the mistress of a beautiful home.

One had not spoken, and when the question, a second time, was asked impatiently, "Louise, what are your plans?" her answer was eagerly awaited. "I shall help my mother," said quiet Louise. "O-o-oh, we all mean to do that, of course," said one; "but what plans have you? You can't mean just to stay at home in a poky way, and not try to do anything."

"Girls," said Louise, "I do mean to do just that, for the present, at least. My business shall be to help my mother in any way it is possible for me to help her."

A glance at the puzzled faces around her, and she continued:

"Shall I open my heart to you a bit, and let you read a sad passage from it? You remember Stella Morton? You remember that I once visited her during vacation? Her home was very pleasant, and a large family of brothers and sisters made the days pass merrily. Our pleasures kept us so much out of doors that we saw little of Mrs. Morton—a delicate, quiet lady, always ready to bestow sympathy when needed. I noticed that the girls were not so tidy and helpful about the house as I had been taught to be; but as I did not see who supplied all deficiencies, I thought little about it. One day a picnic had been planned, and I heard the girls impatiently commenting upon the illness of the one servant, as it threw upon them some disagreeable household duties. How Mrs. Morton ever accomplished the delicious lunch we ate that day only such overworked mothers can explain; the little assistance given by Stella and Alice must have been most unsatisfactory. We returned by moonlight, so tired that we went to our rooms without seeing anyone, if, indeed, anyone was up at that hour. By and by—I don't know how long we had slept—a frightened voice called Stella, who had shared my room, and soon we all knew that gentle, tired Mrs. Morton was alarmingly ill.

"At sunrise she was gone, without hearing the voices so full of love and sorrow. Girls, I can't describe Stella's grief; she placed her own delicate white hand beside the thin, toll-stained dead one, and said: 'See, Louise, at what cost mine is so fair; and I have been vain of my white hands.' She kissed the cold fingers again and again.

"One day I saw Stella at her mother's work-table, holding up some unfinished piece, evidently left in haste. 'Louise,' she said, 'mother asked me to do this, and I really meant to; oh, why didn't I do it at once?'

"You can't understand what an impression all this made upon me, and when a few days later I was called home by the failing of my own mother, the feeling was intensified. Mother was very ill, and as hope grew fainter my distress was hardly less than Stella's. One night, when my sister and I were too anxious to sleep, I told her about Stella, and we then pledged ourselves to take from mother every possible care, and to make our home our first object. To make the promise more binding and real, we exchanged rings. Mother's illness made it seem more natural and easy at first, and everything moved on so smoothly that I really think she gained her health more quickly. All the mending and sewing was done promptly under her direction, and we always silenced her by saying we liked to do it. She seldom knows what is prepared for tea or breakfast; we begged her not to inquire, for we know that she enjoys little surprises. The boys and the dear baby are better and happier for having so much of her time and attention.

"Last summer I visited Stella again. She is the light of the home. Only for the discipline I passed through could I understand how she was able to accomplish so much. Once when I expressed something of this to her, her eyes filled with tears, as she asked: 'Do you suppose she can see us—that she knows what I am trying to do?' Her hands were not fair and delicate, but I thought them more beautiful. Why, girls, I never see a pretty hand now without wondering whether it has a right to be fair and white. So I am going home to help mother. I shall be happy, because I know it's my duty."

As Louise finished speaking, the retiring bell sounded. Not a word was spoken, but the kiss which each bestowed upon the flushed face of the earnest speaker told of the impression her words had made. Those mothers alone can tell whether the influence was lasting.

Sympathy.

In this sad world where mortals must Be almost strangers, Should we not turn to those we trust To save us from its dangers? Then whisper in mine ear again And this believe, That aught which gives thy dear heart pain Makes my heart grieve.

God wills that we have sorrow here And we will share it, Whisper thy sorrow in mine ear That I may also hear it, In anywhere our trouble seems To find an end, Be in the fairy-land of dreams Or with a friend.

—J. Lionel Tennyson.

"Are these pure canaries?" said a fashionable lady. "Oh, yes, madam," said the dealer, "I raised these birds from canary seed."

THE QUIET HOUR.

The Old Church Bell.

High up o'er the heads of the people, That pass like vague ships on the street, It hangs in its home in the steeple, That throbs with the wind's rhythmic beat. What heeds it the world and its noises? What reck's it of traffic's loud din? Of tears or the clamor of voices That speak of the light hearts within? Enough that its duty is ringing In every condition of weather; Enough that its mission is bringing The spiritual household together; Enough that it strikes for the hours That speed in a ne'er ending chain, And chimes over nuptial flowers, And tolls for the funeral train. Enough that it speaks to the mothers In clear, unmistakable tones, And fathers, and sisters, and brothers, From all the earth's populous zones. Enough that it brings to the altar The ones who have strayed from the truth, As well as the weak ones who falter 'Mid trials unknown in their youth. So there while the pale stars are marching, And rivers roll on to the sea, And Heaven's blue vault is o'er-arching, The bell in its belfry will be. And then, when its mission is ended, And turned the last burial sod, The echoes full-toned will be blended With trumpets that call us to God."

A Sunless Sunday.

I thought it was Sunday and I was on my way to church. It was many Sundays since I had been there, but I had nothing to do, and thought it would pass the time away. I did not hear the bells ringing, which so often rang in vain, and it seemed to me I must be late, so I hurried on.

But to my surprise, on reaching the end of the street, no church could I see.

I was amazed, and inquired of a passer-by the name of the street.

"St. George's," was the reply.

"But where is All Saints' Church?" I asked.

"We have no churches now," replied the man.

"So few went, and scarcely one to pray."

As he was speaking, others joined us, and amongst them I recognized many who, like myself, attended church just as a "make-weight" when there was nothing better to be done.

How strangely silent all seemed; no chiming bells, no churches to go to. What a blank, long day it seemed.

"Could not the churches be rebuilt?" was asked on all sides. "They might be," it was thought. "But it would take such a long while," mournfully exclaimed one man who had never been known to attend any place of worship.

"Better wait a long while than never again to hear the chiming of the bells," said another. While we were talking there came toward us an old, haggard man, whom we scarcely recognized as our pastor, so bowed and old had he grown.

"But, my friends," said he, "how is it you have not gone out for the day?"

"Because," answered one, "we came to church."

"My friend," he said, turning to the man who had spoken, "it is too late; I have given an account of my stewardship, and have been found wanting." Tears coursed down his thin, wan cheeks, as he murmured over and over again, "Found wanting, for none would heed me."

The sun was streaming into my window as I woke, awakened by the ringing of yonder church-bells proclaiming it was Sunday, and as I listened to the chimes it sounded the sweetest music I had ever heard.

The Children in Church.

In the morn of the holy Sabbath I like in church to see The dear little children clustered, And worshipping there with me, I am sure that the gentle pastor, Whose words are like summer dew, Is cheered as he gazes over Those dear little heads in the pew.

Faces earnest and thoughtful, Innocent, grave and sweet— They look in the congregation Like lilies among the wheat; And I think that the tender Master, Whose mercies are ever new, Has a special benediction For those dear little heads in the pew.

When they hear, "The Lord is my Shepherd," Or, "Suffer the babes to come," They are glad that the loving Father Has given the lambs a home— A place for their own, with His people; He cares for me and for you, But close to His arms He gathers Those dear little heads in the pew.

So I love, in the great assembly, On the Sunday morn to see The dear little children clustered, And worshipping there with me, For I know that our Heavenly Father, Whose mercies are ever new, Has a special benediction For those little heads in the pew.

—Margaret Sangster.

THE CHILDREN'S CORNER.

The Song of the Wind.

"I've a great deal to do, a great deal to do— Don't speak to me, children, I pray— These little boys' hats must be blown off their heads, And the little girls' bonnets away! There are signs to be cracked and doors to be slammed, Loose window-blinds, too, must be shaken! When you see all the business I have for to-day, You'll see how much trouble I've taken. I saw some ships leaving the harbor to-day, So I'll e'en go to help them along, And flap the white sails, and howl thro' the shrouds, And join in the sailor-boys' song. Then I'll mount to the clouds, and away they will sail On their gorgeous wings through the bright sky; I bow to no mandate save only to His Who reigneth in glory on high."

The Spirit of Cold.

The Spirit of Cold blew his ice trumpet, and the winds sailed to the echo. The birds shivered, and flew to the warm south-land; some of the flowers died when he touched them with his frosty finger, but others fell asleep, saying, "We shall awake next spring!" The wild beasts ran away to their dens, and the tame beasts were cared for by men who gave them shelter.

"Ah, these men!" cried the Spirit of Cold, in anger. "They have no feathers, no leaves, no fur; but they make clothes from flax, and cotton, and from the wool of sheep. I will kill these men."

Then he blew shrill notes from his trumpet, and laughed when he saw men's noses turning blue with cold, and little boys and girls blowing upon their cold fingers. But more wool was made into cloth and flannel to keep everybody warm. And from the skins of beasts were made mittens and coats and shoes to keep out the cold. So when the Cold Spirit blew again everyone had warm clothes, and the children looked so rosy that he could not help saying: "How pretty! Did I paint those cheeks so pink?"

Then the naughty Spirit ran down Poverty-Alley and sounded his trumpet of ice, and poor little starved babies shivered and died, while the ragged, bare-footed girls and boys were hungry and cold and sick.

But good men and women came with food and warm clothes, so the poor little children laughed and played in Poverty-Alley.

Then the Spirit made a new ice trumpet and blew the North Wind through it, saying, "I will freeze all mankind."

But men had gone down deep into the earth and brought up millions of tons of coal; they had gone to the forests for car-loads of wood, and when the Cold Spirit came they were ready for him—with glowing fires that warmed every corner of their houses. They said: "How cold it is! We must send a load of wood and a ton of coal to the poor families in Poverty-Alley."

So the Spirit of Fire drove away his old enemy, the Spirit of Cold, who went to the river, saying, "Here fire cannot come, for the Spirit of Water is the foe of the Spirit of Fire."

"No, no!" cried the Water Spirit. "Fire is my good friend now. He turns me into the Spirit of Steam. When I am water, I can only turn slow mill-wheels, but when I am steam I can pull boats and trains, and work great city mills, and heat houses, and—"

"How dare you speak of heat?" cried the Spirit of Cold, angrily. He took out his ice key and locked up the Water Spirit beneath a great door of ice. But the boys and girls ran out and skated merrily on the frozen river.

"I have only given them a new game!" said the Cold Spirit. "But I will kill them with snow."

Then he poured the white flakes over the fields. But the children played with balls of snow, made snow men and snow houses, and coasted down the hills.

"Only more fun for everyone!" cried the Spirit of Cold. "It seems that I can do no harm. Perhaps I'd better try to do some good."

So he ran off to a Southern Country, where the heat was killing people, and he blew gently on his trumpet and drove disease away from the land. He soon found out that it is far pleasanter to try to do good than to try to do harm.

The Wind in the Chimney.

Over the chimney the night wind sang And chanted a melody no one knew; And the woman stopped, as her babe she tossed, And thought of the one she had long since lost, And said, as her teardrops back she forced, "I hate the wind in the chimney."

Over the chimney the night wind sang, And chanted a melody no one knew; And the children said, as they closer drew, "Tis some witch that is cleaving the black night through— And we fear the wind in the chimney."

Over the chimney the night wind sang, And chanted a melody no one knew; And the man, as he sat on his hearth below, Said to himself, "It will surely snow, And fuel is dear and wages low, And I'll stop the leak in the chimney."

Over the chimney the night wind sang, And chanted a melody no one knew; But the poet listened and smiled, for he Was a man, and woman, and child, all three, And he said, "It is God's own harmony, This wind that sings in the chimney."

—Bert Harte.

Ingle Nook Chats.

My dear Guests,—

We have had a fall of snow. This in itself is not by any means an unusual event; in fact, it is of such common occurrence in this dear Canada of ours that we have almost ceased to regard it as the miracle it really is. "Miracle!" do you say incredulously? Yes, is it not miraculous that those fairy-like, tiny, and seemingly helpless crystals, falling one by one, have almost the power of the philosopher's stone—power to transmute all that might be called gray and unlovely into visions that delight the most fastidious eye? The leafless branches that looked so bleak when shorn of their gala autumn dress, robed in this soft ermine are artistically beautiful. Every panel of the old zigzag rail fence, and every old gnarled stump has donned new graces, while the blustering wind, so madly chasing its downy playfellows, has piled them into marvels of statuary whose delicate curves shame the sculptor's skill. But it is the children, the merry, light-hearted children, who get most pleasure from the first snowfall, just as they, unwitting philosophers, usually get the lion's share of all good things, simply because they guilelessly open their hearts to receive them. What a picture, our Royal visitors would have seen had they waited a little longer to visit Our Lady of the Snows! Little men and women—their future subjects—with glowing cheeks and sparkling eyes, gaily climbing on passing sleighs or coasting on every little incline afforded by the streets, would have given them another very pleasant memory to bear across the sea.

Now just a tiny chat about our competitions, and then when next we meet it will be in our grand Christmas number, which is intended to be even more beautiful than before—if that be possible. A few days still remain before the closing of Contest XV., and already a goodly number of papers have been received. I fear this contest has been too easy, as several have sent correct answers: in this case neatness, correct spelling, etc., will assist in determining the winner. Contest XVI., announced in last issue, will prove instructive as well as entertaining to all who try it, and their number will, I trust, be large; indeed, the prize obtained in any of these competitions is but a minor affair: the principal benefit is the brightening of intellect and broadening of mind that invariably follow mental exercise. Then come, my friends, to the cosy Ingle: there are seats in plenty and warmth and welcome to spare for all.

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

A Word of Explanation.

The editor of the "Home Magazine," feeling that an apology is due both to "Mollie" and to the readers of her very interesting and instructive Notes of Travel for the want of sequence in their insertion in its pages, offers this apology now, and with it a word of explanation. The position is this: While Mollie was flitting about from one spot to another, barely stopping at any for more than a day or two at a time, but taking copious notes of all she was seeing, the "Advocate," remaining quietly at home, could only give to its readers a comparatively small portion of the messages she sent, the remainder having to be pigeon-holed for a more convenient season, and sometimes they had to make way for notes of timely visits paid to places of special momentary interest, such as the Glasgow Exhibition. Thus it would occasionally happen that "Mollie" would be ahead of the "Advocate," and sometimes it would be vice versa. This time it has to be vice versa—for we want our readers to know that although "Mollie" is "in winter quarters, and has given up gadding for awhile," before she did so she took a share in the "welcome home" given to the Royal wanderers, and also had a taste of a London fog. We can afterwards, in more leisurely fashion, make room for what lies in the editorial pigeon-hole, of "Mollie's" notes written as from Scotland and Ireland.

Man, Poor Man.

He cannot put a puff 'round his elbow when his sleeves wear through.
His friends would smile if he discussed a pair of frayed trousers with graceful little shingle flounces.
The poor thing must shave every other day at the outside or pose as an anarchist.
He has to content himself with sombre colorings or be accused of disturbing the peace.
He may not wear flowers or ribbons in his hair, or matter how bald he may become.
The feathers in his cap are as nothing from the decorative standpoint.
He can't edge his coat sleeve with a fall of lace to hid a scarred or maimed hand.
A pink veil is out of the question, no matter how muddy his complexion may become.
As for covering up the stain made by a careless waiter with a jabot—no!
Moral: We're glad we're a helpless woman.—Philadelphia Record.

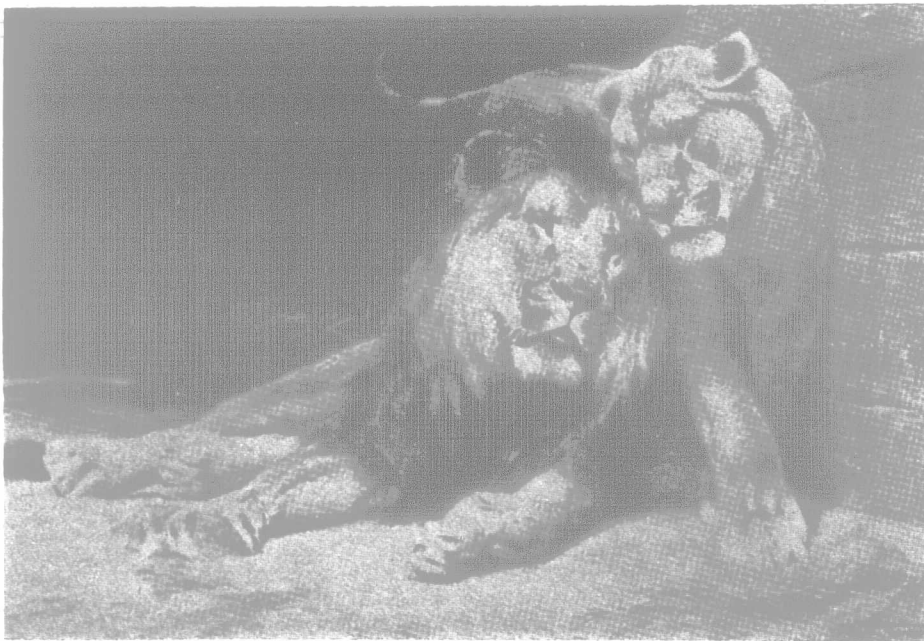
"The Lion Pair."

Poor caged captives! Poor royal forlornities! Poor hopeless, dejected prisoners! How well the artist has made them, both by position and attitude, mutely tell us their tale of sorrow. King Leo, by drooping jaw, watery eye, flaccid paw and ragged mane, is a very picture of despair. Queen Leona is trying to comfort him, as a good wife should, although her lot is as hard as his, and her memories of a lost past just as vividly tormenting as his own. But to comfort is the prerogative of her sex, and Leona can but do her best. She interposes her body, pillow fashion, between the bowed head of her lord and the hard boards of the partition which confines them both alike. She bends her ear to his oft-repeated complaints, and whispers, in lion lingo, what consolation she can. By extended tail, by firm grip of the floor with her big forefoot paw, she shows that there is fight in her yet, and that if she can only arouse his kingship out of his condition of hopeless despair, all is not lost. They may never roam forest or jungle again, they may nevermore enjoy the bliss of perfect liberty, but between them they may taste revenge, and revenge is sweet. When their keeper comes, presently, we venture to predict that these monarchs of the forest will give him, in spite of present appearance, a very warm reception. H. A. B.

Different Ways of Cooking Potatoes.

(From Canadian Housekeeper.)

MASHED POTATOES.—Boil in salted water, and strain. Then dry, mash quickly with a wire masher until light and free from all lumps; add a piece of butter the size of a walnut, a quarter cup cream, a teaspoonful of salt, and a dash of pepper. Beat with a fork until very light. Serve in a heated, uncovered dish.



"THE LION PAIR."

POTATO PUFFS.—Prepare the potatoes as directed for mashed potatoes. While hot, shape in balls about the size of an egg. Have a tin sheet well buttered, and place the balls on it. As soon as they are done, brush over with a beaten egg; brown in the oven. When done slip a knife under them and slide them upon a hot platter. Garnish with parsley, and serve immediately.

SARATOGA CHIPS.—Peel and cut into thin slices; make dripping quite hot in a frying pan; put in the potatoes, and fry them on both sides to a nice brown. When crisp take up, place them on a cloth before the fire to drain the grease, and serve hot, after sprinkling with salt. These can be cooked more evenly and made more appetizing by slicing as near the same size as possible.

POTATO SNOW.—Boil, mash, and prepare as directed for mashed potatoes. Rub through a heated colander into a deep dish, that it may fall lightly and in good shape. Put in the oven a few minutes till heated, and serve hot.

Special Offer to Subscribers.

We would again call the attention of the readers of our Home Magazine, in common with the other readers of the "Farmer's Advocate," to the offers made within.

ANY WHO SUBSCRIBE NOW get not only Dec. 5th number, but also the beautiful Christmas number included in their subscription for 1902.

What better Christmas gift could our readers give to a friend than a year's "Advocate"? Several have done so already, and others are thinking of doing so. Why not you?

A boy was asked which was the greater evil, hurting another's feelings or his finger. "The feelings," he said. "Right, my dear child. And why is it worse to hurt the feelings?" "Because you can't tie a rag around them," answered the child.

Travelling Notes.

Tunbridge Wells. Not knowing just at what fragment of my jottings the "Advocate" of the 20th November enabled me to leave my dear Canadian readers, I think I had better take up my story at its present stage, filling up the chinks later on as room in the pages may offer.

As you will see, I date this (on the 8th November) from Tunbridge Wells, where I am settled down for the winter with the very dearest, brightest, cleverest old lady in the world, about whom I must just tell you a little, for she is a remarkable character; the only daughter of a clergyman who, besides this daughter, had twelve sons (consequently she had twelve brothers), many of them scattered all over the world, in Australia, India, New Zealand, the United States, England, and Canada, one of them being no less than the late worthy and noble founder of the "Farmer's Advocate," and we all know how thoroughly he did his part in trying to make the world better for his having lived in it.

This dear old lady, though now a confirmed invalid, unable to stand on her feet, with hands and limbs drawn up with rheumatism, and suffering with a patience beyond all praise, yet has a mind active as ever, and finds scope for much philanthropic and missionary work. Besides what she does for suffering humanity in general, she keeps in touch with herself, and with one another, the parted and scattered members of a once large family, thus forming a link of love and sympathy which is of itself a benediction, for who can measure the influence of a good mother, sister, or even aunt? I hope the power may be granted to me to be of some comfort and help to this dear old friend and relative during the winter we expect, God willing, to spend together at Tunbridge Wells.

Before coming here I spent a few weeks by the sea at Hastings, on the south coast of England, where a goodly number of dear relations were assembled, and very happy times we had, making little excursions here and there, some of us crossing occasionally to Boulogne. The days were fine and warm; in fact, the whole summer has been exceptionally fine in England. But it is quite time I should tell you of what will probably be my last trip of importance for some time to come. You had your turn in Canada, and now it was mine. You saw the Duke and Duchess of Cornwall and York in Canada. I have seen them in England, for, like the pussy cat in the children's rhyme, I have "been to London to see the Queen,"—and not the Queen only, but the King, and all the Princes and Princesses, little and big, who took part in one of the most wonderful pageants (with the exception of that of the Jubilee of Queen Victoria) which England has ever seen. It was a pageant, too, which was full of meaning—a pageant which was of itself a heartfelt expression of the love and loyalty of

the people of Great and Greater Britain, for representatives of every part of the latter were present on the occasion of this public manifestation of joy at the safe return of the son and daughter of the beloved Sovereigns of the Realm. Every incident of this most unique journey of 50,000 miles, during an absence of eight months, had been followed by the people of England with the most intense interest. They had realized how it had drawn forth from over seas spontaneous and unbounded expressions of loyalty, and had cemented a spirit of fidelity to the Crown which not even England's most bitter foe or most jealous rival could gainsay. Could one wonder at this outburst of national joy at their home-coming! Indeed, I would not for worlds have missed the sight. It was well worth the fatigue and strain of standing for hours on tiptoe, with barely room to breathe, as the throng swayed to and fro, until, as with one voice, the vast multitude took up the shout of welcome and joined in that heart-stirring melody, "Home, Sweet Home."

The papers will have told you of the magnificent decorations along the line of route from Victoria Station to Marlborough House, a distance of three miles, garlands of flowers, making one entire street into a veritable bower for the Royal carriages to pass through, with our dear young Duchess wearing her Canadian sables. I wonder if they have also told you of the pretty story of one of the little children of the Duchess having been "so imperatively insistent to be taken to 'my mummy' that the King laughingly decided she should have her way, and so at ten o'clock the Victoria and Albert moved out with the Royal children in a great state of gleeful excitement on deck, dragging their laughing grandmother with them as they sought one point of view after another from which to see better the saluting ships and sights of the harbor."

Now, here's a companion picture, of an incident a little later on. "As the shining cavalcade

came by, the ecstatic cry of 'Oh! daddy,' from a very small damsel perched upon the shoulders of her father, a stalwart artisan, whose protecting hand she clutched, caught the attention of the crowd. In the midst of the roar of cheers, with distant pulsations of 'God Save the King' stirring the air, the little maiden kept up her thrilling tribute of two words, 'Oh! daddy.' The dancing white plumes, the hoof-beats, the jingle of the shining swords, were almost too much for the little damsel on her father's shoulder. Pointing with her tiny finger at the wonderful revelation of splendor, the ecstatic cry continued, growing in volume and emotion—'Oh! daddy, daddy! daddy!!'

There were at least two thoroughly happy children in London that Saturday afternoon. One was His Royal Highness Prince Edward of York, who drove through the cheering crowds with his "daddy," and the other was the little subject who greeted the home-coming pageant with an eloquence no poet laureate could hope to emulate.

Just a word about the transformation scene which followed so closely upon that vision of splendor. No one who has not actually been in a London fog could possibly imagine what it is like, and the fog of this early November, which fell like an enshrouding curtain or pall over the metropolis, surpassed all fogs of previous years, endangering life and limb, and in many places causing death and disaster. But besides its tragic, it had its comic side too. Picture your correspondent, if you can, so utterly helpless as to thankfully pay her silver threepenny-bit to a sturdy young urchin, one of a brigade to whom a fog is a veritable harvest-time, just to pilot her across a street, the opposite side of which was wholly invisible to her, a veritable terra incognita. To stand by a lamp-post till aid came was all that was possible to a belated and befogged single gentlewoman. On one side she would hear a voice raised in anger during the un-

Some Things to be Thankful For.

We do not all keep written records of day-to-day happenings. Even good business people may not always keep accurate tally of daily transactions. The owner of a ranch does not round-up his cattle every week, nor does the best of housekeepers invariably weigh out her needful ingredients ounce by ounce before she puts her pudding into the pot. Nevertheless, before the end of the year each of these may arrive at a tolerably fair general estimate of his gains or losses. One comprehensive backward glance suffices for this, and that is what we purpose doing this morning. Well, we have just kept Thanksgiving Day, which means considerably more to us than the orthodox turkey and cranberry sauce. Let us count up some of our blessings for which we are thankful.

Perhaps no year in the old century has been more eventful than has this first year of the new one, upon the last month of which we are now entering, not only for its historical significance, for the effect it must have upon the national life collectively, but for the impress it must leave upon the hearths and homes of our land. There have been growth and progress along many lines which, directly or indirectly, must affect the individual lives of ourselves and children. Our whole perspective has changed; these growing conditions have opened the eyes of all but those who were wilfully blind, and we know "there are none so blind as those who won't see." The relations between cause and effect are surely clearer to all our minds to-day than they were even a few years ago, and even the most unlearned cannot pretend to believe that things just "happen," when by applying a little of the common sense and intelligence bestowed upon us by the Almighty, we ourselves may often avert catas-

trophy which is threatening us. There are still some Sleepy Hollows, even in progressive Canada, whose people are content with things as they always were, not realizing "that there is more in life than to have three meals a day, a chat on the street at post time, and a comfortable bed at night," and there are every here and there our Micawbers waiting for something to turn up.

Social problems are now being not only ventilated, but in process of solution, and there appears to be a far more general and clearer realization of all that is involved in doing one's duty to one's neighbor as well as one's duty "in that state of life to which it hath pleased God to call us." Lesser aims are being gathered up into one great purpose, to fit man, a spiritual being, for the full, rich life which is at once his inheritance and his opportunity." Amongst other good things which our year has brought us, that which has been called "The Educational Revival" has worked wonders for our children from the kindergarten upwards, bringing in its train life and light to teacher and taught alike.

Nowadays children are not merely made to repeat, parrot fashion, words which convey no meaning to them, but they are trained by sight and touch to see their little world just as it is, and not as an abstract world in which they have no recognized part; whilst the teacher of to-day has to go through a preparation by reading, study and even travel unknown to the teacher of the past. There is as little danger of a return to the dame-school methods of long ago as there is of there being found any Topshams even amongst the most forlorn who "spec's she growed." Philanthropy and education are joining sisterly hands with a view to prevent any such possibility, and practical and definite training is already becoming the rule rather than the exception. The young woman of the future need not enter upon her sacred offices of wife and mother without any realization of the duties they entail. It is no longer to be taken for granted that just because she was born a girl she will know by instinct what is expected of her. Schools of housewifery are being opened in many centers, and a knowledge of the value of foods is considered essential for those to whom the well-being of a family may be committed, whilst the use of the needle is no longer a lost art. It is true that perhaps nine out of ten of our young girls marry and become mothers, yet there is always the contingency that it may be otherwise, and that they may have to carve out an independence for themselves, so another amongst the good things which have come to us during the last two or three decades is the recognition of this and the opening up of careers which, intelligently entered upon and industriously pursued, place the young business woman beyond the reach of want or the humiliation of dependence upon others. Then, too, thank God, there is also some awakening upon the part of parents as to their responsibility in regard to their children. They are invited earnestly and cordially to co-operate with the teachers so that what is the best in their little ones may be brought out and cultivated, though much remains to be done on these lines. Mutual confidence between parent and teacher would smooth many a difficulty from the path of both, and would bear fruit a hundredfold in the after-life of the child. This both are beginning to see. So let us hope that during the coming year there will be more and more a realization, on the part of the parents, of their solemn obligations towards the children whom God has given them and to whom their lives are a daily object lesson. If so, they would let nothing in their conduct or habits tend to weaken the confidence and respect which, so long as it is deserved, is assuredly their due, and thus there would be no risk of the keen wits of an observant child detecting in the home a contradiction of the moral maxims or



ON THE BANKS OF THE SOURIS. SCENE ON THE FARM OF MR. A. H. MCGAFFIN, HARTNEY, MANITOBA.

expected colliding of two passers-by. "Look out!" it said. "Well ain't I a-looking out!" would be the reply; "but what's the good o' looking when you can't see nothink?" Through the mist would come another muffled conversation—"Where does this street lead to?" "Well, into the river if you go on fur enough. I knows, for I was just pulled out of it." Traffic was at a standstill—an occasional cab-horse planting its feet with a ring of metal upon the pavement, to the additional horror of the foot passengers thereon. The only people who enjoy a London fog are the pickpockets, and to them it was a carnival of rejoicing. In that four days' fog one could realize the full meaning of the expression, "A darkness which could be felt."

MOLLIE.

Worth While.

It is easy enough to be pleasant
When life flows along like a song;
But the man worth while is the one who will smile
When everything goes dead wrong.
For the test of the heart is trouble,
And it always comes with the years,
And the life that is worth the honor of earth
Is the smile that comes through tears.

It is easy enough to be prudent
When nothing tempts you to stray;
When without or within no voice of sin
Is urging your soul away.
But it's only a negative virtue
Till it is tried by fire,
And the life that is worth the honor of earth
Is the one that resists desire.

The cynic, the sad, the fallen,
Who had no strength for the strife,
Whose world's highway is cumbered to-day,
Who make up the item of life,
The virtue that conquers passion,
The sorrow that hides in a smile—
These that are worth the homage of earth,
We find them but once in a while.

—Ella Wheeler Wilcox

religious teachings of his teacher at school during the week or on the Sabbath day. It has been said, with truth, that "with ninety-nine boys out of a hundred it is the pride of their lives to imitate their fathers." See, then, how this acts and reacts. "The average boy gauges his treatment of his sisters by the manner in which the father treats the mother, and this attitude towards his sisters he will be very apt to duplicate in that which he will by-and-by adopt towards his wife." Perhaps for the girls, even more than for the boys, the educational revival of the end of the last century has been the greater benison. Co-education has given the girl her opportunity, for when both sexes are engaged in the same work and judged by the same standard, the test of equal capacity must be a fair one. The future will show how much fairer to both is this newer system. The girl in the school rises to what is expected of her, knowing that the prize can be hers if she prove herself worthy of it, and the boy, once for all taught that his greater physical strength is by no means a sign of mental superiority, but rather a gift by which he can protect those weaker than himself, is less likely to turn out a bully at school or a domestic tyrant at home when his school days are over.

Well, these are only some of the things for which we have cause to rejoice, but they are enough to give us hope and courage for the future.

H. A. B.

During a shower, a citizen, carrying a very wet umbrella, entered an hotel to pay a call to some one up-stairs.

After placing his umbrella where it might drain, he pinned to it the following note:

"N. B.—This umbrella belongs to a man who strikes a 250-pound blow. Back in fifteen minutes." He went his way up-stairs, and after an absence of fifteen minutes returned to find his umbrella gone, and in its place a note reading:

"P. S.—Umbrella taken by a man who walks ten miles an hour. Won't be back at all."

Bibby's Cream Equivalent

FOR REARING CALVES.

It is plain that the best article for any purpose is the one which will eventually take the premier place in popularity and will hold its place until a still better article is produced. This is what "Cream Equivalent" is doing. For supplementing the supply of whole milk, or enriching skim or separated milk, or if necessary rearing calves without any milk whatever, we believe "Cream Equivalent" is unequalled, and its unrivalled popularity is proof that our opinion is correct.

Price: 50-lb. bag, \$2.25; 100-lb. bag, \$4.00, f. o. b. Brandon. For sale at all creameries.

A. E. MCKENZIE & CO., BRANDON, MAN.

AS SUPPLIED TO

H. R. H. THE PRINCESS OF WALES

Ogilvie's Hungarian Flour.
Ogilvie's New Rolled Oats.
Ogilvie's Whole Wheat Flour.
Ogilvie's Royal Breakfast Food.

ASK YOUR GROCER FOR **OGILVIE'S PRODUCTS** THE BEST THE WORLD PRODUCES

Go take a look at an **ELLWOOD STEEL WIRE FENCE**

Examine it thoroughly and you will buy it, we are sure of that. Best steel wires, heavily galvanized: Six styles, all sizes.

To the eye of a practical man it is the perfect woven steel fence. Sold everywhere. Guaranteed. If your dealer hasn't it, write to

AMERICAN STEEL & WIRE CO., Chicago, New York, San Francisco, Denver.

Fleming's Sheep Dip

KILLS ALL KINDS OF
Lice on Cattle and Horses.

It is simple in application, and very effective.
50c., 75c., \$1.50 & \$2.50 a Tin, sent to any address.

FLEMING'S DRUG STORE, Brandon.

GOSSIP.
Mr. John H. Housser has been elected to the vacancy on the board of the Massey-Harris Company caused by the death of the late President of the Company, Mr. W. E. H. Massey. Mr. C. D. Massey was elected President.

HIGH-CLASS Farm and Stock FOR SALE.

WALTER LYNCH, WESTBOURNE, MANITOBA, offers for sale his well-known stock and grain farm at Westbourne, on the Manitoba and North-western Railway. Also the Pioneer Herd of Shorthorn cattle, representatives of which won the gold medal and many other important prizes at the Provincial Exhibition at Winnipeg. Besides the herd of pure-bred cattle, the useful stock of grade cattle and work horses are offered. A full supply of feed, amply sufficient for carrying the stock through the winter, is provided. For further particulars, write—

WALTER LYNCH, WESTBOURNE, MANITOBA.

SKUNK! KILL THE CHICKEN THIEF! SKIN HIM AND SHIP HIS SKIN AND ALL.

RAW FURS, GINSENG AND DEERSKINS TO THE OLD-ESTABLISHED SHIPMENT HOUSE **MILLAN FUR & WOOL CO.** MINNEAPOLIS, MINN. THERE'S MONEY IN IT. Write for Price Circulars.

Irish and Scotch Terriers of the best blood obtainable. Puppies from \$10.00 up.
Mrs. Bradley-Dyne, Sidney P. O., British Columbia.

PRIZE MORRIS 3 ESSAY PIANOS TO BE COMPETED FOR.

In order to encourage a study in musical ideas among the young people of the prairie homes throughout the West, we offer the following prizes for the best essay on

"THE VALUE OF A PIANO AS A HOME ATTRACTION":

FIRST PRIZE	"MORRIS" PIANO, STYLE 25,	PRICE \$450,	FOR \$225.00
SECOND PRIZE	" " " 75,	" 375	" 200.00
THIRD PRIZE	" " " 85,	" 350	" 175.00
FOURTH PRIZE	FINE AUTOHARP, WORTH	10	FREE
FIFTH PRIZE	" MANDOLIN,	8	FREE
SIXTH PRIZE	" GUITAR,	6	FREE

The winners of the three pianos may have them at the prices named on monthly payments if desired.

The conditions of this competition are as follows:

- 1st. Only persons under the age of 21 are eligible to compete.
- 2nd. The essay not to exceed 1,000 words, and to be written on one side of foolscap paper only.
- 3rd. Every essay to be signed by the person composing and writing it, stating age last birthday.
- 4th. The competition closes DECEMBER 14th, 1901. Essays to be mailed in a sealed envelope, marked "Morris" piano prize contest,

and addressed: Barrowlough & Hooper, Managers "Western Canada's Music Bureau, 228 Portage Ave., Winnipeg."

These pianos are highest grade, upright GRANDS, and are in use in the studios of several of Winnipeg's leading pianists. Cuts of the above pianos will be sent to any applicant.

Over 100 of these pianos have been sold from our warerooms in Winnipeg within a year.

AGENTS **THE WEBER PIANO COMPANY.**
CORNER FORT AND PORTAGE. R. H. CLIMIE, MANAGER, WINNIPEG.

CLYDESDALES and SHORTHORNS



Young stallions, bulls, and heifers. Herd headed by Best Yet—14371—and Mint-horn—24084—bulls bred by Hon. John Dryden and H. Cargill & Son. PRICES ON APPLICATION. D. McBeth, Oak Lake, Manitoba

FARM HORSES

For Sale.

Clyde and Shire Bred.

Prices reasonable per carload. Write:

High River Horse Ranch,
HIGH RIVER, ALBERTA.

For Sale: Clydesdales, Shorthorns.

Exceedingly well-bred mares, fillies, one (imp.) two-year-old stallion. Bulls, cows, heifers (all ages) from Caithness. Apply: **PURVES THOMPSON,** Pilot Mound, Man.

GALLOWAYS.

Bulls and heifers for sale.

APPLY TO

T. M. CAMPBELL,

"HOPE FARM,"

St. Jean Baptiste, Manitoba.

POPLAR GROVE

HEREFORDS

PRIVATE

Dispersion Sale

OF THIS

FAMOUS PRIZE-WINNING HERD.



Owing to ill health, I will sell my entire herd of about 100 head at close prices. A rare opportunity to secure some splendid show and breeding stock.

J. E. Marples, Deleau, Man.

Herefords. The meat-makers.

Range favorites and stocker-getters. FOR SALE: bulls of the right age and type. Also Barred Rocks—eggs or chickens. **FRED WEST, DELEAU, MANITOBA.**

HEREFORDS.

The range favorites. Good rustlers and feeders. Prizewinners, either male or female, for sale.

JOHN WALLACE, CARTWRIGHT, MAN.

SHORTHORNS

I am offering three red bulls, one aged, of the heavy-fleshed type, also well-bred females. **LEICESTERS** of both sexes for sale. **GEO. ALLISON,** R. R. STATION, ELKHORN, C. P. R. Burnbank, Man.

SHORTHORNS: We have for sale one bull calf, 7 months old, and some young females. Dams from the herds of A. Johnston, Greenwood, Ont., and Purves Thompson, Pilot Mound, Man. Sires, Caithness and Sir Colin Campbell. **PAUL BROS., Killarney, Man.**

Lakeview Stock Farm.

SHORTHORNS FOR SALE.

I am offering for sale bulls and heifers of good quality. Cheap if sold soon.

THOMAS SPEERS, OAK LAKE, MANITOBA.

RIVEREDGE FARM.

Shorthorn Cattle and Standard-bred Horses. Herd headed by Sityton Stamp (imported). Females bred from or tracing to Windsor (imported). **A. TITUS, NAPINKA, MAN.**

SHORTHORNS FOR SALE

of Scotch breeding, seven bulls and forty cows and heifers, mostly all in calf or calf at foot. A few Clydesdales of both sexes. **Geo. Rankin, Melrose Stock Farm, Hamiota, Man.**

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

The Carlyle farmers will have the opportunity the coming summer of breeding to a Clydesdale station of the most fashionable breeding. In Baron's Style (10690), by the great Baron's Pride, a horse now at the top of the tree in Scotland, is to be found the essentials of a draft horse—weight, style and good legs and feet. He is a good color and girths well. The syndicate that has purchased Baron's Style should do well with this horse. Given reasonable luck and the horse stock of the district should in the course of a few years show the effects of the introduction of good blood. Baron's Style was purchased from Jas. Smith, Brandon, Manager for Alex. Galbraith, of Janesville, Wis.

PURE-BRED STOCK FOR THE NORTH-WEST TERRITORIES.

Arrangements have been made between the C. P. R. and the Department of Agriculture of the Northwest Territories to deliver pure-bred bulls from any point in Manitoba or Ontario to any point in the Territories for \$5 per head; pure-bred cows and heifers at \$7.50 per head. Additional information desired may be obtained from C. W. Peterson, Deputy Commissioner, Regina, or A. P. Westervelt, Toronto.

WALTER LYNCH OFFERS FARM AND STOCK FOR SALE.

Attention is directed to the advertisement in this issue of Mr. Walter Lynch, of Westbourne, Manitoba, who offers for sale his fine farm on the Manitoba and Northwestern Railway near the Portage la Prairie junction with the C. P. R. This is well known as one of the most desirable farms in the Province, being well improved with up-to-date buildings and in a high state of cultivation and fertility. With the farm, or, we presume, separate from it, is also offered the Pioneer Herd of Shorthorn cattle, one of the largest and best in the West, being built on sound foundation stock and kept up to date by the use of high-class bulls of the most approved breeding and type, and having won many important prizes at provincial and other leading exhibitions. This is a rare opportunity for some one with capital to step into a well-furnished farm and an established business and business connections. For full particulars write the owner.

NOTICES.

DR. HESS'S STOCK FOOD, advertised this issue, is claimed to act as a tonic, aiding digestion, creating an appetite by which coarse fodder is eaten with relish, promoting a healthy performance of the functions of the stomach and other organs, and enabling the animals to make more profitable returns in meat and milk. Dr. Hess' veterinary work on symptoms and treatment of ailments of stock is mailed free on application. See the advertisement.

CHRISTMASTIDE BRINGS WITH IT visions of cake and plum pudding and other delectable dainties. Our advertisers, Smith & Burton, Brandon, make a specialty of filling mail orders for groceries, crockery, etc. A post card, with the name and address of the sender, brings their full catalogue free. They have at present a good line of crockery, orders for which will be sent freight paid with groceries.

A GOOD SHEEP DIP.—During the winter season, many a stockman is troubled with various parasites infesting his live stock. To all such we would draw attention to Fleming's Sheep Dip, advertised in our columns. Such stockmen as J. E. Marples, the well-known Hereford breeder, Deleau, Man., speaks highly of its efficacy as a sheep and cattle dip. Very often the coarse feed on the farm needs supplementing, for which purpose the Fleming Stock Food is designed. This firm makes a specialty of mail orders, so that if any of the above-mentioned articles are needed by any of our readers, it will pay them to investigate.

BLACKLEGNE OUTFIT.—The new Blacklegne outfit, furnished with the Pasteur Blackleg Vaccine in the cord form, or "Blacklegne," as it is called, has met with great success. This new outfit only costs 50 cents, and renders vaccination cheaper, simpler, and more effective than ever. "Blacklegne" is the vaccine in the form of a cord which is saturated with the vaccine. Each dose is separate, which is a great convenience. The outfit consists of a needle furnished with a detachable handle, and there is an extra needle in case of breakage. The dose of "Blacklegne" is inserted in a notch in the needle, and the operation of vaccinating is now as simple as taking a stitch.

Thorndale Shorthorns.

25 BULLS, and about 100 FEMALES, of all ages, to choose from.

JOHN S. ROBSON, Manitou, Man.

Shorthorns, Shropshires, Yorkshires, Buff Plymouth Rocks.

YOUNG STOCK OF ALL CLASSES FOR SALE.

J. S. LITTLE, OAK LAKE, MAN.

SHORTHORNS

Have sold all bulls of serviceable age, but have a few choice females to go yet. Prices right, pedigrees good; cattle typical.

Wm. McDonald, Pilot Mound.

WORK OF THE De Laval Machines

AT THE BUFFALO EXPOSITION.

THE award of the Gold Medal to the De Laval Cream Separators (the highest and only award of the kind) at the Buffalo Exposition was well supported by the magnificent work of the De Laval machine used in the Model Dairy of the Exposition, which made a record in practical work under ordinary everyday-use conditions in every way unapproachable by any other than an improved "Alpha-Disc" De Laval machine.

PAN-AMERICAN EXPOSITION, 1901.

The De Laval Separator Co., Buffalo, N. Y., Oct. 21st, 1901.
74 Cortlandt St., New York.

Gentlemen.—The work of the De Laval Centrifugal Cream Separator, Dairy Turbine size, guaranteed capacity 1,000 pounds per hour, used by us in the Model Dairy at the Pan-American Exposition, Buffalo, N. Y., brought out the following points:

First.—The machine has been run from August 9th, 1901, to September 28th by the buttermaker and his assistant, and had no special attention given it by any expert of the Company.

Second.—The official tests were made by two of the best experts in Babcock testing, and for the whole time, or 71 consecutive tests, shows a loss of .0161 of one per cent. of butter-fat.

Third.—It was run at its full guaranteed capacity of 1,000 pounds per hour, at times exceeding that amount, but at no time was the feed reduced to make a skimming record.

Fourth.—The amount of power used was very small.

Fifth.—It did what you claimed for it in every particular.

JNO. A. ENNIS, Buttermaker. **EDWARD VAN ALSTYNE,** Superintendent.
ELMER C. WELDEN, Asst. Buttermaker. **DE WITT GOODRICH,** In charge of tests.
JAS. STONEHOUSE,

Other Great Expositions. The supremacy of the De Laval machines at Buffalo is a continuation of their triumphant record at all previous great expositions. At the World's Fair, Chicago, in 1893, they received the Gold and only Medal awarded by the regular jury of awards, and were the only separators used in the Model Dairy. At Antwerp, in 1894, and at Brussels, in 1897, they received the Grand Prizes, or highest awards. At Omaha, in 1898, they received the Gold Medal, and again at Paris, in 1900, the Grand Prize, or highest award.

THE DE LAVAL SEPARATOR CO.

Western Canadian Offices, Stores and Shops:

248 McDermot Ave., WINNIPEG, MANITOBA.
MONTREAL TORONTO. NEW YORK. PHILADELPHIA. CHICAGO. SAN FRANCISCO.

Alex. Galbraith, of Janesville, Wisconsin, offers for sale

AT THE BEAUBIER STABLES, BRANDON, MAN.,

An extra superior lot of imported

Clydesdale Stallions.

Also a few choice

Hackneys, Yorkshire Coachers and Percherons.

Every horse in the lot, without exception, is a prizewinner, and is thoroughly guaranteed. If interested, call and examine this superb lot of horses, or write for particulars at once to—

JAMES SMITH, AGENT, BRANDON, MAN.

PRAIRIE HOME STOCK FARM



CLYDESDALES, SHORTHORNS, SHROPSHIRES, BERKSHIRES and YORKSHIRES.

Shorthorn herd headed by Judge, imp. Jubilee, and Ribbon's Choice. Ayrshires of the best quality; herd headed by Surprise of Burnside. Oak Lodge Mighty 7th and a large number of high-class sows represent the approved bacon type of Yorkshires. The Berkshire boar, Victor (Teasdale), sweepstakes at Brandon and Winnipeg, 1900, and 30 sows of faultless conformation and superior breeding, make up the Berkshire herd. Farm one mile from the station. Visitors welcome. Prices and quality right.

THOMAS GREENWAY, PROPRIETOR, Jas. Yule, Manager. Crystal City, Man.

W. S. LISTER, MARCHMONT STOCK FARM, MIDDLECHURCH, MAN.

SCOTCH SHORTHORNS

Of the celebrated Glenythan family. Prince Alpine (imp.) and Baronet (imp.) at head of herd.

80 HEAD TO SELECT FROM.

Offers for sale 5 young bulls, and cows and heifers of all ages, of the most approved breeding. Farm seven miles north of Winnipeg. Telephone connection.

J. S. LITTLE, OAK LAKE, MAN.

LIGHTNING HAY PRESSES

HORSE AND STEAM POWER CATALOGUE FREE
KANSAS CITY HAY PRESS CO

THE OLD RELIABLE. 439 MILL ST. KANSAS CITY MO

Shorthorns and YORK-SHIRE

Two choice yearling bulls by Masterpiece, out of Caithness cows. Boars fit for service, and sows with fall litters. White Plymouth Rocks and cockerels.

JAS. BRAY, Longburn.

MAPLE GROVE STOCK FARM.

7 young SHORTHORN BULLS, by a son of Indian Warrior. Also a few choice heifers. Lord Stanley 25 = 29247 = at head of herd. Write

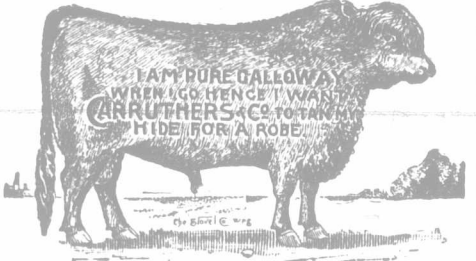
WALTER JAMES, ROSSER, MANITOBA. 15 miles west of Winnipeg, on main line C.P.R.

D. FRASER & SONS, EMERSON, MAN. Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale. 9-y-m

SHORTHORNS

Gold Medal herd of 1899-1900. Bulls in service are: Nobleman (imp.) and Topsman's Duke. Some good young bulls for sale. m

J. G. BARRON, Carberry, Manitoba.



"What a Wise Old Chap!" He has left his hide in good hands. Send for our circular in reference to custom tanning. We send samples of work with circular.

CARRUTHERS & CO., TANNERS, and dealers in hides, wool, sheepskins, furs, tallow, etc. 9th Street, Brandon, Man.

Shorthorns, Tamworths and Yorkshires FOR SALE. 10 bull calves for sale, 8 to 11 mos. old, 3 Yorkshire boars, fit for service. 1 Tamworth boar, fit for service. White Wyandotte cockerels. W. G. STYLES, ROSSER, MAN

Chambers' Barred Rocks are winners. The shows record. Has also Blk. Minorcas, Hamburgs, S. C. B. Leghorns, and S. L. Wyandottes. Eggs, \$2 a setting. See my exhibit at the next Brandon show. Stock bred by me is fit to head any yard. Write for particulars. THOS. H. CHAMBERS, Brandon.

Fort Rouge Poultry Yards

Has for sale some very choice Langshans, Golden Wyandottes, Indian Games, Barred Plymouth Rocks, White Wyandottes, Light Brahmas, Black-Red Games, Fancy Pigeons, and Belgian Hares. The above includes several prizewinners at the Winnipeg Industrial. Write:

S. LING, WINNIPEG, MAN.

Pedigree Improved Yorkshire Pigs.

Sows and boars, four months old, for sale. YORK SHAW, MIDNAPORE, ALTA.

MAW'S POULTRY FARM WINNIPEG, MANITOBA.

I keep acclimatized utility breeds only of the very best, and can supply you eggs guaranteed to arrive in good order. Mammoth Bronze turkeys, Toulouse geese, \$2.00 per setting. Very large, deep-keeled Pekin ducks and English Rouen ducks, \$1.00. English White Leghorns, \$1.00. Large pure White Wyandottes and Laed, great winter layers, great table fowl (they pay to keep), \$2.00. Plymouth Rocks, straight "Hero" strain. They are the ideal fowl. Cockerels, last season, weighed nine pounds. Great egg strain. Great winter layers. Eggs, \$2.00 for 15; \$3.00 for 30. Large illustrated catalogue mailed free. You want to keep poultry for profit? The varieties mentioned in this ad. will suit you. M. MAW, Manager.

Yorkshires.

Spring pigs of choice quality. Also two boars fit for service, and sows ready to breed, from large sows. Address—

King Bros., Wawanesa, Man.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.

GOSSIP.

No less than thirty threshing outfits went west from Manitoba in November to assist in threshing out the crop in the Territories. The C. P. R. gave one-way freight and a cent-a-mile rate on the men up to eight going with each outfit. The Winnipeg Board of Trade and the railway companies deserve credit for the promptness with which they acted in this matter of helping out the delayed threshing in the West, where the crop was so tremendously beyond the capacity of the threshing outfits in the various localities.

The Macmillan offering of Clydesdales, to which we have referred in these columns, to be sold at auction in December, contains several good brood mares in the prime of life and in foal to such stallions as Palestine and Sir Christopher, the Clydesdale cup winner. The mares are worked regularly, and are better therefor, a pair, Soanite and Jenny June, five and seven years, respectively, being engaged teaming when we saw them. A stallion colt from such mares will, at two years, pay the original cost of the dam, and it requires no great work in arithmetic to figure out the profit in a brood mare who earns her keep and gives a good colt as the margin. Such noted mares as Lilian McGregor, four year old; Carmen Sylva, five years; Margaret and Mosette, six years; a yearling filly from Jenny June, and a colt from Maid, by the noted Nansen, will be included in the offering. The breeding of the mares is first-class. They have superior individuality, are in foal to good horses and are good workers.

The Smithfield Stock Farm of J. E. Smith, Brandon, is well known, at least by reputation, to our readers as the place from whence have come prizewinners in provincial show-rings and foundation stock for many Clydesdale studs and Shorthorn herds in this Western country. One of the advantages of inspecting and buying stock from this farm is that the buyer is enabled to see the sires and dams, the stock for sale being mainly home-bred. From this home-bred stock of Shorthorns have been furnished several Winnipeg and Brandon winners, and the first-prize Clydesdale yearling colt, Little Bobs, who is growing into a big horse. The grand old imported mare, Bessie of Overlaw, dam of McBain, is again in foal. The imported bull, Golden Measure, illustrated in our Xmas number, 1900, is proving his worth as a sire, several very promising young things being now on the farm. This bull is exceedingly well bred, being related to Kelly's (O.) \$6,000 Brave Archer. A word or two about some of Golden Measure's get may furnish food for thought to our readers. Lavender 42nd, by Golden Measure, brought \$1,050 at public sale, at which price Senator Drummond, Montreal, P. Q., got her. Trout Creek Lady brought \$650 at the Canadian Big sale in Chicago, where she was assigned by W. C. Edwards, Rockland, Ont. Magnolia, another of Golden Measure's get, brought \$615 at a Chicago auction in April, 1901. A half-sister of Golden Measure's, Mistletoe Flower, brought \$1,160. Mr. Smith has now on hand some choice young heifers in calf to Golden Measure for sale, which should be good investments to persons about to start into Shorthorns.

NOTICES.

THE UP-TO-DATE FARMER AND stock-breeder is always on the lookout for first-class feed for his stock, and will only use the best seed of proved varieties for grass or fodder crops. A. E. McKenzie & Co., Brandon, make a specialty of selling high-class seeds, such as Compton's Early, Pearce's Profile and N. D. Flint corn, spelt, etc., and will, the coming season, be able to supply Western-grown nursery stock, the only kind that grows in Manitoba or the Territories. This firm will issue a fine catalogue at the beginning of the new year, which it will pay our readers to send for.

D. A. REESOR, THE BRANDON JEWELLER has a fine display of goods as can be found in the West. Diamonds and cut-glass, clocks and watches of a quality to suit the most fastidious tastes. Christmas time is the present-living time, and one cannot do better than purchase from D. A. Reesor. His extensive workshops, in which only the best workmen are employed, render it possible for him to turn out better work than can be got elsewhere. Watch repairing is a specialty, as are mail orders. Rings of all kinds, engagement, wedding and emblem rings, are there in infinite variety, and our readers wishing such articles should write Mr. Reesor at Brandon. If your watch errs in time-keeping send it to him for repairs. "Time is money," and none of our readers can afford to lose time.

THE WESTERN FARMER'S Live Stock Insurance Co.

HEAD OFFICE: 251 GRAIN EXCHANGE, Winnipeg.

D. PRITCHARD, P. O. BOX 1382, President. H. S. PATERSON, Secretary.

The best insurance is when risk is greatest. Claims paid for six months ending June 1st, 1901, \$3,000.00.

Write for particulars. Local agents wanted.

Canadian Pacific Rail'y EASTERN EXCURSIONS

VIA THE Canadian Pacific Railway. LOWEST ROUND-TRIP RATES TO ALL

Ontario Points And MARITIME PROVINCES.

GOOD FOR THREE MONTHS. STOP-OVER PRIVILEGES EAST OF FORT WILLIAM.

Daily Tourist, & First-class Sleepers

These tickets are first-class, and first-class sleepers may be enjoyed at a reasonable charge. For full information apply to

C. E. McPHERSON, General Passenger Agent, WINNIPEG, MAN.

Indispensable in Every Home A Reliable

Thermometer and Barometer

Worth \$1.00, specially made to meet the climatic conditions of Western Canada, will be sent free to every yearly subscriber of the

WEEKLY FREE PRESS

WINNIPEG Season 1901-1902

Cut out this advertisement and forward to Free Press with one dollar and receive Weekly Free Press for one year together with a handsome thermometer and barometer.

4 Great Books Free

The Practical Horse and Cattle Doctor. The Family Doctor Book. The American Family Cook Book. Home Amusements for Winter Evenings.

These four valuable books, neatly bound in attractive paper covers, are offered FREE as an

Alternative Proposition

to subscribers to The Weekly Tribune. That is, subscribers have the choice of one set of our great premium pictures of the King and Queen or Duke and Duchess, or these four great books, together with

The Weekly Tribune

to Jan. 1, 1902, all for \$1.00.

Remember these four valuable books will be mailed free to all subscribers who prefer them to a set of our great premium pictures. This is an offer that is without a parallel in journalistic experience.

Get your names on the list early—the premium books or pictures are sent in the order in which subscriptions are received. Address all orders to—

The Tribune Publishing Co'y, WINNIPEG, MAN.

All Scotchmen enjoy a night with Burns, hence we can understand the bringing together of a volume of buyers which has enabled Jas. Smith, manager for Alex. Galbraith, Jamesville, Wis., to make sales so numerous.

MANITOBA Dairy School

THE SEVENTH SESSION WILL OPEN ON

JANUARY 6TH, 1902.

A FULL COURSE OF INSTRUCTION IN

Home Dairying, Butter and Cheese Making,

AND ALL WORK PERTAINING TO THE DAIRY INDUSTRY.

For full information and application blanks, address:

C. A. MURRAY, DAIRY SUPERINTENDENT, WINNIPEG, MANITOBA.

Manitoba Commission Co'y, LIMITED,

LICENSED AND BONDED.

Consign your grain and save middleman's profit. Perfectly reliable.

251 GRAIN EXCHANGE, WINNIPEG, P. O. BOX 1382.

H. S. PATERSON, MANAGER.

CANADIAN NORTHERN.

December Excursions To Eastern Canada.

WINNIPEG TO

London, Hamilton, Toronto, Niagara Falls, Ont., Kingston, Ottawa, Montreal, \$40

AND RETURN.

Corresponding rates from other points in Manitoba. Proportionately low rates to points east of Montreal, in the Provinces of Quebec, New Brunswick and Nova Scotia. TICKETS ON SALE commencing December 2nd, 1901, to and including December 31st, 1901. All tickets good for THREE MONTHS.

CHOICE OF ROUTES. STOP-OVERS EAST OF DETROIT. LOWEST OCEAN STEAMSHIP RATES.

For further information apply to any Agent Canadian Northern Railway.

WINNIPEG CITY TICKET, TELEGRAPH AND FREIGHT OFFICE, 431 Main St. Tel. 891.

GEO. H. SHAW, Traffic Manager.

R. A. BONNAR, Barrister, Notary Public, Conveyancer, Etc.

Office 494 1/2 Main St., Winnipeg, Man.

Special attention to collections. Solicitor for "Farmer's Advocate," Winnipeg. 24-a-m

E. J. C. SMITH, Agent for Canadian Kodak Co.

Supplies of all Kinds. Printing and Finishing for amateurs. 276 SMITH ST., WINNIPEG.

Send for Catalogue. Established 1892.

SOMERVILLE & GO. Steam Marble and Granite Works, BRANDON.

Dealers in Marble and Manitoba Granite.

MONUMENTS, HEADSTONES, MANTELPIECES, CEMETERY FENCING TABLETS, ETC.

ROSSER AVE., BRANDON, MANITOBA.

Represented by W. Somerville, W. C. Stewart, A. W. Thomson, E. Patterson.

WHEN WRITING MENTION THIS PAPER.

Mr. N. M. Tamworth... Have never... better de... my spring... of the best... luster fellow... account of t...

The West... have arrang... held at th... at Gladst... offered fo... variety of... barley, six... seeds, flax...

The repu... made in v... are under... manager... considerab... in the har... Jno. Galb... purchased... yearling a... Alexander... in our issu... and exp... horse stoc... follow his... trust that... Galbraith... horse may... believing... the merrie...

Robert M... Shorthorn... Ont., wri... about clos... me it has... pared wit... have been... ewes, and... quality so... lambs, an... in good... John McK... Missie bul... be a good... great bull... Crown is... and I hav... good and... you notic... tion of k... they are v... H. Buckle... cow. 'Ce... He is sta... right. Ha... P. Rockl... Missie cal... Favorite... dam Miss... Guard. M... favorite c... this calf... 12th and... pair of r... two cows... B. C. Gov... to Geo. P...

Canada

ASK YOUR GROCER

Choose

FOR A

WAGG

Is the best... in Ontario... greater rea... good fruit... can be plac... extended in... as to reach... middle top... apples on a... this season... fullest ever... Satisfaction

Nor... F. J. HO... New B... H. J. T... Illustred... THE WAG... LONDO

GOSSIP.

Mr. N. M. Blain, importer and breeder of Tamworth swine, St. George, Ont., writes:—"Have never in eleven years' experience, had a better demand than the present year. All my spring boars and sows are sold. Have some of the best fall pigs I ever offered. Big, strong, lusty fellows that should go on and give a good account of themselves in the future."

The Westbourne Agricultural Society have arranged for a grain exhibit to be held at the time of the annual meeting at Gladstone, on Dec. 9th. Prizes are offered for Red Fife and any other variety of wheat; oats, white or black; barley, six-rowed and two-rowed; grass seeds, flax, peas, corn, beans, etc.

The reputation of a stud horse is made in various ways, many of which are under the control of the owner and manager. In this respect we look for considerable notoriety for Alick's Pride, in the hands of that capable horseman, Jno. Galbraith, of Brandon, who has purchased this son of Scotland's \$6,000 yearling and champion horse, Prince Alexander. We have referred at length in our issue of Nov. 5 to Alick's Pride, and expect that improvement of the horse stock of the Brandon district will follow his employment at the stud. We trust that good fortune will attend Mr. Galbraith in his venture, and that the horse may be seen in the show-rings, believing, as we do, "that the more, the merrier."

Robert Miller, importer and breeder of Shorthorns and Shropshires, Stouffville, Ont., writes:—"The sheep trade is about closing for the autumn, and with me it has been a strange trade, as compared with other years. Very few ewes have been asked for, excepting imported ewes, and imported rams of the best quality sold faster than home-bred rams. Everybody seems to want the best. Have sold rams to many of my old customers from York State to Nebraska and Minnesota. The last sale I made of a carload was to our own North-west. Have a beautiful lot of ewes one year old, in lamb to one of the best Mansell rams I imported, that will be sold low. Will hold over about 100 lambs, and they are very nice. Trade in good Shorthorns has been good. John McKenzie, Kerwood, Ont., got a Missie bull from Golden Fame that will be a good one for him to follow the great bull, Golden Crown, with Golden Crown is a grandly-bred Brawith Bud, and I have him now. He has been a good and sure sire. By the way, have you noticed the difference in the direction of keeping such good sires until they are worn-out now. Have sold to S. H. Buckler the nice Cruickshank Cecilia cow, 'Cecilia A.' and her heifer calf. He is starting a herd, and wants them right. Have sold to W. C. Edwards, M. P., Rockland, Ont., the imported Marr Missie calf, Missie 176th; sire Bapton Favorite (the best bull I know of), and dam Missie 155th, by Captain of the Guard. This calf is from one of the favorite cows in Mr. Marr's herd. With this calf I also sold Missie of Neidpath 12th and her heifer calf, a beautiful pair of royally-bred ones. Have sold two cows, one heifer and one bull to the B. C. Government, and five good heifers to Geo. Harding & Son."

GOSSIP.

Geo. Halse, Brandon, has rented his farm for one year, his many public duties rendering a rest from farm management imperative.

Mrs. E. M. Jones, Brockville, Ont., makes a change in her advertisement, in which she offers high-class Jersey cattle, close descendants of her most noted prizewinners. Mrs. Jones' long experience, fine judgment and notable success in the breeding of typical, high-producing and prizewinning Jerseys commend her stock to those requiring the best.

Messrs. A. C. Wells & Son, Chilliwack, B. C., write:—"We notice in the last number of your journal that Mr. W. Ladner is credited with winning the prize at the New Westminster Exhibition for the best exhibit of cattle. Your reporter has doubtless made a mistake, as we had the honor of winning the Hudson's Bay cup for this prize, our herd scoring considerably higher than any other. Kindly make correction and oblige."

Mammoth Bronze turkeys and Black Minorca, W. Wyandotte, Barred, Buff and White Plymouth Rock fowl are advertised for sale by R. G. Rose, Glanworth, Ont.

Consult the label on your paper, and in renewing, remit accordingly.

Clydesdale stallions, brood mares and fillies and Shorthorn heifers of various ages are offered for sale in his advertisement by Thos. Good, Richmond P. O., Ont. R. R. station: Stittsville, C. P. R., near Ottawa.

The 21st annual meeting of the American Clydesdale Association will be held at Chicago on the evening of Thursday, Dec. 5th, at 8 o'clock. For the convenience of those attending the International Live Stock Show, the meeting will be held in the office of Mr. R. B. Ogilvie, Exchange Avenue, just outside the north gate leading into the show. Alex. Galbraith, Secretary.

The young Shorthorn bulls and heifers offered for sale by Mr. Robt. Glen, of Owen Sound, Ont., are a good even lot. They are sired by Commodore and Mungo, both splendid individuals, who have proven their worth as sires. His present stock bull, Imp. Baron's Heir (imported by Cargill & Son), sired by Prince of Fashion, by Scottish Archer, is a cracker, and will to a certainty prove a bonanza to Mr. Glen in the improvement of his herd.

Kindly forward your renewal subscription to-day for the best and most attractive agricultural paper published—the "Farmer's Advocate."

The handsome yearling Shorthorn heifer, Diamond Queen, illustrated elsewhere in this issue, is representative of the young stock in the herd of Messrs. John Morgan & Sons, Kerwood, Ont. She was sired by Vice Regent 22920, a son of Imp. Aberdeen 18949, twice a first-prize winner at Toronto, and his dam, Madrina 2nd, of the Scotch Syme family, was by the imported Cruickshank bull, Vice Consul, a Toronto champion. The dam of Diamond Queen is Fair Queen 2nd, grandam imported Star Queen.

In this issue appears the advertisement of J. H. Kinnear, Souris, to whose Shorthorn herd we would draw the attention of our readers. At the time of our visit, the matrons and young things were on the stubbles, from which the owner has garnered this year 5,000 bushels of wheat and 2,900 bushels of oats. Among the young things especially worthy of notice is the deep, mossy-coated heifer calf out of Imported Buttercup, and a roan bull calf by Imp. Baron's Pride, a square-butted fellow, with a short, masculine face and well-sprung ribs. A chance for farmers to secure a good herd leader, with promise of large size, is offered by Mr. Kinnear in Quiet Tom 38741, out of Golden May, and by Royal Champion 29077. This bull, a red fellow, is deep-flanked and a good handler, quite strong in his crops, not always a strong point in bulls, but an important point which should not be overlooked in the selection of a breeding animal. The matrons are of the thirty, forty type, and should nick well with Baron's Pride (imp.), who is growing and thickening down well; he is an easy keeper and a sure getter. Evidence of forehandedness at the Kinnear farm was noticed in the careful preparation being made for winter by the drawing up to the barns and stacking there of large quantities of straw—a move more of our farmers might well imitate.

Jas. Yule, Manager of Mr. Greenway's Prairie Home Stock Farm, Crystal City, called at this office recently. He reports the Shorthorn herd in fine shape this fall, with a fine crop of fall calves coming to the service of Judge, Sullyton Hero 7th, and Jubilee imp. Sales have been satisfactory in all classes of stock, and enquiries point to a very busy sale season. Rife & Greenwood, the Nebraska breeders who purchased the three yearling show heifers, have recently purchased a bull calf, Duchess of Greenwood and Maid of Elysee, and the bull calf, Stylish Boy of Prairie Home, have been sold recently to Glad Stone of Minnesota. This fall there has been a break demand for Shropshire rams, R. S. Preston, Pilot Mount, recently securing a flock leader from Prairie Home. Never was there such demand for breeding Yorkshires and Berksheires, and sales have been numerous. J. W. Reader, Delaware, recently took away one of the show Berkshire boars in Douglas. Manager Yule anticipates a big demand from the States for Yorkshires, where they are rapidly gaining in favor. Food is abundant at Prairie Home this winter, a big grain crop successfully harvested and threshed, and Manager Yule looks pushing forward the work before him more than ever.

GOING INTO CONSUMPTION

Thousands of Persons Are Hastening Towards Their Graves as a Result of This Dread Disease.

READ HOW TO SAVE YOURSELF.

Full Free Course of Treatment to Our Readers.



DR. SLOCUM IN HIS LABORATORY,

Demonstrating to Medical Men, Scientists, Statesmen and Students the value of the New Slocum System of Treatment for the Permanent Cure of Consumption, and all Pulmonary and Wasting Diseases.

Do you cough? Do your lungs pain you? Do you have throat sore and inflamed? Do you spit up phlegm? Does your head ache? Is your appetite bad? Are your lungs delicate? Are you losing flesh? Are you pale and thin? Do you lack stamina? These symptoms are proof that you have in your body the seeds of the most dangerous malady that has ever devastated the earth—consumption, the bane of those who have been brought up in the old-fashioned beliefs that this disease was hereditary, that it was fatal, that none could recover who were once firmly clasped in its relentless grip. But now known to be curable, made so by the discoveries of that man whose name has been given to this new system of treatment, now known to be preventable and curable by following and practicing his teachings. The new system of treatment will cure you of consumption and of all diseases which can be traced back to weak lungs as a foundation. It is not a drug system, but a system of germ destruction and body building. Not guesswork, but science.

Not a step backward, but a stride out of the old rut. Made possible only by Pasteur's, Virchow's, Metchnikoff's, and Slocum's latest discoveries in bacteriology, hygiene and therapeutics. In plain English, a system of modern scientific disease curing. The Slocum System consists of Four Preparations, which act simultaneously, and supplement each other's curative action. You are invited to test what this system will do for you, if you are sick, by writing for a FREE TRIAL TREATMENT, and the Four Free Preparations will be forwarded you at once with complete directions for use. The Slocum System is a positive cure for consumption, that most insidious disease, and for all lung troubles and disorders complicated by loss of flesh, coughs, catarrh, asthma, bronchitis, and heart troubles. Simply write to the T. A. Slocum Chemical Company, Limited, 179 King Street west, Toronto, giving post-office and express address, and the free medicine (the Slocum Cure) will be promptly sent. Persons in Canada seeking Slocum's free offer in American papers will please send for samples to Toronto. Mention the FARMER'S ADVOCATE. For sale by all druggists.

DISPERSION SALE OF

24 FEMALES Shorthorn Cattle 10 BULLS WEDNESDAY, DECEMBER 18, 1901.

The herd consists of a choice lot of cows with calves by their side, and cows in calf. Some of the bulls are about 2 years old and fit for service. They have all been purchased by the proprietor within the last two years, from some of the most noted breeders in Ontario, and have been sired by such bulls as Chief of Stars (imp.) = 32076 =, Royal Standard = 27653 =, Norseman = 16397 =, Albert Victor (imp.) = 6315 =, Chivalry = 12853 =, Red Stanley = 25345 =, Sir Roland = 23762 =, Ronald = 25325 =, Bobs 34605, and Engineer = 34761 =. The stock is all in first-class breeding condition. Woodlee Farm is one mile from Unionville Station, G. T. R.; 18 miles from Toronto. Conveyances will meet the forenoon trains from both east and west at Unionville. Lunch at 11. Sale at 1. Terms: 9 months' credit, on approved joint notes; 5 per cent. off for cash. Send for catalogue.

CAPT. T. E. ROBSON, M. P. P., Auctioneer.

S. G. LITTLE, HAGERMAN, ONT

HAVE YOU RENEWED? — The "Farmer's Advocate," which has rendered you the best of service during the past year, will do still better in 1902. Send in your renewal to-day, and along with it a new subscription for some neighbor who has not heretofore enjoyed the advantage of reading the paper. THE INTERNATIONAL STOCK FOOD CO., Minneapolis, Minn., under date, Nov. 23rd, writes:—"Owing to the immense increase of our business, we have been compelled to again increase our factory help. At this time we are constantly using thirty typewriters, and it requires 74 people to attend to our office work. Our office is acknowledged to be the largest of any of the entire Northwest for any line of business, and we believe it is not exceeded by a very large number in this country. We hope to increase it next year."

In practical value and wealth of illustration, no farmers' paper equals the "Farmer's Advocate." THE RESULTS WERE EXTRAORDINARY. Wapella, N.-W. T. The Lawrence-Williams Co., Cleveland, O.: I keep your "Gombault's Caustic Balsam" in stock. I have sold it for the last three years. I have been in the drug business in Ontario and this country, but it is not known to the majority. I sold a bottle, which I saw used under my own supervision, which gave most universal satisfaction. The results were extraordinary. I sell it here at \$1.50 per bottle. I am quite a horseman, and would be pleased to use any pictures of the noted racers of the day, to our mutual benefit. J. A. MACDONALD.

THE Canadian Packing Co. LONDON, ONT. LARD, BACON, HAMS, CANNED MEATS. ASK YOUR GROCER FOR THE GUARANTEED Choice and Pure. GOLD MEDAL, PARIS, 1900.

FOR APPLE PICKING AND GENERAL FARM USE THE WAGGONER LADDER Is the best on earth. The apple crop in Ontario is light this year; all the greater reason for saving all your good fruit. The Waggoner Ladder can be placed under the trees and extended in the heart of the tree, so as to reach the fine apples in the middle top. It will save enough apples on a few trees to pay for itself this season, to say nothing of its usefulness everywhere about the farm. Satisfaction guaranteed. Northwest Agent: F. J. HOLLAND, Winnipeg. New Brunswick Agents: H. & J. T. M'GOWAN, St. Johns. Illustrated catalogue free. Address: THE WAGGONER LADDER CO. (LIMITED), LONDON, - ONTARIO.

Auction Sale.

THERE will be offered for sale by public auction (subject to a reserved bid), at the front door of the City Hall, Guelph, 12 o'clock noon, on

Wednesday, 11th Dec., '01

During the Winter Fair, that excellent grain and stock farm,

"THE PLAINS,"

Being composed of parts of lots 3, 4, 5 and 6, in the 9th Con., Township of Puslinch, County of Wellington, containing 240 acres, more or less, in first-class state of cultivation, having for over 50 years been used for the purpose of breeding pure-bred stock. It is about three miles from the City of Guelph. Church chapel, post office, store, etc., within a mile and half a mile from flag station, C. P. R. (10 minutes to Guelph).

This farm is watered by a never-failing spring creek. For further particulars as to terms of sale, etc., apply to

S. E. STONE,

The F. W. Stone Stock Co., Guelph,

Or A. D. CARTWRIGHT, Esq.,
Macdonald, Cartwright and Garvey,
37 Yonge street, Toronto.

THOS. INGRAM, Auctioneer.

*Windsor
Salt
Makes
Good Butter*

*Better
Yet!*

Best Grocers Sell It.

Western Dairy School, STRATHROY.

(Maintained by the Ontario Government.)

Special creamery course December 2nd to 23rd. Regular courses January 3rd to March 27th, 1902. Students are given a scientific and practical training in all branches of dairying, including cheese and butter making, milk testing and farm dairy work. A new laboratory for the study of bacteriology and chemistry has been added, and also a machine shop with a separate engine for the students to dissect and operate. Send for circular and application form to

ARCHIBALD SMITH, SUPT.,
Western Dairy School, Strathroy, Ont.

EASTERN DAIRY SCHOOL, KINGSTON, ONT.

(MAINTAINED BY THE ONTARIO GOVERNMENT, UNDER THE SUPERVISION OF THE HON. JOHN DRYDEN, MINISTER OF AGRICULTURE.)

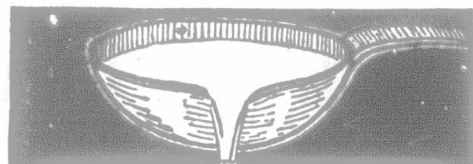
THE eighth annual session begins Dec. 2nd and ends April 5th. Short courses in cheese and butter making. Special six-weeks course, leading to certificate, Jan. 16th to Feb. 26th. The practical instruction is designed to show students the most approved methods in cheese and butter making, while such scientific training is given as will enable them to understand the principles upon which the practical work is based. Over 100 students registered last year, including many of the most successful makers of Ontario.

For illustrated calendar, send your address on a post card to—

"THE SUPERINTENDENT,"
om- Eastern Dairy School, Kingston, Ont.

The American O. A. C. Union will meet at the Hotel Wyoming, Chicago, on the evening of Dec. 5th, to renew old friendships.

Sam McLean, of Franklin, besides being custodian of such noted horses as Charming Charlie, Pride of the West, Clydesdales of provincial renown, and the Winnipeg sweepstakes Hackney winner, Confident Squire, has now purchased that good horse, Pretoria, recently imported from Scotland. The Neepawa district is to be congratulated on the accession to the ranks of their stud males of such a fine piece of horse-flesh. Pretoria is good as the best of them save Advocate (Nov. 5th), and the winner of the £100 (2500) premium of the Caithness Agricultural Society, Scotland, this horse should be greatly sought after in his district, as we believe he will be, by the farmer breeders, who know a horse.




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preserves and pickles, spread
a thin coating of

**PURE REFINED
PARAFFINE**

Will keep them absolutely moisture and
acid proof. Pure Refined Paraffine is also
useful in a dozen other ways about the
house. Full directions in each package.
Sold everywhere.

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For Sale or to Rent.

200-Acre Farm.—Parts of Lots 6 and 7, concession 6, Tp. of Blenheim, 2 1/2 miles from Drumbo, 2 miles from Wolveston, 1 1/2 miles from Richwood. Church, school and post office; good brick house, large bank barn, well fenced, well watered, good orchard. Apply to **DAZZELL & BARRIE**, Solicitors, GALT.

SPLENDID STOCK AND GRAIN FARM FOR SALE.

160 ACRES, in Tp. Rochester, Essex Co. 140 acres well improved, balance with considerable good timber. Two good dwellings—one brick; good stable for 50 head of cattle in bank barn, with power mill, and all other outbuildings in good shape. Soil, clay loam, suitable for all crops, and in good state of cultivation, fall work being done. Terms to suit purchaser. For particulars apply:

GEORGE LEAK, WOODSLEE, ONT.

FOR SALE:

Three grandly-bred Ayrshire bull calves, 12 to 15 mos. old. Also young calves, by Napoleon of Auchencrain (imp.), whose dam has a record of 72 lbs. of milk per day. A few choice young Berkshire and Yorkshire sows could be served before shipping. Collie pups, from Perfection Queen. Address—

T. D. McCALLUM,
Nether Lea, Danville, Que.

4 Imp. Clydesdale Stallions

**31 Imported Shorthorn Cows and Heifers,
7 Canadian-bred Cows and Heifers,
3 Imported Shorthorn Bulls,
5 Canadian-bred Bulls.**

GEO. ISAAC & BROS., BOMANTON, ONT.
COBourg STATION, O. T. R.

CLYDE SHIRE HORSES

Stock of different ages and sexes for sale. Two stallions, colts, and a few young bulls now ready. Also choice rams and ewes. Our flock won 1st prize at Toronto, Ottawa and Chicago in 1900. Write for what you want. My motto: The best is none too good.
**J. M. GARDHOUSE, Rosedale Stock Farm,
Malton, G.T.R.; Weston, C.P.R. Highfield, Ont.**

FOR SALE: CLYDESDALES AND SHORTHORNS.

Stallions from sucking foals up. Brood mares and fillies of superior quality and breeding. A few grand young Shorthorn heifers, bred in the purple. Special mention, the great four-year-old stallion "Prince Lyon."

THOS. GOOD,
Richmond P. O., Ont

R. R. Station, Stittsville, C.P.R.

SHORT COURSES, O. A. C.—Farmers' sons and daughters, and others desirous of improving themselves in dairying, stock and farm building and poultry-rearing, should read President Mills' announcement elsewhere in this issue. Do not neglect the opportunity.

GOSSIP.


Cotswold Hill Stock Farm, the home of Messrs. Jno. Park & Sons, Burgessville, Ont., the well-known importers and breeders of Cotswold sheep, is situated in the County of Oxford, about 2 1/2 miles north of Burgessville Station on the G. T. R. branch running south of the City of Woodstock, which is seven miles from farm. This firm's flock contains an exceptionally large number of prizewinners both in Canada and the United States. Of the leading shows in Canada, this flock took at Toronto this year first on aged ewes and a number of seconds, first for pen of four lambs and first and second for Canadian-bred flock of Cotswolds, bred by exhibitor. At London, 1st on aged ram, 3rd on shearing, second and third on ram lamb, second on aged ewe, first on shearing, first on ewe lambs, and first for best pen of lambs and first for best flock of Cotswolds, and sweepstakes for best Cotswold ram on the ground. This flock swept all before them at Ottawa. At the Pan-American, sheep fitted by this firm won first and second on aged ram and first and second on aged ewes. A few choice ram lambs and ewe lambs left for sale, that will make prizewinners another year.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS—FROM OCT. 1 TO NOV. 15, 1901.

Thirty reports have been received during this period: of these, seven were of full-age cows, averaging: Age 6 years 9 months 8 days; 18 days after calving; milk 389.6 lbs.; butter-fat 13.327 lbs.; equivalent butter 80 per cent. fat, 16 lbs. 10.5 ozs., or 15 lbs. 8.8 ozs. 85.7 per cent. fat. Four were of the four-year-old class, averaging: Age 4 years 10 months 13 days; 65 days after calving; milk 371.1 lbs.; butter-fat 13.327 lbs.; equivalent butter 80 per cent. fat, 17 lbs. 5.1 ozs., or 16 lbs. 2.7 ozs. 85.7 per cent. fat. Ten were of the three-year-old class, averaging: Age 3 years 6 months 19 days; 35 days after calving; milk 350.4 lbs.; butter-fat 12.104 lbs.; equivalent butter 80 per cent. fat, 15 lbs. 2.1 ozs., or 14 lbs. 1.9 ozs. 87.5 per cent. fat. Nine were of the two-year-old class, averaging: Age 2 years 7 months 26 days; 35 days after calving; milk 317.7 lbs.; butter-fat 10.954 lbs.; equivalent butter 80 per cent. fat, 13 lbs. 11.1 ozs., or 12 lbs. 12.5 ozs. 85.7 per cent. fat. A very remarkable heifer in this class—Age 2 years 11 months 13 days; 27 days after calving—produced during her week's test 390 lbs. milk, containing 16.957 lbs. fat, equivalent to 21 lbs. 3.1 ozs. butter 80 per cent. fat, or 19 lbs. 12.5 ozs. 85.7 per cent. fat.—S. Hoxie, Supt. Advanced Registry.

THOS. MERCER'S SHORTHORNS.

The Shorthorn herd of Mr. Thomas Mercer, Markdale, Ont., was established in 1896, by the purchase of Dollie Stamford 29129, from Mr. W. B. Watt, his second-prize heifer in Toronto that year. The successful show bull, Aberdeen (bred by Jno. Miller, Markham), was placed at the head, and Red Rose and Fairwell 5th, from the herd of Jas. Hunter, Alma, Ont., were added. Then came three from the Gardhouse herd: Two choice young cows sired by Imp. Albert, and one Red Lilly, by Imp. Premier Earl, she being a grand cow and a capital breeder. Another purchase was made from Mr. Alex. Burns, Rockwood, Ont., in the cow, Fashion's Fancy, and her daughter, Fashion 2nd. The old cow has been a show cow, and has also put some good show stuff in the ring. She is the dam of Hillsburg Tom, second-prize two-year-old in Toronto in 1899. The first prize in this contest went to George Bruor, the sire of Fashion 2nd, now breeding in this herd. The old cow has a grand bull calf this year, sired by Lovely Victor, now at the head of G. B. Bristow's herd. Mr. Mercer also has four matchless females and some other good families and individuals. The second sire used was Lovely Victor 22170, bred by H. Cargill & Son. This was a show bull as well as a pure Scotch Cruichshank, and he was assisted by a son of Imp. Royal Sailor, which is a fine individual, now two years old, and is for sale. The other sire of the herd is Village Squire 24993, another grandly-bred sire from the Maple Lodge herd of Mr. A. W. Smith, an exceptionally well proportioned bull, now bidding fair to outstrip his great sire, Abbottford, as a breeder and show bull, having grand substance, with pleasing qualities, a rich roan in color, and possessing a style and sprightliness not common among Scotch-bred bulls. He has probably more Royal prize and sweepstakes winners in his pedigree than any other bull in Canada, eight out of nine of the top sires in the pedigree of both his sire and dam having won champion cups and sweepstakes prizes. Since he left Maple Lodge Herd he has been at the head of Mr. George B. Bristow's herd, and Mr. Bristow says after having him three years in his herd he believes him one of the good stock bulls of Canada. One year ago Mr. Bristow and Mr. Mercer changed stock bulls, the former taking Lovely Victor. Although Village Squire is now six years old, he is as smart as a calf and a grand handler, with ideal hair. His calves are prizewinners, one having carried off, this fall, first in his class as a two-year-old and the championship over all ages in a large class in the hands of Mr. Lemon, Walter's, Falls. There are over 35 head now in the herd, 15 being cows and heifers in calf. Seven bulls are now for sale, also cows and heifers in calf. The farm is only one mile from Markdale Station, C. P. R. Visitors will be met at train station, if given, and the motto is, "No business, no horses."



**Warranted
to give satisfaction.**

**GOMBAULT'S
CAUSTIC BALSAM**

A safe, speedy and
positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a **HUMAN REMEDY** for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address
THE LAWRENCE-WILLIAMS COMPANY, Toronto, Can.

Wm. Brash, Ashburn, Ont., BREEDER OF

CLYDESDALE HORSES and SHORTHORN CATTLE.

WM. SMITH, COLUMBUS, ONT., IMPORTER AND BREEDER OF

Clydesdale Horses & Shorthorn Cattle

Shires, Shorthorns, and Leicesters.

Young stock of both sexes for sale. Imported Prince Louis = 32082 = heads the herd. Write for prices or come and see them.

**John Gardhouse, Highfield P. O.,
Weston, G. T. R. and C. P. R.**

Clydesdales and Ayrshires

Imported and home-bred. Also Dorset Horned sheep, and the leading varieties of poultry.

ROBERT NESS & SONS, Howick, Que.

HEREFORDS FOR SALE.

THE HERD of upwards of 90 head of registered animals contains the blood of the best English herds, with imported True Briton and Likely Lad at the head. Stock of both sexes and all ages for sale. Correspondence or a personal visit invited.

**A. S. HUNTER,
DURHAM, ONT.**

HIGH PARK STOCK FARM.

GALLOWAYS of the choicest breeding and most fashionable strains. Inspection or correspondence invited. **A. M. & ROBERT SHAW,
om P. O. Box 294, Brantford, Ont.**

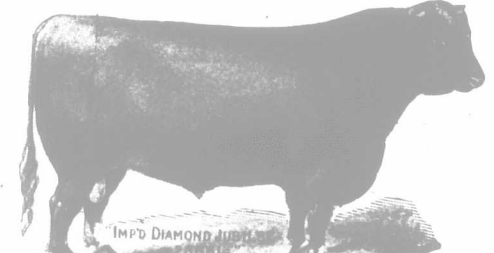
FARMERS AND STOCK-RAISERS, ATTENTION!

Have you tested Prof. A. V. M. Day's English Tonic Powders—five separate packages, containing specially-prepared powders for the horse, cattle, hog, sheep, and poultry? Each package will make 26 pounds of flesh-forming, tonic food. Price, 35c. a package, or 5 for \$1.50.

Our special offer for 10 days only: If we have no agent in your town, we will ship to your railway point in Ont., prepaid, 1 package of each powder or 5 of any one kind for \$1.00. Only one order to each person. It is our desire to have you test the powders, therefore we have reduced the price below cost for 10 days only. Write your name and address, and enclose \$1.00, and you will receive the five packages by express. Address—

**The Day's Stock Food Co.,
TORONTO, ONT.**

Sole owners for Canada. Express C.O.D. if desired.



**T. DOUGLAS & SONS, STRATHROY, ONT.,
BREEDERS OF
Scotch Shorthorns.**

100 HEAD TO SELECT FROM.

Offer for sale 20 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee = 28861 =, at head of herd. Farm one mile north of town.

Christmas is coming—so is the beautiful Christmas number of the "Farmer's Advocate." Moral: Forward your renewal.

GOSSIP.

Mammoth Bronz turkeys, Toulouse geese, and three varieties of pure-bred utility fowl are advertised by Alfred E. Shore, White Oak, Ont.

Wm. Howe, North Bruce, Ont., breeder of Large Yorkshire hogs, writes: "My stock are doing fine, and sales this fall are very satisfactory, and the young stock I offer for sale are as good as any I have yet had. The young sows I am offering are a good, even lot and are being bred to my imported boar, and I look for good results."

At a sale of Shorthorns in Kansas City, Mo., last month, the yearling heifer, Lovely 30th, sold to T. J. Ryan & Son, Iowa, for \$1,410, and the heifer calf, Orange Blossom of Fairview 3rd, to N. P. Clark, Minn., for \$1,310. The cow, Lovely 29th, brought \$675, and Udra of Fairview, \$630. The bull, Golden Knight, brought \$525.

At W. C. Hunt's semi-annual sale of Holstein cattle, held at Syracuse, N. Y., Nov. 14-15, seventy-eight animals, contributed by six breeders, brought an average of \$138. The highest price, \$725, was paid by H. A. Moyer, for Netherland Hengerveld's Daughter, an eight-months-old heifer, bred by H. Stevens & Sons, Lacona, N. Y., and got by his stock bull, Calamity Jane's Paul 24970, bred by Geo. Rip, Currie's Crossing, Ont. Three other females sold for \$400 to \$500 each, the latter price being paid for Mutual Friend's Pauline De Kol, seven years old.

A NOTED ENGLISH SHORTHORN HERD.

Ratcheugh Farm, Alwick, Northumberland, England, is the home of Mr. William Bell's noted herd of Shorthorns, which a "Farmer's Advocate" representative had the pleasure of visiting a few months ago. The farm, which forms part of the estate of the Duke of Northumberland, consists of 160 acres, most of which is under grass, only about sixty acres being under plow. The herd numbers about 70 head, from twenty to twenty-five calves being raised each year. Baron Abbotsford 76087 is the chief stock and show bull, and barring a slight fault in the horn, it being a little weak, he might be considered nearly perfect in character and contour, being beef to the very hock and thickly-fleshed throughout. He is a good roan color, has a good-handling skin and mossy coat of hair, and is proving an excellent stock-getter. His calves are excellent in color, form, and quality, and Mr. Bell has used him very largely in his herd again this year. Mr. Bell sold, this summer, a very fine roan heifer to Mr. Andrew Crystal, of Marshall, Mich., which was in calf to Baron Abbotsford. In 1900 this bull was only once defeated in his class, and the following week he defeated the winner at six of the leading shows, including the Royal and Yorkshire, and this year he was 1st at the Shropshire, 1st at the Royal as a two-year-old, 1st at the Doncaster and Northumberland and 3rd at the Highland, 1st at Durham, and the champion cup and also 1st at the Yorkshire. In doing these shows he traveled nearly two thousand miles, along with his yearling brother, Baron's Pride, which is considered to have a better horn than his older brother, and many judges consider he will make the better bull of the two, being a great, level, straight bull, of a rich roan color. Many good judges consider the above two of the best bulls of their age in England. Baron's Pride was 1st at Shrewsbury, 3rd at the Royal, 1st at Doncaster and Northumberland (here beating the Royal winner and by the same judge), 4th at the Highland Agricultural Society, and 2nd at the Durham and Yorkshire. Buttercup's Pride, another great, straight, lengthy bull, about eighteen months old, promises to make both a first-class show bull and an A1 stock bull. He has a handsome head and horn and a good lookout, good roan color, and was sired by Pride of Freedom, a Cruickshank bull, out of Buttercup. The sire of the two first-named bulls, which are full brothers, is Baron Alwick. He was sold when three years old for £200, to go to South America. Their dam is Lady Clara, 3rd, a Cruickshank cow, by Abbotsford 66588. Mr. Bell gave 100 guineas for this dam when she was six months old, and she has won prizes for the last four years at all the leading shows. Along with her two sons, she has won the family prize two years running at the Yorkshire Show, which is considered the second best show in England. Two other very promising young bulls about one year old were seen. In the first field visited were twelve cows and thirteen calves, a number of the calves sired by Baron Abbotsford. In the next lot were about fifteen in the stable being milked, two extra good cows among them.

In the next field were 6 or 7 good cows due to calve from September to December. In another field were about a dozen yearling heifers, and among them some real choice ones; while the 30 calves raised this year were a thrifty, well-haired and well-fleshed lot, and all good colors. Mr. Bell won over £200 in prizes last year, and this year's winnings will amount to about the same. Mr. Bell, like many of the other leading breeders in England and Scotland, is a bachelor, and many of them have their homes furnished luxuriously. He is also very particular about his power and kitchen garden, which are a great credit to him, as also are his farming and his cattle. Mr. Bell has a stirring advertisement of this herd in this paper. His two bulls, Baron Abbotsford and Buttercup's Pride, are illustrated in this issue.



Famous Doctor Urges Pyramid Pile Cure.

Dr. Williams, a prominent official surgeon, says: "It is the duty of every surgeon to avoid an operation if possible to cure in any other way; and after many trials with the Pyramid Pile Cure, I unhesitatingly recommend it in preference to an operation." For sale by all druggists. Little book, "Piles, Causes and Cure," mailed free. Pyramid Drug Co., Marshall, Mich.—Adv't.

BELLEVUE SHORTHORNS.

Both sexes. IMPORTED AND HOME BRED. All ages. Prizewinners at home and abroad.

EDWIN BATTYE, GORE BAY P. O. AND PORT.

MANITOULIN ISLAND.

A QUICK, SHARP CUT hurts much less than a bruise, crush or tear. Done with the **DEHORNING KEYSTONE KNIFE** is the safest. Quick, sharp cut—Cuts from four sides at once. Cannot crush bruise or tear. No hygienic method of dehorning known. Look highest award World's Fair. Write for free circulars before buying. Owned and Manufactured by R. H. McKenna, V. S., Picton, Ont.

GREENGROVE HERD OF SHORTHORNS.

This herd was founded over 18 years ago, by John Fletcher, and contains such Scotch-bred tribes as the Missies and Mysies, Languishes and Butterflies, and is now headed by the famous stock bull, Spicy Robin—28259—(bred by J. & W. B. Wat), a worthy grandson of Imp. Royal Sailor—18959—and of Barmpton Hero and of Ruby Vensgarth—15559—and is of the noted English Lady family. Some good young stock for sale. For prices and particulars, address **GEORGE D. FLETCHER, BINKHAM, ONT.** C. P. R. Station, Erin.

90 HEAD High-quality, Early-maturing **Herefords** Prizewinners. Young bulls, cows, heifers. The blood of "Corrector," "Eureka," "Ancient Briton," and "Rupert," on an "Anxiety" foundation. Send for illustrated catalogue.

H. D. SMITH, COMPTON, QUE.

FARMERS! KEMP'S INSTANTANEOUS

Sheep Dip

Contains more value for the money than any other Dip on the market. We will send a tin prepaid to any part of Ontario for **ONE DOLLAR**. Half gallon, Imperial measure, in each tin. It is the cheapest disinfectant for outbuildings, drains, etc.

W. W. Stephen, MEAFORD, ONTARIO.

TWO YOUNG ROAN SHORTHORN BULLS

Eight to ten months old, also a few choice two-shear Oxford ewes, ram lambs, one imp. Stiggoe yearling ram, one two hear ram.

R. J. HINE, DUTTON P. O., ONT.

FOR SALE: SHORTHORNS: 8 young bulls, from 3 to 8 mos. old, sired by Let's Lad and out of deep-milking cows. H. E. HIND, Hagersville P. O. and Station, G. T. R. and, M. C. R.

Newcastle Herd Shorthorns and Tamworths

Two bull calves and two heifer calves, 6 to 9 mos. old. Twenty Tamworth bears and sows, soon fit to wean. Sows safe in pig and bears fit for service. All from Toronto prize stock. Prices right, quality considered. **Colwill Bros., Newcastle, Ont.**

If in your general send one or two new subscribers to the "Farmer's Advocate," and earn a valuable premium.

Gulline collars wear like Iron. Leather bodies, plated steel rims. Open or closed throats. Straw-stuffed or pneumatic in all styles and all sizes. Progressive dealers sell them, if yours doesn't, we'll ship to you direct and prepay the railroad freight to any part of Canada. **Best Farm Collars ever made.** Our 40 page illustrated Catalogue gives prices and tells all about them; we mail it free. **WANT ONE? THE GULLINE HORSE COLLAR CO. GRANBY, P. Q. CANADA.**

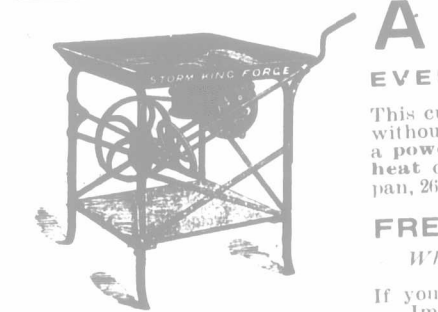


LATELY IMPORTED A FRESH LOT OF Glydesdale Stallions, Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the times demand. Inspection invited. Prices consistent with quality.

ROBERT GRAHAM, Ringwood P. O., Ont. Stouffville Station, G. T. R., and telegraph office.



We beg to call your attention to a new and indispensable article in **Barclay's Patent Attachment** FOR THE CURE OF **BALKING AND KICKING HORSES.** Will control any vice known to a horse. Invaluable for breaking-in colts. Can be adjusted in two minutes, and used with any harness, vehicle or implement. Sent, charges paid, to any part of Canada, with full directions for use, on receipt of price, \$5. Reliable representatives wanted. For further information, address **THE BARCLAY MFG. CO., Brougham, Ont.**



A Good Thing EVERY FARMER SHOULD HAVE ONE. This cut represents our steel Storm King Forge. It is without doubt the most perfect article of its kind. It has a powerful blast, and is capable of taking off a welding heat of considerable size. Height, 30 inches. Size of pan, 26 x 27. **PRICE, \$8.50.** **FRED. HAMILTON, HAMILTON, ONT.** Wholesale and Retail Hardware and Implements. If you are building, or want anything in Hardware or Implements, write us for prices.

Live Stock Labels in large or small lots. Also odd numbers supplied. Send for circular and price list. **R. W. James, Bowmanville, Ont.**

GEO. RAIKES, BARRIE, ONT., BREKEDER OF SHORTHORNS & SHROPSHIRE.

YOUNG STOCK FOR SALE.

SHORTHORNS—Scotch and Scotch-topped. War Eagle—27609—at head of herd. Young bulls, cows and heifers for sale. Railway station: Coldwater, Midland branch, G. T. R. Write for prices. **S. Dunlap, Eady P. O., Ont.**

Maple Lodge Stock Farm. ESTABLISHED 1851.

SHORTHORNS.—First-prize milking strains, best Scotch breeding. Young bulls and heifers for sale. **LEICESTERS.**—A grand lot of ewes, bred to our imported rams, and a few choice rams, now for sale. Also Bronze turkeys.

A. W. SMITH, Maple Lodge P. O., G. T. R., 20 miles.

FOR SALE: SHORTHORN BULLS AND HEIFERS

from such sires as Mariner (imp.), Royal Judd 17499, Sultan Selam (imp.), Grenadier 28251, and Roseville Abott 30874, on a Victoria foundation. Also one extra Kinellar Stamp 10-mos. red bull. Come or write. **HURON COUNTY, THOS. CUDMORE & SON, Hurondale, Ontario.** EXETER STATION, and Telegraph Office.

WE HAVE FOR SALE 10 SHORTHORN BULLS

From 6 to 18 months old. Nearly all from imp. dams, and sired by the imp. Golden Drop bull, Royal Prince. Catalogue upon application.

John Miller & Sons, Brougham P. O., CLAREMONT STATION, C. P. R., ONT.

Shorthorns

For Sale: Choice young cows and heifers in calf to imp. bull. A few choice heifer calves. Bulls of various ages. Shropshire ram lambs, out of Imp. Mansell-bred ewes. Prices moderate.

G. A. BRODIE, BETHESDA, ONT., Stouffville Station, G. T. R.

SHORTHORNS

SCOTCH IMPORTED.

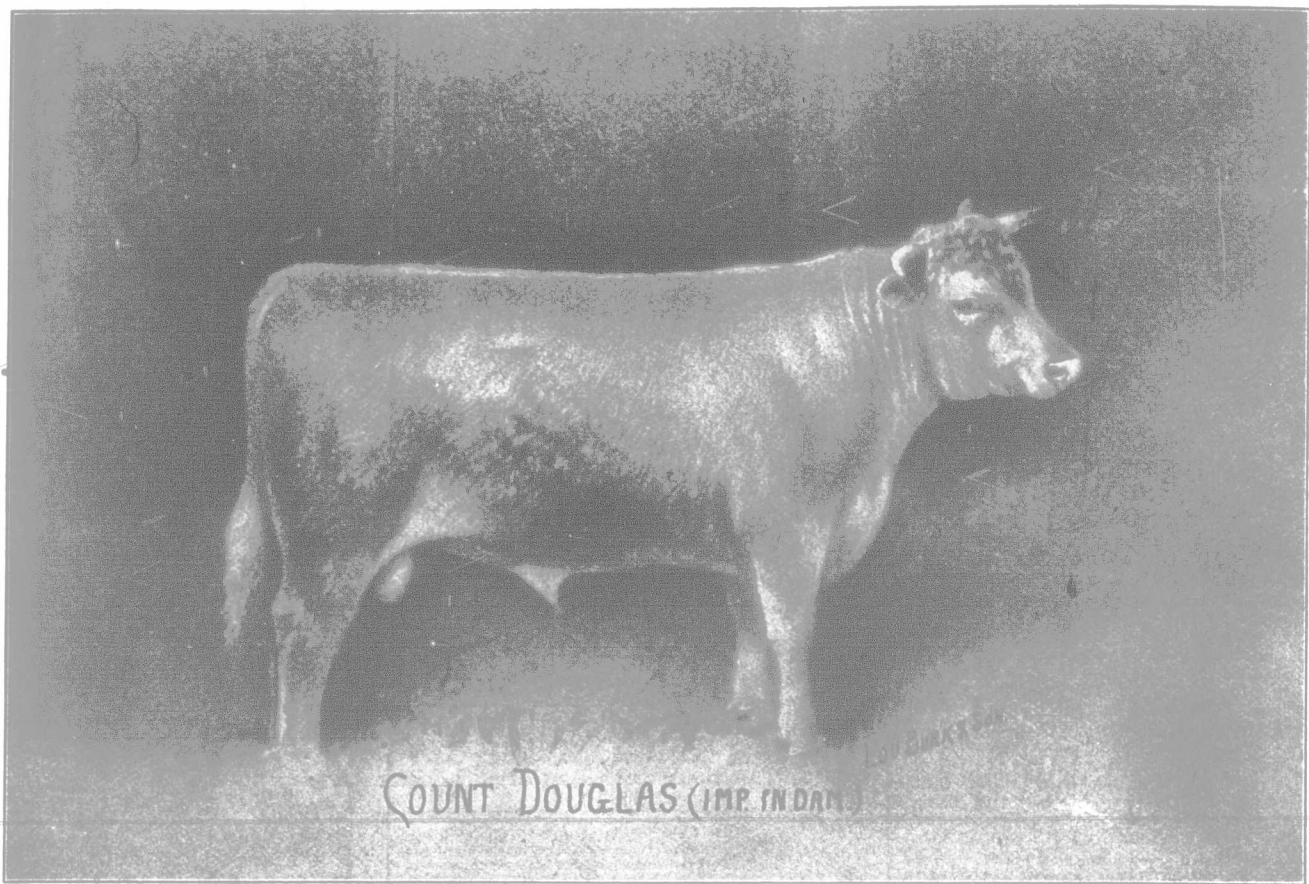
160 HEAD.

Young imported cows with calves at foot for sale. A number of the calves are imported in dam.

Some of the families represented in the herd are as follows:

- AUGUSTAS
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- BRAWITH BUDS
- LANCASTERS
- MAYFLOWERS
- AMARANTHS
- BUTTERFLYS
- CLIPPERS
- EMMAS
- BROADHOOKS
- MEDORAS
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- BEAUTYS
- MISS RAMSDENS
- FLORAS
- RAGLANS
- LUSTRES
- GEMS OF THE VALE

Herd headed by the imported bulls, GOLD-EN DROP VICTOR and PRINCE BOSQUET.



IF INTERESTED, COME AND SEE US, OR WRITE

H. CARGILL & SON, CARGILL, ONTARIO, CANADA.

CATALOGUE FREE.

SHORTHORN BULLS.

RARE GOOD BULLS. SCOTCH-BRED BULLS.

Write for bull catalogue free.

H. SMITH, Hay P. O., Huron Co., Ont.
Exeter Station on G. T. R., half a mile from farm.

Agents Wanted

for the New Pictorial Stock Doctor and Live Stock Cyclopaedia, revised to 1901 with the assistance of the Professors of the Ontario Agricultural College, Guelph. The finest illustrated, cheapest and best book of its kind ever published. Large wages to agents. A full-page announcement of this book appeared in the Advocate of the issue of June 5th. Particulars mailed free. Address WORLD PUBLISHING Co., Guelph, Ont.

SHORTHORNS.

Fashionably bred, of both sexes and all ages. Nothing reserved.
H. PARKER, Durham P. O. and Station.

SHORTHORNS FOR SALE:

Seven choice young bulls, from 9 to 12 months old. Also a few choice heifers, in calf to the grandly bred Marr bull, Spicy Marquis (imp.).
JAS. GIBB, Brookdale, Ont.

SHORTHORNS (IMPORTED).

Five choice young bulls, from 6 to 10 months old, by Imp. Capt. Mayfly, out of Indian Chief dams.
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LIDLAW'S CONCENTRATED TOBACCO POWDER



Contains correct proportion of sulphur, all mixed and ready for bath. For thirty years Laidlaw's Tobacco Powder Dip has had steadily increasing sale. Many hundred millions of sheep have been dipped with it. Non-poisonous; no injury possible to sheep or wool. For full particulars and prices, write—

ROBERT MARR,
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Sole manufacturers: Laidlaw, Mackill & Co., Limited, Richmond, Va.

GOSSIP.

A. & D. BROWN'S SHORTHORN SALE.

The dispersion sale of the Shorthorn herd of Messrs. A. & D. Brown, Iona, Ont., was considered successful and satisfactory, an average of \$164 per head being realized. The low price made by the 14-year-old imported cow (who was not in calf, and was in doubtful condition as to future usefulness as a breeder, and who went at head price) reduced the average price somewhat, but it was a good sale, and the stock was in good condition and creditable to the Messrs. Brown, who have been successful breeders and handlers of cattle and have had an entirely satisfactory experience with Shorthorns. We give below the list of animals, with the age, price, and address of buyers:

Carnation (imp.), 2 years; J. G. Chapman, St. Thomas	\$385
Heather Blossom, 7 years; John Hall, Wellesley	310
Heather Blossom 2nd, 1 year; W. D. Platt, Hamilton	400
Carnation 2nd, 8 months; W. G. Sanders, St. Thomas	205
Euphemia, 6 years; Jas. Cowan, Seaford	210
Ruby Syne, 10 years; Herbert Lee, Highgate	110
Euphemia 3rd, 1 year; John Hill, Miss Campbell 2nd, 1 year; James Cowan	170
Verbenia, 8 years; W. H. Taylor, Parkhill	180
Verbenia 2nd, 1 year; Jas. Cowan	170
Roonette, 7 years; W. D. Platt	135
Cressida, 8 years; David Bennet, Campbellton	130
Cressida 2nd, 11 months; W. D. Platt	200
Laurestan, 8 years; John Hill	200
Character, 8 years; R. S. Brooks, Brantford	155
Junemont, 8 years; W. H. Easterbrook, Freeman	110
Lady Stode, 4 years; E. Scott, Highgate	175
Evelyn, 2 years; Nelson Blue, Duart	125
Lady Ava, 2 years; F. H. Medcraft, Sparta	90
Daphne Syne 2nd, 6 years; W. H. Easterbrook	125
Charlotte (imp.), 14 years; I. Evans, Lawrence	50
BULLS.	
Blue Ribbon (imp.), 9 years; Alonza Ross, Iona	135
Muncey Chert, 2 years; John Hand, Alton	110
Red Ribbon 1 year; John McKillop, West Lorne	75
Dalmuir, 10 months; F. H. Medcraft	85
Dumblane, 8 years; M. Campbell, Northwood	130
Grey Rock	75

ARTHUR JOHNSTON, GREENWOOD, ONTARIO.

BREEDER OF POST OFFICE AND TELEGRAPH OFFICE. IMPORTER OF

SHORTHORNS ONLY.

FOR SALE: 9 imported bulls and bull calves. 11 home-bred bulls and bull calves, from imported cows and by imported bulls. 17 home-bred bull calves. A large and excellent lot of young cows and heifers of various ages.

RAILWAY STATIONS: PICKERING, G. T. R., 22 MILES EAST OF TORONTO. CLAREMONT, C. P. R., 28 MILES EAST OF TORONTO.

SHORTHORN CATTLE AND LINCOLN SHEEP.

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

J. T. GIBSON, DENFIELD, ONT.

J. R. McCallum, Iona Station, Ont.

Offers young SHORTHORN BULLS and HEIFERS, of choice breeding, at reasonable prices. Iona Stn. on M.C.R., half a mile from farm.

SPRINGFIELD FARM

HERD OF Shorthorns, Oxfords, and Berkshires.

Young bulls and Heifers on hand. Also a few choice Berkshires.
CHAS. RANKIN, Wyebridge, Ont. SIMCOE CO.

For Sale: 3 Shorthorn bulls of first-class breeding, sired by such noted bulls as Scotland's Fame (imp.) and Bold Britain, bred by John Isaac, Markham. Also some choice cows and heifers.
F. A. GARDNER, Britannia, Ont. PEEL COUNTY.

SHORTHORNS: We are offering for sale 8 young bulls, from 8 months to 3 years old, by Munco 2nd and Scottish Bard. Also a few cows bred to Baron's Heir.

ROBT. GLEN, Owen Sound, Ontario.

SCOTCH SHORTHORNS.

We are now offering a few young bulls, from 6 to 11 months; also a few heifers, from 6 months to 2 years; all showing No. 1 quality.

W. G. HOWDEN, COLUMBUS P. O.

PLEASE MENTION FARMER'S ADVOCATE

LAKE VIEW STOCK FARM.

SCOTCH SHORTHORNS, both sexes, all ages. As good as the best.

Meaford Station, G. T. R. North. JAMES BOWES, Strathairn P. O.

SIX SHORTHORN BULLS FOR SALE—2 yearlings, 4 calves—two of them prizewinners. Write for breeding and prices. Terms easy.
YORK, ONT. F. MARTINDALE & SON.

HIGH-CLASS SCOTCH SHORTHORNS

of the following families, for sale at moderate prices: Village Girls, Broadhooks, Beaufort Roses, Missies, Clarets, Marr Floras, Nonpareils, Minas and other choice families. Write for catalogue. Shropshire rams and ewes for sale as usual.

ROBERT MILLER, Stouffville, Ont.

SHORTHORNS FOR SALE.

Bulls and heifers from such families as Stamford, Matchless, Fishions, Lovelies, etc. Dams and sires all prizewinners. In 1900 we took all the prizes in this northern country, some of the dams being prizewinners in Toronto and other large shows, and others have produced Toronto prizewinners. Sire at the head is Village Squire 24993, by Abbotford. Royal Sailor bull two years old. Five younger bulls, some nice heifer calves, cows in calf, and heifers. Write for prices or come and see them before buying.

THOS. MERCER, Markdale, Ont.

Farm 1 mile from Markdale P. O. and C.P.R. station.

NO HUMBUG—3 Perfect Tools in One. Humane Swine Y Stock Marker and Calf Identifier. Stops swine of all ages from rooting. Makes 48 different ear marks, large or small. No change of blade. Extract Horns. Testimonials free. Price \$1.50, or send \$1.00, get it on trial. If it suits, send balance. Pat. Apr. 23, 1901. FARMER BRIGHTON, FAIRFIELD, IOWA.

SHORTHORNS.

One bull, 1 year old; two bulls, 7 months old; a few heifers of choice breeding and superior quality.
AMOS SMITH, Trowbridge P. O., Ont.

For Sale: 10 Choice-bred Scotch Short-horn Bulls, from 1 to 22 months; also cows and heifers in calf to imported Red Duke = 36984 = (77585). Farm 1 mile from Ethel station, G.T.R. om D. MILNE & SON, Ethel, Ont.

Enthusiasm

There are Believers

Mrs. I. ... the virtuous lets as a c...



ble. She nearly all that for y to be hun appetite. I was causing p pitation a thing I a sometimes which abn Doctor the stomc not reach fer had cided to I kno remedy an read abou in advert living in telling m cured her and loss hesitated I bou drug sto tablets of delightful the taste during th or uncom the heart lets, and as if I h trouble w I kee in the ho family us hearty ne pain or a Mr. E. says: "I pepsia, b benefit fr than in fi ment." Stuart's safest as convenien gestion, c sour sto sympathet Stuart's cheap cat remedy diastase lacks, an because t give the stomach ate. Stuart's in every States Advt. SPRING Hawthorn Stock for s Isabella bull Measure Wm. Grai SHOR 3 1/2 lbs. cows or heif THOS I

Enthusiastic Converts.

There are Thousands of Them Who Believe as This Woman Does.

Mrs. Ira Knowlton, of Butte, Montana, is a most enthusiastic convert to the virtues of Stuart's Dyspepsia Tablets as a cure for obstinate stomach trou-



ble. She says: "I had poor digestion nearly all my life. It now seems to me that for years I never knew what it was to be hungry, to have a good natural appetite."

"I was troubled with gas in stomach, causing pressure on the heart, with palpitation and short breath. Nearly everything I ate soured on my stomach; sometimes I had cramps in the stomach which almost resembled spasms. Doctors told me I had catarrh of the stomach, but their medicines would not reach it, and I would still be a sufferer had I not, in sheer desperation, decided to try Stuart's Dyspepsia Tablets."

"I knew they were an advertised remedy and I didn't believe anything I read about them, as I had no confidence in advertised remedies, but my sister, living in Pittsburg, wrote me last spring, telling me how Stuart's Tablets had cured her little daughters of indigestion and loss of flesh and appetite, and I hesitated no longer."

"I bought a fifty-cent box at my drug store and took two of the large tablets after each meal and found them delightful to take, being as pleasant to the taste as caramel candy. Whenever during the day or night I felt any pain or uneasiness in the stomach or about the heart I took one of the small tablets, and in three weeks it seemed to me as if I had never known what stomach trouble was."

"I keep Stuart's Dyspepsia Tablets in the house, and every member of the family uses them occasionally after a hearty meal or when any of us have a pain or ache in the digestive organs."

Mr. E. H. Davis, of Hampton, Va., says: "I doctored five years for dyspepsia, but in two months I got more benefit from Stuart's Dyspepsia Tablets than in five years of the doctor's treatment."

Stuart's Dyspepsia Tablets is the safest as well as the simplest and most convenient remedy for any form of indigestion, catarrh of stomach, biliousness, sour stomach, bloating after meals, sympathetic heart trouble.

Stuart's Dyspepsia Tablets is not a cheap cathartic, but an active digestive remedy containing the pepsin and diastase which every weak stomach lacks, and they cure stomach trouble because they digest the food eaten and give the weak, abused, overworked stomach a chance to rest and recuperate.

Stuart's Dyspepsia Tablets are sold in every drug store in the United States, Canada and Great Britain.—Advt. om

SPRING GROVE STOCK FARM

Shorthorn cattle and Lincoln sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by the Marr Missie bull, Imp. Wanderer's Last, last of the get of the great sire, Wanderer, of the Cruickshank Brawith Bud tribe. High-class Shorthorns of all ages for sale. Also prize-winning Lin-



G. S. Apply om

T. E. ROBSON, ILBERTON, ONT.

Hawthorn Herd of Deep-Milking Shorthorns
Stock for sale of both sexes. Herd headed by the Isabella bull, Golden Eagle =30943=, by Golden Measure. om

Wm. Grainger & Son, Londesboro, Ont.

SHORTHORNS (imported)

3 BULLS: 1 two-year-old, 2 one-year-olds. A few cows and heifers. om
THOS RUSSELL, EXETER P. O.

GOSSIP.

At the semi-annual sale of Berkshire hogs from the Biltmore Farms herd of Mr. Vanderbilt, at Biltmore, N. C., last month, an average of \$197.80 was made for sows in pair, and an average of \$60 for young and old. The highest price was \$201, for the sow, Duke's Lass of Biltmore 2nd. Seven others sold for prices ranging from \$100 to \$180.

Mr. John T. Gibson, Denfield, Ont., reports a good year's trade in Lincoln sheep. His first-prize flock at the Pan-American Exhibition has recently been reinforced by the importation of a first-class shaggy ram from the famous flock of Mr. Tom Casswell, Poynton, Lincolnshire, and a ram and two ewe lambs from the old and reliable flock of Mr. J. Pears, of Norton Heath. These last were first-prize winners in England, beating in one competition at least the winners at the Royal Show. Thus strengthened, Mr. Gibson's Manor Farm show flock will be on hand at the International Show at Chicago this week, and will make a grand showing for the breed, which has deservedly obtained popularity in America as well as in the Old Land of its origin.

Messrs. Edwards & Co., Rockland, Ontario, have recently purchased from Mr. John Young, Tibouries, near Aberdeen, four excellently-bred females, including the three-year-old cow, Rosetta 10th, by Clan Gwynne, together with her heifer calf, Lady of Pinegrove, by the Collynie bull, Scottish Prince. Another of Messrs. Edwards' purchases is the one-year-old heifer, Scottish Fancy, descended from the Jilt family, and by Scottish Prince; and the fourth is a heifer calf by Scottish Prince, out of the prize heifer, Rosetta 11th, which was first this year at the Kinross County Show at Stonehaven. Rosetta 11th, it is worthy of mention, was by Remus, the sire of Mr. Merson's 500-guinea bull, Choice Goods.

Mr. J. M. Gardhouse, Inghfield, Ont., is now exhibiting selections from his flock of Leicester sheep at the International Live Stock Show at Chicago. His strong contingent of show sheep have done wonderfully well since the fall fairs, and are in fine fit for the fray at the International. They are certainly splendid representatives of the approved type of modern Leicesters, combining size, style and quality of flesh, bone and fleece in the highest degree, together with robustness of constitution and freshness of appearance, denoting perfect health and thrift, which is characteristic of the entire flock. The magnificent ewe from his flock illustrated in this issue, bred by himself, has been in the winning list since a lamb, and is now four years old. She has been either first or second at Toronto, London and Ottawa for the last three years. In 1900 she was one of the first flock at Toronto, Ottawa, and Chicago. In 1901 she was one of the first-prize pair of ewes at Toronto, and second at the Pan-American. Few ewes have stood the test so long or so well.

W. G. Pettit & Sons, Freeman Ont., report the following recent sales of Shorthorns from their herd: To Alex. Crear, Lisbon, Ont., the nine-months-old bull, Lord Durio (imp. in dam); bred by James Burno, of Westerton, Aberdeenshire, Scotland. He was got by King of Hearts, of the Diamond Lovely family, and out of Imp. Aggie Douglas, by Lord Douglas, a richly-bred Lavender by Gravesend. To H. P. Fry, Bettsville, Ohio, the yearling imp. bull, Feudal Lord; bred by John Marr, Cairnbrogie, Old Meldrum, Scotland; got by Prince Cruickshank, a grand stock bull of the Diamond family, and out of Folly, first-prize two-year-old heifer at Strathbogie Farmers' Club Show in 1897; by Sittytton's Farwell, a Cruickshank Lavender. Mr. Fry also took two home-bred heifers with good Scotch tops. To R. C. Wood, Conshohocken, Pa., Brave Amaranth (imp. in dam); bred by Alex. Campbell, Deystone, Kintore, Aberdeen; got by Count Amaranth; bred by Mr. Duthie; a bull that is proving himself an excellent sire. Mr. Wood also took Imp. Lilly of Lowie, by New Year's Gift (bred by W. Webster, Lowie, Barclay, Aberdeen); Imp. Princess, same family as Scottish Champion, the calf that Mr. Duthie paid \$1,650 for at W. S. Marr's sale in 1898; Imp. Bess 6th, bred by John Cran, Kirth, Scotland. Mr. Wood was after dairy Shorthorns as well as Scotch Shorthorns, and picked out six home-bred cows and heifers from our best dairy families. We have a choice lot of imported bulls for sale of the leading Scotch families and got by such noted sires as Prince of Archers, half-brother to Marengo, Brave Archer and many other good ones; Scottish Prince, by Captain Ripley, out of Scottish Princess by Scottish Archer, g-d Princess Royal 41st by William of Orange; Count Amaranth, by Count Arthen, out of Sittytton Amaranth, by Master of the Realm. We have decided to offer for sale one of our stock bulls, Prince Cruickshank, bred by John Marr, Cairnbrogie, Scotland. He belongs to the Cruickshank Lovely family, and has proved himself a valuable sire both in Scotland and Canada. Our home-bred bulls are got by Imp. Prince Cruickshank Imp. Pure Gold (a Brawith Bud, by Cyprus, by William of Orange), and Imp. Marabale Chief, now at the head of Mr. C. E. Blodgett's fine herd in Wisconsin. We are setting some very promising calves from our Cruickshank Clipper bull, Imp. Scotland's Pride, by Star of Morning. We have placed at the head of our flock of Shorthorns this season a very fine imp. Marshall ram, which we expect good results from.

Excelsior Feed Cookers

Are Indispensable for Fattening Stock and Poultry.



Why not bring this branch of your farming up to a good profit point?

A "Famous" Excelsior Cooker will help you to do this.

By means of it you can fatten your stock in less time and with half the work of the ordinary way.

They are inexpensive, easily worked, light enough to be moved and set up anywhere, easy on fuel, and can be used for boiling sap and many other purposes.

No harm to write for free pamphlet which tells you all about them. om

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- (1) Three Weeks' Creamery Course—Dec. 2, 1901.
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Ladies admitted to Dairy and Poultry Courses. SEND FOR SPECIAL CIRCULARS.

GUELPH, NOV., 1901. om **JAMES MILLS, M. A., President.**

J. & W. B. WATT, SALEM, ONTARIO,

BREEDERS OF (POST AND TELEGRAPH OFFICE)

Shorthorn Cattle, Clydesdale Horses, Leicester and Oxford Sheep, and Berkshire Pigs.

OUR herd contains such families as Matchless, English Ladies, Mildreda, Village Buds, Miesies, Standards, Glacets, and Marthas. Royal Wonder =3482=, junior champion of 1901, now heads the herd. A choice lot of young bulls and a few females for sale. We offer our whole flock of Leicesters for sale—thirty five ewes and ewe lambs and fifteen rams.

FARMS 2 MILES FROM ELORA STN., G.T.R. and C.P.R.; 15 MILES NORTH OF GUELPH.

LESS LABOR AND MORE MONEY ON THE FARM.

BUY A LOW-DOWN, THICK-FLESHED

Hillhurst Shorthorn Bull,

Scotch-topped, from Cumberland, Gloucestershire, or Canadian dairy strain, and raise DEEP-MILKING, BIG-FRAMED COWS AND BABY BEEF in nature's way. Many cows that do not pay board at the pail will give a handsome return in growing beef. Four handsome young bulls, seven to nine months old, reds and roans, by the celebrated imported sires, "Joy of Morning" and "Scottish Hero," for sale at moderate prices. Low freights.

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G.T.R., 117 MILES EAST OF MONTREAL. om **HILLHURST STATION.**

THEY WANT

Dr. Hess' Stock Food in England

Read what the great English importer, Mr. M. G. Rich, Bath Bridge, Tetsbury, Gloucestershire, Eng., and owner of 1,000 acres of land, writes:

BATH BRIDGE, TETSBURY, GLOUCESTERSHIRE, ENG., Aug. 8th, 1901.

DR. HESS & CLARK, Ashland, O.:
GENTLEMEN,—Where can I get Dr. Hess' Stock Food in England? In my travels in America I find it in many stables, and highly recommended by my friends.

P. S. I farm nearly 1,000 acres. Yours respectfully, M. G. RICH.

DR. HESS' STOCK FOOD

is not a stimulant, but a tonic. It expels worms, cleanses the blood and system generally; calls into healthy action every organ of the animal body; allows no food to pass off undigested. It pays to feed it as a health promoter and as a flesh and milk producer.

EVERY PACKAGE GUARANTEED.

7-lb. sack \$ 35	25-lb. sack \$2.00
12-lb. sack 1.00	50-lb. sack 3.75
	100-lb. sack	\$7.00

If your dealer can't supply you, send your order to

THE GREIG MFG. CO., W. R. ROWAN, MGR. Winnipeg, Manitoba.

FREE.—Dr. Hess' new scientific veterinary work, giving the symptoms and latest treatment on stock diseases, will be mailed you for the asking. Address: Dr. Hess & Clark, Ashland, Ohio. om

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 THE WINNIPEG HEATER will do this. Reliable parties wanted to sell this wonderful new invention.
 THE WINNIPEG HEATER CO. OF TORONTO, Limited.
 77 Victoria St., TORONTO, ONTARIO.

9 CORDS IN 10 HOURS
 RUNS EASY SAVES DOWNS
 BY ONE MAN with the FOLDING SAWING MACHINE. It saves down trees. Saves any kind of timber on any ground. One man can saw more with it than 2 in any other way. Man'd at Essex Center, Ontario. No duty to pay. Write Main Office for illus. catalogue showing latest IMPROVEMENTS and testimonials from thousands. First order secures agency. Address: FOLDING SAWING MACHINE CO., 55-57-59 No. Jefferson St., CHICAGO, ILL.

RIDGELING CASTRATION.
 om- DR. J. WILSON, V. S., WINGHAM, ONT., Specialist in the castration of ridgeling horses and colts. Terms and testimonials on application.

JOHN DRYDEN,
 BROOKLIN, ONTARIO.
 BREEDER OF CRUICKSHANK SHORTHORNS AND CHOICE SHROPSHIRE SHEEP.
 Choice Young Bulls and Ram Lambs for sale. Write for prices.

SHORTHORNS: We are offering 3 extra choice yearling bulls, all from imported sires, straight Cruickshank, with Lavendar and Miss Ramsden dams. THOS. ALLIN & BROS., Oshawa, Ont.

SHORTHORNS FOR SALE.
 The undersigned offer for sale four young bulls from 8 to 13 months old; also a few cows and heifers. Herd built on Lavinia and Berrington foundations. Prices reasonable. Bulls used on herd during last 10 years: Earl of Bruce = 15867 =, Janitor = 21385 =, Scarlet Velvet = 21446 =, and Chief of Clan = 31123 =. James Smith & Son, Ingils Falls, Ontario.

Shorthorns, Berkshires, Leicesters
 Am offering at present the grand stock boar, Crown Prince; also some young ones.
 ISRAEL GROFF, ALMA, ONTARIO.

To Rid Stock of Lice
 AND ALL SKIN DISEASES.
 Also to Keep Poultry Healthy
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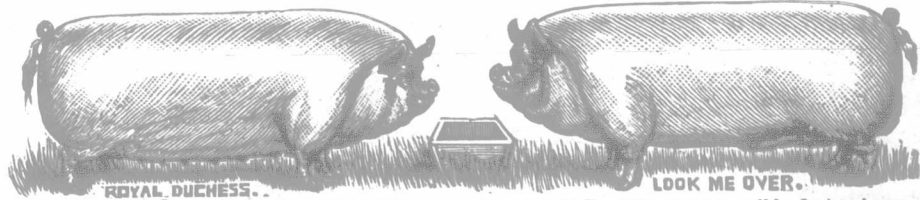
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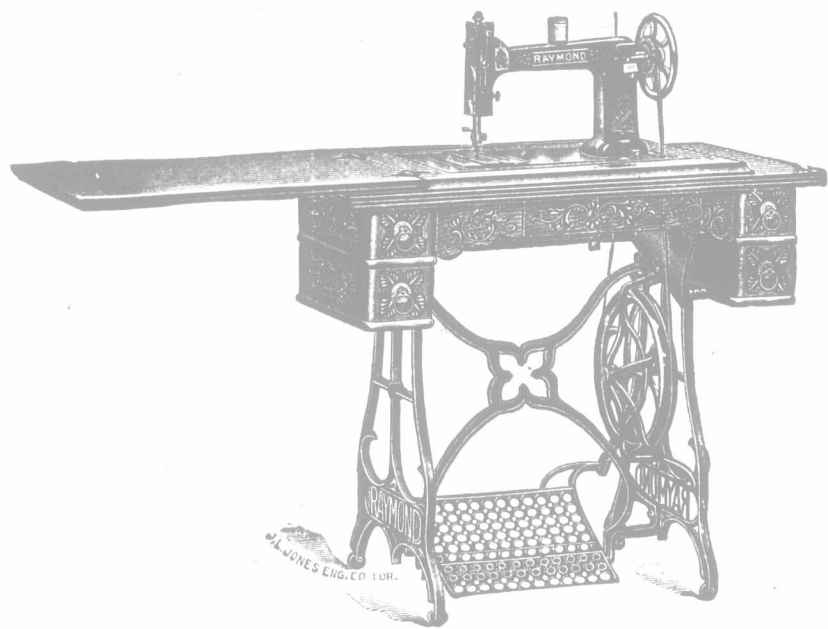
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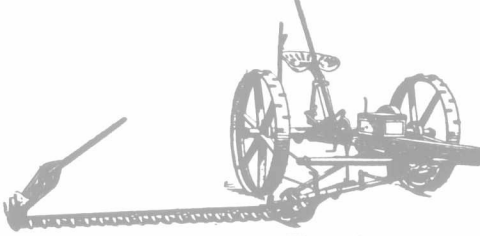
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