

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

Vol. XXXVI. WINNIPEG.

APRIL 20, 1901.

MANITOBA.

No. 524

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Vol. XXXVI.

WINNIPEG, MANITOBA, APRIL 20, 1901.

No. 524

Government Hail Insurance.

Periodically, for the past fifteen or sixteen years, the question of Government hail insurance has been agitated, more particularly in seasons following disastrous hailstorms. These agitations invariably come from localities which have been most seriously affected. Several times have bills been introduced into the Local Legislature by men who have given much study to the question. Mr. James Riddell, M. P. P. for Lorne; and Mr. W. F. Seritt, ex-M. P. for Beautiful Plains; and, at the session just closed, Mr. James Johnston, the member for Turtle Mountain, have each introduced Provincial hail insurance bills, but each in turn succumbed in the committee stage. The more the details are looked into, the more insurmountable do the difficulties appear.

It may be literally true that no district is safe from hail, yet there are sections that have never suffered loss from that source since they were settled fifteen or twenty years ago; while other districts have been visited so frequently that insurance of some sort is considered necessary. The same condition exists as to frosts, windstorms, etc., and in such locations settlers adapting themselves to conditions have become prosperous in other lines of agriculture apart from exclusive grain-growing.

While the prosperity of every business man in this Province is dependent upon the prosperity of the farmer, yet, when no direct benefit is to be derived by a general hail tax except by the farmer, it is certainly not just to ask others to contribute to the fund. Not only would the residents of the towns and cities object to such a tax, but there is a large proportion of the farming community who would also resist such a proposition, for there are extensive areas in the Province where comparatively little attention is given to wheat-growing; stock-raising and dairying, and the growing of feed grains, having proved the safest and surest means of success. Other large districts are devoted almost exclusively to stock-raising and ranching; and, by the way, the settlers in these districts are equally as prosperous as those in the more exclusively grain-growing districts. In this connection there is another point worthy of consideration: In what are termed the wheat sections there is much difference in the methods employed by different farmers. The careless and improvident crop a very large proportion of their land year after year, to the extent of even seventy-five or eighty per cent. of the total area under cultivation; while the more prudent and intelligent, in order to maintain the fertility and productiveness of the soil, adopt a system of rotation of crops, including summer fallow and seeding down to grass, which reduces the crop area to about fifty per cent. of the cultivated lands. Thus the hazard or risk is very much greater on the farm of the careless and shortsighted than on that of the thrifty and up-to-date farmer.

The farmer who, from his location or past experience, has no reason to fear hail would, under Provincial insurance, be compelled to contribute to the hail fund for the benefit of his neighbors, yet it might happen that his own losses would be far greater from frost, wind, drought, grasshoppers, or disease among his stock, for which he would be entitled to no compensation.

The statement is repeatedly made that the existing hail insurance companies are "no good"; that "their premium rates are too high." Now, we are in no way interested in advocating the cause of any hail insurance company, but it is only proper to give credit where credit is due.

We understand that the Provincial Mutual Companies, during the ten years of its existence, paid all claims every year, and many farmers can testify that they have, by the insurance obtained from this company, been saved from what appeared certain ruin. This company has a maximum premium rate of twenty-five cents per acre, but in

years when the damage was light, the rates charged have been as low as 12½ to 18 and 20 cents per acre. In some years, as in 1896, 1898, and 1900, the 25 cent per acre assessment was not sufficient to pay more than \$3, \$1.50, and \$3, respectively, for these years. In other years, \$6 per acre for total losses has been paid. During the ten years the company has been doing business, the average assessment has been 22 cents, and an average of \$5.80 has been paid for total losses. In the case of another company, the Western Canadian Hail Insurance Company of Wawanessa, a joint-stock company which has been in operation only a little over a year, all claims have been promptly paid in full, and, as far as we can learn, to the satisfaction of the policy-holders. This company, being a joint-stock concern, pays its losses at the rate of \$5 per acre for total loss, irrespective of the collection of premiums, and has adopted a graduated scale of premium rates based on the actual hail experience of the land insured, on the same principle that fire insurance companies charge graduated rates according to the hazard of the business involved. The rates are as follows: 17½ cents per acre on the quarter-section upon which no destructive hail has fallen during the past ten years, 20 cents where once visited by destructive hail in the ten-year period, 25 where there have been two visitations, 35 where three times visited, and 50 cents for four times.

We do not here propose going into the respective merits of the mutual and joint-stock systems of insurance, but have cited these cases merely to show that all hail insurance companies are not failures.

The cost of insurance is, of course, regulated to a large extent by the volume of business done and by the amount of risk carried. If a larger proportion of insurance could be secured in districts little subject to hail, then the hazard would be correspondingly reduced and the premium rates could be lowered.

Syndicating Stallions.

The question of horse-breeding is a live one in the West at the present time, numbers of farmers being anxious to breed their mares the coming season. First-class stallions are very scarce, and therefore high in price, with the result that individual investments in such horses are likely to be few. The prospective stallion-owner has several reasons which tend to hold him back from an investment in a stud horse. The high price, ranging from at least one to two thousand dollars; the risk of losing all by an attack of colic, the difficulty of collecting stud fees, the expense of advertising and handling, together with ten months' idleness of the horse, render such an investment one of great risk. For horse-breeding to be remunerative, only the best sires may be used, so that it behooves the intending breeders to cast about for some scheme which will insure them the use of a good horse. The syndicate system, in some form or other by which the costs and risks enumerated above are divided among several, affords about the only solution to the difficulty. Right here is where an agricultural society can do good work, by offering liberal premiums to first-class horses to stand in a district guaranteeing a certain number of mares at a stated price. It may not be generally known that the Clydesdale Association of Canada appropriated five hundred dollars (\$500), to be given in \$50 bonuses, to assist agricultural societies to engage first-class registered stallions, guaranteeing them a certain number of mares. A system similar to this obtains in Scotland at the present time. A syndicate could be formed of five or more first-class farmers, who would select a first-class stallion and stand him in their district. Each man might have three good mares bred to the horse, and thus would recoup himself the interest on his investment and probably part of the sum invested. Patronage by the neighbors would mean increased returns and

the lessening of the risk of loss by the shareholders. A stallion thus syndicated is bound to be well advertised, by the very fact of several being interested in him. To be successful in its operations, such a syndicate must be made up of *business* men (farmers we mean), some of whom must be good judges of a horse; the horse selected must be a good one, and sound, and the stud fee must not be excessive. Stallions can now be insured under a system of live-stock insurance, so that any probable loss may be minimized. An association of men as indicated, who will stay together and by their agreements, will be a power for good in the matter of horse-breeding. Syndicates for such purposes have been wrecked by crooked dealing, gross ignorance, etc., heretofore, but that is no reason why others can not and should not be successful.

Arbor Day.

Friday, May 10th, has been fixed upon for the observance of Arbor Day in Manitoba. Prepare to observe it as it should be, by planting trees or preparing the ground for planting next year.

Farm Siftings.

The poet says that "in the spring the young man's fancy lightly turn to thoughts of love," but he does not tell us the direction in which the thoughts of the farmer turn. However, from practical experience, we know that several matters call for attention from his think-box at this time, not the least of which is *hired help*. Good help is hard to get—a statement no one will be prepared to refute. That product of our present farming system, the winter loafer, whose vocabulary of oaths is as extensive as is his love for poor tobacco and spirituous liquors, is at no time a desirable inmate for the ordinary farm home. The farm is the place in which, fortunately for the future of the country, children are being reared free from city viciousness, yet this advantage may be completely nullified by the bringing to the farm hired help of the class above described. In order to obtain good workmen, in any line of work, employment must be permanent. Parsimony in hired labor is as deadly a mistake as can be made by any farmer. The evil effect of the man of low character soon shows itself on the horses and other live stock of the farm, the implements, and the buildings. You hire your help (of either sex) in the spring, and let them go in the fall, or perhaps offer the board for the winter's work, the latter a very poor equivalent for the attentions of a good man to the stock. So-called remedies are easy to prescribe, but not so easy to administer or so certain in their effects. I suggest as follows: Hire at a good fair wage by the year, and also on the profit-sharing basis, a man whose mind is above the fallacy that it is his duty to leave, on every visit to town, as is so aptly expressed a little for the hotel-keeper!

We hear occasionally of a person doing a nice little dairy business. A few good cows, a clean churn, butter worker, dairy thermometer, good salt, printed parchment paper, and a level-headed man or woman, make a combination hard to beat when it comes to the making of that delectable article—clean, nutty-flavored butter. The above combination is, unfortunately, not as common as it might be, sometimes for lack of suitable cows. Speaking of cows, *do not spoil* what you now have, if they are, say, Shorthorn grades, by the use of dairy sires. The dairy bred animal is for the specialist, with good barns, and the best of feed, *only*. The stocker trade will not stand tampering with by the use of dairy bulls on the common cattle of the country.

Fat cattle are rarities this spring, thin ones are very common. Where one finds the cutting box and grain crusher, there the cattle are in fair condition. Did the close relation between live-stock thriftiness and the implements mentioned ever strike you?

Forestry is a new thing to be taken up seriously by Westerners. The arguments advanced, such as regulating the rainfall or minimizing the chances of drought by means of trees, the beautifying of the landscape, together with the advantage to a country of plenty of wind breaks, are all good. Another, judging from the reports of European forests under Government control, should also be mentioned,

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namely, the money value of a crop of trees. Some of the Governmental forests report an annual income of as high as fifteen dollars (\$15) per acre. If Canadians expect forestry as a scheme to go, the money-making part of it must not be forgotten, and the supervision of the work needs to be given to persons holding higher qualifications than party heeler. The O. A. C., Guelph, has turned out several men well equipped along horticultural lines, who could doubtless be made use of in this work with benefit to all concerned.

The question of compulsory education was brought up in the Legislature recently, and not before time. There is a great need for such a law, not only for ignorant parents, but for some who are fairly well educated themselves, and yet deny their children even the rudiments. Tar and feathers are *ultra vires* in this 20th century. If there is at any time justification for such heroic treatment, it would be in cases where parents, either from sheer carelessness or love of money, keep children at home from school entirely, and thus allow them to grow up in comparative ignorance. Ignorance produces crime in the majority of cases, so that a vigorous compulsory education by law will not be out of place in the Province.

Provincial Hail Insurance does not seem to make much progress through the Legislature. Spoon-fed people never amount to much. The exercise of paternalism by a Government paralyzes individual effort and often demoralizes the beneficiary. Government Hail Insurance would open the way to all sorts of roguery, and would not be conducive to early rising in seeding time. It would discourage grass seeding and cattle breeding, place a premium on laziness or incapability, and be a distinct encouragement to one line of farming, namely, exclusive grain-growing, and that would be retrogression. There are lots of legitimate avenues for Governments to work and aid the people of the farm, such as agricultural colleges, farmers' institutes, and agricultural societies, preservation of our timber, farms, etc. I notice that the stock men are arrayed against the measure, and they are the bulwark of the legislature. It seems to me that there is no real reason why the people and companies can not attend to their own business with results satisfactory to every one. J. W. Mitchell.

N.-W. T. Farmers' Institute Meetings. A HINT TO ONTARIO FRUIT PACKERS.

Through the joint efforts of the Territorial and Dominion Departments of Agriculture—the former arranging places and dates and advertising the meetings, and the latter furnishing the delegates—Farmers' Institute meetings were held throughout the greater portion of Alberta and Assiniboia during February and March. On the whole, the meetings were well advertised and the work well planned, the country being divided into suitable sections for the different delegations to do their work advantageously; and those whose duty it was to plan and advertise the meetings deserve much credit for the very efficient work they did.

The places of holding meetings were not limited to points along the railway, but included outlying points as well, as the accompanying list will show. The delegation of which the writer was a member covered that section of Assiniboia lying along and including a belt fifteen to twenty miles on either side of the C. P. R. between Moose Jaw and Wapella, the following being a list of the meetings held, together with the attendance at each:

Moose Jaw, 40; Marlborough, 25; Lumsden, 50; Wascana, 35; Balgonie, 30; Davin, 23; Qu'Appelle, 100; Fort Qu'Appelle, 75; Abernethy, 50; Indian Head, 75; Sintulata, 65; Wolseley, 60; Ellisboro, 45; Grenfell, 75; Broadview, 50; Fitzmaurice, 25; Fairmeade, 60; Wapella, 40; Hillburn, 65. Total attendance, 988; average, 52.

The members of the delegation and their subjects were: T. G. Raynor, B. S. A., Cultivation of the soil, and composition of common feeding stuffs; D. Drummond, Live stock, including horses, cattle, sheep, swine, and poultry; J. W. Mitchell, Our markets and their demands, mixed farming, and dairying.

Satisfactory as the meetings were from the point of attendance, they were still more so when judged from the standpoint of interest manifested by those present. The plan adopted at all of our meetings, and which worked most satisfactorily, was for each delegate to speak briefly, by way of introducing his subject and referring to what he regarded as the most important points, and then invite questions upon and free discussion of the subject under consideration. The discussions were most earnest and hearty, and could not fail to prove valuable, for they brought out and helped to clear up many difficulties, while many suggestions were made which will furnish material for reflection and future investigation. When one pauses to think for a moment, it seems quite patent that a fair share of the time of Farmers' Institute meetings should be given up to discussion and the asking and answering of questions, the delegates speaking briefly to introduce their subjects and bring out the most salient points, and then acting as directors of and participants in the discussions. In this way only can the real object of such meetings be attained, for local conditions and local and individual difficulties can hereby be brought out and discussed, and the priceless experience and observations of farmers of the locality brought to bear in solving many knotty problems. An exchange of ideas amongst the farmers is one of the by no means least valuable features of an Institute meeting.

The country seems ripe for Institute meetings, and they should, and doubtless will, become a fixed feature of the work of the two Departments of Agriculture in their efforts to aid in the development of the agricultural interests of the Territories. My reasons for saying that the country is ripe for Institute meetings are that the conditions under which we have to work—the peculiarities of soil and climate, the weed pests, etc.—are now fairly well known, and the farmers are in a position to state these and their individual difficulties, and to discuss them intelligently. One could not fail to be impressed with the truth of the foregoing while listening to the discussions at our recent meetings.

THE USE OF MANURE.

One fact which we elicited from the farmers at our various meetings was that even in the Northwest manure can be used to good advantage. There was some difference of opinion as to the best methods of handling and applying it, but all the progressive farmers advocated returning it to the soil, and not casting it aside or burning it. Besides its fertilizing value, it seems to have the effect of causing a grain crop to mature earlier. To the truth of this, several farmers attested strongly.

ONTARIO APPLES.

Just a word, in conclusion, to our Ontario brethren. At several of our meetings—in fact, whenever the question was referred to—it was complained that many of the Ontario fruit packers have been acting dishonestly by filling the middles of the barrels with a quality of apples quite inferior to that at the ends, and inquiries of our merchants elicited the same complaint. Even should the new Dominion enactment fail in any respect to compel honesty in the packing of fruit, it will not pay to trifle with the Manitoba and Northwest markets; honesty, rather, will be found the best policy. There is a proverb, "Once bitten, twice shy," and while good Ontario fruit is in high favor here, yet we can and will purchase elsewhere rather than have deception practiced upon us. What I have said does not apply to all, or even the majority, of the Ontario fruit packers and dealers; but the trouble is that one dishonest man brings his fellows into disrepute.

Another point: The freight upon a barrel of apples being equal to or greater than its selling price in Ontario, it will never pay us to import inferior fruit: for the relative prices of poor and good fruit to the consumer are so nearly equal that while a barrel of poor apples would cost the consumer \$3.50, say, a barrel of choice fruit would not cost him over about \$4.00. Which is he likely to want, and which will it pay him to purchase?
J. W. MITCHELL.

Manitoba Estimates for 1901.

At the last session of the Local Legislature the following estimates relating to the Agricultural Department for 1901 were passed:

To Agricultural Societies and Farmers' Institutes	\$17,500
Winnipeg Industrial Exhibition Association	5,000
Brandon Summer Fair	2,500
Portage la Prairie Fair	2,000
Agricultural statistics	1,000
Commission of agricultural education	1,000
Diseases of animals	1,000
Noxious weed inspection	2,000
Dairy school and dairy instruction	8,500
Dairy Association	250
Pure-bred Cattle Breeders' Association	250
Sheep and Swine Breeders' Association	250
Horse Breeders' Association	250
Horticultural Society	250
Poultry Association	250

To the Sheep and Swine Breeders' and Horse Breeders' Associations there were re-votes of \$200 each, the grant for 1900 not having been taken up.

The estimates show an increase of nearly \$2,000 for dairy school and dairy instruction, to cover the cost of inspectors, salaries and expenses. A cheese and a butter instructor are to be appointed for the summer months.

The Quarter-Section Mixed Farmer.

H. A.'s letter puts one side of the question, and puts it well. I note he dates from the Territories. Now, any one writing from the Territories is very apt to lose sight of one thing, and that is, that to get a true view of things, one should not deal with present conditions, which are temporary, but with things as they will be. This is particularly the case in a question like the one under discussion. Owing to the alternate-section principle, there probably is not a quarter-section farmer in the Territories who has not the advantage of free pasture on vacant railway or other wild lands. In considering whether 100 acres is enough to "mixed-farm" upon, the proper way to get a clear view of the matter is to erect an imaginary fence around the 100 acres, and to confine the farmer to that 100 acres for everything. Not a load of wild hay, not a stick of fuel or building timber, not a day's pasture, must be credited to the free range. This is what it is already coming to in some districts. When you have done this, then size up your 100 acres on this basis; and the closest figuring and most economical and industrious management can only produce something like a bare living. The result will be a vast number of small farmers just struggling along. They cannot expand beyond a certain point without the free range. They will be able to keep a few cattle, a few hogs, a few hens, and raise a few bushels of grain. Now, H. A. apparently doesn't want to see enterprising farmers, who want to make money, but idyllic farmers, who will be satisfied with living a quiet life within a narrow circle. There are two sides to the question. H. A. has put one. I will try and put the other.

Take your 100 acres, first from the wheat-grower's point of view. H. A. says wheat-growing is a failure if a man can do on 100 acres. I can't agree with him. Let us figure on 100-acre farm for wheat. Remember, he has no free run of any kind. Now, take the Regina soil. He will need three horses. They will need something to eat. To grow oats, hay, etc., will take up a part of the 100 acres. He must either buy butter or have some cow pasture, and a horse pasture is not a bad thing. Without going into details too closely, I think if the wheat-grower has 120 acres out of the 100 available for wheat, he will not be doing badly. At the least 40 acres of this should be in summer-fallow. That leaves 80 acres of wheat. Out of that he has to pay a year's expenses, live, raise a family, and provide for old age. Now, the man who is content to go through life on nothing else but 80 acres of wheat per annum, in a country where the seasons are precarious, is easily pleased. If you take the mixed farmer, he is in a worse plight. The native pasture soon runs out. If he has to provide pasture, winter fodder and everything else on 100 acres, without assistance from the free range, he will make a fair living in good years, with the best management, and in dry years, when all descriptions of feed are short, he will come out at the small end of the horn.

It all depends upon the way you look at it. If you want farmers who are content to be in a small way of business, under conditions that only admit of his going to a certain very limited point, then 100 acres is enough. If you want prosperous farmers, 100 acres is too little. What I mean, in a nutshell, is that I don't want to see a great grist of small farmers who are contented with being small farmers, and who can't be anything else, but farmers who will be in a position to make something. There is an immense amount of arable land in the Territories, and I think the half-section and not the quarter-section farmer is the man we are looking for in the Territories.
Carnduff, Assa.

J. H.

Rape.

BY J. H. GRIDALE, B. S. A., OTTAWA AGRICULTURAL EXPERIMENTAL FARM.

As the questions of cheap meat-production and profitable cattle-raising come more to the fore, forage plants peculiarly suited for young cattle and stockers, as well as pigs and sheep, must come more and more to the front.

It is well known that the pig thrives on grass or green food alone, but the importance and necessity of feeding him on such is very often overlooked. Another consideration frequently neglected is the comparative value of different forage plants for the end in view. The conditions governing the feeding operations, however, enter into this matter, and frequently such crops as can be most conveniently produced or utilized must take precedence over others better adapted to the end in view.

Of the various crops more or less extensively cultivated as forage crops at the Central Experimental Farm during the past few years, for cattle, sheep and swine feeding, none has given quite such satisfactory results as rape. The variety best suited for forage is Dwarf Essex. During the past year about 4 1/2 acres have been under rape. The plots have been cultivated as follows:

Plot 1. This plot, 1 1/2 acres in extent, was a slightly loamy sand. It was manured 15 tons to the acre, in May, and the rape sown in drills 30 inches apart, on May 19th. This crop grew very rapidly and yielded, in August, 28 tons green fodder to the acre. A second crop grew up and gave about 3 tons to the acre.

Plot 2. This plot, 1 1/2 acres in area, was a good loam. It was manured 12 tons to the acre, in June, and sown in drills 30 inches apart, June 16th. In August it cut 22 tons to the acre, and the land was then plowed.

Plot 3. This plot, 1/2 acre in area, was sown broadcast, on June 18th. This plot had been used as pig pasture the preceding summer, so no manure was necessary. This plot was used as a pasture for store pigs.

Plot 4. This plot, three-sixteenths of an acre in area, was sown in drills 38 inches apart. It was used as pasture for pigs.

Plot 5. This plot, 1 1/2 acres in area, was sown on sod plowed July 16th. No manure was added, but the best seed-bed possible under the circumstances was prepared, and the plot sown July 23rd, partly in drills 18 inches apart, and partly broadcast. The land being rather dirty and in a poor state of tilth, this plot did not do very well. The part sown broadcast was a very light crop indeed. The part sown in drills did very much better, however, as it was possible to cultivate by means of the hand-wheel hoe.

Plots 1 and 2 were cut and used as soiling crops for steers, calves, pigs, and sheep. It was impossible to get any idea of the exact feeding value from the animals fed. The steers, 10 in number, averaged 1,000 pounds weight, and made gain at the rate of 2 pounds per diem each while on the rape, no grain being fed. The pigs to which it was thrown in small quantities ate it with avidity and were quite evidently benefited. A lot of ten steer calves were given a good feed daily, and appeared to enjoy the juicy leaves and stems very much, and to thrive thereon. Sheep were allowed to feed upon lot 5, and ate it down quite close. As soon as turned upon the rape they began to improve in flesh. The greatest value of the crop would appear to be a pasture for pigs.

Statement of costs of proceeds of an experiment with a lot of six pigs:—

To six pigs at \$3.00	\$18.00
3 1/2 acres at 30 cts. per ewt.	2.65
2007 lbs. meal at 9 cts. per ewt.	18.60
Gross cost	\$39.25
By 1127 lbs. pork at \$6.00 per ewt.	\$67.62
Profit on lot	28.36
Profit per pig	4.73

From a study of the habits of pigs pasturing on plot 1, I should say that the best results would be secured by sowing the rape in rows 24 to 30 inches apart, at the rate of about three pounds of seed (Dwarf Essex) to the acre. When thus sown this can be cultivated by horse power when young, and has a tendency to branch out and develop a large leaf crop rather than go to stem. It is most interesting to watch the niceness of discrimination exercised by your practical rape-eating pig as he strolls leisurely down the row and selects the juicy leaves that best please his fancy. I have observed, too, that your trained pig is equal to the best of chemists in picking out those parts of the plant most valuable for food. He soon learns to shun the larger or old leaves, and feasts upon the young, the tender, the juicy. A study of the chemistry of the plant will be found in the report of Mr. F. T. Shutt, Chemist of the Experimental Farms.

Below is a statement of the cost of producing the forage:

COST OF GROWING ONE ACRE OF RAPE.	
Rent of land	\$3.00
Cultivating in autumn	1.50
Plowing in spring	2.00
One fifth manure applied at rate of 20 tons per acre, and valued at \$1 per ton	4.00
Harrowing twice	.50
Seeding, 12 hours	.25
Seed, 3 lbs. at 10 cents	.30
Hoing 3 times, 2 days, at \$1.25	2.25
Total	\$11.17
Yield 30 tons,	
Cost of producing 1 ton	\$0.47
Average dry matter per ton	200 lbs.
Cost of 100 lbs. dry matter	23 cts.

Territorial Crop Statistics.

The Department of Agriculture at Regina has just completed the compilation of threshers' returns for the year 1900. Below will be found a statement showing the result of last season's crop in the various sections of the Territories, as well as a comparison with the figures for the preceding season:

District.	WHEAT.				Yield per Acre.	
	Bushels Threshed.		Acreage.		1899.	1900.
	1899.	1900.	1899.	1900.	1899.	1900.
Assiniboia						
East	2,996,187	1,239,111	156,319	165,235	16.02	7.49
Central	3,329,629	1,780,368	156,006	192,558	21.34	9.24
West	1,255	1,548	32	47	39.21	32.93
Saskatchewan						
East	238,819	100,616	15,632	23,335	15.27	17.02
West	7,518	31,028	410	1,165	17.08	20.32
Alberta						
North	721,289	477,575	29,212	25,339	24.69	18.39
Central	11,369	41,689	2,178	2,115	20.46	21.12
South	66,257	50,379	3,674	2,670	18.03	22.61
Territories	6,915,623	4,028,204	363,523	412,864	19.02	9.75
OATS.						
Assiniboia						
East	1,235,975	609,738	43,120	46,487	20.12	13.54
Central	1,085,489	615,391	33,859	41,013	32.05	15.00
West	19,785	11,346	378	466	52.34	30.77
Saskatchewan						
East	161,527	289,341	5,653	9,303	20.10	27.86
West	12,172	36,633	453	1,071	27.53	34.22
Alberta						
North	1,570,311	1,896,308	36,606	56,422	42.89	33.07
Central	311,828	538,093	8,143	13,129	41.97	40.98
South	253,616	276,276	6,721	7,548	38.01	36.60
Territories	4,686,036	4,226,152	131,938	175,439	34.81	24.08
BARLEY.						
Assiniboia						
East	86,080	33,146	4,218	3,299	22.30	10.01
Central	33,688	23,322	1,304	1,791	22.39	13.00
West	2,104	838	47	36	44.76	23.27
Saskatchewan						
East	37,539	59,250	1,834	2,697	20.16	22.73
West	1,193	1,942	53	79	22.50	24.38
Alberta						
North	111,265	182,811	5,328	7,280	27.07	23.11
Central	21,687	41,405	841	1,481	25.78	27.95
South	10,865	10,502	451	468	24.09	22.44
Territories	337,421	333,216	14,276	17,044	23.62	20.72

The total area under crops of wheat, oats and barley, as reported by threshers, was 605,347 acres in the year 1900, and from this was harvested 8,007,062 bushels of grain. This shows 92,610 more acres of land under cultivation than during the preceding year, but the yield falls short by 3,331,418 bushels. This is accounted for by the extremely dry spring and early summer in the eastern portions of the Territories and by bad harvesting weather throughout. Early snowstorms in the West caused heavy losses by lodging the grain, and thus materially reduced the yield.

An Unfavorable Opinion of Spelt.

The following is a letter from an Iowa correspondent of the *Wallace Farmer*, which will be read with interest by many of our readers:

If your correspondent from Marshall county, who desires to know the merits of spelt, will carefully look through the catalogues of several seedsmen, he will soon discover that the identical cuts used by some of them to show the wonderful stouling properties of spelt are used by others to represent certain kinds of oats, and by still others to represent certain grass. Quack grass could be much better represented by these cuts than spelt. These cuts have induced many farmers to introduce this new kind of grain.

Being short on meadow, I sowed several acres of this grain last spring. It matured after the barley and before the oats. Each of the three grains I mowed and stacked the same as hay. In bulk the spelt exceeded the oats, but in weight it was much less at time of stacking.

During the winter the calves, pigs, and often the horses, had free access to the stack yard, which contained barley, oats, spelt, clover, prairie hay, stover, corn fodder, and millet. The unanimous preference which these animals exhibited for certain stacks, and their disinclination for others, proved a valuable object lesson.

It was clearly evident that the barley was the chief attraction. After that in order came oats, corn fodder, clover, millet, prairie hay, and spelt.

The corn stover which I hauled out into a dry feed lot was the only feed which my dairy cows had during the day, but at night I filled their mangers with oat hay, with an occasional dessert of clover, and a Sunday dinner of fodder corn.

As spring approached, the oat hay disappeared and I began substituting spelt. The cows refused to touch it, grew gaunt and decreased the supply of milk, and while the horses ate some of it, yet they seemed to take any other grain or hay better. It was stacked rainproof, and came out fresh and bright, but the fiber is too woody, in my opinion, to be of much value as hay. The grain is less in quality and quantity than oats. I will not sow any this year, because I see no advantage in doing so. Barley hay is fine, but the yield is too small to be of as much benefit as oats.

Good, bright corn stover, fed in connection with well-cured oat hay, cut just before it is fully ripe, produces most excellent results, and I shall continue to follow feeding my dairy herd on that line.

A Day with a Western Shepherd.

BY J. M'VIC.

The Doukhobors and Galicians and their customs and habits are interesting to us, because they have become part of our commonwealth, but they lack the initial interest of fellowship and common nationality that many other settlers in the West have for their eastern friends. Apart from the large foreign immigration that is setting in Canada-wards, the West has absorbed a great many eastern men or boys who have felt that they could do better if they only had the chance, and have consequently left the competition of the east for the open prairies of the West. These may be artisans, farmers' sons, or 'varsity grads. If they come as far west as Southern Alberta or Western Assiniboia, with its free grasses and balmy winter climate, under the kindly chinook, they soon conclude that the cattle business is the business of the country, and the goal of most is to get a start with a few cows; hence, many start riding for the big outfits, and convert their annual savings into cattle, and wait for their bunch to grow until it is large enough to afford constant employment and sufficient return to warrant them in homesteading a quarter-section, putting up a shack, and going into the cow business in an independent way. The cowboy life has been written and talked of "good and plenty," as the Western phrase goes. The picturesque aspects of it have not been neglected by fulsome newspaper correspondents. In fact, the pomp and circumstance of the old cowboy life, with its cartridge belts, guns, rough-riding, and eager sports and vices, have been given a prominence and emphasis greater than actual present humdrum working conditions warrant. But all Western men are not rough-riding, irresponsible cowboys; they are not even cattlemen at all. There are a good many shepherds. The newspaper men seem to have passed the shepherds up, but they are an interesting and an important economic factor of Western life just the same.

We had decided to see them at work. The natural grasses soon exhaust near the towns, and the shepherd tries to get where nobody else is, if possible. A visit to a sheep ranch does not mean a drive in a broad-cushioned phaeton for three miles and return, but a horseback ride of twenty miles. The ideal and typical way of traveling in the West is on the frisky "cayuse," as the Western pony is called. He may be heady and fresh at first, and roll you a bit for the first couple of miles, for the healthy pony is fond of moving. His wind and constitution are good, for he has been brought up outside, with exercise all the year round and with plenty of dry feed. By and by you get closer to your Mexican saddle, with its high pommel and cantel, and it is much more comfortable than the diminutive English saddle—"postage stamp," the cow-man calls it. The air is fresh and exhilarating as champagne. Your whole frame is in pleasurable exercise, and you feel for once independent of the druggist and his drugs. But this is another story. Two hours and a half brought us to the camp of our shepherd host—a real 'varsity man, but he has given over talking about that now. It was still light enough to see the camp lay-out. Large shedding, more noticeable for its extent than architectural grace; large corrals adjoining it; dipping plant, wool press, a mower, horse-rake, and large basket wagon, with which to gather the short prairie hay, against an occasional bad winter spell; but no harvesters, plows or seeders; and, finally, the shack of the proprietor. This was the picture before us as we jolted down the coulee to the river "bottom," protected on both sides by high-cut banks which carried up the bench lands at both sides of the stream. The sheep bunch were in the corral for the night. We could see the white mass and hear the bleat of an occasional unhappy member of the flock, who always seemed to have two or three, or perhaps half a dozen, imitators.

We ate and slept, and ate again, the last time before daylight, as the first time after dark, for the shepherd must be early afield. The dogs were already clamorous to be out before the lamp was extinguished—two collies and a greyhound, the collies to work the flock, the greyhound to protect the panicky, stupid sheep against wolves and coyotes. The greyhound bore many a scar, and was quiet and sedate, but the Scotch dogs were all movement, back and forth, and had to be brought "in to heel" frequently. The flock were already noisy; a second's pause found a new leader, and then came a regular chorus until the corral sent out a confused din of sheep calls. The corral is opened, a black goat is the recognized leader, but hundreds of quick hooves are striking the hard-trodden, dry way up the coulee; the dogs are quickening the front ranks by barking along the sides, and are shooting back to hurry the loiterers behind, and the day's work has opened. The pace slackens after the corral is empty, and the flock ascend the slope to the bench in long files, one after one, in a continuous, wavy movement, that seems of one sheep instead of twenty five hundred of the little quadrupeds. By and by the bench and the grass are reached, the head ones pause for the first bite, and the ones behind spread and dress up to right and left until the flock is spread to a quarter or half a mile front, and in this way the circle for the day progresses. As among men, the aggressive get the best bite, and the strong, husky ones of the

bunch go in advance of the cripples and crones, that have to be kept jogging behind, for all must be kept in sight, against the possibility of scattering of stray groups by the wolves or coyotes.

Sheep gather their food quickly. By eleven, occasional groups are seeking the airy knolls to rest and ruminate. But we were lucky enough to get all that was coming to us in sights and experiences! Things became suddenly mixed at one end of the flock. A vicious coyote is in the midst, snapping and biting in all directions, and the poor, panicky ewes are spreading away from him, but his day is short. The collies are diffident to go to the center, but the quiet greyhound is in the midst without hesitation. A few fierce yelps and sudden turnovers, another scare or two for the greyhound, with the collies in at the death on the word of the shepherd, and it is all over with the coyote, and there is another skin for the shepherd's rug. A couple of hours more rumination and rest for the ewes, and a square meal from the shepherd's hamper for us, and the flock are again in motion and busy, and the second half of the circle for the camp is begun. We swung around to the right in the morning, and are circling back to the left, towards the head of the coulee, for evening, having covered not less than six or seven miles. The sheep get very busy with the close of the afternoon. The head ones need no urging. The crones and cripples have gone as far, but have probably not got as much; but they are all of one flock, and must march with the bunch. The sun has already dropped when the black goat and strong ones are trotting down the coulee for camp; the collies are busy at the sides and rear of the flock; the greyhound, in the rear, is still more sedate. The area narrows, the bunch whitens as the night darkens; they are all ahead of us on the down-grade. The latch of the corral clacks into its niche. There is still an occasional unhappy sheep call, and the day is done.

Selecting and Buying a Draft Stallion.

With the present demand for good draft geldings and the good prices paid for them, there is sure to be an increased demand for draft stallions this spring. Many of these will no doubt go into the hands of men who have had little or no experience in the stallion business. Trusting that a few hints along the lines of buying and selecting may be beneficial to some of this class of buyers, it is not my intention to champion any of the draft breeds, but leave this question to the men who invest their money. Before going into the stallion business, it is very important that a man satisfy himself as to the needs of his locality. If Clydes have been bred in the locality and there are a number of good Clyde mares and little or no other draft blood, then, by all means, buy a Clydesdale. If, however, Shires have been used to any extent and there are well-bred Shire mares available, then I think it wise to invest in a Shire stallion, as the success of a district in horse-breeding depends greatly upon the persistence of the farmers along one line or breed of horses.

Though the Clydesdales and Shires resemble each other very much, and, no doubt, crossing between the two breeds would give very good results, yet I think it wise, under present conditions, to keep to the one breed or the other. Having decided on the breed of horse most suitable to your wants and of your locality, the next important thing is to fix in your mind your ideal horse—that is, the horse most suitable to produce the best results from the class of mares that are likely to be bred. A horse that is successful at the head of some studs of pure-bred mares or a great prize winner is not always the best horse to go to the country to cross on all classes of mares, or, say, the average farmer's mares. Thus, it is necessary when buying a stallion to travel a district, to take into consideration the class of mares likely to be bred. In the years of depression of the horse trade, a great many of our best mares were sold off the farm, they being the only ones that would sell, and many of them were sold in the hands of the farmer. It is a pity that we do not buy a great many of these mares, and, if we do, we can get a very good one for a very low price. It is a pity that we do not buy a great many of these mares, and, if we do, we can get a very good one for a very low price. It is a pity that we do not buy a great many of these mares, and, if we do, we can get a very good one for a very low price.

this is the case all over the country, or that there are no good mares left in the hands of farmers; but there certainly are more of this class than any other in many localities: thus it is quite evident that good big stallions are needed, having good sound feet, with good strong, hard, flinty bone, with well-muscled arms, good strong, well-muscled shoulders, well shaped to fit to the collar; back short, broad across the loins; ribs well sprung and of good length to give a good dinner-basket and plenty of room for digestive organs; chest deep and broad, with legs well set under. Coupled with these qualities will generally be found a good temper. Make sure that you get the above qualities and as many of the qualities that go to make your horse attractive as you can; but, by no means sacrifice qualities of strength and endurance for beauty. To be useful, a draft horse must be a good walker—must have a free, open stride, making free use of all the joints of his legs.

The best place to buy a horse is at a breeder's or importer's stable. Do not be induced to buy a horse that may be sent to your nearest town by some peddler (if I may be permitted to use the term), as the class of horses this class of men deal in in the above-named way do not appear as good in company as they do alone, and you will also have to pay the expense of sending the horse, the expense of two or three men for a week, or sometimes weeks in caring for the horse and soliciting buyers for him, or trying to work up a company or syndicate. I do not say that no good horses are sold in this way; but, in a great majority of cases, this class of horses does not give satisfaction, and a man can always do better at a breeder's or importer's stable. I would say, go to some reliable stable,



AUTOMOBILING—AN IGNOMINIOUS JOURNEY HOME.

A correspondent writes: "Two gentlemen and a lady were enjoying a spin in a motor car, when, without any warning, the works refused to act. The occupants of the car got out and stood considering for awhile, and as the advice of a passing recruit was readily obtained, they decided to get a regiment of boys to push the vehicle home a distance of four miles. Recruits were readily obtained, but they could not even move the car. At length a happy thought struck one of the automobilists. Why not hire a horse at a builder's, close by? Accordingly, a very heavy cart horse was obtained and attached to the motor, with a small boy on his back. Of course every passing Jehu had his joke at the expense of the luckless passengers, and the littleurchins in the street practised their wit on the unusual spectacle. The youngster on the horse enjoyed the experience hugely, but the unlucky 'motists' looked as if they found the situation anything but humorous." *The Graphic*.

where you can make comparisons, and, if not satisfied, visit several stables and take a little time to make your selection. Don't be hurried into buying by the appearance on the scene of some other prospective buyer, unless you have thoroughly satisfied yourself with horse and price, for, if the other fellow gets the horse, you don't pay for him, and there are others as good. It will always pay a man to buy for cash. Many breeders will sell on credit, but will allow a large discount for cash, so any reliable man, if he has not the money in hand, can get it at a lower rate of interest where he is known than in a strange place.

M. E. D.

Best in Canada.

The William Weld Co., Limited:

DEAR SIRS, I have been a subscriber to your paper for a number of years, and must say that I consider it the best agricultural paper printed in Canada to-day. You are making rapid progress along practical hints in tilling the soil as well as useful information in care and management of stock. This is what we farmers want. Wishing you every success with your paper, I remain,

Yours truly, JOHN R. LINTON.

The Management of Brood Mares.

On the stock farm, where the only revenue derived from a mare consists in the production of a foal, it is necessary for the owner to use his best effort toward getting every one of his mares in foal each year: then, after getting them in foal, the risk of accidents tending to produce abortion should be carefully considered, and all the seemingly minor details of every-day management and feeding should be attended to with the utmost care and attention. As regards the ordinary causes of abortion (exclusive of contagious abortion and those that are a sequel to debilitating diseases, such as influenza, pneumonia, etc.), cases are frequently produced by the following causes:

1. Slipping on icy spots and either falling or producing a strain.
2. Fighting with other horses and getting kicked in the abdomen.
3. Getting pinched in box-stall doors while entering stall (this is where the doors swing out).
4. Getting into deep snowdrifts or muck holes, thereby producing strains.
5. Mares, in searching for a place to rub, or, as it seems to be with some of them, from pure curiosity, will get into all kinds of traps, such as between wind-mill towers, or try to get through some opening that is about half wide enough, and I have seen them get into a feeding pen for sucking colts, where they had to get on their knees to crawl under. Of course, when they come to get out, they usually get excited and try to jump over the top, get hung up, and an abortion follows.
6. Another cause is abuse from attendants. Some mares are very stubborn and aggravating about going into the barn at night, and have to be driven in from the yard by force; then, after getting them into the barn, it is still harder to run them into their stalls; finally, when they do go into the right stall, it is a very natural thing to strike them over the rump with a halter, board, or anything that comes handy, just as they jump through the door. I once saw this done, causing the mare to fall. This took place while letting them in from the yards at evening, and the mare lost her foal that night. Of course, there are many other causes that produce abortion, and the foregoing are simply examples of a few of the minor accidents that have come under my notice, and might happen at almost any time.

The remedy for this class of accidents is prevention. If there is ice in the yard, and there is too much of it to be chopped up, ashes or manure may be spread over it and then wet down, so that it will adhere and freeze to the ice underneath. Mares that are mean should not be allowed to run with others, and it may be necessary to let them have a small yard by themselves. Box-stall doors should always be fastened open before the mares are let in for the night, and it is wonderful how soon each one will learn her place and seldom make a mistake or get into the wrong stall.

I prefer earth floors in the stalls and alleyways, as the danger of slipping is less than on a plank floor, especially in winter, when their feet, on very cold days, become balled up with snow and ice, sometimes elevating them from the ground three or four inches, and it often seems advisable to knock the balls out of their feet before they are let into the stable. The approaches to the stable door should be arranged so there will be no sill to step over, as a mare will sometimes get just a slight toe-hold with one hind foot in going over a sill, and slip off just when the most weight comes on the foot, thereby causing her either to knuckle at the fetlock or causing abnormal extension of the hock and general concussion. As regards diet, we should be careful to see that the food is of the best and that no smutty corn or rusty oats are fed. It is also rather dangerous to allow pregnant mares free access to straw stacks, as is done in the West. Flax straw is particularly harmful, as is any food which acts as a purgative.

It will pay the brood-mare owner to try his mares often in the breeding season, and the plan adopted by most breeding farms of any size is to try all of the mares twice a week—for example, say Wednesday and Saturday, which should be known as "trial days," and on these days each mare is caught and tried. This is kept up until

it would be too late in the season to breed them again, even if they did come in heat. I have seen mares that were bred in April refuse twice a week from May to July, and then come in season. In cases of this kind, it is probable that abortion takes place, but owing to the early stage of impregnation, the external signs of abortion, such as soiled condition of vulva and tail and tucked-up appearance of the abdomen, are not noticed. Sometimes a mare is noticed in whom it is almost impossible to determine whether she is in heat or not, and will allow a horse to tease her and will stand perfectly quiet. The only way to tell is that if she is not in heat she will object if the horse attempts to cover her. This kind of mare is a source of continual annoyance to all concerned.

In warm weather, the best place for a mare to foal is out of doors, on a good grassplot, but until warm weather arrives, arrangements must be made for foaling inside in a good-sized box stall, in which there should be plenty of bedding. Mares that foal inside should be watched both night and day, so that in case of non-rupture of the fetal membranes during labor, they can be opened by the attendant before the foal suffocates (this also applies to mares foaling out of doors). Another reason for requiring an attendant is to prevent the mare from lying down with her hind parts against the sides of the stall, thus interfering with the delivery of the foal; also to catch the foal from those mares that persist in foaling in the standing position, and in so doing, preventing the foal from falling and forcibly striking the floor. These are the principal difficulties met with by the attendant, exclusive, of course, of the many different phases of difficult parturition. Immediately after foaling, the foal should be carefully placed in one corner of the stall, where the bedding is usually comparatively dry. The stall should be re-bedded with dry straw at once, before the foal attempts to stand, as it is bad policy to allow a young foal to slip and sprawl about on a slippery floor. This should be done regardless of the time of night or how sleepy the attendant may be, and it will be found that small attentions of this kind will go a long way toward making the business a success.—*J. P. Foster, V. S., in Journal of Veterinary Archives.*

Dairy Legislation.

At the last session of the Local Legislature, an Act was passed respecting the branding and sale of dairy products. In this Act a creamery is defined as a butter factory where the milk or cream of fifty or more cows is received, or where ten or more patrons contribute milk or cream, a private dairy being defined as a place where milk of less than fifty cows, owned by one person or firm, is manufactured. Cheese factories and home dairy cheese are defined on the same basis. The Act stipulates that every creamery, cheese factory, and maker of dairy butter and home dairy cheese shall register with the Department of Agriculture a stencil showing the name, address and number, and every package of dairy produce exceeding 10 lbs. in weight shall be branded with the stencil as approved by the Department. Also, every merchant who ships dairy produce shall register a stencil showing name, address and number, and shall brand every package of dairy produce handled. The penalty for infringement may be a fine of \$10 or \$50, or imprisonment for a period of three months.

Another bill was also passed affecting dairy interests, especially in connection with cheese factories and the milk supply of towns and cities, entitled the Milk and Cream Standards Act. This fixes the standard for milk and cream, under a penalty for infringement, as follows:

"No person shall sell milk in this Province containing less than eleven and one-half per cent. of total solids, or less than eight and one-half per cent. of solids not fat, or less than three per cent. of butter-fat, and no person shall sell cream containing less than fifteen per cent. of butter-fat."

Winnipeg Prize List.

In addition to the alterations made this year to the prize list of the Winnipeg Industrial mentioned in our last issue, the following will be of special interest:

The American Galloway Breeders' Association gives \$100, divided into prizes for a herd and for sweepstakes male and female. The American Oxford Down Association gives specials for Manitoba-bred Oxfords.

In the dairy class, the De Laval and United States separator companies give specials. Dairy Superintendent Murray gives a special in the newly-introduced buttermaking competition, for which over \$70 in cash prizes is offered. This should prove an interesting and instructive feature. The competition is open to home-dairy buttermakers, not professionals, and four batches of butter are to be made by each competitor. A building will be specially fitted up for this purpose, and churns, butter workers, cream, and all necessary adjuncts, will be furnished. Dairy Superintendents Wilson (Assiniboia) and Murray (Manitoba) have consented to take charge of the competition.

The prize list has been issued in neat form, free from advertising and all superfluous matter. Those desiring copies may obtain same from the manager.

School of Agriculture Criticised.

To the Editor FARMER'S ADVOCATE:

I see in your paper of March 5th, an article outlining a plan for a Government agricultural college to be established somewhere in Manitoba, and as you invite criticism, I will give you my ideas, though I do so with diffidence, as they are so diametrically opposed to your editorial.

This project seems to me something entirely unnecessary—a large tax on the people for a very indefinite return. Running a farm for experimental purposes would simply be duplicating the work so well done by Mr. Bedford at the Experimental Farm, Brandon, the reports of which are of immense benefit to every farmer, and for that reason I hold it would be an unnecessary expenditure of public money.

The practical science of farming is attained only by practice and study, and I would say that a young man desirous of learning up-to-date farming can best do so by going as an apprentice to a progressive farmer in the particular line or lines to which he intends to devote his attention, where he can learn all the practical work and become familiar with the different points of stock, and where he can easily arrange to have certain hours a day to study the theory, which can be best done by reading the agricultural papers of the day, and at the same time he could earn a few dollars per month instead of being a tax on the community.

The expenditure suggested in establishing and the probable annual outlay for such a school seems to me to be out of all proportion to the good that can be accomplished. I would advocate instead, as being of greater benefit to the greater number, that the Government continue its good work in dairy instruction, increase its Institute lectures, give premiums for best essays on all subjects pertaining to farming, give judicious aid to poorer settlements by providing pure-bred stock sires, and establish a course of agricultural education in all rural schools (a late premier already provided boxes of chemicals which might be of use). An agricultural college savors to me of tuberculin test and swamp-fever cure—all costly theory and very questionable benefit.

Make the boys read the agricultural journals and assimilate and discuss what they find there; teach them to plow and sow and reap and mow, and handle and study stock of all kinds; and if that won't make progressive farmers of them, an agricultural college never will; and the one way costs the public less than the other.

If there is public money to spend (which I don't think), why not have the Government establish a provincial park, some place where there is cheap land and good scenery, and get some buffalo and moose, elk and other deer, and preserve the large fauna of our country from extinction, and we could all go and see them and have our money's worth.

I am afraid I have trespassed too much on your space, so I will close by saying that if the consensus of opinion is in favor of an agricultural college, I would suggest that the district of Dauphin get it, principally because that part of the Province is as yet only in its infancy, and therefore has before it the greatest possibilities, owing to natural expansion as well as owing to its location, climate, and the wonderful fertility of its soil.

Dauphin, Man.

GLEN A. CAMPBELL.

Brandon Experimental Farm Notes.

The Brandon Farm, while not offering the same inducements to a farmer to visit during the winter, is yet a hive of industry, from which more or less information can be extracted at any time of the year. A visit during that period midway 'twixt winter and spring finds the staff devoting its energies to seed selection and distribution, and feeding experiments with live stock. With regard to the latter, steers are being fed, some tied in stalls, others loose. Spelt is being fed to two steers with very good results. This year no general distribution of trees will be made, last year being so unfavorable to nursery stock. Attention was drawn to a few of the troubles incident to a changing one's seed grain. Examination of this year's Alberta oats has shown them to lack effective germinating power, besides being full of weed seeds. The use of such seed without thorough fanning will undo a great part of the work already done in Manitoba towards the eradication of weeds. The improvement of one's seed grain is of vital importance when considered in its relation to crop yield.

Selection is a sure prevention of degeneration, no matter whether it be trees, cereals or live stock. The seeding and growing season of 1901 is the time to improve the seed for 1902. For such a purpose select a piece of good strong land, such as back-setting, sow with seed that has been fanned at least two or three times, and, if possible, during the growing time go over the piece and, if necessary, pull out any foreign grains or weeds—a small quantity of grain might even be hand-picked. The breeding and selection of the finest grain is as yet a comparatively new field in agriculture. A test of different rotations has been conducted at the Brandon Farm for some time (see Annual Report, 1900). The results are bound to be beneficial to farmers. Some seed is being prepared for distribution in the Macdonald grain competition. Oats were being hand-picked to get rid of the barley, which has been found will lie dormant in the soil for a year. Grasses and clovers have invariably given better results when grown without a nurse crop.

Believes in Fresh Manure.

To the Editor FARMER'S ADVOCATE:

Sir,—Poor yields on old land are to be looked for in a dry season, especially if it is late summer-fallow. Where the weeds have been allowed to mature, they lie in the ground like so many bushes, keeping the ground open. I see a good many never think of harrowing in the summer or fall, which is a great mistake. I find the more I work my land the more bushels I get to the acre. I would advise plowing old land first of June, harrow two weeks after plowing, then cultivate well the middle of July, and, if necessary, harrow again. In cultivating, leave two or three acres uncultivated till after harvest, and another strip till spring; then observe the difference in the crop following and it will prove to you the advantage of early cultivation. I have found cultivating in the spring, some years even on fallow, is of advantage. Old land to be fallowed should have a good fair coat of manure, green from stables, say twenty loads manure to the acre. If too far to haul manure, run the disk harrows twice over the field to be fallowed, and sow some kind of grain just before it freezes up, so it won't sprout, and it will make a good growth before the middle of June, which makes splendid manure to plow under. The best green manures are peas, clover, etc. Alsike clover will stand fairly well in this country. I have had it for a good many years. Red might do for one or two years. I think there is no work on the farm pays as well as drawing manure, because you can see the fruits of your labor for five or six years afterwards. Where the land has been worked for fifteen or twenty years, and the humus has all been worked out, it should be seeded down for two years at least, say forty acres on the half-section. I would cut it first year for hay; next year plow under when eight or ten inches high. I can see no object to be gained by rotting manure. It is a waste of some of the best qualities contained in it. Green manure, applied right from the stables, loses nothing by evaporation, and, having its full strength, will go much further. It is a waste of time and manure to pile it in little heaps. We are very particular in spreading the manure to have it evenly distributed over the whole surface, and not too thick. The harrow and cultivator are the surest means of killing weeds; when they are one to two inches high is the time to do it.

When a farmer is starting out on a new place he knows nothing of the exhaustion of the soil. All he has to do is to break what he intends for crop, one and one-half inches deep, and backset it to the depth of four inches and harrow it well, or disk it first and then harrow. The finer the seed-bed the more bushels he will have. If the land is a heavy clay loam, it will grow three crops of wheat in succession, and the third crop will be better than the second. On light land only two crops of wheat should be expected, then oats, followed by summer-fallow, turning up one-half an inch of new land every time it is fallowed till it is plowed six or seven inches deep.

J. S. THOMPSON.

South-western Manitoba.

[EDITORIAL NOTE.—We do not think there would be any advantage from the kind of green manuring Mr. Thompson recommends. Leguminous plants (clover, peas, etc.) take fertility from the air and store it in their roots, but other grain crops do not, and while growing in the spring they would be pumping moisture out of the soil, whereas one of the main objects of a summer-fallow should be to store up moisture. There is, too, a danger of putting seed into the ground late in the fall, as it is liable to rot before the soil becomes warm enough for it to grow. We also feel impelled to take issue with Mr. Thompson when he advises harrowing two weeks after plowing. To conserve moisture and germinate another crop of weed seeds on the summer-fallow, it should be harrowed as soon after it is plowed as the harrow will work well.]

Dominion Veterinary Inspectors of Cattle.

In addition to the recognition by the U. S. authorities of the certificates issued by Dr. J. G. Rutherford, V. S., representing the Canadian Government in Great Britain for the purpose of testing cattle intended for export, the following memorandum of agreement was arrived at between the Dominion Minister of Agriculture and Dr. McEachran, representing the Department of Agriculture of Canada, and Secretary Wilson and Dr. Salmon, of the United States Department of Agriculture:

1st. The certificates issued by inspectors specially selected and duly appointed as officials of the Government of Canada will be accepted for breeding cattle and dairy cows over six months old, at United States ports.

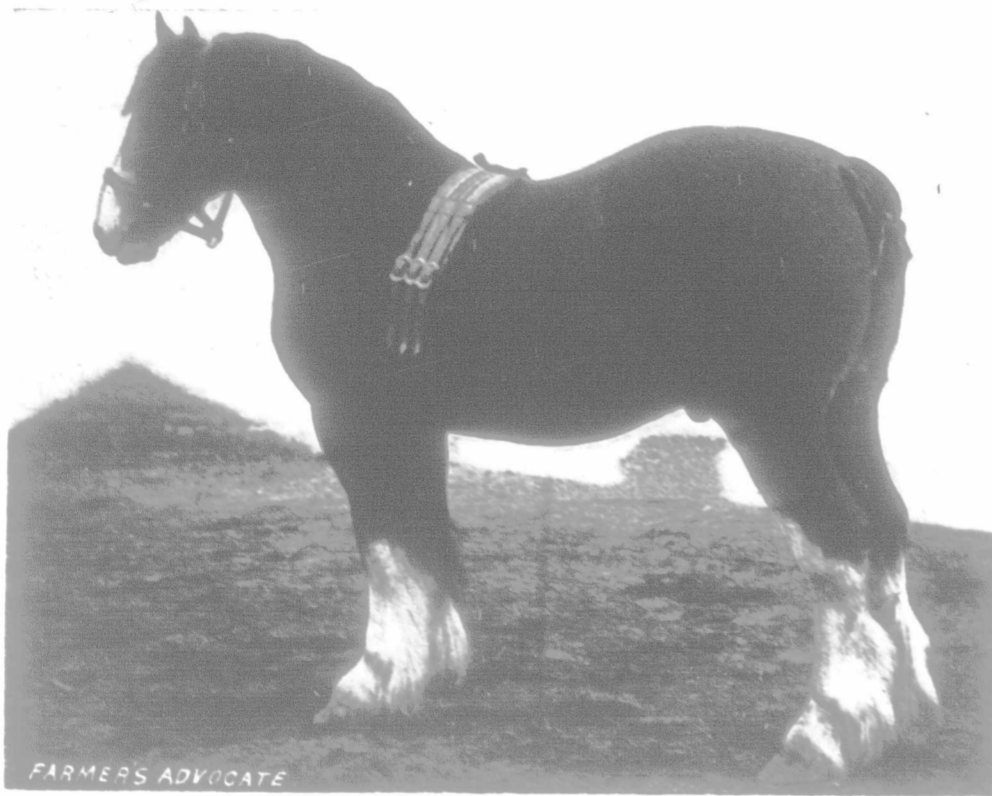
2nd. The certificates of Canadian veterinaries, of cattle tested by them in Great Britain, accepted at Canadian quarantines, when endorsed by the chief inspector of veterinary superintendents of the quarantine, will be accepted at United States points of entry. The following are the veterinary surgeons who are official veterinaries of the Department of Agriculture to apply the tuberculin test to cattle exported to the United States: W. H. Pethick, Central Bedouque, P. E. I.; W. M. Jakeman, V. S., Halifax, N. S.; J. H. Frink, V. S., St. Johns, Que.; J. A. Couture, V. S., Quebec; A. E. Moore, V. S., Montreal; Chas. H. Higgins, V. S., Montreal; V. T. Danbigny, V. S., Montreal; Geo. W. Higginson, V. S., Rockland, Ont.; William Stubbs, V. S., Toronto; Chas. Little, V. S., Winnipeg; J. C. Stargrave, V. S., Medicine Hat, N.-W. T.; J. B. Hart, V. S., British Columbia.

Our Scottish Letter.

The month of March is usually a busy one with Scottish farmers; this year it has been a peculiarly tantalizing one. The condition of things at the close of the month, except for the lengthening day, is more like January than March, and winter with a vengeance is lingering in the lap of spring. The week closing has witnessed snowstorms, curling-ponds bearing, north-east gales, and many other natural features well fitted to retard the progress of the crops. Very little seed has been sown, and the bitterness of the cold makes outdoor labor a burden not easily borne. How long this is to last does not yet appear. The one redeeming thing about the situation is that by the heat of the sun the evil effects of the excessive cold are in some

an absence of unanimity, and the second question, How should army horses be bred? therefore cannot meanwhile be answered. Whether a big horse or a little one is the better, depends largely on what burden the horse is expected to carry. The Roer is difficult to catch, not alone because he rides a small horse, but because he rides a small horse capable of carrying all is asked of him. The primary question in the whole controversy is, What weight should a mounted soldier carry? How should he be clothed and armed? Unless these questions be first disposed of, it is useless to argue for small horses or large horses. The Government officials at the beginning of the war were very chary of purchasing any horse, however hard trained, which could not pass the mallein test. This may or may not have been wise policy, but it undoubtedly kept them out of a large number of horses in hard condition and fit in a very definite fashion for the work demanded of them.

Milk and its proper constituent of butter-fat is a subject agitating a large section of the community at present. The Board of Agriculture more than a year ago appointed a Departmental Committee to hear evidence on the subject and draw up recommendations by which the Board would be guided in framing a standard. Hitherto, analysts have proceeded on the assumption that milk containing less than 2.75 per cent. butter-fat has been adulterated, and although they have not always recommended prosecutions where this deficiency was found, other elements having to be considered, they have gone on the idea that where this condition of things existed there was room for suspicion and investigation. The Committee, which has just reported, has come out with the recommendation of a



BRIGHT STAR (Vol. 23).

Clydesdale stallion; foaled in 1888; sire Prince of Carruchan 8151, dual Cawdor Cup winner; dam Royal Maid, by Mount Royal 8965.

IMPORTED BY DALGETY BROS., LONDON, ONT. OWNED BY WM. KNAPTON, LONDON, ONT.

degree mitigated during part of the day. With the agricultural show season in prospect, farmers are not too cheerful, as spring work, which was well advanced for awhile, is now in arrears, and managers of agricultural shows have not much to give away this year. Many of them last year had balances on the wrong side, and should there be a repetition of the same state of matters this year, a few of them may cease to be. There are too many shows, and exhibitors will not be sorry if a few of them cease and determine. Their number is really a heavy tax on agriculture, and nothing will wipe out the superfluous portion of them but lack of funds.

Parliament has been occupied to some extent with discussions on army remounts, and horse shows have been the order of the day in London. The Hackney Horse Show was an unqualified success, and a very popular event in every way. Hackneys are sound, and when the breeders concentrate their attention on producing driving-horses they are likely to attain a large measure of success. The scarcity of good driving-horses in this country is well seen when one looks at the number of foreign horses in use in the West End of London. Of course, the financial question has a deal to do with this. If horses can be produced more cheaply under the aegis of the State in continental nations, Great Britain gets the benefit by her open ports. Horses are dear in this country because the land on which they are reared is dear, and the land is dear because there is a demand for it. This is not a proof of poverty, but of wealth. Agriculture here is certainly depressed, compared with what it once was, and many farmers have a hard struggle to make ends meet. Yet many farmers make money, and leave substantial sums for division amongst their heirs.

The Problem of Army Remounts in this country is this: The Exchequer will not allow the War Office to pay beyond a certain price for horses, and farmers cannot produce a sufficient number of horses of the class wanted at the money. The problem is a serious one, and the lessons of the South African war should not be lost sight of. The issue, so far as horseflesh is concerned, has been to demonstrate the weakness of our present lack of system, and it is well that this weakness has been discovered in connection with a war the issue of which, notwithstanding all our bungling, was never doubtful.

Whether the present Royal Commission on Horse Breeding has accomplished anything worth while may fairly be questioned. It does its work with a great appearance of zeal and authority, but it does not mean the means nor the opportunity of solving the general problem so far as army remounts are concerned. The first question to be settled is, What kind of horse is best adapted for army remounts? On this preliminary topic there is

standard showing 12 per cent. total solids, and 3.25 per cent. milk fat. Naturally, the dairymen are up in arms against this, and there is some reason to fear that the Committee, which was not absolutely unanimous, has overshot the mark. The witnesses examined included dairy farmers, milk distributors and analysts. Generally, the first-named advocated a high standard, the distributors a low standard and some of them no standard, while the analysts were disposed to back the farmers rather than the distributors. Mr. George Barham, one of the members of the Committee, dissented from the majority and put in a report of his own, in which he recommended a standard of 2.75 for the four months of March, April, May and June, and 3 per cent. for the other eight months of the year, with a uniform standard for total solids of 11.75. No doubt, theoretically there is much to be said in favor of a seasonal limit rather than a uniform limit, but the difficulty in administering such would be very great, and a backward or early season would make a very substantial difference in quality at the particular periods. There was very little evidence before the Committee in favor of a seasonal limit, and the great majority of witnesses, who numbered 49, advocated a 3 per cent. standard. The evidence of farmers who had taken the trouble to examine the question for themselves went to show that the quality of milk in an ordinarily well-managed herd was much higher than is generally supposed. Individual cows there are in all herds which give milk of poor quality, but taking an average Ayrshire herd all through, the general result is a higher quality than people generally supposed. The farmers examined who had kept the best records and made most investigations were generally favorable to a high standard. Meetings have been held in Glasgow and Edinburgh, and the dairymen and dairy farmers alike have petitioned for a standard warranted by the evidence and the present state of knowledge, viz., 11.75 total solids, and 2.75 milk fat. Very likely this is what will be fixed. If Mr. Hanbury settles the standard at 3.25, there can be no doubt that innocent men may be put upon their trial, and the curious thing in this legislation is that the onus of proof is thrown upon

the accused. The prosecutor has not to demonstrate his guilt; the accused must demonstrate his innocence or he is to be declared guilty. In other words, he has to prove that he did not tamper with the milk, but sold it as the cow gave it. He has to prove a negative, and that is not an easy task.

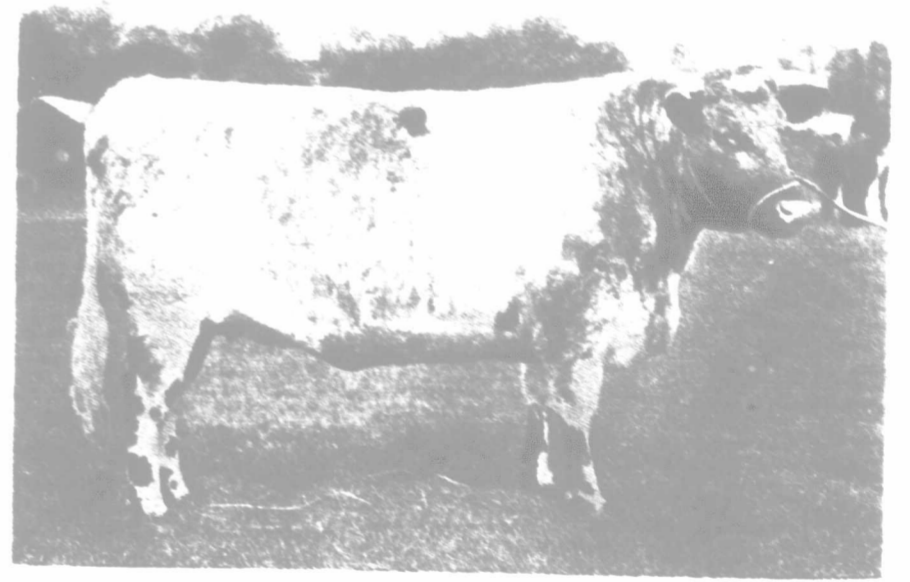
Another Committee has been sitting to settle whether steps should be taken to guarantee the purity of the seeds sold for agricultural purposes? To Canadians it will appear strange that the Old Country should only be considering such questions now. You have had your seed-testing stations for a long time, and farmers in any of the Provinces of the Dominion would scarcely dream of buying seeds unless they were guaranteed. So far, with us, this Committee has only got the length of recommending, and that not unanimously, that the Government should establish a seed-testing station. Whether this recommendation will be adopted remains to be seen. It is a point in its favor that, with one exception, the leading seedsmen are in favor of it.

"SCOTLAND YET."

Care of a Brood Mare and Foal.

If horses are to be raised, only the best of care and treatment will bring them up to expectations, and how much more pleasant it is to have a stable full of good, sound, well-kept animals, in place of a poor looking, ill-fed lot, that are worth at most their feed for their work. Brood mares should have large, roomy box stalls, where they can have plenty of moving room. This should be cleaned every day and freshly bedded with clean straw. When the weather is fine they should be turned outside every day for exercise; or, if you have any light work to do, let your brood mare do it. At any rate give her plenty of exercise, as this is conducive to easy birth of foal. Avoid slippery places and backing a heavy load with her. Feed her sufficient nourishing food to keep her thrifty, so long as she does not put on an excess of flesh. Keep her bowels open and acting freely. About three quarts of oats three times a day is considered the average feed for a mare. Some boiled barley, not fed too warm, is a good laxative. I do not think it advisable to feed much bran, as it is milk producing and is likely to cause a mare to run her milk; a result of this will be a constipated foal. A foal should always get the first milk, as it contains a purgative principle. Great care should always be taken to avoid running navel. A good preventive is to apply a weak mixture of turpentine and sweet oil, or about 1 part carbolic acid to 20 parts water, if applied several times, will heal it up quickly.

When the foal is born, drop a raw egg or a piece of butter the size of an egg into its mouth and hold up its head until it swallows it. Feed the mother lightly for a while, and do not cause an over-supply of milk. If the foal is troubled with constipation, give it an injection of tepid water to which a little castile soap has been added. Never allow the foal to run with its dam when she is working, or to suckle her if she is warm. Let her cool off, and take away a little of the milk yourself, as a hungry foal will, as a rule, take too much. Teach



ALDSWORTH JEWEL.

Shorthorn heifer, winner of 1st prize and championship at Oxford Show, 1900. PROPERTY OF R. & W. T. GARNE, ALDSWORTH, NORTHLEACH, ENGLAND.

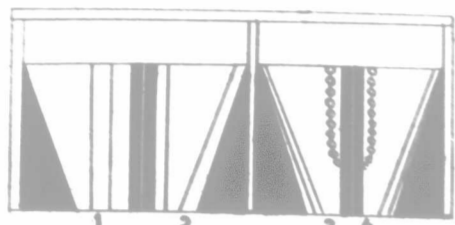
the youngster to eat as soon as possible. Be gentle with it. Teach it to lead while it is young and easily handled. Do not on any pretext let it remain out in inclement weather, for the texture of a foal's hide absorbs the moisture and causes inflammation. Use the brush and currycomb regularly, as this helps nature to throw off some of the poisonous substances which accumulate. Pay good attention to his feet, paring the hoof occasionally. Do this carefully and neatly and you will avoid contracted feet on your horse afterwards. A colt may be weaned at the age of six months or younger. Do not let it suckle too long, as it tends to weaken the next foal if the mare is in foal again.

AN OLD HORSEMAN.

A Handy and Well Equipped Stock Barn.

I see in your valuable paper, the FARMER'S ADVOCATE, that D. C., of Pontiac Co., Quebec, and N. McP., of Ontario Co., Ontario, ask for plans of barns and root houses. I here inclose you the plans of Mr. M. H. Penhale's barn and root house for their information. His barn is 36 by 76 feet, with 16-foot siding and a high roof, making it about 33 feet from floor to peak of roof. It is on a stone wall 9 feet high, with a ceiling 7 feet 6 inches in the clear from the basement floor, which is above the level of ground outside of basement, so that the water cannot run in.

The root house is a brick arch, and was described in the ADVOCATE last May, and again in November issue. Mr. R. A. Penhale was the first to conceive the idea and carry it into effect, building his six years ago. Since that time thirteen have been built near here, and four have made application for the frame arches for this season already. There is needed frame arches to build the brickwork on, which has been so well described in those two issues that it is not necessary to do more than refer to the



1. Stanchion securing cow. 2. Stanchion ready to receive cow. 3 and 4. Stall ready to tie cows with chains.

arch. When they are once built, they will do for many other root houses if taken out with care.

All of these arches have been built under the approach to the barns except one, which is used similar to what D. C. wants, being a little way from his barn and endways to a hill. It is built the same as the rest of the arches, and is as good as any of them, and makes a cheap, durable root house. It is filled from the top, and roots are taken out from the end.

Mr. Penhale's barn holds 32 head of cattle, besides four box stalls. It has concrete floor throughout. The surface of box-stall floor is four inches below the hall floor, and the mangers of box stalls are one inch above the hall floor, so that no liquid can run in the mangers or on the hall from the stalls. From manger to gutter where the cattle stand is five feet, and slopes three inches to the gutter. The gutter is fourteen inches wide at the bottom, sixteen at the top, and four inches deep. The five feet where the cattle stand is covered with lumber, first by putting lengthways four pieces cut on an angle to correspond with the slope in the floor of three inches in five feet; then covered crossways with 2 by 4 scantling half-inch apart, which puts the cattle standing level, with a thorough drainage under them to the gutter. The cattle stand nine inches above the bottom of gutter. These platforms are movable, and can be drawn back or pushed up to the required length of individual cattle. If length is required, they are drawn back and a plank is dropped under their front feet on cement. The manger bottoms are made of cement, and are two inches above the cattle's feet.

Mr. Penhale has a good rig for tying the cattle up, by chains or stanchions, which can be changed in a few minutes, using stanchions for the cows when they are just in for milking, and chains for winter use. One box stall has small stanchions for calves, which can be tied up when being fed milk. They are given a few mouthfuls of dry chop to prevent sucking one another. The other three stalls are used for anything that is required. At the present Mr. Penhale has 35 cows and 8 yearling heifers in the basement.

The stables are well lighted and well ventilated, having 13 windows of six panes 12 by 14, hung with pivots about one-third up from the window sill, allowing, when tilted open, to have twice the airspace above than below the sash. In this way the sash is not out in the way of the cattle, to be broken. There is 11 six-inch tile through the wall for ventilation, which can be closed or opened as wanted. Mr. Penhale cleans out the stable with a horse and boat, and takes the manure to the field when frozen up. In cleaning out the side next the root house, he closes back the gates, as indicated in the diagram by dots, which forms a passage to the last stall or any one of them. I send you a draft of stalls with stanchions and chains, showing a stall with the chain and two with stanchions. When the chains are wished, the stanchions are both laid back one way to fill the space. The manger is 16 inches wide

in the bottom, and slopes to the hall to 30 inches at 20 inches high. It is divided so that each cow has her share to herself. Another contrivance which is very effective, is to prevent the cow from soiling the platform on which she stands. It is made by nailing a piece 1 1/2 inches by 1 inch on the stall, about 2 1/2 feet from the manger, and a piece the same size across the stall about 1/2 inch above the cow's back. This is screwed to the uprights that are nailed to the stall, so that when a cow goes to urinate or defecate, she has to back up a little. Mr. Penhale intends to build a tub silo this next fall, at end of barn, 16 by 32 feet.

N. McP. could plan his barn with two rows of cattle and a row of box stalls, a root house at one side and a silo at the end, if he wishes to have both.

Field Roots for Dairy Cattle.

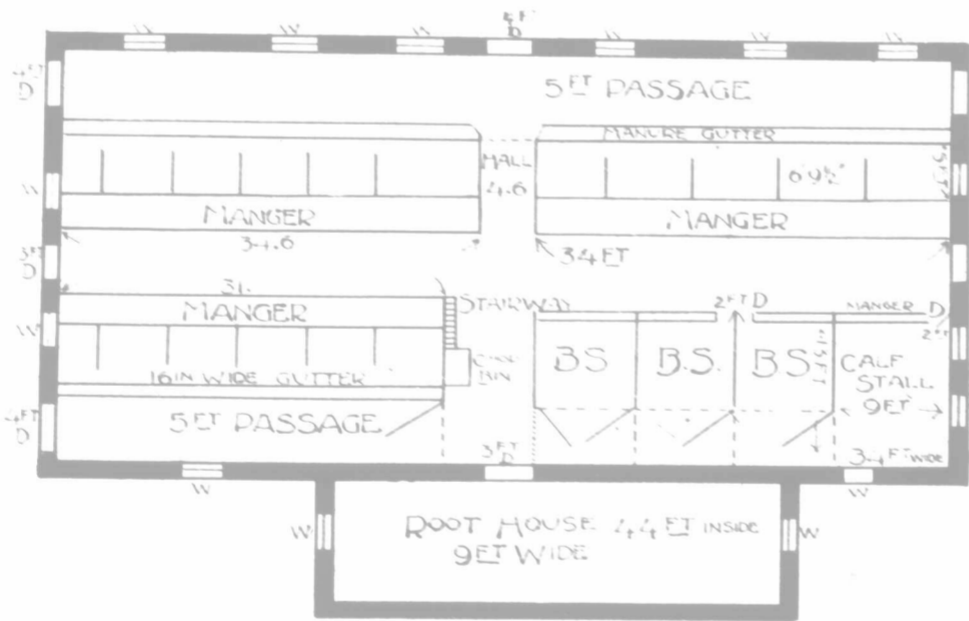
BY S. A. BEDFORD, BRANDON, MAN.

It is very generally acknowledged that for the best results milch cows require some succulent food, such as ensilage or field roots, during the winter months.

Field roots, if properly grown on the right kind of soil, usually give a large return in this Province, and the quality is unsurpassed.

Selection and Preparation of Soil.—The soil should be a deep, rich, black loam, naturally moist. Stubble land is generally too dry to ensure an even germination of seed, and too full of trash to allow the drill to work satisfactorily. We usually find it a good plan to grow roots for a succession of years on the same ground. This can be done by alternating the kinds; for instance, growing mangels after a crop of swedes one year, to be followed by a crop of carrots the next. This plan gave good satisfaction for a number of years until last season, when the soil was found to be too loose and dry, and there was no possibility of getting the seed to germinate. Perhaps the best preparation for the average farm is a well-worked summer-fallow. This should be plowed in June of the previous year, and surface-cultivated frequently to kill the weeds while small. If properly done, the soil will be moist, there will be very few weed seeds near the surface, and a light harrowing is all the spring preparation required. If any manure is used it should be thoroughly rotted and applied the previous year. Undecayed manure keeps the soil in a very dry condition, making it difficult to obtain an even germination or rapid growth.

How and When to Sow.—The growing season being somewhat short, we find it advisable to sow all kinds of field roots during the month of May, generally about the 20th of that month, but depending somewhat on the season. The usual practice in the Eastern Provinces is to ridge up the soil for all kinds of field roots. This is an excellent plan in a country where the rainfall is abundant, for it permits of the plants being readily thinned, but here the rainfall is too light to permit of this practice, as the ridges dry out too quickly. Much better results will be obtained from sowing on the



BASMENT PLAN OF M. H. PENHALE'S BARN, 36 X 76 FEET.

level. After destroying all weeds, we use an ordinary hand drill with a marker attached. The depth and thickness of sowing can be very accurately controlled by these machines and the work done quickly. Turnips, mangels and sugar beets should all be sown in drills, from 30 to 36 inches apart. As soon as the young plants have become firmly established they should be carefully thinned out, leaving the plants from 9 to 12 inches apart in the row, depending on the variety.

As weed and field roots do not thrive together, the former should receive attention before reaching any considerable size. A one-horse cultivator with flat-shaped hoes gives the best satisfaction in black loam soil, but no cultivator will work successfully if the weeds are allowed to get large before the work is commenced.

The varieties of field roots producing the heaviest yields on the Brandon Experimental Farm for the past four or five years are as follows: Selected Purple-top swede, 815 bushels per acre; Mammoth Long Red mangels, 1,210 bushels per acre; Danish Improved sugar beets, 700 bushels per acre.

We prefer swede turnips for dry cattle, mangels for milch cows, and sugar beets for calves.

The Vitality of the Wheat, Barley and Oats Grown in Manitoba and the Northwest Territories in 1900.

[Report of the Central Experimental Farm.]

During the past few weeks a large number of samples of grain have been sent to the Central Experimental Farm at Ottawa, by farmers residing in different parts of Manitoba and the Northwest Territories, for the purpose of ascertaining their vitality or germinating power. The results of the tests have been communicated to the senders, but it will, no doubt, interest the public to know in a general way what the outcome of these tests has been.

TESTS OF GRAIN GROWN IN MANITOBA.

Wheat.—Of this grain, 344 samples have been tested, forwarded from all parts of the Province; 199 of these have germinated in the proportion of from 90% to 100%, and 82 from 80% to 90%. There were 51 samples of which from 50% to 80% germinated, and only 12 out of the whole number fell below 50%. Of these latter, the lowest was 8%, but the 12 averaged 32%.

Oats.—There have been tested 242 samples of oats. In 79 of these, the germination was perfect, every kernel sprouting; 102 germinated over 90%, and 21 between 80% and 90%. There were 33 samples ranging from 50% to 80%, the average being 68%. Only seven fell below 50% in vitality; the lowest was 28%, and the average of the seven was 38.5%.

Barley.—Of this grain, 56 samples have been tested, 22 of which have shown a vitality of from 90% to 100%, and 18 from 80% to 90%. There were 13 samples which ranged from 50% to 80%, with an average of 63.5%. Only three samples of barley had less than 50% of vitality; the lowest of these was 21%, and the average 29%.

TESTS OF GRAIN GROWN IN THE NORTHWEST TERRITORIES.

Wheat.—The samples of wheat received for testing from the Northwest Territories numbered 110, of which 62 have shown from 90% to 100% of vitality, and 20 from 80% to 90%. Of the others, 24 varied from 50% to 80%, the average being 67.7%. Only four samples out of the 110 fell below 50%; the lowest of these was 39%, and the average 44.5%.

Oats.—Of oats, 158 samples grown in the Territories have been tested, 65 of which have ranged from 90% to 100%, and 22 from 80% to 90%. There were 46 samples which varied from 50% to 80%, the average of these being 68.4%; and 25 samples with a germinating power below 50%, the lowest of these having lost all vitality, but the average of the 25 was 37.4%.

Barley.—Of barley, only 11 samples were received, four of which germinated from 90% upwards, and three between 80% to 90%. There were three which ranged from 50% to 80%, with an average of 61%; while only one sample fell below 50%, this showing a vitality of 42%.

SUMMARY.

It has been customary at the Experimental Farm to regard all samples germinating from 80% upwards as good grain for seed. Those whose samples range from 50% to 80% are generally advised, when using such grain for seed, to sow an increased quantity, sufficient to make up for the lack of vitality, and all samples falling below 50% are held to be unfit for seed purposes.

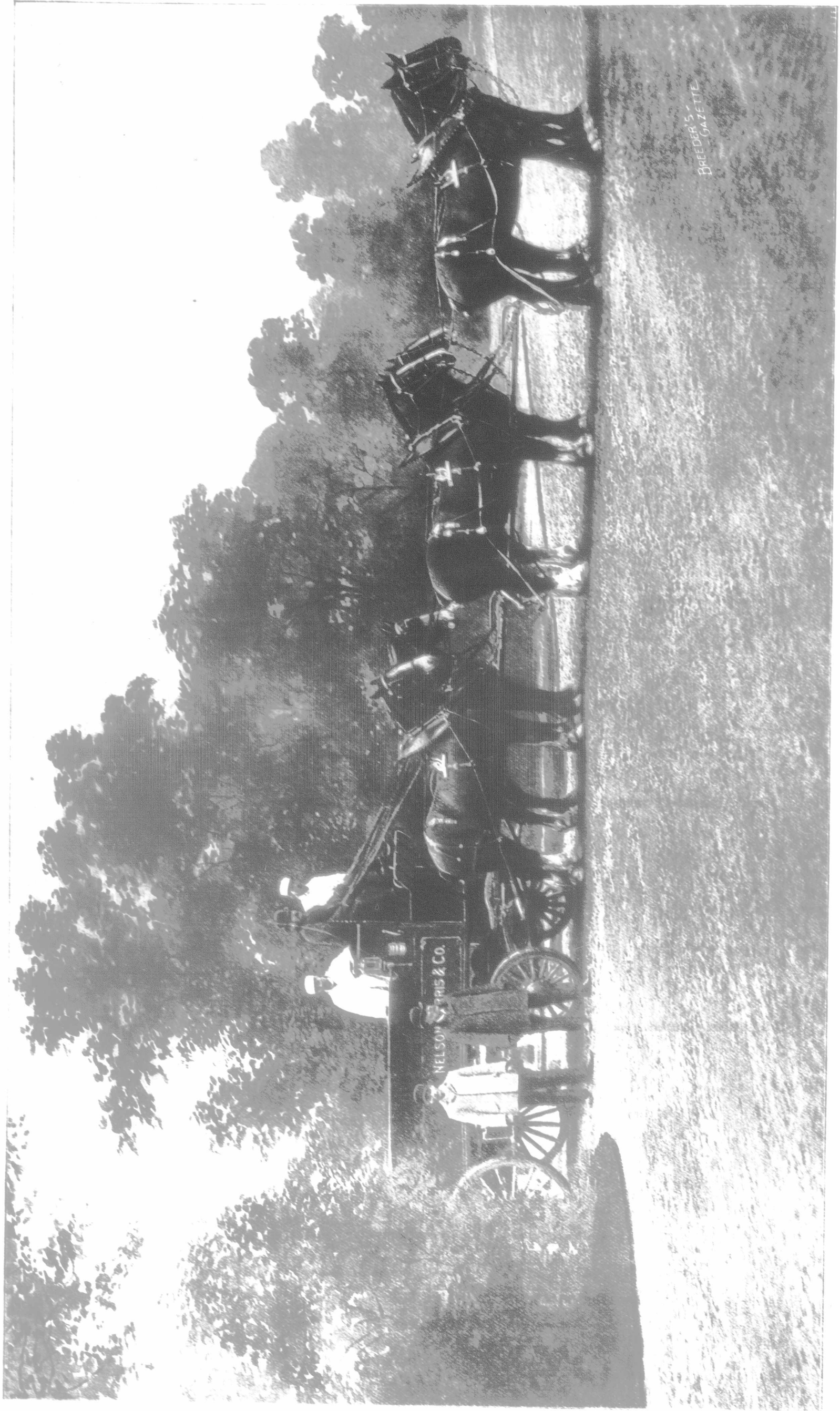
From this standpoint the result of these tests are very gratifying. Of the 454 samples of wheat tested, representing all parts of the Northwest country, only 16 (scarcely 4%) were unfit for seed. In oats the results are also encouraging, as of the 400 samples tested, only 32 fell below 50%, equal to but 8% of the whole. Of the 67 samples of barley tested, only four were found unfit for seed.

While the fact that there is a small proportion of the Northwest grain crop of 1900 which is unfit for seed should make the farmers careful to inquire into the vitality of untested seed, yet, when we consider the very unfavorable weather of last year, it seems marvellous that the grain all over the country should make so good a showing as to its germinating power.

[NOTE.—These tests show much more favorably for Western oats than those recently made by the Manitoba Department of Agriculture. Samples were selected from cars of Alberta oats coming from the points mentioned below, and were tested in duplicate, one test, that showing the lowest germination, being made under conditions somewhat more favorable than ordinary field conditions, the other in the forcing room of a greenhouse, and in both cases every grain that germinated was counted, whereas a very considerable percentage of them showed such weak growth that under field conditions the percentage would have been very much smaller.

	Test No. 1.	Test No. 2.
Edmonton (1)	17	25
" (2)	12	24
" (3)	28	28
Leduc	43	56
Wetaskiwin	40	50
Hobbema	45	67
Lacombe	23	44
Penhold	8	17
Imperial	12	28
Calgary	40	57
Average	26.6	38.6

We have reports, however, of some samples of Western oats that have shown satisfactory germination. In view of these facts, it will not be safe to use any of these oats for seed until they have been tested and found satisfactory. EDITOR F. A.]



CANADIAN-BRED CLYDESDALES, THE PRIZEWINNING SIX-HORSE TEAM AT THE INTERNATIONAL LIVE STOCK EXPOSITION AT CHICAGO, DECEMBER, 1900. EXHIBITED BY GEORGE MOORE, WATERLOO, ONTARIO, AND SOLD TO NELSON MORRIS FOR \$500 EACH.

(Plate furnished by Alex. Galloway, Jansselle, W. Va.)

Horticulture in Manitoba.

(AS SEEN BY A NEW JERSEY HORTICULTURIST.)

Mr. Jesse E. Rogers, a horticultural expert from New Jersey, who attended the annual meeting of the Western Horticultural Society in Winnipeg, in March, thus describes his visit in the *Minnesota Horticulturist*:

"In company with Prof. S. B. Green, I attended the annual meeting of the Western Horticultural Society at Winnipeg, March 14, 1901. Mr. F. A. Hoverstad, Superintendent of Minnesota Substation at Crookston, attended also as a delegate from Minnesota State Horticultural Society, and will report his impressions for the 'Trees, Fruits and Flowers of Minnesota.'

"Having been asked by Secretary Latham to contribute a paper on my impressions of the horticultural interests of the Northwest, from my standpoint as delegate of New Jersey State Horticultural Society, I cheerfully comply.

"The Western Horticultural Society is a live and progressive one, and though they think they are few in numbers, yet this is characteristic of most horticultural societies. The field is vast, but the earnest laborers are few. Judged by results, the Western Horticultural Society is doing a great work for Northwestern horticultural interests, and is entitled to credit for its devotion along these lines. From among the members of this Society a corps of Farmers' Institute workers could be selected, thoroughly competent for educating the farmer in the pursuit of horticulture.

"When in naming varieties of strawberries succeeding with them, I heard the Wilson, Crescent and Gandy given as the best, many of the perplexing questions in pioneer strawberry culture vanished. These three varieties, where successfully grown, comprise the broad scope of home and commercial strawberry culture.

"The Crescent, in plant growth and yield, covers the field for light soil and requires no great knowledge to be successful with. When soil becomes too rich, it runs to plant growth and does not produce fruit. It is the plant for the masses, and the best one to begin with. It cannot be set alone, as the bloom is not perfect, and another variety must be planted alongside to have it fruit in paying quantities. This other variety will have to be named by Manitoba growers.

"The Wilson is next in order in strawberry culture. The land must be heavier. It can be set alone, as its flower is perfect. The culture of this variety is a stepping-stone to better quality. It does not succeed, as a rule, on light soil, but for heavy land is a pioneer variety, as the Crescent is on light soil.

"The Gandy originated on a mucky, black soil, too dry for cranberry culture. It will fill the bill on moist, dark soil. Wherever it will succeed, no fears may be had of lack of moisture for any variety of strawberry, as any lack of moisture is sure to cut its crop short. It can be set alone.

"All of these varieties are abundant plant-makers, and if all runners are allowed to set, the plants will become too thick in beds. All useless plants are but weeds and of no use to grow; hence, the strawberry-grower should be able to assign a reason for allowing them to remain. In matted rows the tendency of most growers is to allow too many plants. These tend to waste the moisture, and even if soil contains moisture enough to carry through the fruiting season, too thick foliage tends to soften the berry, lighten the color and decrease size. I am inclined to think that Northwestern growers do not pay attention enough to this subject, but allow too many plants to set.

"The red, yellow and black raspberries do well in Manitoba. In reds, Turner, Philadelphia, Cuthbert, and Loudon; yellow, Golden Queen; blacks, I omitted to note.

"Many growers prefer Cuthbert and Golden Queen. The Golden Queen is a sport of the Cuthbert and is inclined to be rather a more vigorous grower, and is of better quality than Philadelphia. Black-caps grow well and bear abundantly. All berries sell for about 20 cents a quart, and this should be a great incentive to grow them.

"Currants, black, white, and red, succeed admirably.

"Gooseberry: The Houghton is the most hardy, and considered the best in quality of American varieties. The industry was named as promising.

"Grapes: Very few grown; too few to judge of value.

"One grower has fruited a single tree of the Early Richmond cherry, severely pruned and laid down each winter.

"I went to Winnipeg, ignorant of what I should find, not because I did not endeavor to inform myself, but found no one who knew any particulars. To us it was an unknown country. I came away, having very bright hopes of the future for her berry interests. As to varieties grown, it is favorable and far in advance of what I expected to find. Experiments and experience in winter protection is needed, and from the papers and discussions had at the meeting, I am confident these will be had. The Western Horticultural Society is doing a noble work, and its members have reached that point in their labors where an agricultural college has become a necessity. The old pioneers in small-fruit culture are advanced in years and soon will have passed away. The foundations have been built, and now the rising generation must be instructed in the science of fruit growing. Dairying, cattle, sheep, swine and hogs are not the only products needed to advance Manitoba interests. Fruit, vegetables and

flowers are also needed; yea, they are no longer a luxury, but have become a necessity.

"I return to New Jersey having great expectations of small-fruit culture in the Northwest."

Territorial Stock Breeders Meet.

Although situated pretty well back to the west of the Provinces, making up what was generally known as the Northwest Territories, yet Calgary, with its railroad facilities, splendid ranching country immediately adjacent, together with the accommodations afforded, seemed peculiarly adapted for the purposes herein mentioned, namely, the stock-breeders' conventions. One of the features which impresses one is the appearance of solidarity of the town and the stockmen. Nowhere in Canada, or for that matter elsewhere, will be found better specimens of the genus homo than were to be seen at the conventions.

PURE-BRED CATTLE BREEDERS.

The second annual meeting of the association of breeders of pure-bred cattle was held on Tuesday, in Alexander Hall; J. A. Turner, Millarville, presiding. Routine business was proceeded with after the reception of the Secretary's report, which dealt very fully with the objects of the Association. The matter of auction sales was mentioned and reasons advanced for the holding of such sales, emphasis being placed on necessity for the careful fitting of sale stock, poor stock being invariably sold at a loss. The Dominion Live Stock Commissioner was present, and steered the Association in the direction of such reforms as revision of prize lists, selection of judges at fairs, and the providing of speakers for the annual meetings being touched upon by the Secretary. The election of officers resulted as follows: President, Jno. A. Turner, Millarville; Vice-Presidents, P. Talbot, Lacombe; D. H. Andrews, Crane Lake; A. B. McDonald, New Oxley. Secretary-Treasurer, C. W. Peterson, Regina. Directors: Shorthorns, H. Raikes, Pine Lake; Herefords, E. D. Adams, Millarville; Polled Angus, H. W. Metcalf, Lacombe; Galloways, H. A. Wallace, High River; dairy breeds, C. A. Marker, Calgary. Other directors: Jas. L. Walter, Lacombe; W. R. Stewart, Macleod; R. S. Lake, M. L. A., J. J. Caswell, Saskatchewan; and the Hon. G. H. V. Bulyea, Regina, and F. W. Hodson. Ex-officio directors: Jno. A. Turner, P. Talbot, D. H. Andrews, A. B. McDonald, C. W. Peterson, A. R. Springett.

A resolution was passed in favor of continuing live-stock auction sales, only animals owned by the local breeders to be offered at such a sale. The Secretary stated that not ten (10) per cent. of the bulls required are produced in the country. F. W. Hodson stated that the prices obtained at the auction sales were not of as sacrificial a nature as had been frequently claimed by those opposed to the method.

CONVENTION OF WESTERN HORSE BREEDERS.

A good representative meeting of breeders, under the presidency of W. R. Stewart, Macleod, was held on Wednesday in Alexander Hall. The army remount question, the coming of Colonel Dent, Indian stallions and other matters gave a lively turn to the meetings. About forty members were present, the enrollment being close to 100 members. The President's address drew attention to the damage done to the ranchers by the scrub stallions from the reserves; suggested Government interference in the matter. Secretary C. W. Peterson's report was read, and the various matters of interest to the breeders touched upon. In spite of the fact that the numbers of horses annually bred were insufficient for even local demands, it was suggested that steps be taken to limit the importation of horses from south of the line by raising the minimum valuation to \$50. Attention was also drawn to the comparatively poor demand for light draft and saddle horses. The importation of horses for one year into the N.-W.T. from the U.S. reached a total of over 6,000, while only 2,400 had been exported. Col. Dent's description of the remount horses required, which information had filtered via Dr. McEachran, was given as follows: Cobs, 14.1 to 15.1 hands high; cavalry horses, 15.1 to 15.2; must be six years old; bay, browns, blacks and chestnuts only will be accepted, unless perhaps an iron gray; mares and geldings, no stallions or ridge-lings will be accepted. All the horses must be broken to ride, be bridled, gentle to saddle, mount and dismount, and sound. At this juncture, F. W. Hodson, the Dominion Live Stock Commissioner, suggested it would be better to get a description of the horses required direct from Col. Dent, and not through a second party. The Secretary's report went on further to state that probably fifty per cent. of those bred for army remounts would be misfits, and that it might be advisable to hold annual horse fairs to dispose of the misfits. Major Perry's (N.-W. M. P.) suggestion to provide Government stallions was adversely criticised. Geo. Lane spoke in favor of the Government providing good stallions for the Indians in place of the cayuse stallions now in use or roaming on the range.

A very good suggestion was made by one gentleman, evidently a practical horse-breeder, that the dams should be selected as well as the sires. The Dominion Live Stock Commissioner suggested the adoption of a similar scheme to that tried by the Maritime Provinces, viz., that the Government purchase sires anywhere and re-sell to the people at whatever price the horses would bring, the Government bearing the loss. Messrs. Turner, Thompson, Robinson, and others objected to this method of

interfering with private enterprise. Col. Herchmer gave his 15 years' experience as N. W. M. P. remount officer, stating that small horses gave the best results in South Africa, and said that good cavalry horses were scarce, and referred to the fact that the horses offered formerly were only half broken. He did not consider that it would not pay to breed for army remounts alone. Dr. Riddell, who accompanied the 2nd Contingent, C. M. R., said that any quantity of mounted-infantry horses can be got here, but that cavalry and artillery horses were scarce.

J. Cross, M. L. A., said that a good horse was worth \$125 for any purpose, that the N.-W. M. P. reduced the price, and therefore the people gave up breeding such horses; cow ponies were plentiful, the other types scarce. Mr. Cross thought the matter would be righted if the Dominion Government would establish a proper market so as to encourage the breeding of the right type of horses.

The horse dealers brought to light a grievance, by which people purporting to be settlers from south of the line fetched in lots of horses free of duty, arguing that an increase in the valuation of properly-imported horses would be unfair as long as such conditions existed. Each settler is at present allowed to bring in sixteen horses free of duty. The Dominion Live Stock Commissioner's motion, recommending the Government purchase of stallions and re-sale by them, as mentioned above, was put and lost. An amendment, recommending that if the Government have any money to expend it be used to establish remount stations, was carried. Capt. Inglis stated that the 2nd C. M. R. horses were the only real Alberta horses, and that they were the best horses taken by any one to South Africa, thirty-five head of them being sold eventually at Pretoria up to £40 apiece. The Captain stated that mares were wanted, not stallions. A motion was introduced that the Dominion Government establish one or more permanent depots, at which horses will be purchased all the year round. Revision of the prize lists of the fairs was also recommended by the horse-breeders.

The following motion was carried: "That the duty on mature horses be based on a minimum valuation of \$50, and that settlers from the U. S. be only allowed to bring in six (6) in place of sixteen (16) horses." The election of officers resulted in the continuance in office for another year of the entire board elected in 1900.

The Executive waited on Hon. Mr. Bulyea regarding Government aid to the Association. F. W. Hodson outlined the policy of his department in the matter of improving the fairs and the judging done at those places, to study the markets and issue bulletins on their requirements, provide experts to lecture on the markets and their demands, and suggested that the Association appoint delegates to the various fair boards. The Executive and other gentlemen present voiced the Horse Breeders' hearty appreciation of their Secretary's work.

It was stated that the Association would take all possible precautions to prevent frauds being perpetrated on Col. Dent.

Growing Flax Along with Wheat.

In some parts of Northern Minnesota and Dakota flax and wheat are grown together, and, judging from reports of such crops published from time to time in the agricultural papers of those States, the results are satisfactory. The following letter, which appeared recently in the *St. Paul Farmer*, is interesting in this connection:

My plan of seeding is first harrow the ground well before putting any seed on. I then sow flax with Cyclone Broadcast Seeder attached to wagon. This is to save time and labor. I aim to sow about one peck of flax per acre. I follow this with five-inch shoe drill and sow one bushel and one peck of wheat per acre. The work of the drill will cover flax sufficiently. Of course, a light harrowing will do no harm. The main object in this plan of seeding is to have flax broadcast and wheat in rows, and one kind of grain does not crowd the other. The flax simply occupies space that would otherwise be supporting a growth of weeds of various kinds. The last year was a very bad one generally for small grain in the locality, nevertheless I harvested a crop of four and one-half bushels of flax per acre and eighteen bushels of wheat where I had the two sown together, and not over ten bushels of wheat where there was no flax sown with it.

Our grain inspectors receive the mixed grain just as it comes from the threshing machine. They take a sample and screen it and determine the per cent. of each, flax and wheat, and pay for each separate according to the price of each. I threshed out of the shock last year, and sold my flax early and did not get the top price. I sold for \$1.15 per bushel. It is readily seen that my flax crop alone netted me \$5 per acre, say nothing about the wheat being better where the two were sown. It cost me four cents per bushel for threshing, same as was charged for threshing clear wheat. I believe that farmers can materially increase their income by sowing flax with wheat in this manner.

Spring and Summer Fair Dates.

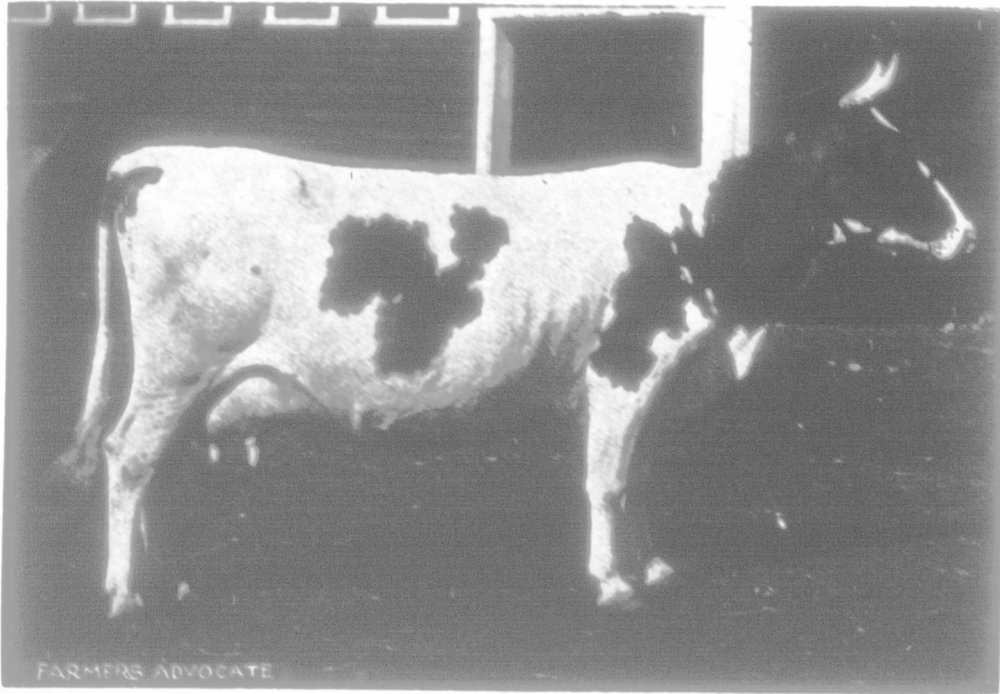
Souris Spring Show	May 1
Regina Stallion Show	May 3
Edmonton Summer Fair	July 1 to 3
Calgary	July 19 to 13
Yorkton Summer Fair	July 15
Carman	July 18 and 19
Brandon	July 23 to 26
Winnipeg Industrial	July 29 to Aug. 3
Neepawa	Aug. 6 and 7
Qu'Appelle	Aug. 7 and 8
Regina	Aug. 13 and 14

Importance of the Dairy Interest.

TRIBUTE TO DAIRY INTEREST.

In an address before the U. S. National Creamery Buttermakers' Association, Mr. Jules Lombard said:

"There is an impression abroad that the dairy interests of the country are of comparatively little consequence, and that such vocation is trivial and unimportant. Its products are considered and treated as mere incidents of living, and regarded as mere condiments of the table. The fact is, that its product is of more value than any other branch of agriculture. It sells for more money by fifty million dollars per year than all the grain we raise. If anyone should feel inclined to dispute the asser-



MYRNIÉ — 2065 —

Ayrshire cow, winner of first prize and sweepstakes, the last four years in succession, at the Nova Scotia Provincial Exhibition at Halifax. Property of C. A. Archibald, Truro, N. S. The Ayrshire cow illustrated above is typical of the breed, and of true dairy form. She is nine years old, and was bred by David Morton & Sons, Hamilton, Ont., who are now out of the business, from imported sire and dam; her sire being Royal Chief — 75 —, and her dam Sprightly II. — 201 —. She is full sister in blood to the noted prize-winning cow, Jean Armour, owned by Wm. Stewart & Son, Menie. Myrnie is in thin condition, as she always is when milking, and had been eight months in milk when photographed, consequently the picture does not show her udder, which is her strongest feature, to advantage. She puts up a magnificent show of udder when fresh, her teats being properly placed and of good size, and her owner states that she gave 48 pounds of milk in a day, on the show-ground last fall, with inferior pressed hay and a good ration of other feed. She has given 50 pounds daily without forcing, and has tested 6 per cent. butter-fat.

tion made regarding the comparative value of the dairy and grain products, he has but to consult the statistics, to which I have not at present the time to refer in detail. But let him reflect that at average prices one pound of butter is worth thirty-five pounds of corn, and that the dairy crop is harvested twice every day, or seven hundred and thirty times a year, as against a single harvesting for the cereals. Multiplication does the rest. A gallon of milk is a small thing, a pound of butter a smaller thing, but neither is so small as the grain of sand which, in combination, forms the bed upon which the mighty ocean rests."

Testing Dairy Herds.

Mr. J. H. Grisdale, Agriculturist of the Central Experimental Farm, some time ago sent out a letter of enquiry to a number of dairy farmers, seeking information as to their methods of feeding, rations used in summer and winter, breeds, and the use made of whey and skim milk. Enquiry was also made as to whether the farmers would be willing to carry on a dairy herd test in 1901 in conjunction with dairymen in other sections of Canada and the dairy herd at the Experimental Farm, Ottawa. The only expense, apart from the labor, would be a spring balance or scale to weigh the milk daily. Mr. Grisdale undertakes to furnish the necessary blanks each month for keeping the records. The replies received encouraged him to give the matter greater publicity, so that any desiring to join in such a co-operative record or test may do so. Any of our readers desirous of taking part may obtain the necessary particulars by addressing the Agriculturist, Experimental Farm, Ottawa, to whom letters so addressed are carried free.

New Dairy Superintendent for Assiniboia.

The West is losing a most efficient officer in Dairy Superintendent J. W. Mitchell, for the past two years in charge of the work under Prof. Robertson in Assiniboia and Saskatchewan. Mr. Mitchell, however, leaves under pressure of a promotion, and the dairy interests of Nova Scotia will henceforth have the benefit of Mr. Mitchell's knowledge and experience in dairy matters. During his time of office substantial progress has characterized the work of the department in Assiniboia, the actual increase in the quantity of output being 33 1/2 per cent last year over the preceding season. His successor is W. A. Wilson, a graduate of the Kingston Dairy School, who has had considerable experience in the West, having been in charge of the Mooseman creamery for the past three years. During the past season he has been butter instructor at the Kingston Dairy School.

Advantages of the Brooder.

The brooder is becoming more and more of a necessity to every progressive, up-to-date poultry-raiser. The use of a brooder does not necessarily imply the use of an incubator, although a brooder will prove a greater success by hatching with an incubator. But a good brooder costs less than a good incubator, and with hens to hatch the chickens and a good brooder in which to raise them, the added profit made possible by the use of the latter will soon enable the purchase of the incubator. I know by experience that a good brooder, if rightly managed, will raise 30 per cent. more chickens than if

the brooding is done by hens. There are many good makes of brooders on the market, at different prices, and as a rule the high-priced brooders, made by reliable firms, give the best results. The regulation of the heat should be as accurate as in an incubator; so that even in cold weather the chickens may be kept in a uniform summer temperature. If the brooder is heated with a lamp, the cost of oil must also be taken into consideration. The 30 per cent. of the brooder will more than pay for the cost of the brooder and oil, to say nothing of the time saved by releasing the hen from the care of her brood, and thus allowing her to join the army of egg-producers at an early date. There is also advantage gained in feeding when the chicks are in the brooder, for we only have chickens to feed on chick food, and not the hens to feed also. And we all know that chick food is more costly than food for adult fowls. With a brooder and run, we

are enabled to feed the chickens just the proper food for quick and vigorous growth. This food is far too costly for the general flock, and which is sure to be stolen from the chickens when running at large with a hen. Every one who raises poultry knows what it means when a sudden storm makes it necessary to get the chickens under shelter. This necessitates a determined hustle when the chickens are in a large number of broods with hens. And if the hens have wandered out into the fields, and, like mules, refuse to be driven in the right direction, our efforts are useless. When the chickens are raised in a brooder, at the slightest alarm they will seek its shelter and protection. They regard the brooder as a place of refuge, and when once they are shut in the brooder, they are dry and warm.

They can be raised to the best advantage when put in flocks of about fifty. It is much easier to feed this number in one flock than in six or seven flocks, and have to hunt all over the farm to find them. When placed in brooders, the chickens soon become sturdy, independent, and used to looking out for themselves. The brooder never drags its charges through the long, wet grass, into dangerous places. It does not carry around an abundant supply of lice and mites, to share liberally with the chickens. It is quiet and docile, and always ready to receive the chicks with a warm greeting, while often the mother hen trails her young out into the wet grass and loses the whole brood in a single day, and at other times she leaves them when quite young. With the brooder it is not only possible to take care of very early-hatched chicks, when there is no sign of spring in the air, but also far beyond the season they can be raised successfully by the hen. The late-hatched pullets will lay well the next fall, when the earlier-hatched pullets are moulting. The cockerels will make good breeders for the second winter, while the culls are desirable for the table or market. The brooder answers the question of raising late-hatched chickens in the most satisfactory manner. Several small brooders are more serviceable than one or two large ones, as flocks of not more than fifty thrive better than larger numbers. All chicks in a flock should be of the same age. By setting five or six hens at a time, the resulting chickens make a fair flock for a single brooder. By using common sense in management, and keeping in mind a few of these facts, a really progressive man or woman who tries this method of raising chicks will find it to be a success. P. F. D.

Raising Geese for Profit.

BY WM. T. FERGUSON.

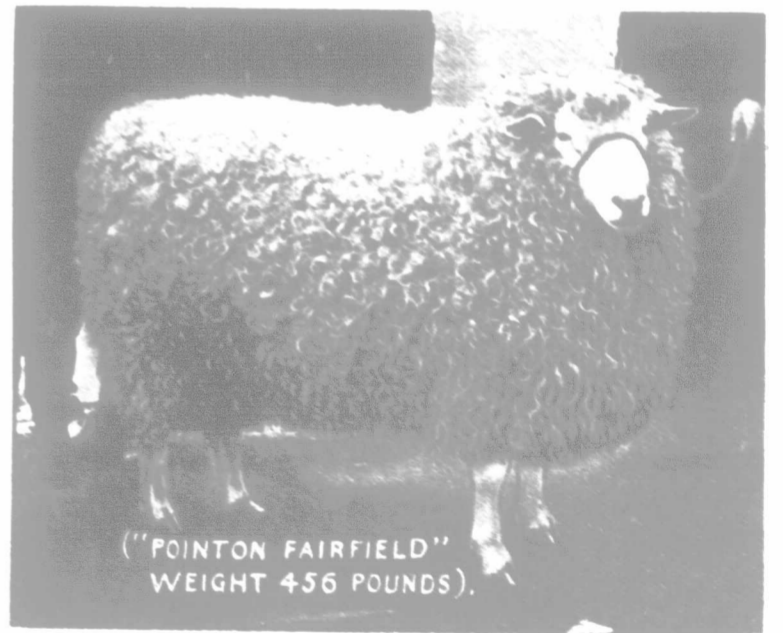
So much has been written about the poultry business in all its phases, that at times I think enough has been advanced. We read about the keeping of hens for eggs or for raising broilers, the best breeds, the housing, tending, feeding, diseases, etc., and in the end, after all their writing and financing, buying wheat at 75 cents a bushel, meat at 8 cents a pound, and bone and crushers, and even turning winter into summer in biddy's quarters, all to make her yield a profit to her owner of \$1.00 per hen, or about 300 per cent. profit. Very good indeed, but can we not do better with the queen of all poultry, "Old Mother Goose?" I have raised geese with profit as far back as I can remember; so did my parents before me, and I hope a few hints on the subject may dispel the idea that geese are only a nuisance, thus setting many a man who had not my early training on the right track.

Breed.—If you are only a beginner, or if you have some poor, non-paying, run-out variety, take my advice and get a pair of good Emden geese. I prefer the Emden for pure-bred geese because they are very prolific, the pure-white feathers sell for 10 cents a pound extra, and they are so much larger. But I get my best results from the large Emden geese mated with a gander of one of the smaller, more active breeds.

Preparation.—As you have your geese, you want some shelter for them during the storms in winter and a suitable place for them to make their nests. Any farm-yard shed will do if you scatter a little straw for them to sit on. In summer a small pasture is necessary. If you are convenient to a pond so much the better, but it is not necessary, and many consider a pond injurious because it is the home of many enemies and has a tendency to make the geese wild.

Feeding and Laying.—A goose has a small appetite for the size of the bird. We used in the old days to feed them corn all winter. Then when we began to feed more pigs, and silos were built, corn was not so plentiful and oats and buckwheat became the principal food. Then one winter even coarse grain was scarce and dear, but we had an abundance of Shantany (short red) carrots, and the geese were fed exclusively on them, and I must say we never had geese do better or start laying so early. A goose can be easily wintered on one dollar's worth of oats and carrots. Geese too fat lay very few eggs. Feed liberally in laying season and supply with plenty of water. Fresh water is necessary to secure fertile eggs. Geese are monogamous and are sure to pair off if allowed; but this is unnecessary, as each gander should have two geese—never three or more. If but a limited number is kept, each trio should be kept separate for at least a month before laying. With large flocks it is necessary to keep a larger proportion of male birds.

Care of Eggs.—Great care must be taken with the eggs. Geese commence laying about the first of March, and, as the weather is cold, the eggs must be



"POINTON FAIRFIELD"
WEIGHT 456 POUNDS.

TWO-YEAR-OLD LINCOLN RAM.

Winner of first prize at the Royal Show, England, 1900; first at Toronto Industrial Exhibition; first and championship at the International Live Stock Exposition, Chicago.

IMPORTED AND OWNED BY J. H. & E. PATRICK, ILBERTON, ONT.

gathered before they are chilled. Then place the eggs in a wooden box lined with flannel and keep in the kitchen at an even temperature. Turn your eggs daily to prevent the top side drying up, or sprinkle sparingly with tepid water. Try to follow the natural methods of the goose: She covers her eggs to warm them, she turns them every time she lays, and she comes to them with feathers wet.

Setting.—A goose will generally lay about fifteen eggs; so it is advisable to set the first five eggs under a hen, in a warm place, and sprinkle often. Set on the ground on a mound of earth to keep the eggs moist and still have them dry. Provide plenty of straw. Set ten eggs under an ordinary goose, less under a smaller one. Many make the mistake

of giving a goose too many eggs. They require a great deal of heat.

Care of Young.—Leave in the nest for thirty to thirty-six hours, then feed some bread and milk and let out on a green sod. Young goslings require care for about two weeks; after that they will fish for themselves. Do not let them get wet or do not let the old goose run too much. I usually coop her up, feeding well till the young are able to run; then I put them into a field and they live on grass until near feathering time. They must have fresh water every day.

Fattening. When full-grown, I shut them up for about ten days, stuffing on boiled grain and corn, and they will be fat enough for anybody.

Profit.—The profits are two-fold: feathers and roasters. First, I pick ganders four times a year,

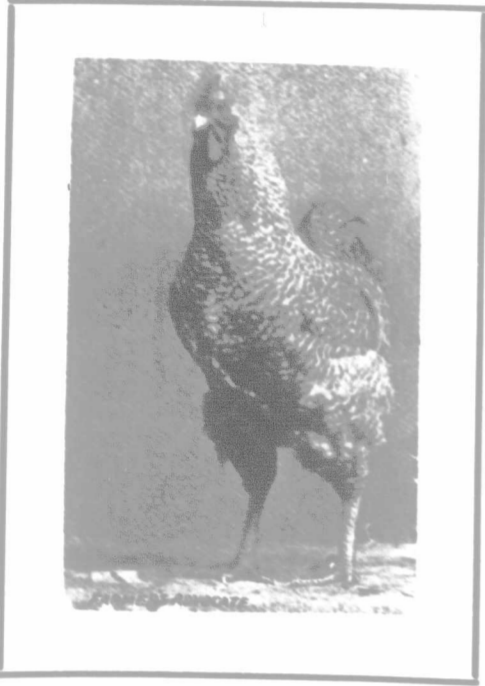


FIG. 1.—CORRECT TYPE FOR FATTENING.

and geese three times and young ones once. Pluck every six weeks, beginning with the males the last week in April. You can easily tell when to pluck them by watching when they begin to pick themselves, or try one to see if the feathers are ripe. If the ends are bloody, they will not keep. With the four pickings of mature geese and the goslings once, we generally average two pounds of feathers to a goose, at 60 cents a pound, which will pay for the cost of keeping her, and you have the goslings clear profit. This will be about ten goslings, each weighing 15 pounds, at 8 cents a pound, or for twenty young ones, \$24.00 from each trio. Counting a trio worth \$1.50, this means a gain of 533 per cent., or over 200 per cent. above the gain on hens in their luxurious houses.

Advantages Over Other Poultry.—They are free from disease. The same breeders do for fully twenty-five years—a goose is in her prime from the fifth to the twenty-fifth year. They never die like

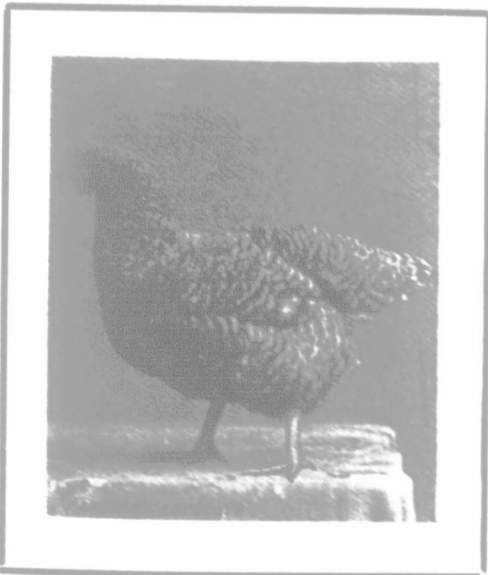


FIG. 3.—CORRECT SHAPE FOR BREEDER AND FEEDER.

turkeys or chicks. They protect their young vigorously. They always come home early, and they can be easily confined by clipping one wing. Geese are profitable on a large scale in Virginia, where they are grown for the feathers. And in Germany goose-farming is a profitable business. There they form the national luxury for feasts on all festive days. It is looking after the small investments that makes the farmer rich, and nothing on the farm will help wipe out a mortgage quicker than "Old Mother Goose."

Poultry Breeds for Fattening.

In making choice of any animal for domestic purposes, a most important, and, in fact, a necessary point, is to consider the structure of the animal in relation to the work which it is to perform. It would be suicidal on the part of a horse-buyer if

he were simply attracted by color, for he must, in the first place, examine the animal to see whether it is built upon lines enabling it to perform the work he desires it to do. The same is equally true in the case of cows, and this principle ought to be laid down for the guidance of all poultry-keepers. Fortunately, we can divide our different breeds of poultry into distinct classes, according to their economic qualities, and this is at once an important guide in the selection of breeds.

Our first point in the choice of stock for producing table poultry is that the bird shall be built in such a manner as to carry a large quantity of flesh in the right place, that it shall have good quality, be by nature a quick grower, fattening easily, and is sufficiently hardy. A further most important matter in the selection of table poultry for export is as to color of skin and flesh, if we cater to that high-class market over the Atlantic, willing to pay fancy prices for the properly-finished bird of the right class.

For some reason our market prefers yellow-fleshed fowls, whereas our English neighbors always look upon those birds carrying the whitest flesh as being the best for table purposes, and there can be no doubt that the breeder of poultry for export who desires to attain the best results must keep this point in view.

It will be well just to mention a few of the different breeds, showing the color of their skin and conformation, and in this I quote from my own experience, as an industry for farmers and poultry-keepers. The most suitable breeds for this purpose are: Plymouth Rocks, Wyandottes, Brahmas, Cochins, Cornish Indian Games, and Dorkings, or crosses of these, the Barred Rocks being the best all-round bird. The Dorking is an excellent bird, but not very hardy in this climate, with white flesh and legs. In Britain there has been a strong prejudice in favor of white-legged fowls for table purposes. Happily, this prejudice is dying out, for it has been abundantly proved that our poultry is equal, if not superior, to any other country for table properties, and, of course, most of them are yellow-legged fowl. The color of the pedal limbs is not influenced by, nor does it influence, that of the flesh and skin on the body.

Another important matter is as to the shape of the bird, and the true ideal in the selection of table poultry is that the fowl shall be (1) good length in body, (2) broad in breast, (3) deep in body, (4) with short cream or white colored legs, medium bone, short heavy bill, denoting strong constitution, and small oval, such as comb, and giving the bird a massive and compact appearance. The length of body gives the bird a large amount of breast meat, and the width across the shoulder and depth determines the number of slices on the breast, which is the choicest part of a fowl.

As far as possible, the main points to be avoided are: Heavy-boned; narrow-breasted, with no depth; long-necked; long-legged, as the legs are composed of sinews and veins, which are tough and less valuable for food; absence of feathers on the legs and hock, which are so common on the Cochin and Brahma breeds, as a large percentage of feathers require to be maintained, and this can only be done at the expense of the feeder; a small comb is desired, as the birds are sold by weight, with their heads on. The selecting of poultry to feed for the table is just as important as breeds of cattle for beef. You might as well try to feed a narrow, long-legged, raw-boned steer, and expect a fine specimen for export, as to feed a narrow, long-legged, heavy-boned, long-necked cockerel, and expect to get a fleshy, plump bird. Another important item in connection with this class of poultry is that they lay a good-sized brown egg, for which there has been increasing demand by our transatlantic neighbors, who regard large brown eggs as being much superior to white ones.

In feeding hens for eggs to hatch, you should not forget to see that they get plenty of lean meat and bone, as this will ensure good, strong, healthy, quick-growing chicks. Select for setting the good-sized eggs; keep the young chicks growing from the time they are out of the shell till they are ready to coop. If you have them confined, see that they are supplied with plenty of meat scraps. They need meat-food to ensure rapid and vigorous growth.

Fig. 1.—Represents a cockerel weighing 11 lbs. Note the shape: Short legs; deep, wide breast; short neck; fair length; very plump.

Fig. 2.—Cockerel weighing 9½ lbs.; same age; same weight when put in to feed.

Bird No. 1 gained 1½ lbs. more in same time, and much more fleshy. **No. 2** too long in the legs; too large in bone; narrow, with no depth; long neck; but good length; very hard feeder.

Fig. 3.—Pullet weighing 9½ lbs.; correct shape for the breeder and feeder of table poultry.

Fig. 4.—Pullet same age, weighing 6 lbs.; very poor shape, from a feeder and breeder's standpoint.

J. W. CLARK.

Operating Incubators.

BY M. MAW, MAW'S POULTRY FARM, WINNIPEG.

Many unreliable makes of incubators are being operated in this country. These machines give endless trouble and very poor returns, many hatches being small in number, the few chickens that do hatch being unhealthy and in some instances cripples. A very interesting official report on this subject has been given by Mr. A. G. Gilbert, Poultry Manager of the Dominion Experimental Farm,

Ottawa. It is printed in pamphlet form, and has been widely circulated, giving the Experimental Farm's experience with the various makes of incubators. In it he gives details of machines they operated with no success, also results with up-to-date machines that are now run with a degree of certainty that was unknown a few years ago. These reports are very interesting and instructive, and parties interested would do well to write the department for a copy. The large and increasing demand for incubators has resulted in a great improvement. Men with years of experience have devoted time and money, their aim being to produce a perfect machine. For years the great trouble has been how to regulate the moisture. Many machines have succeeded in regulating the heat, but cannot control the moisture, resulting, at hatching time, in a great many fully-developed chicks being

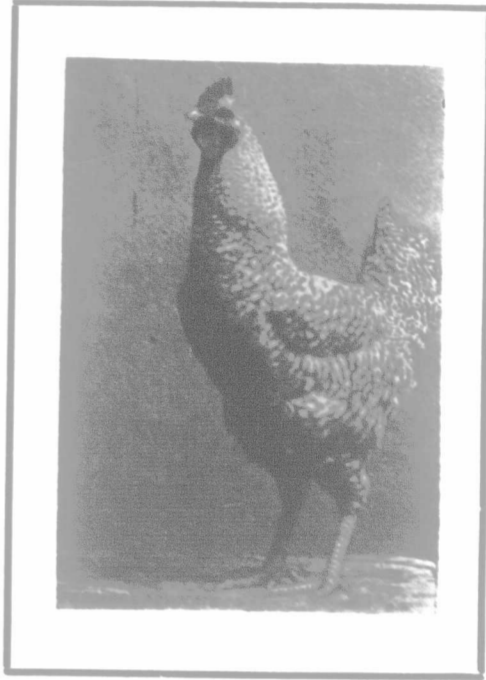


FIG. 2.—A VERY HARD FEEDER.

suffocated in the shell. For years the poultry press discussed this trouble. Many reasons were given and new systems advocated, still the chickens died. At last a gentleman, named Cyphers, published a book on "Artificial Incubation," which solved the problem, doing away with moisture pans and cold-air ventilation, substituting a system that diffused the heat from an upper chamber, gently settling on the eggs, causing no drafts, leaving the moisture in the eggs, and carrying off, through a shallow underchamber, all the impure air. He studied nature and he imitated the hen. Most of you have known hens to hide a nest of eggs in some out-of-the-way place and return home with a full hatch of chickens. Instinct taught that hen to make a nest. She chose a place with no under-drafts, and although she had a fever heat of 103 degrees, she neither absorbed nor added to the moisture in the egg. As a great many have not got an up-to-date machine and are having trouble, a few

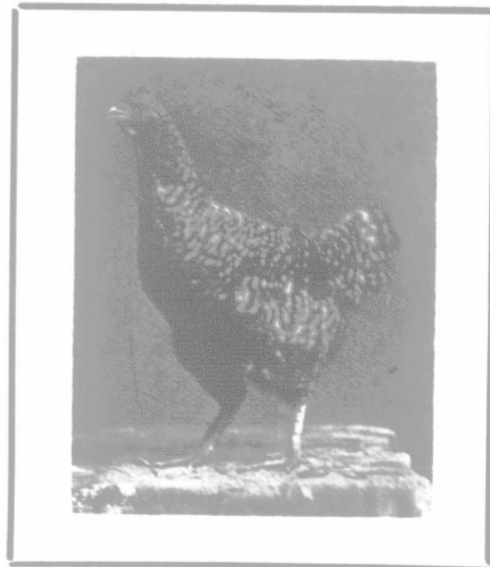


FIG. 4.—A POOR SHAPED FEEDER.

hints would not be out of place, by one who has experienced many of the troubles and disappointments, and if I do not touch on your trouble, write me what it is, naming the machine, and I will cheerfully give you my ideas on the subject.

In starting the machine, carefully read and study the directions. Place it in as good a location as possible, on a perfect level, and let it run for several days before placing the eggs. This is done to get all the parts evenly warmed up. If during this time you have not got the regulator working true, it would be well to put in a few eggs not intended for hatching, and work the machine on them till you have mastered every detail. In selecting the eggs, try and get those that have no deformity in the shell, avoiding all extra large eggs, as they are probably double yoked, and very small eggs, as they are often deficient in germ, and will either not hatch or produce a very delicate chick. Remove all

dirt from the shells, and place eggs carefully in machine. If you have a good incubator and have carefully followed directions, which are very simple (it is only a matter of turning the eggs twice a day and trimming the lamp—a few minutes' work), the machine will do the rest. If your machine has moisture pans and takes in cold air through holes in the bottom or sides, you must run it either in a cellar or a warm room, with an even temperature (this style of machine is not adapted to our climate). The later and best machines are made with well-packed walls, hot-air chamber, no moisture pans, and no cold air drafts. This is the ideal for Manitoba, and can be operated in an ordinary room without a fire. But, unfortunately for many, the old style of machines predominate, and we have to do the best we can. When the machine is once started, avoid opening the door of the egg chamber as much as possible, for this reason: In opening, you alter the atmosphere and at the same time the moisture. If opened often, some of the moisture will be taken from the eggs, causing the germ to dry and stick to the inner shell. In some machines, the egg-turning apparatus catches some of the larger eggs and prevents them turning. In such cases, it is well to mark the eggs and see that they are turned properly. Be sure your thermometer is reliable. I have seen whole hatches spoiled by the thermometer registering wrong. A large percentage of the thermometers supplied with incubators are unreliable, with uneven tubes; thus, at 90 degrees it will register right, but at 103 degrees be one or two degrees out. Get one of the very best. In placing the thermometer, put the bulb on a fertile egg, in such a position that you can read it without opening the door. If possible, have two thermometers, and place them in corner and center of egg tray. In poor machines you will find a difference of heat from extremes to center. In an up-to-date machine, the egg trays are square, and can be reversed each day without handling the eggs. In hot-water machines, examine the tank carefully each hatch. A small leak will spoil a big lot of eggs. In filling the hot-water tank, use soft water; the alkali in hard water will soon eat through the tank. On the eighteenth day make all preparations to close up your machine till the hatch is out. Don't open the door during hatching. It seems hard to see a chick struggling to get out of the shell; you feel like opening the door to help it. Don't; your help is not much good. If it can't liberate itself, blame the machine or the bad operator. Keep the door closed; by opening it you probably take necessary moisture from other eggs at a critical time, and cause them to either stick to the shell or suffocate. Wait till all the chicks have had time to hatch before removing any. If your machine has run right, all chicks should be out before the end of the twenty-first day. If they begin hatching on the nineteenth and twentieth day, you have had too much heat; if they come on the twenty-second, it has been too cold. In either case, either the machine or the operator or the thermometer is entitled to the blame. In conclusion, take advice only from someone who knows by experience what he is talking about. A book of instructions goes with your machine; follow it to the letter. You had confidence to spend your dollars on that machine. The maker has probably sold it to you, thoroughly believing all he stated was true. Give it a good, honest test. Don't know more than he does. If you can't make a success, write or see someone who has a machine of the same make. Probably he can put you right. To those who have not yet got a machine, take advice: Don't buy a machine because it is cheap. You can't get an honest, well-built machine as cheap as a machine built to catch the eye. They are all well advertised. Many are all right in warm climates, but no good for early hatches in Manitoba. Before buying an incubator, write to some of the experimental farms, or Mr. Gilbert, for their experience. Of one thing you may be sure, you can't make a success of poultry farming without an incubator. By its help you get early hatches, and that means lots of eggs in the winter and well-developed cockerels for the fall market. There are plenty of good machines, honestly made and easy to operate. Be sure you get one; it will be as good an investment as you have on the farm.

Approved Rations for Cows.

Prof. H. H. Dean, of the Ontario Agricultural College, says:

"We have tried many different kinds of foods during ten years, but now have settled down to pasture, green peas and oats, corn silage and bran, for summer feeding. In winter feeding, the following ration we have found satisfactory:

Corn silage	30 to 40 lbs.
Pulped mangels	20 lbs.
Cut hay	8 to 10 lbs.
Bran	4 lbs.
Ground peas	2 lbs.
Ground oats	2 lbs.

"This ration is given to the cows at two feeds. The first is fed about 7 a. m., after milking. The second is fed at 4 p. m., before milking. We have found that cows require about eight pounds of concentrated feed (meal) for each pound of fat they are producing in their milk. Small cows will usually produce less meal per pound of fat than large cows."

"As this ration has succeeded so well with Professor Dean's cows, it may safely be adopted, but it must be remembered that the cows conveyed in the first paragraph are not all alike. It is not possible to give a single ration to properly balance a large number of cows."

A City Chap's Experience with Hens.

It was on the occasion of the celebration of the fiftieth anniversary of the wedding of Giles and Hannah Baker that Sile Andrews told about the poultry experience of his city cousin, Lon Snow.

The "women folks" were visiting with sweet old Mrs. Baker in the south parlor, and the men were all assembled with Giles in the north parlor, before a good old-fashioned open fire, for it was a frosty November night.

The talk had fallen on the knack that some people have with hens, while others, try as they may, never seem to be able to do anything with them.

"I never bothered with 'em myself," said Giles. "Mother's had 'em an' got tired of 'em, and had 'em ag'in, but never seemed to me as if they was wuth their keep. When eggs are high they won't lay."

"That's the trouble 'Lon Snow had," said Sile Andrews, throwing the core of an apple he had been eating into the fire. "Never hear 'bout my cousin 'Lon?" said he, turning to me.

I was glad to be able to say I had not, for it meant a new story from Mr. Andrews, and I knew from experience that he had what the critics call "good sense of selection."

He leaned forward and rested his chin on his hand and said:

"Well, 'Lon Snow was born an' brought up in the city, which was a misfortune to start with, an' besides that he hadn't no more sense of humor 'an a hen—"

"An' he was all-fired pig-headed, too," put in Sam Barlow.

"Well, I'm comin' to that. When he got 'bout forty year old the doctor told him he'd got to stop workin' in an office an' go into the country to live or he'd peg out in a short time. So he wrote to ask ef he could visit us fer a spell, an' I wrote back 'Come on, an' he come."

"When he got to the haouse he was the whites', mos' pindlin' lookin' man I ever see. Looked as if he'd slumped into himself ef the wind changed sudden. He moped around the haouse a few days an' talked crops ter me at meal times an' in the evenin' until I wisht I'd never took up farmin'. Gosh, it was awful to hear his views. Finally he said that the idleness was killin' him an' he wanted to take up farmin'. I choked daown my feelin' an' said he warn't built fer heavy farmin', but mebbe he might do a little hen business. Then Mis' Andrews, she got talkin' to him. I kep' my mouth shet fer I knew he couldn't 'larn from me, but Ma filled him up good on the proper food an' he nodded his head, very wise, 'sif he knew it all but was glad to have her freshen up his memory. He wanted to go right out an' buy some hens that night. Thought a hundred would do fer a starter. But Ma tol' him that fifteen to twenty was all he could manage at the start an' he finally agreed. 'What sort'll you keep, Plymouth Rocks or Braown Leggs?' says she, an' I could see by the way he hesitated an' at last said, 'Braown Leggs,' very distinct, that he didn't know anything whatever 'bout hens."

"Nex' mornin' we went over to Deacon Foster's to buy the hens. He had purt' near five hundred walkin' 'round his farm on Redtop. They did look mighty slick an' 'Lon was tickled to death with 'em. He asks the old deacon haow much he'd charge apiece and the deacon says, 'Seventy-five cents.' That's reasonable," said 'Lon, though he didn't know if it was or not. Then he looked 'round with a critterkal eye an' he says:

"By the way, I only want the ones with fine feathers. I never cared fer the little sober ones."

"What do you mean?" said the deacon.

"I mean," says 'Lon with all the dignity that a city man could git on to him, "that I want the big variety, the ones with the large combs and the big tail feather; not those sober ones with no tails at all. I'm go'n' 'bout this thing the right way an' I might as well have good hens as poor ones."

"Well, the deacon, he stepped behind the barn door to conceal his feelin's, which was powerful at the time, an' when he comes out he was as sober lookin' as 'Lon. 'All right,' says he, 'but I'll tell you honest, it's the little ones 'at'll lay the most eggs."

"But 'Lon couldn't be changed. He was go'n' in fer looks, he said, an' anyhow he guessed he'd make 'em lay if anyone could. 'I don't daoubt it,' says the deacon with a cheerful smile, 'but ef you're go'n' to take the pick of the flock I'll hev to charge ye a dollar apiece.' 'Lon warn't no way small, an' he agreed to the terms an' arranged to come at night an' git 'em."

"I remember 'em," said Barlow. As purty a flock as I ever see with their high-steppin' ways. I used to go up an' tell your cousin that he ought to exhibit 'em at Merwinton Fair, an' he said he guessed he would. On'y fault he found with 'em was they was quarl'some an' slow to get to layin'. I says: 'Ef the redness of the comb is any sign you oughter hev eggs purty soon."

"Well," resumed Sile, "he never suspected nothin', but went to feedin' 'em fer eggs accordin' as Ma had told him the fust night. She said it was a shame not to tell him what kind of hens they was, but I argued that it kep' him busy out er doors an' that's what he needed. He didn't need eggs any more 'an a hen needs teeth."

"Didn't he ever find out?" I asked, seeing that

there was a move in the other room that suggested a breaking up of the gathering.

"Well, matters went on fer 'bout three or four weeks, an' then one mornin' in May, when eggs was so plentiful that they was usin' 'em to stone cats with, he comes into the barn where I was sharpenin' my ax on the grin'stun an' he says: 'Funny my hens don't ever go near their nests. An' they're quarlin' all the time."

"Then I says: 'Lon,' says I, 'some folks never can 'larn anythin' arter they're growed up, an' you're one of 'em. You was dead set on gittin' that breed, although the deacon told ye the small ones was the best fer eggs. Naow the city's a good place ter live in fer a few things, but you don't 'larn everything ther. Some country folks hev one rooster to a flock an' some don't hev any, but your city notion of hev'in' every one a rooster ain't conducive to eggs!'"

Diarrhea in Calves.

Many calves become stunted and have their constitution undermined, and many are lost, from this trouble. Very often the cause is obscure, and the means of prevention seem to be not generally understood; but prevention is so much better than cure in regard to this, as well as to many other troubles, that it is well worth while to take precautions for its prevention. The cause may, as a rule, be traced to damp, dark and filthy quarters and to unclean drinking vessels, to overfeeding, feeding at too long intervals, or feeding with cold milk. The vessel from which a calf drinks, in order to be really safe, should be rinsed with cold water and then scalded with hot water and placed in the sunlight to dry every day. Filth and decaying milk generate poison germs which set up the disease of diarrhea. Give the calves light, airy and clean quarters, and keep their drinking vessels well cleaned. If from any cause scours occur, do not neglect the case and wait for "a faith cure," but at once look for the cause, and remove it. If you have been feeding cold milk, you deserve to be punished. Cold milk is not fit food for the stomach of a young calf, and is almost sure to cause indigestion, which frequently brings on scours. Let the milk be warmed so that when fed it will be about the temperature of milk as it comes from the cow. Do not boil it, nor feed it when hot. It is better to heat it on the stove, and remove before it gets too hot; but if that is too much trouble, or is inconvenient, better far add enough hot water to raise the temperature to the desired point than to feed it cold. Overfeeding is another prolific cause of scours. Young calves, before they have learned to eat other food, should have milk three times a day in small quantities. The long fast from morning till night makes them very hungry, and if a big mess of milk be given, they gulp it down greedily, and it is liable to bring on indigestion and the serious trouble we are considering. The natural way of the calf getting its supply of milk is by drawing it slowly from the udder of the dam or nurse cow, the milk being mixed with the saliva of the mouth, which greatly aids digestion. If care were taken to keep them clean, there is no doubt that the ideal way to feed calves would be by the use of artificial teats of rubber on the spout of the feeding vessel, but if fed little and often while young, say for the first month or six weeks, and never overfed at any age, the other conditions as to cleanliness, etc., being observed, there will seldom be any need for medicines. But as before said, do not neglect the case when diarrhea occurs, but at once remove the cause; make a change in the feeding by giving less milk for two or three days, and in the best condition, and give one to two ounces of castor oil, according to age, in a little warm milk, from a bottle. If taken early, and the other precautions observed, this will generally end the trouble, the irritating cause being removed. A raw egg broken and put into the calf's mouth, shell and all—its head being held up till it has swallowed the contents of the shell at least—will be found helpful. If a cure is not soon effected, give a tablespoonful twice a day for a few days in a little milk, from a bottle, in which is also a beaten egg, of the following mixture: tincture of ginger, four ounces; tincture of opium, three ounces; tincture of rhubarb, two ounces; and essence of peppermint, two ounces. In very bad cases, give a dose every two hours until the discharges become more natural. If the calf is very small and young, half the dose of oil and of the mixture will be enough. The calf should be kept warm and dry.

Prizes for Holsteins at Buffalo.

The American Holstein-Friesian Association will duplicate all prizes offered by the Pan-American Association for Holsteins in their class, and will give a prize for a young herd, consisting of one bull and four females under two years of age; also for bull and three of his get, and for a cow and two of her produce, each as follows: first prize, \$50; second, \$25; third, \$12.50; and will still further offer prizes, amounting to \$175, to practically illustrate upon the Exposition grounds the system now in practice by the Holstein-Friesian Association of America for making official butter records; the test to be made, as nearly as possible, under the present rules of the Association for such tests; to be made by the Babcock machine, under the supervision of some officer or professor of some agricultural college or experiment station; the cows to be milked three times per day.

The Lambing Season.

(Extracts from a paper by A. D. Gamble, of Brandon, Sheep and Swine Breeders' Association.)

As the lambing progresses, the shepherd will have observed that some ewes are much heavier milkers than others, and that the poor milkers very often have twins. Put one of the twins on a ewe with a single lamb and a good milker. The best and easiest plan is to pick out a ewe giving indications of being a good mother, and watch for her lambing. As soon as she has lambed, and before she gets up, place the twin lamb beside the newborn one, and rub them together, which will give the same appearance and smell to both, and when the ewe turns round to survey her progeny, she will never suspect the fraud, but will commence licking both lambs. I have never seen this plan fail. If a ewe loses her lamb, make her foster a twin (aim to make every ewe raise a lamb). This case requires a little patience. My plan is to skin the dead lamb and sew the pelt on to the twin, putting the dam and foster lamb in a dark pen for a few days, always keeping a sharp lookout to see that the lamb is doing all right. It is as well in this case to tie up the ewe for the first day or so. Take off the pelt in 24 or 30 hours. Out-of-condition and young ewes require some watching at this time. The former are very often indifferent to their lambs and will leave them. Shut them up by themselves in a pen for a few days until the lamb thoroughly knows its mother. The young ewes sometimes do not take kindly to their lambs, and require to be held a few times until she gets accustomed to her lamb. If the ewe is hard to manage, a good plan is to place her with her rump in a corner, so that she can't back, the shepherd kneeling on one knee and the inside of the other leg against the breast of the ewe, one arm round the neck, and the lamb in the other hand, holding it to the teat. A little practice, and one soon becomes expert.

During the first few days of the lamb's life, care must be taken to see that no dirt accumulates under the tail, obstructing the passage. If there is any, it should be clipped away with the shears, or washed with warm water, and the parts smeared with a little castor oil.

The lambs should be docked when they are about a week old. A simple method is to take the lamb between the knees, and the tail in the left hand, drawing the skin towards the rump, and clipping off close to the fingers with a pair of shears, then sprinkling a little powdered bluestone on the stump to prevent bleeding. Castration is better done at this time too, as there is less danger than when the lamb is a few months old. This may be done by clipping off the whole scrotum with one stroke of the shears. By the time the lambs are two weeks old they will have commenced to nibble hay, and at a month old to eat oats. A separate pen should then be provided for them, with a "creep" through which they can go at will to the oats and bran and the choice morsels of hay that have been picked out for them.

The only diseases I have found lambs subject to is the "white scours" and indigestion, and for which the shepherd should have the necessary remedies at hand in case of emergency. The former trouble is caused either by some quality in the dam's milk or by a disordered condition of the lamb's stomach. When the dam is the cause of the trouble, her food should be changed and the lamb given, daily, a teaspoonful of linseed oil. When the cause exists with the lamb, two teaspoonfuls should be given, twice a day, of prepared chalk, one ounce to a pint of peppermint water. Indigestion is caused by the lamb taking too much milk at one time, which coagulates in the stomach. For this one ounce of Epsom salts should be given. These remedies I get from "Stewart's Sheep Manual," and have found them most beneficial, having used them for a number of years. By the time the lambs are a month old, the spring will have come, and if all has gone well with the shepherd and his flock, it ought to be in good shape to commence the summer's operations. For a week or two, feed them a few oat sheaves before they go out in the morning, and the same in the evening when they come in; also hay in the racks for night if they will eat it. They will eat very little hay at this time, but it helps to keep them up until they get a full bite of grass. From now till clipping time the shepherd will have it a little easier, and well does he deserve it, for if his flock is a large one, he will have been hard at work 24 hours a day all through the lambing time. Shearing ought to be done between the middle of May and 1st of June. Until the wool has grown, give them the run of the pens at night to protect them from the cold, also during the day to protect them from the sun. Dip ten days after clipping, and ten days after that again, to kill the ticks that have hatched since the first dipping.

Weaning time comes in August or September, according to the time the lambs were dropped. The ewe lambs may be kept separate for a week or ten days, and then turned in with the flock again, care having been taken in the interval to milk the ewes at least twice in that time, and the heavy milkers as often as required. The ram lambs, if bred for the butcher, and to be sold as lambs, had better be sold as

soon as weaned, as they will fail rapidly if no special provision has been made for their care, such as a field of rape or turnips to run in during the day, and hay and grain at night. Care should be taken not to allow them on the rape until the frost is off in the morning, or with an empty stomach, and then not too long at a time until they get accustomed to it. At weaning time, and while the ewes are being handled, it is a wise plan to mark those that are to be disposed of to the butcher. In this connection I would impress on the young breeder that the successful management of a flock in a great measure depends on three things: First, the choice of a ram; secondly, eternal vigilance at lambing time; and thirdly, culling close each year. Don't keep old ewes, or those not typical of the breed. Don't be afraid to weed them out. There is no better country in the world than this Western land of ours for the successful raising of sheep in large numbers, for they are subject to none of the diseases that are prevalent in the older countries. The only drawback there is to the sheep industry in this country is the wolf pest, and that, I have no doubt, will, through time, be overcome, the coyote disappearing as the country becomes more settled.

Farm Buttermaking.

The importance of producing on the farms butter of highest excellence, fit to compete in the open market with the creamery product, seems to be generally disregarded, or, if not so, considered too difficult of attainment. This is largely true through lack of knowledge of details essential to success. The subject is most intelligently treated by Prof. Otis, of the Kansas Agricultural College, in the new Biennial Report of Secretary F. D. Coburn, of the Kansas Board of Agriculture.

Extracts from Prof. Otis' discussion follow:

In the matter of making butter, the private dairyman can learn a great deal from his creamery brother. The latter has made the subject of butter-making a life-study, and many of the things that he has discovered can be applied to advantage on the farm. It is assumed that the milk and cream will receive the best of care previous to reaching the cream vat.

High flavor or quick aroma of butter is due to the breaking up of the milk sugar, forming lactic acid, and is possibly the result of a series of germs that get into the cream during the process of ripening (souring). If cream is churned while sweet, considerable butter will be lost in the buttermilk, and the butter will lack flavor, no matter what the cows are fed. If cream ripens too much we will get sour butter, or what Professor McKay calls "rotten-egg flavor." Cream ready to be churned has a smooth, granular appearance, with a rather sharp, acid taste. When cream reaches this condition, it should either be churned at once or cooled down to about fifty degrees F., and warmed to fifty-eight or sixty degrees when churned. So important is the right amount of acid, that our best buttermakers have what is called an acid test for determining the amount.

To hasten the ripening, or to get the right kind of lactic-acid germs, starters are sometimes used to advantage. These may consist either of buttermilk, sour skim milk, or especially-prepared commercial starters. Starters on the farm can doubtless be best procured by using milk or skim milk. Select a good healthy cow, put her milk into a well-scalded can, and keep at a temperature of eighty-five to ninety degrees until it becomes clabbered. Then use about one part of starter to nine parts of cream. The cream may be kept at a temperature anywhere from sixty degrees to seventy-five degrees F., if care be taken to cool it down as soon as the right quantity of lactic acid is developed.

If the local market calls for colored butter, the coloring matter should be put into the cream as soon as the latter enters the churn. The ideal color for butter is that produced naturally under June conditions, where the cows have an abundance of fresh green grass. At no time of the year should we attempt to give butter any higher color than this.

Cream should be churned at as low a temperature as possible and have the butter come in from one-half to one hour. Warm cream and rapid churning mean a large quantity of butter lost in the buttermilk, as well as soft butter, which is very hard to handle after it comes. The churn should be stopped when the butter is in a granular condition, about one-twelfth of an inch in diameter. If churned more than this it will be impossible to get the butter evenly washed and salted without spoiling the grain. When a piece of good butter is broken, it should have the appearance of broken cast-iron, and not the salty, greasy-looking article that we often see at the store. When the butter granules have reached the right size, the buttermilk should be drained off and the butter thoroughly washed with pure clean water, at a temperature of fifty to sixty degrees F. This should be continued until the water coming from the butter ceases to have a milky appearance.

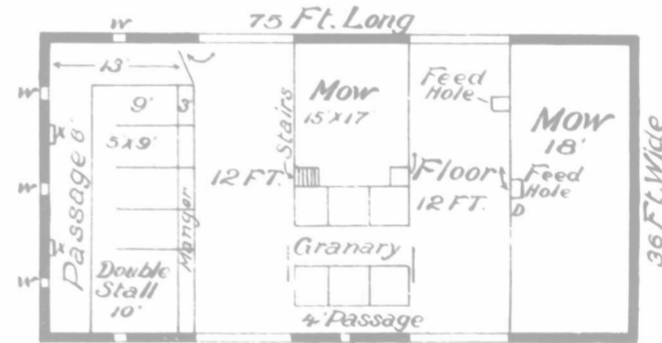
The quantity of salt should be varied, according to the demands of the market: usually an ounce to the pound is sufficient. This salt should be of the finest and best quality and thoroughly incorporated into the butter granules, and, usually, after slight

working the butter should be allowed to stand several hours, in order that the salt may become dissolved and thoroughly distributed. While the light and dark spots in butter, known as mottles, are sometimes caused by an uneven distribution of moisture, it is much more generally caused by an uneven distribution of salt. Work the butter just as little as possible. The only object of working is to distribute the salt and compact the butter. When the salt is brought in contact with the butter in the granular condition, the necessity of working is reduced to a minimum.

For private dairying there is probably no better package than the pound print wrapped in parchment paper. It is well to have a brand engraved in the print which will leave its impress upon every pound of good butter sold, but never send any poor butter under this brand, as it would be liable to spoil one's reputation. All butter prints and butter packages should present a neat, clean appearance, and never be allowed to be smeared with particles of butter or stained with imprints of dirty fingers.

Plan of Barn with Horse Stable on the Upper Floor.

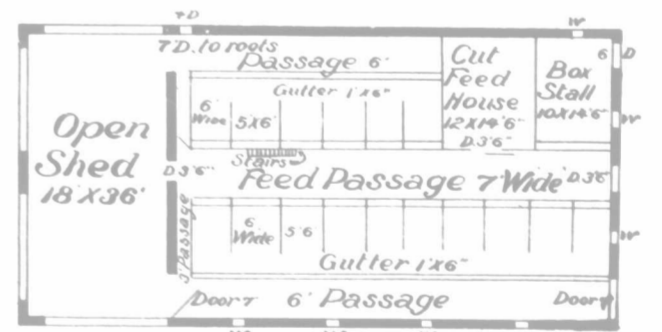
In a former issue I noticed a demand for a plan of a barn. This is one that I have roughly sketched: Size, 75 by 36 feet. The basement shed, 18 by 36 feet, and stables, 36 by 57 feet, are large enough to hold 28 cattle, with 6-ft. stalls; standing room, 5 ft. 6 in.; gutter, 1 ft. 6 in.; crib or manger, 2 ft.; passage behind cattle, 6 ft., with a 7-ft. door. This enables one to drive a boat through and so clean out the droppings and have them in the field at once, and also saves extra work of loading. Feed passage is 7 ft. wide, and is connected by three feed chutes on barn floor, also the cut-feed house, the



UPPER-FLOOR PLAN OF BARN WITH HORSE STABLE.

size of which is 12 ft. by 14 ft. 6 in. This feed house is directly under second floor and is connected by a chute. Over this chute is placed the cutting-box, so that feed drops down. To one side of the feed house is a box stall, 10 ft. by 24 ft. 6 in., that may be used for calves, cows when calving, or sick animals. There is a 3-ft. passage to root house (not shown in cut) under driveway. If barn faces north and south, the shed will not need to be sided in except on the west side, as horse and cattle manure will not freeze much if piled in one pile.

The second floor, size 75 by 36 ft., is divided into a horse stable, 18 by 36 ft.; 2 floors, 12 ft. wide; 2 mows, one 18 by 36 ft., the other 15 by 17 ft.; granary, 15 by 15 ft.; and passage 4 ft. wide. The horse stable has four single stalls and one double



BASEMENT PLAN OF BARN WITH OPEN SHED.

one. This may be used as a box stall for mare and colt. The stalls have 3-ft. crib, 9 ft. standing room, and are 5 ft. wide, with 6-ft. passage at back. The manure is thrown down holes, marked X in cut. The first floor serves to feed horses from. It may be scaffolded over, using second floor as threshing-floor. The granary, 15 by 15 ft., is divided into a passage 5 ft. wide, and six bins 5 by 5 ft. At the side of granary is a passage 4 ft. wide. This is used for taking feed through. Also, when you drive in with a load you can unhitch and take your team through and leave your load standing. This is cheaper than a wide floor. ARTHUR FRAYN.

Homes for the Millions.

In what is called the New Ontario, there is a tract of fertile arable land north of "the height of land" stretching across Nipissing, Algoma and Thunder Bay, comprising no less than 15,680,000 acres, well watered, heavily timbered in places, and suitable for farming. Its climate resembles that of Southern Manitoba.

Horses and Fruit.

MORE HORSES TO BE BOUGHT IN CANADA FOR THE BRITISH ARMY.—WHAT THE MEASURE FOR MARKING FRUIT BARRELS AND BOXES PROVIDES.

FROM OUR OTTAWA CORRESPONDENT.

Ottawa, April 9th.—Lieut.-Col. Dent is again in Canada for the purpose of purchasing horses for remounts in the British army. He was in Ottawa this week for a few hours, but, with the exception of the Governor-General and the Hon. Sydney Fisher, Minister of Agriculture, he was disinclined to see anyone. To the question as to what were his plans, he said they would not be matured for some time yet, but he had definite instructions on two points: He would buy, at centers yet to be defined, all the Canadian horses suitable for army purposes that could be purchased at what he considered to be a fair valuation. As soon as possible he will buy 1,000 horses and ship them by way of Boston or Portland, as may be found most expedient. Then he will establish remount stations in various districts throughout Canada, at which horses will be bought and shipped as opportunity requires. When these depots are established, the experienced horse-buyer placed in charge will be empowered to give to horse-breeders all information necessary to enable them to raise animals suitable for army purposes. Lieut.-Col. Dent was disinclined to be interviewed personally on this point so important to the majority of the readers of the FARMER'S ADVOCATE, but he said the information would be forthcoming in due course. It is interesting to know, however, that the army officials have spoken highly of the quality of the horses taken from Canada for service in the South African war, and the Colonel volunteers the information that horses of similar build and breed (or variety of breeds) are just what is wanted. Indeed, there is reason for the belief that the official explanation why only 3,738 horses were purchased by the British Government in Canada, while 7,901 were bought in Australia and 23,310 in the United States, is correct. It was given in the British House of Commons on the 19th ult., when Mr. Gilbert Parker, M. P. for Gravesend, the well-known Canadian writer, asked for an explanation on the subject, thereby doing this country a good favor. Lord Stanley said the purchase of horses in the Dominion was "limited by the shortness of the season and the approach of the Canadian winter, and the prices of the horses and cobs were much higher than those paid for similar animals obtained in the United States and in Australia." There is little, if anything, in the explanation of the short season and the approach of winter, for our winter does not in any way detract from the hardness of our horses, and in the Northwest thousands of them roam the plains, when not broken in and working, the entire year round. But we can well understand that if the Imperial authorities refused to pay our horse-raisers full market price, they would be unable to buy. If they got cheaper horses elsewhere, it does not follow that they got as serviceable animals, for experience has shown that the well-bred Canadian horse—thanks, in great measure, to the health-giving properties of our bracing northern climate—can hold his own with the horse of any country, under any conditions.

When navigation opens, the horses purchased by Col. Dent will be shipped by way of Montreal. The greatest care will be taken to secure proper shipping facilities for the animals, and in this work Col. Dent is being aided by Major the Hon. Ormsby Gore, of the 11th Hussars, and Dr. James Fraser. The last named, by the way, is a Canadian, the brother of Mr. S. P. Fraser, 10th con., East Zorra, Oxford County, Ont. He has achieved distinction as a veterinary surgeon, and is at the head of one of the largest colleges in the United Kingdom.

I understand that it is the intention to establish one or more remount stations in the Province of Ontario, one in Quebec, one in Manitoba, and one in the Northwest Territories, though nothing will be definitely decided until Col. Dent looks over the ground. He was in Canada last year, and he was then so pressed for time that he did not visit the Northwest, but he recognizes the importance of seeing that country and its horses on this occasion.

The House of Commons made few amendments to Hon. Sydney Fisher's bill to provide for the marking and inspection of packages containing fruit for sale. As reported, the measure will come into effect on July 1st next. A closed package is defined as a box or barrel of which the contents cannot be seen or inspected when such package is disclosed. Fruit marketed in ordinary baskets will not, therefore, come under this law. Every box or barrel in which fruit is inclosed must be marked in a plain and indelible manner, with the initials of the christian names and the full surname and address of the packer, with the name of variety or varieties, and with a designation of the grade of the fruit. It will be illegal for any person to sell or expose for sale, or have in his possession, any fruit packed in a closed package and intended for sale, unless such package is marked as thus set forth: section 6 provides that no person shall sell, or expose or have in his possession for sale, any apples or pears packed in a closed package upon which package is marked the grade, "A No. 1 Canadian," unless such fruit consists of well-grown specimens of one variety, and of a uniform size, of good color for the variety, of normal shape, and not less than 80 per cent. free from scab, worm holes,

bruises, and other defects; properly packed and marked in a plain and indelible manner, with the minimum size of the fruit, in inches (or fraction thereof), across the case of the fruit. "No. 1 Canadian" is defined, under similar terms, as apples or pears of which 80 per cent. are faultless. There is an enactment making fraudulent any selling, exposing for sale, or having in possession, any fruit in a closed package that does not come up to the standard set forth for "A No. 1 Canadian," and marked "first," "best," or "extra good" quality. Fraud in packing is defined to be when more than 15 per cent. of the fruit is substantially smaller in size than, or inferior in grade to, or different in variety from, the marks on the package, or the faced or shown surface of the package. It is made a serious offence for anyone to virtually alter, efface or obliterate the words, "Falsely marked," placed on the package by the inspector who finds a package of fruit not up to the standard claimed for it by its owner. Penalties are imposed for a violation of any section of the Act, and provision is made for carrying out the intentions of Parliament in establishing and maintaining honesty in fruit-packing. The inspectors will be employed under regulations duly drawn up, to inspect packed fruit and to secure the punishment of those who may attempt to defraud the public and bring the good name of Canadian apples and pears into disrepute.

I listened to the interesting discussion that took place on the measure. There was no difference of opinion as to the need of it. It was conceded that it was the minority of packers that in the past had injured the export trade of the country and the growing sale of eastern fruit in Manitoba, but it was shown that the country, as a whole, was the loser by the fraudulent practices that had been resorted to. There was some question as to the best way to establish brands under which our fruit could be sold. The result is that the brands here set up, though intended to be standard brands for the whole country, are permissive. Men who have established a market for fruit under their own brands will be permitted to continue those brands, but their fruit must come up to the standard established. The Nova Scotia apple will still be known by its distinctive name, "Nova Scotia," but the standard must be upheld.

Mr. Hodson, Dominion Commissioner of Live Stock, is now in the Northwest visiting and addressing Farmers' Institutes. There is everywhere a tendency to improve the breeds of horses and cattle.

Bacon Hogs.

To the Editor FARMER'S ADVOCATE:

SIR,—How to produce the best class of bacon hogs is a very important question to the farmers of Canada. One would think by the way some of the packers talk and write, that the only breeds of pigs that are fit for pork are the Yorkshire and Tamworth. I do not say that these are not good breeds, but I think it is possible to raise good bacon pigs from nearly any breed. A few years ago we bought eleven pigs, from about six weeks to eight weeks old. Four were Chester White and Berkshire, four were Poland-China and Berkshire, and three were Yorkshire and Berkshire crosses. These pigs were all put together and fed the same. The pigs of the Yorkshire and Berkshire cross were of poor quality, according to the rules of the packers, while the Chester White and Berkshire cross pigs were of the bacon type, and some of the Poland-Chinas were well shaped, but they got too fat. Now, I don't believe the Chester White is a better bacon breed than the Yorkshire, nor a better breed to cross with the Berkshire, but the sire or dam of those Yorkshire and Berkshire cross pigs were not good breeding animals. Therefore, I conclude it is individual merit and the feed and treatment, more than breed, that counts in producing bacon pigs. Exercise is also a very important factor in promoting growth and the desirable quality of meat. There is more soft pork caused by lack of exercise than by improper feeding. J. T. BARNETT.

Light and Ventilation in Stables.

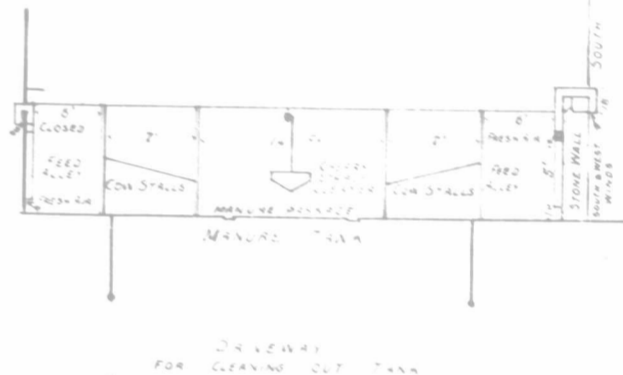
SIR,—The question of providing light and ventilation in bank barns and basement stabling is very important to the health of the stock. The stable must be kept dry and fresh, as well as warm. For the supply of fresh air, pipes leading from the outside, under the foundation and up to a few inches above the floor, are the best. The foul air can be best carried off by wooden pipes, 10 to 11 inches square, leading from the ceiling of the stable up through the barn, to discharge at the outside, under the eave, or, better, at top or ridge of the barn roof. These pipes should have slides, which can be closed if the stable gets too cold. There should be as many windows as the beams and wall will allow, each not less than 3x4 feet, set at least one foot below the top of the wall. I prefer a single sash, to slide into a pocket in the center of the wall. Have the wall sloped away from the frame of windows on the inside, to allow the sunshine to fall as much on the cattle as possible. The walls should be not less than 11 feet clear in height. The manner and dimensions for arranging stalls are so many and varied that it is best for each one to make them to suit his own circumstances. With plenty of fresh air and sunlight, people are not apt to have cattle too crowded. For large cattle, each one should have a space of 3x10 feet. ROBERT NOBLE.

Another Plan of Stable Ventilation.

[FROM OUR ONTARIO AND EASTERN EDITION.]

In order to improve stable sanitation, and the consequent improved health of the live-stock housed, we have been running through several issues of the FARMER'S ADVOCATE recently a series of articles on the subject of ventilation. The Usher and other systems, which in actual practice have proved efficient, have been described, and readers who are building new barns, or overhauling old ones, should give them careful study, adopting such as seem best suited to their conditions. No stable should be completed without some effective plan of supplying the animals with pure air, especially through the long nights of the winter season, when, for the sake of warmth, the tendency is to close up all ordinary passages through which the air will be purified. We therefore take pleasure in submitting for the consideration of our readers still another plan, to which our attention was called at the last annual meeting of the Eastern Ontario Dairymen's Association, by Mr. H. S. Foster, a progressive Quebec dairy farmer and President of the Bedford Dairymen's Association. Last fall Mr. Foster put the system in a small stable for trial, finding it most satisfactory. On writing him, some time ago, we learned that he was introducing it into his large barn, and after giving it a thorough test, he now writes us that it works to perfection, and sends us a plan and description for the information of farmers generally. He has satisfied himself that the direction of the wind has a great deal to do with the draft that takes off the foul air. His plan is as below.

Mr. Foster writes us: "The stable, which accommodates twenty-six head of cattle on each side, is forty feet wide, one hundred feet long and eight feet high, with cement floor, and manure tank at the end (outside), with cherry stable cleaner adjusted upon track suspended from center. The manure tank shown in cut is at west end of barn, and separated from stable by good doors. The ventilation and airing are arranged in order to take advantage of the wind. This is accomplished by having five vent boxes on each side of the stable, adjusted opposite each other. These are made of inch boards six by ten inches wide, which gives an opening of six by eight inches. These boxes start a foot from the floor, run up and out on south side



over the sill, and down eighteen inches on account of stone wall. On the north they run up and turn out under the sill, then turn down eighteen inches. There is a side opening made five feet from the bottom of the vent box, with a slide to close it any length in order to regulate the volume of cold fresh air coming in. When the slide is open at the top letting in air, the vent must be closed at the bottom. By having the vent pipes the same on each side you can take advantage of the wind. This barn stands east and west, so when south and west wind is blowing, the vent boxes on south side are opened at top and closed at bottom, with those on north side closed at top and opened at bottom, carrying off dead air with good draft, and vice versa when the wind is blowing from opposite direction. When I first put these boxes in I run them up on south side, letting them turn out under the eaves and down eighteen inches, but when west and south wind was on there was no draft: in fact, cold air came down. I thought that the longer they were, the more draft I could get, but unless the wind was right they would not work, and I find these short tubes give splendid draft when arranged to take advantage of the wind, and are most satisfactory in giving good stable ventilation without great expense.

One advantage of the foregoing plan is that it is inexpensive and can be put into almost any stable without disturbing the original design. To make certain of catching the wind from all quarters, vents could be arranged in all sides of the stable. We would be glad to hear from Mr. Foster how the system works when there is no wind at all blowing. Mr. Foster's stable has side feed alleys, it will be noticed, while in many barns the feed alley is in the center, with a row of cattle on each side and a driveway for manure sled or cart behind. In such cases these vent boxes coming down inside the wall to within a foot of the floor would be liable to be struck by the whiffletrees in taking out the manure. This difficulty could be partly overcome by making them more oblong rather than so nearly square. Perhaps Mr. Foster can offer some suggestion on this point, and also as to whether he has had any trouble from cold drafts striking the backs of the animals when the slide is open letting in fresh air.

We would direct the attention of those of our readers who wish to ask us questions to the new conditions at the head of the Questions and Answers Department in this issue.

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 can not be given.

Veterinary. LAME MARE.

I have a mare that got sprained in the stifle joint last September, and now has a lump in front of the stifle about the size of a man's hand. Before that she had a bog spavin. She worked in the fall, but has done nothing all winter. I blistered the two lumps about two months ago, but did no good. She is very lame yet. When standing she lets her leg sling. Can anything be done to cure the lameness. SUBSCRIBER.

[From symptoms given, I would say that there is partial dislocation of the patella. Repeated blistering is all that can be done. It is probable this, with a long rest, will ease the symptoms considerably, but it is not probable the lump mentioned will be removed. J. H. REED, V. S.]

DERANGED DIGESTION IN CALF.

I have a calf, nine weeks old, which has been sick for about a week. Sometimes it will drink a little milk, but will eat nothing. It seems to try to chew its cud, but apparently has nothing to chew. Its eyes are sunken, and it grates its teeth most of the time. The calf was fed on milk from a cow that had been milking about six months, until it was four weeks old, when it was given skim milk once a day. When about four weeks old it began to eat a little roots and chop, but never would eat hay at all. It often ate the straw that was used for bedding. I have given it Epsom salts and boiled flaxseed since it was sick. What is the cause of the trouble, and can I do anything for it? The calf has been loose in a box stall all the time. G. E. L.

[A newly-calved cow gives milk of a consistency peculiar to the necessities of the calf. The milk of the cow that had milked six months lacked this quality, and, no doubt, had the effect of deranging the digestive apparatus of the calf. Give the calf one ounce of castor oil on an empty stomach. Feed it in moderate quantities for a few weeks on the new warm milk of a cow lately calved. In the milk three times a day give a powder made of the following: bismuth nitrate, 1/2 ounces; pepsin scales, 3 drams; powdered nux vomica, 1 dram; all well mixed and divided into twelve powders. When the appetite returns, give a teaspoonful of lime water in the milk at each meal. Give no porridge of any sort in the milk, but allow the calf to eat dry bran and oat chop in equal quantities, clover hay, and pulped roots.]

Miscellaneous.

STARTING A FLOCK.

Would you kindly give a diagram of a sheep house, and say which would be advisable in starting a flock—to buy lambs or ewes? J. M.

[We gave in last issue a plan of a model sheep house. This plan entire may not be suitable for the general farmer to adopt, but some features of it may be copied in the internal arrangement of a less pretentious building. As a rule, sheep do not require a warm building, except for the ewe flock when lambs are bred to come in winter or early spring. A dry, airy place is best for them, as long as cold drafts are avoided. A shed with the cracks between boards battened, and with wide doors, left open except in time of a drifting storm, is good enough as a general rule. Permanent racks around the side of the shed and a shallow trough nailed to bottom of rack to feed grain or roots in economizes space and answers fairly well. Whether to buy ewes or lambs to start, would depend some on the price they could be bought for. If lambs are bought, it means waiting a year longer for increase, as it is not wise to breed them to produce lambs before they are two years old. If ewes one or two years old can be got at a reasonable price, they will probably be the best investment; but if lambs can be got cheaper (relatively), the wool should nearly pay for their first winter's keep, and they will pick their living in summer largely in the lanes and rough places of the farm, helping to clean it of weeds.]

WHAT CHOP TO FEED A BULL.

I have a fine breeding bull, two years old. I would like to know, through the Advocate, what would be the best ground feed to feed him to keep him in good breeding condition. F. K. M.

[In addition to enough good hay, soiling crop or pasture to satisfy the bull's appetite, he should have, twice a day, two quarts of oat chop and one quart of pea chop or oil-cake and a quart of wheat bran. This should keep him in good vigor without producing over-fatting.]

REGISTRY OF CALF.

I have a cow and bull (thoroughbred) from the same dam but by different sires. Can I breed with them and have the calf registered? A GREENHORN.

[Yes, if the cow and bull are first registered.]

STANDARD WHITE LEGHORNS.

Please give standard of perfection for Rose-combed White Leghorns? W. C. PLUMAS.

[The Male. HEAD: Short and deep. BEAK, yellow. EYES, full, bright, red. FACE, free from folds or wrinkles, bright red. COMB: Single or rose; bright red. Rose: Square in front, firm and even upon the head, tapering evenly from front to rear, without inclining to one side; the top comparatively flat and covered with small points or corrugations, and terminating in a well-developed spike at the rear. WATTLES AND EAR-LOBES: WATTLES, long, thin, pendulous, bright red. EAR-LOBES, smooth, thin, free from folds or wrinkles, fitting closely to the head, and white or creamy white. NECK: Long, well arched, with abundant hackle, flowing well over the shoulders. BACK: Of medium length, with the saddle rising in a sharp concave sweep to the tail. SADDLE FEATHERS, long. BREAST: Round, full, and carried well forward. BODY AND FLUFF: BODY, of medium length, tapering from front to rear, and closely feathered. FLUFF, rather short. WINGS: Large and well folded. TAIL: Large, full, and carried upright. SICKLES, long and well curved. COVERTS, abundant. LEGS AND TOES: THIGHS, of medium length, slender. SHANKS, long, and in color bright yellow. TOES, yellow. COLOR OF PLUMAGE: Pure white throughout. The Female. HEAD: Similar to that of male, but smaller. BEAK, yellow. EYES, full, bright red. FACE, free from folds or wrinkles, bright red. COMB: Single or rose, bright red. Rose: Similar to that of the male, but smaller. WATTLES AND EAR-LOBES: WATTLES, thin, well rounded, bright red. EAR-LOBES, smooth, thin, free from folds or wrinkles, fitting close to the head, and white or creamy white. NECK: Long and well arched. BACK: Of medium length, slightly cushioned. BREAST: Round and full. BODY AND FLUFF: BODY, of medium length, deep and plump. FLUFF, rather short, but more fully developed than in the male. WINGS: Large and well folded. TAIL: Long, full, and carried upright. LEGS AND TOES: THIGHS, of medium length, slender. SHANKS, long, slender, and in color bright yellow. TOES, yellow. COLOR OF PLUMAGE: Pure white throughout.]

BULL TRANSMITTING COLOR, ETC.

In reply to Mr. J. W. Sanborn's questions, 4 and 5, page 187, March 20th issue:

No. 4. I gave cow by the mouth. No. 5. Cow cleaned one week after calving; came in season two weeks after cleaning, at the usual time. I do not think an extra dose would change the season. The remedy in question is an old, time-honored one, used generally by the Denmark dairymen.

I notice on page 188, Subscriber, Frontenac, Ont., enquiring why Holstein bull does not transmit color to his calves. After 15 years' careful observation, I find a sire of any breed will not transmit his color to his offspring excepting he is in as healthy condition as the dam. The fault may not be in the breeding, but most likely is in the feeding. If a breeder wants the color of a sire, always keep him in choice condition for service at all times. Brandon. J. J. W.

REGISTERING A SHORTHORN.

I have a registered Shorthorn heifer which I bred to a neighbor's registered bull. Will you kindly inform me what steps I would have to take in order to have the calf registered, and what it would cost, and oblige? J. F. S. Penhold, Alta.

[Apply to Henry Wade, Secretary Dominion Shorthorn Breeders' Association, Toronto, for transfer and registration entry blanks. Full particulars are given on these blanks. The charges for registration are \$1.00 to new members, and 50c. to members of the D. S. B. A., and 25c. extra for copies of the pedigree certificates.]

PRUNING TREES.

I propose transplanting a large number of maple trees this spring. It would save time if I could prune the trees some time in March. Would this be advisable? T. S. NINETTE. Manitoba.

[Maples pruned at this season of the year bleed very badly, and I would prefer not pruning until it is time to transplant. After the tree is once established, the pruning should be done after the tree is in full leaf. This prevents the tree bleeding, and also permits of more intelligent work, as it can then be seen where the branches are crowded. S. A. BEDFORD.]

PIG PASTURE.

What plants would you recommend for pig pasture in the spring? I need the pasture badly this year. J. H. Elkhorn.

[The most suitable plants for immediate use would be spring rye, oats and peas, and rape. They will come in use in the order mentioned. Be sure and turn the pigs into the rape before the plants become coarse, or otherwise the pigs will not relish them. S. A. BEDFORD.]

BREEDING BLOOD AND CLYDE MARES.

I have a blood mare, about eleven cwt.; would it be advisable to breed her to a first cousin?

I have also a Clyde filly that will be two years old in about a month; would it be advisable to breed her this spring? D. McG.

[1. Provided the stallion is a particularly vigorous one, and his breeding and general characteristics are all right, there should be no objection to breeding the pair referred to. It would be only when each possessed a similar weakness that they should not be bred, as in that case the defect would not only be perpetuated but intensified.

2. It is in very rare instances only that horse breeders have fillies served at two years old, and then only when they are exceedingly well matured. To breed any immature animal, but especially a female, is to check its development and decrease its mature weight, and not only that, but the offspring of an immature mother cannot be as strong as the produce of a fully-developed dam.]

ROARING IN MARE.

I have a mare, nine years old, that has a slight touch of the roars. If I were to raise a colt from her, would the colt be likely to have it? J. S.

[Roaring in either sire or dam is likely to be transmitted to their offspring, although the foal of a lightly affected mare may show no disposition to the affection.]

Chicago Markets.

Stock Yards, April 10. Estimated receipts: Cattle, 22,000; hogs, 25,000; sheep, 16,000. Receipts for the week so far, compared with a week ago, show an increase of 2,500 cattle, no change in hogs, and an increase of 2,000 sheep. Compared with corresponding time a year ago, show an increase of 17,000 cattle, a decrease of 25,000 hogs, and no change in sheep.

Beef Cattle.—The receipts to-day were comparatively liberal, and the market was 10 cents lower than on Monday for fair to medium and pretty good cattle. The choice to extra cattle, however, sold at generally steady prices, and there was a good export and shipping demand. Beef steers, choice to extra, sold at \$5.50 to \$6.00; medium to good, \$3.00 to \$3.35; inferior to fair, \$3.35 to \$4.65.

Butcher Stock.—The export class of cows and heifers sold steady at \$4.15 to \$4.75; good kinds, showing flesh, at \$3.50 to \$4.00; common and medium kinds, \$2.25 and \$3.25, mostly at \$2.75 and \$3.10. Bulls of the export grade sold mostly at \$4.00 and \$4.25, fancy ones higher; fair to good, \$3.00 to \$3.75. Veal calves sold mostly at \$5.25 to \$5.50, with some choice bunches going to local butchers at \$5.75 to \$6.00.

Stockers and Feeders.—The market for young cattle was slow. The very choice 975 to 1,100-lb. selected high-grades, of good color and well bred, sold at \$4.60 to \$4.80; plain heavy feeders, \$3.75 to \$4.25; medium stockers and feeders, \$3.75 to \$3.90.

Sheep and Lambs.—The good shorn stock was in fair supply, but very poor demand. The market for woolled lambs was rather slow and weak. Some shorn Western sheep, 137 lbs., were delivered to an exporter on a contract made several weeks ago at \$4.75. Export shorn sheep, \$5; ewes, \$4 to \$4.75; woolled exporters, \$5 to \$5.25; shorn lambs, \$4 to \$5.25; woolled lambs, \$5 to \$5.40.

Hogs.—Following are extreme range of prices for hogs, paid on the Chicago market on days mentioned.

Table with columns: Mixed and Butchers', Heavy, Light. Rows: April 3, April 4, April 5, April 6, April 8, April 9, April 10. Prices range from \$3.75 to \$6.10.

Mixed and Butchers'.—The quality was very good. Prices averaged 5c. to 10c. lower than on April 8th, and the market was weak at that. Packers bought good mixed hogs at \$5.90, and some selected 210-lb. butcher hogs of excellent quality sold at that price.

HORSES AT AUCTION.

Table with columns: Prior to fair, Good to choice. Rows: Carriage teams, Drivers, Draft horses, Saddle horses, Export chunks, Chunks, 1,100 to 1,400, General-use horses, Southern chunks, Plugs and scrubs. Prices range from \$1.50 to \$7.00.

British Beef for British Soldiers.

As we go to press, a cable dispatch from London, Eng., states that the British Government has decided to exclude all foreign-grown beef from army contracts, beginning with June 1st. If the report turns out to be correct, it is interpreted as not barring colonial-bred beef, as it would be inconceivable that Canada or Australia should send their soldiers to shed their blood in South Africa in defence of the Empire, but should be debarred from furnishing part of their food supplies. Chicago is perturbed over the rumor, as it would be a severe blow to the Armour, Swift, and other dressed-meat concerns. The United States now exports \$10,000,000 worth of live animals to Great Britain, and \$200,000,000 worth of animal products, and it is thought that not only would a large slice of this trade be lost, but the Government action would cause a general prejudice in Britain against American cattle and beef. At Washington it is thought to be a sequel to the decision against the shipment of horses from New Orleans, for use in the South African campaign.

Good Prospects for Horses.

Dealers in high class London (Eng.) harness horses are said to be taking time by the forelock, in anticipation of an unusually brilliant season in 1902. A large influx of wealthy Americans and colonials are expected to take up their quarters in the West End, and the best types of big, up-standing brougham horses will, no doubt, prove in demand. It seems also likely that, with the Court more in London than hitherto, this demand may prove of a lasting character.

British Cattle Market.

London, April 9. United States cattle, 6d. Liverpool, April 9. Canadian cattle, 6d. Trade slow.



THE CHILDREN'S CORNER.

Sing a Song of Springtime.

Sing a song of days of spring,
Softly fall the showers,
Forty thousand raindrops bring
Half a million flowers.

Buds a-nodding as you go,
Emerald plumes a-dancing,
Here and there a bird in air
Isn't it entrancing?

Gaily spring the blossoms up
Through the mould, right bravely;
Flaunts the golden crocus-cup,
The hyacinth stands gravely.

Every bud its message brings,
Peeping through the bowers;
Sing a song of days of spring,
Welcome to the flowers.

What the Creek Said.

It was a very merry little creek, and chattered away at a great rate as it ran along through the fields and woods. It sang quaint songs to the ferns, and laughed outright as, once in a while, it leaped up to kiss some flower that leaned over to look at itself in the water. One morning while it was dancing along, a little boy came running down the dusty road. The sun was hot, and little Carl was in a hurry to get under the cool shade of the trees. Just then an old man dropped a basket of apples he was carrying. The apples rolled this way and that, and the poor old man could hardly stoop to pick them up.

"If it wasn't so hot I'd help him," thought Carl, as he hurried on.

After a while he saw in a field a cow having a good time eating the young grain. "That cow has no business there," said Carl, "but I can't stop to drive her out." At last he reached the wood. How cool and pleasant it was beside the running water.

"Well, little creek," said Carl, "here you are! It must be very nice to live in the woods and have nothing to do all day. You are the crookedest little creek I ever saw," he went on. "What makes you go from one side to the other so much? I jumped across you just now, and now I have to jump back again. What does make you so crooked?"

The little creek laughed as it again ran across Carl's pathway. "Why," it said, "sometimes there is a poor little flower that looks dry and miserable, so I just take a turn and give it a drink. Then there is a young tree whose roots are thirsty. I know it will grow up to be a fine tree if I give it a little help, so over I go to that side. Then I come to a pasture, and those thirsty cows look at me so longingly that before I know it I have slipped under the bars, and the next thing the cows are standing in the water, and how they do enjoy it!"

"I shouldn't think you would enjoy it," said Carl. "I should think it would stir you all up and make you muddy."

"Oh, but I do enjoy it!" replied the creek. "I can get clear again: these things don't last long, and it is so nice to have everything love you, and to feel that you are helping where you can."

By this time Carl was quite tired, and very hungry, so he said: "Well, I must say good-bye, and go home to dinner now. I'll come to see you some other day."

After awhile he came to the road again. The cow was still in the field. The sun was hot—hotter than ever—but Carl remembered what he had learned about going out of his way to help, so he climbed the fence, drove out the cow, and put up some bars which had been carelessly left down. When he got home it was with such a happy little face that his mother stooped down to kiss him. Then his father came in, looking so hot and tired that Carl ran out to get him a cool drink from the well. The tired man put his hand on the curly head with a grateful smile that was better than any words of thanks.

The little creek and the little boy are still making a great many turns, but they are both helpers. If the birds and the trees and the flowers love the little stream, so is Carl loved by those lives which grow along his pathway.

"It was only a little thing for Nell
To brighten the kitchen fire,
To spread the cloth, to draw the tea,
As her mother might be sure
A little thing, but her mother smiled,
And boasted all her career,
And a girl that was sad closed bright and glad,
With a song of praise and prayer.

"It was only a little thing to do,
To help my mother and like Ned,
To take the milk from the cow,
To wash the dishes from the pot,
To help my mother and like Ned,
To take the milk from the cow,
To wash the dishes from the pot,
To help my mother and like Ned,
To take the milk from the cow,
To wash the dishes from the pot.

"Only small things, but they brighten life,
Or shadow it with care;
But little things, yet they mould a life
For joy or sad despair;
But little things, yet life's best prize,
The reward which labor brings,
Comes to him who uses, and not abuses,
The power of little things."

COUSIN DOROTHY.

How to Keep Children from Turning-in Their Feet.

Little tots who are inclined to "toe-in" when they begin to walk can have this fault quickly rectified if attended to in time. The mother or nurse should rub, at least twice a day, the outer side of the little legs with a firm upward stroke.

This can be done regularly when putting baby to bed, and at such other times as convenient. When the little one climbs into your lap for a "cuddle" or a story is a good time. Hold the little foot in your hand in the correct position.

Recollect, do not rub down, and not on the inner side of the leg. The object is to nourish and strengthen the outer muscles, which are proportionately weak.

Begin below the ankle and rub to the knee, slowly and gently, but not too lightly. This treatment, faithfully persevered in, will soon correct the trouble.

You.

The Chinaman praiseth his F's,
The mandarin praiseth his Q,
The gardner praiseth his turnips and P's,
But I praise U.

The mariner loveth the C's,
The billiardist loveth his Q,
The husbandman loveth his cattle and B's,
But I love U.

The foolish have need of the Y's,
The actor needeth his Q,
The pilot hath need of two excellent T's,
But I need U.

The hunter seeketh the J's,
The shepherd seeketh his U;
The college boys seek their final "B.A.'s,"
But I C Q.

St. Nicholas.

Three o'Clock in the Morning.

What do the robins whisper about
From their homes in the elms and birches?
I've tried to study the riddle out,
But still in my mind is many a doubt,
In spite of deep researches.

While over the world is silence deep,
In the twilight of early dawning,
They begin to chirp and twitter and peep,
As if they were talking in their sleep,
At three o'clock in the morning.

Or do they tell secrets that should not be heard
By mortals listening and prying?
Perhaps we might learn from some whispered word
The best way to bring up a little bird—
Or the wonderful art of flying.

It may be they gossip from nest to nest,
Hidden and leaf-enfolded;
For do we not often hear it confessed,
When a long-kept secret at last is guessed,
That "a little bird has told it?"

Perhaps—but the question is wrapped in doubt—
They give me no hint or warning,
Listen, and tell me if you find out
What do the robins talk about
At three o'clock in the morning!

—Our Dumb Animals.

A Faithful Clerk's Reward.

"James," he began, as the clerk entered the private office, "the new year is close at hand."

"Yes, sir."

"How long have you been with us?"

"Twenty years, sir."

"Ah! Twenty years. You came in from the country with all your worldly possessions tied up in a cotton handkerchief."

"I did, sir."

"You left home determined to achieve success."

"Yes, sir."

"You believed that honesty and integrity would be rewarded, and that faithful service would meet its reward."

"That's the way I reasoned, sir."

"Ah! I remember the morning you applied for a situation. I liked your looks and the way you talked."

"Thanks, sir."

"Now, James, my partner goes out with the new year. I've been thinking of you."

"Y-yes, sir."

"Of your long and faithful services."

"Yes, sir."

"And I'm going to reward you. I'm glad it's in my power to do so. I shall commence the new year alone."

"Exactly."

"With limited capital."

"Ah!"

"And it will, therefore, be necessary to reduce all salaries. On all the others I shall make a cut of 15 per cent. Owing to your long and faithful services, I shall make the cut in your case only 10. That's all, James, and I hope you will try and get down half an hour earlier in the morning, and also be a little more economical with the gas and fuel."

Chemist—Pills, eh? Anti-bilious?

Child—No sir, uncle is.—*Punch.*

THE QUIET HOUR.

God's Care for the Individual.

"There are who sigh that no fond heart is theirs,
None loves them best—O vain and selfish sigh!
Out of the bosom of His love He spares
The Father spares the Son, for these to die;
For thee He died, for thee He lives again;
O'er thee He watches in His boundless reign,
Thou art as much His care, as if beside
Nor man nor angel lived in Heaven or earth:
Thus sunbeams pour alike their glorious tide
To light up worlds, or wake an insect's mirth:
They shine and shine with unexhausted store,
Thou art thy Saviour's darling—seek no more."

We hear so much in these days about "Nature," spelt with a capital N, of course. Nature's laws are said to be unalterable; therefore, we are assured, prayer is useless. Nature is, we are told, "careful of the type and careless about the individual." One might think that the great Creator had handed over His universe to the tender mercies of a heartless goddess, and that He could not or would not interfere on behalf of His creatures. Such a hard, unyielding, hopeless belief is enough to take the spring out of anybody's life; but it is not true. Thank God, it is utterly false! God can and will work out the great destinies of nations and, at the same time, make all things work together for the good of each individual soul. How beautifully this is shown in the case of Joseph. He was sent to Egypt to save the lives of many thousands of people who would otherwise have died of starvation. We might call that the *great* issue, but God did not use him as if he were a mere instrument without feelings; he received just the training and discipline needed to develop a grand character—a character that could hardly have come to perfection under his father's indulgent care. His training, though severe, was tender too. Both in the house of Potiphar and in the prison, we are told that "the Lord was with Joseph." He was worthy of trust, and it was given him freely and unreservedly, as it always is to a thoroughly trustworthy person. Any man who makes his master's interests his own, and is reliable in small things and in great, will win for himself the trust and confidence of all who know him. Why? Because the Lord is with him.

God is not careless of the individual. Is it possible to give particular care to each one of the millions upon earth? Surely nothing can be impossible to Him who is able to tell the number of the stars and call them all by their names. He cares for the lilies of the field, watches over each sparrow, feeds the young ravens, and shall He be careless of the children for whom He suffered so much? He does not only care for His sheep as a flock, but calls each one *by name*. Think of the gracious message: "I have called thee by thy name; thou art Mine"; and again, "I have graven thee upon the palms of My hands." Can anything that concerns us be insignificant in His eyes, who takes the trouble to number the very hairs of our head? The names of the tribes of Israel were engraved on twelve stones, and Aaron was commanded to bear their names "upon his heart" when he went into the holy place. What a beautiful picture of the way our Great High Priest bears each of our names upon His heart, for "He ever liveth to make intercession for us."

Never get discouraged, or fancy that you are of no importance in this great universe. God is watching over you and considering your petitions as carefully as though He had no one else to think of but you.

"The grasses are clothed
And the ravens are fed
From His store;
But you, who are loved
And guarded and led,
How much more
Will He clothe you, and feed you, and give you His care!
Then leave it with Him: He has everywhere
Ample store,
Yes, leave it with Him,
'Tis more dear to His heart,
You well know,
Than the lilies that bloom,
Or the flowers that start
Nearth the snow,
What you need, if you ask it in prayer,
You can leave it with Him, for you are His care—
You, you know!"

We are told to consider the lilies, and see how God clothes each one, more magnificently even than Solomon. Think also how He clothes the animals and birds, putting on a heavy winter coat of hair or feathers, and removing it when it would be oppressively hot. If the telescope opens our eyes to the vastness of the universe, making us feel too insignificant to be noticed at all by the great Creator, on the other hand, the microscope reveals God's wonderful care over the very least of His creatures. You may be

"Unknown to earth, but up on high
No hero doth unknown e'er lie,
No life is ever spent in vain;
Each sacrifice its crown will gain,
Upon the angels' golden book,
If we some day be blest to look,
We'll find each noble deed writ down;
Each resting place to them is known;
And when the silver trumpet calls,
They'll take their place on Heaven's walls."

HOPE.

The Three Students.

The following incident occurred in Paris in 1841, on a cold, foggy December night, the twenty-fourth of the month. A tall man, leaning on a stick, was making his way slowly and painfully along Mazarin street. His clothing, an insufficient protection against the biting north wind, which was howling furiously, consisted of a pair of thin summer pantaloons, an old coat, buttoned up to his chin, and a broad hat, which was pulled down over his face so as to leave nothing visible except a long beard and thin white locks of hair falling upon his stooping shoulders. Under his arm he carried an object, oblong in shape, wrapped up in a checked handkerchief. He crossed the bridge and the Square of the Carrousel, reached the Palais Royal, and walked round the garden, stopping frequently; then, as if the floods of light and the savory odors which issued from the restaurants, where many a merry feasting was in progress, had the effect of giving him a vertigo, he hurried away with tottering steps towards the Cour des Fontaines. Here he looked up at the lighted windows, and then, stopping under a small shed, put his stick against the wall within reach of his hand, unfastened the checked handkerchief and displayed a violin. With trembling hands he tuned the instrument, and folding the handkerchief, placed it under his chin, laid the violin tenderly upon it, and began to play. His strains, however, were so melancholy and so discordant that some street urchins who had stationed themselves in front of him took to their heels, exclaiming that such music was fit to raise the devil; a dog near him began to howl dismally, and the passers quickened their pace. At last the player, in despair, sat down on a step, laid his violin across his knees, and murmured sadly: "I can play no more. Oh, my God, my God?" A deep sob escaped him, and the next instant three young men came tripping down the dark, narrow street. They were singing a merry song which was then popular among the conservatory students, and, not perceiving the violinist, ran full against him, one of them nearly knocking him over, another kicking his hat along the sidewalk, while the third stood still and looked on with amazement. As the old man got up and came out of the shadow, with an air of mingled dignity and humility, the newcomers exclaimed anxiously: "Pardon us, sir! Have we hurt you?" "No," replied the player, stooping painfully to pick up his hat, but one of the young men sprang towards it and handed it to its owner, and another, seeing the violin, asked: "Are you a musician?" "I once was," replied the poor man, while tears rose to his eyes and rolled slowly down the deep wrinkles in his cheeks. "What is the matter? You are in trouble; can we do anything to help you?" cried the three comrades in a breath, and the musician looked at them earnestly for a minute, then held his hat towards them as he answered: "Give me alms. I can no longer earn my living by playing, for my fingers have grown stiff. My daughter is dying of consumption and of poverty. There was an accent of deep distress in the speaker's words, and his hearers were touched with pity; they hurriedly thrust their hands into their pockets and brought forth their whole contents. Alas! the first man had but fifty centimes, the second thirty, and the third a piece of resin—total, eighty centimes. It was very little for the relief of so much misery! They looked at each other sadly. "Friends!" cried one suddenly, "something must be done. This man is our colleague, a brother musician. You, Adolphe, take the violin and accompany Gustave, while I will take charge of the funds." It was no sooner said than done. The three men turned up their coat-collars, drawing their hair across their foreheads, and pulling their caps down over their eyes. "Now, all together!" cried the leader, "in honor of the Christ-child in his manger. Begin with your prize piece, Adolphe, so as to draw a crowd." Beneath the practiced touch of the

young virtuoso, the poor man's violin resounded joyously, and the "Carnival of Venice" rang out with wondrous brilliancy. Windows were thrown open, people crowded round the player, applause sounded on every side, and silver pieces were dropped into the old man's hat, placed conspicuously under the street lamp. After a minute's pause the violinist played a prelude; Charles, the leader, whispered: "It is your turn now, Gustave," and the young tenor sang "Viens, gentille dame," in a strong, clear, melting voice. The audience, in an ecstasy of delight, cried, "Again! Again!" The crowd kept increasing every moment, and the collection with it. Charmed at the success of his plan, Charles said to his companions: "We will finish with the trio from 'William Tell.' Adolphe, old fellow, play the accompaniment, and at the same time practice your bass notes, while I will do my best with the baritone. Now, Gustave, you have but to open your mouth and a fortune will fall from heaven." The trio began. The old musician, who had all this time stood motionless, hardly believing his eyes or ears, and dreading to wake up and find that a dream had been mocking him, suddenly drew himself up to his full height, seized his stick and began beating time with such masterly precision that the young singers gathered fresh inspiration and fairly electrified their hearers. As the song ceased, the applause rang through the air, and money dropped from the windows and from every pocket, so that Charles was kept busy picking up the coins. The concert over, the crowd dispersed slowly, and wondering remarks were heard on every side. "Those are not street musicians," said the people, "they would make one forget that M. Frisquet is

gaily, they continued their way down the street. Noble, generous hearts! They have, no doubt, forgotten that December night. But if you are curious, my readers, to know how far old Chappner's prophecy was fulfilled, I will be so indiscreet as to reveal the names of the three conservatory students, even at the risk of offending their modesty. But who knows? Perhaps these lines will meet the eyes of the old Alsatian's daughter, and she will be glad to know the names of her benefactors. The tenor's name was Gustave Roger. The violinist was Adolphe Hermann. The collector was Charles Gounod.

"The Confidante."

Common to all feeling human hearts is the sentiment of the old Latin saying that "Of no worldly good can the enjoyment be perfect unless it is shared by a friend." Truly

Friendship's another element of life;
Water and fire not of more general use,
To the support and comfort of the world,
Than friendship to the being of our joy.

But friendship is for the sharing, and thereby the lessening, of sorrow, as well as for the fellowship, and thereby the increase, of joy; for it is a notable and blessed ordinance of human nature that in our hearts the emotion of joy is enlarged and that of pain diminished by mutual participation. What may, in the best sense of the word, be called sentimental friendships, are perhaps most common among the gentler sex, and prevail especially in young life. And very beautiful are such fusions of being. The twin-spirits are never happy apart; all their occupations, their duties, their pleasures,

their reading, their studies—everything that admits of companionship is pursued in common, and all the while the deepest as well as the most trifling thoughts and feelings are exchanged, and become equally the property of both. The friends are "like a double cherry, seeming parted, but yet a union in partition, two lovely berries moulded on one stem, with two seeming bodies, but one heart." Such would be an ideal instance of maiden friendship. The young ladies of our picture we may fancy to be bound by a tie of this nature. One of them has received an epistle that gravely concerns her happiness, and is now sharing the secret of its contents with "her other self." The frilled and feathered gallant in the background betrays rather an unseemly curiosity with reference to the subject of the confidence—so much so that we cannot help suspecting that he has a personal

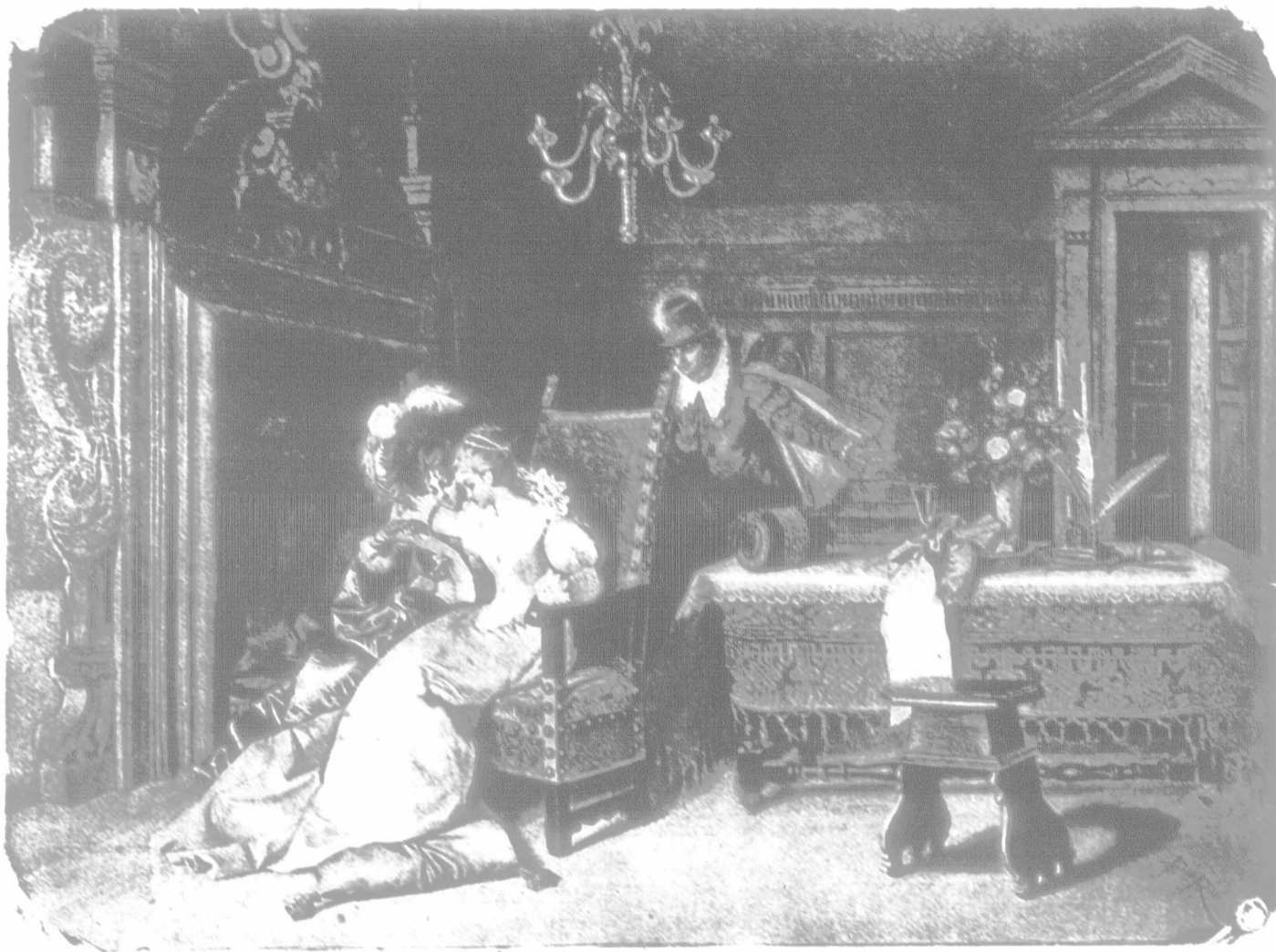
interest at stake. Possibly jealousy may prompt him to discover who has been writing so seriously to the lady in whose estimation he would fain stand first; or, more probably—for his expression is almost too complacent for that of a jealous person—he is himself the author of the epistle, an amorous valentine, and he desires to learn its effect upon her whose charms it celebrates and whose sweet pity it invokes. His clandestine behavior in the circumstances may be justified on the plea that "all's fair in war," for if he is a lover not yet accepted, he is practically laying siege to his lady's heart, and may be pardoned for the use of all current military expedients to insure its capture.

The artist has bestowed particular care upon the accessories of his picture. The rich and stately furniture of the apartment and the elegant draperies have received masterly treatment at his hands.

April Time.

April is here!
There's a song in the maple, thrilling and new;
There's a flash of wings of heaven's own hue;
There's a veil of green on the nearer hills;
There's a burst of rapture in the woodland rills;
There are stars in the meadow dropped here and there;
There's a breath of arbutus in the air;
There's a dash of rain, as if flung in jest;
There's an arch of color spanning the west;
April is here!

—Selected.



(From the original painting by Pio Ricci.)

"THE CONFIDANTE."

dead. What a lot of money they made! They can have a fine supper now! And the old fellow with the bludgeon—whirling round like a windmill. I believe they were artists who had laid a wager. I have been to the Grand Opera, I tell you, and they sang no better there. How he scraped the old cracked fiddle—it gave me a tickling in my spine." When the confusion had subsided, the three young men approached the old musician, and, in a voice which trembled with emotion, he exclaimed: "Tell me your names, that my daughter may remember you in her prayers!" "My name is Faith," said the first artist. "And mine is Hope," said the second. "Then I am Charity," added the third, bringing up the hat, which was overflowing with money. "Ah, gentlemen, gentlemen!" cried the old man, "let me at least tell you who it is that you have helped so generously. My name is Chappner, and I am from Alsace. For ten years I was leader of the orchestra in Strasbourg, where 'William Tell' was often given. Alas! ever since I left my home, misfortune, sickness and sorrow have been gathering to overwhelm me. You have saved my life, young gentlemen, for with this money I can go back to Strasbourg, where I have friends who will take care of my daughter, and her native air will perhaps restore her to health. Your youthful talents, which you so nobly and so simply devoted to my service, will always be blessed. I predict that you will one day be famous." "Amen," replied the three friends, and linking their arms together

Boys and Girls in Their Homes.

A reader who has noted with interest some of the remarks upon domestic and educational subjects offered in our columns, asks a very pertinent question: "Are not boys in danger of becoming too exacting when, as in many homes, mother and sisters alike, with one common consent, seem to make them and their requirements a first consideration?"

Most certainly we consider that such a course is not only unfair towards the girls and injurious to the boys, as boys, but it is one which cannot fail to leave a baneful influence upon their after-lives. What kind of husbands and fathers will these boys make who have always had the selfish side of their nature appealed to, who have looked upon their sisters as "just girls," to be used and jeered at as inferior beings, with no claims upon them for courtesy and kindness? Thank God! there are wise parents who look fairly and squarely at the question, and have the interests of their sons and daughters too deeply at heart to make any such mistake in the training of the children whom God has given them; and why should not boys as well as girls be taught to be neat and orderly? A writer in this connection says:

"The simple matter of a boy being trained to be orderly may seem of very slight moment in determining the happiness or unhappiness of his future home, but at least every housewife with a careless husband will appreciate its importance in practical living. A lad accustomed to have his sisters or the servants pick up whatever he chooses to leave about will come some day to be a constant vexation to the tidy soul of his spouse, when he might almost as easily have been taught to aid rather than to destroy the neatness and order of his home. The mother who allows her son always to consider his own interests, and never to feel that the comfort and wishes of those about him are his affair, is preparing a husband who will some day render miserable, through sheer thoughtlessness, any sensitive woman who links her destiny with his."

This subject is admirably treated in a paper by Mrs. Mary Lowe Dickinson, in which she introduces her readers to a dozen or more of girls gathered around the fire on Christmas Eve discussing the topic, "Being a Girl, and What is the Use of It?" "These girls," she says, "looked serious enough for a moment when the topic was read to them, and then pounced upon it, giving it now gentle taps, now harder hits, and again, a sturdy knock that sent it for a moment almost out of sight." Some of their remarks were not only very practical and very true, but also very amusing. Then, again, there were others which showed that they had been keen observers and thinkers. "I think," said a quiet girl who had not spoken before, "that our brothers manage to find plenty of uses for us." "Yes, of course, there are always ways enough in which we can contribute to the upbuilding of the character of the masculine members of the family, but whether such upbuilding is of real use to boys or girls is a question. It is of no use if we make the boys exacting." Said another: "Yes, my mother brought us up to feel as if she depended upon us to help bring up the boys, though the girls were the younger, and the boys were not taught to take any special trouble for us. We girls never planned a good time that we were not advised to arrange that the brothers should go, and even to give things up altogether when the boys preferred to stay at home. Even then we must not speak our minds, lest we oppose or aggravate our brothers. We lived in terror lest we should drive them away from home because we failed to make home attractive and agreeable for the boys. Of course it's worth while being a girl, just to be the guardian angel of a boy, or three or four boys; but I always wondered why the boys were not taught to consider the disposition of their sisters, and urged to make home happy for the girls." "Ah! you little rebel, you are reading too many books, hearing too much talk!" "I am not quoting books at all. I am giving my actual experience. The man and the boy in our house were all-important. If they were unsociable, gruff or impatient, they 'did not feel well'; if they disdained the food, something else was provided, when we girls would have been told promptly that, sick or well, we should be gentle and courteous, and gratefully accept whatever fare was provided for us. It made me question seriously as to whether it was worth while to be a girl, when in every way the boy is of so much more account."

In the summing up by the white-haired friend who had invited the discussion, it was claimed that the above experience was surely exceptional; that "ordinarily, the girl baby, the tiny toddling girl just out of arms, or the little maiden growing up sweet and gay upon the hearthstone, is all the more tenderly cherished because of her helplessness appealing to the manly and protective instinct in her brother. Ordinarily the young girl is the queen of the home, for whom all are glad to work, to whom all pay willing tribute, and whom all delight to spoil." For ourselves, we consider that both sides are fairly stated, but we take exception to the use of the word "ordinarily" as applied to either, although we are in full accord with it as used in this final sentence: "Ordinarily, and rightly, the young girl will answer for herself the question as to 'what is the use of being a girl, by counting the countess of the ways by which she can be of service to her home, a source of joy and delight to her mother and sisters, and a blessing to the household of the father. God bless the girlhood of our girls!"

should be even in larger measure expected of our boys, with their wider opportunities and often too freely accorded privileges. "To whom much is given, of him shall much be required." H. A. B.

Have You Written Home?

When I was leaving for Australia, every day, for weeks before I sailed, there came to me letters from all parts of the country, entreating me to inquire for sons and daughters who had gone away and of whom nothing had been heard for months, sometimes for years. What pictures I saw in those letters! The little cottage where grow the roses about the porch; and every day as the postman passes there comes the mother to the door; the roses have faded from her cheeks and the light has gone from her eyes. She hears the words so often spoken: "Nothing for you to-day, ma'am." I see her creeping back to her little kitchen, and, setting her arms against the old, blackened mantelpiece, she rests her head. The firelight glistens in the tears, and her heart swells with pain. Lads and maidens, vow to God that you will never hurt the mother so. "Say that wherever you go," said one to me one day, "I remember how I used to be out at the plow with my father, and many a time I have seen him walk along the furrow quite quiet, with his lip bitten and the tear creeping down his cheek. I know he was thinking of his boy who had gone away, and he had not heard from him for many a month." The half of true religion lies in this sacred and tender love to father and mother.—*Mark Guy Pearce.*

Have you had a kindness shown?

Pass it on.
'Twas not given for you alone—
Pass it on.
Let it travel down the years,
Let it wipe another's tears,
Till in heaven the deed appears,
Pass it on.

God Careth.

Something round which it may twine
God gives every little vine.
Some little nook or sunny bower
God gives every little flower.
Some green bough or mossy sward
God gives every little bird.

Night and day, at home, abroad,
Little ones are safe with God.

The Wee One.

BY MARTHA BURR BANKS.

Down at our house is a wee one,
And nobody ever could see one
More sweet and complete from the tips of his feet
To the soft fluff down on the top of his crown.
Oh, the hue of his eyes is the blue of the skies,
And the gleam of his smile like the laugh of the day,
Merry and winning and glad-some and gay,
While his cheeks are like clover, with pink flushing over
From the break of the dawn to the set of the sun.
There is nothing you'll see that is fairer than he,
Our own little, dear little wee one!

Two fat little fists has the wee one,
And he always can show you a free one
To tear at your hair and to make havoc there,
And a dimple he'll find you still further to bind you;
And his two little teeth lately out from their sheath
That will bite with delight on your finger or knuckle,
Or make tiny dents on your watch or your buckle.
While his feet growing bolder will drum on your shoulder,
But who minds the scars when they're every one done
By that mischievous mite, that witching young wight,
Our own little, dear little wee one!

Ah, many a friend has the wee one,
And he knows if you happen to be one;
He'll gurgle and coo and he'll frolic with you,
Or stretch out his arms with his prettiest charms,
And fret when you wake him to get you to take him;
He'll hoax you and coax you and cut up his capers,
Toss over your treasures and tumble your papers,
You have to attend him, you have to befriend him,
But who can help loving that bundle of fun,
That giver of joy, that bright little boy,
God bless him, our dear little wee one!

Sugar Weather.

When snow-balls pack on the horses' hoofs,
And the wind from the south blows warm,
When the cattle stand where the sunbeams beat
And the noon has a dreamy charm,
When icicles crash from the dripping eaves
And the furrows peep black through the snow,
Then I hurry away to the sugar-bush,
For the sap will run, I know.

With auger and axe and spile and trough,
To each tree a visit I pay,
And every boy in the country-side
Is eager to help to-day.
We roll the backlogs into their place,
And the kettles betwixt them swing,
Then gather the wood for the roaring fire,
And the sap in painful bring.

A fig for your arches and modern ways,
A fig for your sheet-iron pan,
I like the smoky old kettles best,
And I stick to the good old plan.
We're going to make sugar and taffy to night
On the swing-pole under the tree,
And the girls and boys for miles around
Are all sworn friends to me.

The hens are cackling again in the barn,
And the cattle beginning to bawl,
And neighbors who long have been acting cool,
Now make a forgiving call;
For there's no love-feast like a taffy pull,
With its hearty and sticky fun,
And I know the whole world is at peace with me,
For the sap has commenced to run.

—P. McArthur, in *Fourth's Companion*.

Ingle Nook Chats.

"The year's at the spring;
And day's at the morn;
Morning's at seven;
The hillside's dew-pearled;
The lark's on the wing;
The snail's on the thorn;
God's in his heaven;
All's right with the world."

MY DEAR GUESTS,

Easter has once more passed away, but all about us, in the bursting buds, the peeping blades of grass, and the fresh life springing everywhere, we see fit emblems of that joyous resurrection-time. Our very blood, that during the long winter coursed so languidly, now pulses with renewed vigor through our veins, and thrills us with a spirit that flnds vent in glad words upon our lips: "The lark's on the wing; God's in his heaven; all's well with the world."

Have you sown your flower-seeds yet? If not, what share do you mean to take in the beautifying of old mother earth? You know the Quaker poet tells us that "men and angels sing his worth who toils to leave, as his bequest, an added beauty to the earth"; so, plant some seed or good perennial, and thus share in blessing and being blessed.

Jennie McFaden and "Essex" have acknowledged receipt of prizes. I am glad the former found our Nook pleasant enough to entice her back again. Try our hospitality still further, Jennie, and bring a friend along with you.

M. D. asks the rules for joining our club. It is free for all who wish to compete in any of the contests, and they may do so by observing the rules given when the contests are announced. One rule to be always observed when writing anything that may possibly be published is: *Write with ink, on one side only of paper.*

I wish to thank my numerous friends for their kind remarks regarding the Nook; their number makes it necessary to offer only general thanks.

"Mind and Pen." Your request was attended to with pleasure. "Helen" and others may use *nom de plume* if desired. Our club now numbers 143 members, all of whom will be pleased to hear of

OUR COMPETITIONS.

Contest VIII. has elicited so many responses that judging will be a difficult matter, but we hope to be able to give the result next issue. Quite a few papers for No. IX. are already in, but the contest is open until May 31st. Something in the essay line will prove an agreeable change, and I am sure you will all find pleasure in

CONTEST X.

"Canadians who have become famous." We offer three prizes for the best articles on the above subject, competitors to be divided into three classes, viz.: Class I., those over 18 years old; class II., over 14 and under 18; class III., 14 years and under. No article may contain more than about 500 words. Two or more persons may be discussed in one article if desired. All work must reach Pakenham by June 31st. Address, as before, to
Ingle Nook Chats, Pakenham, Ont.
THE HOSTESS.

ADDITIONAL CONUNDRUMS.

With what can you fill a barrel to make it lighter? Holes.

HARVEY E. POTTER.
Why is blind-man's buff like sympathy? Because it is a fellow feeling for another.—NOLA LYON & A. L. LYON.

Why is a young dog that is chasing a cat and cannot catch her like the Catskill Mountains? Because he is a slow pup, and the mountain is a slope up. LALLY ROGERS.

Which is the strongest day of the week? Sunday, the rest are week days.—C. W. McFARLANE.

What would contain all the snuff in the world? No one knows (nose). EUNICE DUNNING & HAROLD LYON.

What does a husband do who misses the train by which he promised his wife to return? He catches it when he gets home. EUNICE DUNNING.

In what respect did Paul the Apostle resemble a horse? He loved Timothy.—"MORAG."

Who introduced salt pork into the navy? Noah, when he took Ham into the Ark. ANNIE C. GIBSON.

What animal makes the best sausage? Ground hog.—EVA V. STEPHENS.

Why are Irish boys like butter? Because they are little Pats.—OLIVE HOLLAND.

Why is a short negro like a white man? Because he is not a tall mot at all black.—H. B. LYON.

What do we often catch, yet never see? A passing remark. N. E. LYON.

A woman in a red cloak was crossing a field in which a goat was feeding; what transformation took place? The goat turned to butter (but her), and she became a "scarlet runner."—VIOLET McTALFE.

Home Sunbeams.

"Mildred is a perfect sunbeam in the home," said a dear old lady, speaking of her granddaughter, some time ago, and ever since we have looked at that young girl admiringly. For it was not spoken of one whose life is so surrounded by luxury that she has never known care or hardship, but of one who is bravely earning her own way. Nor was it the fond remark of a doting grandmother who had Mildred only as an occasional visitor, and so saw her only in her happiest moods. It was the verdict of one who lived under the same roof, and who, in her declining health, needed much care and tenderness; but her face lighted as she spoke the dear name, and in that brightening face was a wonderful tribute to a girl's beautiful character.

So many girls—girls with heart, conscience, and the best of intentions—are anything but sunbeams. Some of them are whirlwinds; they keep the house in a commotion with their comings and goings, their plans and projects which sweep everything else out of the way. Some of them are like a fog, and settle down upon the household in a dull, depressing way whenever the sky is clouded. But the sunbeam girl—who is a genuine sunbeam in her own home—is rarer than we wish she were. May her tribe increase!—*Exchange.*

"These firemen must be a frivolous set," said Mrs. Spilkins, who was reading a paper.

"Why so?"

"I read in the paper that after a fire was under control, the firemen played all night on the ruins. Why didn't they go home and to bed like sensible men instead of romping about like children?"

George: What a fine building that is across the way.

Charles: Yes, yes; but the owner built it out of the blood, the aches and groans of his fellow men; out of the grief of crying children and the woes of wailing women.

George: Ah! A rum-seller, of course. Yes, yes!

Charles: Oh, no; he's a dentist!

GOSSIP.

Close to the flourishing town of Neepawa is the stock and grain farm of Stephen Benson, doubtless well known to many of our readers through his work on the Institute staff. The large barn is filled to its utmost, Shorthorns being the favorite breed of cattle with the proprietor. A nice red heifer is Bertha O'Day, with fine handling qualities and a good back, now in calf to Vernicity. The white heifer, Lily White, also got from A. Graham. Pomeroy, is particularly good in her fore rib. A promising bull is Crimson Chief, with good rumps and skin. Several others were noticed, a red cow with a heifer calf demanding attention by reason of her wide back and loin and well-filled twist. The herd includes several of the dual-purpose type, one red and white cow giving 31 lbs. of milk per day, testing 3.8 per cent. butter fat. A recent importation from the east is Diamond, a red year-old bull, a deep calf with a pliable skin. Several brood mares and colts were seen, among them a nice in foal Standard-bred mare.

In the vicinity of Oak Lake, a thrifty little burg on the main line of the C. P. R., west of Brandon, a coterie of stock-breeders is to be found. George Gordon, with the Scotchman's love of good stock, has embarked in Shorthorn breeding with a few good females and the red 6-year-old bull, Admiral, of Watt breeding, by Royal Sailor, recently purchased from Chadbourne, of Balphinton. A good, lengthy, roan cow is Rose of Cedarhurst, by Jubilee Chief, with a red bull calf of some merit at foot. A good, handling yearling bull was also seen, destined to be shipped shortly to the ranches. The young stock growing up is of a thrifty type, and will doubtless give handsome returns for their keep.

Journeying further west, one comes to the homestead of Thos. Speers, well known as a breeder of Shorthorns in the Province. Some of the stock is of high merit, notably the red three-year-old heifer, Ury Gem, who is good in her fore rib and neck vein, with straight lines, well-covered back and deep twist. The Hansen family is worthily represented by the imported red roan Empress of India, a cow of good depth, smooth in shoulders, and a good handler. She has by her side a good roan bull calf, long, blocky and short on legs. The stock bull is imported Chan Mackay, got from Cargill's, a fine dark roan two-year-old, possessing good handling qualities and good ends. Several young bulls of serviceable age were seen, two of which were procured at Isaac's late sale. One of these bulls, a red roan, is good over the heart, and is a good handler, and will doubtless soon be snapped up by some one wanting a stock bull.

West and north of Speers' one strikes the farm steading of R. L. Lang, well known as a breeder of Shorthorns and Berkshires. Two fine roan cows of the Lat-stre family were noticed, also several young bulls of good feeding abilities and Shorthorn type. The Berkshire matrons are doing their share, several litters of promising young pigs being noticed.

Our readers will remember the able address given by Alex. Galbraith, Janesville, Wis., before the Horse Breeders' Association, in February. In response to the encouragement given him while here, and from numerous letters, Mr. Galbraith has sent in a selection of stallions for the Manitoba market. These horses are at Morrison's stables, Elgin Avenue, Winnipeg, and embrace representatives of the Clydesdale, Percheron, Hackney, and German Coach breeds. Broxden (imp.) is a bright bay, three years old, by Prince of Garthland, by Prince of Wales (673). His dam has considerable blood of the noted horse also. Broxden is a well-muscled individual, with good feet and limbs, a stylish head and neck, and a middle that leaves no doubt as to his easy-keeping qualities. He is a short-backed colt, a good mover, with a typical draft-horse gait. Dunlop, another Clyde-dale, is a growthy, dappled brown horse with lots of bone and action. His sire, Go Ahead Yet, was by that great horse, Go Ahead, a noted prizewinner on this side of the water, and good enough to be taken back to Scotland. Cherry Lad, the iron gray Percheron by Urbain, with such names as Picador (imp.) and Coco (imp.) in his pedigree, is an active horse with good neck and shoulders. This colt is well muscled, and has the typical Percheron style, barrel and hind quarters. He should be just what is wanted to breed to some of the Percheron-bred mares recently brought to Manitoba. The jewel of the lot is undoubtedly the dark brown Hackney colt, Confident Squire, by Freeman's Prince George. This horse is a good square goer, with machine-like movement, folding his knees and hocks up in the most approved style. Tracing to Fireaway, Harkaway and Garibaldi, his breeding is seen to be all right. He has a bred-looking head, plenty of quality, along with a good body. He is large for his age, and should be a getter of actors. The other horses are good individuals, and are bred right, and will be sold at right prices.

Blackleg Vaccine. A cheap and handy form of single-treatment vaccine is that furnished by the Pasteur Vaccine Company, and consists of a special cord or string impregnated with the vaccine. It is always ready for use, and requires no outfit or set of instruments to apply it. There is no time or money lost in mixing, graduating the doses and injecting. Each dose is separate, and therefore there is no waste. Pasteur Blackleg Vaccine Cord is therefore a very popular form of vaccine, and its success is evidenced by the large and constantly increasing demand for it. The cord method dates from 1877, but it is rapidly displacing the old single-treatment vaccine. However, the Pasteur "Double" Vaccine still holds its own as the best for pure-bred and valuable stock, which should receive the double treatment in order to secure a higher degree of protection against blackleg. W. J. Mitchell & Co., agts., Winnipeg.

The Brandon Experimental Farm has always been noted for work done along the line of soil cultivation, testing of seed and varieties, forage crops and grasses. Live stock work occupying a minor place in the work of the establishment, is yet not entirely neglected. In pigs, a very good Tamworth sow may be seen. Berkshires and Yorkshires are also kept, some crossing of these breeds being permitted. The superintendent reports very favorably on such crosses for meat purposes, and states that the demand of the butchers for such an article cannot be met. A recent acquisition is an Ayrshire bull of Greenway's breeding, which is expected to correct the besting tendency now so common strong in the Ayrshire females. There are also to be found a couple of fairly representative Shorthorns at the farm. The brood sows are now made to rustle around the straw stack during the winter, a method which has resulted in increased fecundity of the sows and stronger litters of pigs. The poultry house contains several breeds, Minorcas, White Rocks, Light Brahmas, the demand for which is always good. Efforts are being made to breed off the excessive amount of comb in the first mentioned breed.

The following letter has been received by Mr. C. W. Peterson, Secretary of the Territorial Horse Breeders' Association, from the Chief Stock Inspector at Montreal, Dr. McEachran, bearing upon the mission of the purchasing party sent out by the War Office authorities for the purpose of obtaining remounts in Canada: "Colonel Dent will visit Alberta and other parts of the Northwest Territories for the purpose of purchasing horses for the army in South Africa. Having to send 1,000 immediately, he will spend April in Ontario and Quebec; he will arrive in Alberta early in May. The dates and purchasing places will be arranged and published later. The following are the particulars as to horses required:

"Cobs, 11.1 hands to 15 hands; cavalry horses, 13.1 to 13.2 hands high. No horses under six years this summer will be bought. The colors are restricted to bay, brown, black and chestnut; very dark iron gray—if the animal is exceptionally good—may be considered, but white or light gray need not be shown. Mares and geldings only; stallions or ridgelines need not be shown. They must be thoroughly broken to ride, be bridlewise, and gentle to saddle, mount and dismount. They must be sound. Horses which are thin in flesh need not be shown.

"As Secretary of the Horse Breeders' Association, I presume you will give the above publicity, and I trust that though late in beginning, we will be able to dispose of a large number of Alberta horses, and that Colonel Dent will be favorably impressed with the horses, country and people, as on his report will depend the establishment or not of a remount depot in Alberta, and the continuance of purchasing there."

It is possible that Colonel Dent may be authorized to accept horses for immediate service in the field up to 12 or 14 years of age, upon a proper guarantee of age from the seller.

The expression is often heard that stock cannot be kept in a wheat district. The herd of Kinnear, Souris, effectually disproves the statement. Unfortunately, the proprietor has been seriously indisposed with the prevailing malady, la grippe, the supervision of the work having to be left to his able lieutenant, Kinnear Jr. At the head of the herd is the roan three-year-old, Baron's Pride, a deep-shouldered bull, with good handling qualities, great width of chest, well-filled neck vein, and a well-covered loin. This bull is of the feeder's type, long, low and level, and will doubtless give his competitors a run for their money. The matrons are a strong class, embracing such good ones as imported Buttercup and a blocky red cow, with good handling qualities, and mated to the block. She has by her side a roan heifer calf, dropped in the Old Country, whose good crops, back, rumps and skin shows that the Cargill cow will breed right. A good roan cow, by Golden Robe, is Hope, with a red bull calf at foot by Baron's Pride, which shows the potent powers of his sire. Lila Lustie is a good red cow with a roan heifer calf. Two good yearling heifers, a red and a red-and-white of the low, level, blocky type, of good handling qualities, were also noticed. A fine red heifer, with good back, brisket and twist, is Lady Rose. A Strathallen cow, Rose of Dunmore, is a good one, with a long, low, level heifer calf at foot. The three virtues are here, Faith, a stable-backed red four-year-old, and Charity, a long, low, straight-topped red and white two-year-old, are attractive. The imported cow, Buttercup, is bred in the purple, being related to such noted Short-horn as Pride of the Realm, Pride of the Morning, besides tracing to William of Orange. The young stock are all of a type which bespeaks progress, among them being a roan year-old bull by Golden Robe, and three good yearling heifers, one of which, a dark roan, is especially good in the crops. A person desiring breeding or show stock need not fear to come to the Kinnear herd for what he wants.

DR. BARNARDO'S HOME.

The managers of these institutions invite applications from farmers and others for boys and youths, who are being sent out periodically, after careful training in English homes. The older boys remain for a period of one year at the Farm Home at Russell, during which time they receive practical instruction in general farm work before being placed in situations. Boys from eleven to thirteen are placed from the distributing home in Winnipeg. Applications for younger boys should be addressed to The Resident Superintendent, 115 Pacific Avenue, Winnipeg, or P. O. Box 970; and for older boys possessing experience in farm work to Manager, Dr. Barnardo's Farm Home, Barnardo, Man.

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



Scotch Shorthorns

80 HEAD TO SELECT FROM.

Offers for sale 12 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (late) Prince Alpine 2871 at head of herd. Farm seven miles north of Winnipeg. Telephone connection.

Separator Users

85 per cent. of the separator butter entries in the Great Annual Butter Contest of the National Butter-makers' Association, at St. Paul, in February, were "Alpha-De Laval" made.

Out of a total of 786 entries representing the good buttermakers of almost every State 668 were De Laval made, 38 Sharples, 34 Reid "Danish," 19 U. S., 14 "Jumbo," 11 Springer, and 2 Empire.

The same percentage of De Laval users will hold good in any country, and in most of the European countries where cream separators have been longest in use the use of the De Laval machines is now almost universal.

The sales of De Laval separators exceed 2,000,000, and are to-day more than ten times that of all the various inferior makes of machines combined.

A 20th century De Laval catalogue may be had for the asking.

The De Laval Separator Co.,

OFFICES, STORES, AND SHOPS:

248 McDermot Ave., - Winnipeg, Man. CHICAGO. NEW YORK. MONTREAL.

The National Cream Separator



THE Raymond Mfg. Co. of Guelph, Can.

ALSO MAKERS OF THE CELEBRATED

"Raymond Sewing Machine."

REPORT FROM WATERLOO COUNTY. TO THE RAYMOND MFG. CO., GUELPH, ONT.

GENTLEMEN, I wish to make a statement that should be of some encouragement to your firm just at this time when your Company is investing a large amount of capital in shops and machinery for the purpose of manufacturing the "National" Cream Separators. I bought a "National" in December, 1898, and received some practical instructions at the O. A. College, Guelph, in the way of making good butter and putting it in neat form for market. The first year I had nine cows and sold \$15.00 worth of butter from each cow, besides keeping the house in butter and having the skim milk fresh, sweet and warm for the calves. In 1900 I received higher prices for the butter, and made \$32.00 per cow from 12 cows, or a total of \$626.73. I market my butter in Toronto and Woodstock, and can find ready sale for more than I can make. Although I am a farmer, I have sold 23 "National" Cream Separators since I got my own, two years ago. The "National" is profitable to a farmer, whether he makes the butter at home or sends the cream to the creamery. I use a Babcock tester, and find the "National" cannot be beat at close skimming. Wishing you success, and hoping you will be able to supply your agents with machines as fast as we need them, I am, Respectfully yours, Tavistock, March 20, 1901. CHAS. I. ZEHR.

"NATIONAL" NO. 1 HAND POWER. Capacity, 350 to 360 lbs. per hour.

Joseph A. Merrick,

BOX 518, WINNIPEG, MANITOBA, Gen. Agt. for Manitoba, N.-W. T., and B. C.

IN WRITING

Please Mention the Farmer's Advocate.

320-ACRE FARM FOR SALE.

3 1/2 MILES FROM TREHERNE, MAN.

I HAVE decided to sell my farm on account of my husband's death. The farm is situated in one of the best wheat districts on the Glenboro branch of the C. P. Railway. About 200 acres under cultivation; 140 acres will be cropped of wheat this spring, 10 acres of timothy, 25 acres of oats. The balance will be summer fallowed. There can be about 90 acres more broken on property. Good creek of water running through property summer and winter. Frame horse stable, 36 x 16; cow stable, 66 x 15. Good frame granary, 24 x 20, two stories high. Henhouse, 18 x 12. Frame shed, 22 x 18. Log granary, 24 x 20, two stories high. Frame shed, joining log granary, 20 x 15. Also log implement shed, 33 x 20. Log dwelling house, sided with lumber, 24 x 22. Frame kitchen attached, 22 x 12. Good well and force pump close to house. All property fenced with three strands of wire. I will sell the above with crop on or off, also stock and implements if desired. Terms on application. Address:

MRS. R. BREWSTER, TREHERNE, MAN.

800-ACRE FARM FOR SALE.

4 MILES FROM MOOSOMIN, N.-W. T.

AS I am leaving the West, owing to unforeseen circumstances, I offer my farm, herd of Shorthorn cattle, Berkshire pigs, and horses for sale. The farm is situated in one of the best grain districts in the West, and produced 5,000 b. of 1 hard in 1898. 450 acres under cultivation; 250 acres ready for wheat, including 75 a. breaking and 75 a. summer-fallow; 275 a. fenced. Land nearly new, worked only seven years. The buildings are permanent and substantial, and are nearly new, and have been planned and built with great care, the object being to make it a comfortable home. Bank barn, 54 x 70; stone foundation with frame top. House stone, with brick trimmings, 31 ft. square, less jog, 6 x 14. Double air space. No damp or cold. Heated with furnace. Cellar full size. Cistern with pump in kitchen. Two good wells with pumps and ice well. Frame granary and drive shed, 30 to 40 acres of bluffs. Part of stock and implements and seed grain will be sold with the farm if desired. Possession given either this spring or next fall. Price reasonable. Terms easy.

R. J. PHIN, MOOSOMIN, N.-W. T.

J. E. SMITH.



J. E. SMITH offers for sale 45 Shorthorn bulls (all ages), a number sired by Lord Stanley 2nd (2220), some imported from Ontario. All this year's crop of Golden Measure (imp.) bull calves are sold. 40 Shorthorn heifers, from 6 months to 2 years old. 60 Shorthorn cows, all ages. A few young Clydesdale stallions and Clydesdale mares and fillies of all ages for sale. Everything for sale, except my stock bulls, Lord Stanley 2nd and Golden Measure (imported), and the Clydesdale stallion, Prince Charles (imported). Come and see the stock. J. E. SMITH, Smithfield Ave., BRANDON, MAN., Box 271.

FARM HORSES

For Sale.

Clyde and Shire Bred.

Prices reasonable per cartload. Write.

High River Horse Ranch, HIGH RIVER, ALBERTA.

Jas. Henderson, Belton, Ont., has recently sold the imported 5-year old Clydesdale stallion, Goldfinder (10226), to A. C. Owen, Whitecourt, Assiniboia, to head an extensive horse ranch he owns there. Goldfinder is a high-class horse, as his pedigree shows. He was first at the Canadian Horse Show, Toronto, as a 2-year-old; second at Toronto Industrial, as a 7-year-old; first and sweepstakes at Western Fair, London, as a 2-year-old; and as a 3-year-old. He is generally considered a high-class horse. Henderson has just sold a pair of 3-year-old, Grey, Prince of Aragon, Phoenician, etc.

For Sale: Clydesdales, Shorthorns.

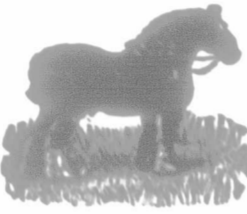
Excellently well bred mares, fillies, one (imp.) two year old stallion. Bulls, cows, heifers (all ages) from Cuthness. Apply PURVES THOMPSON, Pilot Mound, Man.

Clydesdales.

Our stud of mares pronounced by competent, unprejudiced judges to be without a peer on the continent. Last year, wherever shown, won an average per head of double the prizes of any competitor. At great Chicago Show, more money than any competitor. For breeding, individual merit and fair prices, we acknowledge no rival. Imp. Percherons, showing size, substance and beautiful conformation. City stable. Telephone to farms. Catalogue on application.

McLay Bros., Janesville, Wis.

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.

FOR SALE:

Registered "Klondyke" Guernsey Bull.

Three years old. Two first prizes in succession at Winnipeg Exhibition. For particulars and price: P. D. McARTHUR, 324 PORTAGE AVE., WINNIPEG, MAN.

BULLS FOR N.W.T.

Arrangements have again been made by the Pure-bred Cattle Breeders' Association of Manitoba whereby pure-bred bulls will be shipped from Manitoba to the Territories under arrangements with the Territorial Government. Apply to Department of Agriculture, Regina, for conditions, etc. Freight charges only \$5.00 per head. Cars will be dispatched as soon as sufficient animals are booked. The Association can confidently recommend parties desiring to purchase stock to place their orders with Mr. William Sharnan, Souris, Man., who will again take charge of the shipments.

GEORGE H. GREIG, Sec'y Pure-bred Cattle Breeders' Association. ANDREW GRAHAM, President, Pomeroy, Man. NOTE.—Breeders should keep Mr. Sharnan posted as to stock for sale, etc.

GALLOWAYS.

BULLS AND HEIFERS FOR SALE. APPLY TO T. M. CAMPBELL, St. Jean Baptiste, Manitoba.

SHORTHORNS

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

J. G. BARRON, Carberry, Manitoba.

Shorthorns and YORKSHIRES

Choice heifers by Imp. Knuckle Duster and Lord Lossie 22nd. Boars and prizewinning sows now due to farrow. Order early. White Plymouth Rock cockerels and eggs.

JAS. BRAY, Longburn.

SHORTHORNS FOR SALE

2 young bulls 9 months old, got by Crimson Chief 2107. Several cows and heifers.

ALEX. STEVENSON, "Brookside Farm," Railway Station, Nings, Wakopa P. O., Man.

MAPLE GROVE STOCK FARM.

7 young SHORTHORN BULLS, by a son of Indian Warrior. Also a few choice heifers. Lord Stanley 25 2927 at head of herd. Write.

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

SHORTHORNS FOR SALE

at Scotch breeding, seven bulls and forty cows and heifers, mostly all new calf at foot. A few individually at both sexes.

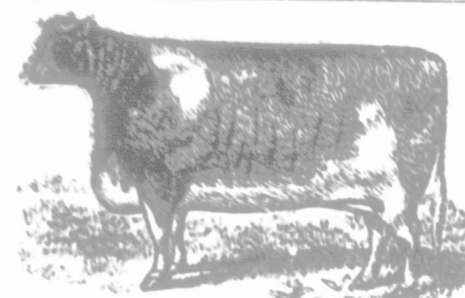
Geo. Rankin, White Stock Farm, Hamiota, Man.

I HAVE FOR SALE

SHORTHORNS

My herd bull, King Christopher (2264), 1 young bulls (cows and roans), and a few females. Write for prices.

Wm. McDonald, Pilot Mound, Man.



PIONEER HERD OF SHORTHORNS Won the gold medal at the last Winnipeg Industrial Exhibition; also first for bull and two of his get, first for cow and two of her progeny, and numerous prizes for individuals. They were bred right here, and I can usually show a few generations of their ancestors, and am always pleased to show them. WALTER LYNCH, Westbourne, Man. P. O., Railway and Telegraph.

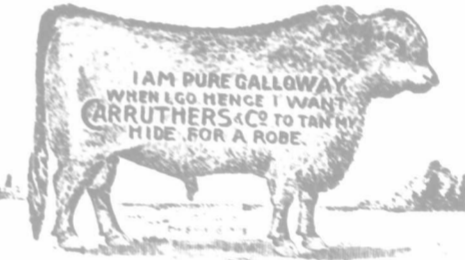
D. FRASER & SONS, EMERSON, MAN.

Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale.

Thorndale Shorthorns.

8 BULLS, under one year, and about 100 FEMALES, of all ages, to choose from.

JOHN S. ROBSON, Manitou, Man.



"What a Wise Old Chap!" He has left his hide in good hands. Send for 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.

Queenston Heights Stock Farm

Shorthorn Cattle.

Eight young bulls for sale; any age, any color. Three sired by Royal Standard 27633, by Judge 23119. Well known as winners at Toronto Industrial and Winnipeg. Also good cows and heifers; straight Scotch crosses.

Isaac Usher & Son, Queenston, Ont. Manufacturers of Queenston Cement.

SHORTHORNS, YORKSHIRES AND TAMWORTHS.

Stock of all ages and both sexes, at prices according to quality. Write W. G. STYLES, ROSSER P. O., Box 12131, WEST, C. P. R.



LAKE VIEW RANCH

Herefords and Galloways

Young bulls for sale. For prices write J. P. D. Van Veen, FIVE HILLS P. O., N. W. T.

HEREFORDS.

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

JOHN WALLACE, CARTWRIGHT, MAN.

JERSEYS FOR SALE

If you want a first class family cow, or want a few to start a herd of pure Jerseys, come and see my herd or write me. A lot of the daughters of Old Massena (900 lbs. butter a year). Two bulls, all registered in A. J. C. C.

J. B. POWELL, Wapella, Assa.

Roxey Stock Farm, BRANDON, MAN.

J. A. S. MACMILLAN, IMPORTER AND BREEDER OF PURE BRED

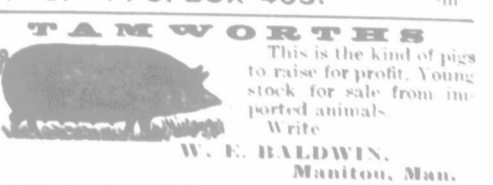
Clydesdales, Shires, Hackneys.

STALLIONS AND MARES.



INSPECTION INVITED. CORRESPONDENCE SOLICITED. TERMS EASY. Prices Right.

FULL PARTICULARS ON APPLICATION. APPLY P. O. BOX 403.



TAMWORTHS This is the kind of pigs to raise for profit. Young stock for sale from imported animals. Write W. E. BALDWIN, Manitou, Man.

TWIN GROVE FARM.

Young York-hire pigs, stock, bear two years old, and year old sow. Prices still lower. Also Buff P. Rock cockerels. Write J. S. LITTLE, Proprietor, Oak Lake, Man.

THE MANITOBA Fire Assurance COMPANY.

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Script for sale at lowest price. If you owe the Government, write us.

The Hon. H. J. MACDONALD, President. H. H. BECK, Vice-Pres. and Man. Director.

Reliable, Energetic Agents Wanted.

STEAMSHIP Tickets

If you are going to the Old Country, or sending for your friends, apply to our nearest railway or ticket agent, who can supply outward and prepaid tickets at lowest rates.

Steamers leave Portland, Maine, every Saturday; St. John, every Wednesday; New York, every Wednesday and Saturday.

W. P. F. CUMMINGS, General Agent, C. P. R. Offices, WINNIPEG.

The Gold Standard Herd.



I am offering for sale a number of nice young sows in farrow, also three nice lengthy September boars, and one, I have now spring pigs from large mature sows of the real bacon type, and sired by two grand prizewinning boars, that are bred right up to the purple. Unrelated pairs and trio supplied. Correspondence solicited. Ask for catalogue. Address J. A. MCGILL, NEPEAWA, MAN.

PLEASE MENTION FARMER'S ADVOCATE.

First prize for Creamery Butter, Toronto and Ottawa. The highest award for cheese, World's Fair, Chicago.

Winnipeg Creamery and Produce Co.



LIMITED.
CAPITAL STOCK, \$50,000.
S. M. BARRE,
MANAGER.
Dealers in
DAIRY SUPPLIES
AND PRODUCE.

238 AND 240 KING STREET.
Owing to the large increase in all departments of our business, we have organized a stock company with sufficient capital to meet all business requirements. We are now open to receive consignments of all kinds of farm produce, including butter, cheese, eggs, poultry, etc. Our creamery will be operated all winter, and farmers would do far better to send us cream than to make butter.

For further particulars please address: S. M. BARRE, MANAGER, Winnipeg Creamery & Produce Co., Ltd.

Argentine Flax for Seed.

We are importing a quantity of Flax from the Argentine Republic, to be sold for seed this spring. Home-grown flax being so much damaged by weather last fall, farmers ought to be careful to procure good seed this year. Where it only takes half a bushel of flax to seed an acre, the extra expense of imported seed is nothing.

Argentine Flax sown in North Dakota last year yielded five bushels per acre more than native seed, and ripened a week earlier.

Flax is a better paying crop than wheat, besides giving the farmer a diversity of crops.

Don't risk all on one crop. Try some Flax.

FOR PRICES APPLY TO

The Northern Elevator Company,

WINNIPEG, MANITOBA.

Rat Portage Lumber Co.

(Limited).

Do you want Cedar Posts?

Write Direct

Ask for Price.

Jno. M. Chisholm, Gladstone and Higgins Sts.
Winnipeg
Formerly Manager for Dick, Banning & Co.

Boundary Herd of Poland-Chinas and Model Tamworths. **Yorkshires.**

FOR SALE: Three sows due to farrow in April and first week in May. Also seeking orders for spring pigs sired by Klondike, Gold Dust, and Hayfield Pride, and out of such noted dams as Lady Sanders, Copper Queen, Roxys Star, and Carrs Natives, at prices that will sell them.

W. L. TRANN, CRYSTAL CITY, MAN.

Two choice tall litters ready to ship—one from the 1st prize yearling sow at Winnipeg and Brandon Fairs in 1900. Also a few choice boars fit for service, and sows ready to breed. Address:

King Bros., Wawanesa, Man.

Seed Wheat.

Six hundred bushels Red Eye No. 1 Hard. No noxious weeds. Test at Central Experimental Farm shows 99 germinating, 98 plants of which made strong growth. Price, 85 cents on car at Saskatoon. Why seed with damaged or old wheat?

J. ALBERT SMITH, West Saskatoon.

Seeds '90'

SEND TO **KEITH & CO.**

WINNIPEG, MAN.

Catalogues mailed on application. P. O. Box 456.

FORT ROUGE POULTRY YARDS

Eggs for hatching from Golden Wyandottes, Langshans, Indian Games, Light Brahmas, Black Minorcas, Silver laced and White Wyandottes, \$2 for 20; from Pekin ducks, \$1 for 13. Failey pigeons, Belgian hares for sale; also some choice stock in Langshans, Wyandottes, Light Brahmas and Black Minorcas. Write **S. LING, Winnipeg, Man.**

HOME OF BARRED PLYMOUTH ROCKS



Owned by **H.A. Chadwick, St. James, Man.**

I keep only this breed, and aim to have in my pens the best birds in the Province. **EGGS \$3.00 PER SETTING, TWO SETTINGS \$5.00.** Black African Bantams. A few choice birds for sale. Also first-class Fox Terriers and Scotch Collies. **H. A. CHADWICK, ST. JAMES, MAN.**

PURE-BRED LIGHT BRAHMAS

Prizewinners. Ninth year. Stock for sale. **EGGS, \$2.00.** Address: **GEO. HANBY, cor. Smith St. and Portage Ave., WINNIPEG, MAN.**

NORWOOD BRIDGE POULTRY YARDS.

EGGS FOR HATCHING. Of White Wyandottes, White Rocks, Houdans—eggs, \$2.00 for 13; Mammoth Bronze Turkeys—eggs, \$2.00 for 10; and Pekin Ducks—eggs, \$1.50 for 11. Eggs guaranteed to be fertile. See report of shows for prizes won. Sole agent for Manitoba for the Smith's Seal Leg Band—guaranteed to stay on. Write:

Joseph Wilding, Prop., Winnipeg, Man.

EGGS! EGGS! EGGS!



We keep but one breed of fowl, the B. P. Rocks. Our birds are large, well marked and good layers. Plenty of exercise favors a good hatch. Eggs, \$1.50 per setting of 11. A few choice young **SHORTHORN**

Cows and Heifers

FOR SALE.

ANDREW GRAHAM,

"Forest Home Farm," POMEROY P. O. - MANITOBA.

The Gold Medal herd of Berkshires, owned by J. A. McGill, Neepawa, was recently visited by one of the ADVOCATE staff, and note made of number and character of the stock. The prize-winning record of McGill's Berkshires is well known, and yet they have not suffered in fecundity. Jubilee Bet, a winner at Winnipeg for sows under six months, is now nursing eleven lusty pigs. A favorite sow is Rosamond, lengthy and deep, built on the pork-packer's model. Nora, a prizewinner at the Industrial, is a good-backed sow with hams well let down. Charmer, an extremely long sow, weighing when in condition 750 lbs., is a wide, strong-backed sow, with smooth-shoulders and typical Berkshire character. The herd males are noted ones. Oxford Manitoba, a son of Laura Oxford, a Royal winner, is a lengthy, even pig, and a getter of large litters of well-made pigs. Duke of Clifford, the first-prize boar at Winnipeg and Brandon, is a long, deep, strong, active hog, with the feeding ability so noted in this breed. In a conversation with the proprietor re breeding crates, a useful and simple method of breeding small sows to heavy boars, was elicited, as follows: The front feet of the sow are fastened to a stake or ring in the floor, by a noosed rope. Similar noosed ropes are attached to each hind leg, which are drawn backwards, and slightly outwards, so that the sow is forced to lie on her belly. Service is then given by the male in the standing position. Mr. McGill reports good results from the adoption of this method.

MAW'S POULTRY FARM

WINNIPEG, MANITOBA.

LARGE ILLUSTRATED CATALOGUE MAILED free. I have acclimatized utility breeds only. My Mammoth Bronze turkeys are extra large, very healthy, and not inbred. They are pure Bronze, and tame. Can be easily handled. I have a grand flock of large Toulouse Geese, up-to-date deep-keeled Pekin ducks, English Rouen ducks; immense Hero strain Plymouth Rocks—they are great winter layers. Cockerels average 9 pounds. The popular White Wyandottes, Silver Laced Wyandottes, Large English White Leghorns that lay a great many large eggs, Light Brahmas. Eggs and stock for sale. I will supply incubator eggs selected from healthy flocks with farm range. **M. MAW, Manager.**

EGGS

From Andalusians, Black Minorcas, Cochins, Partridge—black and white. \$2.00 A SETTING. STOCK FOR SALE. **WM. ANDERSON, BRANDON.**

S. C. B. Minorcas.

Eggs for hatching now ready. English importations. Birds from the celebrated Pitt and Abbott strains. Our birds are in prime condition for ensuring good vigorous stock. Send in your order now and get some pullets laying early. A few fine S. C. B. Minorca cockerels for sale from above strains. Describe your hens, and I can have a chance to help you out in correct mating.

B. P. Rocks.

Eggs for hatching. Also a few fine cockerels for sale, from best Canadian strains—sturdy, vigorous stock. **A. M. Robertson, Caledonia, Ont.**

NATIONAL TRUST COMPANY

LIMITED.

OFFICE AND SAFE DEPOSIT VAULTS,

323 AND 325 MAIN STREET, WINNIPEG

CAPITAL—\$1,000,000. RESERVE—\$270,000.

Authorized to act as Executor, Administrator, Trustee, Receiver, Guardian, Committee of Lunatic, Liquidator, General Agent, etc.

Accepted by the Courts as a Trust Company for the Provinces of Ontario, Quebec, and Manitoba.

Official Administrator and Guardian ad-litem for Manitoba.

Trust Funds invested and guaranteed.

Money to loan on Farm Security.

Solicitors bringing Estates, Administrations, etc., to the Company are continued in the professional care thereof.

Correspondence invited.

Boxes in Safe Deposit Vaults for rent at \$5 a year.

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Are you going

To the East?

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On business or pleasure?

Do you want to take the

Quickest

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Pleasant Route?

Do you wish to view

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CARS running through without change to

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First-class Sleepers on all through trains.

PASSENGERS' comfort assured in through

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These advantages are all yours by taking the

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WINNIPEG.

IN WRITING

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

Dr. R. D. Searfield, Manitowish, and John McGilvray, Bismarck, recent graduates of the McKillip Veterinary College, Chicago, have qualified to practice in this Province.

Wm. Stewart & Son, Menie, Ont., advertise in this issue eggs for hatching of eight breeds of fowl, also ducks and turkeys. Their stock has been very successful in winning prizes, as the reading of the advertisement will show. They have also an up-to-date herd of Ayrshires.

The Brandon Creamery & Supply Co. have taken out letters of incorporation. The incorporators are A. Whitelaw, L. A. Race, John Keddy, H. L. Adolph, and Jas. Henderson. The capital stock is \$40,000, in shares of \$20 each.

It is only natural to connect the veterinarian with horses, hence one is not surprised to find Dr. Swenerton, of Carberry, with a few stallions of good quality and Clydesdale type. Rosemount, by Young M. Queen, tracing to Boydston Boy, a stylish bay, with white markings, is in good heart, weighing 1,750 lbs. He was winner in his class at Winnipeg, has that quality of bone and hairy large hoofheads and good bread basket so necessary to the wearing qualities of any horse. A very taking colt is the black Duke of Fife, by Handsome Duke 7236, weighing 850 lbs. at less than a year old. He is well-bred, tracing to Orlando and Prince of Wales 673. The party doctor also keeps a few Yorkshire brood sows of Brethour breeding.

Not far from the boundary line, at Wakopa, is the herd of Alex. Stevenson, founded by a Mr. White on a Bates foundation, the sires of late years being selected from Scotch bred stuff, which has had the effect of thickening up the young stock, and yet has not detracted from the general stylishness connected with Bates cattle. All the females are red in color and good milkers, and are either with calves at foot or due to calve. The herd bull, Crimson Chief 2405, recently sold to John Wilson, Grandview Ranch, Innisfail, Alta., was got by President (Imp.), a good ended bull, mellow to the touch, and is quite prepotent, as his calves are all showing that squareness of rump so desirable. Mr. Stevenson's offering should not be overlooked, particulars of which are hinted at in his advertisement. The basement barn is very well lighted and ventilated by a system installed by the late owner, which will be described in another place.

An index to the character of a stockman is the state in which his stock and buildings are kept. As one sets foot on the Washington homestead, near Ninga, the air of neatness that pervades leads one to expect stock of a high order, and the visitor's expectations are met. Started some years back, with a good cow and the employment of the best sires obtainable, the result is that the Shorthorns are all good and some of superlative merit, a few of which may be mentioned: Rosebud, a Kinellar heifer, has that mellowness of handling which indicates ability to cover the table back and loin with meat of the finest quality. Full crops and great spring of rib, inseparable from good constitution, and the general level lines and blockiness make this heifer a pleasure to look at; Nina Jubilee Queen, a massive red 3 year old cow, is wide, straight in her lines, and deep, with thighs and twist, back and loin, all that might be desired; the mother of Jubilee Knight, a noted American herd header, is a well-built cow, of width, substance, and attractive appearance; a representative of that good family, the Symes, is to be seen in 3rd Maid of Elysee, a red cow of good size, straight top and under line, and a loin that would furnish ideal steak; Miss Butterfly, by Baron Campertown, a big roan cow, carrying her depth from fore to hind flank, and like all the other matrons in the herd, a regular breeder, along with several reds of individual excellence, make up a galaxy of females hard to beat in any herd. The lord of the harem is that good roan yearling bull, Sittytion Hero 7th, sweepstakes at Winnipeg last year, stylish and of good form, strong in the crops, with bulging shoulder veins, a deep twist, meat to the hocks, and a mellow skin, and withal a sure getter, so that one can expect this herd to keep up the march of progress. Some attention is given to horse-breeding, a 2 year old stallion, by Lark-purimp, showing considerable Clydesdale character, along with promise of size and weight, being well brought up.

The lover of good cattle, whether a Shorthorn devotee or not, will feel like doffing the hat on entering the stock barns of John G. Barron, of Carberry. Here was the erstwhile abode of the mighty Toppman, of international fame as a stock bull and show-ring winner. Here nurtured peacefully the champion home-bred herds of 1890 and 1890, and here at the present is the material for other winners, sprung from the loins of such good ones as Toppman, Imported Nobleman, and Toppman's Duke. With rare judgement and acumen, avoiding the pitfalls of a craze for pedigree or color on the one hand, and the use only of the choicest of bulls on the other hand, a herd has been built up, which, in numbers and high average excellence, is probably not excelled in Canada. We may be pardoned for pointing out a few from among these high-class cattle: Nobleman, the red imported bull, will at once be noticed and the wide loin and back approved of; the imported roan, Jennie Lind 4th, a smooth cow of great scale and smoothness, very deep through the chest, bred by Sir Arthur Grant; Rose 5th (Imp.), a Campbell cow, about three years old, a red Nonpareil heifer and a red Selma of good, thirty character; Toppman's Duke, out of Gipsy Queen, a roan bull, massive, deep, full crops and twist; Louise, a very mellow handling red heifer, with good back and brisket, out of Laura; a red heifer, half sister to one of Platt's noted bulls; a roan meaty heifer by Stanley, very good in the crops, with great spring of ribs and last, but not least, ten heifer calves by Nobleman, out of Toppman heifers hard to duplicate and harder to beat, all of them low down, thick, meaty, and good handlers, are a source of satisfaction to whoever inspects them. In a short list drawn for sale is a 2 year old roan bull, by Judge, and a few red bulls, all with good backs and thighs and in good growing order. A recent sale was made of a bull, red in color, with legs of quality and beef excellence, to J. Casswell, Sarnia, Ont. One leaves such stock with a good impression, with the thought that the next time one goes out one best stock on the range for sale, one will be able to point to the name of John G. Barron, of Carberry, as a source of good stock.

Chicago Sheep Shearing Machine



Price \$15

Guaranteed to shear any kind of wool that grows. All gears cut from the solid metal and hardened.

BOOK ON SHEARING just published. Finely illustrated, with valuable hints for fast and easy shearing by K. M. Marquis, champion of the world, will be sent free to any sheep owner on application. Address: CHICAGO FLEXIBLE SHAFT CO., 158-160 Huron Street, Chicago, Ills.

FOR SALE.

CLYDESDALE stallions, mares and fillies, representing the best blood in Scotland—Prince of Wales, Darnly, Macgregor and Lord Lyon—in judging the great sweepstakes winner, The Marquis (1829), a grandson of Prince of Wales and Macgregor; also the first prize 3-year-old at Ottawa this season.

THOS. GOOD,

Richmond P. O., Ont. R. R. Station, Stittsville, C.P.R.

Shire Horses.

The subscribers offer for sale a number of choice-bred

BROOD MARES, FILLIES AND STALLIONS.

Distance about four miles from either Welland or Fenwick. Will meet parties wishing to inspect the stock at either of these places.

Morris, Stone & Wellington

FONTHILL P. O., ONT.

4 Imp. Clydesdale Stallions

From such well-known sires as Sir Everard (3353), Prince Roberts 7135, Prince Alexander 8889.

2 Imp. Shorthorn Bulls, 4 Bulls Imp. in Dams, 2 Canadian bred Bulls.

21 Imp. Cows and Heifers, 7 Canadian-bred Cows and Heifers.

GEO. ISAAC & BROS., BOMANTON, ONT.

COBourg STATION, G. T. R.

Clydesdales--Hackneys.



QUEEN.

A Few Choice Yearlings of Either Breed can be spared.

D. & O. SORBY, GUELPH, ONT.

STALLIONS FOR SALE.

1 Imported Shire stallion, aged; he is a big horse and a fine looker. 1 Imported Yorkshire (each, just in his prime; he is a great show horse, has never been beaten in a show-ring. Both horses are money-makers, and will be sold at a bargain for the buyer. Thornbury Station, G. T. R.

WM. FULFORD, Heathcote P. O.

Clydesdales and Ayrshires

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

ROBERT NESS & SONS, Howick, Que.

90 HEAD Herefords

High quality, Early-maturing, 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.

Thoroughbred 3 year old HEREFORD BULL

W. R. COLEMAN, Cookstown, Ont.

PLEASE MENTION FARMER'S ADVOCATE

GOSSIP.

SOME GOOD SHORTHORN SALES

On March 26th, H. F. Brown, Minneapolis, Minn., sold, at auction, 15 head of Shorthorns, at an average of \$328.45. The Canadian-bred two-year-old heifer, Ury, bred by John Isaac, sired by Arthur Johnston's Indian Waver, and bought by Mr. Brown at W. D. Platt's sale at Chicago last August for \$775, topped the Minneapolis sale at \$1,100; W. L. Wood, Williamsport, Ohio, being the purchaser. Imported Lily of the Valley 17th, bought at Mr. Platt's Chicago sale for \$900, made the second highest price, \$1,260, and went to Geo. M. Woody, Clyde, Iowa. She was three years old in January last, bred by the Duke of Richmond and Gordon, and sired by Musgrave. The highest price for a bull at this sale was \$300, for the red yearling, Scottish Victor, bought by Geo. E. Ward.

On March 29th, Messrs. R. O. Cowan, T. B. Rankin and G. T. Haggard sold, at Kansas City, drafts from their herds. Mr. Cowan's 27 females averaged \$329.15, the highest price being \$790, for the red yearling Mystic 33rd, bought by Col. G. M. Casey, Shawnee Mound, Mo. The 7 bulls averaged \$148, and the whole 34 head, \$292. Mr. Rankin's 12 head averaged \$128, and Mr. Haggard's 3 head, \$153.

March 28th, W. R. Rigg, Mt. Sterling, Ill., sold 26 head at an average of \$288.50. The four-year-old bull, Golden Prince 4th, brought the highest price of the offering, \$625, and was bought by C. E. Rice, Indianola, Ill.; and the top price for a cow, \$575, was paid for Lady Gloster 4th, a red three-year-old by Baron Gloster.

March 27th, Ira Cottingham, Peoria, Ill., sold 11 head for an average of \$230; the highest price, \$705, being paid for Martin Flinn, for Emma 2nd, a five-year-old cow.

BIRMINGHAM SHORTHORN SHOW AND SALE.

At the 23rd annual exhibition and sale of Shorthorn cattle, held last month, the entries numbered 611 animals, chiefly bulls. In the section for bulls over 21 years, Mr. Sidney Hill's Longford Lavender was placed first, and Mrs. J. J. Riddigore, out of Rosedale Rosette, second. Bulls from 14 to 21 months were led by Mr. John Handley's Admiral Douglas, a white one, bred by the exhibitor, and sired by Lord James Douglas. Mr. Heaton's Tommy Atkins, a roan, was second, and Mr. Deane Willis followed in third place with Treasure Trove. Bulls over 13 months and not over 21 months found a first winner in Mr. J. A. Preece's Duke of Manchester, by Scottish Beau, Mr. Jos. Beach's Red Star, by Salamander 2nd, was placed second, and Mr. Handley led the third winner in Sir Samuel, by Lord James Douglas. Bulls over 13 and not under 18 months were headed by Mr. Hosken's Crystal Star, by Jubilee Prince, and Mr. J. W. Barnes' Advocate, by Balmoral Pearl, was second. Bulls 12 to 15 months were led by Lord Lovat's Commander-in-Chief, by Royal Star, a sappy red; then came Philosopher, from the same herd, and by the same sire, and Mr. Hosken's Chief, by Monocrat, was third. In the section for bulls between 9 and 12 months old there were nearly 100 entries. The winners were Mr. Hosken's Cornish Knight, Sir Nigel Kingscote's Kingscote Duke 15th, and Mr. John Gill's Thorn Farm Ingram. The special prize for the best group of five was awarded to Mr. J. A. Preece and the reserve to Mr. Leopold de Rothschild. The sale, partly owing to the absence of South American buyers, was not as successful as in some former years. One hundred and seventy-five guineas was the highest price, and was reached in two instances: once for Mr. Hosken's Cornish Knight, bought by Earl Powis, and again for Lord Lovat's Victor, secured by Mr. Dudding. Lord Lovat's Commander-in-Chief, first in his class, went for 100 guineas to Mr. Miller, and four others brought from 100 to 125 guineas.

SPRINGHURST SHORTHORNS.

Mr. Harry Smith, Hay, Ont., has issued a very complete private catalogue of his high-class herd of Scotch-bred Shorthorn cattle, numbering 31 head, including representatives of a number of the most popular Scotch families, and headed by the two imported bulls, Knuckle Duster, of the Bruce Augustus families, which, it is said, has produced more prizewinners at the Smithfield Show than any other in Great Britain, and Royal Prince of Mr. Manson's Killeen Beauty tribe, by Mystic Archer, a son of Scottish Archer, and of a Marr Missie dam by the great Cruick-hank bull, William of Orange, while the dam of Royal Prince was by Merry Main, bred by Mr. Marr, and a son of William of Orange. The other females in the herd embrace members of the Cruick-hank family, Beauty tribe; the Sittytion Butterflies and Village Blossoms, direct descendants of the imported cow of that name for many years in Mr. Smith's herd, that was the dam of the World's Fair champion bull, Young Abbot-burn; the Cruick-hank Buckingham tribe, bred from imp. Vry, Buckingham by Master of Arts; the Duchess of Gloster family, also a favorite tribe in the Sittytion herd; and the choice Lancaster tribe, highly prized by Mr. Cruick-hank. Besides these straight Cruick-hank families, are a number of other Scotch-bred sorts, rich in the blood of many of the most noted bulls bred in the Sittytion, Uppernill and Kinellar herds, among which are the Bruce Augustus; the Woodend Diamonds, with half a dozen Cruick-hank crosses; Beauties, for many years bred at Uppernill; Jealousies, from Nether Angoston; Lady Bell, bred from the same source and formerly in the Kinellar herd; Miss Ramsdens, as bred also by Mr. Campbell, of Kinellar, and Minas, from the same herd; Killeen Beauties, topped by Uppernill sires; Sunflowers, from Woodend; Van Duchesses, showing a succession of a half dozen Sittytion-bred sires, and from which came the first prize Toronto winning cow, Vanity; and Strathallans, a favorite Scotch-bred family that has produced many first prize Provincial winners in Canada. The pedigrees of the Springhurst cattle show a strong array of high-class sires, and the prize-winning record of the herd at leading shows in Canada is among the very best. Springhurst is conveniently situated, close to the Exeter station, on the London and Wingham branch of the G.T.R., 30 miles north of London. Parties interested in the best class of Shorthorns will do well to apply for the catalogue and see the herd.

Clover Leaf Lodge HERD OF Shorthorns

A number of home-bred young bulls, heifers and cows, excellent milking strains. Correspondence invited. R. CORLEY, Belgrave P. O., Ont., and G. T. R., Wingham, C.P.R.

HORSEMEN! THE ONLY GENUINE IS

GOMBAULT'S CAUSTIC BALSAM.

None genuine without the signature of Dr. Lawrence Williams Co. Sole Importers & Proprietors for the U.S. & CANADAS. CLEVELAND, O.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle, SUPERSEDES ALL CAUSTIC OILS or FIRING. Impossible to produce scab or Murrish. Every bottle 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 free descriptive circulars. THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

FOR SALE:

Shorthorn Bulls, Cows and Heifers, carrying a combination of Scotch top crosses, and tracing through many popular strains on the dam side. on F. A. Gardner, Britannia, Ont.

Standard Sheep Dip (OIL OF TAR.)

Non-poisonous, cheap and effective. Destroys Scab, Lice, Ticks, Foot Rot, etc. Write for Testimonials and Circulars.

Manufacturers: The West Chemical Company, TORONTO, ONT.

For Contagious Abortion use West's Fluid, Agt. for Manitoba: W. R. ROWAN, 132 Princess St., Winnipeg.

ARTHUR JOHNSTON

Greenwood, Ontario, Canada.

HIGH-CLASS SCOTCH SHORTHORNS

(First Importation Made in 1874.)

(My recent importation of 30 head has just arrived home from quarantine. Herd now numbers over 120 head.)

OFFERS FOR SALE

40 Imported Cows and Heifers, 40 Home-bred Cows and Heifers, 11 Imported Bulls and Bull Calves, 13 Home-bred Bulls and Bull Calves.

Railway stations: Pickering, on main line of Grand Trunk Railway, 22 miles east of Toronto, and Clarendon, 25 miles east of Toronto, on the C. P. Railway. Catalogues on application.

R. Mitchell & Son, Burlington Jct. Station, Nelson, Ontario.

Large herd of Scotch and Scotch-topped Shorthorns of the most popular Aberdeen-shire tribes, including 4 imp. bulls, 12 imp. cows and heifers. Also a number of home-bred yearling and two-year old heifers, and 7 good, thrifty home-bred bulls, from twelve to fifteen months old. Write for catalogue.

Shorthorn Bulls

TWO excellent young bulls: one 2 yrs. in May, and one 1 yr. in Mar. Bred straight from high-class Scotch-bred bulls and Scotch-topped cows, of good milking families. Write for prices, or come and see for yourself.

GEO. MILLER, Markham, Ont.

SHORTHORN BULLS AND HEIFERS

Choice quality and best Scotch breeding. Imported and home bred. Imported Knuckle Duster (72793) and imp. Royal Prince head the herd, which has furnished the Provincial Fat Stock Show champion three out of the last five years. Catalogues on application.

H. SMITH, HAY, ONT. Exeter Station on G. T. R., half a mile from farm.

FOR SALE: Hereford Bull, Santiago, Register 256, 3 years old; very lengthy, well-set fellow, a fine sire; very gentle. Apply to J. BERGIN, Cornwall, Ont.

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

PLEASE MENTION FARMER'S ADVOCATE.

DEERING HARVESTER OIL

DEERING BINDER TWINE

DEERING HONORS

AT THE PARIS EXPOSITION OF 1900.

Four High Decorations from the French Government.

MORE AND GREATER HONORS THAN WERE EVER ACCORDED ANY EXHIBITOR AT AN INTERNATIONAL EXPOSITION.

THESE CONSIST OF

DECORATION OF OFFICER OF THE LEGION OF HONOR.

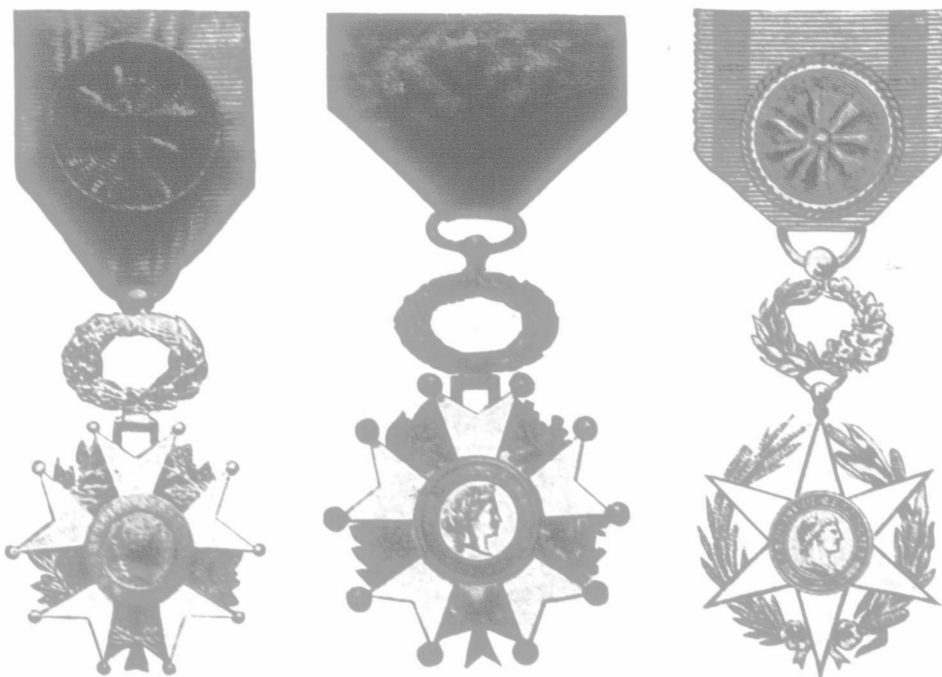
DECORATION OF CHEVALIER OF THE LEGION OF HONOR.

(TWO DECORATIONS OF THE LEGION OF HONOR.)

DECORATION OF OFFICER OF MERITE AGRICOLE.

DECORATION OF OFFICER OF MERITE AGRICOLE.

(TWO DECORATIONS OF MERITE AGRICOLE.)



SPECIAL CERTIFICATE OF HONOR.

THE GRAND PRIZE.

SIX GOLD MEDALS.

SIX SILVER MEDALS.

ELEVEN BRONZE MEDALS.

INCLUDING SEVENTEEN DEERING COLLABORATOR MEDALS.

The decoration of the Legion of Honor is the highest distinction that can be conferred by the French Government. The Order was instituted by Napoleon Bonaparte, when First Consul in 1802, and is only conferred in recognition of distinguished civil or military achievements.

The decoration of Merite Agricole (Agricultural Merit) is only second in importance to the Legion of Honor. The first order is Chevalier, and two of the highest order of Officer were conferred on Deering.

Deering Harvester Company,

DEERING BINDER TWINE

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

Canadian Branch Houses: TORONTO. MONTREAL. LONDON. WINNIPEG.

DEERING HARVESTER OIL

Oil Spraying In Winter with the Spramotor



The best time to exterminate orchard pests is before they are hatched. Winterspraying does that.

A mixture of oil and water put on in the winter will prevent any kind of bug, fly, worm or parasite ever seeing the light of a spring day.

A certain cure for San Jose scale.

We publish a fine book all about winter spraying and every other kind of spraying which we will gladly mail free to anyone writing for it.

THE SPRAMOTOR CO. London, Ont.

The Common Sense Bolster Spring

FOR TRANSFORMING COMMON WAGONS INTO FIRST-CLASS SPRING VEHICLES.



THE BEST FARM WAGON SPRING IN THE WORLD.

Table with 2 columns: Capacity (To carry 1,000, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000 pounds) and Price (per set).

The only truly graduated bolster spring in the market. They always afford a spring for light and heavy use. Every set of springs guaranteed to give entire satisfaction.

WINDSOR BOLSTER SPRING CO., Windsor, Ont.

GOSSIP.

When in the vicinity of Nimga, the Shorthorns of Wm. Ryan should be inspected, the owner being doubtless known to our readers, in connection with the Dairy Association. The herd has in the head a very attractive white bull, sired by Indian Nobleman, obtained from Lister of Middlechurch. In females, several choice ones were seen, a roan yearling, out of Rosabella, and by Indian Nobleman, being of good length and blocky, and a promising red heifer calf, being of especial attention. The poultry end of farming is not neglected, evidenced by the fine flock of S. C. Wyandottes, Toulouse Geese, and Bronze turkeys.

A beginner in that diverting occupation, namely, breeding of Shorthorns, is John Graham, of Carberry. The stock bull is Capt. Jack, a white, out of Mildred fifth, sold at Flat's Chicago sale for over \$1,300, a good handler, of good depth and width, and with a well-covered loin. Two red bulls, one by Topsman, of good beef type, will make useful sires, and are for sale. Toplady is a promising red cow, as is the 3-year-old red Sundowner, a cow with a good skin and width of back and chest. Lady Nairn, the matron of the herd, is a deep-bodied, good handling cow, by Topsman. Among the sales made recently was a good 2-year-old bull to J. Fetterley, of Carberry.

In the quiet little churchyard of Killoearn, under the shadow of the Campsie hills, in presence of a large number of sorrowing farmers and others, the funeral took place, on March 23rd, of Mr. John Galbraith, formerly of Croy-Cunningham, in the parish mentioned, the eldest of a firm of brothers who have acquired a name on this side of the Atlantic as Messrs. Galbraith Brothers, of Janesville, Wisconsin. The deceased, who was only fifty-two years of age, succeeded to the tenancy of the farm on the death of his father, the late Mr. Alexander Galbraith, a gentleman who was much respected in West of Scotland agricultural circles, a first-class judge of draft horses, and whose name is generally identified with two noted Clydesdale sires, 'Topsman and Tintock, but more particularly the former. Mr. John Galbraith, who was predeceased by his brother James a few years ago, bought for the firm in the Old Country when the export trade was so active, and many good Clydesdales, stallions and mares in America reflect credit on his judgment.

The American Jersey Cattle Club offers the following prizes for Jerseys exhibited at the Pan-American Exposition:

Herd, consisting of bull with four of his daughters in milk, all owned and females bred by exhibitor—1st, \$75; 2nd, \$40; 3rd, \$20; V. H. C.; H. C.

Cow, with two of her produce, one of which shall be a female in milk—1st, \$35; 2nd, \$20; 3rd, \$10; V. H. C.; H. C.

Bull, under two years, shown with dam or full sister in milk—1st, \$35; 2nd, \$20; 3rd, \$10; V. H. C.; H. C.

Breeder's young herd, consisting of bull under two years, with two yearling heifers and two heifer calves, all bred and owned by exhibitor—1st, \$35; 2nd, \$20; 3rd, \$10; V. H. C.; H. C.

Five cows in milk, owned by exhibitor—1st, \$75; 2nd, \$40; 3rd, \$20; V. H. C.; H. C.

Sweepstakes: best cow, any age, \$50; best bull, any age, \$50.

In addition to the above, the Club will duplicate the Exposition prize list for Jerseys 50 per cent.

J. B. Hogate & Son, of Sarnia, Ont., write: "Last week we sold to Mr. J. P. Draper, F. Carrick, Jas. Parker, and Robt. Thomas, of Cambridge, Ont., the Clydesdale stallion, Handsome Robin (No. 10201). This horse is one of the last importation, landing at Sarnia on the 25th of March. He is a dapple brown, stands 17 hands high, 7 years old, commanding good style, and goes like a Hackney. This is the second horse sold to these same parties in the last two months. Among the other stallions in this last shipment was the English Shire horse, Victor Regent, by Harold, the well-known stallion who won first at the Spring Horse Show at London, England, for a number of years. He is a black, 17 1/2 hands high, 5 years old, weighing about 2,100 pounds, and is a good mover for a big horse. Lord Hastings (Vol. XXIV.), Prince George (10402), and a number of other stallions which we have on hand, are all for sale, and can be seen at our stables in Sarnia. We handle nothing but the best that the market affords, and can show more horses of a breeding age than any other barn in Canada. This is our third importation within the past year. See ad. in this issue, and for particulars write to Edward R. Hogate, Western Stables, Sarnia, Ont."

We are indebted to Secretary Matthews, of the Stock Growers' Association, for the information that no less than \$2,460 has been paid out in wolf bounties since the 1st of April last year, while during the same period \$117.50 has been expended on coyote bounties. Of this total expenditure of \$2,577.50, the Stock Growers' Association has been responsible for \$1,357.50 a not inconsiderable item out of an income none too expansive for the numerous purposes it has to meet. It is safe to assume, however, that no better or legitimate use of the Association's fund can be made than by devoting a considerable proportion of them towards the extermination of that stockmen's curse, "the wolves."—Macleod Gazette.

MAPLEWOOD HACKNEY STUD.

The advertisement in this issue of Maplewood Hackney Stud, at Attica, N. Y., shows the character of the stock handled and bred at that leading stock farm owned by Frederick C. Stevens, but one requires to visit that "Home of the Champions" to thoroughly appreciate the character of the stock kept. Horse-lovers who cannot visit the farm, which is about 25 miles east of Buffalo, should write the manager, E. T. Gay, for a catalogue, in which a number of the leading stallions and mares are illustrated in single cuts and in groups. There are also given pedigrees of 26 stallions, 85 brood mares, and 41 unregistered animals. These include Hackneys, Standard-bred and French Coach mares, Welsh and Shetland ponies. Many of the unregistered animals are grand specimens from Standard-bred dams and Hackney sires. The catalogue is a beautiful production, indicating well the character and magnitude of Maplewood establishment.

TRING PARK JERSEY SALE.

The 7th annual auction sale of Jerseys from the Tring Park herd of Lord Rothschild was held March 28th, a distinguished company of Jersey breeders being present. The American Jersey Cattle Club still decline the entries of English Jersey cattle in their books, so that there was no competition from the United States. There were, however, present, gentlemen representing that country and Canada. The arrangements made for the sale were perfect, and the animals were brought out in beautiful condition. Such a display has never been seen even at the Royal Counties Show, where the best of this breed are exhibited, and many people present admitted it was the finest show of Jersey cattle they had ever seen. The perfect udders of the young cows, none of whom exceeded three years old, surprised everyone; some of them had calved since the catalogue was printed, and their calves were brought in with them. One of the features of the sale was the extraordinary prices paid for the calves, there being no less than thirty-three born during 1900, thirteen of which were bulls, and many were born in the last three months of the year. Only the old cows are retained in the herd, nine of which are over ten years old. These animals were shown to the public in the sheds.

The result of the sale was highly gratifying to Lord Rothschild, and exceeded the result of any previous sale held at Tring Park. The average on this occasion was £34 s. 10d. (\$171.50) for the 71 head sold, 14 being bulls. The highest price was 130 guineas (\$652), for Oxford Sunrise.

TROUT CREEK HERD OF SHORTHORNS.

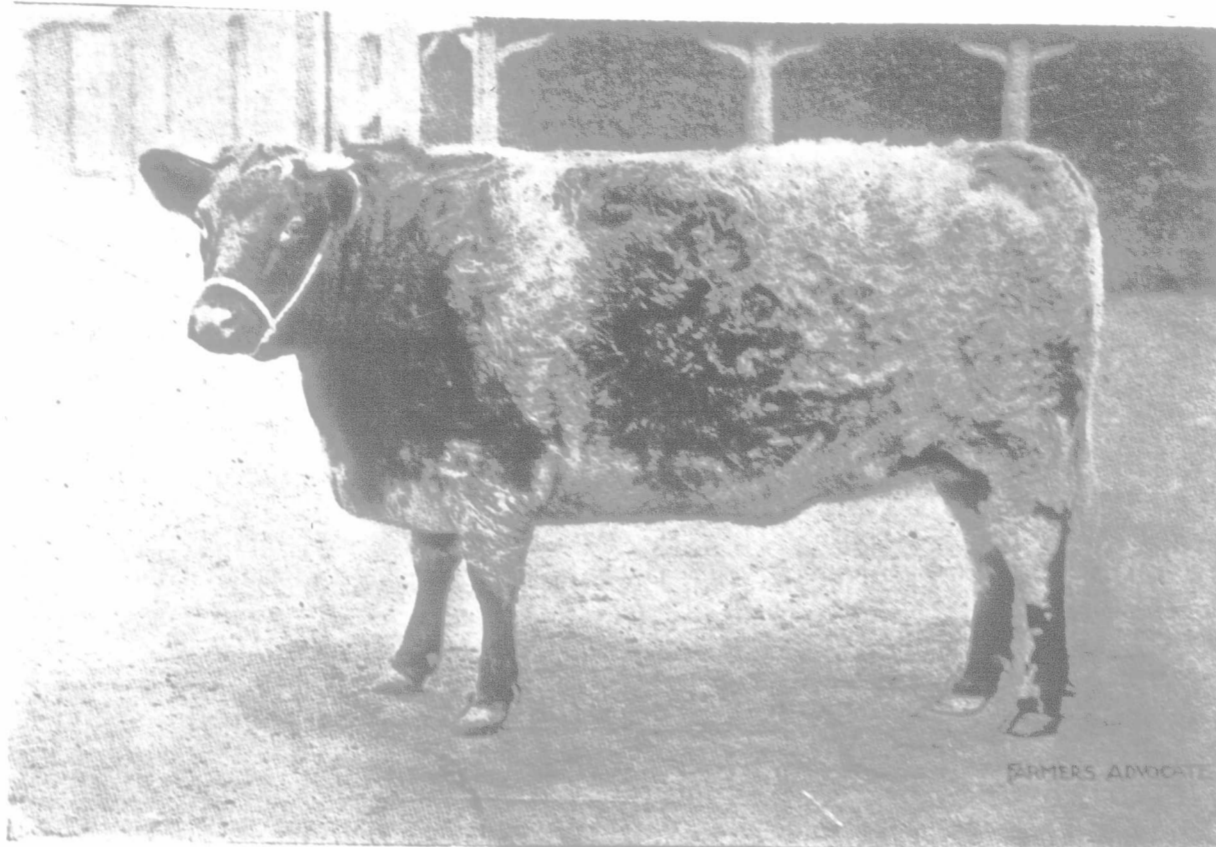
Since our Chicago sale we have imported sixty-two head, including some Royal winners; they were pronounced in Scotland superior to past importations. We try to import the best, believing that this is one of the ways to assist in improving the breed on this side of the water. Being thoroughly convinced, also, that a bull of the right sort is even more than half the herd, we have decided to keep the following choice ones:

Imp. Lord Banff.

Bred by A. Watson; of the Campbell Bessie family.

Imp. Consul.

Bred by J. D. Fletcher; of the Campbell Claret family. Consul was awarded first at Edinburgh, first and champion at Provincial Union, first and champion at Creiff, and second at the Highland. His sire, Watchword, bred by Wm. Duthie, was first at the Highland in 1895 and 1896, and got by Scottish Archer. Watchfire, by Watchword, was first at the Highland, 1897. Consul is the highest-priced bull imported to Canada.



CICELY.

Bred by Her late Majesty the Queen; undefeated in her class and many times champion; imported by W. D. Flatt.

Imp. Silver Mist.

Bred by Wm. Duthie; of the famous Missie family. He had many friends for first choice at Messrs. Marr and Duthie's sale. Mr. Beck, representing the Prince of Wales, made next to last bid.

Imp. Wanderer's Last.

Bred by W. S. Marr; also of the Missie family. Is the last calf got by that renowned Cruickshank bull, Wanderer. Mr. Marr considers this youngster very promising.

We keep in our herd a choice lot of both imported and Canadian cattle, of both sexes, from which to make selections. Personal inspection invited. Parties desiring to see the herd will be met on arrival of trains at Hamilton if notice is given. Visitors always welcome.

Hamilton is a city of over 50,000 inhabitants, located on main line of Grand Trunk Railway, between Chicago and Buffalo; also connected by Canadian Pacific Railway and Michigan Central Railway—branch lines.

W. D. FLATT,

378 Hess St. South.

HAMILTON, ONT.

Jas. Smith, Manager.



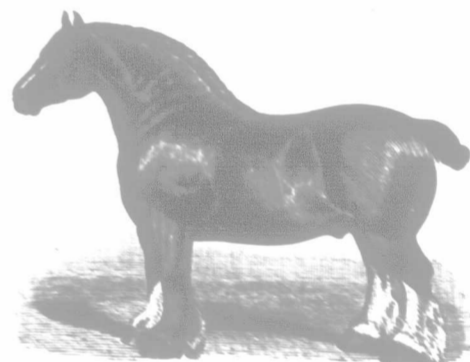
IMP. FASHION'S FAVORITE.

FOR SALE Three Beautifully-bred Clydesdale Stallions

Royal Erskine (imp.) [2529] (10431)
Brown; foaled May 3, 1896. Bred by Chas. Smith, Jr., Inchcorsie, Huntly, Scotland.

Dam Roseabella (12921)	Sire Prince of Erskine (9647)	W. S. Park
2 Rose of Inchcorsie (7822)	Lord Montrose (7973)	J. McEibbon.
3 Suite of Inchcorsie (7824)	Johnny (414)	Wm. Kater.
	Black Samson (62)	A. K. Leitch.

ROYAL ERSKINE is a grand young horse, and won Second at both Toronto and London in 1899 against strong competition, when in very thin condition, being just off the ship. PRINCE OF ERSKINE (9647), by Prince of Albion; dam Halton Beauty (5687), by the great Darnley (222); LORD MONTROSE (7973), by Knight Errant (483); dam Lady Jane (6431), by Model Prince (1285). JOHNNY (414), alias Nonsuch, alias Young Emperor, alias Rantin Johnny, was a prize-winner at the Highland Society's Show at Glasgow in 1875.



Balmiedie Cameron Highlander (imp.) [2562] [Vol. 21, p. 134 S.]

IMPORTED IN 1899 BY H. CARGILL & SON, CARGILL, ONT.

Dark bay, white star on face, hind feet and ankles white, foaled April 7, 1898. Bred by W. H. Lumsden, of Balmiedie, Scotland.

Dam Balmiedie Doris (13511)	Sire Royalist (6282)	Jas. Lockhart.
2 Lady Dorothy (8888)	Balmiedie Prince (7454)	J. Cranston.
3 Maggie of Kilmarnock (5827)	Darnley (222)	Sir W. Stirling-Maxwell.
4 Jean of Kilmarnock (5826)	Strathelyde (1838)	J. McIsaac.
	Young Conqueror (857)	Jas. Smith.
	Caira Tom (117)	Mr. Cochrane.

BALMIEDIE DORIS won the following prizes: only times shown—1896, Second Prize as a three-year-old at Royal Northern, Aberdeen, 1897. Second Prize as yearling mare at Royal Northern, Aberdeen. 1898, Second Prize as mare with foal at foot, at Royal Northern, Aberdeen. LADY DOROTHY won the following prizes, and was one of the best mares left by that famous stallion, Darnley (222)—1891, Glasgow Show, Fourth Prize, Royal Northern, Aberdeen, First and Special for best mare in yard. 1892, Royal Northern, Aberdeen, First with foal at foot. Highland and Agricultural Show at Inverness, First Prize. 1893, Highland and Agricultural Show at Edinburgh, Silver Medal. 1894, Highland and Agricultural Show at Aberdeen, Third Prize. 1895, Forth and Forth, First Prize and Special for best female. Inverurie Show, First Prize as a Special for best female. ROYALIST (6282), sire Darnley (222); dam Princess (6365), by Prince of Wales (673), is one of the Champion Clydesdale Stallions of the day, both in the show-yard and at the stud, his progeny having taken First Prizes at the Highland and Agricultural Society, Inverurie Show, First Prize and Cup at Inverurie, and Third Prize at Highland Society's Show at Perth. In 1888, as a two-year-old colt, he gained First and Challenge Cup at Inverurie Show, First Prize and Cup at Royal Northern Summer Show, Aberdeen. In 1889, as a three-year-old stallion, he gained First Prize at Royal Northern Summer Show, Aberdeen, and Second Prize at Highland Society's Show at Melrose; and in 1895, when seven years old, he gained First Prize and Challenge Cup as champion male at the Jubilee Show of the Royal Northern Society, Aberdeen. BALMIEDIE PRINCE (7454), by Prince of Wales (673).

Royal Carruchan (imp.) [2561] [Vol. 21, p. 172, S.]

IMPORTED IN 1899 BY H. CARGILL & SON, CARGILL, ONT.

Bay, stripe on face, off fore and hind feet white; foaled May 4, 1898. Bred by David Walker, Coullie, Udry, Aberdeenshire, Scotland.

Dam Jess of Coullie (13647)	Sire Prince of Carruchan (8151)	J. McCaig.
2 Balfarg Jess (5895)	Mount Royal (8065)	D. Mitchell.
3 Bainty of Kingsdale (2648)	Corsair (4119)	Sir W. Stirling-Maxwell.
	Scotsman (780)	J. Meiklem.
	Stirling Tom (1537)	R. Moubay.
	Sir Collie Campbell (758)	K. Lorran.
	Stirlingshire Champion (530)	J. Hardie.

PRINCE OF CARRUCHAN, by Prince of Wales, was First at Highland Agriculture Society's Show at Dundee, as a two-year-old. First and Champion at the Highland Society, as a three-year-old, at Stirling. First as an aged horse at the Highland Society Show at Edinburgh; also winner of the Cawdor Cup as use at the Glasgow Stallion Show. MOUNT ROYAL won the following prizes—1888, First at Perth. 1889, First at Turriff. 1890, First and Champion for best entire, any age, Royal Inverurie. First and Lord Aberdeen's Special Prize for best entire colt, Aberdeen. V. H. Commended, Highland Society's Show, Dundee, 1891. First and Champion Cup for best entire, any age, Royal Northern, Aberdeen. First at Royal Northern Summer Show, Aberdeen. Fourth, Highland Society's Show, Dundee, 1891. First and Champion of Highland Society's Show, Stirling. 1892, First, Royal Northern Summer Show, Aberdeen. Fourth, Highland Society's Show, Dundee, 1893. Second, Glasgow, as sire of five yearlings. Kirriemuir Society's Premium horse, 1894. Kirriemuir Society's Premium horse, 1895. Short best of five for Glasgow Premium. Seikirk and Galashie. Seikirk's Premium horse, 1896. Windygates Society's Premium horse. His stock has gained First Prizes at Huntly, Keith, Banff, Turriff, Inverurie, Kintailmont, Inverurie, Fyvie, Aberdeen, Glasgow, Edinburgh, Dundee, East Kildrilloch, Kirkintilloch, Girvin, Kirriemuir, Montrose, Forfar, Arbroath, etc. He is sire of Royal Garty (894), the Cawdor Cup winner in 1885 and 1886.

FOR SALE: Three imp. Yearling Bulls; Seven imp.-in- dam Bull Calves.

Bred by Messrs. Duthie and Marr, from females imported by us, and sired by the best bulls in Scotland. All are excellently bred and first class individuals.

We also offer any reasonable number of females, either in calf or with calves at foot; all ages.

Herd headed by the imported bulls, Golden Drop Victor and Prince Rosquet.

Also the Standard-bred Trotting Stallion,
PAVON (30760) A. T. R.

CATALOGUE FREE.

If interested, come and see us or write:

H. CARGILL & SON, CARGILL, ONT., CAN.

J. & W. B. Watt, SALEM, ONT.,

BREEDERS OF
Clydesdale horses,
Scotch Shorthorn
cattle, Leicester
and Oxford sheep,
Berkshire pigs.

Our SHORTHORN herd was founded over 30 years ago, and contains such tribes as the Village Buds, Matchless, Missies, Mildreds, Stamfords and English Lady, upon which we have employed such bulls as *Barrington Hero* 324, *Young Abbotsburn* 6236, *Challenge* 2333, *Perfection* 9100, *Lord Lansdowne* (imp.) 2712, *Clan Stuart* 14331, *Canada* 18338, *Sylphion Chief* 1700, *Royal Sailor* (imp.) 18339, *Royal George* 28313, *Clipper King* 16233 and *Judge* 23419, all of which have been first-prize winners wherever shown. *Royal Victor* 34681 and *Royal Wonder* 34682, by *Royal Sailor* (imp.), and out of English Lady and Mildred dams, now head the herd, assisted by *Rosa Cloud* 31317, by *Lord Gloster* 28965, and out of *Melody* 21992, a descendant of the Buckingham family. We are now offering young bulls, cows and heifers for sale, of Scotch type.

Farm 2 miles from Elora Station, G. T. R. and C. P. R., 15 miles north of Guelph.

FOR SALE:

7 Shorthorn Bulls

OUR HERD was awarded, at Toronto Exhibition, 1900: first prize for best herd of 1 bull and 4 females; first for breeder's herd of 1 female; first for cow in 1-year-old class; first for cow 3 years old; first for 2-year-old heifers; also gold medal for best female, any age. The herd has produced such bulls as *Banker*, *Lord Stanley*, 5 times first and a sweepstakes winner in Chicago, 1893; *Monarch* *Lad*, 3 years sweepstakes bull in Toronto; and *Topman*, first prize and sweepstakes gold medal in Toronto. Farm on Metropolitan Electric Railway, 15 miles north of Toronto and 3 miles from Richmond Hill and Thornhill stations on Northern branch of G. T. R.

J. & W. RUSSELL, Richmond Hill, Ont.

The Finest Spray
is produced with
RIPPLEY'S
Compressed Air 3 gal. Sprayers. Tested to 60 lbs. pressure. Has safety valve—can't burst. Throws a continuous stream 35 feet if desired. Guaranteed the best 3 gal. Comp. Air sprayer made, or money refunded. Made both in copper and galv. iron. Write for circular. Nothing else so good for white-washing poultry houses, stables, etc. We also make Lice Killers, Fly Remover and Feed Cocks. Agents make big money selling these and our other specialties. Write for special terms and prices to dealers and agents.

RIPPLEY HARDWARE COMPANY,
Grafton, Illinois,
Canada Factory,
London, Ontario.



JAS. DORRANCE, SEAFORTH, ONTARIO,

BREEDER OF
Shorthorn Cattle and Berkshire Pigs
Young stock always for sale.

FOR SALE: SHORTHORNS AND YORKSHIRES

4 SUPERIOR Scotch-bred Shorthorn bulls, 12 to 14 months; 4 two-year-old heifers of the best strains; and cows with calves at foot. Also a superior lot of Yorkshire boars and sows from 3, 5 to 7 months old. Orders booked for spring pigs. Pairs and trios supplied not akin.

H. J. DAVIS,
BOX 290, WOODSTOCK, ONT.

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.

6 Shorthorn Bulls 6

Also cows in calf and yearling heifers. All of straight Scotch breeding.

SHORE BROS., WHITE OAK, ONT.

WOODSLEE STOCK FARM.

FOR SALE: 3 Shorthorn bulls, 15 months old, two reds and one roan. Well developed, healthy, and thick fleshed.

S. G. LITTLE, Hagerman, Ont.
W. PATON, Manager.

Unionville Station, G. T. R.

Shorthorns FOR SALE:

12 young bulls,
10 yearling heifers and heifer calves,
16 2-year-old heifers and young cows,

several well advanced in calf to Precious Stone (imp.). Prices moderate. Write for particulars.

G. A. BRODIE,
Stouffville Station, Bethesda, Ont.

JOHN DRYDEN, BROOKLIN, ONTARIO.

Our present offering includes several choice young bulls fit for service, sired by "Scotland Yet," a descendant of *Warrior* (imp.); also bull calves, from *Princess* (imp.), and out of *Royal George* (imp.). Inquiries and orders promptly solicited.

A. D. BROWN,
M. G. RAILWAY, IONA, ONTARIO.

GOSSIP.

A bulletin just issued by the Buenos Ayres (Argentinian) Chamber of Commerce says that the foot-and-mouth disease and the inundations have caused more losses to Argentina farmers than has been the general belief. It is estimated that in the last year about 14,000,000 sheep perished, including almost the whole product of 1900. The loss in wool is estimated at 33,000,000 kilos. Cattle also suffered, but less than sheep.

At a combination auction sale of Aberdeen-Angus cattle, at Kansas City, March 20th and 21st, 105 animals, drafts from four herds, made an average of \$23.15, sixty females averaging \$270. The highest price for a bull was \$305, and for a female \$260, the latter price being paid by C. H. Gardiner, Blandinsville, Ill., for the yearling heifer, Black Cap 13th; \$265 was paid for the 3-year-old cow, Dorcas, by E. H. Eymann, Harrison, Ill.

At the sale of Shorthorns held by E. S. Donahay at Newton, Iowa, March 2nd, A. Alexander, Morning Sun, Iowa, purchased the 6-year-old cow, Emma 17th, with a heifer calf at foot, for \$1,330, the highest price of the sale. Five other cows sold for \$390 to \$700 each. The 3-year-old bull, Royal Prince 4th, sold for \$450 to W. M. Lambing & Son, West Liberty, Iowa. This was the highest-priced bull. The 6th head sold averaged \$217.30, the 48 females making an average of \$247.40.

F. L. Green, Greenwood, Ont., reports the butter record of his Jersey cow, Queen May of Greenwood, for the week ending March 30, in which she made 17 lbs. 14 ozs., salted, well worked and printed, ready for the market. She is a broken-colored cow, sired by Hugo's Bonanza, and out of Coquette's Nora. Her daily feed during the test was 25 lbs. of a mixture of ensilage and cut straw, in the proportion of 2 of ensilage to 1 of straw, by measure; 14 lbs. of a mixture of 6 parts bran to 4 parts middlings, about 10 lbs. mixed hay, and 8 to 10 lbs. mangel.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS, RECEIVED DURING MARCH, 1901.

This class of records are uniformly made under personal, critical and official supervision of representatives of State Experiment Stations. Reports of thirty-eight were received during this month, all of which are for periods of seven days. Summarized:—Fourteen full-age cows, average 7 years, 1 month, 23 days after calving: Milk 129.9 lbs., butter-fat 14.265 lbs., equivalent butter 80 per cent, fat 17 lbs. 13.3 ozs., equivalent 83.7 per cent, fat 16 lbs. 10.3 ozs. Six four-year-olds, average 4 years 9 months 4 days, 31 days after calving: Milk 101.8 lbs., butter-fat 13.119 lbs., equivalent butter 80 per cent, fat 16 lbs. 6.4 ozs., equivalent 83.7 per cent, fat 15 lbs. 4.9 ozs. Eleven three-year-olds, average 3 years 5 months 11 days, 23 days after calving: Milk 98.8 lbs., butter-fat 12.631 lbs., equivalent butter 80 per cent, fat 15 lbs. 12.6 ozs., equivalent 83.7 per cent, fat 14 lbs. 11.8 ozs. Seven classed as two-year-olds, average 2 years 2 months 21 days, 38 days after calving: Milk 82.7 lbs., butter-fat 9.380 lbs., equivalent butter 80 per cent, fat 11 lbs. 11.6 ozs., equivalent 83.7 per cent, fat 10 lbs. 15.1 ozs. While these averages are high, they include no records that may be regarded as phenomenal: the average of four is above 20 lbs. butter 80 per cent, fat. Two three-year-olds produce over 18 lbs. each, and one two-year-old reaches 16 lbs. 10.8 ozs.

Are you Ready for the Harvest?—This is the question every thinking farmer should be asking himself to-day. If you are not ready, now is the time to get ready. To be unprepared at the commencement of the Harvest season is a condition no wide awake farmer will allow himself to fall into. To-day is the time you should provide yourself with "The Best in the World" harvesting machinery.

The discriminating buyer will find, by examining the construction, the work in the field, and the history of the machines that may be offered him, that McCormick machines do the cleanest work and under unfavorable conditions where no other machine will give satisfaction; and that McCormick machines are so constructed that they are the most durable, and will live the longest and do the most work, thus giving the purchaser the greatest value in the quantity of the work they will do during the life of a machine, which will average two or three times as great as some of the "cheap" machines—Advt.

YOUNG SHORTHORNS FOR SALE

Our present offering includes several choice young bulls fit for service, sired by "Scotland Yet," a descendant of *Warrior* (imp.); also bull calves, from *Princess* (imp.), and out of *Royal George* (imp.). Inquiries and orders promptly solicited.

A. D. BROWN,
M. G. RAILWAY, IONA, ONTARIO.

Hillhurst Shorthorns.

Three Collynie-bred Bulls in service: Scottish Hero, by Scottish Archer; Joy of Morning, by Pride of Morning; Scottish Beau, by Silver Plate.

SPECIAL OFFER:

Three young bulls (registered), red, roan and white, 12 to 14 months old, bred from Cumberland, Gloucestershire and Canadian dairy strains, at farmers' prices and for farmers' purposes, to produce big-framed, deep-milking cows, and early-maturing beef steers. Write at once for prices and particulars.

Hackney Stallion, Rattling Shot 351 A. H. S. B., 6 years, 16 hands, 1,300 lbs., dark roan, black points, broken to harness, grand actor, and successful sire of promising carriage horses, mostly bays, ham imported, 15-mile-an-hour roadster. Come and see him, or write for low price and particulars.

M. H. COCHRANE,

G.T.R., 117 miles east of Montreal. on HILLHURST STATION, COMPTON CO., P. Q.

W. G. Pettit & Son, FREEMAN, ONT.

IMPORTERS AND BREEDERS OF
Scotch Shorthorns
and Shropshire Sheep.

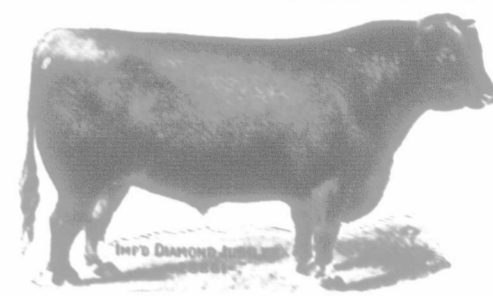
OFFER FOR SALE:

- 12 Imported bulls, 12 mos. to 2 yrs. old.
- 5 " " " 9 to 12 mos. old.
- 20 " " cows, 3 to 6 yrs. old.
- 15 " " heifers, 2 yrs. old.
- 5 " " " 1 yr. old.
- 6 Home-bred bulls, 9 to 18 mos. old.
- 20 " " heifers, 1, 2 and 3 yrs.

Our imported bulls are now getting in good shape. All our heifers of suitable age are bred to Pure Gold (imp.), by Cyprus, and Scotland's Pride (imp.), a Cruickshank Clipper, by Star of Morning.

Catalogues on application. All our imp. cattle were registered in the American Herd Book before the \$100.00 fee for recording was put on.

Burlington Junction Station, Telegraph and Telephone Offices, within half a mile of farm.



T. DOUGLAS & SONS, STRATHROY, ONT.

BREEDERS OF... Scotch Shorthorns

100 HEAD TO SELECT FROM.
Offer for sale 14 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, on

SEND FOR ILLUSTRATED PRICE LIST



Barb, plain twist and all kinds of wire at less than wholesale prices. Nails at prices which will astonish you. Four-prong Manure Forks, only 30c. each. Long-handled, round-pointed Shovels, solid steel, 3/4c. each. Solid steel Hammers, 35c. each. Combination Cobblers', tinkers' and harness-makers' outfit (should be in the possession of every one), only \$2. The complete outfit. Deep-well Pumps, only \$6.50. Cistern Pumps, \$2.50. Revolvers, 32 calibre, double action, only \$2.99, postpaid anywhere in the Dominion. Haying Outfits at lowest prices. Belting of all kinds, both rubber and leather.

Wilkins & Co., 166 AND 168 KING STREET EAST, Toronto.

SPRINGBANK FARM.

Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys Young bulls for sale.

JAS. TOLTON, WALKERTON, ONT.

N.-W. Territory Heard From.

Elkton Rancho, DeWinton, Alberta, N.-W. T., Canada, Nov. 13, 1900.

Having had very satisfactory results from GOMBAULT'S CAUSTIC BALSAM, I thought it might be worth while writing to you and asking you whether you have any representative in this part of the world. C. DAVIDSON

PLEASE MENTION FARMER'S ADVOCATE

GOSSIP.

At the dispersion sale of the small Jersey herd of Mrs. Greenall, Walton Hall, England, March 15th, the cow, Longueville Brownie 5th, sold for \$52, and the entire herd averaged close to \$200 each.

Hector Cowan, Pauline, Iowa, held a successful sale of Shorthorns on March 20th. The 12 head selling for an average of \$242, the 31 females averaging \$277. Martha 6th, an imported five-year-old cow, brought the highest price, \$325, and was bought by E. R. Shangland, Marathan, Ia. Nancy Lee sold for \$700 to Claus Johnson, Rolfe, Ia.

Walpole Bros., Rock Valley, Iowa, sold 18 head of Shorthorns by auction in the following week at an average of \$192.50. The highest price, \$425, was made by the yearling heifer, No. Mistake, bred by John Davidson, Ashburn, Ont., and sired by Sittyon Hero, Indian Lass, a yearling, sold for \$285, the second highest price, to G. E. Ward, Hawarden, Ia.

A. W. Smith, Maple Lodge, Ont., writes: "We have recently added to our herd of Shorthorns the young imported Cruickshank bull, Sir Wilfred (imported by Messrs. Cargill) to assist imp. Knuckle Duster. The youngster is very promising, has the right kind of covering of flesh and hair, an excellent head and shoulders, thick at the heart and crops, good back and loin, and deep, full quarters, a rich red in color. Got by the Sittyon Victoria bull, Scottish Victor (88357), by Scottish Archer (38829); dam, one of Mr. Cruickshank's Strawberry tribe, by Mr. Bruce's Mazurka by Rose noble (61661); granddam, British Leader (60417), by William of Orange (30824), etc.

The following paragraph from the London Live Stock Journal indicates pretty clearly the impression the action referred to has created on the other side of the sea:

"Considerable disappointment has been occasioned among breeders of Shorthorn cattle by the report that the American Shorthorn Breeders' Association have decided to make a charge of £20 for the admission of each imported animal into the Herd Book for the breed in the United States. Considering how severely breeders in this country are already handicapped by transport charges, quarantine costs, etc., it is difficult to see any necessity for this additional impost. The plea for it, we suppose, is that it is intended to prevent the importation of moderate and inferior animals, but here it will be generally regarded as a form of protection to American breeders, and it will certainly have an adverse influence on the export trade. A similar policy was adopted by the Hereford breeders in the United States some years ago, and it had undoubtedly that effect. As the trade in Shorthorns was likely to grow into considerable dimensions just now, it is to be regretted that any measure should be adopted to check it, and if the reported adoption of this policy is correct, it is to be hoped that it will soon be abandoned."

HOLSTEIN BUTTER TESTS OF 1900.

The current official year for Advanced Registry tests began May 16, 1900. The tests are all conducted under the supervision of Experiment Stations. The best weekly records for the period thus far are the following:

Lilith Pauline De Kol 13431, owned by H. D. Roe, Augusta, N. J.; age 1 years 3 months; product of butter-fat 22,388 lbs.

Katy Spofford Corona 54923, owned by E. H. Knapp, Fabius, N. Y.; age 3 years 1 month; product of butter-fat 20,822 lbs.

Susie De Kol 38688, owned by A. A. Cortelyou, Neshauc, N. J.; age 7 years 8 months; product of butter-fat 19,216 lbs.

Aaltje Pusch 14th 23176, owned by Jas. Bettie, Norwich, Ont.; age 10 years 10 months; product of butter-fat 19,081 lbs.

Roxie Wayne 25207, owned by H. D. Roe, Augusta, N. J.; age 9 years 9 months; product of butter-fat 18,411 lbs.

Duchess Clothilde 24823, owned by Gillett & Son, Rosendale, Wis.; age 9 years 7 months; product of butter-fat 18,424 lbs.

Clothilde Artis Topsey 37322, owned by Don J. Wood, West Exeter, N. Y.; age 6 years 3 months; product of butter-fat 18,337 lbs.

Here are seven Holstein-Friesian cows which have each produced, in a seven-days test, an average of 19.38 lbs. butter fat, equivalent to 21 lbs. 7 ozs. of butter 80 per cent. fat.

BRITISH COLUMBIA STOCK SALE.

The consignment of pure-bred stock purchased in Ontario in February for the Dairy-men's Association of British Columbia was sold by auction at New Westminster on March 15th, by L. W. Paisley, the capable and accomplished auctioneer, from Chilliwack, and brought fairly good prices. The catalogue included 25 Shorthorns, 3 Ayrshires, 5 Southdown sheep, 5 Shropshires, and about 100 head of poultry, composed of 3 Plymouth Rocks, 8 L. and White Wyandottes, and Light Brahmans. The 8 Shorthorn bulls brought from \$100 to \$255, the latter figures being paid by Mr. Alex. Ewen, of Westminster, for Lucky Jim, a light roan 9-months calf, bred by Jeffrey Bros., Whitby. The second highest price, \$180, was paid for Prince of Malton, a red 16-months bull bred by W. J. Watson, Malton, and bought by George Banford, Chilliwack. The 20 females sold at prices ranging from \$85 to \$145, the highest price being paid for Kate Carnegie, bred by Wm. Paterson, Denfield, and bought by John Chapman, Chilliwack. The Ayrshire bull, Stanley, 5 years old, bred by Jas. McOrmack, Rockton, and sired by Jack Morton, sold for \$120 to Mr. McClure, Matsqui, and the two Ayrshire cows brought \$100 and \$135. Two Southdown rams brought \$70 each, and 2 ewes \$20 and \$24. The Shropshires sold at from \$30 to \$45, with the exception of one ewe, which brought only \$15. The Oxford brought from \$20 to \$35 each, the Berkshires \$20 to \$30, and the Tamworths \$18 and \$20 each. The poultry was eagerly bid for, and sold well, prices bringing from \$4 to \$7.30, the highest price being realized for the Wyandottes. The expenses of the importation were necessarily heavy, though very much less than they would have been but for the reduced rates advanced by the C. P. R. for breeding stock, and the much reduced freight over the cost will not be much. It was estimated that when all claims are settled there would be a balance in favor of the Association that would about cover the loss of the first sale, held during the fair week last year.

Pyramid Pile Cure

Physicians Recommend It, Druggists Sell It, Everybody Praises It.

If we could sell one package of Pyramid Pile Cure to every person in America who is troubled with piles and who would gladly give the 50 cents to be rid of piles, we would have sold ten million dollars. The only reason that we don't sell that many packages this year is that we will not be able to get ten million people to try it. Just one application will prove its merit, and imply upon the cost of the whole box.

The effect is immediate. Comfort comes at once, and continued treatment will cure any case, no matter how bad.

Pyramid Pile Cure soothes the inflamed surface the instant it touches it, heals it, reduces the swelling, and puts the parts into a healthy, active condition. There is no substitute for it. Nothing compares with it.

We have never heard of a single case that it failed to cure; we have heard of thousands that it has cured quickly and completely.

Here are a couple of letters recently received:—

From Geo. C. Geick, Owens Mills, Mo.: "Some time ago I bought a package of Pyramid Pile Cure for my wife, who had suffered very much. The first trial did her more good than anything she has ever tried. It is just what is claimed for it."

From Richard Loan, Whipple, Ohio: "I have used the Pyramid Pile Cure, and am entirely pleased and satisfied with results. It does the work and no mistake."

The proprietors of the Pyramid Pile Cure could publish columns of similar letters, but these are enough to show what it will do in different cases.

All druggists sell Pyramid Pile Cure, or will get it for you. It is 50 cents per package, and made only by the Pyramid Drug Co., of Marshall, Mich.—Advt.

Tomatoes, Cucumbers and Cabbages

should be forced rapidly during their early periods of growth by a liberal use of

Nitrate of Soda.

When judiciously applied, these crops will be ready for market two weeks or more ahead of those not properly treated. The best results of Nitrate of Soda are obtained when used in combination with phosphates and potash salts.

For particulars and for list of dealers address John A. Myers, 12 R John St., New York City. No expense to you.

GEO. RAIKES, BARRIE, ONT.

Breeder of Shorthorns and Shropshires.

Young stock of both sexes for sale.

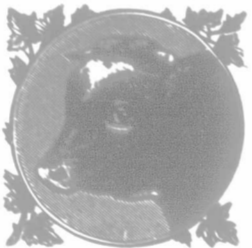
HAWTHORN HERD

OF DEEP-MILKING SHORTHORNS. We are offering 8 young bulls for sale, of first-class quality, and AI breeding.

Wm. Grainger & Son, - Londonboro, Ont.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Topman—17847—champion at Winnipeg, Toronto, London and Ottawa, 1899. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply



T. E. ROBSON, Ilderton, Ont.

High-class Shorthorns and Yorkshire Pigs.

Just now three 10-months bulls, got by imp. Sirius 15251, great big massive fellows with lots of flesh and quality—away above the average. Also a few superior young cows in calf, and 5 or 6 heifers. We are booking orders now for the spring trade. Can ship some in six weeks.

JAS. McARTHUR, GOBLE'S, ONT. Goble's Station, G. T. R., 10 miles east of Woodstock, 2 miles from farm. Visitors met.

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS—Grand young bulls and heifers for sale. We have the first-prize milking strains. Imported Knuckle Duster and Imported Sir Wilfred in service.

LEICESTERS—First prize flock of Canada for past six years. Imported and home-bred for sale.

ALEX. W. SMITH, MAPLE LODGE P. O., ONT.

FOR SALE. SHORTHORNS—Young bulls and heifers. Leicesters and Southdowns, both sexes. Berkshires—Young boars fit for service, young sows in pig and ready to breed. Also choice seed peas. Write for catalogue or come and see.

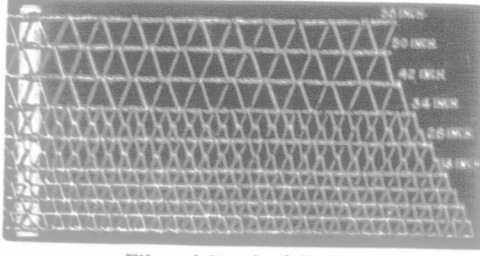
E. JEFFES & SONS, Bond Head.

SHORTHORNS FOR SALE

Young stock of both sexes, reds and roans.

JOHN R. HARVEY, ORILLIA, ONT.

ELLWOOD Steel Wire Fences.



Six styles, all heights, for every fencing purpose on Farms, Ranches, Orchards, etc. Strong, Humane, Cheap, Durable. FULLY GUARANTEED.

Heavily Galvanized Best Steel Wires. We have agents everywhere. ELLWOOD FENCES are easy to get, easy to pay for, easy to put up. If you cannot find an agent write to the makers.

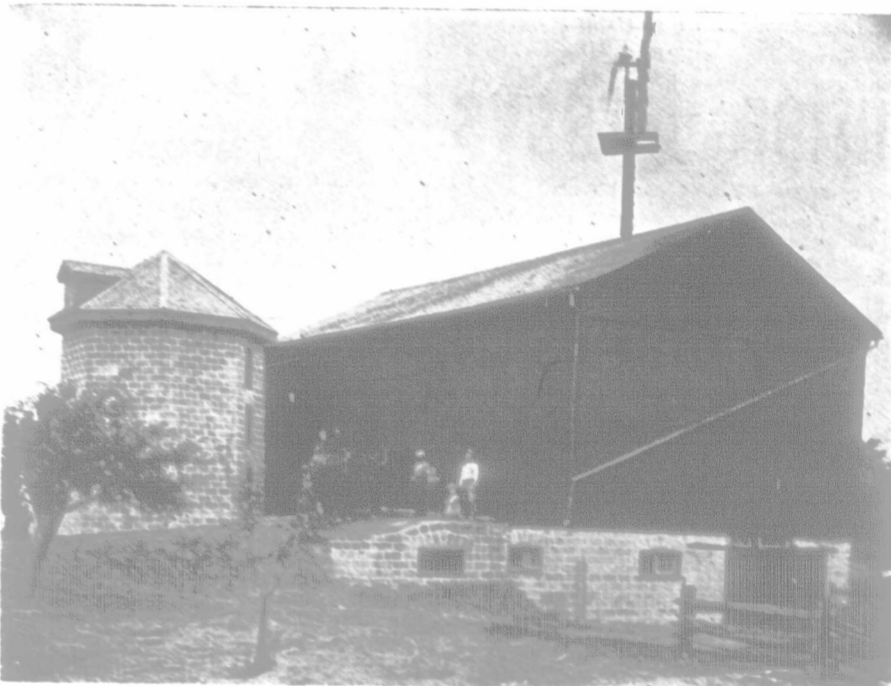
ELLWOOD Standard Style. AMERICAN STEEL & WIRE CO., Chicago or New York.

A Splendid Silo, Root House, and Barn Walls

THE PROPERTY OF MR. THOS. S. DUNN, MANAGER OF THE STRATHROY CANNING CO., OF STRATHROY, ONT.

ALL BUILT WITH THOROLD CEMENT IN JULY, 1899,

UNDER THE SUPERINTENDENCE OF JOSEPH W. HARRIS, OF KERWOOD, ONT., OUR SALES AGENT FOR STRATHROY, KERWOOD AND WATFORD.



Size of barn basement walls 1 foot thick, 52 x 30 x 84, on an 18 x 18 inch footing. Used 65 bbls. CEMENT, and labor—2 men for 16 1/2 days. Size of root house 26 x 11 x 5 1/2, inside measure. Walls 1 foot thick; arch 10 inches thick. Is giving complete satisfaction. Size of silo 16 feet 8 inches inside diameter by 27 feet high. 18-inch walls at bottom, 11-inch at top. It has been filled to the top with corn cobs and husks from the canning factory, and has kept in good shape.

ESTATE OF JOHN BATTLE, THOROLD, ONT.

MANUFACTURERS OF THOROLD CEMENT.

Rapids Farm Ayrshires.

REINFORCED BY A RECENT IMPORTATION of 20 cows, 2 bulls, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitions at—

Toronto, London, and Ottawa, in 1900.

Come and see or write for prices. Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Robert Hunter, Manager

for W. W. Ogilvie Co., Lachine Rapids, Quebec.



BULL-STRONG!

...Pig-Tight...

An Illinois farmer said that after harvest he had fully 200 bushels of loose oats on the ground that he could not secure any benefit from, because the fence around the field would not turn hogs. Figure the loss for yourself. He also said, all this would have been saved if he had used the Kitzelman Woven Wire Coiled Spring Fence, and the value would have gone a long way towards paying cost of the fence. With the Duplex Machine any farmer can make it himself at the actual cost of the wire. Catalogue free for the asking. C. C. DAVIS & CO., Box C-116, Freeman, Ont.

SHORTHORNS AND BERKSHIRES.

Young bulls, six to twelve months old; cows and heifers. Berkshires (various ages, either sex), and Embden geese.

MAC CAMPBELL, Northwood, Ont.

IT NEVER SAGS

The old style poultry netting could never be properly stretched. It was made of lightest wire and being "flimsy" had to have a rail top and bottom to make it worth anything. That made it expensive and less effective. Our Patent "ACME" Poultry Netting avoids all these delicacies. It is made of strong wire with extra heavy strong wires top and bottom and in the middle. Stretches well and stays stretched. Note the graduated mesh; from 1 1/4 in. at bottom to 3 in. at top. Made from 24 in. to 72 in. high. It will please anybody seeking a good netting. We make Lawn and Farm Fencing, Gates, Stables, etc. Catalogue Free. The Page Wire Fence Co., Ltd., Waterville, Ont.

D. ROSS, Box 553, Winnipeg, General Agent. Fence in Stock.

Maple Hill Holstein-Friesians

SPECIAL OFFERING:

Three very fine bull calves, 2 to 11 months old. Also several extra good young cows and heifers. Prices moderate. Visitors welcome.

HARRISBURG STN., G.T.R. **G. W. CLEMONS,**
GALT STN., C.P.R. **ST. GEORGE P.O., ONT.**

Maple Glen Stock Farm.

The home of officially tested, Advanced Registry, dairy test and showing-win-**HOLSTEINS**. A grandson of Sylvia now for sale. Price is in keeping with breeding and performance.

C. J. GILROY & SON,
Brockville, on C.P.R. or G.T.R. **Glen Buell, Ont.**

WHERE ARE THE BEST HOLSTEINS?

Have you read of Lilith Pauline DeKor's wonderful record? Her sire was bred here. Have you read of Susie DeKor's record? She was sired by a son of our great cow, DeKor 2nd. We can give our customers more of the blood of the greatest producers than can be found in any other herd. Look over official reports and see where the sires of the great producers were bred. We have over 30 young bulls for sale, and a large number of females. Animals shipped to Canada are accompanied by certificate of health, and are subject to no duties or quarantine. If you want the best, write or visit—

BROOKSIDE HERD,
H. Stevens & Sons, Lacona, Oswego Co., N.Y.

GLEN ROUGE JERSEYS.

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

THOSE

Butter Jerseys

ADVERTISED ARE ALL SOLD.

But I have others fully as good, or better. Heifers from 4 months up to 2 years. Several soon due to calve. Another g. g. daughter of old Massena, 10 months old. Three fresh young cows, grand udders. One yearling bull. One aged bull. No young bull calves left, but more to come.

MRS. E. M. JONES,
Box 324, **BROCKVILLE, ONT.**

BRAMPTON JERSEY HERD.

For sale: 2 yearling bulls; 8 bull calves, sired by Brampton's Monarch (imp.), and out of first-class cows. A number of cows and heifers in calf. Also some unregistered cows and heifers, fresh-calved and springers—grand family cows.

B. H. BULL & SON, BRAMPTON, ONT.

For Sale: High-class Ayrshires.

I choice bull, 14 months old, from prizewinning dam and sire. A few young females of different ages. Calves of either sex, from 6 months to 2 weeks, sired by our imported bull, Caspian of St. Anne's, and White Cockade.

ALEX. HUME & CO., Menie, Ont.

CHOICE AYRSHIRE BULLS.

OFFER: 2 bulls, 12 months old; 2 bulls, 8 months old; and 3 bulls, from 3 to 5 months. All off imported and heavy milking stock.

W. W. BALLANTYNE,
Stratford, Ont.
"Needpath Farm" adjoins town, on main line G.T.R.

Maple Cliff Dairy and Stock Farm.

AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TAMWORTH PIGS.

For Sale: 5 bull calves, a few heifers; young pigs, pairs not akin; 2 boars, 4 months old; young pigs. Farm adjoins Central Experimental Farm, Ottawa.

R. REID & CO., Hintonburg, Ont.

For Sale:

Six Ayrshire bulls, ranging from 5 months to 1 year past. Also a few cows and heifers, thoroughbred fowls, and Scotch collie dogs.

WM. STEWART & SON, MENIE, ONT.

NETHER LEA AYRSHIRES, BERKSHIRES, YORKSHIRES, AND ROUGH-COATED COLLIES.

I expect to import from Europe, the near future, and can book orders for stock on commission, as I have a good connection in England and Scotland.

T. D. McCALLUM, Danville, Que.

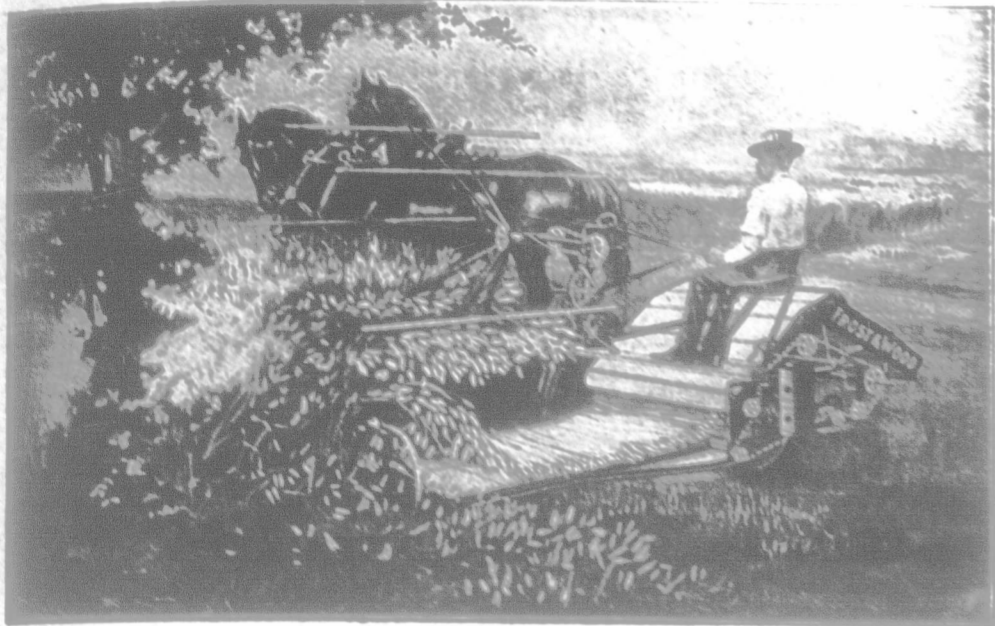
Ayrshire Bulls:

Write **J. 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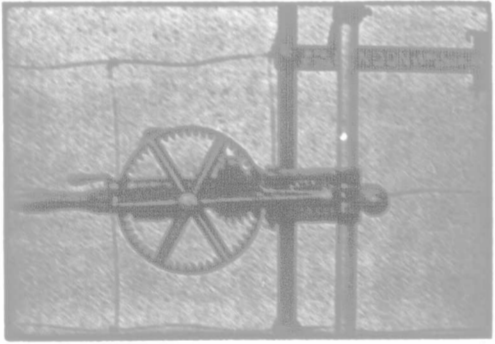
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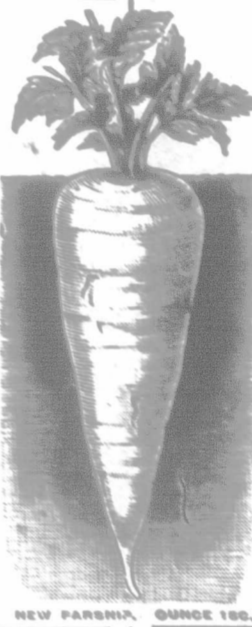
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