

J. H. Grisdale z t feb 20, 1901  
Exo Farm. (Ottawa)

MANITOBA AND WESTERN EDITION

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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Vol. XXXV. LONDON, ONTARIO. AUGUST 6, 1900. WINNIPEG, MANITOBA. No. 507

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# THE FARMER'S ADVOCATE

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VOL. XXXV.

LONDON, ONT., AND WINNIPEG, MAN., AUGUST 6, 1900.

No. 507

## Politics and Newspaper Postage.

The FARMER'S ADVOCATE never has and does not now object to a fair and equitably levied rate of newspaper postage. Being business enterprises, it is no more than right that publications should pay for the service which the government renders in carrying them from one portion of the country to another, though there is room for fair argument that they should be encouraged rather than discouraged, on the ground that the public is advantaged by the spread of knowledge. We believe that the public business of this country should be conducted upon business principles, and it would greatly simplify and lessen the cost of the conduct of public affairs if governments would not only do that, but curtail rather than expand their functions, which latter seems to be the patronage-creating fad of the present day. Prior to July 1st, 1899, papers had been carried free through the Canadian mails for a considerable period of time. With their increasing circulation and the increasing bulk of a good many newspapers, in imitation of the ponderous and trashy Sunday "yellow" journals of the United States, the burden upon the postal department at last became simply intolerable, and the Postmaster General of the present Canadian Government (Hon. Wm. Mulock) undertook to deal with the subject, and the result was a bill whereby papers were charged  $\frac{1}{2}$  of a cent per pound for the first six months of last year, and thereafter  $\frac{1}{4}$  a cent per pound, except those circulating within a twenty-mile radius of the office of publication, which go free, in case of papers located upon a lake, their zone was measured 40 miles on one side of the office. This absurd zone system, making fish of one and flesh of another, was a sop to the country weeklies and the unfortunate political price paid for getting the measure through Parliament, because we believe the original intention must have been to treat all alike. It involved taxing the journals of greatest merit, circulation and influence, for the benefit of the little organ of the country M. P.; and further, while a protective system was continued by the administration for large numbers of enterprises, United States sheets, big and little, good, bad and indifferent, had the free run of the country. To the FARMER'S ADVOCATE the 20 mile zone exemption is a mere flea bite, and no relief from the unjust imposition of the bill. Edited for the improvement of all branches of agriculture, being practical in its teaching and of superior merit, its circulation extends, naturally, not only into every part of the Province of Ontario, but throughout Quebec, the Maritime Provinces, Manitoba, the Northwest, and British Columbia; also very generally through Michigan, Ohio, New York, Maine and many other States; and Great Britain, Australia, New Zealand, and India, as well as several European countries; in fact, hardly a country can be named where farming is successfully carried on by people who understand the English language, that the FARMER'S ADVOCATE is not received and highly prized for its helpfulness. So far as Canada is concerned, for 34 years the paper has steadily associated itself with the advancement of this great industry, and if the whole truth were told there is no doubt that its work and the knowledge and stimulus imparted to the public have done more for the real progress of the farmer than all the Government institutions and projects that have ever been set afloat; and this can be said without in any way reflecting on the excellence and usefulness of much that scientific research, experimental work and demonstration has accomplished. To the outside world the pages of the FARMER'S ADVOCATE have been a constant reminder of the splendid achievements of agriculture in Canada, and yet this publication is discriminated against in favor of the purveyors of local gossip and politics, while from Ottawa great quantities of political lit-

erature is "franked" at the public expense, doubtless on the ground that it contains information for the public.

The  $\frac{1}{2}$  cent per pound rate having been protested against as onerous, the Postmaster General at the session of Parliament just over introduced an amendment to reduce the postage on newspapers within the provinces in which they are published to  $\frac{1}{4}$  of a cent per pound, while still charging half a cent per pound on those going from one province to another or out of the Dominion, and as we understand it, leaving the 20-mile zone still free, so that the ADVOCATE would have had the small free area, the provincial  $\frac{1}{4}$  of a cent per pound rate, and beyond that the  $\frac{1}{2}$  cent rate—variety enough, in all conscience. The House of Commons passed the bill, but it was thrown out by the Senate bodily, for they could not modify it, it being held that an amendment would be one affecting revenue. If they have not the power to amend, they should have roused themselves a year earlier and thrown out the original measure. As a result the old injustice is still perpetuated.

It is lamentable that the postal administration that has shown such commendable energy in many directions, and has to its credit the introduction of the two-cent letter rate boon and Imperial penny postage, should be marred by a retrograde and petty newspaper postage policy.

## Summer Institute Meetings.

Our first meeting was held at Russell at 8 p. m. Between 7 and 8 o'clock it began to rain heavily, and continued more or less for over three hours. This, we were given to understand, was the first rain of the season. The crops in this locality are rather late on that account. Our meeting was poorly attended, about 12 being present. Mr. Luttley Butler, instructor in the Dairy School, in the course of his remarks, urged the farmers to give more attention to dairying, and predicted that it would eventually supersede wheat-growing. He favored winter dairying as affording the best market. The process of buttermaking was followed and a number of pointers given as to each step. The use of the separator was urged, the speaker maintaining that the cream secured was one third more than by the deep-setting system. This cream, however, would have to be cooled to 40 or 50 degrees or it would ripen too fast. The deep-setting can with tap in the bottom was denounced. If deep-setting cans are used at all, the cream should always be skimmed from the top. The advantages of a course at the Government Dairy School were urged. The course which occurs in the winter is entirely free and is of great benefit to anyone wishing to become acquainted with the best methods of dairying. Mr. A. P. Stevenson then addressed the meeting on the subject of fruit growing. He laid down some general principles to be observed, and then dealt with the culture of each kind of fruit individually. He recognized as a primary essential to success in any kind of fruit growing in Manitoba the absolute necessity of having some kind of wind-break. The more convenient method of cultivation is always to have everything set in rows so as to cultivate largely with the horse. Novelty in fruit were denounced generally as frauds, only the old, well-tested being worth trying. Considerable success had been had with strawberries, and the Wilson, Crescent and Gandy had been found to be the best varieties. The strawberry rows should be planted about 4 feet apart. Some persons failed to receive fruit from their plants on account of planting only pistillate varieties. In planting it was urged that male and female varieties be planted in alternate rows. It is necessary to mulch with straw in winter. Two crops of fruit is all that can profitably be taken from a strawberry patch before plowing down. Success in the culture of gooseberries and currants was briefly put in three words: Manure, prune, cultivate. These fruits will stand a great deal of manure and pruning. Unless the bush is properly pruned the fruit will be small. A general rule for pruning is to cut out the darkest wood, which is the oldest. All the vigorous new shoots in the center of the bush should each year be

pruned out, except two or three. Never try to grow these fruits on one stem, tree fashion. If the borer got into that stem the bush would be killed outright. Currants and gooseberries should be planted 4 feet apart each way. In planting out red raspberries always cut the top off the plants. These should be set in rows 8 feet apart. The raspberries might be allowed to thicken out to form a row of stalks, 18 inches wide, properly pruned, but the suckers should be kept down between the rows. In the way of plums, there is not a single variety now grown in Ontario that is any good at all in Manitoba. The same may be said of cherries. It was advised to select a tree of the native plum which bears superior fruit; mark it during the fruiting season, and in the late fall take out cuttings of the surface roots for setting out the following spring. The planting of pits gives no satisfaction, as the seedlings nearly always turn out to be other and poorer sorts. The growing of crab apples has passed the experimental stage in some parts of Manitoba. The Transcendent and Hyslop are the best. The speaker found it necessary to wrap the trunk of the trees during winter with gummy sack-ing.

A vote of thanks was tendered the speakers at the close of the meeting.

### BIRTLE.

This was a lively meeting, with some good discussions on creamery matters. About thirty were present.

### SHOAL LAKE.

After waiting till long past the hour, we started with ten, but before the finish over fifteen were present. Complaint was made of the brief notice received regarding meetings. The usual subjects were dealt with by the speakers, and good interest was manifested.

### STRATHCLAIR.

We had also an attendance here of fifteen, but it was claimed that double that would have been present had more extended notice been given.

### MINNEDOSA.

After waiting an hour and a half, we counted an attendance of one, so audience and speaker adjourned to the creamery, where some good object lessons were learned. The failure of a meeting at this point can only be attributed to indifference on the part of the farmers.

### NEEPAWA.

A fine meeting was had here, over thirty-five being present. The question of fruit growing and buttermaking were thoroughly gone into, no end of questions being asked and answered. The meeting closed after 6 o'clock, and all expressing themselves as having had a profitable and interesting time. Crops are well advanced in this locality; too much so to greatly benefit by the fine rain that fell the day after the meeting.

### GLADSTONE.

On account of it being a holiday (Dominion Day) nearly everybody was attending a picnic at a grove some miles distant, so no meeting was held, but a fair sized audience gathered in the evening at the street corner, and for an hour or more the speakers improved the opportunity.

### DAUPHIN.

Only fifteen present. The old complaint again heard here of lack of notice, but all present appeared to be much interested in what the speakers had to say, and promised a larger meeting next time. The crops in this locality are a little better than those further south. Some of the leading farmers estimate the crop at from 10 to 15 bushels per acre. Some fields seen will go more than that and some far less.

### GLENSYON.

We had an enthusiastic meeting at this place, over thirty-five being present, and we were assured had the meeting been at 2 p. m. instead of the evening the schoolhouse would have been full to overflowing. The usual subjects were dealt with by the speakers, and a great many questions answered. One of the last to be put was by the chairman, who rose, and with a twinkle in his eye asked if it was true if the rings found so much in butter at the present time could be attributed to the dehorning system now so much in use. Cows having no horns to have rings on, did they put them in the butter? All of which was answered to everyone's satisfaction, and one of the best meetings of the series was brought to a close with votes of thanks to the speakers.

A. P. STEVENSON.

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN  
THE DOMINION.

PUBLISHED BY  
THE WILLIAM WELD COMPANY (LIMITED)  
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1. THE FARMER'S ADVOCATE is published on the fifth and twentieth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen. (If any publication in Canada.)
2. TERMS OF SUBSCRIPTION—\$1.00 per year in advance; \$1.25 if in arrears; sample copy free. European subscriptions, 6s., or \$1.50. New subscriptions can commence with any month.
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Address—THE FARMER'S ADVOCATE, or  
THE WILLIAM WELD CO.,  
WINNIPEG, MANITOBA.

### Benefits of Humus and Clover.

From an interesting and valuable address on "Soils and the maintenance of their fertility through the growth of legumes," before the Natural History Society, of Montreal, by Prof. F. T. Shutt, Chemist of the Dom. Exp. Farm, we clip the following extracts as being of special interest to our readers throughout the West, as indeed to farmers everywhere:

Before proceeding to speak of the amounts of plant food in soils, it is desirable that I should call your attention to the importance of humus as a soil constituent, since the method of employing clover as a fertilizer is dependent in a very large degree for its value upon the fact that it adds vast quantities of this material to the soil.

#### THE AGRICULTURAL IMPORTANCE OF HUMUS.

1st. It is the natural storehouse and conservator of nitrogen, which element is the most expensive of all plant foods when it becomes necessary to purchase it in commercial fertilizers.

2nd. It furnishes the food upon which the soil micro-organisms live, and which, by their life functions, convert its organic nitrogen into nitrates.

3rd. It possesses considerable amounts of the mineral food constituents. These, in the further decomposition of the humus—a process continually going on in summer—are liberated in forms available to growing crops. We have reason to believe from recent research that the mineral humates furnish a large proportion of the potash, lime, etc., used by plants.

4th. It is the best source of available phosphorus and readily available nitrogen.

5th. It is the best source of available nitrogen.

6th. It is the best source of available nitrogen.

7th. It is the best source of available nitrogen.

8th. It is the best source of available nitrogen.

9th. It is the best source of available nitrogen.

10th. It is the best source of available nitrogen.

been noticed that the amount of humus present gives an excellent, though not an infallible, indication of the amount of organic nitrogen the soil possesses. Further, it has been observed that as the humus disappears the nitrogen goes with it. Cultivation—that is, exposing the substance of the soil to the air, as by our ordinary farm methods with the plow, harrow, etc.—tends to dissipate the humus, and, as a natural consequence, to decrease the nitrogen. Soils growing grain exclusively year after year, lose, it is stated, more nitrogen by this humus oxidation than is removed in the crop, and this loss is greatest in those soils which are richest in nitrogen. At the Minnesota Experiment Station it was determined that for every 25 pounds of nitrogen absorbed by the crop (grain following grain for a number of years) 110 pounds of nitrogen were lost due to oxidation of organic matter.

#### GRAIN AFTER CLOVER.

In 1897, eight plots were sown with grain, four with the addition of clover seed at the rate of 10 pounds to the acre, four without the addition of clover. In October of the same year the crop of clover was turned under, the adjoining "no clover" plots being plowed at the same time. The grain sown on these plots were: Preston wheat, Banner oats, Bolton barley and Odessa Barley. This land, without any application of manure, was sown in 1888 with Banner oats. Regarding the appearance of the growing crops on these plots, Dr. Saunders speaks as follows: "The difference in the growth of the grain on these plots was soon very noticeable, and as the season advanced, especially just before the heads appeared, the difference in height and vigor of growth in favor of the plots where the clover had been grown was very remarkable. So clearly was this manifest, that the difference would be distinctly seen at a considerable distance, and the outline of those plots on which no clover had been sown could be readily traced by the manifestly shorter and less vigorous growth. After the grain was fully headed, the difference in appearance was not so clearly seen at a distance, but by careful examination it could be easily traced. The plots were cut and threshed separately, and weighings made of the grain and straw from each plot obtained. The results show an average increase in the yield of grain from the four clover plots of more than 11 bushels per acre over that on the plots on which there had been no clover sown.

To ascertain what natural value there might be from the clover the second year after plowing under, these same plots, without the addition of any manure or fertilizer, were sown in 1899 with Menusury barley. Again a great difference on the plots that had grown clover in 1897 was noticed, and the harvested result showed the average yield on the four clover plots over that of the four "no clover" plots amounted to almost nine bushels per acre.

Another experiment in which equally striking and important results were obtained may be described as follows:—In 1897 two plots adjoining each other and uniform as regards size and character of soil were selected: No. 1 was sown with barley and a grass mixture containing clover seed; No. 2 was similarly sown, with the exception that there was no clover seed in the grass mixture. In 1898 two crops of hay were taken off each plot. In the spring of 1899 they were plowed and sown with Bavarian oats. The yield per acre on No. 1 was 46 bushels 1 lb.; that on No. 2, 36 bushels 6 lbs.; an increase of 9 bushels 22 lbs. of grain to the acre on the plot which had grown clover over that on the plot sown with grass seed only. This increase was practically due to the fertilizing constituents set free by the decay of the clover roots only, for in 1898 two crops of hay had been taken off.

### To Encourage Good Breeding.

To the Editor FARMER'S ADVOCATE:

SIR, Lately there has been much discussion in the columns of the FARMER'S ADVOCATE as to the free distribution of pure-bred sires by the C. P. R. Co. Now, as this is an old matter, and practically out of date, there is hardly any use of my reopening the question. At the same time, I would like to pass an opinion, not as to the feasibility of their plan to improve the stock of the country, but as to the practicability of their plan for getting rid of the scrub stock and the breeder of them.

I am rather of the opinion that the C. P. R. would have been doing a great deal more in the interest of the stock farmers and cattlemen had they instituted a tariff discriminating against the exportation of scrub-bred cattle. The district in which I live is one of the noted stock-raising districts of Manitoba. Several of the farmers here have gone to some expense in importing pure-bred sires from Ontario, and by culling out inferior stock and breeding only the best of their herds, have hoped to raise such a class of cattle as would, when put on the market as beef, fetch more remunerative prices than that paid for poorly bred cattle. But so far buyers have not discriminated, and to-day farmers who have not endeavored to improve their herds systematically are getting exactly the same price for their inferior stock as those who have gone to the trouble of raising a better class of herds.

It is, therefore, to be regretted that the C. P. R. should expect to improve the stock of the country by asking them to sell their inferior stock to the buyers who had improved their herds. It is, therefore, to be regretted that the C. P. R. should expect to improve the stock of the country by asking them to sell their inferior stock to the buyers who had improved their herds.

the buyer pays the same price for any class of cattle that comes along, there is certainly no inducement for the farmer who is interested in good cattle to invest his money in pure-bred sires.

The scrub-raiser must be forced to improve his stock, and the only way to get at him is to discriminate against him in price, so that he has either to improve his cattle or have them left on his hands.

JAMES MITCHELL.

Shell River Municipality, Man.

### The Best Bacon Hog.

J. H. Grisdale, Agriculturist of the Experimental Farm, Ottawa, in giving evidence before the Agricultural Committee of the House of Commons during the late session, in referring to the best breed of hogs for bacon purposes, stated that while experiments had not been conducted at the Experimental Farm to satisfactorily settle the question as to which were the best breeds and crosses to produce long-side bacon, his personal opinion was that the Yorkshires and Tamworths and their crosses, and the new Improved Berkshires (not the short Berkshires, of which there are too many in the country), are the best for this purpose.

The Berkshire, he considered, must be carefully fed, on account of the tendency which this breed has to rise on the shoulder, which spoils the long side. He had had good results with Berkshire and Yorkshire crosses. Berkshire and Tamworth crosses had not given good results. He considered the Tamworth and Yorkshire as the best cross.

### Does the Bare Fallow Impoverish the Soil.

Frequently one sees statements to the effect that the soil loses largely of plant food as a result of the bare fallow, and the system of summer-fallowing condemned on that account. Mr. Wm. Vicar, secretary of the Farmers' Institute, Portage la Prairie, recently sent an article by a Mr. Gould, of Ohio, along these lines, to Prof. Shutt, asking for his opinion. Following is his reply, which will be read with general interest:

The facts contained in the article you refer to by Mr. Gould, of Ohio, are in the main correct, though their interpretation for any soil or locality must not be undertaken without due consideration of climatic and other conditions.

The losses spoken of refer chiefly to nitrogen and humus; the mineral elements of plant food—potash, phosphoric acid and lime—would remain the same practically, as regards quantity, whether the soil were bare or not, excepting those amounts, of course, which would be withdrawn by the crop were there one growing.

Soil nitrogen must be converted into nitrates before it is assimilated by farm crops in general. The process of nitrification proceeds during the summer months, and the amount of nitrogen so converted into nitrates would to a considerable extent depend upon the conditions of moisture, temperature and character of soil. Now, the nitrates are exceedingly soluble compounds, and consequently may be largely washed below the reach of the roots of the succeeding crops or entirely leached away if there is no growing crop to appropriate them, and heavy fall and winter rains prevail. It is for this reason that "catch crops" are sown in the autumn in England, and might also be employed in many parts of the eastern provinces of Canada. Although it has been stated by a prominent agriculturist in England that the soils of our Northwest lose their nitrates considerably from this cause, I very much doubt the correctness of the statement, owing to the dryness of your winters. On this point we are now conducting a series of experiments, but it will probably be a year or two before we are in a position to speak definitely.

Of course, like any other operation, fallowing has its disadvantages as well as its advantages, and it is quite questionable whether under a good system of rotation and better manuring it will be as necessary for eastern farmers in the future as it has been in the past. In Manitoba and the Northwest Territories, however, one of the chief objects of fallowing appears to be the storing-up of moisture for the crop of the following year. In districts where the rainfall is sparse the question of the conservation of soil moisture becomes one of the greatest importance. I am also of the opinion that fallowing does a good work in promoting nitrification, the resulting nitrates, as I have pointed out, not being lost to any extent during the ensuing winter.

Besides loss of nitrates by leaching, there may be loss of humus and nitrogen by a process akin to that of slow combustion when land is kept bare and continually cultivated. By a system which comprises cropping with grain and fallowing alternately, undoubtedly much of our rich Northwest soil is gradually losing a portion of its humus (the great water-holding constituent of soils) and with it its associated nitrogen. It is most probably due to this fact that decrease in productivity is now being noticed on these prairie soils where they have been long in cultivation. The above considerations, therefore, point not to the discontinuance of fallowing, but rather to the adoption of the practice of occasionally seeding down, so that the soil's store of humus (semi-decayed vegetable matter) may be replenished and preserved.

FRANK T. SHUTT, Chemist,  
Exp. Farm, OTTAWA.

**Carberry Fair.**

The fourth summer fair under the auspices of the Norfolk Agricultural Society was held on July 19th and 20th at Woodbine Park. The weather was fine, with the exception of rather high winds on the afternoon of the second day, which made it somewhat dusty and disagreeable. The attendance from the surrounding country, as well as from the towns, was very satisfactory. The exhibits in the livestock classes were fully up to the average, as were also most of the departments in the main building; so that, upon the whole, the fair was most satisfactory to exhibitors and managers alike. As usual, the horses formed the most attractive feature (the Carberry Plains are well known as one of the best horse districts in the West), both light and heavy horses being well represented. The light classes were judged by Thomas Kelly, of Brandon, and the heavy horses by Alfred Chambers, of Wawanessa. No complaints regarding the awards were heard; in fact, there did not appear to be room for any. The single-judge system is strongly to be commended, and should be adopted at all fairs, care being taken to get competent men from outside districts. In Thoroughbreds, Mr. R. S. Fulton, of Moose Jaw, showed his well-known stallion, Rumpus, and was awarded first prize. Dr. Shaw had a few entries in this class, and R. L. M. Power was first in brood mare and foal.

In the Roadster class, Dr. Henderson's pacing stallion was awarded first. Duncan Pierson was first with a very good style of mare and foal, and Dan McCaig showed a very nice yearling. In single drivers in harness, Dr. Henderson was first, and Mr. Dunsmore, of Franklin, second. Four Roadster teams competed, Gregg-Barret's winning first, with Wm. Henderson, of Wawanessa, second. A very handsome little saddle beast belonging to Gregg-Barret won in a fairly good class of seven, with Alfred Yandle, of Birtle, second.

In the Coach class, D. McCaig was awarded red ticket on Ryshawk, with McKenzie, of Brookdale, second. Three carriage teams competed, Arthur Mack, Carberry, winning first, and R. S. Fulton, of Moose Jaw, second. No fewer than 8 teams, not under 16 hands, came out in the carriage class, Alex. May winning first and C. Trumper second.

In the Clydesdale class, two aged stallions were shown. Wm. Bailey's Burnbrae 878 was an outstanding first, with Woodbine Prince, owned by Hugh Stewart, of Arden, second. Dr. Swenerton had a very promising entry in the two-year-old Rosemont, a son of Young McQueen, shown in fine fettle, but without competition. W. Bailey showed a number of good fillies, also showed in the brood mare and foal classes. There were but few entries in the agricultural classes, A. Lyons having the only brood mare, and winning second on foal, with R. Smith first, both foals by the Clydesdale Prince of Wales. The principal interest centered in the teams, in which the competition was strong, and many of the entries of special merit. Three agricultural teams entered, and were placed in the following order: Alex. Kitchie, Arch'd Campbell, and M. Craig. Two magnificent heavy draft teams belonging to Robert Dodds and J. C. Humiston were placed in the order named. Eight general purpose teams competed, first going to a pair of handsome blacks shown by Wm. Currie, of Petrel, second to a pair of greys belonging to John Gibson, of Wellwood. As there were only two prizes, a number of good teams were left out of the reckoning in this section.

The cattle were judged by Jabez Elliott, of Brandon, and Mr. Hall, of Carberry. The entries were not numerous, but what was lacking in quantity was made up in quality by the presence of a strong draft from the herd of John G. Barron. In the Shorthorn class, Messrs. Black & Wells, of Wellwood, showed a four-year old son of Topman, a thick, smooth bull of extra merit. He won first over Lord Stanley, who was shown by Allan Grant. J. G. Barron was without competition throughout the rest of the class, the entries all being in fine fit, but as they will come under review in the Winnipeg Industrial report, nothing further need be said regarding them here. William Ranson, of Carberry, showed a Holstein bull of extra merit, and William Atkin a few females of this breed. The grade cattle were good, what was of them; George Hope winning first in the grade beef and grade dairy classes with cows of very special merit.

The sheep exhibit was small, and in swine there was no competition in any of the classes represented, Robert Hope's Berkshires being the largest exhibit of any one breed.

The exhibit of grain was most creditable, there being a good number of competitors in most of the sections, and the quality extra. The Union Bank offered special prizes for the best 10 bushels of Red Fyfe wheat, the fortunate winners being John Lyons, John Duncan, and D. Hammel. H. Bates and R. Ferguson were first and second on two bushel lots of white Fyfe. Prizes for white oats were won: first by J. Palmer, of Arden; second by H. Bates. Black oats, W. Ross first and W. J. Stinson second. Two-rowed barley, first, H. Bates, and second, J. Thompson. John Thompson was awarded first on collection of grasses, including wheat, oats, barley, two and six rowed, and peas, large and small. W. J. Stinson won first on bushel of timothy and M. C. Cope first on Brome grass.

The butter exhibit was exceedingly good. W. A. Murray, President of the Dairy Superintendent, who acted as judge, expressed himself as highly pleased

with the exhibit as a whole, the average scores running very high. Among the principal winners were John Gorrell, Mrs. T. Goggins, Miss C. Turner, Mrs. D. A. Reynolds, and Mrs. Wm. Ross.

A good programme of races and special attractions were provided, and doubtless helped to draw a number of people from the town.

**Portage la Prairie Summer Fair.**

The twenty-sixth annual exhibition of the Portage la Prairie and Lakeside Agricultural Society was held on July 17th, 18th and 19th, at Island Park. The weather was perfect, and the stock exhibit the best that has been turned out at Portage la Prairie for a number of years. Everything, in fact, went off successfully, except that the attendance was not as large as it should have been. In horses, the exhibit was large and of particularly high quality throughout.

In the draft horse class the competition was not very large. W. G. Lytle won the sweepstakes on heavy draft stallion, James Bell second. James Bell won the diploma with Clydesdale stallion and three of his get. David Lytle won the sweepstakes for the best mare, any age or breed.

In Clydesdales, John Wishart was the principal winner, showing a number of good entries. David Lytle won with a very handsome, well matched team, 3,200 lbs. and over.

In the agricultural classes the competition was keen. E. H. Muir won first on brood mare, Thomas Gibson second. For three-year-old filly, John Brydon first and James Gibb second. Two year-olds, James Lytle first and James Gibb second. Yearlings, John Ross first and James McKenzie second. James McKenzie won first on foal, with E. H. Muir second. On agricultural teams, 2,800 or over, Thos. Wallace won first, Robert McCowan second, and Brown & Carruth third. These teams would do credit to any showing, and were shown in splendid condition, and were well handled. In general purpose teams, no less than 8 competed; J. W. Beattie winning out, with W. A. Caskey second, and M. Howie third. Of course, a general purpose class is an almost impossible one, for horses of many types are entered, and it is just a matter of opinion which type the judge considers the general purpose type. The principal winners in the single entries of this class were John Brydon, R. Craig and Robert Gibb for brood mare in the order named. For three-year-old filly or gelding, Yuill Bros. and A. L. Insley were first and second. T. L. Bell was first on two-year-old; John Wishart in the yearling section, and John Galbraith on foals. The draft classes were judged by Wm. Charlton and Wm. Edwards and A. E. Anderson.

The light horse judges were T. J. Charlton and John Simpson, Poplar Point. In the light horse classes there were few entries in the Thoroughbred and Standard classes. E. V. Kilmeister won first on aged stallion, M. Shannon on three-year-old stallion, and also on three-year-old filly. Charles Cuthbert and W. Richardson won first and second on Standard-bred and mare or gelding in harness.

In the Roadster class the competition was pretty well sustained throughout the section. Brood mare—First, Yuill Bros.; second, Wm. Gray; third, Jas. Dalzell. Three-year-old James Dalzell first and third, and A. L. Insley second. Two-year-old, James Dalzell first, H. Kirkwood second, and W. Robinson third. Yearlings, James Dalzell first. Foal—Wm. Gray and Yuill Bros. Single Roadsters was a strong class, E. E. Snider winning, with W. Metcalf and A. E. Mellon second and third. Pair of Roadsters, John Ross first. In the special offered for farmer's single Roadster in harness, E. E. Snider was first, F. A. Brydon second, and John Galbraith third.

In the carriage class, Muir Bros. showed their magnificent stallion, Knight of the Vale. As usual, this grand horse was the center of attraction, and was shown in good form. James McElen was first on brood mare, R. Craig on three year-olds and two year-olds, and J. R. Snider on two year old. J. T. Thomas, Robert Gibb, and W. G. Lytle stood in the order named on yearlings. R. Craig was first on foal. Single driver in harness, W. J. Cooper first and C. Cuthbert second. John Palmer won on pair in harness.

In cattle, the entries were above the average in number, the competition being keen in the Shorthorn class. The herds of Messrs. Walter Lynch, F. W. Brown, and Thomas Wallace were represented, besides a number of individual entries. The beef cattle classes were all judged by Mr. W. S. Lister, of Middlechurch, with satisfaction to all. Brown's Lyndhurst was an easy first in the aged class, with A. L. Insley's entry second. In two-year-old bulls there were three entries, placed in the following order: Wallace's Charger by Judge first, Brown's Spicy Robin second, and T. L. Bell's Golden Duke third. In yearlings, Lynch won with Johnnie Cope, a roan son of Village Hero; Luke Beatty second, Alex. Fraser third. Under a year old, James Bray won with a very promising calf by Knuckle Duster; J. Thomas second; Wm. Dickson, of Grenfell, third. Bull calf of 1900, Yuill Bros. won with a very tidy calf by Village Hero. In cows, Brown's entries were first and third, Lynch's second. In three year-olds, Lynch won with Imogene 2nd, Wallace second and third. Two year-olds, Lynch's Saperia 8th won. In yearlings, Lynch's Grace the won first, Earth second, and Brown's Wm. Brown's 3rd. Bray won first again with a daughter of Knuckle Duster, as under a year. In better calves of 1900, Lynch won with Monique 2nd, one of the smoothest

and plumpest calves we have seen out this year. David Little was second with a real good red. The third prize went to Brown. F. W. Brown won the herd prize and also the sweepstakes for the best bull.

A very good herd of Polled Angus were shown by Simpson, of Poplar Point. Ayrshires were shown by Thomas McCartney, Longburn, without competition, except in bull over three years, in which section I. R. Snider won first and sweepstakes. J. Webster showed a few Jerseys, and W. Edwards a Guernsey bull. James Glennie was alone in the Holstein classes, showing several particularly good things, all of which will be reviewed at the Winnipeg Industrial, his imported bull calf, Chief Mercedes De Kol, being worthy of very special mention.

In grades, the entries were not very numerous, except for milk cows, when eleven good animals lined up, the first going to Charles Braithwaite, the second to Luke Beatty.

The dairy cattle were judged by Wm. Champion, of Reaburn.

Sheep were judged by George Tidbury and James Glennie, there being, however, no competition in the various breeds represented. Duncan Sinclair, of Oakville, showed some very good Leicesters; F. W. Brown, Cotswolds, and H. S. Garrioch, Shropshires.

Berkshires were the only breed in which there was any competition. Wm. McBride showed Chester Whites; James Bray, Yorkshires. John Jones showed first prize aged Yorkshire boar. In the Berkshire classes there were 1 exhibitors, J. W. Brown being first and second on boar over a year old, first and diploma on aged sow. William Kitson, of Burnside, was first on pair under a year, and boar under six months, and sweepstakes on boar any age, and a number of seconds. F. W. Brown was first on sow and litter, and on sow under six months. J. A. Fraser was first on sow under two years, and under one year. These classes were judged by D. McKenzie.

In poultry there was, as usual, a very good exhibit; the prizes were pretty evenly distributed among a number of exhibitors. The show of grain was very small, but what there was of it was of good quality. H. S. Garrioch and John Jones were first and second respectively for the special offered by the Lake of the Woods Milling Co. for 5 bushels of Red Fyfe wheat. Yuill Bros. were first on six-rowed barley, and William Dickson, of Grenfell, on two-rowed barley. Cuthbert was first on white oats, and A. E. Mellon on black oats. An extra fine sample of timothy was shown by H. Ogilvie, winning first; Mrs. C. M. Cuthbert winning first on Brome grass seed. Garrioch won first on flax with an extra choice sample. A. E. Mellon was first and Robert McCowan second for collection of grains.

Dairy products were judged by Dairy Superintendent Murray, and while there was not a very large exhibit, the quality was good throughout, the scores running high. This is the first time that the score card has been introduced at the Portage la Prairie Fair, and it gave entire satisfaction, every exhibitor being pleased to have the score card to guide them. The principal winners in the dairy classes were John Brydon, Henry Kirkwood, Macdonald; Mrs. Wm. Cuthbert, Austin; H. Ogilvie, Yuill Bros., and Glennie & Sons, Longburn; W. Robinson, Oakville; and T. L. Lee. In the 20 lb. crock section there were 11 entries, and only a few of these scored lower than 90 points. There was a very large and excellent exhibit of homemade bread, special prizes having been offered by the Lake of the Woods and Ogilvie Milling Companies. The horticultural, dairy, and grains, also the fine arts and ladies' department, were accommodated in tents, which was not very satisfactory; and it is to be hoped that before another year this society, the oldest in the Province will be provided with a suitable exhibition building in its beautiful location in Island Park.

**Dates of Summer Fairs.**

Mooseomin	Aug. 7th and 8th.
Souris	Aug. 7th and 8th.
Neepawa	Aug. 7th and 8th.
Regina	Aug. 8th and 9th.
Monton	Aug. 16th and 17th.
Strathclair	Aug. 21st.
Calgary	Sept. 12th to 15th.
Crystal City	Sept. 28th.

**Stray Specimens.**

Some little time ago a small wooden box containing several little pieces of dry twigs, upon which evidently some insect had been working, reached this office by mail without name of sender or any particulars. We have patiently awaited some explanation from the sender in order that some information might be obtained regarding the specimens.

**Subsoil Packer.**

I believe the packer is a first-rate implement, especially on manured land. It packs the bottom of the furrow firmly, and the ground seems much firmer to walk on. I used four horses on an 8-foot packer. It was heavily loaded, and the ground was plowed 6 to 7 inches deep. It was not hard work for four horses. I should like to use it another season before I say much about the results.

CHARLES E. EVANS,  
Wallace Municipality, Man.

### How to Raise a Skim Milk Calf.

Nature's way of raising a calf by allowing it to run with the cow produces a good one—the kind feeders want; and the dairyman must provide, as nearly as possible, the same conditions for the calf as it has when with its mother, and he, too, will produce the calf demanded by the feeder.

The cow feeds the calf often, and milk that is blood warm, sweet, and free from germs. Leave the calf with the cow until her udder gets in good condition and her milk all right. This gives the calf the same treatment at the start that he gets if he is to stay with the cow all the time until weaning. If the cow's udder is hard and feverish, rubbing it by the calf's baby head in his attempt to get food reduces the swelling and softens the udder. For about two weeks after the calf is taken from the cow, the best results are obtained by feeding warm whole milk three times a day—two quarts in the morning, one quart at noon, and two quarts at night. After this the calf will do well if fed only twice a day, morning and night, at regular hours. At the end of three weeks, begin to get the calf on skim milk, but do this gradually. The first time take out half a pint of whole milk and put in its place half a pint of skim milk; the second feed use a pint of skim milk and take out a pint of whole milk. This method takes ten days to change from whole milk to skim milk. Increase the amount of skim milk fed slowly as the calf can take it, remembering that ten quarts of skim milk is a full feed for a calf five to six months old.

The cow supplies the milk to the calf blood warm. Feed both whole milk and skim milk at this temperature. We feed all skim milk warm, even when the calf is five or six months old.

The cow's milk contains all the materials needed

for the health and growth of the calf in just the right proportions. Skim milk is without the cream or fat, and must be balanced up. Feeding trials have shown that starch in food takes the place of fat, and serves the same purpose when eaten. It is the dairyman's business, then, to take high-priced butter-fat from the milk, sell it, and supply in its place to the calf a cheap food, rich in starch. Corn is good for this purpose; Kaffir corn grain is better. Calves fed skim milk have a strong tendency to scour; Kaffir corn is rich in starch, and is our most constipating grain. It seems to be adapted by nature to be fed with skim milk, the two together producing the natural condition of the bowels. We feed Kaffir corn finely ground to calves, and always feed it dry, separately from the milk. More skim milk calves are probably stunted or killed outright in Kansas by mixing the grain with the milk than by any other means.

Calves need starchy grains to take the place of the butter-fat taken out of the milk. Starch cannot be used to support life until it has been changed to sugar. The saliva of the mouth has the power to change starch to sugar, and the more slowly and thoroughly the grain is masticated the better it will be mixed with the saliva and the greater the proportion of starch that will be changed to sugar. Feed dry Kaffir-corn meal or other grain to the baby calf and it will chew and chew for a long time on a small quantity of the grain, getting the starch thoroughly mixed with the saliva. Mix the grain with the milk and it is quickly eaten and swallowed, little saliva is mixed with it, and but little starch is changed so that it can be used by the body. The rest not only does the calf no good, but irritates the system, bringing on indigestion and scours and stunting the calf. Feed grain dry.

Keep the calves separated after feeding milk until their mouths become dry, so that they will not suck on their own milk. When a number are fed, this can be easily and cheaply done by light stanchions which can be made out of fence boards and set on a good board walk or pasture, or other convenient place.

Use a good feed of hay and hay when the calves are weaned. The hay should be of the best quality, and should be cut in small pieces, and should be fed in a separate manger. The hay should be fed in a separate manger, and should be fed in a separate manger.

Use a good feed of hay and hay when the calves are weaned. The hay should be of the best quality, and should be cut in small pieces, and should be fed in a separate manger. The hay should be fed in a separate manger, and should be fed in a separate manger.

case. At first indications, immediately cut down the feed. Milk pails and cans should be washed and scalded, the same as if the milk was intended for the table. For scouring, give one to two ounces of castor oil, or, if the case is bad, ten to fifteen drops of laudanum a day, until the trouble is checked. Change feeds very slowly, as a sudden change often causes scours.

Finally, remember that the calf is a baby, and give it the kindness and care due every baby. The better a calf likes you the more it will gain. Pet it. Keep its pen and yard dry and comfortable; keep it warm in cold weather and give it cool shade in summer. We like a shed open on all sides for summer shade, as this will protect from the sun and allow the air to blow through freely. The College has a large stone barn with basement, but we found that the calves thrived better in a common board shed than they did in this barn. The basement was not as well lighted and ventilated as the shed.

Flies often annoy calves so that they do not gain well. The department of horticulture and entomology of this Station furnished us a formula that we used on the calves in this experiment at a cost of one-fourth to one-half cent a day and kept the flies off. It is as follows: Pulverized resin, 2 parts, by measure; soap shavings, 1 part; water, 1 part; fish oil, 1 part; oil of tar, 1 part; kerosene, 1 part; water, 3 parts. Place the resin, soap shavings, 1 part of water and fish oil together in a receptacle and boil till the resin is dissolved; then add the 3 parts of water, following with the oil of tar mixed with the kerosene. Stir the mixture well and allow it to boil for fifteen minutes. When cool, the mixture is ready for use, and should be stirred frequently while being applied.

From one-eighth to one-half pint is sufficient for one application. To apply the mixture a brush is

### Summer Treatment of Young and Breeding Horses.

A DAY ON A NOTED HORSE FARM.

To know how young horses are cared for at such noted studs as that of Messrs. D. & O. Sorby, Guelph, Ont., where an indifferent animal is the very great exception, and the finest class of stock the rule, is valuable information to anyone attempting to rear horse stock. During a recent visit to the home of this firm, we observed many points that are worthy at least of consideration, if not emulation. First of all, we observed that all the horses, whether mares and foals, yearlings or horses of other classes, were housed during the daytime away from the sun and flies. This is commenced as early in the summer as the flies begin to torment the animals. They are all brought in before the heat of the day commences and again turned out into roomy and rich pastures about six o'clock in the evening. They are not tied in single stalls, as is done on many farms, but each animal has an airy, light, well-bedded brick box stall about 15 feet square or larger. The fact is, there is not a single horse stall on the farm, the three substantial roomy ranges each consisting of two rows of box stalls with a wide passage (10 or 12 feet) between. Each stall has a water box supplied from a spring well by a windmill, besides necessary mangers for feed. Whatever the season of year, these are the quarters in which the stock is housed, and seldom a day passes at any season when the animals, young or old, are not given their liberty in a field or roomy fenced plot. At this season, two of the stallions have access to these plots during the nights, and the third stallion takes his exercise a few hours during the mornings and evenings. As all well-informed stockmen understand, plenty of

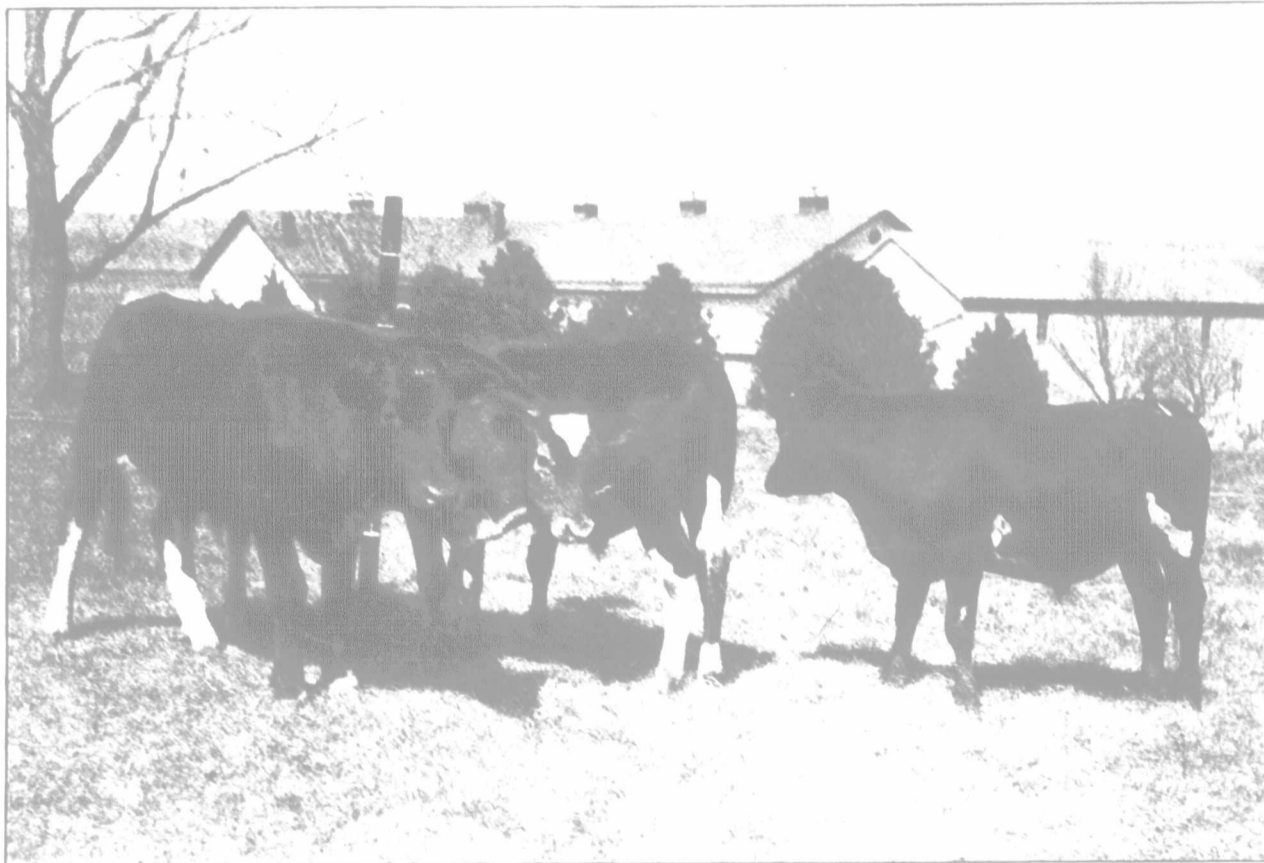
regular exercise is one of the chief factors in keeping especially well-fed animals in perfect health both in body and limbs, and not only that, but it keeps their digestive systems in such vigorous condition that they can be heavily fed if desired, which, with the constant exercise, will produce firm muscle instead of flabby fat. To this end, however, plain food is an important accompaniment.

Whether for mares and foals, growing stock or breeding stallions, the food given is alike in kind to all, and consists of crushed oats and bran mixed, two parts oats to one of bran, and these mixed with about twice their bulk of cut hay, timothy and clover of good quality, fed dry. The mares and foals run loose, so that what the foal eats is from its dam's manger. Mr. Sorby considers it might be well under some circumstances to tie the mare, so that the foal could have a separate box to eat from, but he seldom, if ever, practices this because of the danger of the foal becoming entangled in the mare's halter shank. As a rule, a mare that is well fed and not working gives

sufficient milk to keep her foal in as high flesh as it should be for its future welfare. The mares get three feeds a day of the above mixture, which includes about two quarts of oat chop. The yearling stock receive similar feeding, a little less in bulk, and the stallions get four feeds each per day during the breeding season. They each get a fair allowance of such green feed as is in season, which was, at the time of our visit, green corn about five feet high. We noticed that each manger had a good supply of salt in the corner in separate compartment, and the horses could drink from the basins in the stalls whenever they felt disposed. The stalls are cleaned out every few days, so that the air is kept pure and wholesome, aided by the very efficient ventilation provided.

All the team work done on the 300-acre farm is accomplished by the brood mares and 3-year-old fillies. They are worked up till near the foaling and again after the foals are weaned. On the day of our visit the in foal mares, Diana McKay and Venice, were hauling up hay with the horse-fork, with which they took off large loads in four forkfuls. As is the experience of all extensive horse breeders, the mares of this stud are not always easy to get in foal. The most certain time seems to be on the ninth day after foaling. A mare in good health served by a sure horse on that day is very likely to become pregnant, whereas if she is allowed to go till a later oestrus, the chances of "catching" are less favorable. Mr. Sorby also considers a heavy grain diet as liable to militate against a mare's chances of becoming pregnant. Moderate work and laxative, plain food should be provided a day mare that is inclined to take service repeatedly.

When horses have nightly runs on pasture and



SKIM-MILK SCRUB-BRED STEERS. AVERAGE WEIGHT, 721 POUNDS, AT ONE YEAR OLD

Fed according to the system recommended by the Kansas Agricultural College in Bulletin No. 97.

used. We find nothing more satisfactory than a large painter's brush. At first it is well to make an application for two or three days in succession. Afterwards an application every other day will suffice. It is often more economical not to attempt to protect the entire animal, but only those parts not reached by the head or tail. It is perfectly safe and in no case has it appeared detrimental to the health of the calf.

Farmers often object to the expense of handling calves in the way we have indicated. It does not take much time. Two hours a day was all the time needed to feed the calves in this experiment, and part of this time was used for taking weights and making records. At the time of writing this bulletin we are feeding forty five young calves, divided into five lots, and each lot fed a different way. It takes five hours a day, while if they were all fed alike, and each feed did not have to be weighed, much less time would be needed. It does not take much more time to feed a skim milk calf so that he will gain two pounds a day than it does to feed him so that he will become a runt, but it does take thinking, patience and careful attention to the little things.

This experiment shows that calves can be easily separated from milk and fed and handled so that they will be healthy, gain well, and be in good condition for the breeder or feeder. From Bulletin No. 97, Kansas Agricultural College.

Use a good feed of hay and hay when the calves are weaned. The hay should be of the best quality, and should be cut in small pieces, and should be fed in a separate manger. The hay should be fed in a separate manger, and should be fed in a separate manger.

clean roomy stalls during the day, their skins require but little attention, and their feet go far towards taking care of themselves, but during the seasons of more constant housing the horses are groomed frequently, if not daily, and their hoofs are dressed in natural, level form, as their condition requires. The object from beginning to end, as it should be with all breeders of live stock, but perhaps more especially with pure-bred stock, is to treat every animal every day in such a way as to develop the very best that is in it, which is accomplished only by a close observation of the laws of breeding and feeding, systematically followed with intelligent earnestness.

As to Conserving Moisture.

The conservation of moisture is a problem which in my opinion is not easily solved. A system which might be of advantage on one variety of soil may be the reverse on another. The present accepted theory is to plow summer-fallow as early as possible after seeding, and then keep harrowing all summer. On soil not liable to drift, this system undoubtedly prepares the soil for an effort the following season, by keeping the soil moist, thereby enabling it to draw on its own resources more than soil plowed later, when the moisture was evaporated.

But we have thousands of acres now on which the above system would be sheer folly, as from the effects of it the fiber is all used up and consequently it drifts with the least breeze, of which fact I think quite a few of us have abundant evidence this summer. The conserving of moisture in the summer-fallow sometimes is of very little use the following season, so far as moisture is concerned. Take, for instance, the spring of '99, when mostly all soil had too much moisture, so that the only advantage obtained from the extra cultivation of the previous season was the preparation of an extra supply of plant food. Again, take the present year. I have in view two fields of wheat lying alongside each other; both were summer-fallowed last year, same sort of soil; one was gang-plowed two or three inches deep immediately after seeding, and harrowed to kill the germinated weeds during the summer, and then plowed six or seven inches deep before harvest; harrowed again several times before fall; was carefully drilled in the spring, resulting in a very fine stand of grain at first; now there is only an odd head of wheat to be seen in a mat of weeds. The other field was plowed once (about midsummer) and harrowed once or twice after, resulting in at least twice the wheat and less than one-half the weeds. I do not give this example to show that one system is better than another, but merely to show that conserving moisture in the summer-fallow is not always a remedy against drought and weeds the following season. I think it will be generally conceded that land is at its best for resisting drought when it is sufficiently pulverized to lie close together after breaking that is, before too much of the vegetable matter is used up, and before the subsoil gets too hard, which should clearly show that the more vegetable matter in the soil the better it absorbs and retains moisture; consequently, if we kept the soil supplied with vegetable matter we would be conserving moisture without impoverishing it.

Wallace Municipality, Man.

A Handy Wire Gate.

To the Editor FARMERS' ADVOCATE:

I enclose a sketch of the form of gate used on nearly all barbed wire fences in the West. As commonly constructed, when opened it tangles, wriggles, and gets under the horses' feet. It can never be closed in a hurry, and is therefore often left open. It has only two redeeming features: it is quickly made and cheap.



A HANDY WIRE GATE.

By driving a short post into the ground and putting a brace from it to the loose end of the wires, as shown by the dotted lines in the sketch, a good serviceable gate is the result. Any strong hinge will do at the foot of the brace, but the one shown possesses the rare attributes of the original gate—it is strong and inexpensive. The weight of the brace keeps the wires tight, and if they sink a little at the out-end may be raised again by slipping the brace down the end-piece. Any kind of gate latch may take the place of the wire loop and lever, but the gate should always be opened *this way* to prevent the wires breaking at the staples.

Langford Municipality, Man. Wm. J. LLOYD.

The closer a journal or newspaper gets down to its constituency the more valuable is that paper to advertisers as well as to readers. The paper that merely attracts a glance at headlines or at pictures, or artistic objects, without winning personal interest and attention, followed by reading, and careful reference or examination time after time, is of very little profit to advertisers, though the circulation may run into hundreds of thousands.

Some Suggestions on the Harvesting of Cultivated Fodder Crops.

To the Editor FARMERS' ADVOCATE:

The quality of fodder of all kinds depends very largely on the manner in which it is cured. The best of grass can be completely spoiled by improper curing. As the different kinds of fodder plants, including grasses, require special treatment, no fixed rule can be given for all plants. The aim should be to thoroughly cure the crop and at the same time leave it as nutritious as possible. This will be very easily accomplished with such grasses as Western rye and timothy, but such succulent plants as fodder oats and Bromegrass will in ordinary years require very careful treatment for the best results. As grasses are generally fit for harvesting first, we will begin with them.

Timothy.—The yield of this plant, owing to the drought, will be small throughout all parts of the Province. For that reason, if for no other, it should be preserved in the very best possible manner. I notice that the prevailing error committed by the average farmer is to cut timothy too late in the season. This plan produces a dry and woody substance not at all equal to the early cut, bright green article. Timothy should be cut just as soon as the head is formed, allowed to wilt slightly in the sun and before night be bunched up. The bunches can be opened again the following morning after the dew is off if necessary. If the crop is a light one, the portion cut in the early part of the day will be sufficiently cured without this second spreading, and can be left in the cock to cure, when it will come out a bright green color.

Western Rye Grass (*L. tenerum*) will be the next fodder plant to mature and is as easily cured as timothy, and the same system will suit it equally well. As this grass is generally cut for two years, it is especially important that it be cut early, otherwise the second year's cutting will be very light indeed.

Awless Bromegrass (*B. inermis*) is one of the most difficult grasses we have to cure properly. Its large sappy leaves and abundant undergrowth retain the moisture so long that it is often stacked in an uncured condition and comes out during the winter a bad color and very dusty. This plant gives a very heavy crop in an average season, and it will be found necessary to turn the swaths, or, at least, open them up so that the sun may penetrate them. I have no doubt that tedders would prove exceedingly useful where large areas of this grass are grown. Generally speaking, Bromegrass requires two or three days' exposure before it is thoroughly cured. If exposed for two days it should, if possible, be bunched the second evening and opened again for the third day's exposure. We have found it impossible to cure this hay in the cock. It lies too compactly and does not permit of the air penetrating, differing very much from the timothy and western rye grass in this respect. Owing to the difficulty in curing Bromegrass, we have found a mixture of Bromegrass and western rye an improvement. Tests for the purpose of ascertaining the proper portion of each are now being undertaken on this farm.

Millets. Owing to millets being very susceptible to frosts they require cutting during the middle of August, and besides, millets are often injurious to animals when fed after the seed is formed. This plant deteriorates very much if not cured quickly and at once placed under cover. Although a small quantity of grit is usually found in millet crop, if cut with a mower, this plan permits of much quicker curing, and for that reason is preferable to cutting with a binder. Millet lies very compactly in the sheaf, and it is almost impossible to cure it properly in that shape. Millets can remain in the cock for a day or so to advantage, although they will not cure so rapidly in this shape as will some of the grasses.

Corn. We now come to the fodder plant destined to be our principal dependence. If it were not that wheat were so extensively grown in the Province, I would recommend that fodder corn be allowed to form roasting ears before cutting. As the average farmer's time is fully occupied when the wheat harvest commences, I would advise that the corn be cut before that date. If the corn is not over six feet high it can be harvested readily with any grain binder fitted with a kicker. Without this attachment the butts are likely to strike the divider and the corn is elevated endways and very unsatisfactory work is done. If cut with a binder the sheaves can be stacked up in tepee shaped shocks, to remain until required for feeding purposes, or what is much more satisfactory, they can be, after a few days' wilting, cut up for the silo. With corn over six feet high the most satisfactory work can be done with the corn knife or sickle. A good man will cut an acre a day. This represents from 15 to 20 tons of green fodder. It will be found, however, that the bound sheaves are much more convenient to handle for stacking or to feed into the cutting box for ensilage. Very satisfactory results have been obtained on this farm with stacking cured corn fodder by two or three layers of straw. The corn is allowed to remain in the field until threshing is completed and the ground frozen. A stack is then started near a straw pile; two feet of straw is placed on the ground, then a thin layer of corn about one stalk deep, followed by a layer of straw one foot thick. If this is repeated until the stack is finished, on opening the stack it will be found that the odor of the corn has thoroughly penetrated

ed the straw, and the cattle will greedily eat both corn and straw. If run through a cutting box, even the coarse butts will be eaten up, otherwise these are wasted.

Oat Sheaves. An increased area of this excellent fodder is being grown each year. The seed is easily obtained, the yield is large and the fodder, if properly cured, is much appreciated by both cattle and horses. To obtain the maximum amount of nutriment it should be cut just as the top kernel of the head is turning brown. The sheaves should be made as small as the binder will admit and as loose as possible, otherwise the heart of the sheaf will become mouldy and of little use for feeding purposes. The sheaves should be stooked immediately after cutting and allowed to remain until thoroughly cured. This in some seasons will take considerable time. There is very little danger of overcuring, as only the outside of the sheaf becomes bleached, but if stacked too soon the result will be disastrous. We have found that mice are very troublesome to sheaf oats in the barn, but seldom do much injury in the stack. For that reason only sufficient for a cutting should be drawn into the barn at one time. While referring to the harvesting of oat sheaves I would like to call attention to the great advantage in using a cutting box. We have found on this farm that the waste from cutting oat sheaves is practically nil, while if fed whole there is always more or less thrown out into the bedding. Then, again, the cut sheaves lend themselves readily to mixing with chopped grain, roots, ensilage, etc. The plan followed here is to place a layer of cut sheaves in a long, shallow box, sprinkle on these the required quantity of chopped grain, roots or ensilage. This is then mixed and shovelled into a corner, where it remains for about twenty-four hours before being fed. This makes a savory mess which is relished by all classes of stock.

Exp. Farm, Brandon. S. A. BEDFORD, Supt.

Preparing for Drought.

The necessity, on the part of dairymen especially, of regularly making provision for a supply of green fodder to supplement the pasture in the periods of drought which almost certainly come in some sections of the country each year will set forth by a correspondent of the *Jersey Bulletin* in the following sentences:

To-day the owner of dairy cows who has not provided food to meet from sixty to ninety days of drought is almost as unwise as was the man who provided only the strawstack and shuck pile for winter maintenance of his dry cattle. The drought is every bit as sure to come as the winter. Like winter, it is variable in its severity. In some particulars its effects are more disastrous than the effects of winter, because cattle can withstand cold better than heat and hunger.

The shrinkage of milk consequent on the drought entails a direct loss of daily income, which is apt to be regarded as the prime injury, but it is not. The effect of a shrinkage of milk from the drought is gradual, but permanent. It continues not only during the current period of lactation, but the milking capacity of the cow is never afterward what it would have been. This effect is especially injurious upon heifers in the first period of lactation. It tends to shorten their milking time, and the practice thus begun under necessity tends to become a confirmed habit, lasting through life.

The effect of the annually recurring drought in retarding the development of whole herds of cows is far greater than their owners usually understand. Every year there is more or less of drought throughout the country, and even in the few favored regions where the dry spell does not reach into a drought, the pastures get so dry that cows can with difficulty satisfy themselves. The regions are so limited, and the years so few that are not drought-affected, that it is the part of wisdom to prepare for it with the same regularity that we prepare for winter.

It is not too late in some regions to make the preparation if it has not already been done. What to do is easy to tell, and how to do it not difficult. Set apart a liberal allowance of land, regulated by the number of cattle, old and young, to be fed. Prepare the seed-bed as thoroughly as you know how and sow as best you can large sweet corn, field corn, oats and peas, sorghum, cow peas, millet, Hungarian grass or any other crop that will mature in time and furnish a large supply of palatable and nutritious succulence to take the place of the drought-stricken grass. Calculate for ninety days of drought. If it does not last so long, nothing will be lost. The hay mow or the silo will take care of all the extra food left over. Remember that every day brings the drought twenty-four hours nearer, and lessens by twenty-four hours your time for meeting the relentless enemy.

Mr. Ruddick at Montreal.

Mr. J. A. M. Ruddick, assistant to the Dairy Commissioner, has gone from Ottawa to Montreal to take up the work of watching the condition of cheese and butter in which through shipments go from the railway cars to the steamships, and also to report upon the loading of cheese on steamships. It is proposed also to engage three men to superintend the unloading of Canadian products in the Old Country. While in Montreal Mr. Ruddick will act as official referee on cheese and butter in disputes as to quality.

### Our Scottish Letter.

The transition stage in Scottish agriculture through which we are at present passing is trying many usages and methods which had become hoary and venerable. The keenness of competition is driving the poetry out of agricultural life, and amongst the time-honored institutions about to pass away is the milkmaid. In the south the milkmaid is unknown, and the milkman has taken her place, but in not a few districts both milkman and milkmaid are awaiting. In this stress, men's eyes are naturally being turned to mechanical milkers, and several of these are on the market. Two were on trial at the recent show of the Royal at York, but the jurors declared that neither had sufficiency of merit to warrant an award being made. This is much to be regretted, as both are ingenious, and one patented by Mr. Wm. Murchland, Kilmarnock, is in constant use on farms in the west and south-west of Scotland. It extracts the milk from the teat by steady suction, and is thus devoid of the pulsating movement which accompanies the operations of the calf. This machine was awarded first prize a few years ago after an exhaustive trial by the Highland and Agricultural Society, and there can be no doubt in the mind of anyone who reads the reports of the jurors that relatively the decision was sound. Whether the absence of an award at the Royal, York, contradicts this is not known, but I should think it does not, for this reason: Avowedly, the Highland award was a decision on the relative merits of the competing machines, whereas the award at the Royal appears to have proceeded on the assumption that the judges were to make an award based, not on relative, but on absolute merit. The competing machines both in the Highland and the Royal trials had an extremely ingenious pulsating motion in the teat-cup which gives very much the same result as the intermittent suckling of the calf. Unfortunately, to obtain this motion somewhat intricate machinery is necessary, and while this is ingeniously contrived, it also makes it difficult to thoroughly clean the milking apparatus and tubes, and consequently the milk drawn by this pulsating machine was found to be of indifferent keeping quality. What really condemns these machines is the difficulty of keeping the mechanism clean, and although they embody an idea, until this difficulty be overcome they are not likely to prove an unqualified success.

Sheep-shearing by machinery has been fairly well established as a feasible idea, and there were two trials of such machinery at York. Both awards went to one house, the classification being for machines wrought by hand or foot and machines wrought by mechanical power. Such mechanism is likely to be pretty well known in Canada, and need not be written about in detail. So far no one has succeeded in applying the new electric-motive power to purposes of agriculture. Judging by what was seen at York, this is largely due to the fact that too many things are being attempted at first, and consequently the machines are frightfully clumsy. One such was on show at York, but it was so ungainly and unwieldy that it is far removed from the arena of commercial success. After all, there is no pressing need for undue haste in the application of electric-motive power to purposes of agriculture. The motor-car is very far from being a commercial success, and while no doubt the day is coming when the quick acting economical motive power of electricity will be everywhere employed, the slower going men who wait until they are able to see such power spelling success in a commercial sense will be the first to give it undivided support. A fatal blunder has been made by several agricultural engineers in placing new machines on the market embodying excellent ideas, but by no means matured, and so they have greatly retarded the genuine triumph of such inventions. There is luck in leisure here, as well as elsewhere, and the wise man hastens slowly.

Sheep breeders from all quarters held an international conference in York during the show. They consulted regarding many points of interest to their calling, their great idea being to do something to prevent fraud in connection with the sale and exportation of sheep. Some foreign and colonial speakers indicated a fear that a buyer did not always get the animal he purchased, and the problem was to discover some way in which fraud of this kind might be prevented. This is equivalent to the old story of an honest man, and the good man is not likely to be so attached as in the other case. The sheep breeders, however, they cannot be deceived by the same kind of fraud, and yet it is to be feared that the same kind of fraud is being practiced in the sale of sheep. The sheep breeders, however, they cannot be deceived by the same kind of fraud, and yet it is to be feared that the same kind of fraud is being practiced in the sale of sheep. The sheep breeders, however, they cannot be deceived by the same kind of fraud, and yet it is to be feared that the same kind of fraud is being practiced in the sale of sheep.

### Economical Horse Raising for Farmers.

The economic farmer who has sufficient work to do to justify him in keeping horses for that purpose is the man who can raise horses most economically, and with him the colt is a by-product, a net profit in the transaction. If a farmer has work for four horses, he can afford to keep five mares; or for two, he can keep three. Let them be good useful animals, of whatever breed, free from inheritable blemishes, and of good disposition. He should mate these with the best sires of the same breed in the vicinity, and should go to the trouble in connection with his neighbors of securing, either by forming a horse company or some other way, the services of a suitable horse in that neighborhood. He can use his mares right up to the time of foaling, provided they are put at ordinary farm work. They are then entitled to a couple of weeks' rest and can then be used during the summer at ordinary farm work, and with proper care he can grow the kind of a horse that farmers require. If any one fails to produce a colt in the spring, he can breed her for a fall colt, and in this way soon stock and overstock his farm, with the kind of horses which the markets require. A good colt, well bred and well cared for, is salable at any time.

There are other farmers who are willing to buy these colts and grow them, for the very good reason that they can buy them cheaper than they can produce them. These are farmers that have a large amount of pasture, especially blue grass pasture, and are better prepared for grazing colts than growing them.

When the colt is coming three years old it should be sold, under ordinary circumstances, to the farmer who is mainly engaged in growing grain or for any reason wants young horses to work. These men keep them until they are ready to go to the city market, and can sell them at considerable advance on their cost.

The economical breeding and growing of horses is, therefore, the work of three or four different men. One man raises them as a by-product of his mares, another grows them for the consumption of his waste pasture, and the work is finished by the man who has light work for them to do and thus gets a profit on his work horses by reason of the advance in the price. This is the way horses are grown in France, to a great extent in Great Britain, and, in fact, in every other country. It is the way the business naturally develops—a sort of division of labor.

If any of our more wealthy readers see great profits in keeping brood mares for the sole profit of raising a colt, we ask them to do a little figuring. They can make their own figures, only they must not allow their imagination to run away with them. Make their figures honestly and they will soon convince themselves that we have in the above pointed out the only economic way of breeding and growing horses.—*Driver's Journal*.

### Swinelets.

The time to think about protecting pigs from a cannibalistic mother is a couple of months before they are born.

The pig is not half so filthy in its habits as man thinks it is, and to that fact the filthiness so often seen is largely due.

The too handy corn crib, with its abundant and cheap contents, often makes the sow so fond of her pigs that she devours them.

The properly fed sow is nearly always healthy, barring contagion or epidemic disease, and the healthy sow has no appetite for her own pigs.

If pigs were lost through any mistake or neglect last spring, recall the circumstance with a view to avoiding the mistake next spring.

The pig is a slow, sluggish, quiet fellow, and should not be hurried; not even in his eating, by reason of the very uncomfortable quarters he has to eat in.

What to feed, and how to feed, are important questions, but when to feed is equally important, and the when should be at the very same hour every day.

Foul, stagnant water, the leakings from stable or hog yards, are sources of worms in hogs. The purer the water given them the less worms in hogs.

Mildly laxative, cooling, soothing, non-fattening foods given to the brood sow before the arrival of her little ones will make her love them enough so that she will not desire to eat them.

The man who thinks the hog the nastiest is generally the one who changes its bed the most seldom. The clean horse must have a fresh bed every day; the dirty hog often has to be thankful if it gets a clean bed once a month.

It will pay to save all the pigs possible in the spring, and to do that care well for the mothers a month or two before the little fellows arrive. Give the mothers milk-producing, not fattening, food; shorts made into a thick mush with clover-hay tea, well-lodged ground oats prepared the same way, or shorts cut up and a little oil meal scattered on top, will do also good.

It is a question with some Canadian farmers whether it is cheaper to raise a bushel of wheat cheaper than to produce a bushel of butter. The writer has had some experience in wheat raising, but has not had any in butter raising. It will cost more to produce a bushel of wheat than it will to produce a bushel of butter; and the farmer who raises a bushel of butter from his own land will get more for it than he will for a bushel of wheat. The writer has seen a farmer who has raised a bushel of butter from his own land, and he has seen a farmer who has raised a bushel of wheat from his own land. The writer has seen a farmer who has raised a bushel of butter from his own land, and he has seen a farmer who has raised a bushel of wheat from his own land.

### A Good Quality in a Boar, Size Without Coarseness.

One of the most important points to be arrived at in the selection of a boar is that he shall have as much size as it is possible to obtain without any tendency to coarseness. It is not always easy to secure an ideal sire in this respect, because as hogs increase in size they are much disposed to the development of a certain amount of coarseness, especially in the head and shoulders. The special aim of the breeder should be to correct this, because the most valuable parts of the pig lie to the back of its shoulders, and the better proportioned a pig is "behind the saddle" the more fully will he comply with the present day requirements of bacon curers, and the better price he and his progeny will fetch when sent to market. While it is essential to have a comparatively small head in the case of a boar, care must be taken to avoid effeminacy in this direction, as there is nothing more indicative of inbreeding or lack of constitution than a thin, narrow head with a weak snout. *Farmers' Gazette*.

### The Government Whitewash.

The enduring whitewash used in all departments of the United States Government where such a preparation is needed is thus made:

Take a half bushel of unslaked lime, slake it with boiling water, cover during the process to keep in steam, strain the liquid through a fine sieve or strainer, and add to it a peck of salt, previously dissolved in warm water; three pounds of ground rice boiled to a thin paste and stirred in while hot; half a pound Spanish whiting and one pound of glue, previously dissolved by soaking in cold water, and then hanging over in a small pot hung in a larger one filled with water. Add five gallons of hot water to the mixture, stir well and let it stand a few days covered from dirt. It should be applied hot, for which purpose it can be kept in a portable furnace.

The east end of the President's house in Washington is embellished by this brilliant whitewash, and it is used by the Government to whitewash lighthouses. A pint of this mixture, if properly applied, will cover a square yard, and will be almost as serviceable as paint for wood, brick or stone, and is much cheaper than the cheapest paint.

### Buckwheat—Quantity of Seed and Time to Sow.

To the Editor FARMER'S ADVOCATE:

SIR, Some time ago I noticed an enquiry regarding the growing and management of buckwheat, and your answer quite differs with our experience in this section. We find that we have better success on the average sowing the last week in June, and one very successful grower says he would not sow his buckwheat before the 14th July if his ground was ready ever so long before. Another difference, we sow only two pecks to the acre if our ground is in good condition. We find that ground plowed in the fall, in the spring harrowed and disked, plowed, harrowed and again disked, again well plowed to kill all quack and thistles, thoroughly and fine harrowed, gives the proper tilth for a successful crop. The straw we throw loosely on the barnyard to be tramped into manure during the early winter, quite a quantity of forage being taken out of it by the cattle. We sold ours two seasons ago at 42c., and the past season it was worth 50c. We get usually 20 to 30 bushels to the acre, but know of those who have had returns of 50 bushels per acre from 2 pecks sowing.

Addington Co., Ont. W. J. SHANNON.

### Jerseys as Butter Producers.

In the annual report of the English Jersey Cattle Society for last year, just published, an interesting summary is given of the results of the butter tests made at the leading shows under the auspices of the Society during the season. The returns given show that the average yield of milk per cow of the 136 animals publicly tested during the year worked out to 31 lbs. 2½ ozs., at an average of 106 days in milk, or a fraction over 3 gallons per day. The average daily yield of butter per cow was 1 lb. 11 ozs., so that the butter ratio for the 136 cows tested worked out to 1 lb. of butter for every 18.22 lbs. of milk. The best daily yield of butter given by any of the cows tested during the year was 3 lbs. 6½ ozs., which was produced by the cow Sundew 4th, the property of Lord Braybrooke, at the great annual butter tests held in conjunction with the Tring Agricultural Society's Show. Another cow at the same show gave a yield of 3 lbs. 1 oz. of butter in the 24 hours over which the test extended.

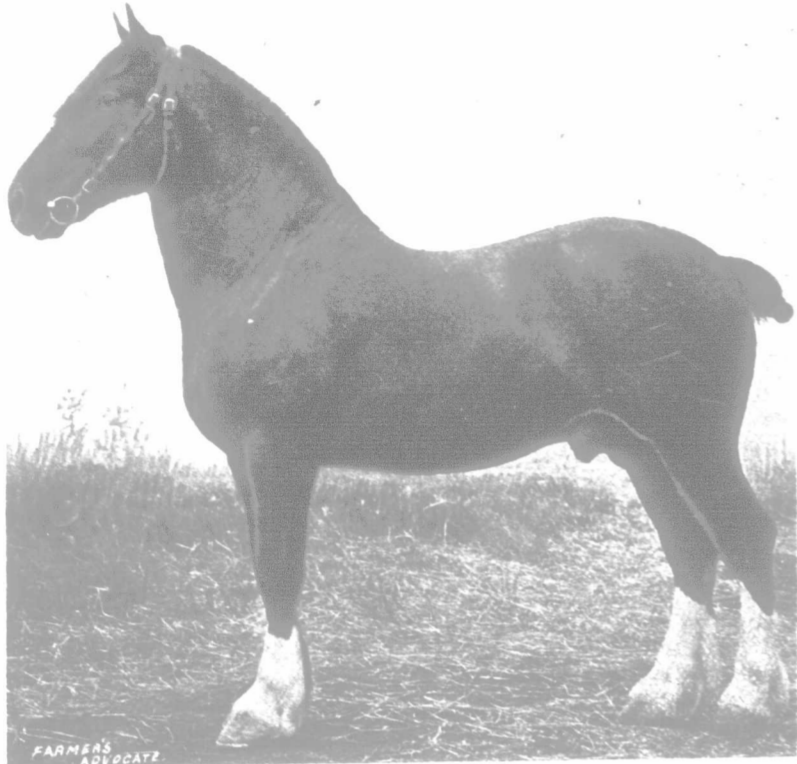
Dr. Saunders, Director of the Canadian Experimental Farms, has gone to Paris to examine the horticultural exhibits as to their fitness for the Glasgow Exhibition next year. He will also, by invitation, represent Canada at the British Association meeting at Bradford in September, and take the opportunity to visit experimental stations in Great Britain and France, with which he has long been in correspondence since his appointment, but has not visited for fourteen years.



**The Winnipeg Industrial Exhibition.**

The very discouraging reports coming from the country only a few weeks ago made a successful exhibition appear next to impossible, but ever since the breaking of the drought early in July the prospects have daily improved, until it was realized on the closing dates that the most successful show in the history of the Association had concluded. There were more and better animals shown than ever before, and a greatly reduced percentage of inferior, thin stock. Considerable extra accommodation had to be provided after the stock com-

trotted out as the occasion demanded, so that all who wished could see and learn the desirable points of the best animals. In this connection, too, much more seating accommodation for spectators could be provided at the ring side, which would be very liberally patronized by would-be students of ideal animal forms. That there is a demand for such provision was amply demonstrated many times during the judging of cattle and horses, when the crowds surrounded the animals so closely that neither the judge nor anyone else could obtain a clear view of the competitors. The condition of the horse ring also needs attention, especially where the action of the animals is required to be shown. If the ground cannot be all made level, at least a track a few yards wide could be provided surrounding the ring inside the fence. If sufficient cinders, gravel or crushed stone cannot be gotten to cover such a track, the ground could at least be levelled and re-sodded so that a horse could trust himself to show his action without fear of receiving a sprain. These are a few of the needed improvements to send this Exhibition forward in a substantial, helpful manner, and will, if carried out along with other features of a like nature, do more to help the show in public favor and financial support than all the Midway performances, even though of a much more elevated character than most of those on display this year beneath the canvas.



**ROSEMOUNT.**

First-prize 2-year-old Clydesdale stallion at Winnipeg Industrial Exhibition, 1900.

OWNED BY W. SWENERTON, V. S., CARBERRY, MAN.

menced to arrive, and when all were placed under cover, there were sheep, horses and cattle in the same sheds, but they were made comfortable and well looked after, so that no complaints were heard from exhibitors, who evidently accepted the inconvenience, but best obtainable, accommodation in the spirit it was given.

For a country so young, it is truly remarkable that such a collection of live stock can be brought together, and it serves well to indicate the possibilities of Western Canada as a stock-producing country. Much credit is due Manager Heubach and his able board for the provision made for the exhibitors and the attention given them during their stay, all of whom seem to fully appreciate the efforts made on their behalf. In fact, the stockmen feel at home to such an extent that it would seem quite safe to direct some of the energy of the live-stock committee in the interest of visitors, with a view to increase the educational value of the exhibition. The "Industrial" may now be considered established quite as much as the larger shows of the East, and the time has come for a more systematic effort in the direction just mentioned. To this end we would suggest a closing of the entry books at a somewhat earlier date, and then keeping them closed. If this were done there would be no excuse for an incomplete and imperfect live stock catalogue, which was this year a help, but not an authority. Imperfect as it was, it might have been of some value had the cards corresponding with the catalogue numbers been attached to the stalls while the animals were in, and attached to the attendant or animal while in the ring or on parade. The intention in getting out the catalogues was no doubt good, but the effort in carrying out the system seemed to end too soon, apparently, as though visitors did not care much after all, and came to the Exhibition to be entertained rather than enlightened. The educational value of such shows as the Winnipeg Industrial must not be lost sight of or it will degenerate at a much more rapid rate than it grew to its present prosperous position.

While the delays in judging had of necessity to be made as short as possible on account of the enormous amount of work she added into single judges, more care might have been expended by allowing the spectators to see upon which animals the awards were placed. This could have been accomplished by having the winners drawn out from the others, and instead of handing the cards, walked or

speaking of the entertainment feature as provided before the grand stand, it is a pleasure to note that the board deserve praise for providing such a liberal programme of worthy performances. In addition to the succession of meritorious and keenly contested horse races during the afternoons, and the wonderfully grand spectacular events winding up each evening's programme, the immense crowds that thronged the capacious and comfortable new grand stand were maintained in the best of humor by the clever feats of performers, which seemed to rest and please the immense concourses of people who had come in for these features alone or had trudged the rounds of the stock ranges and other buildings earlier in the day.

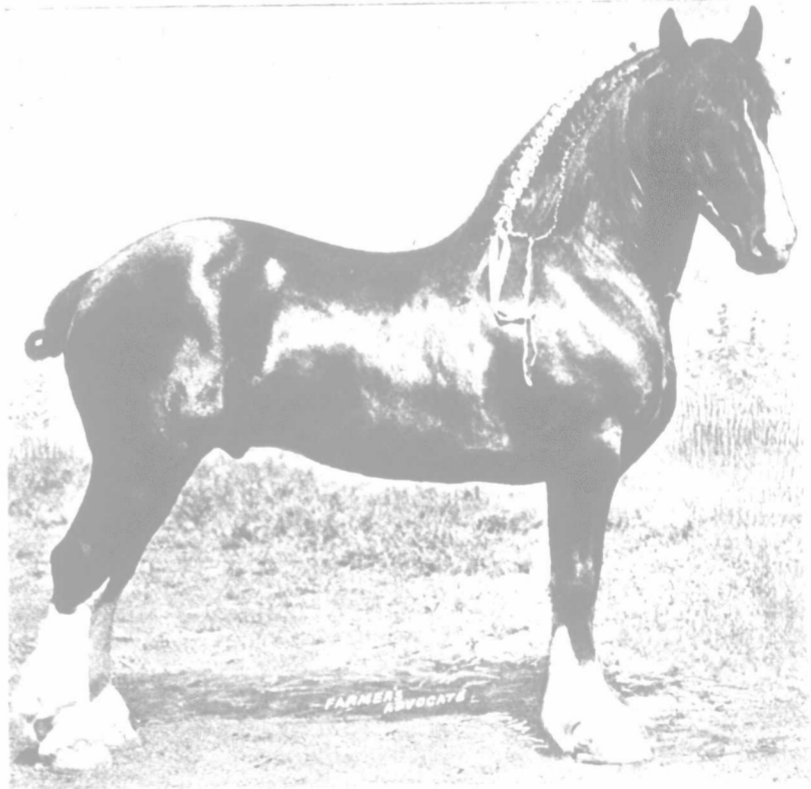
From Monday morning till Saturday night, when nearly all of the exhibits had been removed, the weather was as nearly ideal as the board could have wished. At no time was it excessively warm, disagreeably windy, or at all wet, so that it was not surprising that the attendance was the record-breaker in the history of the Association. The classes, too, that came in from the farms of the Canadian or American West or from centers of population were of sorts worth encouraging as visitors or residents to a country or city that needs development. Whether Anglo-Saxon or those speaking in foreign tongues, practically all were well dressed and intelligent; so that if this Exhibition does nothing more than attract outsiders and then show them our resources, it has done a work that will bear fruit in keeping with the fertile prairies surrounding the metropolis where the "Industrial" finds its home.

**HORSES.**

The commodious accommodation in the horse barns was taxed beyond its capacity, a number of animals having to accept space in the sheep pens. This was no hardship, however, as Winnipeg has perhaps the best exhibition sheep barn on the continent. The quality of the exhibits was, as a rule, good, and unfitted particular stock was less conspicuous than ever before at this exhibition. The judging in all the classes was done by Prof. J. A. Craig, of Iowa Agricultural College, which institution is the only one on the continent attempting horse-breeding on any considerable scale.

**CLYDESDALES.**

Clydesdales put up a showing that would do credit to any showing, as many of the best breeders in the western country presented animals which were produced from the leading studs of Great Britain, Ontario, and the United States of America. The mature stallions, seven in number, were a massive, typical lot and generally presented in flesh and fitted form regardless of having concluded heavy stud seasons at very recent dates. Among these were the following: Burnbrae, owned by Wm. Bailey, Carberry, the champion of two years, and a favorite when shown as a two-year-old in Chicago; Geo. Cartwright's Golden Hero, a thick-bodied, good-legged sort that grows in popularity as his stock become known. Benaven, owned by P. B. McLaren; and Erskine Lad, owned by C. Colquhoun. None of these, however, were privileged to participate in the spoils, although in the opinion of many good horsemen one or more from among them could have justly done so. The decision was not hurriedly given, nor was it a light task. The first award was fairly popular, going as it did to J. A. S. Macmillan's Pilgrim, a really good sort, sired by MacLure. He is an upstanding, massive brown, with a grand set of timber, perhaps a bit wide in front. He is thick and deep before and behind, and carries a proud head. His action is fine, perhaps a trifle wide to suit a Scotchman, but he flexes his hocks well and goes forcefully in front. The second award fell to a big young, well-topped horse brought up from Ontario at the commencement of the present stud season. He is Jubilee Prince, bred by Neil Smith, Brampton, and is owned by Messrs. D. Fraser & Sons, Emerson, and sired by Kintore Hero (imp). The third prize fell to the tried and true Balgreggan Hero, an eleven-year-old horse that has done thousands of dollars of valuable service on R. G. Robinson's Elbow Park ranch, and previously on J. A. Turner's ranch, Calgary. He is a grand specimen of the breed, one of the wearing sort, good in all his parts and at all gaits. The judge admitted his superiority and would have placed him higher had he been a few years younger. Three-year-olds included only three entries of good type. It was here that the sweepstakes male was looked for, and when the final contest came the interest was keen, as two good horses had met. We refer to John E. Smith's Prince Charles that came against Pilgrim, but the older horse by his maturity carried the day. Prince Charles is indeed a hard colt to fault, as he has abundance of substance for his years, while he is of the real Scotch type and goes true and level at all gaits. He was bred in Scotland and sired by Sir Morrell McKenzie. His class rivals were G. & W. Bennie's Aberdeen and D. Stephenson's Jubilee Prince. The former, by Macquaker, in the hands of Graham Bros., Claremont, Ont., won good premiums in eastern competitions. He appeared on this occasion in only moderate condition, but defeated by a narrow majority the more rangy, finer Jubilee Prince, sired by Prince Patrick. The two-year-old section presented five really beautiful colts,



**PILRIM 7020.**

First-prize and sweepstakes Clydesdale stallion at Winnipeg Industrial Exhibition, 1900.

OWNED BY J. A. S. MACMILLAN, BRAMPTON, MAN.

including one of the best things in the show in Prince Stanley, bred by D. & O. Sorby, and sired by Grandeur, and out of Miss Stanley. He was shown by Messrs. A. & G. Mutch, Lumsden, Assa, who purchased him from John A. Turner, Millarville, Assa. Unfortunately, however, he was not placed. The 1st award went to Rosemont, by Young McQueen, a low set, good sort, shown by W. Swenerton, V. S., Carberry. The 2nd went to John A. Turner's Grand Prize, by Grandeur and out of Lady Fleming; and the 3rd to his stable mate, Prince













Northwest Territories Farmers' Institute Meetings.

REPORTED BY OUR SPECIAL CORRESPONDENT.

A series of eleven successful meetings was held in the Prince Albert District in the beginning of July. These meetings were arranged by the Hon. G. H. V. Bulyea, Commissioner of Agriculture for the Northwest Territories...

Leaving Regina on Thursday, the 5th July, the party proceeded by rail to Prince Albert, where they were met by the officers of the local Agricultural Society, and the first meeting was held in the town hall at 2 o'clock the following day...

The Commissioner of Agriculture congratulated the farmers on the much better condition of their crops than those further to the south, where the exceptional drought of the season had reduced materially the possible yield of all grain and fodder crops...

He had also succeeded in obtaining the assistance of Mr. Angus Mackay, whose name was a household word in the West as a practical farmer and a safe adviser in all matters relating to farming. The Commissioner then explained the provisions of the Northwest Weed Ordinance...

Mr. Bulyea averred that he appreciated highly the honor which had been done him when he was appointed Commissioner of Agriculture, and that he recognized the great responsibility of the office. His only concern was to advance the interests of the farmers of the Territories...

Mr. Angus Mackay was much pleased to be present. He spoke of the various experiments which had been conducted at the Indian Head Farm in all branches of agriculture in the Territories, and explained the various methods had given the best results in the various crops...

started far too late in the season to secure the full benefits to be derived from it. As soon as seeding is finished summer-fallowing should be begun. If this could be in the month of May so much the better; then by plowing deeply, 6 or 7 inches, and running the harrows over the plowing quickly...

Speaking on the subject of fruits for the West, he spoke of efforts which had been made to produce hardy apples and plums, and exhibited some specimens of these fruits grown this year at Indian Head...

Dr. Fletcher confined his remarks to weeds, their nature and the best way to fight them. He has investigated this subject carefully for many years, and has had exceptional opportunities of studying them...

The study of noxious weeds, with a view to controlling them, he claimed was a simple matter if properly understood, and the eradication of all of these enemies could be accomplished with the ordinary implements of the farm...

come into existence except from a seed ripened upon a plant similar to itself. Many people speak of certain weeds being "native to the soil," as if they thought that a kind of malignant, special creation was possible, by which soil turned into weeds to their great disadvantage...

Reverting to summer-fallowing, so well treated by Mr. Mackay, who, by his persistent advocacy of this method, had made the subject peculiarly his own, and had enhanced the value of thousands of miles of as fertile wheat land as could be found anywhere in the world...

Samples of many of the weeds prevalent in crops were exhibited, and the nature of each was explained, together with practical advice as to their destruction. The only introduced weed which had been noticed as dangerously abundant was the ball mustard...

These meetings on the whole, were decidedly successful. Leaving Prince Albert in the morning of July 7th, a route of nearly 200 miles was covered before the railway was again reached at Willoughby...

Table listing dates and locations of meetings: Prince Albert (July 6), Melfort (July 7), Kinistone (July 8), Harperview (July 9), St. Louis (July 10), Lindsay (July 11), Willoughby (July 12), Rosthern (July 13), Duck Lake (July 13).

The finest crops of wheat were seen at St. Louis, Harperview, and Rosthern. Hay was excellent and abundant everywhere. Western Brome grass and Western rye being conspicuous and remarkably developed everywhere...

The last meeting, and perhaps the most successful of the whole series, was held at Lumsden, 20 miles north of Regina, on the evening of July 11. This meeting had been so well worked up by the energetic Secretary of the Regina Agricultural Society, Mr. Wm. Trant...

Elevator Commissioner.

C. C. Castle has been appointed by the Dominion Government to the position of Elevator Commissioner in connection with the act respecting the grain trade of Manitoba.









Four Feet on the Fender.

(A Workingman's Rhyme.)
I work mid grime and steam and noise,
Ten hours, hard and steady;

THE BIRD ON ITS JOURNEY.

BY BEATRICE HARRADEN.

(Continued from page 437)

"Ah, but you shall see the other room," the old peasant woman said; and she led them into a small apartment, which was evidently intended for a study. It bore evidences of an unusual taste and care, and one could see that some loving hand had been trying to make it a real-sanctum of refinement. There was even a small piano. A carved book rack was fastened to the wall.

think that the next time they'd daughter come to see her they will play to her and make her very happy. "Poor old dear!"
"You puzzle me greatly," he said. "I cannot for the life of me think what made you choose your calling. You must have many gifts; anyone who talks with you must see that at once. And you play quite nicely, too."



(Address all letters to Cousin Dorothy, Box 92, Newcastle, Ont.)

The Lookout Regiment.

Our Regiment covers quite a lot of ground now. We have soldiers in Ontario, Quebec, Manitoba, and the Northwest Territory.
Names of new recruits are: E. A. Todd, Monie Cowan, Mary Beman, Albert E. Wood, Florence M. Craig, George Bowen, Laura Chilton, Nelson D. Huddleston, Bruce Johnstone.

The Vain Chipmunk.

A gay young chipmunk sat on a rail,
Eating a nut and switching his tail,
With a saucy, impudent air.

Making Sunshine.

I was sitting in my room looking out upon the dreary landscape. The day was a dark, cloudy one, and the sun was entirely hidden from sight. If that had only been shining, it would not have seemed so dreary. I really felt downhearted and wished that the clouds would pass away and the sun shine out again.

A Little Mistake.

"Well, no one can say I have not made good use of my time," said a large, white man in a daisy that grew in the turf close by.

A story illustrating the retention of the Scots is credited to Ian MacLaren. A train was at a station when a porter put his head into a carriage and called out: "Any one for Down? Change for Down? Any one for Down? No one moved, and in a few minutes the train was speeding along, not to stop again for nearly an hour. Then an old Scotsman turned round, sitting near the end, and said: "In for Down, but I'd no tell that man so."









# COMPLETE REORGANIZATION.

The Manitoba Farmers' Mutual Hail Insurance Co.

A MUTUAL Hail Insurance Co. of the farmers, for the farmers.

**CROP, ACREAGE ONLY INSURED. REMUNERATION \$5.00 PER ACRE**

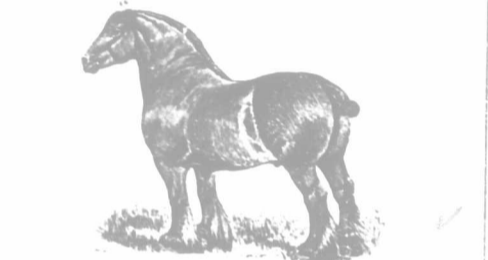
Limit of assessment reduced to **Four per cent.** (equals 20 cents per acre). **\$2,000,000 Insurance in force.** Good reliable **local agents** wanted. Correspondence solicited.

Address: **W. C. GRAHAM, MANAGER, BOX 672, WINNIPEG.**

## Clydesdales and Shorthorns.

**Young stallions, bulls, and heifers.**  
Herd headed by Best Yet - 14571 and Mint-horn - 24984 - bulls bred by Hon. John Dryden and H. Cargill & Son.  
TERMS ON APPLICATION.  
**D. McBeth,**  
Oak Lake, Manitoba

**J. E. SMITH**  
Has received from Ontario a shipment of **twelve Shorthorn bulls**, which are for sale. Also for sale a number of **home-bred heifers**, sired by Lord Stanley II. = 22230 - and supposed to be in calf to Golden Measure (imp.) = 26957 - 26957 -



For sale, a number of **Clydesdale mares and fillies**, all registered, will be served by Prince Charles (imp.). All animals for sale, except the stock bulls, Lord Stanley II. = 22230 - and Golden Measure (imp.) = 26957 - and the Clydesdale stallion, Prince Charles (imp.). These, being the best that money and experience could buy, are required to maintain the high reputation of the stock of the Beresford and Southfield Farms. Come and see the stock, or write for what you want, to

**J. H. SMITH,**  
P. O. Box 274 - Smithfield Ave., BRANDON.

## "PRAIRIE HOME STOCK FARM."

Bulls at head of herd.  
Judge 23419 and Imp. Jubilee 28858



**Yorkshire and Berkshire Swine.**  
**Clydesdale Stallions and Shropshire Sheep.**  
**Shorthorn and Ayrshire Cattle.**  
HON. GREENWAY, Proprietor.  
JAMES YULE, Manager, Crystal City.

**Bulls! Bulls! Bulls!**



PLEASE MENTION

## SHORTHORNS

Masterpiece 25750 by imp. Grand Sweep, out of an Indian Chief dam, at head of herd. Imp. Large Yorkshires for sale.  
**JAMES BRAY,**  
LONGBURN, MAN.

## D. FRASER & SONS,

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Breeder and importers of **Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs** a specialty. Young stock for sale. 9A-M

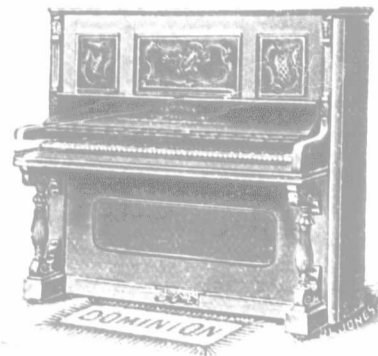
**Shorthorns** 4 Heifers and 2 Young Bulls. Choice ones of Royal Sallor-bred-imp., also Admiral, their stock bull. Also imported **CLYDESDALE STALLION.**  
A. & J. CHADBOURN, Ralphon, Man.

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BREEDS BEST STRAINS OF UTILITY BREEDS.

Thoroughly acclimatized and best adapted to our climate. Have for sale stock and eggs of Mammoth Bronze Turkeys, Toulouse Geese, Imperial Deep keeled Pekin Ducks, English Roman Ducks, White Wyandottes, White Leghorns, Silver Laced Wyandottes, Light Brahmans, Heron Strain Plymouth Rocks, Homing Pigeons from best imported Belgian stock, same as used by the army for carrying messages from beleaguered cities. Large illustrated catalogue, giving list of prizes and medals won at all leading exhibitions, with prices, description and pedigree of stock mailed free on receipt of address. I am North-west agent for the celebrated **CYPHERS INCUBATOR AND BROODER.** Mr. Cyphers is the discoverer and patentee of the diffusive principle in artificial incubation, thus saving the lives of thousands of chicks that die in the shell in ordinary incubators. It is asbestos coated and perfectly fireproof. Supplies and regulates its own moisture, and so simple a child can operate it with success. Write for particulars.

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## STEEL ROLLER BEARINGS IMPROVED STEEL FRAME

And combined Foot and Lever Drive, improvements you will not find on other churns. Do you want the best? Then don't purchase until you see it. Sold by the leading wholesale houses in the Dominion.



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1	10 "	1 to 3 "
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Farmer's Advocate



The Veterinary Association of Manitoba.

Under the authority of Secs. 18, 19, 21 and 26 of the Veterinary Association Act, 1890 (33 Vic., Chap. 60), the following persons only are entitled to practice as Veterinary Surgeons in the Province of Manitoba, or to collect fees for the service rendered as such:

- Atton, A. L., ... Sweeney.
Baker, G. P., ... Russell.
Braund, F. J., ... Wawanesa.
Brocken, G. E., ... Clan William.
Clark, S. H., ... Russell.
Cook, W. S., ... Arden, Man.
Cooke, H. L., ... Minnedosa.
Coxe, S. A., ... Brandon.
Cruikshank, J. G., ... Deloraine.
Dunn, J., ... Deloraine.
Dunbar, W. A., ... Winnipeg.
Elliott, H. James, ... Brandon.
Fisher, J. F., ... Brandon.
Fowler, J., ... Souris.
Graham, N., ... Dauphin.
Green, E., ... Battle.
Hatton, J., ... Alexander.
Harrison, W., ... Glenboro.
Henderson, W. S., ... Carberry.
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McLoughry, R. A., ... Mousomin.
Martin, W. E., ... Winnipeg.
Moutoth, R. A., ... Killarney.
McNaught, H., ... Rapid City.
Marshall, R. G., ... Griswold.
Murray, G. P., ... Winnipeg.
Nagle, J. W., ... Morden.
Reid, D. S., ... Hartney.
Robinson, F. E., ... Emerson.
Roe, J. S., ... Neepawa.
Rombough, M. B., ... Morden.
Roversoff, S. V., ... Birtle.
Rutherford, J. G., ... Portage la Prairie.
Rutledge, J. W., ... McGregor.
Shoultz, W. A., ... Gladstone.
Smith, W. H., ... Carman.
Smith, H. D., ... Winnipeg.
Snider, J. H., ... Emerson.
Stevenson, C. A., ... Preston.
Stevenson, J. V., ... Carman.
Svenerton, W., ... Carberry.
Taylor, W. R., ... Portage la Prairie.
Thompson, S. J., ... Carberry.
Torrance, F., ... Winnipeg.
Waldon, F., ... Killarney.
Walker, J. St., ... Minto.
Weich, J., ... Roland.
Williamson, A. K., ... Winnipeg.
Whaley, H. F., ... Glenboro.
Whimster, M., ... Manitoba.
Young, J. M., ... Rapid City.
Young, M., ... Manitow.

The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable for prosecution.
F. TORRANCE, REGISTRAR, WINNIPEG.

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Fit for service, the best I ever offered, for sale. Also some fine two-year-old and year-old heifers.
GEORGE RANKIN, Hamiota Man.

Shorthorns and Berkshires.
BREEDING AND QUALITY RIGHT.
Write or call for prices.
3 nice young bulls for sale now.
R. L. LANG, Spruce Bank Farm, OAK LAKE, MAN.

POPLAR GROVE
HEREFORDS
THE LARGEST HERD IN CANADA.
STOCK OF ALL AGES FOR SALE.
J. E. MARPLES, DELEAU, MAN.

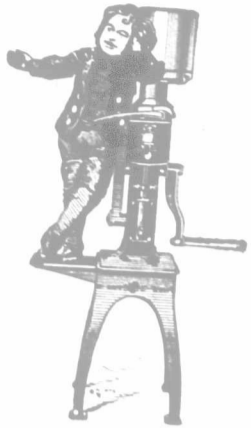
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Choice young stock for sale. 212-3-4

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De Laval Cream Separators



In the handbills now circulated by the R. A. Lister Co., who appear not to be beneath resorting to all manner of trickery and low methods to bolster up their separators, they are accusing us of willfully perverting the truth, claiming that we deliberately put in that testimonial .02 instead of .2.

Now, we think it is evident the mistake, if there is any, must be laid at the door of no one but their "travelling representative," or ex-Dairy Commissioner C. C. Macdonald.

We are quite sure there is no man endowed with common intelligence, and who has had any experience whatever with Cream Separators, who will not concede that there never was a Cream Separator put on the market which could not at any time skim down to .1, except, perhaps, the "Alexandra," owing to its heavy gearing and the difficulty of keeping up the speed while skimming, or such frauds as the so-called "Hydro Lactic Separator" which has ever done as poor skimming as would be indicated by .2.

If, therefore, in the testimonial referred to, the ex-Dairy Commissioner has written .2 instead of .02, anyone understanding the difference of those two readings will easily conceive that it is obviously caused by a blunder on the part of said Commissioner, and which cannot be rectified by merely accusing us of falsehood, and would, in the eyes of anyone possessing the least knowledge of Cream Separators, stamp its author as a man entirely incompetent and lacking the fundamental knowledge of mechanical separation. We have never looked upon Mr. Macdonald in that light.

It is, however, well known that at the time the said testimonial was written, and up to the time the Government saw fit to dispense with Mr. C. C. Macdonald's services, he considered the De Laval by far the best Separator and said so, and we can well understand the inconvenience it now causes the ex-Dairy Commissioner and his employers to be confronted with this fact.

We suggest, however, it would have been more gracious of the Manager, Mr. Scott, toward their "travelling representative" if he had taken the medicine as it came, instead of trying to sweeten it by digging up a blunder, which certainly for the sake of Mr. Macdonald had better been left buried.

"People who live in glass houses should handle stones carefully."

In the contest at Portage la Prairie, the manner their "travelling representative" insisted, and for good reason of ours, was allowed to read the test, ought to have given Mr. Scott, the Manager, a warning; and more, he knows, if he knows anything, that, notwithstanding all the jugglery employed at that test, the Melotte was thoroughly and fairly beaten. We went into the contest at Portage la Prairie expecting fair play. We beat them by actual figures, notwithstanding the reading .01 instead of .05, and it is evident that they are keeping out of another contest, to which we have repeatedly challenged them, fully aware that no more funny work or reading will be tolerated.

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THE CANADIAN DAIRY SUPPLY CO. challenged all makers of Cream Separators to a trial of excellence at the Portage Show last month on following points: **Simplicity and Durability of Construction, Ease of Turning, Capacity, Facility of Cleaning, Thorough Separation.** The judges were Messrs. P. Cameron, Thos. Sissons and C. E. Grobb (mutually selected), and their decision gave the victory to our Melotte machine. We have also to call your readers' attention to the statement below, relative to a misleading "testimonial" published by the said Company in your last issue:

To THOSE WHOSE IT CONCERNS.

In the last issue of the Advocate, July 26th, the Canadian Dairy Supply Co. published a testimonial from Mr. C. C. Mac Donald, our travelling representative, written when he was Dairy Commissioner for this Province, 16th April, 1896, in which this statement occurs:

"When 837 lbs. was put through in the one hr. 2 min. above mentioned, the skim milk tested .02 per cent. of fat."

Now, if this statement was correct it would go to prove that the Alpha Lister is a pretty good Separator, and that a volume of fat means only 3 1/2 oz. of butter left in 100 gallons milk. In order to verify the statement of Mr. Mac Donald, Mr. Wm. Scott, called at the Department of Agriculture and requested the attention of the Hon. Sec. of Agr. to inspect their copy of the letter in question. He was told that the Hon. Sec. of Agr. would be pleased to do so, and he was told that the Hon. Sec. of Agr. would be pleased to do so, and he was told that the Hon. Sec. of Agr. would be pleased to do so.

"When 837 lbs. was put through in the 1 hr. 7 min. above mentioned, the skim milk tested .02 per cent. of fat."

We have to say that the Hon. Sec. of Agr. has not yet received the letter in question, and we have to say that the Hon. Sec. of Agr. has not yet received the letter in question, and we have to say that the Hon. Sec. of Agr. has not yet received the letter in question.

### R. A. LISTER & CO.,

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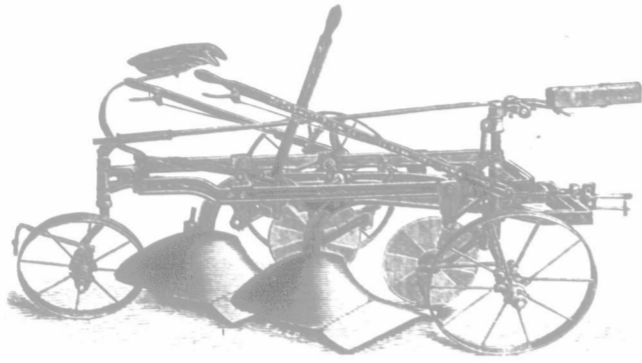
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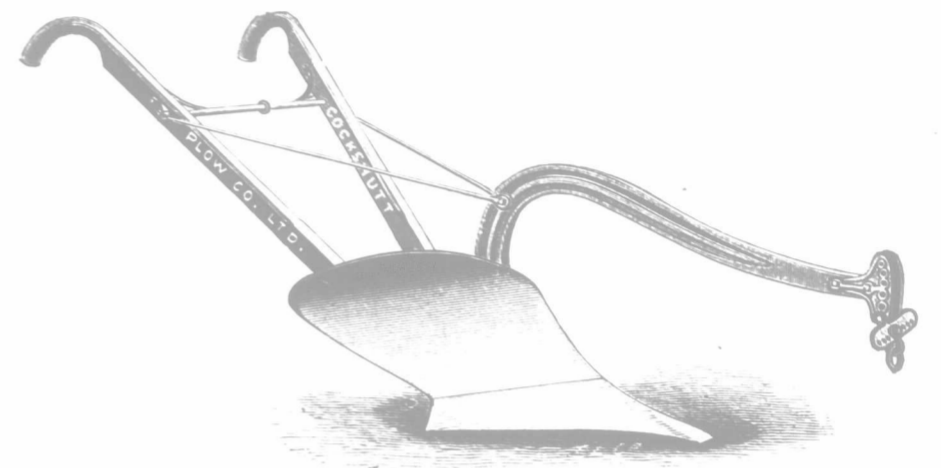


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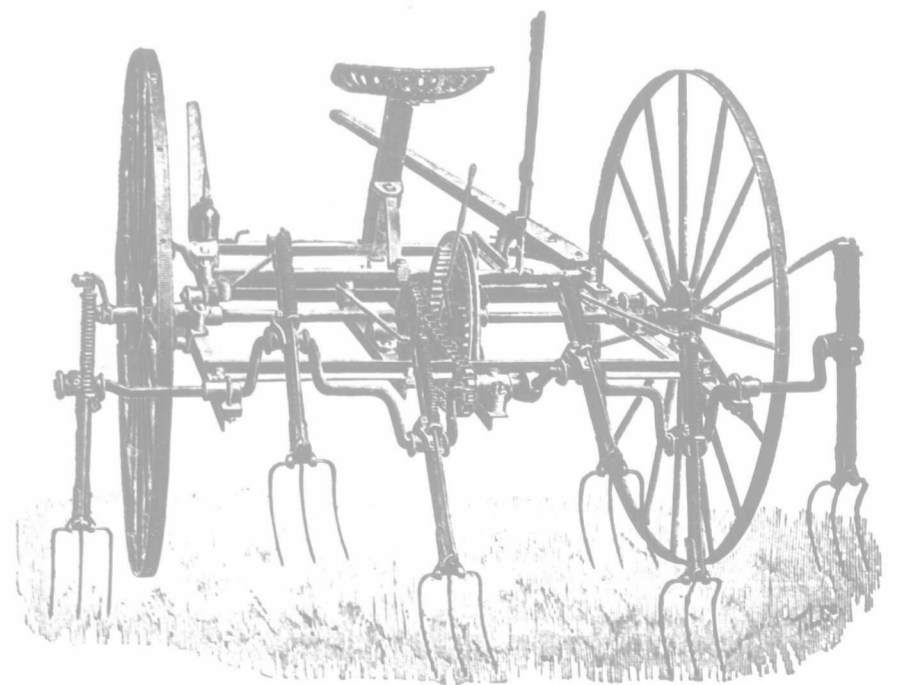


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