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MANITOBA AND WESTERN EDITION

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*
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VOL. XXXIV. LONDON, ONTARIO. OCTOBER 20, 1899. WINNIPEG, MANITOBA. No. 488

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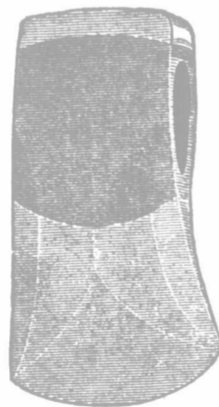
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VOL. XXXIV.

LONDON, ONT., AND WINNIPEG, MAN., OCTOBER 20, 1899.

No. 488

Commission to Investigate the Elevator Question.

The Minister of the Interior has appointed the following as a commission to investigate the question of elevators and flat warehouses, and presumably other matters connected with the grain-handling of the West: Judge Senkler, of St. Catharines (Chairman); W. D. Sirett, M. P. P. for Beautiful Plains; C. C. Castle, Foxton, and William Lothian, Pipestone; and C. N. Bell, Secretary of Winnipeg Grain Exchange, as Secretary.

Grain Standards Board to Meet.

The Western Grain Standards Board has been called to meet on October 25th, in order to fix commercial grades of frosted grain, which are not provided for in the regular standard grades defined in the new Act. Some slight damage has been done by frost in a few sections in the northern and western districts, and in order to handle this class of grain it is found necessary to fix samples, which can be done only by the Standards Board.

C. P. R. Live Stock Distribution.

In connection with the scheme for the free distribution of pure-bred stock by the Canadian Pacific Railway, which has been referred to in previous issues of the FARMER'S ADVOCATE, it is now reported that the Company are not likely to go further with the free distribution, as it certainly would be very detrimental to the interests of the breeders of this country, who have done so much already to advance the live stock industry. It seems likely, however, that the company, which never does anything by halves, once having become fully alive to the importance of the use of pure-bred sires in building up the stock industry of this western country, will not abandon the idea of encouraging this important branch of agriculture when it is in their power to do so much at so comparatively small a cost by reducing local freight rates on pure-bred stock for breeding purposes to a minimum, and afford other facilities to encourage the local breeder and bring the stock within easy reach of the average farmer.

The Survey Board.

Under the new grain-grading regulations provision is made for a Board of Survey, which is made up of "twelve competent persons," six of whom are nominated by the Winnipeg Board of Trade, three each by the Governments of Manitoba and Territories. On this Survey Board, Messrs. Wm. R. Motherwell, Abernethy; Henry Dorill, Moose Jaw, and R. J. Phin, Moosomin, were nominated by the Territorial Government; Messrs. N. Bawlf, C. Young, and W. L. Parrish, by the Manitoba Government.

The Board at its first meeting arranged rules, fees, etc. Three members form a committee to make a survey at the nominal fee of \$1.00 each per sitting, so that a survey only costs \$3.00, which is paid by the party losing the award. If the grading of a car of wheat is not satisfactory to the seller, appeal may be made past the Inspectors to the Survey Board, whose ruling shall be final. In cases of dispute on wheat in transit, it is most important that no delay be caused, hence the desirability of having such matters dealt with in the least possible loss of time, and under the present arrangement a small committee of three, from the nine members, who are all members of the Grain Exchange, can be got together on short notice, and the small fee makes the survey charge merely nominal. The members nominated by the Territorial Government, living at so great a distance, will hardly be able to act. The acting members of this Board, being all members of the Grain Exchange and intimately associated with the Elevator Association, it is scarcely probable that wheat-growers will make many appeals to their arbitration, but will rather abide by the decision of the Inspectors.

The New Grain Regulations.

To the Editor FARMER'S ADVOCATE:

Whether the new Grain Inspection Act, which has recently come into effect, will likely work out satisfactorily to both the producer and dealer is rather a difficult question to answer.

We will take first the new No. 1 hard. The regulation says that "No. 1 Manitoba hard shall consist wholly of wheat grown in Manitoba, etc., and shall be 'plump,' sound and well cleaned, weighing not less than 60 lbs. to the bushel, and shall be composed of at least 75 per cent. hard red Fyfe wheat."

The particular innovation is the insertion of that little word 'plump.' Myself, I feel certain that future developments will prove that a very big mistake has been made in this respect.

No. 1 hard should be such a grade as would meet the average crop conditions year after year, that was met fairly well under the old No. 1 hard, but I will be agreeably surprised if the new regulation does not prove a plumper in reducing our average in certain seasons to a No. 2 hard basis.

Of course, we understand the object of a grade in the first place is to facilitate the barter and sale of our crops, and it makes no difference to the dealer, so long as he knows just where he stands, whether wheat is No. 1 hard or No. 2 hard—the loss of a grade falls wholly on the producer.

The regulations as a whole should prove satisfactory to the trade.

My contention is that, so far as the farmer is concerned, no matter how perfect the grain classifications may be or all the other regulations of the trade, so long as there is no controlling power over the trade itself as between the dealer and producer, the good intentions of the Act as applied to the farmer is very largely nullified.

Of course, you understand that the crop conditions this year are very nearly perfect—a fine sample and very clean—and there should be no difficulty; still, I meet this feature: at a certain point farmers were dissatisfied with the weights given them; they would try first one elevator, then another, with the same results. The explanation given to me by a business man was that the respective firms employing the buyers at these elevators demanded that these men should guarantee both grades and weights, and it was further stated that, in addition to giving bonds, a certain portion of their salary was held back to secure their employers in that respect. If that is really being done, one can readily understand that somebody is going to lose, and one can also understand what I mean when I say that the intentions of the Act are being nullified so far as the producer is concerned, as under such conditions a man could be shaved so that his No. 1 hard crop would net him a No. 2 hard price, with fair weights.

From the producer's standpoint, I have nothing further to add to my statements in the FARMER'S ADVOCATE of June 20th, but will simply re-affirm the position that you need never expect a satisfied agricultural community with present conditions. There has got to be a controlling power supervising the whole grain trade of this country. This power should be a Board of Control, located in Winnipeg and completely independent of the grain interests. More than that, farmers will never be satisfied until they are entirely liberated from present compulsory restrictions.

I think that our Western representatives fully understand that there is nothing more potent to make or unmake members of Parliament than this very matter.

W. B. UNDERHILL.

The Importation of Cottonwoods.

To the Editor FARMER'S ADVOCATE:

On the representation of the Hon. Thomas Greenway, the Hon. Sydney Fisher, the Minister of Agriculture, has had an order-in-council passed allowing anyone in Manitoba or the Northwest Territories, who wishes to do so, to import, for planting here, cottonwood trees from Dakota and other north-western States, from the present time up till the first of January next. These shipments must be made via the port of Brandon, where they will be examined by Mr. S. A. Bedford, Superintendent of the Experimental Farm at that place, or by one of his officials. There are many farmers and others who consider the cottonwood one of the very best trees for planting here, and it is claimed that the young trees can be more easily obtained in the United States than in our own river bottoms. The

so-called Dakota cottonwood is identically the same tree as our own native cottonwood. It is also known as the necklace poplar, which is simply a translation of its scientific name, *Populus monilifera*. This tree grows not only from seed, but very rapidly from cuttings, and many thousands of these cuttings have been planted out of late years. The cottonwood is very similar to several of the species of Russian poplars which are so highly spoken of, and of which a great number of cuttings have been distributed from the Brandon and Indian Head Experimental Farms. It is not yet known whether this order-in-council will be renewed after the 1st of January, but in the meantime it would be very wise for all who wish to obtain these trees to send their order as soon as possible.

J. FLETCHER.
Central Experimental Farm.

[On the Brandon Experimental Farm nearly every cottonwood tree has been attacked by some fungus growth, resembling rust, in many cases as badly as to kill out the trees. Other varieties of trees are so far not seriously affected by this rust. At Indian Head Farm the cottonwood is also proving rather disappointing, and when planted simply along avenues has killed out or proved so unsatisfactory that the Superintendent has decided to replace them with elms or other more suitable varieties. Cottonwoods are rapid growers where they are healthy, and can be purchased very cheap from the nurserymen of the north-western States, where they are to be had by millions growing in the wet sand of the river bottoms. Cottonwood grows along the banks of the Red River, the Assiniboine as far up as the mouth of the Souris, and up the Souris River; we are not aware that it grows further up the Assiniboine, or in any of our other streams. It seems very probable that sand-beds, where the seeds of the cottonwood lodge and grow, may exist on the Souris River this side of the boundary line; if so, doubtless immense supplies could be secured for the packing and shipping.

There is room for some of our enterprising nurserymen to make a fortune in the near future out of trees for shelter and ornamental planting. Even the better sorts of the common trees will be in ever-increasing demand, and if grown on a good large scale, at some favorably-located spot, could be sold so reasonably that the trade would in a few years be enormous. The native maple, elm, ash, Russian poplar, some of the willows, and the native spruce, together with some of the hardier ornamental shrubs, etc., will, without the least doubt, be in demand far exceeding any possible supply, for the settlers in the country are making homes now for their families, and these homes must be surrounded with trees and shrubs before they are worthy of the name of comfortable home.—Ed. F. A.]

Preserving Seed Potatoes.

We hear repeated complaints about poor crops of potatoes, and one of the chief causes of failure has been the poor growth made by the seed. A potato-grower who understands his business greatly dislikes to plant anything but sound seed that has not sprouted, and if he is to have such seed to plant, he must keep his potatoes, from digging time to planting time, so that they will not deteriorate by sprouting, heating, freezing, or other causes. Farmers as a rule do not fully appreciate the injury sustained by the seed sprouting. The first sprout makes the strongest plant, and when that is broken off nature will send out a second sprout from the same eye, but it will be much weaker. If potatoes are kept warm all winter and sprouted two or three times, they will be almost worthless for seed or for eating either, as the tuber is then well-nigh exhausted. Since like produces like, it pays to plant good-sized seed of smooth form, and enough of these can be selected at digging time to plant next spring. Now, in order to keep these properly, they should be stored where it is dark and the temperature is down near the freezing point. If potatoes are put away dry and clean and under these conditions, there need be no fear but what they will make good seed when wanted next spring. Some potato-growing specialists have their seed held all winter and spring in cold storage, but this is hardly practical for the ordinary potato-grower. A compartment of the cellar where no effect of fire reaches can with care during the winter be held about right, but the trouble arrives with the warm days of spring, when the windows (double) should be opened on cool nights and kept tightly closed and dark at other times.

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AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD CO.,
WINNIPEG, MANITOBA.

The Chicken Market in Winnipeg.

A correspondent writes this office in regard to the poultry market as follows:—"If you look at the quotations in the Winnipeg papers for spring chickens, you will find the handsome sum of 35 cents and 40 cents per pair given as the price of spring chickens, which for that figure are not worth bothering with. Do you think good birds, well fattened, could be sold for say 75 to 80 cents per pair?"

We append, in answer to our correspondent, a letter from Messrs. P. Gallagher & Sons, one of the largest wholesale and retail butchers in Winnipeg, and need only say further that during the first part of October the retail butchers were asking 16 cents a pound for spring chickens on the Winnipeg market, which would bring the price up to 80 or 90 cents a pair for decent-sized chickens. The trouble with the bulk of the chickens and poultry that comes into this market from local country points is that it is small and thin, and unfit to command a decent price. No fear of glutting the market early in the season, for a big supply of good quality stuff would greatly increase the demand.

Messrs. Gallagher & Sons write us as follows:—"With reference to the poultry trade, we beg to say that we believe it would pay our farmers to give this branch more attention. Ever since we commenced buying young chickens (about July 1st), we have been unable to secure enough to supply our trade, and have been obliged to bring in several lots from St. Paul. A great deal of the poultry we do get is not fit to market, as many of the spring chickens will not weigh 1 1/2 lbs., live weight."

"As regards the price, there should be money in it for the breeder, as we pay at the rate of 20 cents per pound live weight for spring chickens on the start, price being gradually reduced till August and September, when we have been paying at the rate of 11 cents per pound, live weight. We have been paying from 65 to 75 cents per pound for old fowl all summer."

"One reason why the farmer does not obtain the best prices for his poultry is that he does not deal with a good class of buyers. All the poultry that is sold in Winnipeg is sold to middlemen, who buy it in lots of 100 or 200 birds, and then sell it to three or four different parties. If the farmer could deal with the middlemen, he could obtain the best prices for his poultry. In Manitoba, the preference is given to the fowls from the States."

Alberta Creamery Trade.

The Calgary creamery, this year in charge of Fred Kidd, has had a very successful run, with an increase in the butter output of some 20% over '98. The creamery opened on May 15th, and it is expected will run until the middle of November, when it is estimated the total output will be in the neighborhood of 24,000 lbs. This is all put up in small packets—14 and 28 pound boxes, and the greater part of it in brick prints of one pound each. These are packed in flat boxes twenty-four and three-eighths inches long, thirteen and a quarter inches wide, and five inches deep, inside measurement, each holding 50 lbs. These are found much better, especially in warm weather, than the ordinary square box for holding prints. Nearly all the butter made at the Government Creameries in Alberta is handled through the cold-storage warehouse in Calgary. The bulk of this butter is sent to the Kootenay country, shipped at frequent intervals so as to reach the consumers fresh and in the best possible condition. Of the brick prints, from 3,000 to 5,000 pounds a week are shipped to the Kootenay in the refrigerator cars that run regularly for the convenience of this trade. The box butter is usually shipped in car lots. About 1,000 pounds per month is shipped to China and Japan. This is put in one and two pound tins, hermetically sealed and put in cases containing 48 one and 24 two pound tins. This season, about 20,000 lbs. have been shipped to Klondyke, put up in 2, 5 and 10 lb. tins. At the time of our visit the cold-storage warehouse was pretty nearly full of butter, which was being chilled off before re-shipment to destination in the western markets. From the increase in the Dairy Industry in Alberta during the present season, it is quite evident that this trade is to be one of the most important features in the district.

Grain Yields at the Indian Head Experimental Farm.

In spite of the eccentricities of the weather during the past season of crop growth, results at the Experimental Farm at Indian Head have been most satisfactory. With oats and barley the yields have been exceedingly good. The wheat, however, has not yielded as well as in some previous years, and there is a decided falling off in the yield of peas, but all the samples are good, and the average yield is most satisfactory. The corn crop was this year only fair, but sufficient was obtained to fill one silo, and a supply of good ensilage is expected. An immense crop of Brome hay and oats, cut green for feed, is also saved in the best of condition. The trees this year made a wonderful growth, and, apparently, have matured wood so that there will be nothing lost from freezing back. From year to year additional varieties of trees and shrubs are proving hardy, and the trees, shrubs and hedges are ever growing more striking and beautiful. Below we publish a list of the yields of a few of the best varieties as shown by the twentieth-acre test plots.

Wheat.—Out of 55 varieties, Red Fyfe topped the list, with 39 bushels and 40 pounds, the lowest being 17.40, and the average of the 55 varieties well above 25 bushels per acre. The following is the order of merit of the first ten:

Red Fyfe.....	39.40	Old Red River.....	31.
Red Fern.....	38.20	White Fyfe.....	33.40
Alpha, hybrid.....	38.20	Stanley, hybrid.....	33.20
Wellman's Fyfe.....	36.20	Blair, hybrid.....	33.20
Monarch.....	34.20	Percy, hybrid.....	33.

Oats.—Over 70 varieties tested. The yields were remarkably good and very uniform, the lowest being 55.10. It will be noticed that the Banner, now so commonly grown all over the Northwest, stands well up to the top of the list, with a yield of over 96 bushels to its credit.

Golden Beauty.....	97.22	Siberian, O.A.C.....	92.12
Abundance.....	97.02	Danish Island.....	91.26
Bavarian.....	96.15	Joanette.....	91.06
Banner.....	95.13	Black Beauty.....	90.20
New Zealand.....	95.00	King, hybrid.....	90.00
American Beauty.....	92.32		

Six-rowed Barley, 30 varieties.—Here again are big yields, and, as in other grains, the samples are excellent. The best known sorts, Odessa and Mensury, are well up in the lists.

Rennie's Improved.....	69.28	Blue.....	65.40
Trooper.....	69.08	Baxter's.....	63.36
Claude, hybrid.....	69.08	Mensury.....	62.04
Argyle.....	68.36	Odessa.....	61.12
Mansfield.....	66.32	Petchora.....	60.00

Two-rowed Barley, 22 varieties.—

Danish Chevalier.....	66.32	Thonet.....	57.04
French Chevalier.....	65.40	Durham, hybrid.....	57.04
Sidney.....	65.36	Prize Prolific.....	56.32
Canadian Thorpe.....	55.85	Kniver Chevalier.....	55.00
Bolton, hybrid.....	55.16		

Peas, 30 varieties.—The 10 highest yields being as below, which are pretty good pea yields, but small when compared with the yields obtained on this farm last year, 1898, but 22 varieties yielded higher than the highest this year, the highest being 57.50.

Field Gray Spring.....	38.32	Triply, hybrid.....	34.00
London.....	38.00	Archer, hybrid.....	33.50
St. Albans.....	37.50	Mansury.....	33.00
Canadian hybrid.....	35.00	Golden Vine.....	29.40
..... hybrid.....	34.50	Multiplier.....	22.20

Gratifying Progress in the Great West.

The Director of the Experimental Farms, Dr. Wm. Saunders, has returned to Ottawa after an absence of nearly seven weeks. He spent about ten days of the latter part of August in attending the meetings of the American Association for the Advancement of Science, at Columbus, Ohio, and in visiting the experiment stations in Minnesota and North Dakota. From thence Dr. Saunders proceeded to Southern Manitoba, arriving there at the time the wheat crop was being harvested. He also visited the noted grain-growing localities in the central parts of Manitoba, and found the crops everywhere satisfactory.

EXPERIMENTAL FARM, BRANDON.

At Brandon, the Director inspected the various lines of work in progress at the branch Experimental Farm. The crops of cereals there were unusually heavy. Some of the most productive varieties of oats have given from 100 to 112 bushels per acre; the best varieties of barley from 40 to 45 bushels; while the different sorts of wheat have varied from 30 to 45 bushels per acre. Indian corn and millets have given lighter crops than usual; but the returns from turnips, beets, and carrots will be about the average. The potato crop, although good, is not likely to be above an average yield.

The crops throughout Manitoba are very good, and from the returns already received from the threshing, it is generally believed that the wheat crop will average about 22 bushels per acre. Threshing is progressing rapidly.

THE NORTHWEST TERRITORIES.

The crops in Eastern Assiniboia are also very good, and will probably give an average quite as heavy as that obtained in Manitoba. There has been very little injury from frosts. In the Indian Head district there is an unusually large acreage under wheat, and it is believed the crop in that section will average fully 25 bushels per acre. In the Prince Albert and Edmonton districts the rainfall during the latter part of the summer was exceptionally great, and the excessive moisture produced a rank growth of straw; hence the grain was late in ripening, and in some localities frosts occurred before it was fully matured. Many of these green crops have been cut for fodder, and will furnish a large supply of nutritious food for stock. The feeding of beef cattle and the manufacture of dairy products have for some years past been important branches of farm industry throughout this part of the Northwest country.

EXPERIMENTAL FARM, INDIAN HEAD, N.-W.T.

At the Indian Head Experimental Farm all cereals have yielded bountifully. Most of the best-yielding varieties of wheat have given from 30 to 38 bushels per acre; oats, from 80 to 97 bushels; barley, from 55 to 69 bushels per acre. Peas have not yielded so well, the crop ranging from 22 to 38 bushels per acre.

CROW'S NEST PASS AND MINING DISTRICTS.

A trip was made through the Crow's Nest Pass, where the scenery, although not nearly so grand as on the main line of the C. P. R., is very varied and interesting. Wonderful development is going on in that portion of the Dominion. The output of coal is enormous, and the growth of some of the towns phenomenal. At Fernie, a town but little more than a year old, there is a population of nearly a thousand people. The coal there is specially adapted for the manufacture of coke of excellent quality for smelting, and 150 coke ovens were constantly running, turning out 1,200 tons of coke per week, while 50 additional ovens were in course of construction. The advent of the railway, by which large and valuable coal deposits have been reached, has been an important factor in the progress of the mining industry in that region, which is advancing by leaps and bounds. Cranbrook is an older and larger town, in which a large business is done. A day was spent at Nelson, and another at Rossland, both of which are now important and interesting places. In Rossland, especially, mining is being actively pushed and the daily output of ore is very large, the greater part coming from the War Eagle and Le Roi mines. At Rossland the formation of the mountains is such as to resemble a large basin, and partly up the steep sides of this basin, at an elevation of about 3,000 feet, the town is built. The railway climbs to this height by a succession of steep grades. Although only four years old, the town has a population of several thousand, and business of all sorts seemed to be very brisk. On the way to Rossland, Trail is passed, where there is a very large smelter, which is now being worked to its fullest capacity and the valuable metals extracted from an enormous quantity of ore every week. On the way up the Arrow Lakes from Robson, the new railway recently built by the C. P. R. has been opened to the valley of Kettle Creek and the eastern part of the boundary country. Starting at Robson, the line runs along the valley of the mountains which skirt the margin of the Arrow Lakes, for about thirty miles; then, turning south-westerly up the Kettle Creek Valley, it is soon lost to view. The traveller by this route can now take a sleeper at the head of the lakes, which, connecting with the express on the main line at Revelstoke, runs through to Vancouver.

EXPERIMENTAL FARM, AGASSIZ, B. C.

Work on the Experimental Farm at Agassiz is making good progress, a further area of land has

been cleared, and the portions devoted to field crops and orchards enlarged. About 140 acres are under cultivation, about half of which has been planted with fruit. A very large number of varieties is being tested, and much useful information is gained from year to year as to the sorts best suited to the climate and most profitable to the grower. The spring of 1889 was very wet, and the rain was almost constant throughout the blossoming period, which prevented the fruit from setting, and hence the fruit crop is small. There was, however, a considerable number of varieties of apples and plums, as well as some pears, at Agassiz which were bearing well. The crops of hay and oats, which are among the most important in this Province, were good, and barley also has given a fair yield. The quantity of wheat grown here is small, and the crop about an average one. The season has been cool as well as wet, which has been unfavorable for Indian corn, but the field roots promise well.

THE DOUKHOBOURS.

On the return journey, a trip was taken up the Manitoba and Northwestern Railway from Portage la Prairie to Yorkton, and thence north by vehicle nearly one hundred miles to the north trail of the Swan River. Journeying then from Thunder Hill eastward for many miles, the Swan was again forded and travel continued on the south trail until the Dauphin Railway was reached. During this drive, of about 150 miles, many villages of the Doukhobours were passed, and some time spent in inquiring into the progress they are making in their new settlements, in preparing for crop next season, and in providing shelter and food for the winter. Nearly all the able-bodied men were away from the village, working on the railways and assisting the settlers in their harvesting and threshing operations, thus earning money to buy supplies for winter; while some of the older men and the boys, with the help of the strong and active women, were building houses and assisting in getting the land in order for crop next year. They are a very industrious people and are well satisfied with the country. Most of their land is of good quality, and the locations they have chosen are partly wooded, affording abundant material for building operations and firewood. They are all vegetarians and will not eat animal food, as they consider it a sin to kill. Most of them, however, will eat fish, and some of their villages are well located for food of this sort. They like butter, cheese, and eggs, but, as yet, can get very little of these useful and concentrated foods, as their stock of cows is very small, giving them but a meager supply of milk, and they have very few fowls. At present they are subsisting mainly on bread from a low grade of flour, with soup made of a mixture of flour and water, with the addition of vegetables, such as cabbage, onions, and beets, and, in some instances, potatoes, of which they are very fond. In most of the villages they have grown a considerable quantity of vegetables, but not nearly enough for their requirements during the winter. Their houses are substantially built of logs, and roofed with poles, on which prairie sod about four inches thick is laid, and the interstices filled with fine earth. The sides of the houses are well-plastered on the exterior, with clay mixed with cut hay, and, sometimes, on the inside with the same material. The furniture in the houses is all of their own make, and consists of a few rough stools to sit on, and higher benches which serve as tables. The beds are made of a series of poplar poles about six feet long and three or four inches in diameter, placed close together along one or both sides of the house, with the ends to the wall. On these some hay is placed and over this a piece of thick felt. Most of the people recline on this structure with their heads to the wall, feet outwards, using such bedclothes as they can command. A few have feather beds, and curtains to divide the sleeping places into compartments. Most of the houses consist of one large room for living, cooking, eating, and sleeping. The aim is to have in all their villages a house for each family, and these houses are being erected at varying distances, in two rows, with a wide street between them. Although new homes are going up rapidly in every village, the absence of the men necessarily interferes with the progress of the work, and in many of the villages each house is at present occupied by from ten to twenty people, and, in some instances, in the larger dwellings the inmates number from twenty-five to forty. In these densely-populated buildings the beds are arranged along each side of the houses, in a double tier, the upper ones being reached by a ladder. In each house there is a Russian oven, similar to those used by the Mennonites in Manitoba, which serves for the warming of the building and cooking the food. Each village is provided with a steam bath-house, in which steam is generated by pouring water on heated stones. In this way profuse perspiration is brought about, and, in the absence of towels, the body is whisked briskly with a bunch of small branches of the mossy cup oak, the large leaves of which still hold tightly to the branches. These people seem very contented, and although in many instances conditions were met with which would with us be regarded as cases of hardship, not a word of complaint was heard from any of them. The Doukhobours are honest, truthful, and hard-working people, of cleanly habits, who use neither liquor nor tobacco. Being vegetarians, they are at

present at a disadvantage as compared with other settlers, as there is much game about their settlements, with which they could easily supplement their vegetable diet with great advantage. They appear, however, to be very strong and hardy, and will no doubt prove a very useful class of people in the districts in which they are settled. They will soon form prosperous communities and assist much in the development of the country. They may, however, need some assistance for a time, until they can produce enough from their land to sustain them. Many families of Galicians were seen at different points. They are a hard-working and industrious people, who are improving their conditions very rapidly.

The return was made by the Canadian Northern Railway, which runs through the Dauphin country, and is now completed from Gladstone to Swan River. The Manitoba and Northwestern and the Canadian Northern are both substantially built roads and connect with the main line of the C.P.R. at Portage la Prairie. Each line runs through portions of the country where much of the land is of excellent quality and the conditions favorable for mixed farming. The traffic is rapidly developing and the prospects of good returns improving from year to year.

PREPARATIONS FOR THE PARIS EXPOSITION.

During the journey, interviews were held with members and officers of the Provincial Governments in Manitoba, the Northwest Territories, and British Columbia, in reference to the Paris Exhibition, and arrangements were made for a very complete display of the agricultural and horticultural products of the Great West. A magnificent display of grain grown in Manitoba and the Territories has been secured, and a fine lot of fruits and cereal products from British Columbia.

Ottawa, October 12th, 1890.

More Information Wanted Regarding the Hessian Fly.

In many sections the actual yields as shown by the threshing machine are not turning out quite up to expectations. In Eastern and some portions of Southern Manitoba more damage seems to have been done by the Hessian fly than was realized before harvest. Hitherto our wheat has been very free from insect attacks, and it is devoutly to be hoped that this threatened danger of the Hessian fly will only be temporary. However, it behooves every one to be keenly awake to danger, and do everything possible to check or annihilate this newly-introduced pest. Dr. Fletcher, in a letter to the FARMER'S ADVOCATE (see Sept. 20th issue), advises stubble-burning or deep fall plowing. Where stubble is thin and clean, it is difficult, if not impossible, to get a clean burn, and the patches of stubble that would be left might harbor enough insects to do considerable damage to the succeeding crop. If the stubble-burners upon which several inventive geniuses have been working are a practical success, here surely is a chance for them. We shall be glad to learn if any tests have been made, and with what results? Whether or not the stubble is burned off, the land should be *carefully plowed*. Even with no Hessian fly, good careful plowing is really one of the great essentials to a successful crop. The work cannot be too well done. Not only does good plowing leave the land in better shape and kill more weeds, but it greatly reduces the amount of harrowing and after-work necessary to get the land into the best condition for the seed; and, no doubt, grain that comes away vigorous and early, and makes rapid growth, has more chances of escaping this or any other pest. In connection with the Hessian fly, little seems yet to be known of its habits in working on spring wheat. It has been stated that early-sown wheat is much less liable to attack than late-sown. Can any of our readers furnish evidence on this point or any other that will assist in a further knowledge of the life habits of this new enemy, so that its ravages may be checked?

The Hessian Fly

(*Cecidomyia destructor*).

FROM A PAMPHLET BY PROF. OTTO LUGGER, ENTOMOLOGIST OF THE STATE OF MINNESOTA.

This destructive insect has again caused considerable losses to the farmers of Minnesota, and seems to have found a permanent home in the western counties, extending from Jackson, Cottonwood and Pipestone counties in the south to the entire Red River Valley in the north. Even parts of Manitoba have been invaded. It has been especially injurious in the Red River Valley, causing losses from 5 to 25 per cent. on many farms. A large area is again badly infested, and, what is worse, there seems to be but very few parasites to assist us against this enemy. It seems that the abundant rains early in spring assisted this insect very materially, as it is a being that loves cold and wet seasons, and not, like the equally destructive chinch bug, dryness and warmth. The damage in many places was quite serious, and close attention on the part of farmers is required to prevent still more serious losses in the future.

The Hessian fly is now common almost throughout the western portion of our State, and

not alone in the more southern counties, where both winter and spring wheat is grown. It is most abundant, however, in the Red River Valley, where only spring wheat is grown, and it is difficult to understand how this insect can exist under such conditions. If it was single-brooded an explanation would be simple, and it almost seems as if this was the case, as the writer has thus far not been able to obtain winged flies from puparia collected early in September, with a single exception, as one Hessian fly issued August 22nd from infested straw obtained from St. Hilaire, Minn. Immense numbers of puparia from many parts of the State have been kept under the most suitable conditions in breeding-cages, glasses, boxes, etc., yet only one fly issued, besides numerous parasites. This seems to indicate that the flies do not usually issue during the autumn, but remain in the straw until spring. Another observation, though not a proof that there is no fall brood, is the fact that no larvæ or puparia could be found in volunteer plants of wheat growing near fields which had been badly infested.

It is very important to know in what condition the Hessian fly winters. If in the "flax-seed" stage, which seems to be the case, then a remedy is very simple and inexpensive. The insect being found in the first joint of the stem, or very near it, is in that portion of the plant that remains in the stubble field, or is not carried away in the bundles. Hence the insect can be destroyed with the stubbles. In some cases it is possible, by cutting the plants in such a manner that combustible material is left, to burn over the field and thus destroy all the intruders. But if this can not be done, *plowing* is an excellent remedy. This should be done as soon as possible after harvesting. The flies, even if they should issue during September or October, can not reach the surface of the plowed fields, as they are weak and unable to penetrate a thickness of several inches of soil. They are kept prisoners and have to perish. The parasites, however, which may be found in some of the puparia, have but little difficulty of escaping, hence plowing at the proper time—i. e., soon after harvesting—will destroy our enemies and protect our friends.

The Hessian fly is the prey of many parasites, and in 1896, when this noxious insect first caused serious injury in Minnesota, these beneficial insects helped to such an extent as to almost stamp out the intruders. The many specimens of infested straw received this autumn do not reveal the presence of many parasites, and only straw obtained from near Crookston contained some. Of course, more parasites will be at work than could be decided from the material received, but the outlook is by no means as hopeful as it was in 1896; hence farmers should not depend upon the assistance of parasites, but should assist themselves by plowing all stubble fields as soon as ever they can, and especially those that they know contained Hessian flies and Frit flies.

Fall Wheat in Southern Alberta.

Mr. Wm. Anderson, traveller for the McClary Co., recently handed us a head of fall wheat from a handful he had collected out of a 50-acre field belonging to C. Kettles, of Pincher Creek, Alta. The heads were very fine and the sample large and plump. Mr. Kettles and a neighbor, Mr. Morden, have been growing this fall wheat for several years with very satisfactory results. Mr. Kettles brought the seed from the States, and finds ready sale at \$1.50 per bushel for all the seed he can spare. The Mormons in the Cardstone district are buying all they can get hold of. It is found that sowing about the last of July gives best results, and, sown this early, is generally ready for harvest in August.

Oak Lake Fair.

The annual fall fair held at Oak Lake was, considering the rush of farm work, quite a success. It was held on October 4th. The attendance was good and the number of exhibits well up to the average. In horses, George Michie, Wm. Bastard, A. E. Harvey, Wm. Gumph, George Wallace, and several others exhibited in the heavy draft classes. In cattle, Shorthorns made the best exhibit, and among the principal prizewinners were W. J. Helliwell, R. L. Lang, H. R. Tolton, T. R. Todd, and George Gordon. The special purpose dairy breeds were not represented. In grades, H. & E. McIvor and R. L. Lang were the principal prizewinners. Shropshire sheep were exhibited by W. J. Helliwell and B. Little, Oxford Downs by T. R. Todd and T. Jasper, Leicesters by T. Speers, T. Jasper, and B. Little. Berkshire pigs were shown by R. L. Lang, T. Jasper, and J. T. Denbow. The exhibit of dairy products, vegetables, etc., were about average.

Hartney Fair.

The fall fair held by the Agricultural Society on October 4th was fairly successful. There was a very good turnout of people, but the show was small. In stock, cattle and horses made the principal exhibit. In heavy draft horses, J. Aikenhead, Harry Jones, and T. Millburn were principal winners. Shorthorn cattle were shown by R. L. Lang, of Oak Lake, and James Duthie, Melgund, both being prizewinners. Herefords were shown by J. E. Marples, of Deleau, and John Aikenhead, of Hartney. Some fine samples of grains were shown by Wm. Laughland, James Duthie, and R. Jackson.

Calgary Fair.

For several years there has been no fair held at Alberta's capital, so that held on Sept. 27th and 28th was the inaugural of what will be an annual event of ever-growing importance in the agricultural and industrial progress of the Territories. Calgary is admirably situated for this purpose: on the main line of the Canadian Pacific, just at the foothills of the Rockies and at the junction of the Calgary and Edmonton Railroad, tributary to which is all that great agricultural country of northern Alberta, which is so rapidly filling up, and the railroad from Macleod which intersects the magnificent cattle and horse ranges of Southern Alberta. The city itself is one of the best built and most progressive in Western Canada, and with its large agricultural grounds is beautifully situated on the level bottom lands at the juncture of the Bow and Elbow Rivers, surrounded by high, bare hills, from the tops of which there are exquisite views of the snow-capped peaks of the Rockies. Right in the heart of this great ranching country one would naturally expect to find a fine exhibit of horses and cattle, and these expectations were fully realized, particularly in the classes for stallions and bulls. There were also a few sheep of extra quality, but of swine there were none, not one single porker; indeed, the hog, even the bacon type, does not seem to have adapted himself to modes of life that would fit him for the ranches of Alberta. In grain the exhibit was as would be expected—somewhat limited, although there were a few good samples of oats and a little wheat. The exhibit of roots and vegetables, though not large, was excellent. In the dairy products, the main feature was an exhibit of very high quality of creamery butter in packages and bricks, made in the Government creameries, and a few entries of home dairy of fine quality. The Canadian Dairy Supply Company were the only firm making an exhibit; they had several De Laval separators and dog tread-powers for running churns, etc. The poultry exhibit was small, but very good. Some very nice displays were made in the fine arts and ladies' departments, and also by some of the city merchants in the main hall.

A good programme of races was provided, one of the most amusing of which was an Indian mile dash, in which about fifty dusky redskins, mounted bare-back on their many-colored cayuses, went pell-mell round the course; no "jockeying" or "pulling" with them, it was a race for blood, and the fastest won.

The association was progressive enough to bring in an expert judge from "outside" to judge all classes of horses, cattle, and sheep, and in Mr. Richard Gibson, of Delaware, Ont., secured one thoroughly competent for the arduous duty.

Horses.—The first class brought out was the heavy draft, registered pedigrees required. Six stallions, 3 years or over, faced the judge, who was not long in sending the red ticket to R. G. Robinson's (Elbow Park Ranch, Calgary) Clydesdale, Balgreggan Hero. This horse is now in his ninth year, but still fresh and full of quality; he was a prize winner at the World's Fair at Chicago and three sweepstakes winner at the Winnipeg Industrial when in the hands of J. A. and R. Turner, with whom he has left many colts of the right sort, big thick, solid fellows with lots of clean, hard bone and good action. He was afterwards sweepstakes as best heavy stallion any age or breed. Second went to the big handsome Shire horse, Rising Sun, shown in good form and fit by J. McLaughland, of High River. Third to J. A. Turner's (Millarville) compact little horse, Tofy, with good bone and flash action. Three good yearlings were forward, all imported from D. and O. Sorby, Guelph, Ont., and sired by Grandeur, all big strong, growthy colts on the best of feet and legs. J. A. Turner won first and third with Sonsie Lad [244], out of Sonsie Lass, and Grandprize [240], out of Lady Fleming, imp., and R. G. Robinson second with Enterprize [2439], out of imp. Venus, by Queen's Own. The brood mare class was one of the best of the whole show, there being 10 entries, all of which were forward. Turner's magnificent light bay Victoria, by imp. Scotchman, dam Mary by Sampson, imp., was sent to the front and was afterwards made sweepstakes female. Second went to a grand good mare by McAlister, shown by D. Thorburn. The third prize mare was also a good one, shown by R. S. Kelly, and still there were a number of deserving ones left unplaced. In two-year-old fillies Turner had the first and second winners in Balgreggan Princess, by Balgreggan Hero, and Sundown 2nd, by Grandeur, out of Sunbeam of the Cults, a sweepstakes winner at the World's Fair. Kelly had the third prize ticket. First in yearlings went to another Balgreggan filly from Turner's string, and second to Kelly. The non-registered draft class also contained many good ones. In teams in harness, over 2,000 lbs., P. Burns, the Western cattle king, was the winner of first, although some thought D. Thorburn's 3,000 pound pair of mares should have been placed first instead of second. Thorburn also had the third prize team. J. McPherson won first on brood mares with foal at foot and first on two-year-olds. D. Thorburn won first on brood mares, first on yearlings and first on foals, and a number of second prizes. The agricultural classes were divided as follows: In the class of 15 hands or over, W. M. Parslow, second to W. R. Hull; under 15 hands, Owen Copas first, W. M. Parslow second. The saddle horses were an exceptionally good class. In section for saddle horse, 15 hands or over, under stock saddle, P. Burns captured the red ticket with a very attractive black; J. R. Rowles second, and G. E. Goddard third. In the under-15-hands class and shown under stock saddle, W. D. Kerfoot won first and second with a pair of very handsome little blacks. Under English saddle, 15 hands or over, R. F. Bevan won with an extra good chestnut, well mannered and well shown; J. O. Wilgrass got second on a fine upstanding horse, and J. McLaughlin third. On the same class, under 15 hands, O. A. Critchley won first, Goodard second, and W. C. Davy third; Goddard winning the Mounted Police special for saddle horse suitable for N.-W. M. Police purposes. Thoroughbreds were not filled, except the class for stallions. In this the Winnipeg Industrial winner, Dermot, owned by Mr. Thompson, McGregor, Man., was an outstanding first; R. G. Robinson's little chestnut, Faughballaugh, shown in racing condition, and after a season's heavy stud work, was placed second; with the Ontario horse, Rumpus, shown by R. S. Fulton, in third place.

brought out some competition, prizes going to Jos. Robinson, D. Thorburn, and R. C. Thomas, in the ordered named.

In the class for carriage and roadsters, J. Owens and Mr. Scott, of Springbank, showed some very creditable horses, mostly of the Standard-bred sort. To the former went most of the prizes. P. Burns had the winning team, 15 hands or over, a handsome, well-matched pair, showing considerable action. Single driver, 15 hands or over, first went to W. M. Parslow, second to W. R. Hull; under 15 hands, Owen Copas first, W. M. Parslow second. The saddle horses were an exceptionally good class. In section for saddle horse, 15 hands or over, under stock saddle, P. Burns captured the red ticket with a very attractive black; J. R. Rowles second, and G. E. Goddard third. In the under-15-hands class and shown under stock saddle, W. D. Kerfoot won first and second with a pair of very handsome little blacks. Under English saddle, 15 hands or over, R. F. Bevan won with an extra good chestnut, well mannered and well shown; J. O. Wilgrass got second on a fine upstanding horse, and J. McLaughlin third. On the same class, under 15 hands, O. A. Critchley won first, Goodard second, and W. C. Davy third; Goddard winning the Mounted Police special for saddle horse suitable for N.-W. M. Police purposes. Thoroughbreds were not filled, except the class for stallions. In this the Winnipeg Industrial winner, Dermot, owned by Mr. Thompson, McGregor, Man., was an outstanding first; R. G. Robinson's little chestnut, Faughballaugh, shown in racing condition, and after a season's heavy stud work, was placed second; with the Ontario horse, Rumpus, shown by R. S. Fulton, in third place.

In Standard-breds W. R. Stewart won first on stallion and first on brood mare with foal at foot. J. R. Sutherland had the second prize stallion, and J. A. Turner the second prize mare. Only one Hackney stallion was brought out—O. A. Critchley's False Heir. He is an old horse, but was evidently a right good one in his younger days. J. R. Thompson was awarded first on a very promising yearling Hackney, bred by the Rawlinsons.

Cattle.—With the exception of one Polled Angus bull, a very creditable specimen of the breed, shown by James Rodgers, the beef breeds were represented by the Shorthorns. Just enough bulls entered in the aged class to take up all the prizes, and each bull was a good one. First went to W. D. Shattuck, Davisburg, on Royal Standard = 23381 =, by British Flag, out of Maple Lodge Rose, by Conqueror, and purchased at the dispersion sale of John I. Hobson, of Guelph. He was well shown, in nice smooth flesh, and muscled like a stallion; his full front and strong, well-covered back and loin carried him ahead of his strong rival, Goldsmith, shown by Peter Talbot & Son, of Lacombe, and bred by Arthur Johnston, Greenwood, Ont., his sire being imp. Sir James. Third went to Emperor Earl = 22510 =, shown by James Turner. This bull, bred by Hon. John Dryden, is by the Earl of March and out of Graceful = 21063 =, and was shown in excellent fit. He is a good, level, smooth, even-fleshed bull, and like both his competitors, a red. Shattuck's Royal Standard also won the Dominion Shorthorn Breeders' special of \$25 for best bull, any age, and the Pure-bred Cattle Breeders' diploma. Joseph McPherson had a very good two-year-old in Bruce Royal, sired by Cargill's Royal Member. He also showed several good, useful females, and won first on heifer calves. In yearling bulls were two good entries, first going to the smooth, tidy red-roan, Trout Creek Hero, shown by John Ramsey, who purchased him last spring from Mr. Platt, of Hamilton, he being sired by Duncan Stanley, the second prize aged bull at this year's Toronto Industrial. Second went to Money Maker = 30673 =, a big, growthy red and white, shown by John Shaw, High River, who also showed a few good females, winning second on Loretta of Amulree, in the yearling class. The class of eight good, thick, sappy bull calves made one of the most interesting competitions, and here Talbot & Son scored with the get of Goldsmith, winning first, second and third on Coulee Record, Coulee Banner and Coulee Hero, a trio of smooth, growthy, well-fitted calves. The females, having run out on pasture without any fitting, did not make as well-finished a show as did the bulls; still, there were a number of really good ones presented—thick, deep, strong cows, well padded with firm flesh on back, loin and thighs. H. Hans, Calgary, won first and second on cows with Gladys, out of Gaiety = 30017 =, by imp. Baronet, and Rose Bloom = 26774 =; first on yearling heifer, with Queen of the West, by Robert the Bruce; and also the herd prize for the best three females. W. D. Shattuck also exhibited in the female classes, and won a number of prizes with big, thick, useful animals.

The dairy breeds were represented by a small herd of Ayrshires belonging to Mr. C. W. Peterson, Deputy Commissioner of Agriculture, who owns a ranch at Calgary, and a herd of Holsteins shown by Mr. T. Laycock. There being but one class for dairy cattle, these breeds had to show in competition. The Holsteins won the female herd prize, and the Ayrshire bull the male prize and diploma offered by the Pure-bred Cattle Breeders' Association. Mr. Laycock also won a number of prizes in the grade classes.

In sheep the number of entries were few, but the quality very good. Mr. Thompson, of Innisfail, showed Leicester, and J. A. Turner, Millarville,

Shropshires, the latter being exceptionally good. The ram lamb that won the diploma offered by the Sheep and Swine Breeders' Association was of Mr. Turner's own breeding, and there are few better ram lambs in Canada.

P. W. Heber and J. B. Dayman were the principal exhibitors of poultry and showed some good specimens of the utility breeds, B. P. Rocks and L. Brahmas being most numerous. The principal exhibitors of roots and vegetables were John V. Thompson, G. W. Rowles, A. G. Wolley Dod, and P. Talbot & Son. Messrs. Thompson, Wolley Dod, Wallis, and Shields were the leading contributors in the display of grains. In home dairy, R. J. Shields, of Davisburg, won first in crocks and prints; J. V. Thompson second. In creamery: Bulk—1, F. Kidd, Calgary; 2, S. Flack, Red Deer; 3, M. Marker, Wetaskiwin. Prints—1, M. Marker, Wetaskiwin; 2, J. R. Moore, Innisfail; 3, S. Flack, Red Deer.

Kildonan and St. Paul's Exhibition.

The above agricultural society held its fifth exhibition on October 5th and 6th, and it was one of the most successful held in the history of the society. The directors purchased this year six acres, nicely located near the Red River, in East Kildonan, inclosed it with a substantial board fence six feet high, and built a handsome agricultural hall, 80x30 feet, for inside exhibits. As a result of their enterprise there was an increased number of exhibitors, and a much larger crowd of visitors. The weather being fine, a great number of Winnipeg citizens took the opportunity afforded them of driving to a fall exhibition near the city.

Horses.—The light horse sections were well filled, and good ones shown. S. R. Henderson and Alex. Munroe, of Fernon, took first and second, in the order named, on brood mares. Henderson also took first place for foal of '99, on a handsome foal of Darinlet breeding; and Munroe second on a good one got by Johnston's Gold Flax. R. A. Bonnar, Winnipeg, exhibited a clean-limbed, nicely-turned yearling filly, sired by the Standard-bred Oliver Bunker, on which he received first prize. A fine lot of single drivers came into the ring when this section was called, of Standard and Hackney breeding. N. K. McIvor won the red on a strong brown, with good action; second went to S. R. Henderson on a chestnut, also a fairly good mover. The sweepstakes for best kept horse on exhibition went to the St. Paul's Indian Industrial School. The heavier breeds were not so numerous, but some animals of good individual merit were shown; James Toshack, of Kildonan, won first on brood mares with a well-put-together mare, with lots of substance and bone. R. R. Taylor showed a well-mated team of sorrels, which were placed first, they being strong, useful horses and active movers.

Cattle.—H. O. Ayearst, of Middlechurch, had out quite a number of Shorthorns, and was a large winner, taking first on herd, first and second on bull calves, besides a number of red tickets on cows and heifers. R. R. Taylor showed a handsome two-year-old bull, on which he won first and sweepstakes. In dairy breeds, Oughton Bros., Middlechurch, were forward with a splendid lot of Holsteins, including the bull, Royal Duke, on which they won sweepstakes at Winnipeg Industrial. Geo. D. Rice, Kildonan, showed a number of Ayrshires, the foundation flock of which were imported from Ontario. James Garvin, of Bird's Hill, also showed Ayrshires. There was quite a turnout in grades, chiefly of Shorthorn extraction, H. C. Whellams, H. O. Ayearst, Oughton Bros., and John H. Gunn being winners. Oughton Bros. were the principal exhibitors of sheep, showing Shropshires and Cotswolds. In pigs, the Tamworth, Berkshire, and Yorkshires were represented. R. R. Taylor's Tamworths and Oughton Bros.' Yorkshires came in for a good share of the prizes in pure breeds, and they also won in grades. Edwin Hodinott, Bird's Hill, and H. C. Whellams also were winners in the grade class with first-rate pigs from Tamworth sires.

The poultry exhibit was the largest ever seen at this show. Chas. Midwinter, of Louise Bridge, had out a fine lot of turkeys and geese. Geo. Wood, Louise Bridge, exhibited Leghorns and Wyandottes, all exceptionally good birds; Jos. Wilding, Norwood Bridge, a number of handsome Minorcas and Houdans; and D. McIvor, Kildonan, Light Brahmas. In dairy products some excellent butter was exhibited by D. McIvor, John H. Gunn, James Garvin, and Mrs. Bushel.

On account of a number of farmers not having threshed, the exhibit of grain was not large. H. O. Ayearst, R. R. Taylor, Geo. F. Munroe, and Alex. Munroe were chief exhibitors.

The chief feature of the inside exhibit was the roots and vegetables, and visitors had an opportunity of seeing probably the finest display to be seen anywhere in the Province. The society's prize list contains two classes, one for professional gardeners and the other for farmers who keep gardens in connection with their farms. Both classes were well filled with very creditable exhibits, and excellent samples of nearly every kind of roots and vegetables. In the gardeners' classes, Lay Bros., Fernon, were winners in Early Punitan, Early Rose, Beauty of Hebron, and World's Fair potatoes; W. F. McIntosh, Louise Bridge, a large winner also, won sweepstakes for collection of roots and vegetables; W. A. Farmer, W. H. Tomalin, Chas. Midwinter, Peter McColman, and

Thos. Mackay were also winners. In the farmers' classes, J. R. McDonald won the sweepstakes; R. R. Taylor was a large winner in roots; Magnus Harper and John H. Gunn were also winners. Mr. David Edie showed a handsome collection of flowers in pots.

In the east end of the hall was a handsome display of ladies' work, which certainly was a credit to the ladies; the St. Paul's Industrial School, Mesdames Pritchard, Geo. F. Munroe, Robt. Jackson, H. C. Whellams, and John H. Gunn, and the Misses Ross, Taylor, and McIvor being among the principal winners. In homemade bread and cakes, Miss McIvor was awarded first on bread, buns, and wedding cake; and Miss Helen Ross won Lieut. Governor Patterson's silver medal for best collection of cakes.

The secretary-treasurer informed us that the gate receipts were much in excess of last year, and certainly the directors deserve congratulation upon the success of the first exhibition held in their new grounds.

Dauphin Show.

Dauphin Show was held on the 19th and 20th of September, the weather being all that could be desired. The attendance of farmers was, however, small, stook-threshing and stacking being in full swing. The gate receipts, notwithstanding this, were highly satisfactory to the directors, who, owing to the great press of farm work, had been much afraid that they would be short in this respect. This is the Dauphin Society's first show in their new grounds, and they certainly now have a very desirable property for the purpose. It consists of forty acres, which has been "scrubbed," leaving occasional shade trees; it is fenced with an eight-foot board fence, and has a fine large main building. The grounds have been plowed and well harrowed, and it is intended to plow again this fall and seed down with a mixture of grasses in the spring. Many improvements might be suggested, but these will, no doubt, follow as the Society grows stronger. One serious mistake has been made in not having gates to the sheep and pig pens, which makes the judging most tedious and unsatisfactory; this, however, can easily be remedied.

Comparatively few mares or colts were exhibited in the horse classes, but the teams were both numerous and good, and to those who have lived in the district an immense improvement is noticeable in the last three years. Only two stallions were shown—one a Standard-bred and the other a neat, but undersized, four-year-old Clyde. The principal feature of the fancy class was the white Shetland stallion shown by Mr. Nicolson, and which was imported by Glen Campbell.

In cattle, there were but three classes, viz., Shorthorns, Holsteins, and grades, a classification that might be improved upon. The judges were three local butchers, who were most painstaking and conscientious in making their award. Still, a butcher and a stock-breeder do not judge an animal from exactly the same standpoint; nor was there any provision made for having separate judges for the dairy class. In Shorthorns, E. B. Armstrong showed a nice little herd, headed by a white yearling bull, having a remarkably good skin. Three aged bulls faced the judges, and in this class the first and second prize animals might very well have been reversed. The Pure-bred Cattle Breeders' diploma for the best bull (any age) went to another white yearling belonging to C. Peyton. This is a very neat and even animal, and with proper care should develop into an exceedingly fine bull. No Holsteins were exhibited. There were a few good grades, but, for a place like Dauphin, there were very few of them.

There was a falling-off in the number of sheep, compared with previous years, some of those who used to exhibit having gone out of sheep. W. Durston was, however, there in about his usual force, and President Smith appeared as a new exhibitor in this class. Two Southdown ram lambs shown by D. F. Wilson, of Minnokin, were brought out in good shape and were the main feature of the class.

Some very good pigs were shown, Berkshires, Yorkshires, and Tamworths being all fairly well represented. The most of them were owned by R. C. Sparling, and are the remains of a large number he brought to Dauphin for sale in the early part of the season. Poultry made but a poor showing, although there were a few good birds.

Roots and vegetable—while a good exhibit for most shows in Manitoba—were not up to the usual Dauphin standard. There were, however, a few monster unripe squash, melons (water and musk), not as large as usual, and in one exhibit of tomatoes there were a few unripe ones to make up the required dozen—a thing probably never seen at a Dauphin show before. Mr. Braithwaite, Provincial Weed Inspector, was present with a collection of weeds, in which much interest was taken. An object lesson might have been seen at the back of the building at the close of the show in the careful way Mr. Braithwaite burnt this collection.

Elevator Commission.

The Elevator Commission met in Winnipeg on Oct. 16th, and arranged the following programme. It is expected that they will be called to take evidence at other places as well as those enumerated, and some changes may have to be made from this route. It is a pity a later date could not have been chosen, as the farmers are at this time of the year too busy to devote much time to things of this sort. Following is the notice issued by the Commission:

The members of the Royal Commission appointed by His Excellency the Governor-General-in-Council to inquire into and report upon certain alleged irregularities which are claimed to exist in the shipping and transportation of grain from the Province of Manitoba and the Northwest Territories hereby give notice that they will attend at the following places and times for the purpose of hearing evidence from all persons who wish to give evidence on the subject of such irregularities or any matter connected therewith:

- Edmonton, Saturday, Oct. 21, 10 a. m.
- Moose Jaw, Wednesday, Oct. 25, 10 a. m.
- Indian Head, Thursday, Oct. 26, 10 a. m.
- Moosomin, Friday, Oct. 27, 10 a. m.
- Virten, Saturday, Oct. 28, 10 a. m.
- Morden, Tuesday, Oct. 31, 3 p. m.
- Cartwright, Thursday, Nov. 2, 10 a. m.
- Boissevain, Friday, Nov. 3, 10 a. m.
- Melita, Saturday, Nov. 4, 10 a. m.
- Pipestone, Monday, Nov. 6, 1 p. m.



CLYDESDALE STALLION, SIR MARENGO (IMP.) (10462).
Won 1st prize at Western Fair, London, 1899.
THE PROPERTY OF E. R. HOGATE, TORONTO, ONT.

- Methven, Tuesday, Nov. 7, 10 a. m.
- Treherne, Wednesday, Nov. 8, 1 p. m.
- Neepawa, Tuesday, Nov. 14, 2 p. m.
- Portage la Prairie, Wednesday, Nov. 15, 2 p. m.
- Brandon, Friday, Nov. 17, 10 a. m.
- Forrest, Monday, Nov. 20, 9 a. m.
- Baldur, Tuesday, Nov. 21, 1 p. m.
- Emerson, Friday, Nov. 24, 9 a. m.

Sittings will be held at Dauphin, Winnipeg, and Port William, subsequent to the above, at dates to be announced.

The grievances particularly referred to in said Commission as being said to exist are:

- "1st—That the vendor of grain is at present subjected to unfair and excessive dockage of grain at the time of sale.
- "2nd—That doubts exist as to the fairness of the weights allowed or used by owners of elevators.
- "3rd—That the owners of elevators enjoy a monopoly in the purchase of grain, by refusing to permit the erection of flat warehouses where standard elevators are situated, and are able to keep grain below its true market value, to their own benefit and the disadvantage of others who are specially interested in the grain trade and the public generally.

The members of the Commission desire to hear evidence in reference to the existence of these grievances, and the mode of remedying them, if found to exist, and upon any other grievances or subjects connected with the said grain trade, and for that purpose call upon all persons interested in said matters, and who have evidence to give in respect of that, to attend at the places and times above mentioned, when the fullest opportunity will be given to them to state what they know on the said subjects.

Dated Oct. 16, A. D. 1899.
(Signed) E. J. Senkler, chairman; W. F. Sirett, W. Lothian, Chas. C. Castle, commissioners."

Death of a Lincoln Sheep Breeder.

Mr. James Anderson, farmer and breeder of Lincoln sheep in the Township of Westminster, Middlesex County, Ont., passed away on October 2nd, in his 70th year, after some months' illness. He was a native of Ross-shire, Scotland, where he was born on November 22nd, 1829, being the son of William Anderson, a Dumfriesshire man. In his infancy the family moved to the Isle of Skye, where his father assumed the management of a large sheep farm, the flocks of which numbered some 8,000 head, for one Dr. Donald McAskil, on the famous estate of McLeod, of Dunvegan Castle. It was there that the son James acquired his fondness for sheep husbandry, in which to the last he maintained the keenest interest, being known as a breeder of Lincolns, though not on a large scale, which, for some years, he exhibited at the large exhibitions, also acting as a judge at local exhibitions, and superintendent of the sheep department at the Western Fair. The foundation of his flock of Lincolns was laid some thirteen years or more ago by purchases of stock from Mr. John Geary, including imported animals from some of the best flocks in England, subsequent additions from time to time being made from the flock and importations of William Oliver. The rearing of Lincolns will be continued by his son and successor, William Anderson. Deceased was one of the oldest readers of the FARMER'S ADVOCATE, being a warm personal friend of its founder, the late William Weld. A friend of education, he was a member of the local school board for some twenty-five years. Frank and outspoken, his kindness and fraternal disposition were proverbial, and his integrity was unimpeachable. He was a member of the Methodist Church and of the Masonic fraternity, and the high esteem in which he was held was evidenced by the immense concourse of people who attended his funeral on October 5th, at the Pond Mills Cemetery.



THE LATE JAMES ANDERSON.

Cows Should Have a Holiday --- Continuous Housing in Cold Weather.

To the Editor FARMER'S ADVOCATE:

SIR,—Referring to the question, "How long in each year is it wise to milk a cow?" I would say that every man should use his own judgment. If a cow is in rather low condition, it would be well to dry her off a little early, both for the benefit of her offspring and that she may milk better after coming in fresh. On the other hand, if the cow is in extra high condition, she should be milked well up towards calving, to avoid milk fever.

It is poor policy to let a cow dry early and feed her extra well so as to have an extra good cow after she comes in, and take the chance of losing her with milk fever (we lost our two best cows last year from this cause—one in September, the other in February). Our experience has been that, under ordinary conditions, a cow should milk well for ten months of the year. Spend two weeks drying her off and allow her to rest six weeks. Part of that time her teats should be examined, for fear of any sediment gathering in them.

As to whether cows should be kept tied all winter, or if they should be turned out a while every day, our practice for the last thirteen years has been, as soon as the first frosty nights come to tie in our cows at night and turn them out through the day, except a wet or cold day, and as soon as real cold weather comes, say the latter part of November, we do not turn them out again until spring but have water before them where they can drink at will. Our reason for this is that we should not try how much hardship our cows will stand, but how comfortable we can make them, and, to get the best out of a milk cow, she wants to be kept at a temperature as near 60° Fah. as possible. If a cow is kept at that temperature and fed ensilage and other good food, she will cast her hair in the latter part of December or first part of January; and a cow with her new hair on and in a stall at a temperature of 60° Fah. and fed warm ensilage, is not in a very fit state to be turned out on a cold day. We have kept our cows in for the last thirteen years and have found no bad results; but, on the other hand, find it a great deal less trouble, and believe it is better for the cattle.

Lanark Co., Ont.

JOSEPH YULL.

Our Scottish Letter.

LEICESTER AND SHROPSHIRE RAM SALES — SHORT-HORNS, CLYDESDALES, AND PONIES SELL WELL.

Some time has passed since I last wrote, and the month has been eventful for stockowners. It has been pretty clearly proved that stock, and not grain, must be the sheet anchor of the Scottish farmer in days to come, and we have had a run of splendid stock sales, alike in cattle, horses, and sheep. September is always a great month with flockmasters; the ram sales are then held, at which are purchased the sires of the stock that is to improve the breeds in days to come. The past season has furnished some curious surprises, not the least of which was the result at the great sale of Border Leicester rams at Kelso. For some reason, which calls for more minute inquiry than we are able to bestow, the flocks which had in the past been exceedingly formidable were on the present occasion thrown into the shade, and the preference was given to flocks which have in the past been largely recruited from these, but which appear to have maintained size better than the parent flock. The highest average at Kelso was made by a West country flock, that of Mr. Robert Wallace, Auchinbrain, Manchline, a gentleman who has also acquired fame alike as a breeder of Ayrshire cattle and a maker of Cheddar cheese. He got £110 for his shearing ram which stood first at the Highland, and his average for 30 was the splendid figure of £37 18s. 8d., an advance of about £5 per head on his last year's total. The next best figure was an average of £19 3s. 7d., made by the old-established East country flock of Mr. Thomas Clark, at Oldhamstocks Mains, near Cockburnspath. Although the highest price, £52, which he got for a ram, was less than half the highest price made by Mr. Wallace, he had an average of £19 2s. 7d. Then comes the notable fact that the "crack" flock of the breed, Lord Polwarth's, at Mertoun, only made an average of £18 15s. 8d., as compared with £45 12s. 6d. in 1898, and some of the rams were making less than £10 a piece, an almost unprecedented event in the history of the flock. Much speculation has been indulged in as to the cause of this, but, on the whole, it admits of comparatively easy explanation. In the past, Lord Polwarth has been in the habit of selling all the tops of his shearlings each year, and keeping up the quality of his flock by buying back some of these afterwards, when they were older sheep. Unluckily, one or two such old sheep, which he hoped to purchase in 1897, either died or could not be got, and he was therefore not so well supplied with rams in the season of 1897-98 as he expected to have been. His lambs in 1898 were therefore, as a whole, not up to the usual standard of quality, and his experience leading him to avoid depending on the purchase of his old rams, he this year kept about half a dozen of his own shearlings for service in the Mertoun flock. Of course the absence of the "cracks" led to a reduction in the prices, and at the same time prevented the outset of enthusiasm with which the "pick" of the Mertoun contingent were in the past greeted. It is noteworthy that while the Mertoun average was reduced, the flocks which had increased have drawn most largely on Mertoun blood in the past. One of these was Peelwell, from Haydon Bridge, Northumberland, and owned by Mr. Matthew Ridley. It had an average of £18 12s. 1d., as compared with £17 3s. last year, and one of the rams made £80. Longniddy (now Leaston) had an average of £18 9s. 2d., and one of the rams made £85. As a rule, the averages at Kelso were down; and this would be paralleled in the cattle world were the average for Shorthorns down and the average for all other classes of cattle up. Cheviots did very well at Hawick, Mr. Elliott's champion sheep at the Highland going up to £100, and his average being £19 9s. 10d. The price of the champion is possibly unprecedented for a Cheviot ram at auction. Black-faces have provided the sensation of the year, and trade for them was throughout first-class. Mr. Howatson's Glenbuck flock has been fairly "cock of the walk." He sold a shearing stud at Lanark for £20, and had an average of £31 4s. 9d. for 20; at Perth he sold one for £150, the highest price of the year, and had an average of £24 7s. 2d. for 20. The Messrs. Cadgow, Borland, had an average of £25 19s. 9d., at Lanark, and one of their rams made £110. At Perth they had an average of £11 1s., and sold one at £36.

Of greater interest to Canadian readers than either of these are the prices made for Shropshires. There are several good flocks of these in Forfarshire, and also in the Lothians, but the leading flock is certainly that of Mr. David Buttar, Corston, Coupar-Angus. On the last day of August he sold 60 shearing rams, at an average of £14 15s. 7d. He had buyers from all quarters, and well deserved a good trade. Last year, when he carried all before him at the national shows of both England and Scotland, he had an average of £18 15s. for 60, and in 1897 £13 6s. 5d. for a like number. Mr. Buttar's Shropshires are in great demand throughout the country, and no doubt some of his rams are in a way of being "picked up" by breeders in his country. One drawback in his competition with other breeders is the fact that his lambing season in the North is necessarily later than those in the South, and his shearlings are possibly not so big as those raised in the South. They are, however, more numerous, and a deal of beating on the score of quantity.

Cattle sales have been numerous and prominently satisfactory. When I last wrote we were just on the eve of having a series of Shorthorn

sales in the North, and these passed off most successfully. At Cushnie, on the borders of Banff and Aberdeenshire, Mr. Innes' herd of fifty-four head was dispersed, and made the good average of £20 10s. 8d. This was in no sense a fancy herd—simply a good all-round useful lot of sound cattle. At Inverquhomery, in Buchan, on the following day, the grand herd owned by Mr. James Bruce was brought to the hammer by Mr. Thornton, and the seventy-three head made the magnificent average of £40 12s. 1d. One of the cows, a Rosewood, sold for 155 gs. An analysis of the sale results shows that twenty-five animals of this Rosewood family made an average of £44 6s. 2d. each, and forty-nine animals of Mr. Bruce's other famous strain—the Augustas—made £38 9s. 10d. each; 105 gs. was the highest price paid for an Augusta, the buyer being Mr. Campbell, Kinellar, a name well and honorably known in Canada. The Inverquhomery cattle were animals of great scale and fleshiness, with more style than was found in the Cruickshank cattle. On the day following Inverquhomery, Mr. Fraser dispersed the herd owned by Mr. Munro, Mains of Murthly, Aberfeldy, when ninety-one head drew an average of £29 9s. 7d. each. These were excellent cattle—briefly to be described as Cruickshank on a Booth foundation.

During the past fortnight the Aberdeen-Angus men have had their turn—five capital sales were held. The Aboyne herd of the Marquis of Huntley, out of which some first-class animals have come, was dispersed at the beginning of the fortnight, when an average of £26 15s. 10d. was obtained for thirty-two head. Mr. Grant's draft of seventy-one head from his Methlick herd, on the following day, made £27 2s. 10d., and a draft of forty-three head from the good sound herd of Mr. Wilson, Coynachie, on the following day, made £20 5s. 4d. The sales held during the week just ended, although far removed from the original habitat of the breed, have made much better prices. At Balliol College farm, near Newcastle-on-Tyne, Mr. Clement Stephenson sold a selection of fifty from his celebrated herd, when an average of £41 3s. 2d. was secured, and on the following day at Castlecraig, in Peebleshire, the fine herd of Sir Thomas D. Gibson-Carmichael, Bart., M. P., was dispersed, when an average of £47 17s. 10d. was recorded for forty-nine animals. Sir Thomas was the first in Scotland to adopt the system recommended by Professor Bang for getting rid of tuberculosis, and all the cattle sold, except the calves, had been tested with tuberculin and passed by Principal Demar, of the Royal Dick College, Edinburgh. The sale was an unusually spirited one, and capital bidding was experienced from start to finish. Three of the cows sold for over £100 apiece. The fine Elopis 2nd 21754, an Erica, went to Mr. Perrins, of Airdrop, Ross-shire, at 107 gs. Burness 22935, of the Miss Burgess family, went to the same gentleman at 100 gs.; and Pride of Knocknowes 22945, of the Pride family, went to Mr. Hunter, Selaby, Hull, at 103 gs. I ought to have said that the highest price at Mr. Clement Stephenson's sale was 150 gs., paid for the bull "Best Man of Benton," own brother to a Smithfield champion, for exportation to Tasmania. Altogether we have had a capital trade for cattle, and we are all waiting to see what is to come out of the Northern Shorthorn sales a fortnight hence.

Horsemen are experiencing a period of revival also, and at Mr. Herbert Webster's sale of Clydesdales in Durham the other week, the splendid average of £110 8s. each was got for thirty-eight breeding Clydesdales. The fine big stallion, "Prince Thomas," made 850 gs., his buyers being Messrs. A. & W. Montgomery, and the champion mare, "Lady Victoria," went to Sir John Gilmour, Bart., at 400 gs., and other first-class prices were paid. The general horse trade is also exceedingly brisk, and at the Perth sale the other day work horses and young Clydesdales were meeting a magnificent trade, prices being well up as compared with last year's. Equally good trade has been experienced for Shetland ponies. The Marquis of Londonderry has had for many years a breeding stud on the Island of Bressay, in Shetland. The great bulk of the ponies bred there are used in his pits in Durham, but the pick of them have for many years swept all before them in the national showyards. His Lordship has now given up working several of the pits in which these ponies were used, and has therefore abandoned his breeding farm on the Island of Bressay. The whole stud was transported by steamer direct to Seaham Harbour for purposes of sale, and an extraordinary demand was experienced. There were buyers from all quarters, and trade was very lively. These miniature Clydesdales have been greatly improved under the supervision of His Lordship's factor, Mr. Robert Brydon, and some idea of the model nature of these beauties may be inferred from the fact that one of them, named Princess, stands only 34 inches high. One of the mares sold at 425 guineas, another at 80 guineas, and another at 60 guineas. A two-year-old filly made 60 guineas, and a yearling 26 guineas. Stallions made 70 guineas and 50 guineas each. The average price of 167 head was £23 16s. 5d. each. It looks as if it might almost pay better to breed Shetland ponies than horses. At another sale held at Binghill, Aberdeenshire, twenty-nine ponies, reared from an Exmoor foundation, made an average of £39 7s. 2d., and the stallion at the head of the stud, "Sir Christopher," has since been sold privately to the Prince of Wales for 200 guineas. If Scottish stock-breeders are not satisfied these times, they never will be. "SCOTLAND YET." September 30th, 1899.

Fattening Young Poultry.

With poultry as with other classes of stock, it is a mistake to keep them after they have reached the age at which they should be marketed, as the food they require each day for their support gives the poultry-keeper no profit unless a gain in weight is going on at the same time. All the cockerels and late-hatched pullets should now be fattened for market, and these should be fattened so as to present nice plump yellow carcasses that will at once attract the buyer and command the highest price. If these are in good thrifty condition it will take about ten days to finish them off. Mr. L. E. Keyser, an experienced poultryman, gives to the *Reliable Poultry Journal* his method of feeding. He says: "I place the fowls in lots of about ten each in small coops, partially darkened, and let them go twelve to eighteen hours without food, after which I feed regularly four times a day, giving water and grit before each meal. The first feed consists of a mash of two parts bran, six parts corn meal or millfeed (corn and oats ground together), one part animal meal, and when I have it I add one part cottonseed or oil meal (linseed), with occasionally some cooked vegetables, table scraps, etc. The mash is slightly salted and peppered, and a small amount of molasses is stirred into the water before mixing. Sometimes I add a little beef tallow or green cut bone in place of the animal meal. This mash is fed at 6 a. m. At 9 a. m. I feed green cut clover, rape or chopped roots and vegetables with a little meal sprinkled over it, alternating each day with a feed of whole wheat, buckwheat or barley. At noon wheat and corn are fed, at 4 p. m. the mash is repeated, and at 6 p. m. a liberal feed of whole or cracked corn is given.

"My object is to make corn the principal diet, but to so feed that the fowls will not become cloyed upon it. No other grain will give the results in fattening poultry that corn will, and it is about as cheap as anything we can buy. A fowl fed largely on corn will always have yellow flesh, unless it be of the blue-veined, white-skinned variety. I do not feed all they will eat each time, as I like to keep them in a hungry condition, while inducing them to consume a large amount of food. The more food they will eat the greater will be the gain, and I have never had a Plymouth Rock that refused to take his rations after being placed in the fattening coop. They seem to have been born hungry and are constantly on the lookout for something to eat.

"As the coops are kept dark, they rest and digest their food between feeds, and their flesh grows tender and juicy, and usually they have an empty crop when feeding time comes again. The coops must be kept scrupulously clean, and the easiest way to do this is to cover the bottom with a liberal supply of straw, which should be replenished at least every other day. Where straw cannot be had, fine, dry soil will answer the purpose. Before placing fowls in the fattening coops they should be thoroughly dusted with insect powder.

"Where fowls are in first-class condition a week of this kind of feeding will often bring them to marketable condition, but where they have been in the range, from ten days to two weeks are required. They gain surprisingly fast, and the additional weight will more than pay for the food consumed, while the extra price obtained from having well-fattened stock will be clear profit. There are many people, and the number is growing, who are willing to pay a fair price for a superior article, and it is to this class of trade that the poultryman must look for his support. When dressed fowls sell at less than ten cents per pound they have gone below the cost of production, unless it be some old hens that have paid for themselves twice over in eggs. Well-fattened poultry will nearly always bring better than this figure, and if we take proper advantage of the market, and dispose of our stock before the flood of carelessly-raised poultry arrives, or hold it until after the glut is over, if they be late-hatched birds, we can still make a nice profit on market poultry."

Fattening Young Geese for Market.

The goslings should reach market proportions at from twelve to sixteen weeks old. Previous to the day of killing they should have had from ten days to two weeks of heavy feeding. Coax them to eat every possible quantity, three-fourths meal and one bran, and fifteen per cent in bulk of the best beef scraps, with an occasional feed of whole corn. If to be sold alive the weight counts, but the fattening will have to be done over, as a change of quarters worries the birds, quickly removing the fat and compelling the second fattening, which is always more difficult than the first. They are killed by bleeding in the roof of the mouth and a blow on the head, and are picked substantially the same as a duckling. About half the neck next to the head, also the wings above the first joint, are left unpicked, though the long flight feathers are pulled from the wing. They are marketed with heads on and undrawn, except in midwinter, when many of the western geese are headed, while some are drawn and some are not. When dry-picked in warm weather they should be cooled in cold water and much care taken that all the animal heat is expelled before packing for market. In winter a douse in cold water helps the looks and adds to the style of the carcass, but they should be thoroughly dried before packing.—George H. Pollard, in *Reliable Poultry Journal*.

A Thanksgiving Time.

In recognition of the beneficences of the past year, Thursday, October 19th, has been proclaimed by the Government of Canada as a day of national Thanksgiving, in which those engaged in the pursuit of agriculture have many and good reasons to participate. The change from depression to prosperity has been so steady and so quiet, without artificial stimulus, or what is called booming, that people are apt to take it all as a matter of course, and forget to manifest a due spirit of thankfulness.

Referring to the general condition of affairs existing, the people of the Dominion should be profoundly grateful that peace and plenty prevail. Other countries have been visited with plague, bloodshed and disasters, many of them frightful and far-reaching, but Canada has been spared, though it is a matter to be deplored that the shadows of war have lately gathered in the South African portion of the British Empire. Our relations with other countries have been agreeable, probably the only approach to friction being in regard to the Alaskan boundary, where the acquisitive characteristics of our neighbors have come unpleasantly into play; but let us hope the principle of equity will mutually prevail. In the minds of men who desire the well-being of humanity and the progress of Christian civilization, such matters should be so adjusted as not to interfere with the relations of those great, dominant Anglo-Saxon and other communities now leading the world's van.

Another abundant harvest has been garnered. From the sounding shores of the Maritime Provinces across the land of the Habitans, from Ontario's fertile fields, and the matchless wheat-producing prairies of Manitoba and the West, and the rich valleys and fruit-laden slopes of the Pacific Coast, comes everywhere the message that there is enough and to spare of grains, fruits, animals and their products to feed our own increasing population and multitudes in other lands. Not only so, but the prevailing conditions of demand, and the facilities for improved transport from producer to consumer, are now such as to have enhanced the values of agricultural products, giving the farmer and stockman good prices and a much greater return for their labor and intelligence, which will more than compensate for the increasing price of all machinery and materials into the composition of which iron enters. To the breeder of pure-bred stock, it has been by far the most satisfactory season for many years.

It is a matter for devout thankfulness that our people are beginning to realize—as sooner or later all must by the trend of circumstances—that in no department of industry is intelligence more essential to success and more certain of its reward than on the farm. He who would succeed, must study the divinely-ordered conditions, adjust his operations accordingly, get in harmony with the inviolable laws of nature—in other words, farm scientifically, whether he acknowledges it or not; or else he must fail and go under. It is inevitable that the fittest will survive. Hence, everywhere we find the Canadian farmer becoming a close observer, a student of agricultural literature, scrutinizing the investigations carried on by specialists at public institutions, such as our experiment farms, and a patron of agricultural colleges, schools of dairying and horticulture, and farmers' institutes. Here and there we find men who affect to despise these things, and yet may be doing fairly well. But why? Not because of ignorance, but because they are carried along unconsciously with the general current of progress, by very force of the example of other men about them. In the industrial world the great characteristic of the closing era of the 19th century has been the applying of mechanical forces, and concentration; so in the agricultural world it has been the utilization of machinery and the application of scientific intelligence to physical effort.

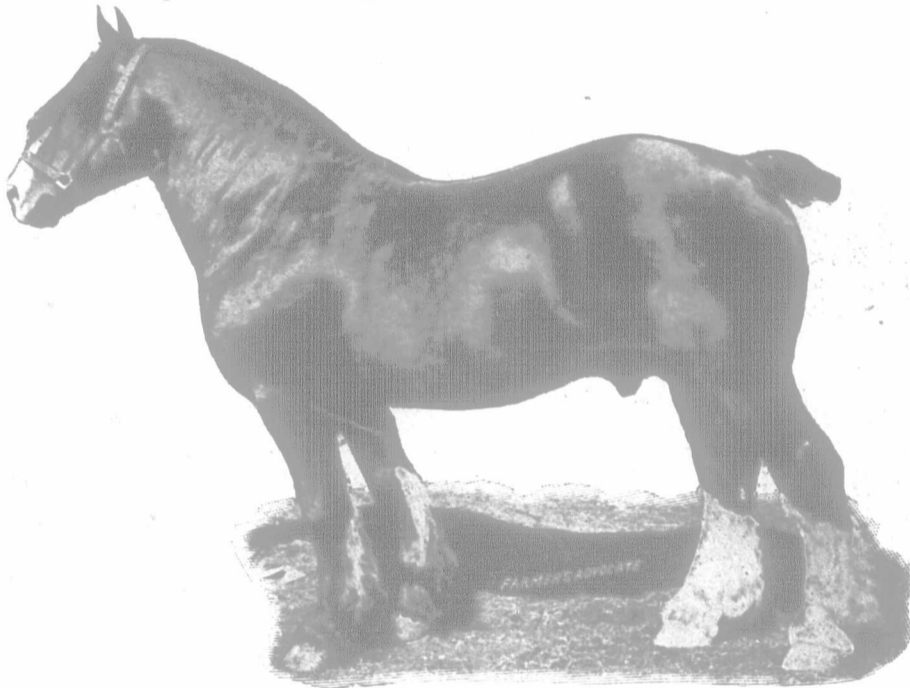
Edwin Markham, a poet, whose name has recently sprang into notoriety by reason of the striking virility of his writings, after gazing upon a painting by the French artist, Millet, of an European peasant farmer, embodied his conception in a poem entitled "The man with the hoe," which opens with the following lines:—

"Bowed with the weight of centuries, he leans
Upon his hoe and gazes on the ground,
The emptiness of ages in his face,
And on his back the burden of the world.
Who made him dead to rapture and despair,
A thing that grieves not, and that never hopes,
Stolid and stunned, a brother to the ox?"

As an embodiment of the general and dominant type of the Canadian farmer, let us be profoundly thankful that the "Man with the hoe" is a hideous caricature—a dark and grotesque impossibility. In these bright, closing days of 1899, it comes to us as a vivid portrayal of what has been, a glance backward into the grim shadows of the past, where we see the passing of a figure that can have no place of standing amid the enlightenment of agriculture on this Western continent.

Milking Tests at Ottawa Fair.

J. W. Hart, Superintendent of the Kingston Dairy School, who conducted the milking tests at the Central Canada Exhibition, Ottawa, sends us the following account of the test: The prizes offered amounted to \$140, \$50 of this amount being given by the Exhibition Association, a like sum by the Holstein-Friesian Association of Canada, and \$40 by the Holstein-Friesian Association of America, provided the prizewinners were recorded in the Holstein-Friesian Herd Book. Ten cows were entered, including one Ayrshire, but the last mentioned was withdrawn before beginning the test, leaving the field to nine Holsteins. Clifford M. Keeler, Greenbank, entered Princess Lida 4th and Rideau Gretqui. His cows were handicapped by having had the milk left in the day previous to beginning the test on account of judging. C. J. Gilroy & Son, Glen Buell, entered Inka Sylvia 41006, Carmen Sylvia 39090, and Juanita Sylvia 44825. A. & G. Rice, Currie's Crossing, entered Paulina Mercedes Jewel and Daisy Texel 2nd 44831, a cow having seven days' official test of 437 pounds of milk and 18 pound 2.1 ounces of 80% butter as a three-year-old. Queen De Kol 2nd a four-year-old, that had dropped her last calf on July 20th, was entered by C. W. Clemons, St. George. Considering her age, and the fact that she was competing with cows fresh in milk, her performance was a most creditable one. Drummond, of Parry Sound, entered Lucknow Queen. This cow seemed to be more affected by the strange surroundings than any of her competitors. The cows were milked dry at 9 p. m. on Tuesday, Sept. 19th. On Wednesday and Thursday, the days of the test, they were milked three times daily—at 5.30 a. m., 1 p. m., and 9 p. m. In scoring, the solids not fat were esti-



IMPORTED SHIRE STALLION, BELSHAZZAR 13855.
The property of Messrs. Bawden & McDonell, Exeter, Ont. See "Gossip," page 555.

ated to be one-tenth as valuable as the fat. The particulars of the test are given in the following table:

Rank.	NAME OF COW.	Weight of Milk.		Lbs. Fat in 48 Hours.	Solids Not Fat in 48 Hours.	Total Solids in 48 Hours.	Score, Solids + Fat ten times Fat.
		Lbs.	Oz.				
1	Inka Sylvia	132	5	3.73	10.51	14.24	47.84
2	Juanita Sylvia	125	8	3.58	10.42	14.00	46.21
3	Carmen Sylvia	115	3	3.37	9.45	12.82	43.13
4	Queen De Kol 2nd	129	2	3.22	10.49	13.71	42.65
5	Princess Lida 4th	105	9	3.27	8.84	12.11	41.53
6	Daisy Texel 2nd	108	9	3.19	8.96	12.15	40.87
7	Rideau Gretqui	97	4	3.08	8.41	11.49	39.21
8	Paulina Mercedes Jewel	95	15	2.60	7.73	10.33	33.76
9	Lucknow Queen	86	14	1.97	7.28	9.25	26.98

Should Cows Have a Holiday?

There are many opinions held as to how many months of the year a persistent milker can be profitably milked. Some claim that cows that are not easily dried give just as much profit and produce as vigorous offspring when milked continuously as when they are allowed a period of rest or idleness from the active operations of giving milk twice a day. Others of keen discernment and wide practical experience can see advantage in moderation, and prefer to allow their cows to build up and nourish their fetus while being relieved from the duty of milk-giving for from four to six weeks, or even a longer period, previous to parturition.

In our June 20th issue we referred to the operations on the well-conducted farm of Messrs. Pirie Bros., Middlesex County, who now, in the following letter, send for the benefit of our readers generally a statement of the teaching of their experience on that question, and in regard to the continuous housing of dairy cows for a prolonged period:

To the Editor FARMER'S ADVOCATE:

SIR,—As to whether a cow should be allowed a rest, we would say, from our experience of the last two years with a herd of thirty cows, that it does not pay to milk them to within six or eight weeks of calving. We lost several valuable calves last spring that we could account for in no other way than that the cows were milked too long, thereby weakening the offspring and also leaving the cow in an impoverished condition to start in the spring. The extra feed it takes to keep up the flow of milk is also no small consideration. The amount of milk one gets in return does not pay for the extra feed. As to keeping cows housed from fall to spring, we believe it does cows no harm to turn them out in a sheltered yard for a half hour or so on nice afternoons; but of course when the weather is so cold and stormy that a cow is apt to get chilled, we think she is better left inside.

Middlesex Co., Ont.

PIRIE BROS.

[NOTE—We would gladly hear from other dairymen on these two important points, particularly in view of the fact that the winter season is again approaching.]

Pigs from Weaning Time On.

The old practice of weaning pigs at from five to six weeks old, or as soon as they are noticed to be able to help themselves at the trough, is going out of favor, since the hogs are being marketed at from six to eight months old. Economy of production can be secured only when the period of standing still or slow gaining is reduced to a minimum. It is the general practice of pig raisers to begin to feed sweet milk, shorts, etc., when the pigs are about four weeks old, so that by the time they are eight weeks old they are eating well, and if the feed of the dam has been reduced she will have become almost, if not quite, dry about one week later, so that weaning is a natural consequence, and not liable to give the youngsters a set-back when separated from their dams. Shorts, bran and pea or corn chop, mixed with milk or the boiled pulp of pumpkins or roots, into a thin dough that will pour out easily, and fed warm, is good food to set them going. A pig at eight weeks old will do better on four feeds a day than less, but three is enough two weeks later. It is a mistake to give more feed than will be readily eaten up, but they should be satisfied when the meal is over. At night, after their slop feed, it is well to give them an allowance of corn to top off with before retiring. An occasional pint of oil meal mixed in with the slop acts well as a conditioner. Until near the finishing period, fresh grass, clover, tares or rape pasture is a suitable quarter for summer months, and in winter a rather free use of roots seems to prevent the animals going wrong in limb or digestive organs. During the last few years many have tried chopped oats, fed alone or mixed with other grain, but the practice is seldom followed two seasons in succession without sifting out the hulls, which contain too much tough fiber for the single stomach of a pig to digest. Exercise, bulky, succulent, easily-digested food, and access to mother earth, should not be spared from the growing pigs till the finishing period approaches, when closer confinement and a more concentrated ration should be provided. A box of ashes mixed with salt and charcoal can always be seen in the corners of the pens on many pig-growing farms while the animals are confined, and an occasional feed of soft coal is considered good to keep them in health. There is usually very little cause for complaint of the health of the pigs on farms where experience, coupled with intelligence, are the guides to the treatment given. A dose of turpentine occasionally to keep them rid of worms, and dry sleeping quarters, are important and simple provisions that more than pay for themselves. With their ordinary care some get gains that others are slow to credit. Forty pounds may be considered good weight at eight weeks old, but they should weigh ninety pounds each at three months. From this time onward they should gain, if well fed, one and one-half pounds per day, so that when six months old about 200 would be reached, or as high as 250 if they are good animals and have been pushed by a skillful feeder. We have noticed that the sire of pigs has a great influence with their feeding qualities. An easy-feeding, quiet-dispositioned boar should be selected in all cases. It will not prove lost time to occasionally stand and watch the pigs eat, especially if one has a considerable number together, as then any that are off their feed will be noticed, as well as those that feed slowly. One can then give the required attention to the pigs needing it. From 15 to 20 in a bunch, and those about the same size, do better than larger lots. No fixed rules can be followed successfully in raising any sort of live stock, but the work must be guided by intelligence, stimulated by a keen interest in the matter.

Ontario Entomological Society Meets.

The thirty-sixth annual meeting of the Entomological Society of Ontario was held in London on October 11th and 12th. Besides local members, there were present: President H. H. Lyman, M. A., Montreal; Prof. James Fletcher, LL. D., Dominion Entomologist; Prof. F. M. Webster, of Wooster, Ohio, State Entomologist; Rev. Dr. Fyles, Quebec; Prof. C. C. James, M. A., Toronto, Deputy Minister of Agriculture for Ontario; George E. Fisher, Provincial Inspector of San José Scale; Prof. William Lochhead, Guelph, Entomologist of Ontario Agricultural College; Mr. Arthur Gibson, Assistant Dominion Entomologist, Ottawa; and others.

The first session was devoted to discussion upon the San José scale, the subject being introduced by Prof. John Dearnness, who traced the life history of the insect, and dealt with its invasions over various portions of Ontario, as they were familiar to him from his work on the San José Scale Commission, reports of which have already appeared in the columns of the FARMER'S ADVOCATE. Prof. Webster, who has had much to do with combating the insect in Ohio, and suppressing it on Catawba Island, claimed that as yet on this continent the insect has few natural enemies. It first appeared in 1894, was traceable to a nursery in Maryland. He has seen badly-infested elms and other forest trees and shrubs. On Catawba Island, fire, kerosene and whale-oil soap were tried. The last-named remedy was by far the most effective, and by it the insect is now under control, but one season's laxity on the part of orchardists would give it a great start again. In order to be effective, the work of treating infested trees must be done by experts, and with great thoroughness, since the insect is so inconspicuous, rapid-spreading and depredatory. The work of combating it must not be left to fruit-growers themselves, but a qualified man must be given charge and be made responsible.

Prof. Lochhead characterized the insect as exceedingly destructive if left to itself. "There were," he said, "four important conclusions to be drawn from the work of the San José Scale Commission which visited the infested districts this summer. The first was that the scale cannot be exterminated from the orchards of Ontario; second, any radical methods, such as the destruction of every infested tree, should be discontinued; third, the scale in Ontario is not quite as destructive as the scale in Maryland; fourth, the scale can be held in check by a proper soap solution properly administered." He was inclined to believe that the climatic conditions in Ontario retarded to some extent the destructive capacity of the scale. The distribution among school children of twigs from infested trees would be one means of educating the people to recognize the scale, as well as to the danger of carelessly dealing with the pest. Prof. Lochhead has done considerable experimenting with fumigating infested trees with hydrocyanic acid gas, a deadly poison, which successfully destroys all insect life, but does the tree no injury. It is done inside of a tight canvas thrown over the tree.

Mr. Fisher spoke of the extent of infestations in Ontario as being confined to the districts of Niagara, St. Catharines, a portion of Kent County, where comparatively large areas are infested and have been dealt with, besides over ninety other points where the insect has made its appearance. He claimed it could withstand a temperature of forty degrees below zero, as it lives at St. Paul, Minn. It spreads very rapidly, especially in the direction of prevailing winds.

Prof. James was present, representing the Hon. Minister of Agriculture, who is very anxious to learn from qualified entomologists the best methods of effecting its extermination. He said the question was almost like a nightmare to the Department of Agriculture, who would spend this year \$25,000 combating it. He spoke very highly of Mr. Fisher's work as inspector.

Prof. Fletcher declared the scale to be the most pernicious insect fruit-growers ever had to contend with. It could be treated, however, if specialists who understood their work could be secured, and fruit-growers could be taught that they and the whole community were concerned. This was not a time for dillydallying over the matter. Prompt and stern measures should be taken. "Was Ontario," he asked, "going to allow a thing, known to be a great ill, to be brought in and spread over the country because a few people, who lost a few dollars in trees, are making a big howl?" Prof. Fletcher could not see that it was impossible to eradicate the insect, which was known to be a bad enemy and should not be treated with. He complimented the Ontario Ministry of Agriculture for the steps taken to stamp out the scale.

At the end of a discussion upon the scale, it was motioned to adjourn. The meeting was then watched with interest by a large number of its hearty members. The meeting was presided over by the Hon. Minister of Agriculture.

the suppression of the San José scale, and the wise and judicious manner in which he has endeavored to carry them out."

There were exhibited at the meeting specimens of the following trees and plants infested with San José scale: Apple, plum, peach, cherry, black currant, balsam poplar, wild vervain, maple, wild cherry, elm, motherwort, hop, basswood, willow, sumach, fleabane, ash, and some others, besides ripe apples, which showed the living scale in vigorous condition.

The evening meeting programme consisted of a technical address by the president, Mr. H. H. Lyman, that was very interesting to expert entomologists, as it dealt, among other things, with life histories and distinguishing characteristics of several newly-discovered species of insect life. There were also given addresses by Prof. Fletcher and Prof. Lochhead, on peculiar and destructive forms of insects in the field, forest, garden, and orchard.

At this session Prof. Webster read a valuable paper on "One hundred years of entomology in America," in which he pointed out the principal steps and enormous strides that have been taken during that time. The names of Dr. Wm. Saunders, Rev. Dr. Bethune, Prof. Jas. Fletcher, Major Lacombe, Prof. Riley, and many others were mentioned as being closely associated with the conspicuous movements.

During the second day valuable papers were read by Prof. Lochhead, Mr. Gibson, Prof. Dearnness, and others, which were much appreciated. Reports from the various divisions were read, which showed that much valuable research is being done by this quiet society that is far too little appreciated, particularly since we are aware that about one-tenth of all vegetable crops are yearly destroyed by insects. It is through these scientists that the habits of these insects are worked out, which leads to a means of combating their ravages.

The work of the geological section during the past year is of peculiar interest, as the report read by Mr. John Law, London, showed that several peat beds have been visited and found to be extensive and of superior quality. The sulphur springs of

The Sheep Helped Him Out.

In the October number of *Longman's Magazine* H. Rider Haggard, the well-known novelist, who lately embarked in farming in England, gives the balance sheets of the year's working of the Ditchingham and Bedingham farms. A profit of £423 is shown, but from this Mr. Rider Haggard says there must be deducted rent on, say, 250 acres at £1 an acre and interest on £2,000 capital at 4 per cent., amounting to £80, plus management expenses—say £20, or in all £350. "This leaves a total of £72 15s. 4d., upon which the farmer would be supposed to exist, that being the living profit left after the satisfaction of outgoings and charges." Mr. Haggard is, however, grateful for the result, as he finds he has done better than some of his neighbors. He pays a tribute to the advice and experience of his agent, Mr. Robert Simpson. He adds: "But it is my belief that without the help of the little flock of ewes all this would have availed nothing. From the beginning I was a constant advocate of trying a few sheep, and ever since those sheep were bought, about three years ago, things have begun to look up. The reason is plain. Comparatively speaking, they cost little to keep, for they will eat anything down to thistles or ivy off the trees, and much of what they eat would be otherwise practically wasted. Then they are productive animals, and as old Tusser says, 'Good lamb is worth gold.' Lastly, their presence is of extraordinary benefit to the land, especially where young pastures are being built up into sound productive meadows."

Six to Eight Weeks' Rest Preferred --- A Little Outdoor Exercise in Winter.

To the Editor FARMER'S ADVOCATE:

SIR,—We always try to give our cows six to eight weeks' rest between the two milking seasons. Sometimes we find a difficulty in getting them dried off as soon as we would like, and, in that case, would not have more than three or four weeks rest, and in a few rare instances they are milked up to time of calving; but we try to avoid this as much as possible, as we think it has a weakening effect both on the cow and the offspring. Two months' rest puts a cow in a stronger and better condition for the next year's work, and also gives a stronger and healthier calf. As we raise nearly all of our calves, we want them strong and healthy, with good constitutions. We look after the health of our cattle as well as to the quantity of milk. We want quality first.

Now, with regard to keeping cows continuously tied up in the stable all through the winter, we do not believe in the system—think it very injurious to the general health of the cow, as well as the offspring, although we believe cows will give more milk for a few years if kept continuously in the stable through the winter. We believe in giving our cows a little outdoor airing and exercise two or three times a week, except in very cold, bad or stormy weather, when we keep them in all day, but in fine weather we let them out twice a week for one or two hours at a time. We think this keeps them in better health, although it may cause them to give a little less milk the days they are out, but we think they will produce stronger and better stock, and give more milk in the long-run by having a little outdoor exercise during the winter. This is our experience, and we think we have as healthy a lot of cows as can be found in Ontario.

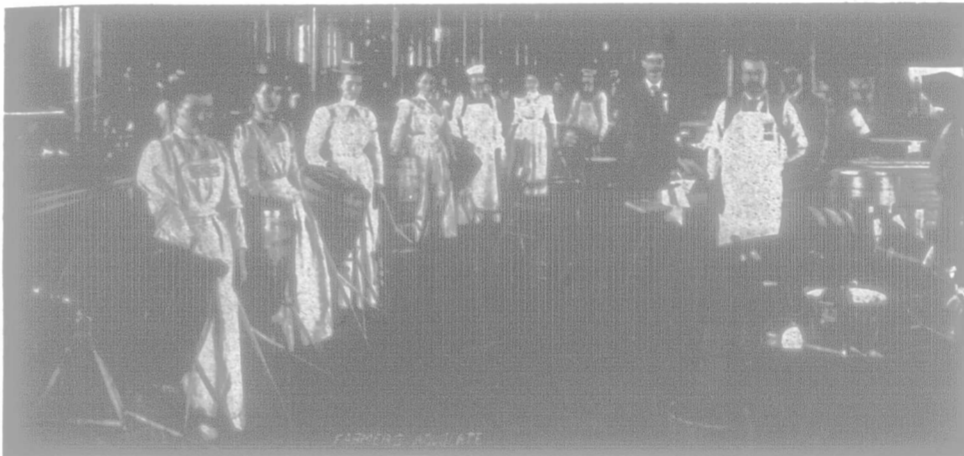
E. D. TILLSON.

Annandale Farm, Oxford Co., Ont.

How to Take off Hides.

Let us give a few hints which, if carefully observed, may save many dollars in the future. In skinning beef hides and calfskins keep the back of the knife close to the hide, and draw it tightly with the left hand. This is a simple rule, but by following it the liability to cut or score is considerably lessened. On the fore leg the knife should go down to the armpit, so-called, and then forward to the point of the brisket. On the hind legs the cut should be made from the hoof of one, down the back of the leg, semicircularly across from one to the other, and on to the hoof. The throat should never be cut crosswise, and the horns and tail bones should always be removed.

The operation of salting is equally important. To salt hides thoroughly, a water-bucket full of good salt should be used to each sixty-pound hide, the quantity for larger and smaller hides being in proportion. After this, they should be rubbed and rolled up. Independent of cuts and scores, hides which are not taken off in the manner specified are classed as No. 2s, and if dried on fences or exposed to the sun or weather are only fit for the glue maker. A butcher's skinning knife should always be used, and no employee should be permitted to take off hides without one, as the loss from one hole in a hide would buy several such knives. These few rules are simple enough, but their adoption means a great deal to the country slaughterer.—*National Provisioner.*



COMPETITORS IN THE BUTTERMILKING COMPETITION AT THE TORONTO INDUSTRIAL EXHIBITION.

London and oil springs of Petrolia were also visited, as well as mineral regions of Parry Sound district, where clear mica of superior quality was discovered, as well as much rich copper ore.

The following were the officers chosen:— President, Rev. Dr. Fyles, Quebec; Vice-President, Prof. Lochhead, Guelph; Secretary, W. E. Saunders, London; Treasurer, J. A. Balkwill, London. District Directors: No. 1, W. H. Harrington, Ottawa; No. 2, J. D. Evans, Trenton; No. 3, D. G. Cox, Toronto; No. 4, James Johnston, Bartonville; No. 5, R. W. Rennie, London. Librarian and Curator, J. A. Moffat, London; Auditors, J. H. Bowman and W. H. Hamilton, London; Editor *Canadian Entomologist*, Rev. Dr. Bethune, London. Editing Committee: Dr. Jas. Fletcher, Ottawa; H. H. Lyman, Montreal; J. D. Evans, Trenton; W. H. Harrington, Ottawa; Prof. Lochhead, Guelph. Delegate to the Royal Society, Rev. Dr. Bethune. Delegates to the Western Fair Association, Rev. Dr. Bethune and Prof. Dearnness. Committee on Field Days, Messrs. Balkwill, Bowman, Elliott, Law, Dr. Wolverton, Percival, Rennie, and Saunders. Library and Rooms Committee, Messrs. Balkwill, Dearnness, Dr. Bethune, Saunders, and Moffat.

The reports of the officers were of a very gratifying nature. They showed the society to have 552 members, who were scattered throughout the world. The receipts for the past year amounted to \$2,284.22, including a Government grant of \$1,000, and a balance of \$739.25; while the disbursements totalled \$1,707.92, leaving \$576.30 on hand.

On motion of Dr. Bethune, the following honorary members were elected: Dr. L. O. Howard, Director of Entomology at Washington; Prof. F. M. Webster, of Wooster, State Entomologist of Ohio; Dr. J. B. Smith, Rutgers College, New Jersey; and Prof. H. F. Wickham, Iowa City, Iowa.

DESTROYING ANTS.—Make holes with a crowbar or convenient stick, from six inches to one foot deep and about fifteen inches apart, over the hill or portion of the lawn infested by the ants, and into each hole pour two or three teaspoonfuls of bisulphide of carbon, stamping the dirt into the hole as soon as the liquid is poured into it.

QUESTIONS AND ANSWERS.

Veterinary.

LAME COW.

J. W., Wellington Co., Ont.:—"I have a young cow four years old. She is partly stiff in left hind leg. She jerks it up and sideways, then for a little way sometimes she can't step on her fetlock. She is worse when she stands or lies down for awhile. Would you please let me know through the ADVOCATE what is wrong with her, and a remedy, if she can be cured?"

[It is impossible to state positively the exact nature of this cow's trouble, but we would suspect either luxation of the patella or paralysis, either of which is probable, and in the absence of a more definite history of the case, suggesting treatment would be mere guesswork. If the cow is valuable, the best veterinarian in the section should be called in to examine and treat her.]

IMPOTENT BULL—BLACKLEG IN CALVES.

"My thoroughbred bull, four years old, is kept always in the stable in a stall, tied up; never overfed, only plenty of hay and water; always in good health and good order. He serves cows perfectly at all times, but it seems they can scarcely be got in calf. Is it a disease amongst the cows, or has the bull become diseased in the sexual organs and infects the cows during service? I have been informed that there is a growth on the inner portion of the bearing just at the entrance, which grows and forms a small lump which becomes inflamed, and have been told that removing this with a knife would stop cows from coming in season, but have not had any former experience. I have operated upon three of them now, not knowing the result yet, nor not having seen it done before. I have also been informed that searing the part with a hot iron after service will stop them coming in season. Will you kindly inform me what is the trouble, and what is the remedy, and have I done any good or harm in operating as stated?"

"I have met considerable loss in my calves a few days ago. I lost one fine thoroughbred Durham bull calf and three extra good grades with blackleg. There are some others losing in this locality. The animals were in good order, getting warm, fresh separated milk morning and evening as soon as separated, and plenty of good grass, but were not fat. What is the cause of this? I lost one by it last season. I took them all away and buried them in the woods. Is there any certain cure? I have just been informed by a man who says he cured them some years ago by cutting the flesh open and putting into the wound pieces of garlic and binding up the wound then. They take it very suddenly, and sometimes die in one day."

[The bull is in all probability not affected with any disease, but has become impotent from some cause. It is generally noticed that male animals that are kept in the stable without exercise, as your bull has been, become impotent. I would advise considerable and regular exercise, and if it be in high condition, restriction in the quantity of food. Two or three hours daily on a tread power is good practice for a stock bull that stands the rest of the time in the stall. If you can't exercise him in this way, have him lead around, or turn him out in a paddock. Indolence is very productive of impotency in all males. I do not think there is any disease in either your cows or the bull. I have frequently known similar cases which, when treated as suggested, become potent. As to the operations of which you speak, the idea that such can do any good is simply ridiculous. Still, I don't think that any particular harm will result, probably nothing worse than a slight soreness for a time. The growth that you talk of removing is what is called the clitoris; it is present in all female mammals, better marked in the mare than in the cow. It really has nothing to do with the actual process of regeneration. It has no direct connection with either the ovaries or the womb, and, consequently, its presence or absence cannot influence conception. If your cows are very fat, I would also advise their reduction in flesh. If this usage will not be the means of rendering your bull potent, I would advise his preparation for the block.

As to blackleg in your calves, I may say that it is a form of anthrax—one of the worst and most deadly diseases to which cattle are subject. It attacks very suddenly and usually results fatally in a few hours. It is contagious, and mostly all animals and man are liable or susceptible to the contagion. This form of the disease does not in all cases prove fatal, but the percentage of recoveries is extremely small. The treatment you mention might act as well as any other. The only treatment is to open up the quarter and insert some irritant, and garlic will act as an irritant. But I wouldn't attempt treatment, as it is dangerous to the operator. The danger exists in the liability of getting the germs in a cut or sore on your hands. It is caused by a germ which is usually got on low-lying pastures, especially pastures that have been inundated in the spring and then a dry season follows.

These germs are very tenacious to life, and when animals dying from the disease are buried, the germs work up to the surface of the soil, get on the herbage, are eaten by cattle the next year and the disease produced. Therefore, all animals dying from the disease should be burned. I would advise the plowing of the field in which the calves have been pastured, and cropping for at least two years, the removal of the calves to pastures known to be all right, and particularly the burning of all carcasses.

O. A. C., Guelph, Ont.]

TWO SIMILAR CASES OF SICK FOWLS.

1. A. C. G., Wentworth Co., Ont.:—"What is the matter with our turkeys? The symptoms are: The head begins to swell below the eye in a ridge from the nostril along to the back of the mouth, and when opened, a thick clear fluid runs out, and when left, gets dry and crumbly, of a yellowish color. They get dumpish and do no good, though they do not seem to die from the disease. Let me know the name of the disease, also a cure, if any."

2. H. S. McD., Elgin Co., Ont.:—"Inside of the last few days the greater portion of my hens have become very drowsy, the roosters among my flock have ceased to crow, which is very unusual—and young fellows at that. They stand around with their heads drawn down. Their heads have begun to turn black, and a liquid comes out of their mouth, yellowish in color. Their appetite seems to be good; they will try to eat until they get so weak they stagger. My hens seemed to be doing very well until a few days ago, and I see no reason why a disease should attack them. They have roosted outside during the summer months. Please advise me of a remedy for this disease."

[1. It is difficult to state positively what disease your turkeys have, but judging from the description given, I am inclined to believe they have roup or perhaps canker. If the subscriber could express us a live bird or two we would be greatly obliged. I would recommend the use of Conkey's Roup Cure. It is sold by many seedsmen and by J. C. Daniels, 221 River street, Toronto. This is one of the best

of sulphur, lard and coal oil, and seem to have checked the disease where it first appeared, but new spots occasionally appear, and to-day the same disease appears on a younger bull, occupying the same stable. At the time of the outbreak the bulls were running at pasture in the day and stabled at night, fed a little chop grain night and morning, and were in good condition. Since the outbreak they have been kept in almost constantly, fed no grain except a little to conceal doses of sulphur, one ounce at a time, twice a week, and have been fed green food as far as possible, mostly turnips and green oat sheaves. Have I a case of mange, or what is the matter and what the best treatment?"

[Your bulls are affected with a form of ringworm technically called *tinea tonsurans*. Wash the parts thoroughly with warm soft water, soft soap, and strong ammonia. To one pailful of water put eight ounces of ammonia. Rub the parts dry, and at the same time remove all crusts with a brush and coarse cloth. Apply afterwards the following ointment: Iodine and iodide of potassium, of each six drams; alcohol, sufficient to dissolve the iodine and its salt; mix with eight ounces of vaseline. Apply the ointment once every three days until three or four applications have been given. The disease is infectious, therefore you should cleanse and disinfect the stalls occupied by the affected animals. Crude carbolic acid, eight ounces to a pail of water, makes a good disinfectant.

W. A. DUNBAR, V. S., Winnipeg.]

APATHETIC HEIFERS.

INQUIRER, Wapella, Assa.:—"Please inform me, through the columns of the ADVOCATE: 1. If there is any remedy for heifers that are coming three years old and have never come 'in season'? I have three, and they are strong and healthy. 2. I also have a heifer, three years old, that has recently had a hard lump come on the side of head, below the eye; it has grown very large in about two weeks. I do not think it is 'lumpy jaw'; I have an idea it is from the teeth."

[1. The non-appearance of the oestral period in cattle and other animals may be due to several causes, such as a debilitated state of the system from disease or insufficient nourishment, or the opposite, a too plethoric condition from overfeeding, disease, deformity, or insufficient development of some of the generative organs, especially of the ovaries, old age, etc. Midsummer is the special rutting season for cows, and by permitting a good lively bull to have free access to those virgin heifers of yours during that period of the year, they possibly may be induced to copulate. 2. If you think the lump on your heifer's jaw is caused by a diseased or deformed tooth, why not have the cause removed? Have the teeth and inner surface of the mouth examined.

W. A. DUNBAR, V. S., Winnipeg.]

RESULT OF BLOOD POISONING.

FARMER, Norfolk Co.:—"I have a two-year-old filly with a swelling under belly from udder to eight inches in front of the navel. The swelling has gone about down now, except below the navel; there the swelling is wide and hard; at the navel it was narrow and high, but is soft and flabby now. Can you give me cause and cure? The colt had naveltrouble when a foal and was treated by a veterinary surgeon."

"2. About that calf I wrote to you. Many thanks for your answer. The urine came all safe enough through the urethra, but in small quantities, and continuously when put off a walk. Seems to be uneasy lately; lays down a lot and switches when he is up."

[From the description given of swelling under the colt's belly, we are inclined to think that the trouble is the result of the navel ill (blood poisoning), which she had when a foal. There is nothing stated about her general appearance. Is she thrifty or out of order? Give her one of the following powders twice daily until they are all used up: Sulphate of iron, 2 ounces; chlorate of potash, 3 ounces; nitrate of potash, 2 ounces; pulv. digitalis, 3 drams; pulv. nux vomica, ½ ounce; divide into 24 doses.

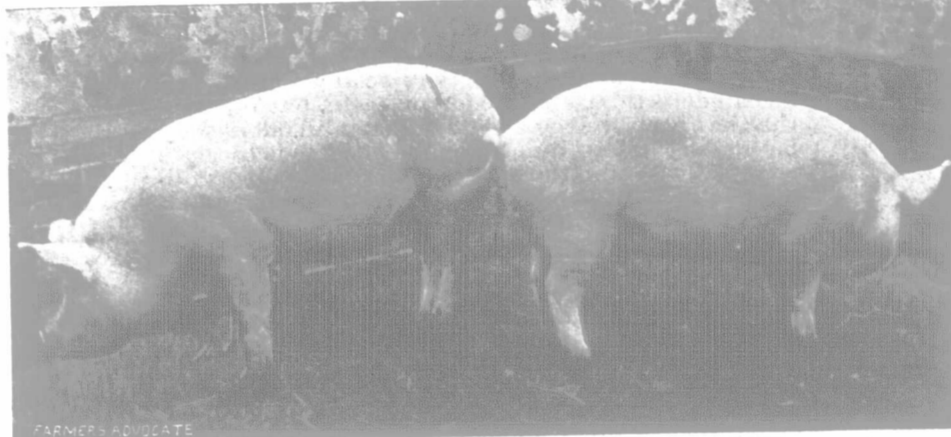
2. Give the calf teaspoonful dose of bicarbonate of soda twice daily, and boiled flax seed in its feed freely.]

Miscellaneous.

GREEN MANURE FOR SUMMER-FALLOW.

A. A. D., Haldimand Co., Ont.:—"I have an oat stubble field that I wish to summer-fallow next year. I have no yard manure for it, and would like to have your advice as to what crop I should sow for green manure. I have thought of corn, peas, and clover. Kindly advise me of the best mode of treatment, and quantity of seed to sow per acre?"

[Of the three crops mentioned, clover holds a place away in the lead for plowing down, but the plants should by this time have made a good start from seed sown last spring or at least during the summer. In Haldimand County, however, especially if the field in question is of lightish soil, a crop of Crimson clover may be secured in time to plow down in August, which would be rather late to



PAIR OF IMPORTED YORKSHIRE SOWS UNDER SIX MONTHS.

One to the right won 1st prize at Toronto Industrial, 1899. THE PROPERTY OF D. C. FLATT, MILLGROVE, ONT.

remedies we have tried. The parties who manufacture the above guarantee it, and if it fails they will refund the amount paid.

2. I believe the chickens have the same disease as the turkeys, and would recommend the same cure. Causes of the disease are: Cold and damp weather, especially when the weather previous has been warm and fine. The last few weeks have been very trying on poultry, and, unless well protected, have been followed by colds, distemper, and roup or canker. Nearly every poultry yard that I have visited during the last three weeks has had some bird more or less affected. Another cause is roosting in drafty buildings or in buildings where there is not sufficient roosting room, the result being the fowls crowd upon the perches, which causes them to sweat, and when they come out on a cold morning take more or less cold. It is also caused occasionally when fowls that have been roosting out all summer are brought into close-crowded winter quarters. The disease is very contagious, and all diseased fowls should be isolated from the others. I prefer to feed sick birds warm soft food, to which has been added a small amount of pepper. Parties who have cases of roup would confer a favor if they would express a live bird or two to the Bacteriological Department of this College, as the Bacteriologist wishes to investigate the disease.

W. R. GRAHAM, Manager.

Poultry Department, O. A. C., Guelph.]

RINGWORM.

SUBSCRIBER, N. W. T.:—"Shorthorn bull, 1½ years old, imported from Ontario, July 1st, was attacked with some bad skin disease about September 1st. First appearance was at and under the root of the tail, as if he were scalded, followed in a day or so by scurfy eruptions on the sides of the body about midribs and on the shoulders; later on, on the belly and on the neck. Those on the sides and shoulders are about two inches in diameter, while those lower down on the body and on the neck are of irregular shape, and quite sore when rubbed. There is very little itching at any time, but about the second or third day after appearing they become quite hot and tender. I applied an ointment

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,—

A good many girls who are just beginning to take up life seriously are a little troubled about how to become self-supporting. No doubt there are plenty of ways of earning one's living, so many paths are hewn out nowadays, each purporting to be the royal road to fortune. Of course, a great many of my nieces need never go away from home to make a livelihood. Their parents may be in circumstances comfortable enough to allow their daughters to remain at home without thinking of going out into the world to fight the battle of life. Many homes, again, are such that they cannot possibly "get along" without the girls. There may be a great many household duties to attend to—enough, perhaps, for two or three girls—or the mother may be delicate and unfit for much. These latter daughters are earning their own living just as much as those who go out into the great arena of the world. But we are talking more particularly about those who are in a position where they can go and have to go away from home to become self-supporting.

At the present day the cry is for *Specialists* in everything. Applicants for situations must be especially trained, no matter what kind of position is wanted. "Work is becoming more and more specialized every day, and women, particularly those no longer young, should bear this in mind, and by study and observation seek to bring themselves up to date."

Take housekeeping for example. Less than a quarter of a century ago, a thorough and complete training in home duties and responsibilities was a thing unknown, girls were supposed to attain such knowledge by instinct, or were compelled to acquire it in a manner calculated to make housekeeping distasteful to them, or else they were allowed to grow up in utter ignorance of how to boil a potato even; and only when they married did they realize their helplessness, and bitterly wish that they had learned something. A matron once said that if her better half had not been blessed with the patience of Job, and the digestion of an ostrich, he could not have survived the experiments of the first year of married life. Happily, such instances are becoming fewer, and housekeeping is now a science, and all its branches, hygiene, nursing, cookery, laundrywork, dressmaking, sewing, etc., are taught along regular lines. Now if a girl wishes to gain a livelihood by any one of these, each a science in itself, the wisest way would be to attend classes where her chosen branch is taught, and perfect herself in that particular science. In the teaching of these branches to others, too, a profitable career has been opened up for many an educated woman.

What an army of clerks there is in the world! Some people think that anyone who cannot find a position elsewhere can take a clerkship, but to-day there are very few vacancies for those who are merely accurate and painstaking. Special knowledge is required, and those who do not understand shorthand, typewriting, etc., must expect to earn next to nothing in the way of salary. The best means of qualifying for such a position would be by taking a course at one of our many good business colleges.

Many women nowadays are successful photographers. Perhaps some of them had a fancy for the Kodak as an amusement, and from that developed into full-fledged photographic artists. Some ladies confine their attention to taking pictures of children, brides in their wedding-gowns in the privacy of their own rooms, and to entire families in their homes. Some people prefer women for this. I have heard of two bright girls who advertise themselves as leader of games, etc., for children's parties. They are tactful and witty, are able to sing and play, and must, I fancy, be in a sense kindergartners, so as to enter into sympathy with child-life.

I read an account lately, of a woman who made a fortune out of gingerbread. Through reverses, she had to do something, and offered to supply this delicacy to a lunch room. The proprietors had been unable to find any of this commodity to suit them, and this lady thought she would try it. So she set to work to make gingerbread, and tried a dozen recipes before she produced anything to satisfy herself. Then one came out light, moist, delicious, and next day a dozen similar cakes were sent to the firm. These met the want perfectly, orders followed, and as custom grew, demands spread from gingerbread to cakes of all sorts. She had to employ assistance; other restaurants asked for supplies, and so her business grew.

Among other positions which my nieces might ably fill, may be mentioned that of companion. Many an elderly man or woman in the want of the society of a bright, cheerful, and capable girl, and would willingly give a good salary for such a companionship. Then there are the positions of typists, lady lawyers, telegraph operators, housekeepers, printers, retouchers, and so on. A large number of firms employ many girls, and it is possible to be self-supporting.

The main thing is—whatever you do, do well and do willingly. "Be patient, be courteous," was spoken long ago, and it holds good to-day. Study the wishes of those in authority; in fact, make yourself indispensable. Aim high, according to your ability, and strive to attain whatever purpose you are most fitted to pursue, being sure it is a true and honest one. Remember that "Life is not as idle ore," and you will become fired with a noble ambition. You will wish to live, not merely to exist. But let not ambition blind you to the path beneath your feet. Duty is a stern mistress: but

"He that, ever following her commands,
Shall find the toppling crags of duty scaled,
Is close upon the shining table-land,
To which our God himself is moon and sun."

Your loving old Auntie,

MINNIE MAY.

Saint Cecilia---Patron of Music.

Nearly all the world loves music, so this well-known picture should be interesting. Perhaps not every one knows much about this Patron Saint of Music, although the name "St. Cecilia" is often given to musical clubs. This poor martyr died, it seems, in 230, and accounts of her are vague in the extreme. One very generally accepted story is that she was of noble Roman family, was converted to Christianity and refused to worship idols. With the barbarity of those early times, she was thrown into a cauldron of boiling water, where, however, she remained unhurt. She was then condemned to be beheaded, but the executioner found it impossible to obey orders.



SAINT CECILIA—PATRON OF MUSIC.

Poor St. Cecilia then saved all further trouble by dying a natural death three days after.

The great poet Dryden appears to have shared a belief that this celebrated Christian martyr invented the organ, because he thus writes:

"At length divine Cecilia came,
Inventress of the vocal frame."

And Pope wrote, we must remember, the "Ode on St. Cecilia's Day."

This picture represents the fair Cecilia with her sacred halo over her head and the angel children ministering to her and showering flowers upon her hands and the keyboard on which she plays.

Legends are legends, and one often reads different accounts of the same people and things, but whether or not we accept all that is related of this gentle saint, the *idea* of her is beautiful, and we can try to imagine how, in her sorrow, she beguiled the time with her sweet music, and how she was comforted by this heavenly vision and sustained to bear all the affliction thrust upon her as punishment for her steadfastness.

Our Library Table.

"WHEN A MAN'S SINGLE." J. M. Barrie.—There is a fascination in Barrie's style which is irresistible. The scenes stand out so naturally, yet so dramatically, that one can easily divine the reason of his success with his dramatized work. So few novels can stand the difference between the mere reading of *es* novels and the almost entire change of style produced by stage setting and dra-

matic dialogue. However, Barrie's novels *can*, as is amply proved by the overwhelming success of his "Little Minister." His "Window in Thrums" is a household word now, and, indeed, so are many others. The book we now review is, perhaps, less known than some others of Barrie's, and deals but little with Scottish life—although it opens and finishes with it. The story is of a clever young Scotchman, Rob Angus, whose thirst for knowledge is such that, although brought up as a saw-miller (at which calling he is first-class), he yet contrives to educate himself and get his newspaper articles accepted. He contemplates going to college, but Fate wills otherwise. His dying widow sister leaves her wee girl baby to his care, and to Rob this charge is sacred. He relinquishes all idea of college, and later on even the tempting offer of a good journalistic position, for people are beginning to hear of "the literary saw-miller." He simply accepts the fact that he is "not single" and must stop and care for his little niece, Davy. Tammas McQuhaffy's humorous description of little Davy's name runs thus: "It was an accident at the christenin'..... Hendry cud hardly tak' courage to tell the minister. Weel, the minister—it was Mester Dishart—somehow had a notion 'at the litlin was a laddie, and when he reads the name on the paper, 'Margaret Dundas,' he looks at Hendry wi the bairny in's arms an' says he, stern-like, 'The child's a boy, is he not?'..... So, says he, all trem'lin, 'Yes, Mr. Dishart.' 'Then,' says the minister, 'I cannot christen him Margaret, so I will call him David!' and David the litlin was baptized, sure eneuch."..... Says Hendry, "I daured na conderdick the minister."

Faithful Rob Angus soon becomes "single," and the way of it is one of the most pathetic bits ever penned. One can see, with misty eyes, strong, brave Rob standing, dazed with grief, with Davy's little shoe in his hand. The next scene carries us into a new life. Rob Angus is now a journalist in Silchester. The description of the editorial department of a country newspaper is very edifying and amusing, the daily bickerings between the sub-editor and the foreman of the composing-room being especially good.

"But, but," cried Protheroe, all in a flutter, "It's town council meeting; it must be set, Mr. Penny." "Very well, Mister; then that special from Birmingham must be slaughtered." "No, no, Mr. Penny; why, that's a speech by Bright." Penny sneered at the sub-editor, and flung up his hands to imply that he washed his hands of the whole thing—as he had done every night for the last ten years, when there was pressure on his space."

In this quiet country town Rob Angus meets his fate—the usual one—and succumbs utterly to Mary Abinger, a young lady of position and birth very different to his own. Nothing daunted, he simply resolves to win her, and plunges away off to London with a few pounds in hand and a grim determination to do or die—especially the former! There is no formal description of Mary Abinger. She grows upon you gradually, and you know her as worthy of the deep, strong heart she has taken captive. "A face to stir the conscience of a good man, and make unworthy men keep their distance, for it spoke first of purity, which can never be present anywhere without being felt."

Of Rob's struggles in the big, cruel old city, one must read to thoroughly appreciate. There was one terrible month when he wrote from morning to night and did not make sixpence. "I will get on," cried Rob to himself, "I'm not going to be starved out of a big town like this." One night he dreamed that he

saw all the editors in London being conveyed (in a row) to the hospital on stretchers. A gratified smile lit up his face as he slept, and his arm going out suddenly to tip one of the stretchers over, hit against a chair. Rob jumped out of bed and kicked the chair round the room. By and by, when his articles were occasionally accepted, he told his proofs that "the editors were capital fellows."

In spite of all set-backs, however, Rob does eventually get on, and not only in journalism, but in other ways. His innate good sense and refinement soon cause a great change. He begins to discover that he can enter a drawing-room without knocking down all the pretty things, and can wear his clothes like any other gentleman. His manly and simple adoration of Mary is beautiful, and the little weaknesses he is sometimes betrayed into only serve to show his honest devotion. How he "looked on in ecstasy while she searched for the pocket of her dress. The day before, Mrs. Meredith had not been able to find her pocket and Rob had thought it foolish of ladies not to wear their pockets where they could be more easily got at."

There are many other characters in this charming book—the old Scotch types being especially good—and there are some really useful hints on journalistic life. Altogether, there is an immense amount of character and wisdom in "When a Man's Single," which makes it a book one can read and re-read—each time with profit. FELIX.

THE QUIET HOUR.

Grumbling.

"Wouldst thou be *wretched*? 'Tis an easy way:
Think but of self, and self alone all day;
Think of thy pain, thy grief, thy loss, thy care—
All that thou hast to do, or feel, or bear;
Think of thy pleasure, of thy good, thy gain;
Think only of thyself—'twill not be vain.

"Wouldst thou be *happy*? Take an easy way:
Think of those round thee—live for them all day;
Think of their pain, their grief, their loss, their care—
All that they have to do, or feel, or bear;
Think of their pleasure, of their good, their gain;
Think of those round thee—it will not be vain."

We all know plenty of people who seem to consider that their mission in this world is to set everybody right. They are on the lookout for faults, and always find plenty, but that does not help matters in the least. Take church work for instance. The grumblers won't help with choir or Sunday-school, because everything is "so badly managed, there is no order or system." Or they do profess to help, and find fault all the time. Either way they only do harm. Of course, things are not managed perfectly. Perfection is rather a scarce article in this world. But it is our business to lend a hand in the work of improvement, instead of chilling our own energy and that of others by constant fault-finding. It is the same way in other enterprises where people are gathered together. There are always some who will never be satisfied, and who will show their dissatisfaction, if not in words, at least in a chilling, silent disapproval, a shrug of the shoulders or a curl of the lip. We are wonderfully dependent on each other, and one grumbler often takes the spring out of a whole meeting.

"Don't look for the flaws as you go through life:
And even when you find them,
It is wise and kind to be somewhat blind
And look for the virtue behind them.
The world will never adjust itself
To suit your whims to the letter,
Something will go wrong your whole life long,
And the sooner you learn it the better."

Grumblers are certainly not heroic. Think of the privations which people have gone through in times of shipwreck, war, pestilence, or other occasions when the true nature of the man is revealed. Who are the heroes then? Are they constantly calling attention to the sufferings of their position? Are they persistently looking forward for more troubles ahead? Don't we know that one cheery individual is worth his weight in gold at such times? One person who can joke over scanty meals or uncomfortable surroundings. One who is ready to make the best of everything, and carefully ignores disagreeables which can't be cured. Surely the same thing is true in the smaller field of everyday life. Every day brings with it an opportunity for heroism in making the best of things; everyday brings with it also the temptation to grumble. Why shouldn't you be heroes *every day*?

I have just been reading the wonderful life of General Gordon. What tremendous difficulties he had to overcome! How little dependence could be placed on the men with whom he had to deal. Why, when he commanded the army in China, it is said that in one month eleven officers in his army died of *delirium tremens*! And yet his cheerfulness never seemed to fail. Mismanagement and difficulties, which would have made most men throw up everything in disgust, only amused him or roused him to fresh enthusiasm in his determination to put down all the evils and abuses he could.

What was the secret spring of hope and gladness which inspired him? Let his own words explain.

When about to start on a very difficult and dangerous mission, he writes: "I leave on Saturday. I am very glad to get away, for I am very weary. I go up alone with an infinite, almighty God to direct and guide me, and am glad to so trust Him as to fear nothing and to feel sure of success."

His fearless confidence in the face of danger was like that of David when he said so boldly to Goliath, "I will smite thee, and take thine head from thee"; or that of the three young Hebrews, who declared, "Our God whom we serve is able to deliver us from the burning fiery furnace."

This is the secret of an inner sunshine which should disperse all clouds of gloom. We are in God's hands, and He is both able and willing to make our weak efforts work out His wise and merciful plans. To doubt that, is to doubt Him.

Apparent failure should never depress a Christian. Did not our great Leader appear to fail when, deserted by friends, apparently helpless in the hands of enemies, He breathed out His life upon the cross. A fatal blow seemed to have been struck, the religion He had tried to establish seemed to be killed, the disciples He had trained and taught were scattered. Yet that death was not a defeat, but a mighty victory, and our struggles which seem so hopeless may be more victorious than the open successes which please us better.

Never grumble. Don't grumble at the weather, for it is sent by God himself, and to find fault with it is to complain of Him. Don't grumble at difficulties, but ask God to help you to overcome them, and then go forward in perfect confidence that He can and will make "all things work together for good." Why, if you had no difficulties to contend with you would have no moral backbone, but would be as limp as a jellyfish. Your spiritual muscles need hardening and strengthening by exercise, as much as your physical ones do.

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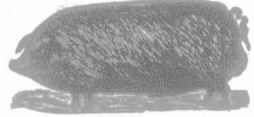
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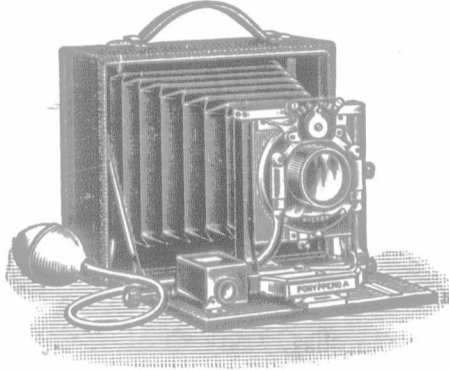
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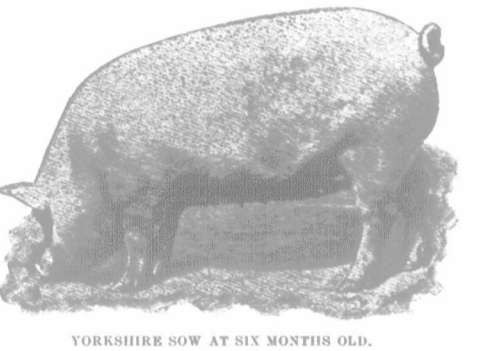
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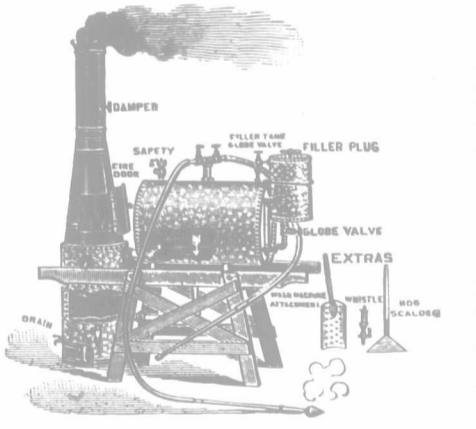
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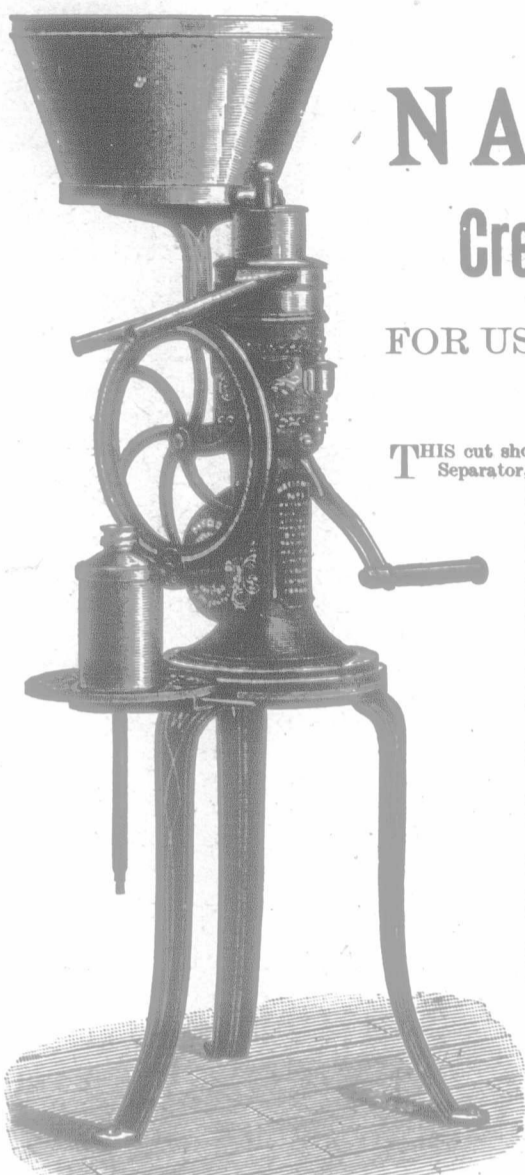
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FOR USE IN FARM DAIRIES



"NATIONAL" NO. 1 HAND POWER.
Capacity, 330 to 350 lbs. per hour.

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- 1st. Closeness of Skimming, and smooth, even condition in which it leaves the cream under all circumstances.
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A trial of the "National" is all that we ask in order to ensure a sale to an intending purchaser. The sale of this machine for the Province of Ontario is in the hands of

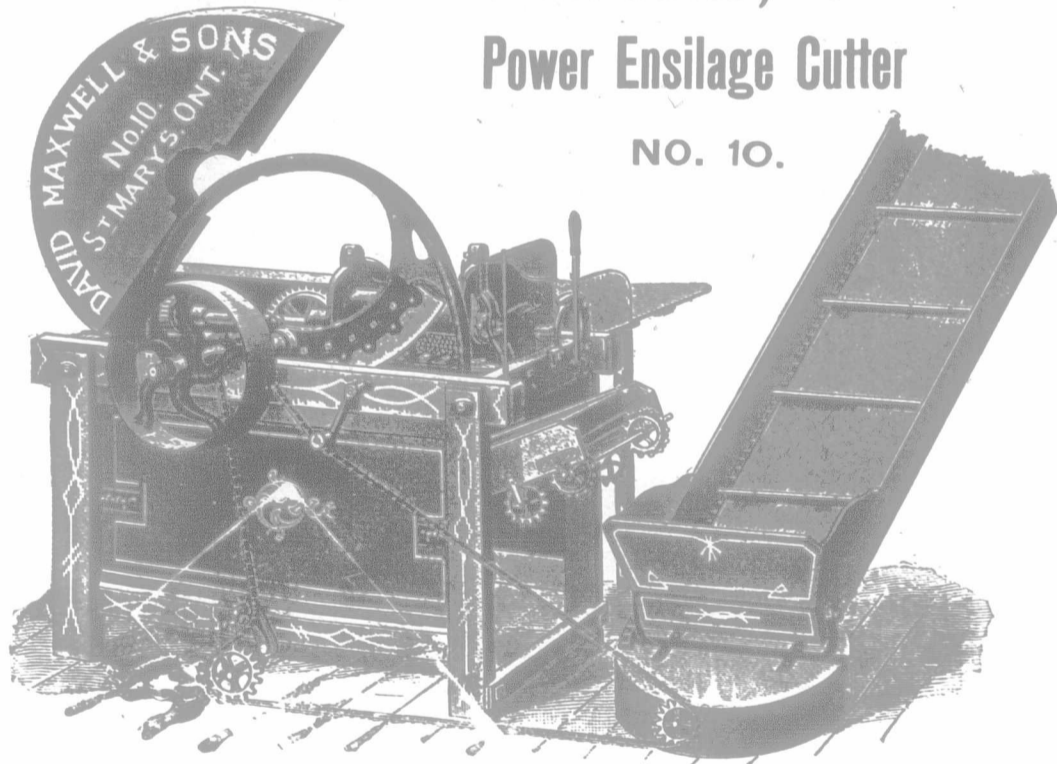
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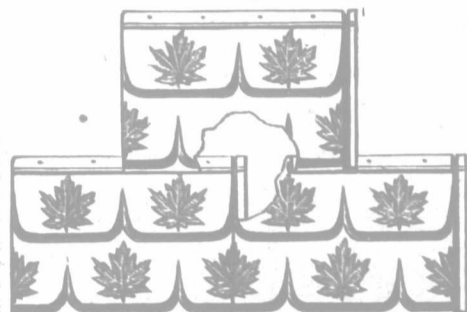
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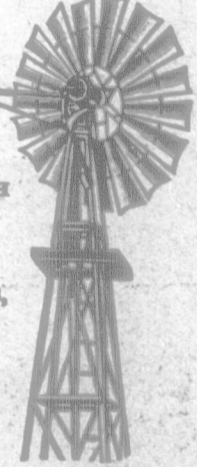
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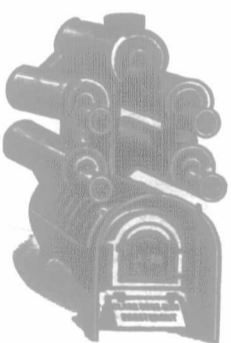
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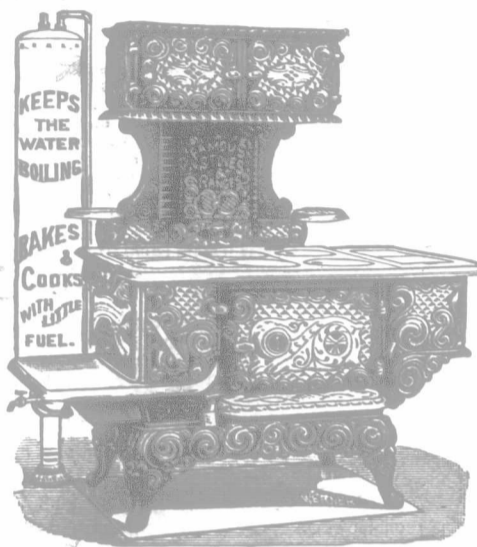
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