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FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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EDITORIAL.

"A Little Farm Well Tilled."

One of our correspondents, J. F., Perth Co., Ont., in this issue starts what should prove a helpful discussion on the subject of small vs. large farms. There is no doubt that the fertile soil of Canada, even in the settled portions, is not carrying anything like the rural population of which it is capable, in comfort, and its productiveness in grain, fruit, animals and their products is unquestionably far below the limit of which it is capable under a more thoroughgoing system. A season like the present, broken by frequent showers, emphasizes many of the difficulties that arise in trying to farm too large an area, such as obtaining satisfactory help for harvest, combating weeds, and also performing the general farm labor, which is now more evenly spread over the year than in the earlier days. In England, after the fall in the price of cereals, a larger proportion of land was laid down to grass for fattening cattle and sheep, and a smaller proportion kept under cultivation and the work more thoroughly done. The subject is a live one that will bear discussion, and the wide diversity between the condition, crops, and net returns of farms, the natural conditions of which are not at all unlike, indicate very plainly the need there is for radical reform in the methods of many tillers of the soil.

A Tuberculin Canard.

A number of alarmist articles have been floating about lately in local weekly and daily papers regarding tuberculosis in Canada, and the warning statement made that compulsory legislation for tuberculin testing will no doubt be pressed in the Canadian House of Commons at an early day. We have the authority of Hon. Mr. Fisher, Minister of Agriculture in the Dominion Government, to state there is no such intention whatever. A thoroughly informed and practical man, favoring educational methods, with liberty of individual action, the present Minister of Agriculture knows that however it might work with the peasants of European countries, with their unsanitary conditions and unhealthy herds, it would be ill-advised in Canada, even if it were necessary, which it is not.

Protecting Farm Buildings from Lightning.

We regret to record that many valuable barns and other outbuildings have been destroyed this season by lightning. Whether in the aggregate the losses will exceed those of previous years we are unable to state definitely, but they are serious enough to revive interest in the subject of lightning rods, about the utility of which many are sceptical, while others have become disgusted with their very name in consequence of the rascally way in which they have been fleeced by agents. The records of insurance companies, so far as we have been able to learn, and the conclusions of those whose investigations best qualify them to form a correct judgment, are favorable to the use of rods properly constructed and maintained. We think there need be little doubt upon this point. Next comes the question, can farmers properly rod their own buildings, and at what cost? This was answered in our issue of August 2nd, page 339, where Mr. Thos. Baty described in detail the whole process of putting up 240 feet of rod, which two men did in a day and a half and at a cost of \$4 for the galvanized wire forming the rod, and say \$3 for the labor—\$7 in all. We gave in the same issue the favorable comments thereon of two experts, one the Chief of the U. S. Weather Bureau, and in this issue Mr. J. W. Robson reviews the whole subject and gives our readers the benefit of many years' experience, study, and observation, so that it has now been very thoroughly covered from all standpoints. If the reader is convinced of the

theory of protection from lightning, he has before him in the articles referred to the knowledge of how to proceed and what the probable cost will be. On the latter point we might add that agents have been putting up rods this season in the same part of the country, for which the price was some 22 cents per foot, including labor, or over seven times what it actually cost Mr. Baty to rod his barns, and so far as appearances go and the way in which the work was done his appeared to be in every respect a much superior job. Time will determine their comparative utility and durability.

The Royal Commission Reports.

The report of the Royal Commission appointed by the British House of Commons in 1893 to investigate the causes of the depression in agriculture has recently been distributed. It is a lengthy and elaborate document, filling a blue book of 370 pages, dealing with a great many points with which our readers have no interest in common, and we make use of only such passages as seem to be of at least passing interest to Canadians. The Commissioners agree that the depression is mainly caused by the heavy fall in the prices of agricultural produce. They have arrived at the following general conclusions on this point:

1. That the changes in the prices of grain during the past twenty years represent a fall of over 40 per cent. in the three staple cereals, and over 50 per cent. in the case of wheat.
2. That in the price of beef there has been in the same period a fall ranging from 24 to 40 per cent., according to quality.
3. That the prices realized for mutton since 1882-84 have exhibited a progressive decline of from 20 to 30 per cent.
4. That there has been a fall in the price of wool amounting to upwards of 50 per cent. during the past twenty years.
5. That dairy produce has participated in this depreciation, and that, taking the changes in the prices of milk, butter, and cheese as a whole, there has been a fall approaching 30 per cent.
6. That the fall in the staple products, already referred to, has been accompanied by a decline of at least 20 to 30 per cent. in the price of potatoes.
7. That although there have been fluctuations in the prices of hops, they have exhibited in recent years a general tendency to fall to an unprofitable level.

The concluding sentences in the report are as follows: "The grave situation we have described, affecting no inconsiderable part of Great Britain, is due to a long-continued fall in prices. This fall is attributed by the great majority of witnesses to foreign competition, and, as previously pointed out, we have not been able to find any promise, in the near future at all events, of a material relaxation of the pressure of this competition upon the British producer. So far, then, as agricultural depression is due to these causes, we must regard it as probable that the depression will continue, and that there will be a further reduction of the area of British land susceptible of profitable arable cultivation, together with a corresponding contraction of our production and a diminution of our rural population.

This is certainly not a very cheerful finding, and the Commissioners have evidently not seen their way clear to adopt the view held by the President of the Board of Agriculture as recently expressed, that the colonies and foreign countries would probably limit their exports when prices fell below the cost of production, a view which to most people would seem to be over-sanguine since the colonists and the foreigners have large surpluses in many lines that must be marketed however unsatisfactory the returns may be. The report is decidedly pessimistic in its tone, and its suggestions are evidently advanced more as palliatives than as likely to prove a remedy for the existing state of depression from which the British farmer is especially suffering. The Commissioners intimate that while they have agreed almost unanimously upon the main features of their report, yet upon the subject of a remedy for the chief cause of the depression there is considerable difference of

opinion, and that subject is accordingly left to be dealt with in separate memoranda. A supplementary report is presented by ten members of the Commission, including Mr. Chaplin and Mr. Long, who see in the gold standard a principal cause of falling prices and consequent depression, in favor of a reversal of the monetary policy of the country. In this document a conference of the powers is recommended to consider the subject of international bimetalism.

The Commissioners devote considerable attention to the question of railway freight rates, a subject in regard to which our sympathies are with them, and sum up their conclusions as follows:

"We fully agree with the many witnesses who have given evidence upon the subject that it is one of very great importance to farmers, who, while suffering from the fall in the value of their products, have found little or no relief in the rates charged for their conveyance. But it is well known that in fixing rates railway managers have less regard to the cost of the service than to the value of the article carried. The whole question affects national as well as class interests, and is deserving of much more scientific investigation than it has yet received."

To guard against the sale of adulterated products, and of imported goods as home produce, the Commissioners recommend that the proposals of the Food Products Adulteration Committee bearing upon agricultural produce should be carried into effect by legislation, and that the recommendation of the House of Lords Committee for registering dealers in foreign meat should also be given effect to. They also express themselves in favor of the system of selling cattle by live weight.

The Proof of the Pudding.

It has no doubt been a puzzling problem to many breeders and feeders of hogs in the United States, and perhaps to some in Canada, that hogs have for several months past been selling for about \$2 per 100 lbs. live weight higher in the Toronto market than the highest prices ruling at Chicago, but the *Drover's Journal* of that city seems to have solved the problem to its own satisfaction, as indicated by the following quotation from a late issue of that paper:

"The Canadian packers could buy many hogs in Chicago at \$4.00 that cost them \$6.00 in Toronto, but they couldn't sell the product for Canadian bacon, which has gained such an enviable reputation."

And in another paragraph in the same issue an attempt is made to comfort the American farmer for this difference in prices by arguing that owing to the peculiar manner in which the American hog gets his living a comparison of results is not necessarily so unfavorable as may at first sight appear. The *Drover's Journal* goes on to say:

"Canadian bacon manufacturers are making the most of the excellent reputation they have won for their product, and are having no difficulty in selling them in competition with United States bacon in England at prices that justify them in paying farmers \$2 per 100 lbs. more for hogs, live weight, in Toronto than our packers pay for our best bacon hogs at Chicago. On Friday, August 6, a report of the Toronto bacon hog market was as follows: 'A few extra choice bacon hogs sold as high as \$6 cwt., but ruling price for best was \$5.80 to \$5.85.' On the same day some fancy light-bacon hogs sold here at \$3.92, with \$3.85 to \$3.90 being the prices for selected 160 to 180 lb. hogs. A comparison of results looks very unfavorable to the American hog grower, but when everything is considered he probably makes more money out of his hogs than the Canadian farmers who can get \$2 per 100 lbs. more for what they grow. The Canadian farmer engages in mixed husbandry, and while he grows a little of everything, he does nothing on a large scale. He raises perhaps one litter of pigs, and having no coarse grain feeds them on milk, peas, roots and grass, and his expense account is much larger than that of the United States hog grower, who can feed cheap corn to his cattle and fatten his hogs on what the cattle do not assimilate. There is doubtless more money to the

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

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(Continued from page 375.)
grower in \$4.00 hogs at Chicago than in the \$6.00 hogs at Toronto, but the fact remains that our people ought to mend their ways and grow more choice lean bacon hogs. Corn, while being the cheapest feed, is too fattening to make good bacon, and as long as it is used exclusively American bacon will not be able to compete with Canadian bacon in the English markets."

The secret of the more favorable comparison is put in such a delicate way that those unfamiliar with Western methods of feeding may fail to perceive the point when it is said "the United States hog grower can feed cheap corn to his cattle and fatten his hogs on what the cattle do not assimilate. The italics are ours. This will be quite intelligible to the dweller in Hogland who knows that there the signal to meals for the porker is the elevation of the switch of a steer, and the Western hog knows as well as if he had human sense that "the proof of the pudding is in the eating of it," and our neighbors need not wonder if in these days of easy communication the English people have "got on to the racket" and decline to regale themselves on bacon evolved from previously unassimilated matter, however cheaply provided.

The filthy wholesale methods pursued by Western States farmers, whose big herds of steers, consuming whole corn, are followed closely in the feed lot by hogs, are not wanted in Canada. No later than our June 1st issue of the present year, when the result of a careful investigation by the FARMER'S ADVOCATE into the Essex Co. swine disease was published, we took occasion to warn farmers against the adoption of the Western system. The truth of the matter is that Canadian bacon has attained its present pre-eminent position because of the intelligent attention paid for 20 years back to breeding the proper type of hog, managing and feeding it according to cleanly and rational methods. Big, fat-backed hogs, lower prices, and hog cholera are the penalties the Western States farm-

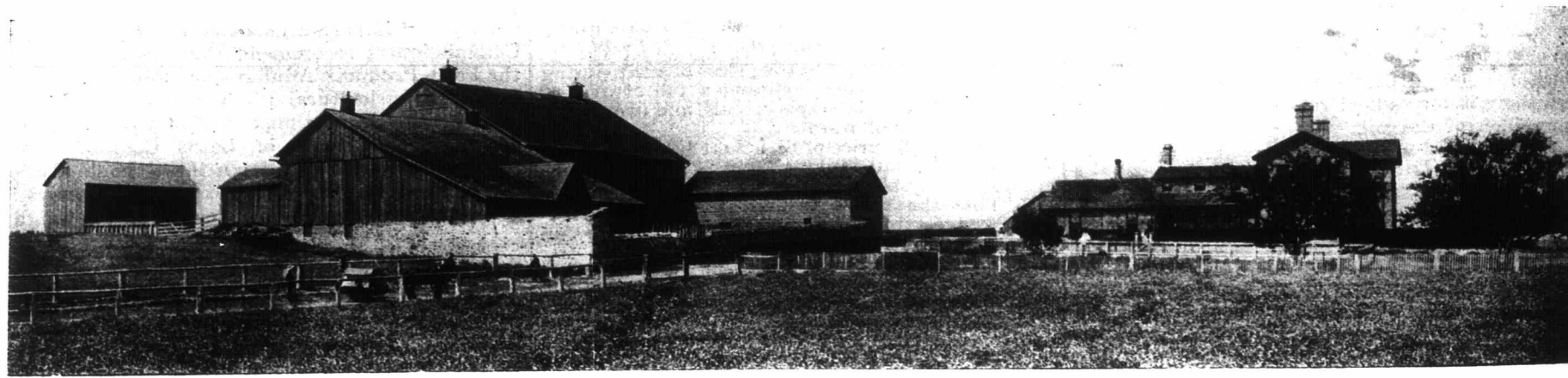
ready for sale about Christmas; other lots are fed in the same way and sold as soon as ready. In this way he fattened 40 head last winter. In the past a few good Shorthorns also have been reared upon this farm.

Smaller Farms.

BY J. F., PERTH COUNTY, ONTARIO.

It is a common saying that Canadians are such a busy people that they devote very little time to the study of anything outside of the business in which they are engaged. This remark applies to farmers as well as to merchants and manufacturers. It is also true that numbers of those who are engaged in agricultural pursuits give no time whatever to the study of their profession. In many cases the reason for this negligence is attributed to the great amount of work that has to be done on the farm. And many of the difficulties that they have had to contend with during the past few years have been caused by lack of knowledge and mismanagement of the business. Much of this trouble could be avoided if farmers would consider the question of working smaller farms.

Although we have entered upon an era of prosperity, I believe this question is worthy of the consideration of every person interested in the advancement of agriculture. Few men in this country are possessed of sufficient means to carry on business extensively without the aid of borrowed capital. The system of borrowing money, although very useful when judiciously managed, has been the means of ruining hundreds of farmers financially. A great deal of the capital invested in land has not realized the rate of interest that had to be paid for the use of it. This state of affairs has produced unsatisfactory results. The farmers who have been obliged to borrow in this way have not kept as much stock as they would under different circumstances. They have employed less help, and consequently the land has suffered from want of cultivation. Crops began to fail, and one poor crop paved the way for a poorer one the following season. The revenue from the sale of stock decreased yearly, and with it that obtained from the crop. And not only this, but the fertility of the soil diminished, followed by a decrease in the value of the land. Seldom has this happened where it was un-



A VIEW OF THE HOMESTEAD ON THE FINE STOCK FARM OF ROBERT SHORTREED, ESQ., GUELPH, ONT.

While at the Exhibitions.

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er has to pay for the wholesale methods which the *Drovers Journal* thinks enable him to make more money than the Canadian farmer, which we think, however, is not the case.

Mr. Robert Shortreed's Gold Medal Farm.

Among the illustrations that adorn the present issue of the FARMER'S ADVOCATE, that representing the homestead on the stock farm of Mr. Shortreed is typical of what has been accomplished by progressive Canadian farmers. This farm is one of the gold medal farms of 1889 in the Province of Ontario, receiving that year a gold medal from the Provincial Agriculture and Arts Association; it is situated two miles west of Guelph. One hundred acres of it was first settled in 1834 by the late John Shortreed, but since that time 150 more have been added, and is now owned by his son Robert. The outbuildings comprise one main barn 70 x 84, another 60 x 60, also a hay barn in the rear 26 x 52, and a stone horse stable and driving shed 30 x 60. The dwelling, too, is a commodious and handsome structure.

Mr. Shortreed's method of farming is the growing of coarse grain for feeding, principally oats and peas. He also grows turnips, mangolds, Indian corn, and rape. The land intended for the roots is manured as soon as possible in the spring. If the grass is good through the summer, steers averaging about 1,100 pounds are bought; if not, they are not bought until the rape is ready. As soon as the rape is done the cattle are housed; he is able to stable 54 head. He feeds oats and pea-chop three times per day, mixed with chaff or cut hay and straw. Turnips are also fed three times per day, before the meal, then hay twice per day. The cattle are fed as much of each as they can eat up clean. They are turned out at noon, one stable at a time, to water at a trough in the yard which is supplied by a windmill to the south of the buildings, or a little to the left of what appears in the engraving. While the cattle are at water the stables are cleaned out with a horse and boat. These cattle would be

necessary to borrow money. There may be cases where men have succeeded on borrowed money; but this article is written for the benefit of those who have met with misfortune.

Agriculture offers scope for almost unlimited improvement. In no calling can skill and knowledge be made more effectual. Small farms well tilled and thoughtfully managed give the most satisfactory results. More attention can be given to matters very often considered of minor importance. Less capital is required to purchase such farms. The owner, having no interest to raise for the money-lender, is enabled to purchase nearly everything required for cash. It is easier to plan the work so as to have everything done in proper season on a small farm. And the man who "can make two blades of grass grow where only one grew before" has solved a problem that will ensure him success in his profession.

It is not customary to farm less than one hundred acres in the older provinces, except in the fruit districts. If farms of from twenty-five to fifty acres were more common it would induce the laboring classes in the towns and cities to purchase land. This would avoid a serious question that is at present demanding the attention of people in the large cities of other countries. It is beginning to show itself in Canadian cities, and now is the time to deal with it. As this country increases in population the question of "the unemployed" will be certain to attract attention.

No doubt many will advise those who cannot purchase hundred-acre farms in the older provinces to "go west." This advice will suit those who have a fair knowledge of agriculture. Those who have but a slight idea of the business will do much better on small farms in settled districts. The difficulties with which they have to contend in a new country are very trying even to the men who have been reared in the profession.

I believe that it would be more profitable for the people living on the fertile lands of Manitoba and the Territories to cultivate less land than they are in the habit of doing. It must be very discouraging to intending settlers to see the best land

in that country running almost wild with weeds from want of proper cultivation.

Our country holds a favored position among the nations of the world, though it is only a short time since we were recognized as a nation. Many people in this country were of the opinion that it was only a matter of a few years until we would be annexed to the United States. Numerous schemes were suggested for extending our trade with that country. Nearly all have fallen through, and we have found markets elsewhere for our products. Our trade has been gradually developing with Great Britain, and it has been greatly assisted by the new Canadian tariff. Our gold mines have attracted the attention of other countries. But though we have lands rich in minerals, Canada will always be known as an agricultural country. It will be wisdom on the part of those engaged in farming to study closely every detail of the profession. While foreigners are flocking to our gold regions, let farmers take advantage of the situation to show them that our agricultural lands are capable of providing good homes to thousands now in a miserable condition in other countries. To do this the aim must not be to have a large acreage under crop, but rather to grow a large crop on every acre under cultivation.

A Tour Through the Northwest Territories.
(EDITORIAL CORRESPONDENCE.)

At last writing we were about to leave Virden for Calgary. This distance, 600 miles, was covered in twenty-six hours, including many short stops at small stations, and to take water, as well as two half-hour stops at Regina and Medicine Hat. The first five hours' run was made during the night, when much good country was passed. The rainfall this season has been unusually light, but still the wheat crop is fair, and was rapidly ripening. The great Indian Head wheat district and N.-W. T. Experimental Farm is situated here. We passed it on our way west, but stopped off a day on our return trip. Harvest was just commencing—and such a harvest! During half a day's steady drive we saw wheat, wheat, wheat, on every side, very

often as far as one could see. Of course, there were the summer-fallows, hay patches, and small oat areas, but wheat was the crop most in view. There are very few fences, and scarcely a tree except along the Assiniboine River and occasional small ravines, besides the flourishing belts on the Experimental Farm. The average height of the wheat crop was about three feet, but some good fields stood quite four feet high, and as thick and heavy as could well stand. Some of these it was estimated would go well up to forty bushels per acre. One can well understand that there was considerable anxiety at this time for fear of frost and hail, either of which might come at any time and depreciate or destroy the crop. One evening previous to our visit the thermometer registered 37°, which made men anxious, and heavy storms were seen going around almost every day. A shortage of good water is a sad drawback, but the people seem to get along fairly well. The main source of supply is in the small ravines, which are kept dammed so as to catch and hold all the snow water and rainfall through the season. Wells are dug on the flats, and the surface water by leaching through becomes filtered and wholesome. This water is much better than one would expect.

We would like to say much about the Experimental Farm, but it is already quite familiar to most of our readers. Mr. Angus McKay, the Director, gave us a hearty welcome, and every advantage to inspect the various departments. The grain plots were in fine condition, and almost ready for the reaper. Here, as at Brandon, arboriculture receives much attention. The deep groves along the west and north boundaries, besides the numerous double and single rows throughout the garden, trial grounds, and fields, furnish a refreshing contrast to the almost treeless stretches for miles in every direction.

One of the Government creameries is situated here, but is not making a large quantity of butter—some 1,200 pounds per week. The district is too dry for much dairying; in fact, farmers that can grow wheat successfully will not milk cows.

Between this point and Rush Lake, a distance of about 170 miles, there is little to be seen except apparently boundless stretches of arid country, parched and bare except for a light covering of brown grass, sage bush, and the like. Here and there an alkali lake was passed bearing a dirty scum or perhaps entirely dried and white as snow with saltlike alkali. Several fairly clear ponds lie along the track, and these were thickly dotted with various varieties of wild ducks, some of which were little downy balls of yellow fluff, perhaps not

more than a few days hatched. We also saw one large flock of wild geese and a few scrawny coyotes.

Approaching Morse, two stations east of Rush Lake, the prairie grass becomes more luxuriant, but still quite dry. A little further on we passed a well-fenced 10,000-acre ranch, on which could be seen a number of small bands of horses in fair condition. This is the beginning of the ranching country, which is evidently fairly continuous right through to the base of the Rockies. Great bands of sheep could be seen, which appeared to be in fine condition in spite of the very dry pasture. While they had access to fresh-looking flats, they were feeding on the dry knolls. We saw a few bunches of cattle, but the large herds were farther back from the railroad. Maple Creek, lying some 100 miles west, is also the seat of a Government creamery, and is making some 4,000 pounds of butter a week, shipped west either to the Calgary central cold storage or direct to Revelstoke, the distributing center for British Columbia. Some 65 miles west is Medicine Hat—a quite a businesslike town. The C. P. R. Co. have a beautiful garden here, growing with great luxuriance by irrigation all kinds of vegetables and flowers, besides pretty rows of trees and a patch of green corn some six or seven feet high. We left here just at dusk and saw no more till daylight found us in the beautiful city of Calgary, from where a grand view of the Rockies, eighty miles distant, can be had on any clear day. Here we spent three days, which we would require more space than is our due to describe at all fully.

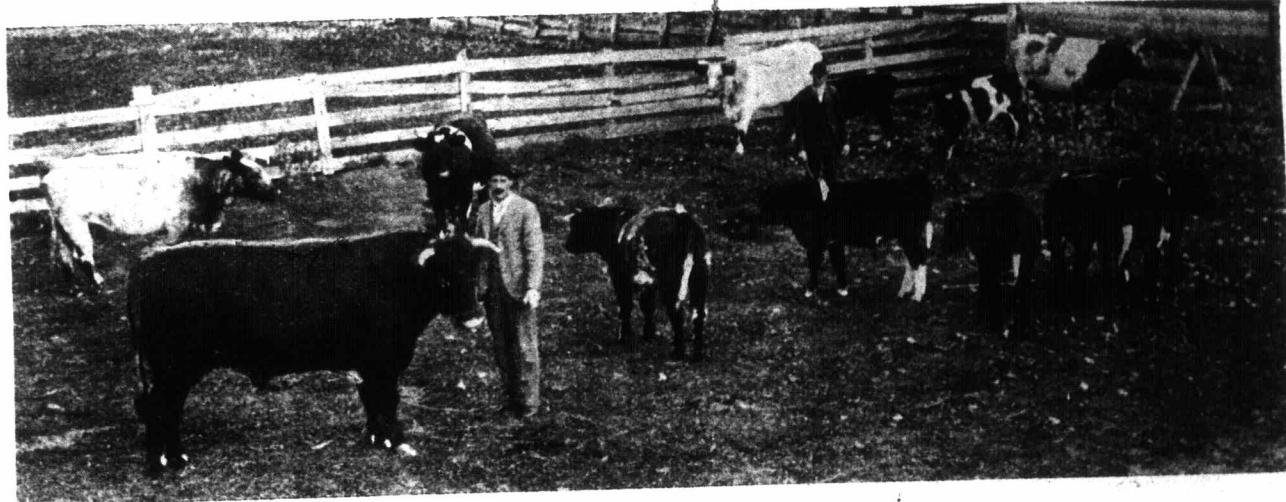
The points of especial agricultural interest visited were the Government creamery and cold storage, two irrigated farms, and two immense ranches.

The creamery plant is one of the finest we ever saw. It was bonused by the city and built by a company some few years ago. As it did not prove successful under this management, the Dominion Government rented it for three years and put in the \$800 cold storage. It is now under the general supervision of Mr. Marker, the Provincial Creameries Superintendent. Mr. John T. McDonald, formerly of P. E. I., is the buttermaker, and has

storeroom walls and floors is worthy of mention. A match can be lighted upon them at any time; in fact, they are as dry as the interior of any superstructure where no ice is kept. The butter made at the Calgary creamery is being salted lightly and packed in 56 pound spruce boxes for the British market. Mr. McDonald takes a great deal of pains and is succeeding well in producing an even and fine quality of goods. It is expected to use this cold storage very soon for B. C. fruit going east and dressed poultry going west, which will be a great boon to producers and consumers both east and west.

Irrigation is just in its primary stages in the Calgary district. Although there has been considerable rainfall this season, it is usually so dry that mixed agriculture cannot be successfully carried on without irrigation. It would be difficult to find a more favorable combination of circumstances for irrigation. The main ditch, which was, unfortunately, washed out by recent floods, has its source some twenty miles towards the Rockies, in Bow and Elbow rivers. In this distance it has about 500 feet fall. Far less would, perhaps, be more easily controllable were a large quantity of water to be brought in. In this way a tremendous stretch of rich country could be made very valuable for mixed agriculture. Mr. Wm. Pearce's farm has had a small system independent of the main stream, but in a few weeks the main channel will be drawn upon owing to the late destruction of his supply ditch by flood. Mr. Pearce's grounds and fields are a convincing evidence of the value of irrigation. Each field or plot has small ditches surrounding them, a little higher than the level, and opening at regular intervals into channels in the fields. There is also a small reservoir just at the edge of the farm, in which the water has a chance to warm up in the sun before it is used on the land. Grain, hay, vegetables, flowers and shrubs were all growing with great luxuriance, and the proprietor is very sanguine over the future of that district when artificial watering becomes general.

The other irrigated farm visited comprises four hundred acres of what is known as the Hull ranch. It is a valley in a huge area of many thousand acres of cattle ranch. The irrigated portion is cultivated simply to grow fodder for winter and for horse feed. The hay is made from timothy, Brome grass and oats. The oats were in places nearly six feet high, and just about ready for cutting green at the time of our visit. Timothy and Brome grass were just being harvested and were quite heavy. The latter is the favorite by Mr. Hull. It is more leafy, produces a greater aftermath, and will not run out so soon as timothy. All these crops,



A TYPICAL GROUP OF SHORTHORNS IN THE HERD OF A. J. C. SHAW & SONS, "CAMDEN STOCK FARM," THAMESVILLE, ONT. SEE ARTICLE, PAGE 392, STOCK GOSSIP DEPARTMENT.

charge of the creamery business as well as the central cold storage.

The creamery plant has capacity for a make of from 3,000 to 4,000 pounds of butter daily. It has a stone foundation and a superstructure of wood. It is now making some 1,200 pounds a week, which is hoped to be increased next season. The cream is received from skimming stations at Okotoks, 25 miles, and Springbank, 18 miles, as well as from local patrons. The patrons receive ten cents per pound in advance for the butter and the remainder at the end of the season.

The ice house and cold storage are without exception the most satisfactory we ever saw. The walls are about three feet thick and contain several dead-air spaces, divided by lumber and building paper. It is constructed entirely on Prof. Robertson's system, which has been described in the FARMER'S ADVOCATE on more than one occasion. Some 130 tons of first-class ice were stored last spring. It has no packing whatever and is not wasting, except a very little on the upper corner of the top layer. The blocks on the lower layers are as large as ever and are actually firmly frozen together, while the temperature outside runs up to over 80 degrees very often.

The cold storage room is divided from the ice room by an insulated wall. It is 52 feet long, 12 feet wide and 9 feet deep, having a capacity for six carloads of butter, fruit, poultry, etc. It is held at about 38 degrees by means of ice and salt mixed and packed in galvanized iron pipes one foot in diameter, at one end of the room extending from the floor to the ceiling. These require to be filled each day to the extent of the amount thawed in 24 hours—usually about half full. At the time of our visit (Aug. 9th) not more than one-sixth of the stored ice was used. The storeroom is ventilated by top and bottom flues connecting it with the ice chamber. At this time there was stored butter from the following creameries: Whitewood, Grenville, Moosomin, Qu'Appelle, and Regina, to be shipped to Revelstoke. The dry condition of the

we were informed, were lighter than usual because of the destruction of the irrigation system mentioned above. The land had been well irrigated just before the heavy rains, which made it far too wet, and left the ground ready to break and crack as soon as the dry weather again set in. This disadvantage could have been overcome had the system not been destroyed. Mr. Hull had just completed a magnificent dwelling, which would do credit, both in architecture and furnishings, to any city street—quite a contrast to the usual conception of a ranch home. The ranch comprises many thousand acres and supports very large herds of beefing cattle, which the proprietor draws largely upon to supply his many shops, etc., in various points along the line and in the mining districts.

One of the most interesting days spent during the whole of the Western trip was on the ranch of Mr. R. G. Robinson, a few miles south-west of Calgary. The stock at present consists of some 1,700 cattle and 800 horses. The cattle are all well-bred Shorthorns, as nothing but good pure-bred sires have been used in the herd. Just last spring a carload of good animals were imported from Ontario and are running with the herd this summer. A great many capital shippers are sent East every summer. All the stock is in fine condition this season. The grass is unusually fresh and luxuriant owing to more than ordinary rainfall. It seemed strange to hear a preference expressed for drier grass, which is claimed to be more fattening. It is always desirable that the prairie grass ripen before frost sets in, which keeps it as good as hay for winter pasture, while frozen grass is of little or no value. It is said that fine, dry prairie grass cut in the spring as soon as the snow is off is very nutritious hay and is much relished by stock.

Mr. Robinson's horse stock is interesting from various standpoints. Eight hundred horses of some stamps would not mean much even now, but when of special classes, as these are, they are of more than nominal value. The stock stallions now con-

sist of two Clydesdales, one Shire, two Coach, one Thoroughbred and one trotting-bred horse. They are all first-class animals; in fact, as good as money could buy, and all of fancy breeding. The brood mares comprise some 350, and of decided types, suitable to breed from the above sires stock to suit all the special-purpose lines. The result is, one who is at all a horseman passing through among the yearlings and two-year-olds can decide at once for which class each one has been bred. The result is, Mr. Robinson never has to hold over horses after they reach a salable age. We have no hesitation in believing that very good show animals could be taken right from the ranches which with a little fitting would capture good prizes in many classes at the best horse shows in any country. The day we spent on this ranch the whole process of breaking wild colts was gone through with, and before leaving we were driven behind colts that before the day in question never had a rope or halter over their heads. Not only this, but we also saw wild cattle captured and secured as if for branding in as many minutes as it takes to tell it. It was an interesting day which we shall not soon forget, and a pleasant part of the recollection is that no cruelty was exercised. By the method practiced, a very wild colt is halter-broken, ridden, hitched and entirely broken without a patch of skin an inch in diameter being knocked off either the men or the colt. Mr. Robinson has an ideal ranch location, there being plenty of summer and winter pasture, abundance of water, and a deep wooded ravine for winter shelter in stormy weather. His barns are all that could be desired, as well as his dwelling house, which is elegantly furnished and occupied by an accomplished family who furnished a pleasant hour's diversion and musical entertainment of solos and duets on piano and stringed instruments. To visit many such ranches one would require as many days, because of the areas to cover and the hospitality of the proprietors.

From Calgary northward the Calgary and Edmonton Railroad, now operated by the Canadian Pacific as a branch line, extends some 200 miles to the south bank of the North Saskatchewan, opposite the town of Edmonton. For the first fifty or sixty miles out of Calgary the country is similar to that immediately adjoining the town. Northward the soil seems to become richer and the rainfall more generous, judging by the increased luxuriance of the vegetation. At Red Deer poplar bluffs occur at frequent intervals, and these increase, with occasionally some spruce, as one proceeds northward. Not much cultivated land is to be seen along the line of rail, but around Innisfail, Red Deer, Lacombe, Wetaskiwin, and north of Edmonton considerable land is under crop, and although unable to make a personal inspection, we learned that the crop prospects were exceedingly good. Some of the crops seen along the track, although of small area, were heavy, although rather late; some were very poor; but without knowing the conditions under which these fields were cultivated an intelligent opinion could scarcely be formed. However, we judge the country to be well adapted to mixed farming, and the growing of oats, foddens, etc.

A number of creameries have been established along the line, under the supervision of the Dominion Government Dairy Commissioner, and, for the first year, are doing encouraging work. The one at Edmonton is now making 1,900 pounds a week; Wetaskiwin, 1,200; Innisfail, 2,500; Red Deer, 1,900; with every promise of a much increased output from year to year as patrons develop their herds.

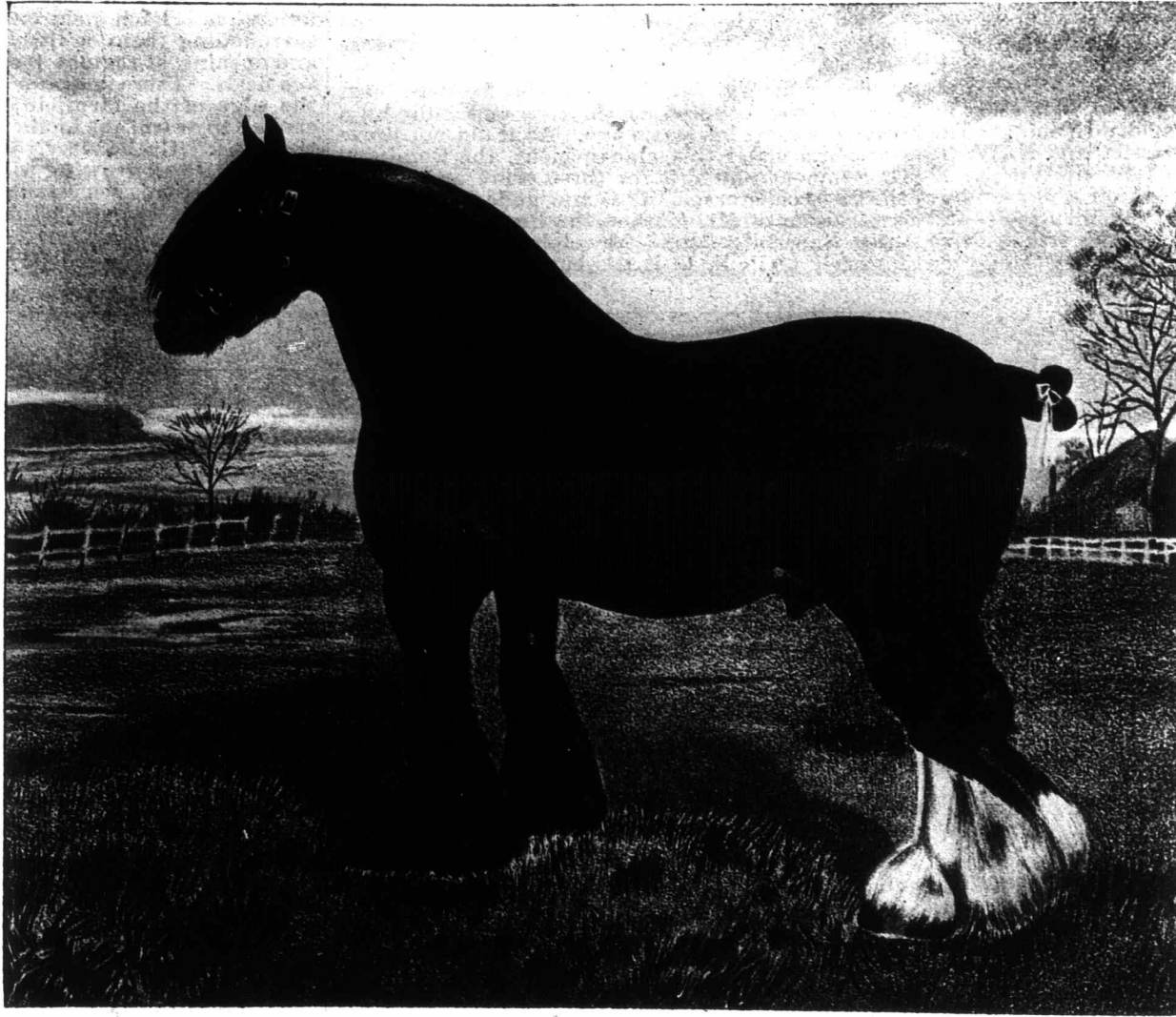
From Calgary south to Fort McLeod, about one hundred miles, a branch line is also operated by the Canadian Pacific. It was busily engaged hauling horses, men and material to the Crow's Nest Pass R. R. construction at the time of our visit. Along this line on either side for a considerable distance either way lies grand ranching country, much the same as around Calgary. The rainfall has been light this season, so that the grass is dry and cured, but the animals were all in fine condition. Much of this Western section is peculiarly

adapted for cattle, sheep, and horse ranching, and, supplemented by the irrigated areas to produce extra supplies for winter feeding, is likely to hold sway for a good many years to come. J. B. S.

STOCK.

Pure-Bred Stock for New Brunswick.

On several occasions in the past the New Brunswick Government has sent representatives to visit the larger breeders of Ontario and elsewhere to make selections of pure-bred stock, which are distributed to the agricultural societies, and by them sold under certain restrictions as to use and keeping for breeding purposes. Over a year ago a couple of hundred superior pure-bred swine of different breeds were selected in that way, and the result proving very satisfactory, three other delegates started west on August 19th, stopping off at the Eastern townships, P. Q., and then coming on all the way to Western Ontario in quest of Ayrshires, Jerseys, Holsteins, and Shorthorns in cattle, and long and medium wools in sheep. The numbers to be purchased depends on the quality and prices prevailing. The delegates are Hon. L. P. Farris, a member of the Government; Chas. L. Smith, M. P. P. for Carleton Co.; and Thos. A. Peters, of King's Co. Their purchases will be for cash. We presume they will avail themselves of the exceptional opportunity of visiting the larger exhibitions,



THE SHIRE STALLION MARKEATON ROYAL HAROLD 15225.

such as Toronto, London, and Ottawa, as well as breeders at their homes.

We might say that the dairy business is steadily progressing in New Brunswick, which is encouraged by the improvement in prices; the pastures have continued good, so that the delivery of milk has rather improved instead of falling off at this season, as is generally the case. The hay crop is better than last year, and if not quite an average it is very little short. The grain was very promising, but heavy rain storms have injured it to some extent, not easily determined yet. Root crops look well and promise a large yield.

Corn as a ripened crop is not taken into account, but as a green fodder crop is of great importance. The late spring interfered with the quantity planted, which is unfortunate, and the want of it is felt as the pastures fail. The dairy business is having a great influence on this crop, and the building of silos will become general in the near future. The money received from the cheese and butter made in the factories, now becoming general, is having a marked influence, and this is the origin largely of the desire to improve the dairy stock, which is sure to make a great improvement in all farm stock. We cannot improve one class of farm stock without the other coming in for a share of benefits in a similar way.

Our Book Premiums.

The attention of our readers is directed to the splendid list of volumes on agriculture, live stock breeding, management, etc., offered elsewhere on specially favorable easy terms. Read it.

Management of Public Sales.

The first essential to success in a public sale of pedigreed stock is to have first-class stock to offer, and the second is to have the stock in first-class condition. Good breeding is important, and fashionable pedigrees are certainly helpful when founded on the bedrock of first-class individual merit presented in blooming condition. But no matter how well-bred the stock may be, nor how pure the pedigrees, if the animals are inferior in quality or offered in poor condition, and with staring coats, the pedigrees will fail to charm, the eloquence of the auctioneer will fall flat on his audience, and failure may be written down in advance of the date. If ever it is true that what is worth doing is worth doing well, it is in the preparation for a public sale. To offer stock at auction in poor condition is to court failure and to ensure dissatisfaction to the seller, the buyer, and the crier. The owner, who knows the stock best and knows that if they were in fine condition they would be creditable, feels that they are not being appreciated at their real worth. The intending purchaser, who does not know them, cannot make due allowance for their lack of condition, and is apt to be suspicious that there is something wrong or they would be in better condition, and, hence, hesitates to bid till they are knocked down at a low price, and then feels uncertain whether he has not missed a bargain. The auctioneer is worried because he fails to work up enthusiasm, knowing

that the prices obtained are unsatisfactory to the owner, and he finds it uphill work all through the sale. If ever there is a time when trimming, brushing and blanketing pays it is in the few weeks preceding the day of the sale, and the necessary feeding may well be commenced, in a gradual way, a few months before, for it is safer and better for all concerned that the stock be brought into good condition gradually than to be forced to it by heavy feeding in a short time. The classification and arrangement of the animals in stalls or pens so as to give a good first impression and to convey, if possible, a sense of uniformity of size and type is no small factor in giving a favorable opinion of the stock as a whole. In arranging cattle in stalls let the larger animals be placed farthest from the entrance, and if in double stalls let them be as nearly matched in size and appearance as possible all through the line, the smallest being nearest the door of entrance. Calves and young stock in box stalls should be classified so as to be near of an age and size. All should be well bedded, all the passages well swept, and every animal should be halter-

broken, trained to lead tractably and to show themselves to best advantage. A wild or untrained animal, breaking away from the herdsman, causes confusion and loss of time, and breaks the steady run of business, which should be maintained without distraction, and just here a hint to the crowd may not be out of place. The man who attends a public sale and partakes of the hospitality of the owner should bear in mind that he is not expected to discuss politics while the sale is in progress; that if he is not a bidder, the least he can do, consistently, is to keep quiet and give the auctioneer a fair chance to do business with those who mean business. The salesman has a right to this privilege and should demand it with firmness, and insist upon its observance, if need be. A word to the man who attends the sales mainly for the purpose of talking up the stock he has at home, and working up trade for himself at the expense of the man who has advertised the sale. To such we would say, don't do it, at least till after the sale is over, and if you cannot say anything good for the stock in the sale, be careful to not say anything that will prejudice the minds of intending buyers. Think of the man who has gone to the expense of getting up the sale. Put yourself in his place and do as you would wish to be done by. The animals should be numbered in the order in which they are to be sold, the number being plainly printed on gummed linen or strong paper, and pasted on the animal where it is not liable to be rubbed off. If a printed catalogue of the stock is prepared let it commence with the animal to be sold first, and continue to sell in the

order of the catalogue, unless there is some special and good reason for varying the order. As a rule, we believe it is good policy in arranging the catalogue to place them in the order in which it is considered they will sell best. In other words, sell first those you think will bring the highest price. They may not be the best individually, as sometimes a fairly good animal of a certain family or strain is likely to bring more money than a very good one of another and less desirable family. We are aware that there is apt to be some timidity on the part of the seller to putting up his best first, fearing it may be sacrificed before the spirit of the sale has been raised, but we are confident that any risk in that direction is more than offset by offering first an animal that is very desirable, as enthusiasm is by this means likely to be raised at the outset, and a good price made at the start fixes to a large extent the standard of prices for the day; besides, if the best are withheld buyers will wait for them, and the sale will drag, whereas if the most desirable are sold first those who fail to get their first choice may be content to try for the next best in their estimation. We have noticed that the English breeders in their public sales generally follow this rule, with the exception that they place a drawing card occasionally in the list, say about every tenth number, so as to cause a fluctuation in prices, and prevent what might otherwise seem an inevitable down grade to the end of the event. To economize time and keep up the spirit of the sale it is of the utmost importance that sufficient help should be on hand to get the animals out in regular succession, the next in order being held ready to enter the ring without delay as soon as the one in the ring is sold. In order to do this a sufficient supply of halters should be provided, and these can be cheaply made of half-inch rope by any handy man. The sale ring should be convenient to the stable if suitable ground can be found. It should be dry and comfortable under foot, and if not naturally so, straw or sawdust should be liberally strewn around the ring, which should not be too large, as it is sometimes difficult for the salesman to catch the bids if his audience is too far away from him. It is right and good policy to frankly state any known blemish or defect in any animal offered as soon as it enters the ring. This will inspire confidence, and may save after trouble and unpleasantness, for which there will be no excuse if a fair understanding is had. A breeding list, giving date of service of each number and by what sire, should be prepared before the sale and posted in some conspicuous place in the barns or stables so that visitors may mark their catalogues with these data before the sale commences, which will save the trouble of asking and answering questions.

In regard to the selection of an auctioneer, we would say that as a rule if there is reason to believe the crowd and buyers will be mainly made up of local men, it will be as well to employ your local auctioneer, as he knows the people and they understand his manner of selling; but if the sale has been widely advertised, and there is a probability that buyers will come from a distance, it may be better to employ an auctioneer having a Provincial reputation, who has had experience in managing large sales, who knows the leading stockmen of the country, has a good idea of the value of high-class stock and of their breeding, and is himself a judge of such stock. Such a salesman will command the respect and confidence of the company, and if the stock is presented in good condition, and there are a reasonable number of buyers present, he will sell them for as good prices as any man can under the circumstances. Assuming that he is a man of good judgment, the sale should be left largely, if not entirely, in the hands of the auctioneer, as he will know best when the bids are exhausted, and whether there are buyers enough present to take the stock at living prices. If the bids offered in some cases are lower than the seller anticipates, and he is disposed to demur, let him possess his soul in patience, the next may bring more than he expected, and the average may be

satisfactory to him, all the more so from his sense of having acted in good faith with his patrons. In no case allow by-bidding from even a pecuniary standpoint, as it not only detracts from the faith of present buyers who discover it, but it also seriously mitigates against the success of future auction offerings.

With regard to advertising, we would say if the stock is good enough to justify bringing intending purchasers from a distance advertise liberally in the leading agricultural and stock papers having a wide circulation, making your announcements well ahead of the sale, so that prospective buyers will have ample time to write for catalogues concerning the stock and make all necessary arrangements. Readers of the standard agricultural papers are the men who appreciate good stock, and will be prepared to invest liberally. Advertise freely in your own and adjoining counties. There is inspiration in a well-conducted crowd, and it is well to have them, trusting to the auctioneer to interest and entertain them in a business way.

Two Noted English Horses.

In this issue we portray two very different types of English horses—the Hackney and the Shire—two celebrated stallions being chosen for the purpose, one being the three-year-old Royal Danegelt, the property of Sir Walter Gilbey, Bart., first prize and reserve champion at the Hackney Horse



THE CHAMPION ENGLISH HACKNEY STALLION ROYAL DANEGELT.

Society Shows, London, 1896 and 1897; also first and champion at the Royal Show at Leicester in 1896. In striking contradistinction with him is the four-year-old Shire stallion, Markeaton Royal Harold 15225, the property of Mr. Alex. Henderson, Buscot Park, Faringdon, Berks., winner of Challenge Cup as best stallion at the Shire Horse Society Show, London, 1897. The illustrations we have reproduced from the fine summer supplement issued by the *English Live Stock Journal*.

Reversals of the Showing.

It appears that even in Great Britain, where, if anywhere, one would suppose competent judges of stock may be secured, frequent changes are made in the placing of the honors in the competition of the same animals at different fairs, as indicated by the following editorial article in a recent issue of the *Mark Lane Express*: "In the Shorthorn class at the Royal Show at Manchester the judges scarcely knew which to place first in the oldest bull class, Mr. Atkinson's Master Ailsbury or Mr. Handley's Leonard. They gave the palm to the former, but at the big Yorkshire Show the latter was not only preferred to the Royal victor, but Master Ailsbury could only get third prize. In the class for two-year-old Shorthorn bulls there was an equally keen contest between Mr. Heaton's Master Recorder and Mr. P. L. Mills' Marengo. The judges gave preference to the former, and likewise made him champion Shorthorn bull, but Marengo's fortunes have altered very considerably since. At the Lincoln-

shire Show he was not in the same class as Master Recorder, but the two were drawn out against each other for the championship, and the palm was awarded to Marengo. He gained another first prize at the Yorkshire Show at Harrogate, and Master Recorder did the same in the yearling class. These bulls, it must be admitted, are both very good, as likewise is the older animal, Master Ailsbury, which defeated Marengo at Peterborough. A bench of judges might be pardoned for placing either first if the three came before them as competitors. Weighing their various claims in the balance is rather an invidious duty, consequently none of the above remarks must be taken as censuring anything done at either show, except the degradation of Master Ailsbury to third position at Harrogate.

"Mr. Brierley's three cows, Jewell 2nd, Rosedale Cowslip, and Queen of Hearts, have also been variously placed at the leading shows. We have just mentioned them in the order they were placed at the Royal, only Lord Polwarth's Wave Mist came after the former two for third prize, Queen of Hearts having only barren honors, and coming fifth on the prize list. Yet at the Oxfordshire and Shropshire Shows she was placed first, and preferred to Rosedale Cowslip. In fact, at Shrewsbury, all three being in competition, the ruling was Queen of Hearts first, Rosedale Cowslip second, and Jewell 2nd reserve. Again, at the Yorkshire Show the latter could only get reserve,

her herd companion, Rosedale Cowslip getting first honors, and Lord Polwarth's Wave Mist third prize. At Peterborough, and also at Lincolnshire, the ruling of the Royal was confirmed in respect to Jewell 2nd getting pride of place. There would seem to be not the slightest doubt that she is very superior in character as well as even form to the wealthy Queen of Hearts, but it is not so easy to declare whether she or Rosedale Cowslip should have preference, the latter having more extended scale and typical cowlike character.

"The decisions of the judges at the Royal in regard to some of the younger classes failed to give general satisfaction. The ruling in the yearling bull class was in particular very much criticised, and several animals which only received barren honors have been much more highly appreciated since. The two-year-old heifers Dewy Morn 2nd and Bapton Daisy have had very varied fortunes since the summer of 1896, when they ran such even courses together. At Lord Tredegar's Show last November they were both for the first time seriously degraded below the high positions they had the Royal Manchester Show the former could only get reserve, while the latter stood about seventh on the prize list for h. c. Captain Duncombe's Sea Gem, which usually came third to them in the yearling contests, had so much improved that she got into pride of place, and has sustained her position tolerably well throughout the season. Dewy Morn 2nd won third prize at the Lincolnshire and second at the Yorkshire. Mr. J. Thorley's beautiful heifer Ringdale Bella 2nd can claim not to have been beaten anywhere this season, and to have gained the first prize wherever shown. Among the curious incidences of the season must be mentioned the fact of her herd companion, the three-year-old heifer Jeannette, at the Royal Counties Show having been preferred to Mr. Brierley's Rosedale Cowslip in the elder class for females. Mr. Willis' Bapton Daisy was first at this show, as well as at the Bath and West Southampton Exhibition.

"Other breeds have had some remarkable reversals of showyard decisions likewise. For instance, at the Highland Society's Show at Glasgow the champion prize for best Aberdeen-Angus was awarded to Sir G. M. Grant's very stylish bull Prince Ito, which had been first in his class at the Royal Manchester. Yet this decision has since been reversed. In the Devon breed Mr. Mucklow's bull Whitstone Magna Charta held his own throughout, and at the Royal was not only first in his class, but had the champion position as best Devon. Mr. E. Kidner's Harold 4th got nothing, although he was preferred to the first winner, Mr. A. C. Skinner's Duke of Pound 27th, at Southamp-

ton, and had been second to him at Minehead. Several of the crack Herefords, such as Mr. Arkwright's bulls Red Cross and Montezuma, have won first prizes wherever they have appeared this season, and the same may be said of Mr. A. F. Hughes' yearling bull Lonsdale, which has been sold at a high price for exportation. Two female winners from Mr. Hughes' herd have also held their own well—the heifers Bountiful and Wintercott Plum. There was a reversal of the Royal decision afterwards at Shrewsbury in Mr. Stephen Robinson's Soudan, the third yearling bull at the Royal being placed below the Earl of Coventry's Grand Cross, which stood fifth in the Royal prize list. Again, in the class for heifers calved in 1895 Lord Coventry's Grace was preferred to Mr. Green's Cedar. There have been also some notable reversals of decisions in regard to other breeds, but space will not permit present reference to them."

Breeding and Management of Pigs.

The Canadian farmer will in the future, far more than in the past, find that the best markets open to him will demand that the articles he produces must be of the best quality and that his chief interest will be to reduce the cost of production; and, while granting that much advancement has in a few years been made, we have no hesitation in asserting that in few of the articles which he produces is there more room for continued improvement than in the average of quality of hogs placed upon the market. A considerable proportion of our farmers have paid attention to the trend of the markets and the discussions in the press with regard to the type of hog required by the trade, and have bred and fed their pigs with a view to meeting these requirements, and with a good degree of success; but there is still a large proportion of farmers who evidently have not read either the papers or the signs of the times, and have gone on in the old lines, producing what is not wanted and what must be sold at second or third class prices, thus losing money and at the same time injuring the reputation of our products, which but for their carelessness might be of more uniformly desirable quality and bring more uniformly good prices. The pig now required for the best results to breeder, feeder, and consumer is one that will convert food into the best carcass of pork within the shortest time and at an early age, since it has been clearly proved by repeated experiments, both by private individuals and at the public experimental stations, that pork made with young pigs is far more cheaply made, that it brings the highest price in the market, and that it enters more readily into consumption by the class of people who are willing to pay a good price for what suits their taste.

The type of pig required to meet the present-day demand is a lengthy, deep-sided pig which will grow rapidly while young and will attain a weight of from 150 to 175 pounds at six to eight months old. To attain this weight and the desirable quality he must be fed a variety of food of flesh-forming properties, such as milk, whey, shorts, barley, peas, oats, wheat, etc., with a run on clover in summer and roots supplied in winter, together with free access to such condiments as a mixture of wood ashes, sulphur and salt, and a shovelful of earth from the root cellar occasionally. As to the best means to adopt to bring one's pigs to the standard required there may be room for difference of opinion, as most men have their own ideas of the merits of different breeds; but it is safe to say that no one breed has a monopoly of all the good qualities which go to make the ideal bacon hog. If it is purposed to breed and keep pure-bred hogs the first essential is to secure a sow of the desired type, with good length and depth of body, strong, flat bone, standing straight on her toes, having a quiet disposition, and at least twelve teats, even in size, placed equidistant apart and commencing as near the fore legs as possible. The fact that the produce of a boar may and often does amount to hundreds of pigs in the course of a few months makes it essential that care should be taken in his selection and in the study of the character of his forebears. To this end it is preferable as a rule to look for him in the herd of a breeder of long-standing and good repute, and if you are not a judge explain your wants fully and trust him to supply what you need. The oft-quoted remark, "the bull is half the herd," applies with even greater force in the case of a boar in a herd of swine, and it is essential that as many good points as possible should be combined in a stock boar. The first essential is that he should be pure bred, and in order to this he should be registered, and if descended from an old established herd all the better, for the reason that in a newly established herd, even though the owner may have won prizes with his pigs at recent shows, a great variety of type is likely to be found, and more frequently than not the prize animals may not have been bred by the owner, but bought from

several herds of greatly varying type, and their produce when bred together will often be unlike their parents or each other. Here again comes up a point of importance to the beginner who hopes to found a herd good enough to take a high position: it is to select the boar from the same herd for a lengthened period in order to secure uniformity of type. Young breeders are apt to get the idea that by selecting a boar from each of a number of leading herds in succession they will combine the best points of all, but in actual practice this will in most cases end in partial failure: the stock bred will lack uniformity—some points will be abnormally developed while strong failings will be equally noticeable.

The essential points to be sought for in a stock boar are a compact frame, as long and deep as possible consistent with strength, a wide chest and good heart girth, but fine and smooth in shoulders, straight top line, well-sprung ribs, deep flanks, strong loin, hams wide and deep, twist full and well fleshed down, legs strong, straight and well placed, bone fine and of good texture, neck muscular, head of medium size, wide between the ears and eyes, sexual organs well developed, hair straight, fine, and silky, skin free from wrinkles and smooth and elastic to the touch, and his temper should be good, for a vicious boar is an intolerable nuisance and a constant source of danger, and is liable to transmit this meanness to his produce, which are apt to prove restless, unsettled, and slow feeders. Mere size should not be considered a strong point unless it is combined with compactness and fineness and strength of bone and feet. A very large boar is liable to suffer from weakness of the spine or hind quarters and is frequently weak in his joints, and these failings are hereditary. Weakness of fetlocks and roundness of bone, qualities which are specially to be avoided in a sire, are frequently combined with great size. A

their getting too fat, which is liable to bring on "thumps" or congestion. Those intended for breeding purposes should be allowed freedom for exercise all the days of their lives, and should be fed moderately, while those intended for the butcher at an early age may be pushed on from their birth, always remembering that they too in the first weeks of their lives need exercise for the development of bone and muscle in order to stand the pressure of heavier feeding in the preparation for market.

To the average farmer who does not aspire to be a breeder of pure-bred pigs, but merely to raise stock for feeding for the market, we would say improve the stock you now have by the use of a pure-bred boar as near the type demanded by the market as you can get, and continue to use a boar of the same breed, selecting the best of your sow pigs for breeders. Do not be deluded into the idea that by using a boar of first one breed, then one of another breed, you can combine the good qualities of all and produce a model hog. Such a course will surely land you in chaos, producing a mongrel and nondescript stock, lacking in uniformity of type and appearance, and in every way unsatisfactory.

Good results are frequently met by crossing two breeds for the production of feeders, the first cross of the Berkshire with Tamworth or large Yorkshire, for instance, and this we would not by any means discourage where the whole of the produce is disposed of to the butcher, but let no one imagine that he can breed these cross-bred pigs together with any degree of certainty that a uniform type of offspring will result. It is only by long years of patient experimenting and close selection and culling, and that by men of genius, that breeds are established. One in a million—once in a generation—may succeed in the attempt, but the average mortal had better conclude that life is too short for such a work.

Experience in Feeding Working Horses.

To the Editor FARMER'S ADVOCATE:

SIR,—In your issue of 16th August I was interested in an address given by Prof. I. P. Roberts to agricultural students of Cornell University on Care of the Horse. The lecturer must have surely stretched a point in that part of his discourse where he maintains "a horse should be fed four times daily, and half the feed should come after six o'clock at night."

From a practical experience this would be a mistake. Horses in work (I take for granted the Professor is speaking of such) should not receive their heaviest feed at night, but their lightest. The reason being, the horse is necessarily tired with the day's labor, his digestive organs are affected, and when in that condition a heavy feed at night either does him little good or serious injury; colic, congested lungs, bowel complaint will arise from it. Our lorry and van horses are fed their heaviest feed (whole oats) in the morning, medium feed at noon and lightest feed at night after six o'clock, and a case of colic is of rare occurrence since this system has been in force.

WM. HENDRIE, JR.
Manager for Hendrie & Co., Limited,
Cartage Agents for G. T. Ry. System
of Canada.
Hamilton, Ont., Aug. 21st, '97.

Crossing Buffalo with Domestic Cattle.

In Hoard's Dairyman an account is given of the experiments conducted by Mr. Charles Goodnight, Clarendon, Texas, during the past 17 years in crossing the buffalo with domestic cattle. In 1879 he secured four buffalo calves and now has 36 head of pure-bred buffaloes.

Among the somewhat curious results he has obtained are the following:

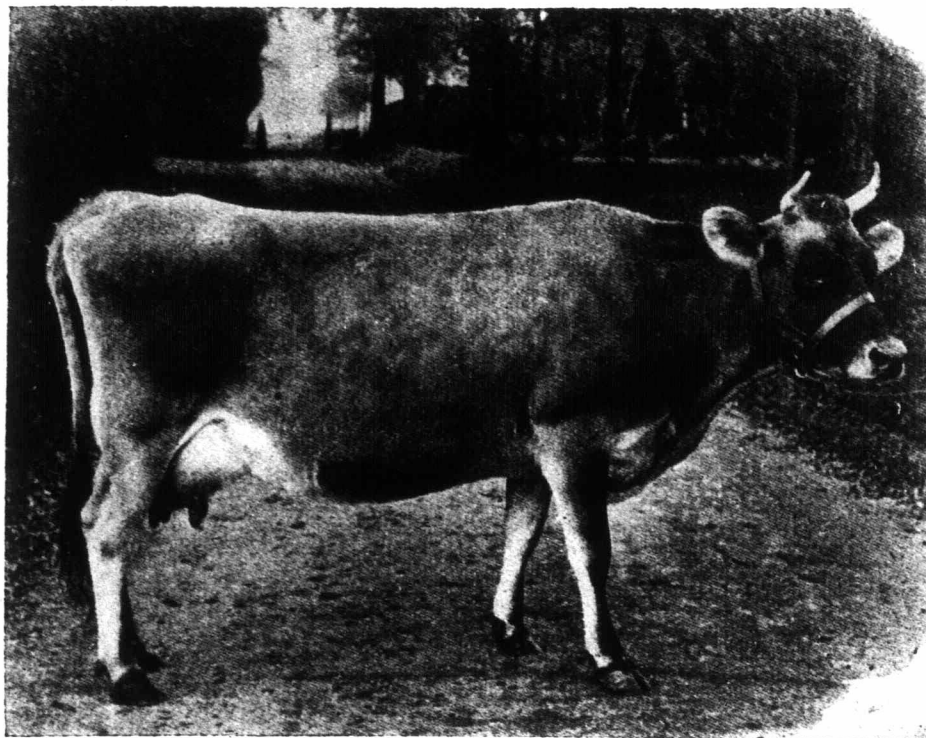
He has never succeeded in getting the buffalo to cross with any breed of cattle save the native Texas cow, the Galloway, and the Polled Angus.

The half-breeds from the Galloway are hornless, thus showing the strong prepotent power of the Galloway blood. This cross, however, proves very uncertain. With the Polled Angus the cross is far more certain and satisfactory. A strange feature is that with this breed all of the calves of the first cross are heifers. Mr. Goodnight has never yet succeeded in getting a bull calf from the first cross. The half-bred Polled Angus heifers breed every year, whereas the buffalo cow breeds only every second year.

When the half-bred cows are mated with a pure-blood buffalo bull male calves are often the result; but every three-quarters male thus obtained has proved barren (sterile), though the three-quarters heifers breed readily. It is evident from this that no hybrid of these two breeds can ever be obtained any more than between the ass and the horse.

Good Time for Agents.

The fall fair season is a most favorable time to secure new subscribers to the FARMER'S ADVOCATE. Write for terms.



[From "Cattle—Breeds and Management," by Vinton & Co., London, England.]

JERSEY COW, OPALE, THE PROPERTY OF DR. HERBERT WATNEY.

medium sized, compact boar, heavy in the hind quarters and light in the fore quarters, will generally prove fruitful for a much longer time than a heavy-shouldered, coarse-boned hog, and his produce will have stronger constitutions and prove more kindly feeders.

As to the age at which pigs should be mated for breeding there may be room for difference of opinion; but, as a rule, where they have been liberally fed and well developed for their age, they may be safely put to breeding at eight to nine months old, so that the sow may produce her first litter at about a year old. Presuming that she was born in March or April, she may be bred in December or January for her first litter, and should not be required to raise more than one litter the first year, but allowed to rest and grow during the summer. After this, if desired, she may raise two litters a year, which should come in March or April and in September or October for best results, as late fall pigs are liable to get stunted and do not generally go on to make rapid growth or give a good return for the food they consume, since they cannot in winter get sufficient exercise to strengthen their bone and give the vigor of constitution necessary to stand heavy feeding. The brood sow should have the run of the barnyard in winter while in farrow, so as to get sufficient exercise, to which she should be induced, if need be, by feeding her at some distance from her pen, or by scattering part of her feed, such as peas or corn, so that she will have to work for it. The young pigs from the time they are a week or two old should be allowed to run out in the sunshine on fine days as well as the sow; and if this is not practicable, should be moved around in the pen for exercise, to give circulation to their blood and strength to their bone, and prevent

Sea Gem, Champion Shorthorn at the Royal of 1897.

The Shorthorn heifer, Sea Gem, calved in 1895, by Liberator, out of Sea Pearl, by Commander, portrayed below, was regarded as probably the most successful animal in the Shorthorn section at the last English Royal Show. She had much style and sweetness of character, with substance and wealth of flesh. She was bred and owned by Capt. W. H. O. Duncombe, Waresley Park, Sandy. Our engraving is reproduced from the *Agricultural Gazette*.

The Montreal Exhibition.

The early date fixed for the Montreal Exposition, together with the lateness of the harvest and a downpour of rain on the morning and at intervals during Wednesday, one of the days on which the best crowds are expected, had a rather depressing effect on the attendance, to put it mildly. Indeed, there was really no crowd, and the gate receipts must have been very slim. This is to be regretted, for the officers of the show had worked hard and made every effort in their power to make the show a success. The live stock features of the exhibition were by no means disappointing, most of the classes being fairly well filled, while the classes for dairy cattle were strong, that of

AYRESHIRE

being especially heavy. Visitors to this exhibition in former years as well as this are agreed that at no similar event at any place on the continent can such an aggregation of high-class Ayrshires be seen as at the Montreal Exposition. Mr. F. A. Lovelock, of Lynchburg, Va., judged this class as well as the Holsteins, and evidently made careful and critical examinations of the animals in competition, and while failing, as all judges do, to please everybody, he made, especially in the female sections, fairly good work, while in the bulls he probably made some rulings which were open to criticism, to say the least, and which some acknowledged judges could not endorse and would not subscribe to. The rule adopted here, for the first time to our knowledge at the larger shows, of showing for the herd prizes before the competition in the sections by ages instead of after, may be an improvement, though of this we have doubts, where the judge knows his business. The advocates of this new departure claim that in the usual way the herd prize is awarded on the basis of the prize tickets a man can show at the close of the class competitions rather than on the individual excellence of the animals, some of which may not have been brought into competition in the class examinations.

In this case eight herds, each composed of one bull and four females, faced the judge at the outset, a formidable phalanx of forty animals, every one of which must be critically examined individually by the judge before he could give a decision. Under such circumstances it is no wonder that exhibitors and attendants, as well as on-lookers, experienced a somewhat tired feeling before the examination closed, and the latter a feeling of disappointment when the results were not proclaimed in the usual way by the immediate presentation of prize tickets, but withheld till the following day. The interest in this contest was heightened by the fact that the first prize was a substantial one of \$100 cash, presented by W. W. Ogilvie, Esq., Montreal, for the best Ayrshire bull and four females. The competitors for the herd prizes were R. G. Steacy, Lynn, Ont.; D. Drummond, Petite Cote, P. Q.; W. Wylie, Howick; R. Robertson, Compton; R. R. Ness, Howick; J. N. Greenshields, Danville; Dawes & Co., Lachine; and Jas. Johnston, Como. The rating of the judge placed them in the following order: 1, Steacy; 2, Wylie; 3, Drummond. It is safe to say there was not a third-class herd in the lot, and it must have puzzled the judge to make his selections from such uniform collections. The call for aged bulls brought out seven contestants, viz.: Drummond's three-year-old Glencairn of Maple Grove, imp. in dam by Mr. Steacy, a son of Irene; Drummond's four-year-old Kelso Boy, of his own breeding; a son of Silver King and Maggie Mitchell; Steacy's imp. Carlyle of Lessnessock, hero of many a well-fought field; Wylie's three-year-old Lord Sterling; Greenshield's three-year-old Prince Charlie, and Derby; Johnston's three-year-old Prince Henry of Barcheskie. The five prizes were awarded in the order in which we have named them, a decision which did not meet with unanimous approval. Many good judges would have reversed the order of the first three, while others would have said let the third be first and the first be third, which in our opinion would have been right; but when doctors disagree who shall decide. This much is certain, they are all A 1. In two-year-old bulls there were six competing, including Mr. R. Robertson's Matchless, by Glencairn and out of the World's Fair winner, Nellie Osborne; Steacy's Sensation, imported in dam; Greenshield's Isaleigh Charlie; Mrs. Black's Beauty Style of Burnside; and Howden's Silver Prince, a grandson of Silver King. The contest for first place was evidently between the two first named and many would have placed them in that order, but both are of a high order of merit, having fine dairy points and much quality. Sensation was finally given first honors, and Matchless second, the third place being given to Mrs. Black's entry. There were seven yearling bulls in the competition, a uniformly good lot. First prize went to

Dawes & Co. for Jerry of Lachine, second to the Charlemagne Lumber Co. for Royal Star, and third to Steacy for Riscom. Bull calves over six and under twelve months made a good ring of seven entries, and the first prize went to Steacy's Son of Carlyle, second to Reid & Co., Ottawa, third to Wylie, fourth to Dawes & Co. Bull calves under six months numbered ten, and Mr. Wylie got first place for a very good one, followed by Mr. Drummond for second, Benning third, and Wylie fourth. The sweepstakes for best bull any age went to Mr. Drummond for the first prize aged bull, Glencairn of Maple Lodge. The Ayrshire cows are always the great feature of the Montreal show, and this time a string of over thirty stood in line, every one of which would rank well up to first-class, and they made a sight to delight the eyes of a lover of dairy cows. An enthusiast remarked that it reminded him of the "milky way." Many of the cows would have been more interesting if they had been fresh in milk, for a dry cow, no matter how great her capacity as a milker may be, has little chance in the competition with one fresh and full of milk. Among those which were likely to be in the prize list was, of course, the ten-year-old matron, Nellie Osborne, and Mr. Steacy's May Queen. The former, being dry or nearly so, did not show to advantage, but her great depth of body and consequent capacity for work, her prominent milk veins and well-formed udder, could not be passed by; while May Queen, being comparatively fresh and full of milk and not fleshy, but in ideal working order, with her shapely and well-proportioned udder and fine dairy conformation, making her very attractive; she fell into first place without a struggle, followed by Nellie Osborne, Steacy's beautiful and shapely Wylie 2nd taking third place, and a rich and rare good cow shown by Dawes & Co. being rated fourth. She must have been hard to pass by, but among so many good ones it is hard to choose. Three-year-old cows made a very strong class and must have been difficult to place, there being so many good ones, but Steacy again got to the fore with Beauty of Tana, and had also second place with Clementine; Mr. Drummond coming in a close third with Baby Ruth, and

while his fine dairy conformation is almost beyond criticism. Mr. Ferland's entry, an excellent animal and a good specimen of the breed, was placed second. In the ring for two-year-old bulls a worthy winner was found in Rice's entry, McGerrigle Bros. furnishing a good second, and Doig a creditable third. In yearlings, Gilroy's well-developed and typical bull captured the first prize, and Rice's entry made an excellent second. In a good ring of bull calves Gilroy won first, Rice second, and Sangster third. The competition in the ring for cows four years and upwards was very interesting, since it included such notable numbers as Gilroy's Carmen Sylvia, sweepstakes winner of last year, fresh in milk, presenting a wealth of udder development seldom excelled; Rice's old-time champion, Eunice Clay, dry, but rich in the indications of capacity for work, which she has demonstrated in the past by a record of 84 pounds; Calamity Jane, of the same herd, with a record of 70 pounds a day, heroine of the crucial test and champion winner at the Dominion Dairy Show for two years past; and Daisy Jewel 2nd, another of the Rice herd, fresh and full of milk, with a shapely and well-proportioned udder and fine dairy formation; and Gilroy's milky Erie Belle, carrying a model vessel. Carmen Sylvia by consent took first place, followed by Erie Belle for second and Daisy Jewel for third. Calamity Jane had been milking eleven months and could not show her udder to advantage or she would no doubt have ranked higher in the rating, but her reputation is too well established to suffer by a temporary setback. In a good ring of three-year-old cows Gilroy's Sady's Teake's Tyrannia Queen was crowned the winner, and Rice's Daisy Jewel's Olive second, Gilroy's Iona taking third place. The first prize two-year-old heifer was a milky daughter of Carmen Sylvia from the Glen Buell herd. The Rice heifer, Tirania Bell, was given second place, and Gilroy's Flamboro Castine Queen, third prize. In a fine class of yearling heifers a creditable first was found in Rice's Daisy Texal 2nd, but her stable companion, Lucky Jane, daughter of Calamity Jane, might well have been given the place her name would seem to claim as an offset to that of her misnamed mother. The family fame was, however, redeemed in the ruling in the cow calf class, by which Pauline Jane, another daughter of Calamity Jane, came to the front on her merits, as indicated by remarkable udder development and richness of secretions, which point to a promising future. The sweepstakes for best female was won by Carmen Sylvia, the first prize cow. And the championship for bulls went to the same herd for aged bull, Inka Kathleen's son. The exhibitors' herd prizes were allotted in the following order: First, Gilroy & Son; second, Rice; third, Ferland. Breeders' young herd: First, Rice; second, Gilroy.

JERSEYS

This class, which was judged by Mr. Peer, Mt. Morris, N. Y., was well filled by selections from the four well-known herds of B. H. Bull & Son, Brampton, Ont.; R. H. Pope, M. P., Cookshire; Dawes & Co., Lachine, and F. S. Wetherall, Cookshire. The latter exhibitor showed nine head, and won premier place in the class for aged bulls with Hobart of St. Lambert, a richly-bred and finely-formed fellow showing much character and finish, though many good judges thought Bull's Kaiser Fritz, having all these qualities, plus a stronger constitution and greater substance, should have topped the class instead of being turned down to second place. In two-year-old bulls Mr. Pope's entry had pride of place, and Dawes & Co. a good second. Mr. Pope had also the first prize yearling bull, and Mr. Wetherall a very good second in Pride of Cookshire. The same exhibitor had the first prize heifer calf, a handsome silver gray of pleasing promise. The Brampton herd furnished the first prize bull calf and champion of his class in Sir Brier of Brampton, a handsomely-formed and rich-colored son of Sunbeam of Brampton, the first prize three-year-old cow and sweepstakes female of the class, a typical dairy cow, rich in her secretions and carrying an ideal milk vessel, and an unbroken record as a premier prize winner in many contests. In the cow class, Rhoda of Brampton, a model to go by in the selection of a worker, with a shapely udder and well-placed teats, won first honors. Two-year-old heifers were a strong class, and the Brampton contingent contributed the first and second prize winners in Lisgar of Brampton and Jetsam's Molina, the latter the first prize yearling at Toronto last year and a daughter of imported Jetsam from the Island. The same exhibitors won in the yearling heifer class with Trilby and Laurel of Brampton, first and third respectively, Mr. Pope intervening with a worthy second. In an exceptionally good ring of heifer calves the prize list was perplexing to spectators, but the judge doubtless had his reasons with him when he ranked them as: First, Wetherall; second, Bull & Sons; third, Dawes & Co. The Brampton firm won both the exhibitors' herd prize and the breeders' herd prize.

GUERNSEYS

were out in greater force and in a higher order of merit than they have been in Canada up to date, every section in the class being well filled with selections from the herds of Hon. Sydney Fisher, Knowlton; W. H. & C. H. McNish, Lynn; R. H. Pope (M. P.), Cookshire; Wm. Butler & Sons, Dereham Centre, and J. N. Greenshields, Danville, P. Q. In the class for aged bulls Mr. Greenshields won first honors with a bull of fine dairy qualities, rich color and strong constitution. The same animal was later awarded



SHORTHORN HEIFER, SEA GEM.
WINNER OF 1ST AND CHAMPION SHORTHORN AT THE MANCHESTER ROYAL, 1897.

Mr. Wylie fourth. In two-year-old heifers, which were also a strong class, Mr. Johnson, of Como, Que., got the premier place, followed by Mr. Wylie for second, and R. Robertson for third. In yearling heifers there was a great show, eighteen being in the competition and a large proportion of them high up in merit. The first prize went to Drummond for a daughter of Silver King and Burnside Lass; second to Wylie, third to Steacy, fourth to Greenshields. Heifer calves over six and under twelve months made a splendid showing and were well topped by Drummond's only daughter of the famous Nellie Osborne by Glencairn, a second edition of her dam and one which we predict will take her place in the cow class some day if the indications are realized. The same exhibitor had the second prize calf, and Mr. Wylie came in for third, followed by Mr. Greenshields for fourth and fifth. Heifer calves under six months were an interesting ring of seven, in which Mr. Johnston came in for first prize, followed by Robertson, Drummond, and Ness, in the order named. The sweepstakes for best female any age was won by Steacy's first prize cow May Queen. The gold medal presented by the Ayrshire Importers' and Breeders' Association of Canada for the best four animals, the progeny of one sire, was won by Mr. D. Drummond for the get of Silver King.

HOLSTEINS

The Holstein class was well filled, with representatives from the herds of C. J. Gilroy & Son, Glen Buell, Ont.; A. & G. Rice, Currie's Crossing, Ont.; McGerrigle Bros, Orms-town, P. Q.; John Doig, Lachute; Neil Sangster, Orms-town; and Jas. B. Ferland, Three Rivers. The quality of the animals exhibited was generally good, while a large proportion were of a high order of merit, and nearly all were brought out in fine condition. Mr. Lovelock made the awards. In aged bulls, Gilroy's well-known and ever-popular five-year-old Inka Kathleen's son was by common consent allotted premier honors, and also won the sweepstakes medal for best bull any age. He comes out this year in splendid bloom, and carries his great weight easily,

the championship in bulls of his class. Butler & Sons had a good second in the section for aged bulls, and Mr. Fisher a creditable third. In the section for two-year-old bulls McNish scored first with a bull of much merit, and Mr. Pope a good second. In yearling bulls Butler & Sons got premier place with a capital young bull, Mr. Fisher being second. In bull calves Mr. Greenshields again came to the front, and had also the second prize winner. In a strong class of cows McNish won with a handsome and useful-looking cow, having a model shaped udder and well-placed teats. Greenshields had a worthy second, and Mr. Fisher's entry, a cow of fine type, was placed third. In two-year-old and also in yearling heifers Butler & Sons' scored first, followed by Mr. Fisher in the former class, and by himself in the latter. The herd prizes were awarded before the classes were judged and were placed as follows: Butler & Sons first, Greenshields second, Fisher third. In the competition for breeders' young herd the order was made: Greenshields first, Fisher second, McNish third. Messrs. McNish's first prize cow was given the sweepstakes as best female in the class.

SHORTHORNS.

The beef classes were not well filled as to number of entries, though some of the breeds were well represented by selections from one or more high-standard herds. They were judged by Mr. R. Gibson, Shorthorns were shown by W. C. Edwards & Co., Rockland, Ont., who showed a dozen choice youngsters a year old and under; J. & P. Crerar, Shakespeare, Ont.; Wm. Oliver, Avon Bank, Ont.; W. P. McClary, Compton, and Chas. Robinson, Odelltown, Que. The last-named exhibitor was awarded first prize for three-year-old bull, and Mr. McClary second for two-year-old ring with his imported white Duthie-bred bull, from the herd of Mr. Dustin, Summer Hill, Illinois, though he was under the age for the class and showed against much older bulls. He is a bull of good form and quality and it fitted in higher condition would be hard to beat in any company. Crerar had the first prize yearling bull in Scotsman 2nd, a good, thick, blocky fellow, sired by Scotsman, a son of old Bampton Hero, and out of a Missie cow. The Rockland herd captured all the prizes for bull calves, and the first prize calf was considered good enough to be ranked as the champion bull of the class. He is a lowset, thick-fleshed youngster, brought out in fine condition, as were all the exhibit from this herd. The second prize calf, a roan son of Bessie of Rockland, sweepstakes cow at Toronto last year, and own brother to the first prize bull calf at the same show in '96, is a very close second, being very smooth and evenly fleshed. Mr. McClary won third prize for yearling bull and third for aged cow; Messrs. Crerar winning first in the cow class with Indian Princess, a granddaughter of Indian Chief, and second with Ruby Hill 3rd; also first and second for two-year-old heifer and for yearling heifers, and second for heifer calf; Mr. Edwards taking first place. Messrs. Crerar also won the three herd prizes offered, namely: Exhibitor's herd, breeder's young herd, and the special herd prize by the Dominion Shorthorn Association, Messrs. Edwards & Co. taking second in the two latter. Mr. Crerar won sweepstakes for best female.

HEREFORDS.

The Province of Quebec now takes the lead in this breed of cattle. Three herds, those of Messrs. H. D. Smith and Guy Carr (Compton) and D. M. Wilson (Moe's River) contributed to the show. Mr. Smith's herd was as usual brought out in blooming condition, and reflect great credit on his capable herdsman, as they are not only in first-class show condition, but have not been overdone, being strong and straight in their legs and evidently in perfect health, as well as being regular breeders, as attested by their produce, living and thriving as they are. Mr. Smith has shown his firm faith in the merits of Herefords as beef producers by investing largely in the importation of fresh blood the present year, his new importations being now in quarantine at Quebec. At the head of his herd stand two bulls of extraordinary merit—Amos and Sir Horace, the former winner of first prize and sweepstakes here, carrying a weight of 2,200 pounds in his four-year-old form. He is a remarkably smooth and level bull, well filled in all good points, with extra long, level quarters, long thighs, and broad and full twist, with fine handling qualities and straight, strong limbs. His first prize two-year-old bull Sir Horace, bred by Mr. Sotham, Chicoutte, Mo., weighing 1,500 pounds, is a model in form, and shows every indication of a strong constitution and masculine character. He is remarkably full in his crops and fore flanks, and has a strong, muscular neck, with handsome crest, and is proving an impressive sire, his calves coming robust and very uniform in quality. The first prize cow, Lady Tushingham, now eight years old, has held her place as a first prize winner for several years and has been a regular breeder, having produced a calf in April last and being well on in calf again. She is a grand representative of the breed, carrying a wealth of natural flesh, smoothly laid on and evenly distributed, and moving freely with her weight of 1,900 lbs. Her stable companion, Spot 3rd, and her three-year-old daughter were awarded the second and third prizes respectively, and are well up to the standard of A 1 in every respect. The first prize two-year-old heifer, Jessie, from the same herd, is wonderfully developed for her age, having all the appearance of a mature cow and being full in all desirable qualities. The first prize yearling heifer was also found in this herd, and the sweepstakes for best female was won by Lady Tushingham. Mr. Smith won the first and second prizes in the herd competition. Mr. D. M. Wilson showed a useful herd in work-a-day condition, headed by the excellent four-year-old bull Earl Douglas, winner of second prize in his class. Mr. Wilson also won first prize for yearling bull with Mount Royal (born on the show grounds here last year), first for bull calf, second for yearling heifer, first for heifer calf, and third for herd. Mr. Carr won third prizes on three-year-old bull, bull calf, yearling heifer, and heifer calf.

POLLED ANGUS.

There was keen competition in this class, three excellent herds being represented. The exhibitors were Walter Hall, Washington, Ont.; R. H. Pope, M. P., Cookshire, and D. M. Wilson, Moe's River. Mr. Hall won first prize and sweepstakes with his grand old bull, Lucretius, a magnificent specimen of the breed, carrying great thickness of flesh, smoothly distributed. The same exhibitor had the first prize yearling bull, bull calf, three-year-old cow, two-year-old heifer, and the sweepstakes bull, Lucretius, and sweepstakes female, Lady Aberdeen, the first prize three-year-old cow, a very smooth and symmetrical animal. Mr. Pope had the first prize two-year-old bull, first prize cow, an extraordinary good one, and a strong competitor for the sweepstakes. The first prize heifer calf and second prize yearling heifer were also found in his herd. Mr. Wilson won second prize for aged bull, third for yearling bull, third for three-year-old cow, second for two-year-old heifer and first for yearling heifer. The exhibitors' herd prizes stood: First, Hall; second, Pope; third, Wilson. The breeders' young herd prize was won by Mr. Pope.

GALLOWAYS

were represented by the well-known and always strong herd of Col. D. McCrae, Guelph, who was awarded all the prizes he entered for, and who would at any time prefer to meet a foeman worthy of his steel. His cattle are strong in all the best qualities of the breed, showing evidence of a robustness of constitution on which one can readily believe that tuberculin would fail to "fizz," and on the administering of which we judge he might safely experiment.

Mammoth Oxen.—An interesting feature of the fair was a pair of mammoth Holstein-Friesian oxen, shown under canvas by Mr. J. D. Avery, Buckland, Mass. They were purchased by the present owner four years ago in Massachusetts, the dam of one being imported with a milk record of 85 pounds per day. Little is known of the breeding of the other, except that it is claimed he is purely bred. They stand 17 hands high, girth 10 feet, are 15 feet 11 inches in length, and in present form before they left home they weighed 7,300 lbs. and stand exceptionally well on their feet. Mr. Avery says when at home they are regularly worked on the farm, and have a record for draft of hauling 11,061 lbs. dead weight on a dray, which is claimed to be the record for draft of this nature.

SHEEP.

The exhibit of sheep in most of the classes was very good. Some of the classes were not well represented, while in others competition was close and strong. Mr. H. Gibson judged the longwools.

COTSWOLDS.

The exhibitors in this class were A. J. Watson, Castlederg, Ont.; Chas. Robinson, Odelltown, Que.; Delphis Turenne, St. Denis St. Norbert; Clovis Ouimet, St. F. de Salles; and Arsene Denis St. Norbert. Mr. Watson makes his bow to the public for the first time with a high-class exhibit of Cotswolds which he has recently imported, comprising selections from several of the leading flocks in England, and including a number of prize winners at the Royal and other leading shows in the Old Country. They are a magnificent collection, strong in all the good points of the breed, and brought out in fine condition, winning all the 1st prizes in the sections in which they were entered, as well as the open-to-all flock prizes and four 2nd prizes. His record of ten prizes for ten entries is a good one to start with. Mr. Robinson exhibited a very useful lot of nine head, showing strong breed character and good quality, and in good trim, healthy, but not being fitted up in the flesh condition of the imported animals, he had to be content to take the lower lines in the prize list where they came in competition. His winnings were 1st and 3rd for aged ram, 3rd for ram lamb, 2nd for aged ewes, 2nd for shearing ewes, 3rd for ewe lambs, and 1st and 2nd for Province-bred flock, a very good record. Mr. Turenne got 3rd prize for two-year-old ram, and 3rd for yearling ewes, and Mr. Denis 3rd for two-year-old ewes and for pen of Province-bred sheep.

LEICESTERS

were shown by John Kelly, and W. A. Rennie, Shakespeare, Ont.; David Baxter, North Georgetown; P. Patenande, St. Remi; and D. Turenne, St. Paul l'Hermitte. The Ontario exhibits were brought out in high-fitted condition, and won all the prizes competed for. Mr. Rennie showed an uncommonly good pair of yearling ewes, one of which is extraordinary in the completeness of her make-up, being wonderfully developed in all points of excellence, and showing fine quality, as well as great size and perfect symmetry. The 1st and 2nd open flock prizes were awarded to Rennie, and the Province-bred flock prize to Baxter, who also won 1st on two-year-old ram, 3rd on two-year-old ewes, ewe lambs, and open flock. Patenande scored 2nd for two-year-old ram, 3rd for yearling ewes, and 2nd for Province-bred pen. Turenne got 3rd prize for aged ram, 2nd for two-year-old ewes, and 3rd for Province-bred pen.

LINCOLNS

were shown by Wm. Oliver, Avonbank, Ont., and Clovis Ouimet, St. F. de Salles. Mr. Oliver's sheep were a strong lot, well brought out, and won all the first prizes he competed for. Mr. Ouimet's were in everyday condition, but showing good quality, and he secured 2nd prize for two-year-old ram, 3rd for yearling ram, 3rd for aged ewes and yearling ewes, and 1st and 3rd for Province-bred pen, for which Arsene Denis won second prize.

SHROPSHIRE.

In this class the exhibitors were Robert Miller, Brougham, Ont.; Alb. Chartier, St. Paul l'Hermitte; and Robert Roy, Ormstown. Mr. Miller's exhibit was entirely made up of recently imported animals selected by himself from leading flocks in Britain, and including a number of the prize-winning animals at the Royal and other principal shows in England, among which is the famous three-year-old ram Darlington 8470, 1st and champion at the Royal of '95, and sired by the great winner and breeder Montford Dreamer. Mr. Miller has also in this importation the 2nd prize yearling ram at the Shropshire and West Middlesex Show this year, the only time shown; one of the 1st prize pen of ram lambs at the Royal of '97, three of the yearling ewes in the 1st prize pen at the Royal this year, two of the 1st prize pen of ewe lambs at the same show, and four of the 1st prize pen at the Shropshire Show. These make up a very strong string to enter on the show circuit for the season and will no doubt hold their own in any competition they are likely to meet. Mr. Miller won all the prizes he competed for here, including 1st and 2nd for flock, open to all. Mr. Roy won 2nd prize for shearing ram, 3rd for ram lamb, 2nd for aged ewes, and 2nd for Province-bred pen. Mr. Chartier got 2nd prize for aged ram, 1st for aged ewes, 3rd for shearing ewes and 1st for Province-bred pen. Mr. Lovelock judged in this class.

HAMPSHIRE.

were shown by John Kelly, Shakespeare, Ont., who had out a really good lot of 10 head in fine condition, several of them being imported animals from the flocks of Mr. Hobbs, Lord Rothschild, and other noted breeders. Mr. Kelly of course had all the prizes he entered for.

OXFORDS

were exhibited only by E. C. Brosseau, Brosseau Station, Que., who was awarded 1st prize for shearing ram, 1st for shearing ewe, 1st for ewe lamb.

SOUTHDOWNS

were represented by exhibits from the flocks of Senator Drummond, Beaconsfield; Guy Carr, Compton; F. S. Wetherall, Cookshire; Robert Shaw, Glanford Station, Ont.; and Robert Miller, Brougham, Ont., who showed a very fine imported shearing ram, and won 1st prize with him. Mr. Shaw had a very good exhibit, and secured 1st prize on two-year-old ram, 2nd and 3rd on shearing rams, 1st and 2nd on ram lambs, 1st on aged ewes, 1st and 2nd on yearling ewes, 1st on ewe lambs, 1st and 2nd on flock. Mr. Drummond secured 2nd prize for aged ram, 3rd for ram lamb, aged ewes, ewe lambs, and flock. Guy Carr won 3rd for aged ram, 2nd for aged ewes, 2nd for ewe lambs, and 1st for Province-bred pen, Mr. Wetherall winning 2nd.

MERINOS.

The class for Merinos was well filled by three exhibitors from Ontario: W. M. & J. C. Smith, Fairfield Plains; Robt. Shaw & Sons, Glanford, and I. J. Shaw, Seneca, among whom the prizes were distributed, no doubt according to merit to the best of the knowledge and belief of the judge. I. J. Shaw got 1st prize for aged ram and for shearing ram. R. Shaw & Son were awarded 2nd prize for aged ram and for shearing ram, 1st for aged ewes, 2nd for shearing ewes, 1st for ewe lambs, and 1st for flock. Messrs. Smith took 1st prize for ram lamb, 2nd for aged ewes, 1st for shearing ewes, 2nd for ewe lambs, and 2nd for flock.

DORSET HORNS.

Mr. J. A. McGillivray, Q.C., Uxbridge, Ont., was the only exhibitor of this breed. He showed an exceptionally good lot, well up to the standard and in good condition, and captured all the prizes in sight—practically ordered the whole bill of fare. He is a modest man in John A. and is satisfied with all he can get when he goes to a fair.

FAT SHEEP.

There were only five entries in this class. Clovis Ouimet won for two-shear wether and ewe. I. J. Shaw took 2nd for two shear ewe, and 3rd for shearing ewe. The feature of the class was the imported Southdown yearling wethers shown by R. Miller, Brougham, Ont., who won 1st and 2nd prizes with them. They are model mutton sheep, full of first-class flesh, as firm as a board, and plump in all their parts. One is full brother to the sweepstakes winner at the Madison Square Garden Show at New York last year.

PIGS.

The swine department was fairly well filled. Some of the classes were very full of good things, others were lightly represented. Mr. Lovelock judged them.

BERKSHIRES

were not out in large numbers, there being no Ontario exhibitors out. The Quebec exhibitors were J. H. Lloyd, St. Lin; R. J. McNeil, Ormstown; Dawes & Co., Lachine; Wm. Armstrong, Lachute; Jos. Deland, L'Acadie; Arch. Muir, Huntington; A. F. Dawes, Lachine. Mr. Lloyd made a good showing, his hogs being large and of good quality. He won 1st for two-year-old boar, 1st for yearling boar, 1st for sow two years old, 1st for yearling sow, 3rd for sow and two of her produce, 1st for sow under six months, and 1st for herd, boar and two sows. Mr. McNeil showed a nice lot of young things showing good breeding and quality, and winning as his share of the prizes 2nd for two-year-old boar, 2nd for yearling boar, 3rd for boar six months and under twelve, 2nd for two-year-old sow, 2nd for sow under six months, and 2nd for herd. Mr. Muir got 1st prize for boar under six months, 3rd for yearling sow, and 2nd for sow under six months. Mr. Deland secured 2nd for boar six months and under twelve, 2nd for boar under six months, 3rd for sow under twelve months, 1st for sow under six months, and 2nd for herd. Mr. Armstrong got 1st place for his boar over six months and under 12 months.

IMPROVED YORKSHIRES.

This was a large and well-filled class; J. Featherstone, M. P., Streetsville, Ont., being a successful exhibitor; also J. N. Greenshields, Danville, Que.; J. H. Lloyd, St. Lin; College St. Laurent; R. E. Loiselle, St. Cesaire; Wm. Armstrong, Lachute; Alf. Gingras, St. Cesaire; and Theo. Trudel, St. Prosper. Mr. Greenshields made a good show, especially in the younger sections, and secured 1st for boar under six months, 1st for boar over six and under twelve, 1st for sow and three of her pigs. Mr. Featherstone made a strong show and captured 1st prize for boar over two years, 1st and 2nd for sows over two years, 1st and 2nd for yearling sows, 1st for sow under twelve months, 1st for sow under six months, and the herd prize for the best boar and two sows. Mr. Lloyd came in for 2nd prize for boar over two years, 2nd for sow under six months, 2nd for herd. Mr. Loiselle got four prizes; Mr. Gingras two prizes, including 2nd for sow and three of her produce; and Mr. Trudel won 2nd prize for sow under six months.

SUFFOLKS.

The competition in this class was not large, but there were some very good ones. J. Featherstone, J. K. Featherstone, and J. H. Lloyd were the exhibitors. The latter won 1st on boar under twelve months, 1st on sow under twelve months, and 2nd on sow under six months; the other 1st prizes were all taken by the Messrs. Featherstone.

TAMWORTHS

were out in goodly numbers, and some very large and good ones were shown by H. George & Son, Crampton, Ont.; Jas. Donaldson, Ormstown; and Chas. George, Avon, Ont. Mr. Donaldson won 1st for boar under six months, and 3rd for sow under six months; the Messrs. George winning the balance of the prizes, including the herd prizes.

POLAND-CHINAS

made a good showing, there being a fairly well-filled class, and the young things particularly good. The exhibitors were W. M. & J. C. Smith, Fairfield Plains, Ont.; J. H. Taylor, Richmond Station; and F. C. Taylor, Richmond, Que. The latter exhibitor had the 1st prize yearling sow and the 2nd prize yearling boar. J. H. Taylor secured 1st and 2nd prize for boars under six months, 3rd for two-year-old boar and two-year-old sow, and 2nd for sow under six months. Messrs. Smith won seven 1st prizes, six 2nds, four 3rds, and the herd prize for best boar and two sows.

CHESTER WHITES.

There was an excellent display in this class, including many animals of high-class merit. They were shown by Wm. Butler & Son, Dereham Centre, Ont.; H. George & Sons, Crampton, Ont., and E. C. Brosseau, Brosseau Station, Que.

LARGE YORKSHIRES, VICTORIAS, AND OTHER LARGE BREEDS constituted an omnibus class, or a sort of free-for-all, not otherwise provided for. Mr. Featherstone won the bulk of the 1st prize; Mr. Lloyd capturing 1st for sow under six months, 2nd for boar under six months, 2nd for sow, two-year-old sow, for yearling sow, for boar and two sows any age, and 1st and 2nd for Province-bred sow and her produce. Mr. Alderick Beaulieu, St. Laurent, won 1st prize for yearling sow.

DURHAM JERSEYS

were shown by Wm. Butler & Son, Dereham Centre; W. M. & J. C. Smith, Fairfield Plains, Ont.; and J. H. Taylor, Richmond Station, Que., who won 1st prize for boar under twelve months, and 3rd for sow under six months. Messrs. Butler captured seven 1st prizes, including the herd prize, also seven 2nd prizes and five 3rd prizes. J. J. Gareau, St. Roch, got 3rd prize for sow under six months.

(For Horses at Montreal Exhibition see page 381.)

FARM.

Protection from Lightning, and Homemade Rods.

To the Editor FARMER'S ADVOCATE:

SIR,—I must say I think you are doing a good work in bringing this matter so prominently before the farming community. If, as you request, I could contribute anything useful to its discussion I would feel honored and glad to do so. It seems, however, rather presumptuous to interfere in a discussion when experts have already given their opinion. It is true that I have given the subject some consideration and became so impressed with the utility and at the same time cheapness of such a rod that some 20 years ago I had rods such as described by Mr. Baty, but somewhat lighter, put up on our farm buildings, and I am convinced that on one occasion at least a charge of electricity was by one of the rods conducted safely to the earth without any damage to the building.

Mr. Dearnness seems to be doubtful as to the efficiency of the points. Mr. Baty does not say, but I suppose he filed each wire to a point. I did on mine.

I believe platinum points are preferred for two reasons: (1) that they will not oxidize, and (2) that they will not be liable to be fused by a heavy discharge. I have, however, seen a point on one of the first rods put up in this locality that was supposed to be tipped with platinum melted down two or three inches. I think that this kind of a rod has the advantage of having many points in place of one. Besides, I am not sure that a perfect point is a necessity. I have observed a great many cases of telegraph and telephone posts being split, and where evidently the electricity had passed along the wire for some distance. Now that wire had not been provided with a real point; the ends of the short wire attaching the main wire to the insulator would be the nearest approach to a point.

I agree with Mr. Dearnness that the cedar blocks might just as well have been dispensed with. He, however, seems to think that insulators are necessary and that the cedar blocks are not sufficient. I believe there is no need for insulators. The theory that I believe to be the correct one in regard to the phenomena of lightning and thunder is that they are occasioned by an unequal distribution of electricity among bodies in the same vicinity; e. g., one cloud becoming more heavily charged than another cloud, or than the earth. When such bodies approach each other there will be disturbance until equilibrium is restored by the body that is more highly charged parting with its surplus electricity to the other. If we could connect the highly-charged cloud with the earth by a good conductor equilibrium would be restored without any lightning or thunder; but in traversing the space between, the friction of the atmosphere with the fluid travelling at an inconceivable speed causes a blaze of light and the crash that we call thunder. Now, as we have no means of reaching the cloud with a conductor, we try to intercept the fluid before it reaches the building we wish to protect and lead it past as near as possible on a direct line from its point to the earth and giving it a good connection therewith. If these conditions are complied with, I have no fear that electricity once on the rod would leave it for dry wood or a dry brick wall, especially when the rod takes the direction the fluid would naturally take, so I have stapled the rods to the building, but each rod descends as direct to the earth as possible.

Another point where rods are liable to prove useless, and as Mr. Dearnness hints, may become a source of danger, is the ground connection. Mr. Baty's are certainly safe in that respect; that is, if the sand is always sure to be wet, but everyone cannot get a quicksand by boring eight feet. However, a good connection may be had in a clay subsoil by digging a trench deep enough to insure contact with clay that is always moist and burying six or eight feet of rod in it.

It would be an interesting enquiry if any considerable number of buildings supplied with rods have been struck with lightning. I know of only one instance, that of a near neighbor of mine who had his barn rodged with so-called copper rods. The barn was struck but not set on fire. It had quite a piece of the roof torn up and destroyed, especially along the ridge where a horizontal branch passed along. I think there were three points that were all joined into one ground rod,

About two feet from the ground the rod was burned entirely through and injured in other places.

JOHN W. ROBSON.
Middlesex, E. R., Ont., Aug. 13th, '97.

[NOTE.—With regard to the point raised by Mr. Robson, Mr. D. C. Macdonald, Manager of the London Mutual Fire Insurance Company, which carries farm risks amounting to the sum of \$15,000,000 annually, states that in the experience of over a quarter of a century only on about half a dozen occasions were barns struck that were protected with rods, and these were not burned; but the Company's actual losses from lightning averaged over \$25,000 annually during the past five years, a portion of this sum, however, being on live stock.—EDITOR.]

Rainfall, Tillage, and Stock the Secrets of Successful Crop Raising.

To the Editor FARMER'S ADVOCATE:

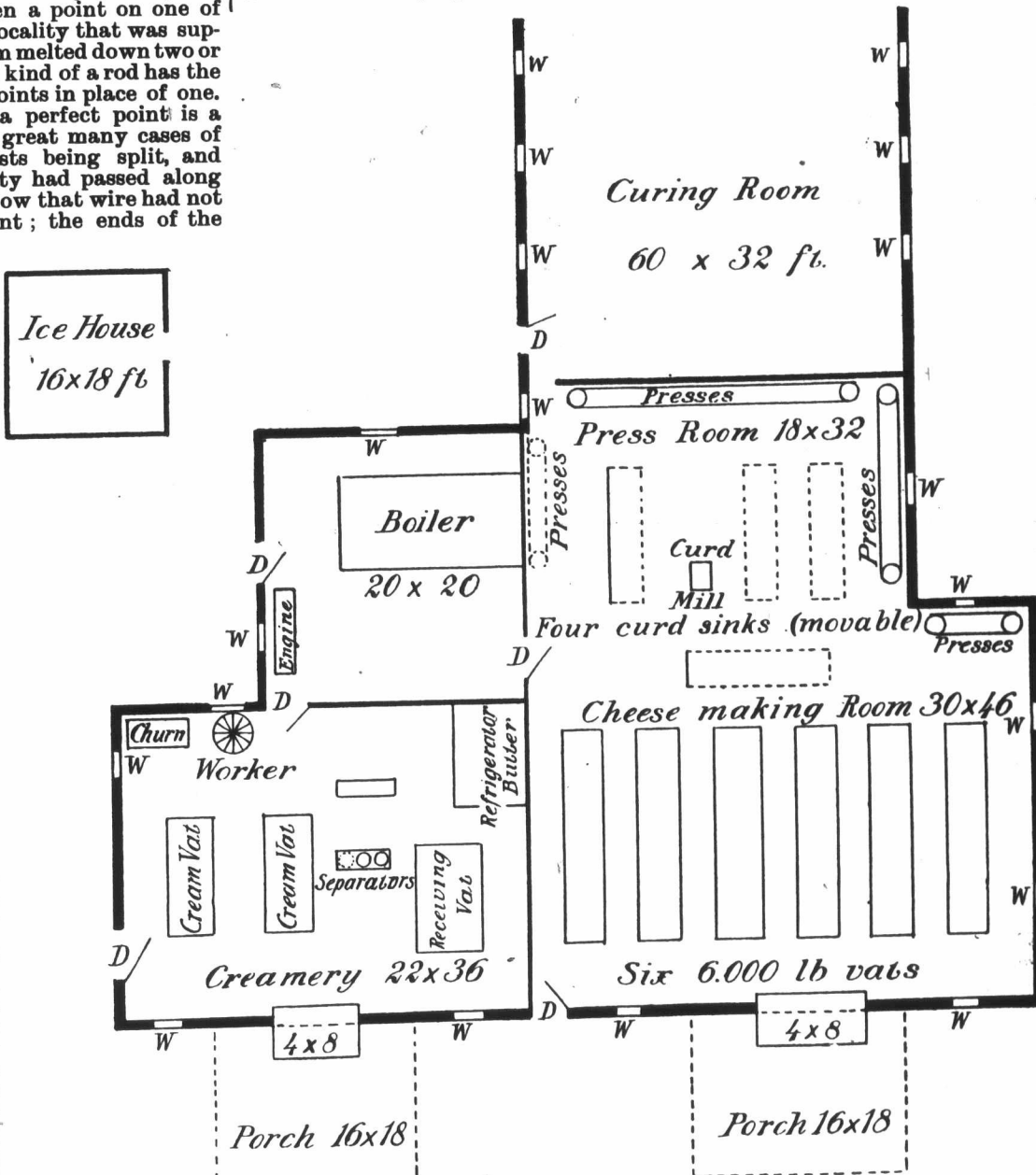
SIR,—To attribute the lighter crops of the last few years altogether or even mainly to exhaustion of soil fertility is, I submit, the result of laboring under a false impression. There are two other causes that in my opinion have much more to do

DAIRY.

Cheese and Butter Making at the Mapleton Factory.

One of the noteworthy tendencies in the older cheesemaking sections of the Province of Ontario is for factories originally started and conducted under joint stock company auspices, the patrons being stockholders and directors, to pass into the hands of private individuals, frequently progressive makers themselves, who, however, still enjoy the mutual co-operation of boards of officers, including secretary, treasurer, auditor, and the like. During the stringent times of the past farmers in some instances required for other purposes the funds which they had so invested, and were not loath to let factory enterprise be assumed financially and managed by the factoryman or maker. In other cases we find groups of factories under the management of one individual employing makers, and who, if he is not now actually engaged as such, has had the experience and is therefore capable of overseeing properly what is being done. In such cases he is able to act as salesman and give more constant and watchful attention to that important branch of the business, one, by the way, requiring closer study every year owing to the critical demands of the trade. Whatever the final result may be, so far as our own observation goes the tendency above referred to is in the direction of improved factories and appliances, and at the present time we find it going hand in hand with the winter dairying movement; that is to say, butter-making in winter on the same premises where cheesemaking is the business of summer. During a recent visit to the county of Elgin, Ont., the writer came across, in the Mapleton factory, a very good example of the results of intelligent and progressive individual management, which is having a wholesome and beneficial influence upon the district in every way. The owner is Mr. Jno. Brodie, one of the younger generation of factorymen who are doing so much to push honest high-class Canadian dairy products to the front. Some eight years ago the output of the Mapleton factory was only about 50 tons of cheese per year; in 1896 it had, under his management, more than trebled, reaching 160 tons; and from present indications (a make of about 29 cheese per day) this season's turnout would reach over 200 tons. Besides this, winter buttermaking was begun in a modest way by Mr. Brodie; in the winter of 1894-5 the make being about three tons; in 1895-6 it was ten tons; and in 1896-7, 16½ tons, selling at an average of 18 cents per pound. We might mention that it nearly all found a market in Toronto, for which trade it was salted one ounce to the pound, that destined for the English market being salted at the rate of five-eighths ounce to the pound. One lot shipped by a dealer was neither salted nor colored, and presumably suited the special demand for which it was intended, as no complaint was heard. Both fir-

kins and the square 50-lb. box package are used, the latter being preferred. Assuming a similar output for 1897 (it will doubtless be more), it will be seen that on a calculation well within the mark the two products, cheese and butter, of this one factory are bringing into the locality over \$40,000 per year. On the day of our visit, August 10th, a new creamery wing had been completed, and the cream from 12,000 pounds of milk taken in the previous Saturday evening was being made into over 450 pounds of butter, at a charge of 3½ cents per pound to the patrons, who get the skim milk; 26 pounds of milk being required to make a pound of butter. The average for winter months last season was: December, 20.23 lbs.; January, 19.88 lbs.; February, 21.05 lbs.; March, 22.75 lbs.; April, 24.88 lbs. Proceeds are divided by fat percentage determined by the Babcock test; but this plan has not been applied in the cheesemaking. Most of the Saturday night's butter is taken out for home use by the patrons, thus doing away with the trouble of farm buttermaking, and, what is still more important, obviating entirely that long-standing grievance, Saturday night and Sunday cheesemaking, a deplorable feature of the business that ought to be removed as quickly as practicable, and which has been done in a good many cases. Where still car-



PLAN MAPLETON, ONT., CHEESE AND BUTTER FACTORY.

with it, viz., an unequal distribution of the rainfall and lack of sufficient labor, the last being, in my opinion, the main cause, both the quality and the quantity of the help on most farms having deteriorated during the last ten years. Now, in reply to the question how we can best secure the necessary fertilizing materials to maintain the producing capacity of our farms by making the farm grow them, I would say that tillage is manure and so is shade. Eschew the naked fallow as you would a robber, for as fast as you liberate plant food from the soil by tillage the sun will take it if not shaded. In the next place, you need not be afraid to sell wheat, oats or barley, if for every ton you sell you can buy a ton of bran and have a little money left. Don't sell peas, nor hay nor straw. Thirdly, by all means keep all the stock that you can grow feed for, and don't be afraid to buy some feed, so long as you can sell it through your stock at a profit. That is a good business. The good dairy cow, if handled with skill, will pay a larger return for food and labor than any other stock, but to a great many men the cows they keep are a delusion and a snare. But whatever kind of stock you keep, make sure that they pay their way. Don't guess at it, but use your pencil and make sure. It is no credit to a man to work for nothing and board himself. Perth Co., Ont. C. D. SWANSON.

ried on, as many of our readers are aware, it means that the Saturday night's milking brought to the factory has to be at once made up, requiring the makers, already weary with the week's hard work, to work all Saturday night, and usually the greater part of Sunday forenoon; so that apart from the question of imposing upon their personal scruples, they virtually get no day of rest; nor is it to be wondered at if the Saturday night's cheese is often below the mark in quality. The explanation given is that the patrons are unable to keep the Saturday night's milk till Monday morning without great trouble and some outlay (and if they did it might be difficult to handle it all at the cheese factories), and they prefer to buy butter rather than make their own; but the patron can do a good deal if he wants to, for we heard of one who at one time wanted his Sunday morning's milk cared for in the factory, as he couldn't do it all at home, but under the new order of things he figured that he might make a little more if the Saturday night's milk were made into cheese and was able to keep it all pure and sweet till Monday morning. At the Mapleton factory we found that the milk had all been separated and everything washed up ready for the work of the following week before half-past 10 o'clock. If this is not a consummation devoutly to be wished for by all concerned we should like to know what it is.

It occurred to us that a plan and a few explanatory notes on the Mapleton factory, particularly the new creamery wing, would be of general value to dairymen, especially those about to build and improve their premises. The establishment is located about half a mile south of the village, in the valley of the Cat Fish Creek, the supply of pure, fresh cold water rising from springs in the opposite hill and flowing through pipe by gravitation into the factory. The cheese factory part to the right in plan is frame, but the new buttermaking wing is of brick veneer, plastered between the studding and then lined and ceiled inside with V siding, painted drab. Of the building itself, the most striking feature to us was the floor, made of Portland cement, the surface being nearly as smooth and hard as a piece of marble. In the bottom next the soil about five inches of sand and gravel were pounded firmly in; and next a layer of four inches of concrete cement (five parts gravel to one of cement) was laid; then one inch (one and one-half to one), and as a finish floated with thin coat of pure cement. There is a slight "fall" to the small gutter in the center for carrying off waste water and washings. All around the edge of the floor at the walls is a couple of inches rise of cement concrete, so that the dampness will not come in contact with the woodwork. The stand or base for the separators is about a foot high, solid concrete cement. Two No. 1 Alexandra separators (capacity 5,000 lbs. per hour) are in use, but there is space on the stand for a third, as the diagram shows. The separator belting is driven from a similar stand opposite. There is a 400-gallon churn, power butter worker, two cream vats (capacity 200 gallons each), a receiving vat (300 gallons capacity), and suspended above it a tempering vat with five channels, outside lining galvanized iron and surrounded with chambers for regulating the temperature. The refrigerator for storing summer butter has a capacity of 2,400 lbs. The churns, vats, etc., were from the establishment of Richardson & Webster, St. Mary's, Ont., and the 20 h. p. boiler and 15 h. p. engine were from E. Leonard & Son's works, London. Roomy covered porches protect the wagons where milk for factory or creamery is being weighed in; and the whey tank, which our artist omits, stands to the right foreground, is elevated, and washed out with boiling water once a week, as it ought to be, for the vile old underground whey tank, which we still find in some places, is a breeder of villainous bacteria that would frustrate the efforts of the best of cheesemakers, and has no place in a modern establishment of this description.

Mr. Brodie's price for making is \$1.10 per 100 lbs. of cheese, the patrons delivering the milk at the factory. This charge is the total cost to the patrons, as it covers the furnishing of all necessary material and appliances, boxing the cheese ready for shipment, cost of selling, secretary's salary, insurance on the cheese, and any printing or other incidental outlays necessary.

Stringy Milk.

Mr. John Speir, waiting to the *Scottish Farmer* on the subject of "stringy milk," says: Bacteria plays a most important part in all dairy matters, and all bacteriologists who have directed their attention to stringy milk have arrived at the same conclusion—viz., that it is caused by bacteria. These investigations have also brought to light the fact that several forms of bacteria may cause stringy milk, and that stringy milk cannot be produced without infection. In Norway and Sweden a certain class of "stringy milk," called "lange milk," is sold as an article of commerce, and this milk is said to be produced by feeding the cows on a particular plant. Tests made by bacteriologists did not, however, produce such an effect, and at the present time all evidence seems to point to every case being the result of infection.

The bacillus which is supposed to be the principle cause of stringy milk has been found by Guillbeau to retain its vitality in September in a sample of milk to which it had been inoculated in March. It is generally supposed to live on the

floors, walls, and air of the byre, on the udders and bodies of the cows, and on the vessels which hold the milk or by which it is carried. It is said to be very difficult to kill, and nothing but the most scrupulous cleanliness in everything, from the cow to final delivery of the milk, including milker's hands and clothes, will get rid of it. While in Switzerland in 1894, at the conference of the British Dairy Farmers' Association, I had a conversation with Professor Frenzenreich on this subject, and he said that the bacillus of this complaint was probably more common in Switzerland and Norway than in any other country. At one of the conferences in Berne he showed these present samples of milk, all from one pure source twelve hours before, each of which had been inoculated with a different cultivation of some bacillus causing trouble in the dairy. He dipped his pencil into the milk to which a cultivation of this bacillus had been added, and when lifted up, the milk, by simple adhesion, was drawn out into a string one to two feet long. Later on, in his laboratory, I had an opportunity of seeing other samples of good and bad bacteria which are commonly found associated with dairying, and heard from him the extreme difficulty of ridding a byre or dairy of this bacillus.

While warm weather enables this bacillus to increase, it should also give your correspondent a favorable opportunity of thoroughly disinfecting his whole premises, cows, utensils, and people. Lime wash, with some strong disinfectant, should be freely used; the dairy utensils should be thoroughly steamed or boiled longer than usual, for several days successively; the cows' udders and bodies should be washed with some weak disinfectant; the clothing of the milkers and those handling the milk should be entirely renewed; and the milkers' hands washed after every cow. If these precautions are carefully carried out, the mischief may reasonably be expected to be got rid of.

The Exposure Confirmed.

In the *FARMER'S ADVOCATE* for August 2nd we published the result of a careful and impartial investigation of the "Queen Butter Maker," a much-vaunted but worthless Yankee churn, conducted at our request by Mr. F. J. Sleightholm, Supt. of the Western Ontario Dairy School, and published for the benefit of Canadian dairymen, upon whom the article was sought to be imposed. A good many parties, we find, have been drawn into correspondence with its promoters through advertisements of it given a place in Canadian weekly papers that ought to have known better, if they had any regard for the interests of their readers. Mr. Manson Campbell, President and Manager of the widely-known fanning mill manufacturing establishment, Chatham, Ont., with whom the Queen people had been negotiating, writes us as follows: "I see your report on the Queen Butter Maker, and it is the same result as we got from our investigation."

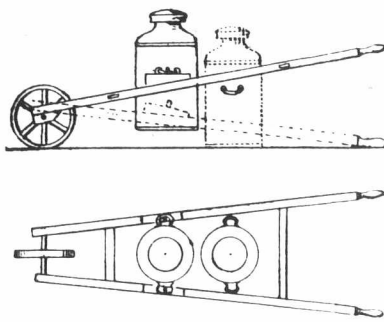
Discoloration of Cheese.

To the Editor *FARMER'S ADVOCATE*:

DEAR SIR,—In the very clear and concise review of the Bulletin on the above subject, in the issue of Aug. 16th, it is stated that Dr. Connell was not able to identify the micro-organism with any described species, hence he named it *Bacillus Rudensis* (after Mr. Ruddick). This is not correct. The reference is to the color produced by the Bacillus, and not to my name. J. A. RUDDICK.

THE HELPING HAND.

Handy Milk Can Carrier.



like a wheelbarrow frame, put the wheel on, and a wedge-shaped piece of wood on each handle (as shown in cut), then put a wooden peg in each side to slip the can handle over, and you have a very handy rig. To load the can raise the end of the barrow handles up over the can, then let them down one each side the can; raise the milk can handles up, pull the barrow back so that the can handles will slip over the pegs, then lift the barrow handles and wheel it where you please.

A Change for the Better.

J. R. MANNING, Stormont Co., Ont., on Aug. 25th writes: "An agent for the *FARMER'S ADVOCATE* called a few days ago and said he would let me have the paper 16 months for \$1. I did not feel just then as though I could take it, but have changed my mind."

APIARY.

No. 8.—Summer Work for the Beekeeper.

BY A. E. HOSHAL, LINCOLN CO., ONT.

The successful wintering of our bees is of sufficient importance to warrant the most careful and thorough preparation. September is when this should be completed, and the management of our apiary from the close of the summer honey flow up to this time should tend towards this.

If at the close of the honey flow in July (provided there be but little or no honey for the bees to gather thereafter) we have been careful to leave with each colony sufficient honey to keep up its brooding, then when the time for winter preparations arrives, about the 10th or 15th of September, we will find our hives well filled with young bees instead of old ones worn out with the season's work and ready to die. This is as it should be.

Never after the first of September tolerate longer a weak or queenless colony in the apiary, but at once unite all such with some other until all are strong. It is much better that this be attended to earlier in the season, even before the last of July if possible.

About the second week in September remove all surplus cases and honey boards from the hives, and contract their brood chambers so that every colony will be crowded for room and every comb well covered with bees. When this is done each hive will contain about five to eight Langstroth combs or their equivalent; if the colony is exceptionally strong it may require ten such combs. Every colony whose hive is not well covered with bees when contracted to five Langstroth combs or their equivalent is too weak to risk in wintering, and should be either strengthened or united with some other colony.

Next see that each colony has at least twenty-five or thirty pounds of good capped honey, and if they have not they must be fed. This perhaps with many will be most conveniently done by removing the empty combs and inserting in their place full ones, if such are on hand, but if not they should then be fed sugar syrup.

To make this syrup take one pound or a trifle more of water to three pounds of the best granulated sugar and bring to a boil; then for every ten pounds of sugar used add a teaspoonful of tartaric acid previously dissolved in a little water, and in about one minute remove from the fire. If allowed to continue boiling it will soon be taffy.

The full amount of this syrup which a colony requires should be given to it if possible at one feeding, which should be done in the evening just before sundown, with the syrup about milk-warm or a little more. For this purpose a large feeder like the Heddon or Miller will be required. Should these not hold a sufficient quantity the balance can be given the evening following; but if this feeding is continued for more than two successive evenings it will start brood rearing, which may prove more or less disastrous in wintering. About six pounds of this syrup will have to be fed for every five pounds you wish when stored and capped in the combs. This feeding should be done from the fifteenth to the twenty-fifth of September. This will give the bees plenty of time to evaporate, arrange to their liking and cap it before they begin to draw together and cluster the same as in winter during the cool nights of October. Strenuously avoid having the feeding done any later than September.

If everything has been rightly done then by the first week of October the following conditions should exist in our apiary: Every colony will be composed of young bees and strong in point of numbers, will be crowded for room in their hives, will have from five to eight Langstroth combs or their equivalent, and not less than twenty-five or thirty pounds each of good sealed honey or sugar syrup. Whether to be wintered inside or out the preparations thus far are the same.

Those to be wintered inside will now only have to be placed in their winter repository before settled cold weather arrives, and just after they have had their last fly, generally in November.

Those to be wintered outside, if in single walled hives (and these are preferable for all seasons of the year), will have to be packed about the last of September or first week of October. For this purpose a plain box with a loose bottom for convenience in unpacking, a flat cover, and made impervious to rain or snow, will be required. This box must be of such a size and made in such a way that when a hive is placed in it there will be a two-inch space underneath and all around it and a three-inch space above it for packing. A larger space than this is not so good. After placing the hive in this box pack firmly underneath, about and above it with some dry material, such as sawdust, chaff, cut hay or straw, or leaves, making it a little full so that when the cover is put on it will rest on the packing and have to be pressed down to place. An opening for an entrance will have to be made in the packing case and the hive entrance bridged to this so that the bees can pass in and out freely when the packing is in. An alighting board fixed to the packing case will also be necessary so that the bees can alight on it when coming in and gain easy access to the entrance. When all is completed and the bees snugly packed in it allow it to stand in the sun, having it painted some dark color so as to absorb heat from the sun, which will be considerable, and will be communicated to the packing, hive, and bees within.

POULTRY.

What Our Exhibitions Do for Poultry.

BY M. MAW, WINNIPEG.

Western Canada's Great Industrial Exhibition held in Winnipeg during July was a grand success, especially in the poultry department, and is a living picture of the rapid development of all the useful varieties. Birds that several years ago would have swept the board are now out of the swim. The Barred Rocks and Wyandottes are increasing in popularity, every year showing a larger number of exhibitors and exhibits, clearly proving the value of exhibitions which draw all the best birds in the country into close competition and show up many defects which otherwise would go unnoticed. Of course there is still lots of room for improvement, but we are all striving to produce the 100-point ideal birds, and by perseverance and close culling hope to "get there." On account of the season it was impossible to score the birds and they were judged by comparison, but I am strongly in favor of each bird being scored separately. I know there is a strong feeling in the East against scoring, and I quite agree that unless done by a competent judge many score cards are misleading, but in this new western country where most of the poultry owners are, comparatively speaking, beginners, it is necessary to know in what way our birds are deficient. For instance, I send a bird to the show and see by the FARMER'S ADVOCATE that three other exhibitors have taken first, second, and third—no mention of my bird, which has been returned without any remarks. How am I to know the reason my bird was not in it? It may have been overlooked altogether, as has sometimes been the case. On the other hand, if I receive a score card with the bird showing the deficiencies in each part I can at once see where I am going wrong and endeavor to improve. All poultry judges are supposed to go strictly by the rules laid down by the "Standard," a book compiled by a committee composed of the leading poultry breeders in the States, assisted by the various specialty clubs, who meet and discuss the necessary wants of the breeds they represent and notify the Standard Committee, who then compile a list of disqualifications and minutely describe each section of the bird and have a separate standard for each variety of fowls. This makes a very useful book and can be purchased for \$1 at the FARMER'S ADVOCATE office. During our present show I was sorry to see that size was in some cases overlooked and prizes given to specimens slightly better marked but deficient in size and build. This was especially noticeable in the Silver Laced Wyandotte class, where a magnificent pair of well-developed early-hatched birds did not take a place on account of their lacing not being sufficiently open. I consider that size and build, especially in the useful classes, ought to be a strong point and that markings alone should not carry a bird into the leading positions. At the same time it is necessary to give markings a good deal of consideration, as they show the good breeding of a bird or condemn it as a cross or mongrel unfit to use in breeding pen for producing pure stock. In the White Leghorn class some splendid birds were on exhibition, and the judge said were fully equal to any exhibited in the States or Canada; but here again I think they are spoiling the breed, paying too much attention to size of comb and position of tail, ignoring size. Leghorns are one of our best laying breeds, and we should improve by using birds that lay the largest eggs and using cockerels with moderate sized combs and heavier bodies, even if they have a tail slightly over the angle. This spring I used an imported English cockerel—a grand bird for size and color, but no show bird according to the present American standard—and mated him with hens I have been selecting for years for size of body and layers of large eggs. Their eggs are quite as heavy as Wyandottes or Rocks, and on account of their length I could only put three in the incubator compartment made for four ordinary eggs. The chicks from this mating give promise of better size, and I think some will hold their own in the show pen. The Light Brahmas exhibited at our late show were a large class of grand birds. Here the American style is far ahead of the English, being a long, rangy, better built bird, with moderate leg and toe feathering, and good layers; the English birds being bred more in the Cochon shape, with immense bunches of feathers on the legs and toes. The fanciers have done grand work in developing all the various breeds, keeping them pure and improving in every possible way, but by going to extremes in color and feathering many of our best old useful breeds have been spoiled and become unpopular. The Mammoth Bronze turkeys of the present day have been rightly named, and the fanciers who developed these grand birds to their present high standing ought to receive the thanks of the public. Size and stamina have been their ideal, and at the same time the magnificent bronze imparted by continually crossing with the wild turkey gives a bird which for size, beauty, utility, and health far outstrips any other breed of turkeys. Here again I think it is a great mistake for our summer exhibitions to offer any prize for turkey chicks. They are naturally delicate when young and love liberty. When cooped up in a close pen for a week they make sorry objects and do not reflect any credit to the breeder, their mournful cry showing how uncomfortable they are. They are also very liable to contract disease and take it home to the rest of the

flock. At the show last month one had to be killed for roup, and those in the near pens were almost certain to contract the disease. I believe that the climate and conditions of Manitoba are especially adapted for raising turkeys, and there is nothing to prevent every farmer having some to dispose of yearly and raised at less cost than any other produce of the farm. I find them easier to raise than chickens. Of course, I am only referring to the Improved Mammoth Bronze, and they must be never inbred, even for a single season. I have at the present time a flock of young birds hatched the end of May; have stayed out with the turkey hens day and night, wet or fine; found their own food, with the exception of a little bread soaked and squeezed dry the first few weeks, and now a little wheat morning and evening to prevent them straying too far away; not one sick bird; all well-developed and uniform in size. This is all the result of improvements brought about by comparing and competing at our exhibitions and profiting by experience.

VETERINARY.

The Tuberculin Test Instruction.

To the Editor FARMER'S ADVOCATE:

SIR,—A bulletin has recently been issued by the Ontario Department of Agriculture upon the subject of tuberculosis. It states, among other things (as has been announced in the FARMER'S ADVOCATE), that Lieut.-Col. McCrae has been appointed to instruct the farmers of the Province in the art of testing their cattle with tuberculin, and for that purpose will address meetings of the Farmers' Institutes, etc.

Looking at the matter from an outsider's standpoint, it seems strange that anyone outside of the veterinary profession should be selected to give instruction in a purely veterinary operation. Lieut.-Col. McCrae is, we believe, an estimable man, prominent in volunteer circles, and a successful breeder of cattle, but what special qualifications he may have for this peculiar function remains to be seen. What is the matter with the veterinary surgeons of Ontario? Are none of those who recently underwent an examination on this subject before the officers of the Dominion Government qualified for the position, or is a partisan to be rewarded regardless of the fitness of things?

The tuberculin test is not merely a matter of temperatures, to be measured with a thermometer, and which anyone can apply; it is a system based on the injection of tuberculin, but also taking into consideration all those symptoms known as the physical signs of disease, and all the circumstances peculiar to the individual animal, which to a layman, depending upon the thermometer alone, may be misleading and cause serious errors. This system is reliable in proportion to the skill of the person using it, and should naturally be entrusted to those whose scientific training and experience of animals peculiarly fit them for the task, namely, the veterinary surgeons.

To employ a colonel of artillery to instruct farmers in a veterinary operation is a curious anomaly. Why not engage a blacksmith to teach them gardening or a musician to impart astronomy?

FRED TORRANCE, B. A., D. V. S.

Winnipeg, Aug. 24th, 1897.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

COW GIVING BLOODY MILK.

MRS. A. KENNEDY, Carleton Co., Ont.:—"I have a cow that is troubled with bloody milk in one teat. She is in good health. I have tried linseed oil, salts, and several things without results. Will you please give a remedy in your next issue?"

[The cause of blood appearing in the milk is due to injury of the internal lining or mucous membrane of the teat or udder, and when due to an injury may persist for months. Treatment: Foment the udder and teats with hot water twice a day, and support by means of a blanket or sheet over loins. Give Epsom salts, one pound; Barbadoes aloes, one ounce; in a quart of warm gruel; repeat in a week's time. Apply to the udder and teat the following liniment after fomentation: liniment Saponis Co., four ounces; tincture of camphor, one ounce; tincture of belladonna, one ounce; glycerine, two ounces.]

DR. WM. MOLE, M. R. C. V. S., Toronto.]

DISEASE OF THE EYE.

W. WENMAN, Souris, Man.:—"Cow's eye appears to have become totally blind. Don't know cause, unless it is from small chain around the horns to tie her out in pasture. First noticed eye discharging water; now a growth is formed over the ball of eye. Have heard of finely-pulverized glass being blown into eye to remove growth of this kind, but it seems too severe. What would you advise?"

[If the growth you mention is of a fungous or warty nature it should be removed with the knife

and the parts dressed daily with a solution of the nitrate of silver: Nitrate of silver, one dram; soft water, eight ounces. There is a disease of the eye, affecting cattle and dogs, called staphylococci, which often necessitates the removal of the eyeball before a cure can be accomplished. If possible, show the eye to a veterinary surgeon.

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

Miscellaneous.

FALL AND SPRING WHEAT MIXED.

HENRY PAUL, Victoria Co., Ont.:—"Fall wheat was sown with spring wheat by mistake, so two-thirds is fall wheat, sufficient for a crop. Would it be advisable to leave it? It was sown one and a half bushels per acre. If so would it be well to pasture it, it being now nearly thick enough to cover the ground? Please advise."

[If fall wheat does well in your section we think it would be well to plow down the present crop. Roll the land immediately after plowing, harrow well, and repeat the harrowing after each shower of rain to retain moisture and solidify the land. Sow fall wheat about first September, and if you wish to seed down to grass sow six pounds timothy in September and six to eight pounds clover in early spring. In the meantime the present crop may be pastured till you get time to plow it down, but the sooner it is plowed and the surface tilled the better.]

MENDING AN OLD ROOF.

JAMES ROBERTSON, Grey Co., Ont.:—"I would like to know if any of the subscribers to the ADVOCATE have ever tried putting tar and fine sand on an old shingled roof to make it waterproof. I have an old roof that must be repaired in some way or reshingled. If anyone has tried such a method I would like to hear from them."

[One of our staff a few years ago observed a good many attempts to rejuvenate old roofs by the use of tar and other substances, but the experience of those who had the work done was the reverse of satisfactory, some of those who tried it coming to the conclusion that new shingles would be decidedly preferable. We would like to hear from others, as Mr. Robertson requests.—ED.]

HENS DYING.

A SUBSCRIBER:—"My hens are dying with something like distemper. It is the fat hens that die; they go on the nest and lay, and then die. The head and comb become black; they pass a yellowish matter. It is very contagious; as many as eight will be found dead in one morning. They are fed potatoes, oatmeal and corn-meal porridge and oats; have plenty of good fresh water. Please give cause and prescribe cure."

[Your hens show every symptom of poison, as you say they are only sick a short time. Have you used Paris green or any other preparation to remove bugs from trees or potatoes? Getting black in the comb accompanies many diseases. If only one or two had died it would seem like apoplexy, caused by excessive fat and the exertion of laying; but eight in one day, and only a short time sick, must be caused by some violent poison.]

SOW THISTLE (*Sonchus arvensis*).

WM. GRAY, Huron Co., Ont.:—"I enclose you a weed for identification, and would like to learn how to eradicate it from the land."

[The weed sent us is clearly corn sow thistle. It is a creeping perennial that has made a rapid spread over many counties in Ontario Province, and is quite difficult to eradicate. The plant has an upright habit of growth, from one to three feet high. It is often branched towards the top like the Canadian thistle. The stems are hairy and bristly, the leaves resemble those of the dandelion in form, but are larger and have prickles on the points and along the edges. When the plant is wounded it gives out a milky juice, and is therefore sometimes called milk thistle. Its blossoms are bright yellow, resembling those of the dandelion. After getting a foothold it tends to spread rapidly from the roots and seeds, and if not given vigorous attention soon takes possession of the soil. It usually makes its appearance in May, and continues to grow until the autumn. It blossoms in July and later, and soon ripens its seed, which are very numerous. It is propagated by means of its seeds and roots. The seeds float long distances, having a hairy appendage like those of the Canadian thistle. The seeds may also be carried in grass and clover seeds or in grain. Its propagation by the root stalks is similar to that of Canadian thistle. All along the creeping root stalks are numerous latent buds which send up new plants. The secret of eradication lies in not allowing seeds to ripen, and also in clean surface cultivation, which serves to cut off the upright plants without disturbing the creeping root stalks, which are always a few inches under ground. A well-worked summer-fallow followed by a cleanly-cultivated hoed crop will usually do a good job. The writer cleared a bad field in this way by plowing down a heavy crop of buckwheat while in summer-fallow. Where the land cannot be cultivated the plants should be spudded off just beneath the surface.]

CHICORY, WILD CARROT, DODDER.

MR. CHARLTON, Middlesex Co., Ont., hands in specimens of three weeds from new clover field which threaten to give trouble in his locality. He asks us to identify them and refer to their habits and the means of eradication.

The plants are vigorous specimens of chicory

(*Cichorium Intybus*), wild carrot (*Daucus Carota*), and dodder (*Groenii Cuscuta*).

Chicory is a roughly and much-branched perennial, with large, showy sky-blue flowers, commonly growing in grass fields and along roadsides. It has a long tap root like that of a dandelion, which is often dried, ground and used as a substitute for coffee. As a weed it soon becomes troublesome if neglected, but good cultivation will prevent its getting ahead, and will even destroy it if persisted in. Where stray plants put in an appearance in fields that are not desired to be broken up that same season, the spud is the most effective means of removing them. The spud should in all cases go below the crown, when the plant will surely die. In pastures or by-places the effort should be to prevent the maturing of seed. It is well, however, to allow the plant to blossom before cutting in such locations, as they will then have considerably exhausted their roots.

Wild Carrot is a biennial bearing a close resemblance to the cultivated variety, more especially in the portions above the ground. It has a tap root which is considerably branched. When in blossom or head it might readily be mistaken for a tame carrot gone to seed the first year, except that the root is smaller. It comes up early in the season, sending up long flower stems which terminate in flower clusters. These produce seed numerously, and when cut off above ground send out other stems which put forth effort to produce seeds until late in the season. It is not generally troublesome to crops where the usual cultivation is good, but is more commonly found in pastures, meadows and by-places. In cultivated fields good ordinary cultivation will kill it out. In permanent pastures the plants should be cut very close to the ground as often as they attempt to mature seed, or where the plants are not too numerous they may be destroyed by spudding them off below the crown at any stage of their growth.

Dodder is a leafless parasitical vine with reddish-yellow threadlike stems. It germinates in the soil, grows up and twines around succulent growing plants like clover. The root of the dodder then dies, while its vines continue to live on the juices of the plant entwined. It ultimately kills the clover plants, while it continues to produce reddish-white flowers, and finally seed. It can be destroyed by cutting and burning the infested patches before the seed forms.

Specimens of each of the above plants have been sent us from farms in Westminster Township near London.

TIMOTHY WITH LUCERNE.

JAMES RIDDLE, Norfolk Co., Ont.:—"I am going to sow a piece to fall wheat and seed it in the spring with lucerne. Is it necessary to sow timothy seed, and when?"

It would not be advisable to sow timothy along with lucerne, for the reason that lucerne is so different in its period of growth and maturity, being much earlier. If a grass is desired to be grown with the lucerne, which does well alone if a good stand is secured, orchard grass would suit well, and should be sown along with the lucerne in the spring at the rate of 10 to 12 pounds per acre.]

SICK HENS.

A. W. MORROW, Northumberland Co., Ont.:—"My hens are sick. Their combs turn purple, and they act as if they were blind. After suffering for several weeks they generally die. They are running outside, and pick their own living."

The symptoms mentioned in Mr. Morrow's inquiry might indicate many forms of disease, and almost always accompany a debilitated condition of the system. This might arise from their drinking from stagnant pools of barnyard water, and also from infestation of lice. It is possible that an introduction of new and vigorous blood would do much to prevent such trouble in later years, provided sanitary conditions are looked after. We would suggest first of all, that plenty of fresh, pure water be given to them, and the whole flock be well dusted with insect powder. It would also be well to isolate those that show slight symptoms, and destroy any that are far gone with the disease. It would be well also to give the whole flock a good purge with salts. Feed scantily in the afternoon, and keep the flock enclosed till next morning. Then mix two heaping tablespoonfuls of salts to a pail of soft feed, and allow them to take all they will. It would be well then to give a tonic known as "Douglas' Mixture," made up of a half-pound of sulphate of iron dissolved in an ounce of sulphuric acid added to one gallon of water. Mix the two together, and add two tablespoonfuls to a pail of drinking water every second day.]

SILLO CONSTRUCTION.

YOUNG FARMER, Halton Co., Ont.:—"We have four acres fodder corn and would like your advice about putting up a silo, as it requires a great deal of work to shock and cure corn properly, and then there is always a deal of waste in that way by mice, squirrels, weather, etc. What would you advise us to build at this season? Would cement concrete answer better than wood? Would frost injure it in an exposed place? I like the ADVOCATE very much."

Young Farmer is wise in deciding to build a silo. Were it earlier in the season we would advise building of cement, which should invariably be finished six weeks or more before being filled in order to have it well hardened. Frost would not injure

a cement silo put up early in the season. We would without hesitation recommend at this late date a round stave silo, as they are cheap, easily constructed, and very satisfactory. Four acres of good corn should go into a silo 14 feet in diameter by 25 feet high. We would not think it wise, however, to put up so small a silo, as more space will likely be needed in later years. Sixteen feet across by 25 feet high will hold 105 tons, and if 30 feet high 130 tons. This quantity should ordinarily be grown on from eight to ten acres. For descriptions of round silos see ADVOCATES, March 1st, page 105; April 15th, page 182; and for octagonal silo, May 15th, page 224.]

THE BOOK TABLE.

Pigs--Breeds and Management.

This book is No. 5 in the list of live stock hand books published by Vinton & Co., London, Eng., and completes the series of their recent publications on these subjects. It is uniform with the former volumes in size, printing and binding, and is a very creditable production, in 12 chapters, written by the well-known author of swine literature, Mr. Sanders Spencer, of Holywell Manor, with a chapter on diseases of the pig, by Prof. J. Wortley Axe, and a chapter on bacon and ham curing, by L. M. Douglas. The book contains 180 pages, and is illustrated with 20 engravings of pigs of different breeds and varieties and a pair of model sides of bacon. Mr. Spencer's wide and long experience as a successful breeder and exhibitor of pedigree swine qualifies him in an especial manner to give counsel and advice on the subjects treated in this volume. His ideas on the intricate questions of breeds and breeding, as well as upon the selection, feeding and care of pigs under various conditions, are thoroughly practical and commend themselves to the judgment and common sense of the reader, while the literary composition of the book is all that would be expected by those who are familiar with the easy and graceful style of the author, who has long been a valued contributor to the agricultural papers of England and America. The chapters on diseases of the pig, their treatment, and on bacon and ham curing, are well written, evince a practical knowledge of the subjects treated, and contain much useful information and many valuable hints. The subject of swine raising is one of peculiar interest to the farmer at the present time, as the prices current for bacon hogs place this quite outside the pale of the depressed industries and on a par with that of the gold fields; in fact, when it comes to net return of good the Canadian hog lot leaves the average mining claim simply out of sight.

Cattle--Breeds and Management.

We have received from Vinton & Co., London, Eng., No. 4 of their new series of live stock handbooks, entitled "Cattle--Breeds and Management," by Mr. William Housman, with a chapter on diseases of cattle, by Prof. J. Wortley Axe, a book of 270 pages, substantially bound and well printed on good paper, and containing 35 excellent illustrations of representative animals of sixteen different recognized breeds of British and Channel Islands cattle. The history of the origin and development of the various breeds from the original species, and the changes effected under domestication, involving the evolution of the distinct classes of beef-producing and dairy animals of the present day, is clear and comprehensive, and will be read with intense interest by the student of the science of breeding. The subject of breeds is treated in six chapters, while one chapter is devoted to management and records, in which many very useful hints are given, evidently as the result of experience and close observation. Mr. Housman has an excellent reputation as a reliable and intelligent writer on agricultural and live stock topics, and is a frequent contributor to the leading farm and stock journals of Great Britain, while Prof. Axe's chapter on diseases of cattle—their symptoms and treatment, is couched in plain and easily intelligible language, is eminently practical, and the treatment prescribed is in most cases such as any intelligent stockman may safely adopt and practice. The volume is well worthy of a place in the library of every farmer, dairyman and stock breeder.

There is Only One Best.

The *Reliable Poultry Journal*, of Quincy, Ill., has the following to say:—"A reliable agricultural paper is now an indispensable adjunct for the farmer. True to its name, the FARMER'S ADVOCATE, published at London, Ont., Canada, and edited by practical men, fills the bill in many respects. An examination of its pages will show that it overlooks no department of farming, giving probably double the serviceable, up-to-date reading matter of any other paper of the class at so reasonable a price. We do not wonder at its increasing popularity and immense circulation."

JAS. McMAHON, Lambton Co., Ont.:—"I find that I cannot get along without the FARMER'S ADVOCATE, the best agricultural journal in Canada."

O. A. CRANDALL, N. Westminster, B. C.:—"I must say as a farmer's paper it is unequalled by anything I have seen."

JOHN A. WALKER, Ontario Co., Ont., under date of Aug. 25, writes:—"I did not get my August 1st issue of the FARMER'S ADVOCATE. Would you please send me a copy, as I think so much of it I do not want to miss a single copy."

We might fill an issue of the FARMER'S ADVOCATE with testimonials like the above, but it is not necessary, the paper speaks for itself.

SHOWS AND SHOWING.

Autumn Exhibitions.

Sherbrooke	August 30 to Sept. 4.
Toronto	" 30 to " 11.
Columbus, Ohio	" 31 to " 3.
Three Rivers	Sept. 2nd to 11th.
Grand Rapids, Mich.	" 6th to 10th.
Minnesota, Minn., St. Paul	" 6th to 11th.
Williamstown	" 7th and 8th.
Perth	" 8th to 10th.
Des Moines, Iowa	" 9th to 18th.
London	" 9th to 18th.
Richmond	" 13th to 15th.
Vankleek Hill	" 14th to 16th.
Belleville	" 14th to 17th.
St. John	" 14th to 24th.
Guelph	" 15th and 16th.
Renfrew	" 16th and 17th.
Bowmanville	" 16th and 17th.
Ottawa	" 17th to 25th.
Peterborough	" 21st to 23rd.
Goderich	" 21st to 23rd.
Charlottetown, P. E. I.	" 21st to 24th.
Collingwood	" 21st to 24th.
Prescott	" 21st to 24th.
Stratford	" 23rd and 24th.
Tyendinaga, at Shannonville	" 25th.
Kemptville	" 27th and 28th.
Southwold and Dunwich, at Shedden	" 28th.
Whitby	" 27th to 29th.
Kildonan and St. Paul	" 28th and 29th.
Almonte	" 28th to 30th.
Springfield, Ill.	" 27th to Oct. 2nd.
Halifax, N. S.	" 28th to " 1st.
Maxville, Ont.	" 29th and 30th.
Birtle	" 30th.
Beachburg	" 30th to Oct. 1st.
St. Louis, Mo.	Oct. 4th to 9th.
Wapella, Man.	" 5th.
Russell, Man.	" 6th.
Springfield, Man.	" 6th and 7th.
New Westminster, B. C.	" 5th to 8th.
Markham	" 6th to 8th.
Neepawa	" 12th and 13th.
Melita, Man.	" 13th and 14th.
Chicago Fat Stock and Horse Show	Nov. 2nd to 13th.
New York Horse Show	" 15th to 20th.
Ontario Fat Stock Show, Brantford	Dec. 7th to 9th.

The Western Fair.

Before our next number will have been issued the Western Fair, of London, Ont., will have been in full swing for several days. It is therefore our pleasure in this number to draw special attention to a few facts which exhibitors and visitors should understand. While the entries already made exceed in numbers those of any previous year at the same date, there are many entries of live stock yet to be made, and according to the rules of the live stock committee, and ratified by the directors, entries sent in after Sept. 9th will not be accepted nor the animals allowed to enter the grounds. This rule is in the interest of exhibitors, so that proper accommodation may be given to all. There is no room for doubt that the 1897 exhibition will surpass any of its predecessors, and will be more than ever patronized by the citizens of Western Ontario, who have reaped such an extraordinary harvest. This, of course, will result in many good live stock sales which will prove beneficial to all concerned.

We would also remind our readers of the extent and attractiveness of what are termed the ring attractions, which afford a great deal of real pleasure to all ages and classes of people. The principal features of this department consist of the following: The Great Arab, Sie Hassan Ben Ali, and his wonderful aggregation, consisting of the Whirlwinds of the Desert, in their flying leaps over pointed bayonets, gun spinning, Moorish drill and sword exercise on horses, human pyramids, juggling, and fancy tumbling; Achille Phillion, marvellous equilibrist, on his spiral tower and revolving globe; Rossow Midgets, pocket edition of men, in exhibitions of acrobatic skill, wrestling, and the art of self-defense; Roy Burton, juggler and swinging wire rifle shot; Shields, the Rubie trick bicyclist; Ozav, the French clown; Lowell Bros., funniest comedy acrobats; Little, the fancy wire walker, and Priceolata, the youngest wire walker; Carlos Fernandez, the Cuban trapeze artist; Johnston and Williams, America's most finished bar artists; the three Deltorellis, musical comedy artists; together with the children's amusements, cinematograph, Spanish gondolas, merry-go-round, and many others. The four evening entertainments will eclipse anything before presented to a London audience. The jubilee pyrotechnic display by Prof. Hand, assisted by all of the above artists, will be something to remember for many a day afterwards. Prize list and programmes can be had for the asking if any have been overlooked.

The Central Canada Fair.

On September 17th will open the Ottawa Exhibition, for which much well-directed effort and good money have been put forth for its success. Last year's fair, because of the capital arrangement of the grounds and enterprising consideration of the management, was voted a howling success by both visitors and exhibitors, which so stirred up the directorate to even greater activity upon the score of "nothing succeeds like success" until one of the grandest exhibitions of the year is to result. So far as accommodation for stock is concerned we cannot well see how last year's arrangement can be improved upon, which fact being known generally among stockmen is bound to bring together a large contingent from the east, as well as a great deal from the west who will have followed the circuit of large shows. This should prove a great inducement to farmers throughout the whole of Central Canada to attend to see this good stock



THE CASTING AWAY OF MRS. LECKS AND MRS. ALESHINE.

(Continued from page 364.)

Mrs. Lecks considered this a good suggestion, and accordingly the coxswain and his companions were told that thereafter they would be expected to fish for eight hours a day, Sundays excepted. This plan, however, did not work very well. During the first two days the sailors caught so many fish, that although the fishermen themselves had excellent appetites for such food, it was found utterly impossible to consume what they brought in. Consequently, it was ordered that thereafter they should catch only as many fish as should be needed, and then make themselves useful by assisting Mrs. Aleshine and Mrs. Lecks in any manner they might direct.

I found it quite easy to become acquainted with Miss Ruth Enderton, as she was very much inclined to conversation. "It's ever so long," she said, "since I've had anybody to talk to."

Mr. Enderton gave us very little of his company, for, having discovered that there was a library in the house, he passed most of his time in that room. As for the coxswain and the two sailors, they had a very pleasant time of it, but Mrs. Lecks and Mrs. Aleshine would not think of such a thing as allowing them to eat in idleness the bread of the Dusantes. After they had been with us a few days, Mrs. Lecks told me that she thought she could show the coxswain and his mates how to dig and gather the garden stuff which was daily needed.

"To be sure," said she, "that work goes agin part of your board, but fishin' and bringin' in firewood don't take up quarter of the time of them sailors; and so that the garden work is done, I don't suppose it matters to the Dusantes who does it. And that will give you more time to make things pleasant for Miss Ruth; for, as far as I can see, there isn't a thing for her to do even if she knows how to do it."

The three mariners were more than willing to do anything desired by Mrs. Lecks or Mrs. Aleshine, to whom they looked up with great admiration and respect.

One of them climbed to the top of what she called a "palm-leaf fan tree," and brought therefrom some broad leaves which he cut and trimmed, and sewed in true nautical fashion, until he made some fans which were heavy and clumsy, but, as he said, they would stand half a gale of wind if she chose to raise it. The coxswain caught or trapped two seabirds, and having clipped their wings, he spent days in endeavoring to tame them, hoping to induce them, as far as the power in them lay, to take the place of the barnyard fowls whose absence Mrs. Aleshine continually deplored. Every evening, the two black-bearded sailors would dance horrapies for her, much to her diversion and delight.

"I've often heard," she remarked, "that in these hot countries the tricks of the monkeys was enough to keep everybody on a steady laugh, but I'm sure sailor men is a great deal better. When you get tired of their pranks and their tomfooleries you can tell 'em to stop, which with monkeys you can't."

It was about ten days after the arrival of the missionary's party that, as I was going to get ready the boat in which Miss Ruth and myself generally rowed in the cool of the evening, I saw Mrs. Lecks and Mrs. Aleshine sitting on the beach in the shade of some low-growing trees. They were evidently waiting for me, and as soon as I appeared Mrs. Lecks beckoned to me; whereupon I joined them.

"Sit down," said Mrs. Lecks, "there's somethin' I want to talk to you about. Mrs. Aleshine and me have made up our minds that you ought to be hurried up a little about poppin' the question to Miss Ruth."

This remark astounded me. "Poppin' the question!" I exclaimed.

"Yes," continued Mrs. Lecks, "and me and Mrs. Aleshine know very well that you haven't done it yet; for both of us havin' been through that sort of thing ourselves, we know the signs of it after it has happened."

"And we wouldn't say nothin' to hurry you," added Mrs. Aleshine, "if it wasn't that the groceries, especially the flour, is a gettin' low."

"But, my dear friends," I said with much earnestness, "I have not the slightest idea of proposing to Miss Enderton."

"That's just what I said to Mrs. Aleshine," said Mrs. Lecks, "and that's the reason we let our irons cool and come out here to talk to you. It's just like a man to keep puttin' off that sort of thing; but this can't be put off."

"That's so," cried Mrs. Aleshine; "and I'll just let you see how the matter stands. There is housekeepers who allows a pint of flour a day to each person, but this is for farm hands and people who works hard and eats hearty; and I've found that three-quarters of a pint will do very well if the dough is kneaded conscientious and made up right. I've measured all the flour that's left, and me and Mrs. Leck, we've calculated that, allowin' three-quarters of a pint of flour a day to each one of us, there's just eight days more that we can stay here—that is, if the Dusantes don't come back before that time, which, of course, can't be counted on. So you can see for yourself, Mr. Craig, there's no time to be lost, even considerin' that she hasn't to make up anything to be married in."

"No," said Mrs. Lecks; "just for us and three sailors, that wouldn't be needed."

I looked from one to the other in dumb astonishment. Mrs. Lecks gave me no time to say anything.

"In common cases," said she, "this might all be put off till we got somewhere; but it won't do now. Here you are, with everything in your own hands; but just get away from here, and there's an end of that. She's as pretty a girl as you'll see in a month of Sundays; and if she leaves here without your gettin' her, there's no knowin' who'll snap her up. When we've got to that island, you may see her once a week, but maybe you won't. She may go away in one ship and you in another, and there may be somebody right there, a missionary, for all I know, who'll have her before you have a chance to put in a word."

"And that's not the worst of it," said Mrs. Aleshine. "Supposin' them Dusantes come back before we go. There's no knowin' what that Mr. Dusante is. He may be a brother of Emily and Lucille. And what sort of chance would you have then, I'd like to know, with Miss Ruth right here in his own house, and he ownin' the rowboat, and everything? Or it may be he's a widower, and that'll be a mighty sight worse, I can tell you."

"No matter whether they're widowers or never been married," said Mrs. Lecks, "there'll be plenty that'll want her as soon as they see her; and if it isn't for the girl's own pretty face, it'll be for her father's money."

"Her father's money!" I exclaimed. "What are you talkin' of?"

"There's no good tellin' me anythin' about that," said Mrs. Lecks, very decidedly. "There never was a man as close-fisted as Mr. Enderton on who hadn't money."

"And you know as well as we do," said Mrs. Aleshine, "that in them countries where he's been, the heathens worship idols of silver and idols of gold; and when them heathens is converted, don't you suppose the missionaries get any of that? I expect that Mr. Enderton has converted thousands of heathens."

At this suggestion I laughed outright. But Mrs. Lecks reproved me.

"Now, Mr. Craig," said she, "this is no laughin' matter. What me and Mrs. Aleshine is sayin' is for your good, and for the good of Miss Ruth along with you. I haven't much opinion of her father, but his money is as good as anybody else's, and, though they had to leave their trunks on board their ship, what little they brought with them shows that they've been used to havin' the best there is. Mrs. Aleshine and me has set up till late in the night talkin' over this thing; and we are both of one mind that you two need never expect to have the same chance again that you've got now. The very fact that the old gentleman is a preacher, and can marry you on the spot, ought to make you tremble when you think of the risks you are runnin' by puttin' it off."

"I've got to go into the house now to see about supper," said Mrs. Aleshine, rising; "and I hope you'll remember, Mr. Craig, when your bread is on your plate, and Miss Ruth is sittin' opposite to you, that three-quarters of a pint of flour a day is about as little as anybody can live on, and that time is flyin'."

Mrs. Lecks now also rose. But I detained the two for a moment.

"I hope you have not said anything to Miss Enderton on this subject," I said.

"No," replied Mrs. Aleshine, "we haven't. We are both agreed that as you're the one that's to do what's to be done, you are the one that's to be spoke to. And havin' been through it ourselves, we understand well enough that the more a woman don't know nothin' about it, the more likely she is to be ketched if she wants to be."

The two women left me in an amused but also somewhat annoyed state of mind. I had no intention whatever of proposing to Miss Ruth Enderton. She was a charming girl, very bright and lively, and withal, I had reason to believe, very sensible.

But, as I was rowing her over the lagoon, I felt a certain constraint, which I had not known before. There was no ground whatever for the wild imaginings of the two women, but the fact that they had imagined it interfered very much with the careless freedom with which I had previously talked to Miss Ruth.

When we returned to the house, we were met by Mrs. Aleshine. "I am goin' to give you two your supper," she said, "on that table there under the tree. We all had ours a little earlier than common, as the sailor men seemed hungry."

This plan delighted Miss Ruth, but I saw in it the beginning of the workings of a deep-laid scheme. I was just about to sit down when Mrs. Aleshine said to me in a low voice as she left us:

"Remember that the first three-quarters of a pint apiece begins now!"

"Don't you think that Mrs. Lecks and Mrs. Aleshine are perfectly charming?" said Miss Ruth, as she poured out the tea. "They always seem to be trying to think of some kind thing to do for other people."

When I mentioned to Miss Enderton the remark, but I could not help thinking of the surprise she would feel if she knew of the kind thing that these two women were trying to do for her.

"Have you taken any steps yet?" asked Mrs. Lecks of me the next day. And on my replying that I had taken no steps of the kind to which I supposed she alluded, she walked away with a very grave and serious face.

"Two days they had very little to say to me; and then Mrs. Aleshine came to me to make what I suppose was their supreme effort.

"Mrs. Lecks and me is a-goin' to try," she said, and as she spoke she looked at me with a very sad expression and a watery appearance about the eyes. "We stretch out the time for you a little longer, and as for me and her, we'll get pretty much without bread, and make it up, as well as we can, on other things. You and Miss Ruth and the parson can each have your three-quarters of a pint of flour a day, just the same as ever, but what we save ought to give you three or four days longer."

This speech moved me deeply. I could not allow these two kind-hearted women to half starve themselves in order to do me a good turn. I might have more time to woo, and I spoke very earnestly on the subject to Mrs. Aleshine, urging her to give up the fanciful plans which she and Mrs. Lecks had concocted.

"Let us drop this idea of love-making," I said, "which is the wildest kind of vagary, and all live happily together, as wedded before. If the provisions give out before the Dusantes come back, I suppose we shall have to leave in the boat; but, until that time comes, let us enjoy life here as much as we can, and be the good friends that we used to be."

I might as well have talked to one of the palm trees which waved over us.

"As I said before," remarked Mrs. Aleshine, "what is saved from Mrs. Lecks's and mine and three sailor men's three-quarters of a pint apiece ought to give you four days more."

At the same time the Reverend Mr. Enderton had sat and read in the library, or meditatively had walked the beach with a book in his hand; while the three mariners had caught fish, performed their other work, and lain in the shade, smoking their pipes in peace.

But, for some unaccountable reason, Mr. Enderton's condition of tranquil abstraction did not continue.

One afternoon, as Miss Ruth and I were in the skiff in the lagoon, we saw Mr. Enderton approaching us, walking on the beach. And as soon as he was near enough for us to hear him, he shouted to his daughter:

"Ruth, come out of that boat! If you want to take the air I should think you might as well walk with me as to go rowing round with—with anybody."

"Please put me ashore," said Miss Ruth. And without a word I might not trust myself to speak, I landed her. And putulantly complaining that she never gave him one moment of her society, her father led her away.

An hour later, my soul still in a state of turmoil, but with the violence of its tossings somewhat abated, I entered one of the paths which led through the woods. After a few turns, I reached a point where I could see for quite a long distance to the other end of the path, which opened out upon the beach. There I perceived Mr. Enderton. About midway between him and myself I saw Miss Ruth, slowly walking towards me. Her eyes were fixed upon the ground, and she had not seen me.

Stepping to one side I awaited her approach. When she came near I accosted her.

"Miss Ruth," said I, "has your father been talking to you of me?"

"She look up quickly, evidently surprised at my being there. "Yes," she said, "he has told me that it is not—suitable that I should be with you as much as I have been since we came here."

"Ruth," said I, stepping up close to her, "do you like to be with me as you have been?"

Miss Ruth raised her eyes to me with a look in them of a deep blue sky seen through a sort of Indian summer mist, and gazing thus she said:

"Of course I like it."

"Then let us make it suitable," I said, taking both her hands in mine.

There was another look, in which the skies shone clear and bright, and then, in a moment, it was all done.

About five minutes after this I said to her, "Ruth, shall we go to your father?"

"Certainly," she answered. And together we walked along the thickly-shaded path.

The missionary still sat with his back towards us, and, being so intent upon his book, I could not, by keeping my eyes upon him, it was perfectly safe to walk with my arm around Ruth until we had nearly reached him. Then I took her hand in mine, and we stepped in front of him.

"Father," said Ruth, "Mr. Craig and I are going to be married."

Mr. Enderton leaned forward and picked up a leaf from the ground. This he placed between the open pages of his book and closed it.

"It seems to me," he said, "that on many accounts the arrangement you propose may be an excellent one. Yes," he added more decidedly, "I think it will do very well indeed."

Then he stood up, shook us both by the hands, and we left him to his book.

When Ruth and I came walking out of the woods and approached the house, Mrs. Aleshine was standing outside, not far from the kitchen. When she saw us she gazed steadily at us for a few moments, a strange expression coming over her face. Then she threw up both her hands, and, without a word, she turned and rushed indoors.

We had not reached the house before Mrs. Lecks and Mrs. Aleshine came hurrying out together. Running up to us with a haste and an excitement I had never seen in either of them, first one and then the other took Ruth into her arms and kissed her with much earnestness. Then they turned upon me and shook my hands with hearty vigor, expressing more by their looks and actions than their words, a triumphant approbation of what I had done.

"The minute I laid my eyes on you," said Mrs. Aleshine, "I knew it was all right. There wasn't no need of askin' questions."

I now became fearful lest, in the exuberance of their satisfaction, these good women might reveal to Ruth the plans they had laid for our matrimonial future, and the reluctance I had shown in entering into them. My countenance must have expressed my apprehensions, for Mrs. Aleshine, her ruddy face glowing with warmth, both mental and physical, gave me a little wink and drew me to one side.

"You needn't suppose that we've ever said anythin' to Miss Ruth, or that we've goin' to." It's a great deal better to let her think you did it all yourself."

I felt like resenting this imputation upon the independence of my love-making, but at this happy moment I did not want to enter into a discussion, and therefore merely smiled.

"I'm so glad, I don't know how to tell it," continued Mrs. Aleshine, as Mrs. Lecks and Ruth walked towards the house. I was about to follow, but my companion detained me.

"Have you spoke to the parson?" she asked.

"Oh, yes," said I, "and he seems perfectly satisfied. I am rather surprised at this, because of late he has been in such a remarkably bad humor."

"That's so," said Mrs. Aleshine; "there's no gettin' round the fact that he's been a good deal crosser than two sticks. You see, Mr. Craig, that Mrs. Lecks and me, we made up our minds that it wasn't fair to the Dusantes to let that rich missionary go on payin' nothin' but four dollars a week apiece for him and his daughter, and if we couldn't get no more out of him one way, we'd do it in another. It was fair enough that if he didn't pay more he ought to get less; and so we gave him more fish and not so much bread, the same as we did the sailor men, and we weakened his tea, and sent him just so much sugar, and no more; and, as for openin' boxes of sardines for him, which there was no reason why they shouldn't be left here for the Dusantes, I just would do it, though he said he'd got all the fresh fish he wanted when he was in China. And then we agreed that it was high time that that library should be cleaned up, and we went to work at it, not mindin' what he said; for it's no use tellin' me that four dollars a week will pay for a front room and good board, and the use of a library all day. And, as there wasn't no need of both of us cleanin' one room, Mrs. Lecks, she went into the parlor, where he'd took his books, and began there. And then, again, we shut down on Mr. Dusante's dressing-gown. There was no sense in includin' the use of that in his four dollars a week, so we brushed it up, and camphored it, and put it away. We just wanted to let him know that if he undertook to be skinflinty, he'd better try it on somebody else besides us. We could see that he was a good deal upset, for, if ever a man liked to have things quiet and comfortable around him, and everything his own way, that man is a missionary. But we didn't care if we did prod him up a little. Mrs. Lecks and me, we both agreed that it would do him good. Why, he'd got into such a way of shettin' himself up in himself, that he didn't even see that his daughter was goin' about with a young man, and fixin' her affections on him more and more every day, when he never had no idea, as could be proved by witnesses, of marryin' her."

"Mrs. Aleshine," said I, looking at her very steadfastly, "I believe, after all, that you and Mrs. Lecks had your own way in regard to hurryin' up this matter."

"Yes," said she, with happy complacency, "I shouldn't wonder if we had. Stirrin' up the parson was our last chance, and it wasn't much trouble to do it. And now, what we've got to do is to get ready for the weddin'."

"The weddin'!" I exclaimed.

Mrs. Lecks regarded me with an expression in which there was something of virtuous indignation and something of pity.

"Mr. Craig," said she, "if there ever was anybody that wanted a guardian it's you. Now, just let me tell you this. That Mr. Enderton ain't to be trusted no further than you can see him, and not so fur, neither, if it can be helped."

"Of course," I said, "I'm ready to be married at any moment, but I don't believe Miss Ruth and her father will consent to anything so speedy."

"Don't you get into the way," said Mrs. Lecks, "of before-hand believin' this or that. It don't pay. Just you go to her father, and talk to him about it; and if you and him agree, it'll be easy enough to make her see the sense of it. You attend to them, and I'll see that everythin' is got ready. And you'd better fix the day for to-morrow, for we can't stay here no longer, and there's a lot of house-cleanin' and bakin' and cookin' to be done before we go."

I took this advice, and broached the subject to Mr. Enderton.

"Well, sir," said he, laying down his book, "your proposition is decidedly odd; I may say, very odd. But it is, perhaps, after all, no odder than many things I have seen. Among the various denominational sects I have noticed occurrences quite as odd; quite as odd, sir. To-morrow, I think, will do very well indeed. Even if it should rain, I see no reason why the ceremony should be postponed."

The proposition of a wedding on the morrow was not received by Ruth with favor. She was unprepared for such precipitancy. But she finally yielded to arguments; not so much to mine, I fear, as to those offered by Mrs. Lecks and Mrs. Aleshine.

For the rest of that day the mariners were kept very busy, bringing in green things to deck the parlor, and doing every imaginable kind of work necessary to a wedding which Mrs. Aleshine was willing to give into their hands. As for herself and her good friend, they put themselves upon their mettle as providers of festivals. They made cakes, pies, and I never knew, half so well as the three sailors, how many other kinds of good things. Besides all this, they assisted Ruth to fit herself out in some degree in a manner becoming to a bride. Some light and pretty adornments of dress were borrowed from Emily or Lucille, they knew not which, and, after having been "done up" and fluted and crimped by Mrs. Lecks, were incorporated by Ruth into her costume with so much taste that on the wedding morning she appeared to me to be dressed more charmingly than any bride I ever saw.

The three sailors had done their own washing and ironing, and appeared in cleanly garb, and their hair and beards well wet and brushed. Mrs. Lecks and Mrs. Aleshine put on their best bibs and tuckers, and Mr. Enderton assumed his most clerical air, as he stood behind a table in the parlor and married Ruth and me.

"This," said Mr. Enderton, as we were seated at the wedding feast, "is a most creditable display of attractive viands; but I may say, my dear Ruth, that I think I perceived the influence of the happy event of to-day even before it took place. I have lately had a better appetite for my food, and have experienced a greater enjoyment of my surroundings."

"I should think so," murmured Mrs. Aleshine in my ear, "for we'd no sooner knowed that you two were to make a

match of it, than we put an extra spoonful of tea into his pot, and stopped scrubbin' the library."

For the next two days all was bustle and work at the island. Mrs. Lecks and Mrs. Aleshine would not consent to depart without leaving everything in the best possible order, so that the Dusantes might not be dissatisfied with the condition of the house when they returned.

Mr. Enderton was much surprised at these preparations for immediate departure. He now became convinced that a conspiracy had been entered into against him, and fell into an unpleasant humor. This, however, produced very little effect upon any of us for we were all too busy to notice his whims. But his sudden change of disposition made me understand how correct were the opinions of Mrs. Lecks and Mrs. Aleshine concerning him. If I had left that island with my marriage with Ruth depending upon Mr. Enderton's cooperation, my prospects of future happiness would have been at the mercy of his caprices.

Very early on a beautiful morning Ruth and I started out on our wedding journey in the long boat. Mr. Enderton was made as comfortable as possible in the stern, with Ruth near him. Mrs. Lecks and Mrs. Aleshine sat facing each other, each with a brown paper package by her side, containing the life-preserver on which she had arrived. These were to be ever cherished as memorials of a wonderful experience. The three sailors and I took turns at the oars. The sea was smooth, and there was every reason to believe that we should arrive at our destination before the end of the day. Mrs. Aleshine had supplied us with an abundance of provisions, and with the exception of Mr. Enderton, who had not been permitted to take away any of the Dusante books, we were a contented party.

"As long as the flour held out," remarked Mrs. Aleshine, "I'd never been willin' to leave that island until the Dusantes came back, and we could have took Emily or Lucille, whichever it was that kept house, and showed her everythin', and told her just what we had done. But when they do come back," she added, "and read that letter which Mr. Craig wrote and left for them, and find out all that happened in their country-place while they was away; and how two of us was made happy for life; and how two more of us, meanin' Mrs. Lecks and me, have give up goin' to Japan, intendin' instead of that, writin' to my son to come home to America, and settle down in the country he ought to live in,—why, then, if them Dusantes ain't satisfied it's no use for anybody to ever try to satisfy 'em."

"I should think not," said Mrs. Lecks, "with the 'redie' cards on the parlor table, not a speck of dust in any corner, and the board money in the ginger-jar."

A sequel to this story will commence in next issue.

"Early Morning."

Corot, the great French painter, was one of the most distinguished members of what the English critics designate the Barbizon School, because most of the works of that class were painted at Barbizon, a little village on the borders of the Forest of Fontainebleau, a favorite resort of those artists. The French, however, always refer to this group of painters as "the men of 1830," which is perhaps a more correct nomenclature, as it was about that time their influence became so potent in the salon.

Jean Baptiste Camille Corot was of humble parentage; his father was originally a barber, but marrying a dress-maker with a good patronage, he so interested himself in her calling as to eventually adopt it as his own. They were so successful in their joint labors that we may consider them worthy forerunners of Worth; "a dress from Corot's" being considered a work of art befitting royal personages.

The Corots naturally wished their son to succeed them in the lucrative business they had established, but it was so repugnant to his wishes that after many weary discussions it was finally decided to give him \$300 a year and permission to follow his own inclinations. That very day young Corot purchased a stock of artist's materials, and repairing to the banks of the Seine, near his father's shop, he began to paint.

He met with little encouragement at first, the only person who sympathized with him or believed in his genius and ultimate success being a young seamstress of the name of Rose in the Corot establishment. It was some years before success crowned his efforts, but when once he became known his works were eagerly sought after, picture dealers and collectors besieging his door. One of his best and most widely-known paintings is "Early Morning," the original of which is now in the Louvre. It is remarkable for the dewy freshness of the atmosphere, a characteristic of Corot's works which his *confreres* attempted to imitate in vain. Daubigny referred to this trait of Corot's when he enviously remarked, "He puts nothing on canvas, and everything is there."

Corot possessed a most happy and generous disposition. He spent nearly all the fruit of his labors in works of charity, leaving the wealth he inherited from his father intact to his relatives, never having spent a centime which he had not

earned by his beloved art. "Good Papa Corot," as he was universally called, lived to the age of seventy-nine, beloved by all. The morning of his death his faithful servant urged him to take some nourishment to sustain his strength, but he gently shook his head, saying, "Papa Corot will breakfast in heaven to-day," and just before he died he whispered that beautiful landscapes were fitting before his eyes, "more beautiful than any painting." A meet ending to the life of a distinguished painter and a good man.

Recipes.

GRAPE WINE.

Pick the grapes off the stems and mash with a potato pounder, allowing a pint of cold water to every quart of grapes before they are washed. Then add the water and let stand for three days, stirring each day. Strain through a jelly bag, and the following day pour off carefully from the sediment, and add three pounds white sugar to every gallon of juice. Put into large jars loosely corked to allow it to ferment, and at the end of three weeks (if it has done fermenting) add one quart of whiskey to five gallons of liquid. In three or four days bottle it, corking tightly. While the wine is fermenting the jars must be kept filled with some of the liquid reserved for the purpose.

TOMATO SALAD.

Skin and slice some ripe tomatoes, also one white onion; lay them on the ice until cold, put them in a salad bowl, sprinkle a very little sugar over them (about a saltspoonful), pepper them well,



"EARLY MORNING."

pour about three tablespoonfuls of salad oil over them, a little Worcestershire sauce, and the last thing, one tablespoonful of vinegar with one heaping teaspoonful of salt dissolved in it. Be very careful not to break the tomatoes, but mix the dressing at one side of the dish and gently pour it over with the spoon. The same dressing can be used for lettuce and cucumbers without the sugar.

GRAPE JAM.

Separate the skin from the pulp of the grape, putting them in different dishes, then put the pulps in the preserving kettle with a teacupful of water, and when hot run them through a colander to separate the seeds, add the skins to the pulp and weigh, allowing three-quarters of a pound of sugar to each pound of fruit, and just sufficient water to keep them from burning. Cook slowly for three-quarters of an hour, and bottle.

PEACH PRESERVES.

Plunge the peaches into boiling water to remove the skins easily, and then throw into boiling water. To every three pounds of fruit allow one and one-half pounds of sugar and one cup of water. Make a syrup of water and sugar, and when boiling place the peaches in, a few at a time, and cook till tender. Put sufficient peaches in the jars and fill up with the syrup.

ESCALLOPED TOMATOES.

Peel and cut across the tomato in slices about a quarter of an inch thick, lay layers of tomato, then sprinkling of fine bread-crumbs seasoned with pepper and salt, then bits of butter, repeat and end with bread-crumbs and butter. Bake an hour and a quarter.

THE CHILDREN'S CORNER.

The Camel and His Associates.

(An Eastern Fable.)

There was once a lion that had his lair in a meadow near a public road. He had three friends—a wolf, a raven, and a jackal—who attended him, and received their food out of the prey which he took in hunting. Now, as some herdsmen were passing along the road one of their camels lagged behind and strayed into the meadow until he found himself in the presence of the lion, who promised him safety and protection as long as he cared to remain with him.

One day the lion, when out hunting, attacked a large elephant, and was wounded so severely with its tusks that he was unable to hunt. The wolf, the raven, and the jackal had to do without their usual supply of food, for they were accustomed to eat what remained of the lion's prey. After several days of famine they held a consultation. They said to one another:

"What have we to do with this great grass-eating camel? Could we not induce the lion to kill him and feed us with his flesh?"

But the jackal said, "This is a thing that we dare not mention to the lion, for he has assured the camel of safety and taken him under his protection."

Said the raven, "Let me bring the king round to our proposal," and away he went and presented himself before the lion and said: "This grass-eating camel that goes lolling about among us is of no profit to us. Shall we not kill him to satisfy our king's hunger?"

But the lion was very angry, and said: "How wicked is your proposal! I did not think you would venture upon such words in my presence, seeing you knew that I had given the camel a promise of protection. Did you never hear it said, 'He who keeps a sacred obligation has greater merit than one who prevents the wanton shedding of blood?' I cannot break faith with the camel."

To which the raven replied: "I know another saying which runs thus: 'One person is a ransom for a family, a family is a ransom for a tribe, a tribe for all the people of Egypt, and all the people for the king.' Now, I will find a way of escape from this treaty of protection in such a manner that the king need not give himself any anxiety on the subject. We shall proceed by stratagem."

Accordingly, next day when all the three and the camel also were before the lion, the raven spoke as follows: "Oh king, thou art in want of food to strengthen thee. Now we offer ourselves to thee, for by thee we live, and if thou perish, not one of us can survive thee. Wherefore, let the king eat me, for this will be according to my desire."

But the wolf and the jackal interposed: "Hold your tongue! What benefit would the king receive from eating you? You would not be a mouthful to him."

Then the jackal said: "But I have enough to satisfy him. Therefore let the king eat me, for I willingly consent thereto, and it will be according to my desire."

But the wolf and the raven replied: "Hold your tongue! Your flesh is impure and unfit for food!"

Then said the wolf: "I am not so. Therefore, let the king eat me, to satisfy my wish and sincere desire."

But the raven and the jackal said: "That will not do, for the doctors say, 'If any one wishes to kill himself let him eat the flesh of the wolf.'"

Then the camel thought that if he offered himself for food they would invent some excuse for him, as they had done for one another, and he would get off, and at the same time find favor with the lion. So he said: "There is enough in me to feed the king abundantly; my flesh is pleasant to eat, and free from impurity. Therefore, let the king eat me and feed his servants, for I obediently submit to this."

Then the wolf and the raven and the jackal said: "The camel has spoken what he knows to be the truth, and exhibited great generosity."

And so they fell upon him and tore him in pieces. And that was what the camel made by associating with improper companions.

Mother Goose and Father Gander.

Old Mother Goose, that wonder-book
Whose rhymes get caught in memory's web
And echo down the fading years—
That book delights my daughter's heart.

THE QUIET HOUR.

"In Service."

Make use of me, my God;
Let me not be forgot.
A broken vessel cast aside,
One whom Thou needest not.

"All Souls are Mine."

In religious work how dependent we are for
effective work on the divine worker in the partner-
ship. He worked in you first; He works still in
you; and only as He works in you, can He work by
you; and if you are to work with any effects upon
others, it must be because he is working before you,
with you, and after you.

"Help me to-day
To bear all patiently,
To rest all trustingly,
To wait all hopefully,
However long;
Assured that as I bear,
And rest and wait,
He plans the end to crown
A victor's song."

With this stimulating hope let us work on, but
always in profound dependence, knowing ourselves
to be only reeds through which flows the river of
the water of life.

"Even so send I you." Hear that word ringing
down the centuries. Sorrow and trial, suffering
and sin, are close beside us. "Even so send I you,"
not simply to bind up the broken-hearted, but to
find the broken-hearted. Human sympathy is the
medium through which the Divine works. God
binds up broken hearts with human hands.

Think what the world was with one Saviour in
it. Think what each city would be to-day with a
thousand Saviours in it. Think what One has done
to scatter darkness. Think what the world would
be if all who bear the Christian name, in palace and
hovel, had His spirit and were doing His work.

There is so much to be done, and we feel so help-
less and incapable. Shall we give up the struggle
and own ourselves defeated? Surely not. This is
the situation in which we are placed by God. The
work is His, and He never gives us work which we
cannot do, if we look to Him for strength and wis-
dom. If we try to work alone of course we shall
fail. Never give up, or envy those who seem to
have an easier time of it. Your work for God may
only be the teaching of little children—only little
children! Does not the Master say, "Take heed
that ye despise not one of these little ones." When
the Temple was built the stones were made ready
at a distance. Each workman shaped his stones
according to the command of the master-builder.
Unless he gave the order it was impossible that the
stones, prepared by hundreds of workmen, should
form, when brought together, one harmonious
whole. Is it easier to build the spiritual temple?
When the great Master-builder gives you small
stones to prepare for their special niche in the
heavenly temple, do not think that the task is
beneath you, or sigh for greater work. The task
set you is always the greatest. If you neglect that
for which you consider greater, will He accept the
service which he has not asked of you.

"With aching hands and bleeding feet,
We dig and heap, lay stone on stone;
We bear the burden and the heat,
Of the long day, and wish 'twere done;
Not till the hours of light return,
All we have built do we discern."

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

Another month has been measured off upon
Time's dial, and I joyfully resume the pleasure of a
chat with my boys and girls. And what more con-
genial accompaniments could be desired than the
fast-falling twilight and the mingled perfume of
mignonette, sweet peas and phlox so sweetly
wafted to us on the soft August breeze!

The golden wealth of harvest is now safely
stored, and the busy farmer turns up the willing
earth again to draw from sun and air new food for
next year's growth. The freshly upturned sod,
the bright young aftermath of the meadows, and
the proudly waving cornfields form a charming
picture. And the orchards—oh! the orchards—the
small boy's delight! Not until now has he waited
to sample their fruit. He knows just where the
sun is first wont to kiss the apples into rosy
blushes, on what particular tree the most luscious
plums hide, and where the mellowest pears and
peaches hang their tempting golden balls. Oh,
happy small boy, at once the trouble and delight of
every household fortunate enough to possess so great
a treasure. Thoroughly do I sympathize with you
in your sports and petty troubles, for have not I
travelled the selfsame path? Does one readily for-
get life's happiest hours?

Back to the busy routine of school have gone
my bright-eyed troop—back with fresh vigor and
new determination to improve as far as possible
the fruitful present, remembering that—

"A place in the ranks awaits you,
Each man has some part to play;
The Past and Future are nothing
In the face of stern To-day."

I am very pleased with the result of our "Gem"
competition. Quite a number are contributing, and
the work on the whole is excellent, displaying very
good taste on the part of the contributors, so much
so that it will be a difficult matter among so many
good ones to choose the best collections.

The mere looking up and writing out the pretty
selections must necessarily benefit the collectors,
but I would recommend you not to allow your
work to stop there. Try and commit to memory
from time to time a few of those fair thought
blossoms, and, like a true florist, learn all you can
of each flower; that is, the work from which it is
taken, and the name and other details of the
author. In this way you will easily obtain much
useful information and develop a taste for pure,
wholesome literature.

The press of to-day—that very important factor
in the education of the masses—in a general way
furnishes a very unhealthy diet for the youthful
mind. Sensational narratives of crime and faith-
lessness, too often real, but frequently fictitious,
elaborated by clever writers (a pity their talent
should be so abused!) to attract the eye and claim
the attention, fill a large portion of many of the
papers heedlessly brought into our homes, till, as
Pope says, the frequent sight of vice lessens our
hatred of it; and surely, if slowly, will such reading
contaminate the mind and impair the intellect.
Fortunately, there are also clean, pure-toned
journals, whose tendency is rather to elevate than
to degrade, which may be safely admitted to any
household.

The mind that dwells only on noble thoughts
will unconsciously assimilate nobleness, while its
less worthy sentiments will perish for want of
nurture. Ever your loving— UNCLE TOM.

Puzzles.

1—NUMERICAL ENIGMA.

My 3, 6, 8 is an article employed by fishermen.
My 1, 2, 7 is half of a great light.
My 10, 4, 5, 11 is to be delicious.
My 9 is a vowel.
My WHOLE is a place in Canada.

MURIEL E. DAY.

2—WORD SQUARE.

1st. Belongs to an office.
2nd. Adorned.
3rd. Parts of a quadruped.
4th. One of the signs of the zodiac.
5th. To make tuneful.
6th. Smaller degree.

MURIEL E. DAY.

3—NUMERICAL ENIGMA.

My 6, 7, 8, 9 pertains to water.
My 1, 2, 3, 4, 5 is an organ.
My WHOLE is the name of a city in England.

LILLIAN M. SHEPPARD.

4—LOGOGRIPH.

When I am whole I am a machine; Double curtailed and I
am out down; Transposed I am a fruit; Beheaded I am part
of a cornstalk; Transposed again and I am the plural form of
a verb.

MAGGIE SCOTT.

5—DIAMOND.

1. A letter.
2. Layer or stratum.
3. Goddess of love and beauty.
4. Song in two parts.
5. A letter.

T. GRAY PHELAN.

6—SQUARE.

1. The inner part of anything.
2. That which eats or corrodes.
3. To make reparations.
4. Income derived from lands.
5. A ringlet.

T. GRAY PHELAN.

7—CHARADE.

My FIRST is to stumble.
My SECOND is an exclamation.
My THIRD is a falsehood.
My WHOLE is a place in Africa.

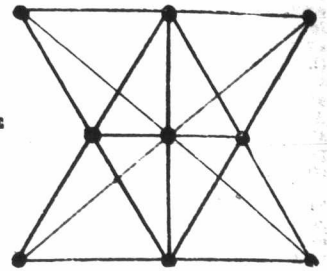
F. W. HODDY.

Answers to August 2nd Puzzles.

- 1.—To get her (together). 2.— GRATES
3.—Romulus. R E L E N T
4.—Partridge. A L P A C A
5.—Grand Trunk. T E A P O T
6.— P L A Y E N C O R E
L A V A Y A W L
A V O W S T A T E S

SOLVERS TO AUGUST 2ND PUZZLES.

Maggie Scott, "Kit," Blanche MacMurray, T. Gray Phelan,
Muriel Day, Lillian M. Sheppard, Mabel Ross, Annie C. Mc-
Lennan; also Lulu Huston and Blanche MacMurray too late
for last issue.



ANSWER TO NO. 3 PUZZLE
IN JULY 15th ISSUE.

COUSINLY CHAT.

M. E. D.—"Kit" is "Kit"; can't tell you more; 'twas her
request I referred to. Your squares are fine.
"Margaret."—It may be if it continues to prove interest-
ing. You need no assistance.
L. M.—You are very welcome. Do you not know our old
"cousin" H. A. W.? Where is he?
B. MacM.—Your first attempt is excellent. Come again.
Have sent your "Gems" to proper place.
"Nesta."—Are you getting lazy or working too hard at
school?
T. G. P.—I shall try to award prizes according to the per-
centage of answerable puzzles, so that those who contribute
will have an equal chance, which they could not have other-
wise.
J. S. C.—Might apply "Nesta's" answer to you too, old
boy. I miss you. ADA A.

Be Womanly at All Hazards.

Whatever else you may aspire to in this world,
let the greatest ambition resolve itself into the
firm determination to be womanly at all hazards.
No matter if the duties of life call you forth to do
battle side by side with your brothers and hus-
bands, do not forget that the femininity that is so
charming in the home circle is at just as high a
premium in business life.

Be strong-minded in the truest sense of the
word, but do not let your mentality run away with
those little graces and winning ways that endear a
woman to all mankind. You can be just as suc-
cessful in any undertaking by working under the
banner of refinement and gentleness as you can if
you discard these gracious elements and adopt a
sort of stony antagonism that raises at once a
barrier between you and all the world.

Perhaps the working woman argues that she
means to win her way on merit rather than
manners. Very well said, my sister, but just as
soon as the cloak of womanliness is thrown aside,
do not be surprised if you receive the sort of treat-
ment men deal out one to the other. If you adopt
masculine ways expect dealings to correspond.
Men admire womanly women the world over, and
in order to be enshrined in that corner of their
hearts where mother, wife and sisters are held
sacred, the department must be at all times tinged
with gentleness and sweetness, commingled with a
dignity that is far more powerful than the assump-
tion of a wilfully aggressive demeanor.

Resting at Home.

It is possible for any woman to practice the rest
cure in her own home. For example, one physician
writes: "I insist that my wife, a person of the
nervous temperament who exhausts her energy
every day, often needlessly, shall remain in her
room at least until nine o'clock every morning. At
first she found this a trial, and fancied the house-
hold could not be started unless she was about, but
within a week things went on as smoothly as usual,
and now it would upset everything if she came
down to breakfast and undertook to manage things.
The children are old enough to eat their breakfast
and go to school without her supervision, or, if
they need attention, it is an easy thing to run up
to mamma's room. After they are gone, the cook
comes up to take the orders for the morning, and it
often happens that if Mrs. — is not going out she
does not leave her room until she comes down to
luncheon. This is an experiment, but the result is
that she has gained over twenty pounds, pounds
that restore her to her normal weight. Seven-
eighths of the slender women of the world lose
weight by over-activity; they are too active right
in their own homes or over-exercised out of doors.
The old notion of getting up early was not made to
fit this restless and energetic age. The new reading
for this class should be 'lie abed as long as you can,
and when you do get up take things as easily as
possible.'

The only question is can women make up their
minds to do this? Probably not all of them can
arrange a morning rest, but they might an after-
noon one. The great point is to plan for it. The
person who does not know how to lay plans and to
execute her work quickly never has time to rest,
and here we believe the chief difficulty lies.

The Montreal Exhibition.

(Continued from Page 382)

HORSES.

The horse exhibit was, on the whole, not of an extraordinary character. While there were quite good animals in almost every class, the average was not high. The lighter breeds were possibly the better brought out.

THOROUGHBREDS

were only few in number but quite good in character. As at last year's show the contest for 1st place in aged stallions lay between Dawes & Co.'s (Lachine) exhibit and W. C. Edward's (M. P.; Rockland) June Day. They are capital animals of good, useful size. The latter was the favorite of many, but not with the judge, as he placed him 2nd. He is a handsome, round-ribbed brown with capital style and action, while his more successful rival has a bit more broody appearance. Besides winning 1st in his class he secured the sweepstakes award. The 3rd exhibitor was John Newman, Lachine, who showed good animals in a number of filly classes without opposition. He also won 3rd on aged stallion.

Montreal can always show good things in Roadsters and Standard-breds. The former class especially was well contested, especially in the harness sections. John Newman's stock figured prominently in the younger breeding classes. Nearly all the sections were well contested. The best horse of the class was found in a handsome, finely-formed horse shown by J. J. Roy, Bordeaux, while next him in the aged class came a worthy exhibit of D. & J. Greig. In the harness sections the chief exhibitors were T. D. Buzzell, Jas. McVey, the American Stable Co., Geo. Hogg, Montreal, and J. R. McKay, Helena.

In the Standard class, Dawes & Co. led in mature stallion and McVey 2nd on right good, well-bred horses. The best mare was found in an exhibit of Geo. Jordan's, an exhibitor of a number of prize winners. None of the sections were large, but nearly all contained nicely-bred animals of good pattern.

A few nice high-stoppers were shown by Montreal exhibitors.

In the Saddle and Hunter classes the awards chiefly remained in Montreal. The exhibits were of quite a high-class character in most of the competing sections. Dr. E. M. Robb was a successful contestant in a number of sections, as was also Jas. McVey, Jas. Johnston, Comte, T. D. Buzzell & Co., Mrs. Meredith, and Mrs. Hunter.

The French Coach class was represented by only two horses, shown by A. Stuart, Ste. H. Eustache, and Robt. Ness, Howick, who won as named. Both horses are of strong, useful, nice pattern.

HEAVY DRAFT.

There is not much to be said about this class. Many prizes offered were not competed for, and a number were taken by thin, indifferent animals, although there were a few good horses present. The 1st and 2nd prize brood mares, shown by Thos. Irving, North Georgetown, and Dawes & Co., were good mares, and good dams as indicated by their promising foals.

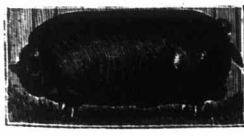
CLYDESDALES

were shown by three exhibitors, Messrs. Robt. Ness, Howick; McGerrigle Bros., Ormstown, and American Horse Co., Montreal. The competition lay between the two first-named. Mr. Ness knows a good horse, and will not keep anything else. His stock was not in high fit, but he captured the leading awards in a number of sections, including among others that for mare with two of her progeny, as well as for aged stallions, on his last year's winner, Lawrence Agate. McGerrigle Bros. also had right good animals, which were not in higher than nice breeding condition. They are, however, a nice-limbed lot. Their aged stallion, Mac-Innis, and stallion two years old, are especially of nice Clyde pattern.

Percherons, Shires and Hackneys were represented by one stallion of either breed while the first-named had also a fine pair of beautiful grays, and a single mare. These were shown by Institute Bourde at Mile End and were well brought out. The Shire, a plainish horse, was shown by Chas. Normandin, Boucherville, and the Hackney, Saxingham Fireway, a good specimen of the breed, shown by Hermitage Farms, St. John, could guard his own laurels in good competition.

CANADIAN HORSES

are a feature peculiar to Montreal show. They are of French descent, rather nicely put up, about fifteen hands high, moderately clean legged, and of very ordinary action. One of the awards were taken by Messrs. Jos., J. B., and Henri Deland, Lachine, who showed in most of the sections. Other exhibitors were S. Lecavaber, St. Martin, who won 1st on aged stallion; J. J. Anderson, Dominionville, 2nd in same section; and A. Beatus, St. Laurent, who won a couple of premiums. The pony classes were exceptionally good at this show. Robt. Ness showed a beautiful stallion also mare in foal, winning 1st on either. Welsh ponies were shown by C. McGole, who won 1st on stallion, also on mare in foal. He also won 2nd on Exmore stallion, and 1st on mare in foal, besides a number of other pony prizes. Mr. G. Boomer and R. Wilton Smith were also successful competitors in pony sections.



LEICESTER SHEEP ONLY

Yearling and ram lambs for sale at moderate prices. We have only a few, but they are all first-class animals, with good pedigrees. Address—C. & E. WOOD, Freeman P.O., Burlington Station, Ont.

TO BE SOLD WITHOUT RESERVE.

THE FAMOUS... Ayrshire Herd

of Synenham Farm, estate of the late Thomas Guy, Oshawa, Ontario, on WEDNESDAY, OCT. 13th, 1897.

Farm of 200 Acres,

in first-class state of cultivation, for rent or on shares. For catalogue of stock, or particulars of farm, write, or call on—

Mrs. Flora C. Guy, or James O. Guy, EXECUTORS, OSHAWA, ONT.

The farm is about five minutes' walk from the Oshawa elect. car terminus.

Live Stock Farm FOR SALE

In Townships of Calvin and Lauder, District of Nipissing, Province of Ontario.

LOTS 24 and 25, CON. 10, TOWNSHIP OF LAUDER.

" 8 " 9, " 1, " " " CALVIN.

Which contains 387 acres more or less, of which about ninety acres of loam and clay under cultivation, on which all kinds of machinery has been used, and on which is erected bank barn, 40x86 feet, with 9 feet stone wall, and 18 feet wall on top, under which there is stall room for 64 head, and into which water is supplied in pipes from chute in creek about 1,600 feet distant; also a frame barn 40x50 feet; pig house, 30x40 feet; frame dwelling house, well-finished and plastered, 18x24 feet; summer kitchen, 16x18 feet; wood shed, 18x24 feet; and silo, 16x16x24 foot wall. There is a fine water power and valuable mica mine on the property, and the Patois Creek runs through the property. Anyone thinking of going into a stock farm, this is a grand opportunity. Game and fish in abundance. Post office distant 3 miles; Mattawa, 10 miles; Eganville, 6 miles. For terms and further particulars apply to or address:

JOHN MACKAY, RENEW, ONT.

FOR SALE!

25 CLYDESDALE STALLIONS and MARES.

Nearly all prize-winners at Toronto, Montreal, Ottawa, and Ontario World's Fair. Most of our young stock are bred by the Columbian champion, Prince of Wales, Grandeur four times at Toronto. Two of our fillies are daughters of Lillie Macgregor, the champion World's Fair mare. Also a number of Hackneys. Also Ayrshire bull and heifer calves, and Shropshire sheep. 62-y-om

D. & O. SORBY, Guelph, Ontario.

W. G. Pettit & Son, ONTARIO.

Telegraph office, Burlington Station, G. T. R.

BREEDERS Shorthorns, Shropshires, and Berkshires OF

Have an extra good lot of young bulls from 6 to 8 months old, got by Indian Statesman. A Duchess of Glo'ster bull by Indian Chief. Also a few choice yearling ewes and ram lambs, and Berkshires of all ages.

Farms one-half mile and one and one-half from Burlington Station, G. T. R.

SIMMONS & QUIRK.

Shorthorn Cattle, Berkshires Swine—Money-making Sorts.

The imported bull, BLUE RIBBON -17985- (63736), by ROYAL JAMES (54972); dam ROSE-LINTY, by GRAVESEND (46461), heads the herd. Female representatives of the celebrated Mina, Strathallan, Golden Drop and Mysie families.

The Berkshires are choice prize-winning stock. Easy to feed, quick to sell.

Stock for Sale. C. M. SIMMONS, Ivan P.O., Ont. 1-1-y-om JAMES QUIRK, Delaware, Ont.

FOR SALE! Good Young Cows

two years old yearlings and heifer calves out of imported and home-bred cows, and the imported bulls, Royal Member and Rantin Robin. Come and see them, or write, if you want something special. om H. CARGILL & SON, Station on the farm. Cargill Sta. & P.O., Ont.

Hawthorn Herd

of deep-milking SHORTHORNS for sale. Heifers and cows of the very best milking strain. Inspection invited. 13-y-om WM. GRAINGER & SON, Londesboro, Ont.

ADVERTISE IN THE ADVOCATE.

GOSSIP.

We recently took the opportunity to visit the works of the John Watson Manufacturing Co. (limited), Ayr, Ont., and found a large number of men employed on full machinery, especially engraving cutters. These people make a good machine, that should find ready market among those who need a good machine to put in their corn. Their root pulpers, grain grinders and pneumatic feed elevators, wood saws, horse powers, barrel trucks, etc., are all of good pattern and strong. Their catalogue should be written for.

A. C. Hallman, New Dundee, Ont., writes:—Sales in Holsteins have been good, and in Tamworths unsurpassed. My herd of Holsteins are quite up to their usual high standard. I have just decided to make an exhibit of Holsteins at Toronto, and would kindly invite my numerous friends to again meet me there. I will rest on laurels won for a year on my Holsteins, and try to bring my Tamworths before the public in the same way. I shall exhibit my old stock boar Nimrod 174, which has never yet contested.

MR. ROBERTSON'S SALE OF AYRSHIRES.

The announcement in our advertising columns of the dispersion sale on Oct. 28th of the entire herd of high-class Ayrshire cattle belonging to Mr. R. Robertson, Compton, Que., will be of peculiar interest to Ayrshire breeders and to dairymen generally all over the Dominion. Mr. Robertson having accepted the position of director of experimental farms of Maritime Provinces the whole herd will be sold without reserve. It is probably safe to say that no herd of Ayrshires in Canada combines the blood of a greater number of the best milking strains of the breed, and Mr. Robertson being acknowledged to be one of the best judges of Ayrshires in the Dominion, and always careful in making his selection of sires, the public may depend upon the character of the cattle, as well as that of the man, being reliable. The herd includes all the females in the 1st prize young herd at the World's Fair, and many of their produce, and is at present headed by Matchless, the magnificent two-year-old son of the great cow, imported Nellie Osborne, 1st prize cow at the World's Fair at Chicago, and of Mr. Reford's grand old bull, imported Glencairn, one of the best of the breed that has ever figured in this country. This young bull, which will be the champion, is full of high-class quality, a show bull in any company, and fit to head the best herd on the continent creditably, while as a breeder he is already making his mark as we would expect him to do, by getting first-class calves, showing great promise as milkers. There are also imported a full complement of promising heifers of all ages, about twenty high-class breeding and milking cows, including the famous matron Nancy, the dam of Tom Brown, winner of first prize and sweepstakes as best bull, any age, at the World's Columbian Exposition. Selected from this herd have been exhibited at the competition at the Sherbrooke Exhibition for several years, both for single cows and for numbers of 6 to 10 cows against the strongest competition that has ever been met at any show in Canada. The herd numbers about 40 head of registered Ayrshires, and is one of the most attractive offerings that has been made at public auction in many years.

WM. BUTLER & SON, DERBHAM CENTRE, ONT.

In this fine herd of Guernsey cattle are sixteen head, ten of which are females. Messrs. Butler & Son had the honor of capturing the herd prize at the Montreal Exhibition this year. The herd was originally founded from Ontario Agricultural College stock, as well as by importations made from Elliott Warren, North Carolina, where the silver medal cow at Toronto, also a three-year-old and yearling, also first prize winners at Toronto, was purchased. The stock bull, May's Roseberry 3423, and his mate, out of May Queen, is now six years old, and in good form. As a show record he won the silver medal for two successive years at Toronto. He has also proven himself a worthy sire. The four bull calves in the herd are by May's Roseberry, while the yearling was imported from Elliott Warren. He was sired by Prince of Primrose and out of Irma. He is a promising growthy fellow, possessing much strength of constitution. Irma (imported), now ten years old, has raised three calves on the farm, and has proven herself a dairy producer. She came into Mr. Butler's hands with a record of 70 lbs. milk per day, and 3 lbs. butter, and Mr. Butler notwithstanding she has never been conditioned for a test with them she has produced over forty pounds milk, testing 6.8. Lady Luke was bred by William Davis, and is now six years old. She is carrying her second calf since purchased. G. Leach has produced seventeen pounds butter per week. She is an animal possessing much sweetness of quality. There are also a pair of two-year-old heifers that promise well, as well as a pair of yearlings, one of which, Effie Rose of Sunnyspring 9077, by May's Roseberry, and out of Lady Luke 3rd, possessing a good constitution.

In the Chester White pens are some forty animals, at the head of which is the stock boar Prince Alexander 337, now five years old; he has been shown all his life, and always winning first honors, which speaks for his quality, possessing great depth and thickness of substance. They have also a very fine hog under one year by Prince Alexander, which promises to equal his sire in the showing and as a stock producer. Ambitious Choice 710 possesses immense substance, being but thirty months old and weighing over 700 pounds. His stock are coming in fine form. Two exceptionally choice yearling sows are deserving of special notice, and are in excellent form, being lately imported. Rose 806, two-year-old, will weigh about 670 pounds, and possesses an immense back and quarter. She has been a successful breeder says Mr. B., her stock being the kind that are in demand in the market. Two young sows out of Annie Lauric are shown in excellent form, and possess immense depth of body.

In Duroc-Jerseys the firm are showing sixteen head, one aged boar, one yearling, and one under a year. The aged sows were bred by John H. Banghardt, Lansing, Mich., and were imported this season, and, considering that her litter was weaned in July, the aged sow is in fine form.

W. F. STEPHENS' (TROUT RIVER) AYRSHIRES.

In the herd of W. F. Stephens, Trout River, Que., are some 23 matrons which will commence dropping their calves in September. This herd was founded in 1868 from stock purchased from Thos. Irving, Montreal, and the bulls have been obtained from such breeders as Gibbs, Drummond and Irving; the present one, Uncle Sam, being a son of the noted Nellie Osborne, and by Baron Renfrew by Mansurrae (imp.). Uncle Sam was the first calf dropped at the World's Fair, Chicago, and has grown into a strong, stylish fellow, full of quality and ambition, yet of a good disposition and a producer of creditable stock. Heather Queen 4746, by Duke of Argyle 2921, and out of Nettie 2910, is still regarded as a valuable cow, having been a regular producer—all her stock finding ready buyers. She has a record of 56 lbs. milk per day, and several first premiums have been placed to her credit. Nettie 2nd 4747, by Duke of Argyle 2921, and out of Dew Drop 2914, has also been a winner in the showing, as well as a successful breeder. She has a record to her credit of 63 lbs. milk per day. Fedora 5532, by Golden Guinea 4454, and out of Lady Dufferin 3rd, also possesses much superior quality. Her sire was the sweepstakes bull in the Province for several years. She has a milk record of 55 lbs. per day. She is a lowest, business-looking cow, and has won the admiration of good judges. Duchess of Fife is a five-year-old cow by Allan Gordon 5911, and out of Dora 5814, due to drop her third calf in January. She has also taken prominent places in many showings. Of such animals as the above the entire herd is composed, and are in the pink of condition, without the appearance of having been pampered. Of the 16 heifers, the two-year-olds are by Allan Gordon, while the yearlings were bred by Uncle Sam, and are a smooth, strongly-constituted lot. In fact, they are a herd within themselves. The yearlings by Uncle Sam are of somewhat more rangy type, with good solid bodies—the kind from which to expect producers. Eight calves were also shown us, seven of which are females. The bull was lately sold to Ontario. Mr. Stephens reports a very active demand for Ayrshires.

Ample Shade Stock Farm.

IN Shorthorns WE BREED THE BEST. AND Leicesters YOUNG STOCK FOR SALE!

E. Gaunt & Sons, ST. HELEN'S, ONT.

Lucknow Station, G. T. R., 3 miles, om

JOHN SRIGLEY, Allandale, Ont.,

Breeder of Shorthorns and Herefords, Shropshire sheep, Berkshire and Yorkshire pigs. A choice bunch of Shropshires, also a few Shorthorn and Hereford females now for sale. om

Geo. Ralkes, Barrie, Ont.,

Breeder of Shorthorn Cattle & Shropshire Sheep. At present offering some choice Shropshires, all ages. om

"Gem Holstein Herd."

STOCK FOR SALE!

We only keep and breed registered Holstein-Friesians. We have now some choice young bulls and heifers, also some older animals, all of the very best dairy quality, that we will sell, one or more at a time, on reasonable terms. Correspondence solicited.

HILLIS BROTHERS, REDFORD PARK P.O., ONT. Shipping Station, Toronto. 7-y-om

BROOKBANK HOLSTEIN HERD.

Champions for milk and butter. Eight have already won money in actual test. Sir Paul De Kol Clothilde in service, in whose veins flows the blood of such record-breakers as Pauline Paul, Clothilde, De Kol, Mercedes, Netherland Twisk, etc. Nineteen nearest relatives average 22 lbs. of butter in one week. Orders taken for Holstein calves and Poland-China pigs. A. & G. RICE, Oxford Co., Ont. CURRIE'S CROSSING.

Maple Hill Holstein-Friesians

FOR SALE

Artis Mercedes Margaret and Madge Merton 2nd, well bred heifers and in fine condition, one a prize winner. Both due to drop first calves in November to Count Mink Mercedes and Sir Pieterje Josephine Mechthilde respectively. Will sell cheap as I have no room for more cows. Write or come and see. 11-y-om G. W. CLEMONS, St. George, Ont.

SPRING BROOK STOCK FARM—Holstein-Friesian Cattle and Tamworth Swine—

Meet me at Toronto; will exhibit a herd of Tamworths; will not exhibit Holsteins, but have a large herd of best quality and breeding stock of all ages for sale. Prices right. A. C. HALLMAN, New Dundee, Waterloo Co., Ont.

PRIZE-WINNING STOCK FOR SALE

AYRSHIRE BULLS fit for service; one out of Ada No. 382, winner of first and two special prizes at Provincial Dairy test, Guelph, Ont., 1896. Imp. POLAND-CHINA pigs of all ages.

W. M. & J. C. SMITH, Fairfield Plain, Ont.

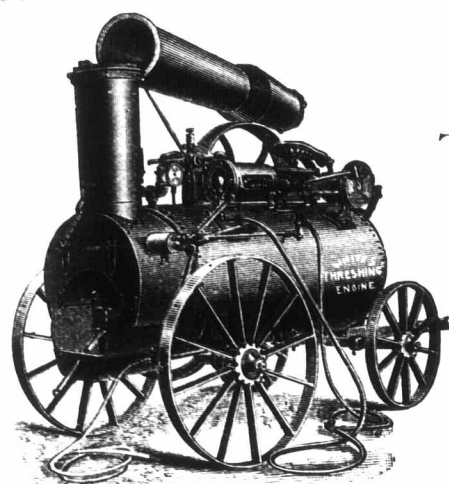
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ADVERTISE IN THE ADVOCATE

Better Than Klondyke.

We will send the FARMER'S ADVOCATE regularly for the balance of this year and all of 1898 (16 months), to every new subscriber who remits to us \$1.00. It has no equal. Worth its weight in gold to any farmer. Issued 1st and 15th of each month. Now is the time for agents to work at all fairs, and secure valuable premiums or liberal cash commission, as preferred. Write for sample copies, terms, etc.

THE WM. WELD CO. (LIMITED),
London, Ont.



THE OLD RELIABLE White's Portable Threshing Engine

Furnished with stack shown or with our Short Traction Stack, or with our Improved Water Stack. New style Double Ring Piston. Large saving in fuel and water. See this before buying. Cheap second-hand Engines for farmers' own use; guaranteed good. Strongly and positively guaranteed to suit any buyer.

The GEORGE WHITE & SONS CO., Limited.
London, - - Ontario.

USE Queenston Cement

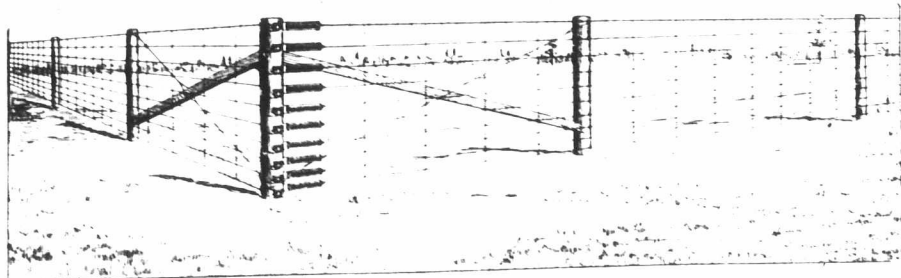
FOR BUILDING STABLE, SILO, AND OTHER WALLS, CISTERNS, STABLE FLOORS, HOG TROUGH, CULVERTS, Etc.

Farmers and others building this season, make your plans and get supply of gravel and stone early; saving time and money. If use of cement is not understood we will send competent man FREE, to lay out work and give complete instructions. We warrant all structures when our instructions are carried out, and guarantee our cement quite equal to any domestic or imported Portland cement for above structures.

SEND FOR OUR NEW PAMPHLET OF 1897, CONTAINING FULL INSTRUCTIONS, FREE.

For prices of Cement and other particulars, apply.

ISAAC USHER & SON, Queenston, Ont.



The Gem Fence Machine.

The most practical solution of the fence question yet offered. So cheap any farmer can buy it. Received highest honors at Manitoba fairs this season. Do not fail to see us at Toronto and other leading fairs. Write for our printed matter.

McGregor, Banwell & Co., Windsor, Ont.

GOSSIP.

In writing to advertisers, mention the "Farmer's Advocate."

H. Bennett & Son, St. Williams, Ont., write that they consider the FARMER'S ADVOCATE a first-class stock journal.

Mr. W. J. Boynton, of Rochester, Minnesota, while passing through London a few days ago with a carload of Shropshire rams, called at our office, and expressed a strong belief that the demand for such stock would be good later in the season in the Western States. His carload of sixty odd head of all rams but two were secured chiefly from the flocks of Messrs. Gibson, Delaware; Hawkshaw and Wright, Glanworth, and Duncan, of Thorndale.

J. F. McKay, Middlesex Co., Ont., writes: "I have a fine lot of young Poland-China pigs that will soon be ready to wean, sired by Lennox, of Wilkes strain. My young Mammoth Bronze turkeys (over 40) required a lot of attention, owing to wet weather, but they are now making rapid growth. The hatches of Rouen ducks and Barred Rocks were good, and are now doing exceedingly well. The Rock cockerels are nicely barred, and of good size."

MESSRS. A. J. C. SHAW & SON'S SHORTHORNS AND BERKSHIRES.

Camden View Shorthorns are fairly well represented in the group portrayed in the illustration on page 377 of this issue. Their home is situated about three miles west of Thamesville, right on the bank of the Thames river. The proprietor, Mr. A. J. Carson Shaw, has for many years been selecting and breeding along correct lines until the thick-fleshed, sappy Scotch type has been secured throughout the herd. Most prominent in the illustration is the stock bull Commander - 18828 - bred by Hon. John Dryden. He was calved in 1893, sired by Conqueror - 8227 - and out of Darling, by imported Sussex. The roan cow in the rear is from the celebrated herd of J. & W. Russell, Richmond Hill, Ont. Her sire was imported Tophill. The red and roan next in front of her are her offspring, and the result of her mating with the celebrated Indian Chief and Commander. The light roan cow appearing in the center background is by imp. Windsor, and the cow in the extreme upper right-hand corner is of the Ramsden strain, and sired by Daisy Chief. She is of the square, deep-fleshed sort. The remaining heifers and young bulls of the group are fair representatives of the herd at present, and indicate at a glance the sort of young stock being produced. The present stock bull was bred by Messrs. E. Gaunt & Sons, St. Helen's, and is a lowset, deeply-ribbed, fleshy fellow. He was sired by Earl of Moray, and out of a Buckingham cow - one of Messrs. Gaunt's best matrons. This capital herd is the result of twenty-five years of anxious experience and careful work, the advantage of which is being realized by Mr. Shaw's patrons. Throughout this whole period the following qualities have been kept in view: Earliness of maturity, prolificacy, and ease of feeding, and have been gloriously realized. Besides Shorthorns, Camden View supports a fine herd of Berk-shire swine, also the result of twenty-five years' experience, and a stud of valuable carriage mares, the product of such imported Cleveland sires as Old Dalesman, Disraeli, and Volunteer. Mr. Shaw has been wise in continuing along a straight line of breeding, with the result that he now has a very desirable lot of carriage stock, of which any breeder may well feel proud at the present day.

J. H. LLOYD'S (ST. LIN) YORKS AND BERKS.

While at the Montreal Fair, our attention was attracted by the excellent exhibit of improved matrons. A large Berkshires made by Mr. J. H. Lloyd, St. Lin, Que. Of Yorkshires there are some 10 head in the herd, 15 of which are brood sows. The stock boar, Lord Dudley 312, is by Ashton Hero (imp.) and out of Maplewood Princess. He is now in his two-year form, and possesses much superior quality and substance. He has proven himself a sure and worthy sire. He won 2nd in company with noted stock. Brutus is one year old, by Prince of Isaleigh, and out of Maplewood Princess. He is a very strong, growthy, active fellow, and also won 2nd prize in his class. Of him Mr. Lloyd says: "He is producing excellent stock." Two six-months old boars, by Lord Dudley, also in the herd, should attract the attention of breeders requiring stock boars; one also winning the 2nd prize in strong competition. A pair of yearling brood sows, by Prince of Isaleigh and Markham Pride are worthy of special mention on account of their smoothness and substance. Each has raised two litters, and they are shown in grand form. Four sows are shown, under one year, in excellent form, all the get of Lord Dudley, and in spite of a fiery competition landed the 2nd prize to their credit. They are all being bred this fall, and admirers of York-shire pigs can make no mistake in purchasing stock from such matrons, or the six females, under six months, which are also being bred this season. The entire herd are a credit to their owner, and not only possess abundance of substance and quality but have a freshness in their appearance which denotes health and vigor.

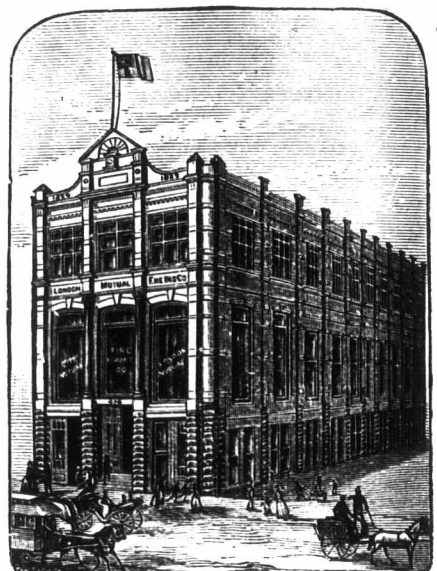
The Berkshires contain ten head, led by a worthy sire, the noted Baron Lee, in the rising and yearling class. He is a good one, and deservedly won the 1st prize. Of him Mr. Lloyd says: "His stock are coming grand, the best I ever owned," and they can scarcely fail, considering the quality of their sire. He is a big, smooth, good animal, with faultless markings, weighing about 350 lbs. Robert Fitzroy is also a pig of good quality, and the winner of the 1st prize in the aged class. He has been employed in the herd for two years, and has proven himself very worthy. His stock are coming well marked and vigorous. A pair of yearling sows, the descendants of a noted stock boar, are credited with four litters, and are shown in their best condition. They are shown in grand form. Also a pair of yearling sows, by Baron Lee, are shown in grand form. Hope which are also being bred this season. A pair of yearling sows, the descendants of a noted stock boar, are credited with four litters, and are shown in their best condition. They are shown in grand form. Also a pair of yearling sows, by Baron Lee, are shown in grand form. Hope which are also being bred this season.

Old and Reliable!

The London Mutual

Offices: 476 Richmond St.,

London, - Ontario.



Forty Years Experience.

Intending insurers will note that this Company was the FIRST in Canada to reduce the rates of insurance to a proper basis.

The FIRST to pay for losses by lightning, whether fire occurred or not.

The FIRST to insure the outdoor effects of the farmer, under the head of "ordinary contents."

The FIRST to give "permits" for the use of steam threshing machines, under equitable rules.

The FIRST to pay for animals killed by lightning in the pasture fields of a farm, or going to and returning from market.

The FIRST to adopt rules and regulations, plain and simple, with liberal conditions.

A FARMER'S COMPANY, and recognized by them from the fact that it has done, and will continue to do as great a business in farm property as all the other companies combined.

Over 50,000 Members

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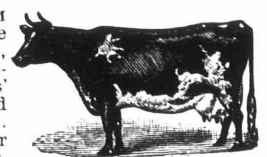
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N.B. This Company belongs to no COMBINE. Charges rates adequate to security, being governed by its long experience. The only fire mutual licensed for the Dominion.

AYRSHIRE CATTLE

The bull TOM BROWN and the heifer White Floss, winners of sweepstakes at World's Fair, were bred from this herd. Young stock for sale. Also Leicester Sheep and Berkshires Swine. 5-1-90



DAVID BENNING,
Glenhurst Farm, WILLIAMSTOWN, ONT.

Look up

THE "NEIDPATH" HERD OF AYRSHIRES at Toronto and London fairs. An extra lot of young bulls will be exhibited with a full herd of females.

THOS. BALLANTYNE & SON,
Neidpath Stock Farm, STRATFORD, ONT.
Farm adjoins city, main line G. T. R.

KAINS BROS. BYRON, ONTARIO,
LONDON STATION.

Breeders of AYRSHIRE CATTLE.
Send for the young bulls, including the first prize yearling at London, second prize bull calf, and other good ones; also choice heifers of 1-1-90

GOSSIP.

In writing to advertisers, mention the "Farmer's Advocate." At the sale of Lord Brougham's Shorthorns at Penrith, August 4th, good prices were obtained...

The third biennial sale of Hackneys, the property of Mr. R. G. Heaton, Chatteris, England, took place August 4th, at which prices ruled high...

FARMERS' INSTITUTE TENT.

Mr. F. W. Hodson, Superintendent of Farmers' Institutes for Ontario and Secretary of Live Stock Associations, writes us that he has made an arrangement with Manager Hill to have a tent as an office for the convenience of the above organizations at the Toronto Exhibition from Sept. 1st till Sept. 10th.

NOTICES.

The John Watson Manufacturing Company, Limited, of Arr Ont., make an announcement elsewhere in this issue of interest to our readers, particularly in regard to feed and ensilage cutters, one of the newer features being the pneumatic elevator.

Messrs. Oler, Hammond & Nanton, agents for the Calgary and Edmonton Railway Co., and Q. Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co., issue a pamphlet on the inside of which is a map of the Territories, showing the different lines of railway that extend into it from Manitoba.

We are in receipt of list of Manitoba farm lands for sale, gotten up by Mr. R. J. Shrimpton, manager of the Manitoba Mortgage and Investment Co., 228 Portage Ave., Winnipeg. This company have properties all over the Province for sale.

FORESTRY IN ONTARIO.

The Bureau of Forestry of Ontario has just issued its annual report, which presents a clear view of existing conditions in that Province as regards the forests and the timber supply, as well as much practical information for farmers on tree planting and preservation.

The importance of forestry to the farmers is urged, and figures are given of the extent to which deforestation has been carried in many of the older settled districts. The results, owing to the work of the Bureau in previous years, are by this time well known.

The report comprises papers on the study of nature in the schools, urging that the idea carried out to some extent on Arbor Day should be more thoroughly instilled into children on the manufacture of charcoal, by Mr. Alexander Kirkwood, of the Crown Lands Department; and on insects injurious to trees, by Dr. Brodie, of Toronto; besides much other valuable matter.

FAIRVIEW STOCK FARM.

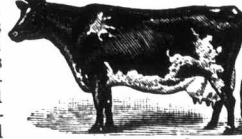
Ayrshire Cattle and Berkshire Pigs.

Traveller of Parkhill at the head of herd, while my herd is descended from cows purchased of Mr. David Benning; are modern in type, and are of the choicest milking strains.

DAVID LEITCH, Grant's Corners, Ontario. Stations—Cornwall, G.T.R.; Apple Hill, C.P.R.

WM. WYLIE,

Breeder of high-class AYRSHIRES. Young stock always for sale; bred from the choicest strains procurable.



AYRSHIRE CATTLE AND RED TAMWORTH SWINE

A grand lot of each on hand, including a nice lot of in-calf heifers, and EIGHT BULLS six to eighteen months old.

CALDWELL BROS., Briery Bank Farm, Orchard, Ont. 23-1-y-om

Choice Ayrshires of deepest milking strains. Largest and oldest herd in Ontario.

J. YUILL & SONS, CARLETON PLACE, ONT.

WM. STEWART & SON,

Breeders of high-class Ayrshire cattle; choice young stock of either sex and any age always on hand.

WM. STEWART & SON, MENIE, ONT.

Choice Ayrshires of deepest milking strains. Largest and oldest herd in Ontario.

J. YUILL & SONS, CARLETON PLACE, ONT.

Ingleside Herefords.

UP-TO-DATE HERD OF CANADA!

Bull Calves OF THE RIGHT SORT For Sale.

H. D. SMITH, Compton, Que. 17-y-om

Guernsey Cattle

CHESTER WHITE AND DUROC-JERSEY PIGS.

At present we are offering 4 Richly-bred Bull Calves two of which are from imported cows, and pigs of all ages.

BUTLER & SON, DERHAM CENTRE, ONT.

GUERNSEYS

This is the Dairy breed for giving farmers. Large, vigorous and hardy, giving plenty of rich milk.

Address: SYDNEY FISHER, Alva Farm, Knowlton, P.Q. 17-y-0

THE EUREKA VETERINARY

CAUSTIC BALSAM A reliable remedy for Veterinary patients. Ask your druggist for it.

THE EUREKA VETERINARY MEDICINE CO., LONDON, ONT.

Exile of St. Lambert 13657

Sire of 56 DAUGHTERS with seven day tests of from 11 lbs to 32 lbs, 7 oz. of butter a greater record than can be shown of any other bull living or dead.

Address: P. J. COGSWELL, ROCHESTER, N. Y.

WM. BACON, ORILLIA, ONT.

Breeder of Choice Registered Jerseys. At present am offering some choice Bull Calves and heifers of gilt-edge breeding.

Address: P. J. COGSWELL, ROCHESTER, N. Y.

NOTICES.

At Mr. A. E. Mansell's sale of Shropshire rams at Shrewsbury, England, last month the first prize Royal shearling, Diamond King, was bought by Mr. A. Tanner at 170 guineas (\$850).

The latest use we have noticed for Queenston Cement was in the construction of a blacksmith shop floor at the establishment of Mr. H. McCallum, Belmont, Ont. The top soil had first been removed and the solid ground given the proper level.

THE EASTERN DAIRY SCHOOL.

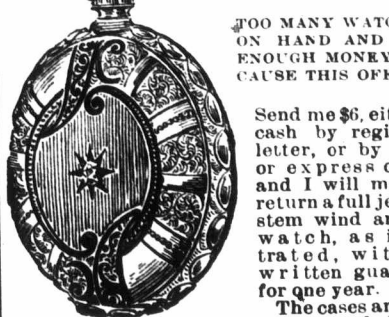
The Eastern Dairy School at Kingston, Ont., will reopen on November 25th, 1897. There will be seven courses, six of two weeks each and one of six weeks, making eighteen weeks in all.

A NEW REMEDY FOR LUMPY JAW.

In this issue we wish to draw attention to the announcement of Messrs. J. H. & W. J. Fleming, which they offer a new preparation which is a specific for that troublesome cattle ailment, lumpy jaw or actinomycosis, which will at once arrest the attention of stockmen.

Rolled gold watch for

\$6.00 TOO MANY WATCHES ON HAND AND NOT ENOUGH MONEY CAUSE THIS OFFER.



Send me \$6, either in cash by registered letter, or by postal or express orders, and I will mail by return a full jeweled stem wind and set watch, as illustrated, with my written guarantee for one year.

EDMUND EAVES, Wholesale Jeweler, 185 St. James Street, Montreal.

BRAMPTON JERSEY HERD.

Crowded Out

Are our high-grades and thoroughbreds. 22 head of beauties, mostly in calf, and will be sold—worth the money—to make room for our registered stock.

B. H. BULL & SON, Brampton, Ont.

A. J. C. C. JERSEYS FOR SALE.

Young cows and heifers in calf, heifer calves, bull calves, from rich and deep milking ancestry. Testing from 5.60 to 9.2, official test. Prices to suit the times.

H. E. WILLIAMS, Sunny Lea Farm, 17-1-y-om KNOWLTON, P.Q.

4 GRADE JERSEY COWS

and Heifers; 2 are 4 years old and due to calve in September and October; and 2 seven-eighths Jersey, good colors and rich milkers, are due in December. For prices write

W. C. SHEARER, BRIGHT, ONT.

MASSENA'S SON

and two choice young Jersey Bulls for sale; also eggs from choice pens of Blk. Minorcas (Rev. W. E. Scott's breeding), Plymouth Rocks and Black Langshans at \$1 for 15 eggs. Orders booked for Berkshire pigs. All of the best strains.

W. W. EVERITT, CHATHAM, ONT.

LEE FARM REGISTERED JERSEYS.

Bulls fit for service, \$50 each. Heifers in calf, 50. Young cows in calf, 75. Heifer calves, 30.

E. PHELPS BALL, Lee Farm, Rock Island, P. Q. 17-y-0

BELVEDERE STABLES

6 of my Best Jersey Cows

Kept for use of my own and daughter's families, but I do not wish to increase the number, hence I can usually offer something uncommonly choice. Just now I have

1 BULL, NEARLY 2 YEARS OLD, 1st prize winner, and fit for any herd.

1 SPLENDID BULL CALF, 7 MOS. OLD. The best, I think, I ever raised.

1 EXTRA BULL CALF, 3 MOS. OLD. MRS. E. M. JONES, Brockville, Ont., Canada. Box 324.

WILLOW GROVE HERD OF JERSEYS.

Sweepstakes herd of 1893, 1894, 1895 and 1896. J. H. Smith & Son, Highfield, Ont., are offering 12 females, to calve shortly; one first prize bull, dam Elena of Oakdale (19 lbs. 4 oz. of butter in seven days), grand dam Menies 3, A. J. C. C., test 20 lbs. 1 oz. in seven days. Dam of bull won 1st prize in dairy test, Guelp, 1896, and he is half-brother to King of Highfield.

GLEN ROUGE JERSEYS.

WILLIAM ROLPH, Markham, Ont., offers twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. 2-y-om

ROWAT BROS., HILLSDALE, ONT.,

Breed Shropshire Sheep. The flock bred from noted English breeders, and nothing but the best rams have been used.

SS. SAILINGS.

ALLAN LINES

THREE DISTINCT SERVICES FROM MONTREAL WEEKLY.

Royal Mail Service of Passenger Steamers, Montreal to Liverpool, every Saturday, calling at Quebec and Londonderry.

DIRECT SERVICE MONTREAL TO GLASGOW
Direct Service Montreal to London.

These steamers are of most recent construction; are of the highest class, and their record for the safe carriage of cattle is unexcelled. Special attention paid to the best methods of stowing and carrying cheese, apples and other farm produce. Steamers fitted with refrigerators for perishable freight. For schedule of sailings, rates of passage or other information, apply to— J. D. HUNTER, Western Freight Agent, Corner King and Yonge Streets, Toronto, or H. & A. ALLAN, Montreal.

Dominion Line Royal Mail Steamships.

Steamer.	From Montreal.	From Quebec.
Labrador.	Sept. 4, daylight.	Sept. 5, 9 a.m.
Vancouver.	18, " "	19, 9 a.m.
Scotsman.	Oct. 2, " "	Oct. 3, 9 a.m.
Labrador.	9, " "	10, 9 a.m.

Rates of Passage—Cabin, \$52.50 to \$70; second cabin, \$34 to \$36.25, to Liverpool or London. Steerage, \$22.50 to \$23.50, to Londonderry, Liverpool, London, Glasgow, Queenston or Belfast. Outfits furnished free to steerage passengers. First and second cabins are midship, and steamers are lighted throughout with electric lights.

DAVID TORRANCE & CO.,
General Agents,
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DOMINION LINE

ELDER, DEMPSTER & COMPANY'S

Regular Line of First-class Steamships.

TO MONTREAL . . .

TO BRISTOL (Avonmouth) and LONDON

CONSISTING OF THE FOLLOWING FIRST-CLASS STEAMERS:

S.S. MILWAUKEE	12,000 tons.
S.S. MONARCH (bldg.)	12,000 "
S.S. MONTCALM (bldg.)	8,000 "
S.S. MONTROSE (bldg.)	8,000 "
S.S. "MONTEREY" (bldg.)	8,000 "
S.S. MONTEZUMA	7,500 "
S.S. MERRIMAC	6,500 "
S.S. ALBERTA	6,500 "
S.S. QUEENSMORE	6,000 "
S.S. MARINO	5,000 "
S.S. ASHANTI	5,000 "
S.S. BELGIAN KING	4,500 "
S.S. PARKMORE	4,500 "
S.S. LYCIA	4,500 "
S.S. ETOLIA	4,500 "
S.S. MEMNON	4,250 "

Steamers of the above line are fitted up with all the modern improvements for carrying Live Stock, Butter, Cheese, Grain, and every description of general cargo, and are intended to be despatched from Montreal as follows:

TO BRISTOL (Avonmouth).

S.S. MEMNON	Sept. 2
S.S. MERRIMAC	9
S.S. MONTCALM	16
S.S. LYCIA	23
S.S. ETOLIA	30

And Weekly thereafter.

Steamers marked thus are fitted with cold storage.

TO LONDON.

S.S. QUEENSMORE	Sept. 4
S.S. MONTEZUMA	11
S.S. PARKMORE	18
S.S. MARINO	25

And Weekly thereafter.

For rates of freight and other particulars apply to
Elder, Dempster & Co.,
219 Commissioners St., Montreal.
Toronto Agency:—
R. DAWSON HARLING, 23 Scott St.
Chicago Agency:—
EARLE & MASSEY, 6 Sherman St.

Geo. Hindmarsh, AILSA CRAIG, ONT.

Breeder of high-class

SHROPSHIRE SHEEP

the blood of which was obtained from the noted flocks of both England and Canada. Ram lambs of the choicest breeding for sale.

MRS. B. L. BURGESS & SON

Burgessville, Ont., breeders of pure-bred SOUTHDOWN SHEEP, the descendants of imported stock BERKSHIRE and YORKSHIRE Pigs of superior quality. At present we offer 3 shearlings and 3 two-shear rams, half a dozen shearing ewes and a bunch of lambs.

Oxford Down Sheep.

A fine lot of Young Stock for sale. A few nice Yearling Rams and Ewes. Prices reasonable. Inspection invited.

Herbert Wright,
6-2-y-om Box 47, GUELPH, ONTARIO.

GOSSIP.

W. G. Pettit & Son, of Freeman, Ont., write us to change their ad., and report the sale of nineteen one- and two-year-old rams to R. Miller for Geo. Harding & Son, of Waukesha, Wis., U. S.

Mr. John Treadwell's sale of Oxford Down rams at Upper Winchden, England, on August 4th, was very successful. 62 shearlings selling for an average of £7 19s. (about \$90); the highest price was 85 guineas (\$125) paid by Mr. J. T. Hobbs.

It is reported that Sir Geo. Turner, who recently visited Great Britain, recommends that cattle breeders and owners in Australia make another effort to export live cattle to England. He asserts as a result of his enquiries or observations that Canadian cattle which are landed alive are inferior to the Australian beast, and sell readily at \$16 per head. He suggests a systematic experiment to overcome the difficulties of the long voyage; and at Manchester found that the prospects for such a trade were most encouraging.

The 39th annual report of the State Horticultural Society of Missouri, which we have just received from the Secretary, Mr. L. A. Goodman, fully sustains the high standard of excellence attained by previous volumes. It is well bound and illustrated, printed in large type and well indexed, and contains much valuable horticultural matter brought out in papers and discussions at the June and December conventions of the society, besides a great deal of matter specially prepared by Mr. Goodman, who is to be congratulated upon the manner in which he is doing his work.

Mr. W. V. Edwards, Souris, Man., purchased from Neil Smith, Brampton, Ont., the six registered Jersey cows and heifers exhibited by him at the Winnipeg Industrial, where four of these were prize winners in their classes, and were in the first prize herd there. Mr. Edwards is to be congratulated on his enterprise in securing such a choice lot of richly-bred young Jerseys descended from the famous herd of Mrs. Jones, Brockville, Ont., part of them being of the well-known Signal family, and others being dangerous grand-daughters of Topsy of Malone, who has a record of 14 lbs. butter in seven days at two years old.

With the concurrence of Hon. Sidney Fisher, Minister of Agriculture, Prof. Saunders, Director of Dominion Experimental Farms, accompanied Lord Kelvin and a party of about twenty other distinguished members British Association for the Advancement of Science on a trip to the Pacific coast. Unfortunately the travellers had not time to stop over at the experimental stations at Brandon, Indian Head, and Agassiz, but Prof. Saunders arranged with the managers to have at the railway stations samples of the more important products of the sections of the country in which the farms are located. A better guide than Prof. Saunders it would have been difficult to obtain. In connection with experimental farm work he has many times crossed the continent, and he is thoroughly familiar with its resources and possibilities, particularly in the direction of agriculture. He will leave the party at Victoria and then start on his annual tour of the experimental stations under his charge.

THE FARMER'S ADVOCATE received a call a few days ago from Mr. Peter Macfarlane, Inspector of Cold Storage for creameries under the Department of Agriculture, Ottawa. He states that some 140 persons in Ontario, 142 in Quebec, and about 100 elsewhere, made application to the Department for plans and instructions so that they might equip their factories or creameries in a manner as to the Government grant. Mr. Macfarlane's mission is to see that the work is being properly done and to rectify any trouble that has arisen through improper construction, several complaints having been received. In some instances he has found refrigerator buildings so imperfectly constructed that the sun could shine through the cracks; also ice houses where the ice was well covered with sawdust but no ventilation for the escape of the stratum of hot air above, and others where there were big holes to let in the heat, and no covering, practically, on the ice. Trouble was the natural result. Mr. Macfarlane states that a suitable cold storage compartment large enough to entitle the owner to the bonus can be put up for about \$100. Mr. Macfarlane has had 25 years' experience in the dairy business in Quebec Province. He disapproves of the plan of holding butter, as some Ontario dairymen are doing, instead of selling regularly every week.

DISPERSION SALE OF THE SYDENHAM FARM AYRSHIRES.

The executors of the estate of the late Thomas Guy, of Oshawa, Ont., announce in our advertising columns the sale by auction on Oct. 13th of the entire herd, and the determination to rent the farm. This herd of Ayrshires is one of the oldest and has been one of the most successful in showyard records in the Dominion. It was established in 1862 on a firm foundation by the purchase of some of the prize animals at the Provincial Fair that year, and has been strengthened at intervals by the purchase of high-class animals of the best-known families and the introduction of new blood by the use of first-class sires. For nine years they carried off the herd prize at the Ontario Provincial Exhibitions, a record probably never equalled by any other herd. Twice the herd prize was won at the Montreal Exhibition, and several times at the Toronto Industrial; besides a great number of diplomas and silver medals at various leading fairs. This herd was twice honored by the award of the Dominion gold medal for the best herd of Ayrshires. They also won the valuable prize offered by the FARMER'S ADVOCATE for the best five cows of any dairy breed. In milking tests representatives of this herd have won in some seven or eight contests, viz., twice at Toronto, once at London, Guelph, Ottawa, and twice at Kingston, the tests being for quantity and quality, against all comers. A draft of eight head from the herd shown at the World's Fair, Chicago, were awarded seven prizes and a highly commended ticket. Dairymen will find this sale a good opportunity to strengthen their herds by the purchase of good stock at their own prices.

HOME COMFORT

VICTORIES.

FOUR MEDALS—3 Gold and 1 Silver, World's Centennial Cotton Exposition, New Orleans, 1884.
HIGHEST AWARDS—Nebraska Agricultural Fair, 1887.
DIPLOMA—Alabama Agr'l Society, Montgomery, 1888.

AWARD—Chattahoochie Valley Exposition, Columbus, Ga., 1888.

HIGHEST AWARDS—St. Louis Agricultural and Mechanical Association, 1889.

GOLD MEDALS and 6 DIPLOMAS—World's Columbian Exposition, Chicago, 1893.

HIGHEST AWARDS—Western Fair Association, London, Canada, 1893.

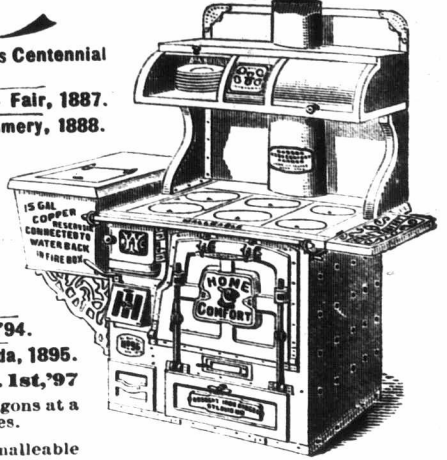
SIX GOLD MEDALS and Diplomas—Cal. Midwinter Fair '94.

SILVER MEDAL—Industrial Exposition, Toronto, Canada, 1895.

345,584 Home Comfort Ranges Sold to Jan. 1st, '97

Range illustrated is sold only from our own wagons at a uniform price throughout Canada and the United States.

Made of open hearth, cold rolled steel-plate and malleable iron—will last a life-time with ordinary care.



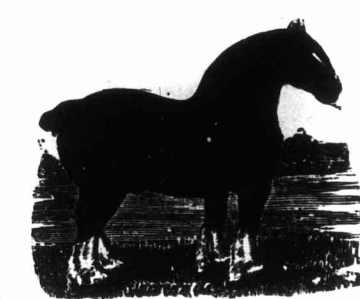
WROUGHT IRON RANGE CO.,

Founded 1864. Paid-up Capital \$1,000,000.

Factories, Salesrooms and Offices: **TORONTO, CANADA, and ST. LOUIS, MO.**
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We manufacture and carry a complete stock of Hotel Ranges and Kitchen goods; also the unequalled HOME COMFORT STEEL FURNACES. Write for catalogue and prices.

Champion Hackney Royal Standard Stallion . . .

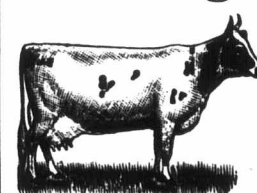


We have a number of first-class mares and fillies of this breed in foal to the above stallion. We also have for sale a number of other choice Clydesdale stallions, Standard-bred and Thoroughbreds.

GRAHAM BROS.,

Claremont, Ontario.
25 miles east of Toronto, on C. P. R. 4-12-om

Isaleigh Grange Stock Farm.



Special May Sale!

Consisting of five choice young AYRSHIRE BULLS fit for service, TWO GUERNSEY BULL CALVES, and the best lot of young IMP. LARGE YORKSHIRE PIGS ever offered.

PRICES LOW IF TAKEN THIS MONTH.

J. N. GREENSHIELDS, Prop., T. D. M'CALLUM, Mgr.,
DANVILLE, QUEBEC. 9-y-on

"FARNHAM OXFORD DOWNS."

I HAVE for sale a choice lot of yearling and ram lambs, yearling ewes, and ewe lambs for 1897. Prices reasonable.
7-y-om H. ARKELL, Arkell P.O., Ont.

SHEEP BREEDERS' ASSOCIATIONS.

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEV-ERING, Sec., Lafayette, Indiana. 3-1-y-om

J. H. Lloyd,

ST. LIN, QUE.,
Breeder and Importer of
IMP. YORKSHIRES and LARGE BERKSHIRES.

Pigs of all ages for sale, at prices to suit the times. My Berkshires are of Baron Lee and other noted strains. Correspondence solicited.



BARTON HERD OF TAMWORTHS

Choice stock of all ages and either sex, descended from imp. stock. Pairs and trios not akin. Write for prices. 19-1-y-om
W. T. ELLIOTT, Hamilton Market.

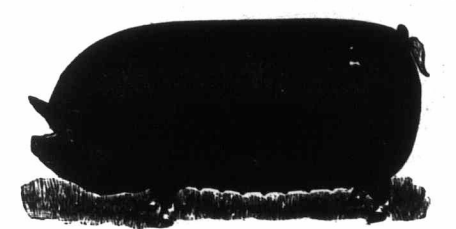
P. R. Hoover & Sons,

GREEN RIVER, ONT.,
BREEDERS OF CHOICE TAMWORTHS.
Young boars and sows ready for breeding purposes at prices which should sell them. St., Locust Hill, C. P. R.; Markham, G. T. R. Correspondence solicited. 9-1-y-om

Geo. N. Harris,

LYNDEN, ONT.,
Breeder of reg. Berkshires, and Southdown sheep. Young stock always for sale. Correspondence solicited. 17-1-y-om

SNELGROVE BERKSHIRES



Large, lengthy English type. Bred straight from first-class importations. Young boars fit for service, and spring pigs at eight weeks old, single or in pairs not akin. We ship to order, register, prepay express charges, and guarantee satisfaction. Write for prices.
-om J. C. SNELL, Snelgrove, Ont.

GOLDEN LINK HERD OF BERKSHIRES

was the sweepstakes herd at London, 1895-96. The unbeaten yearling, Fritz Lee, heads the herd. Some choice young boars and sows for sale fit for show. Also, May and June pigs. Pulletts and cockerels for sale, of the breeds previously advertised, at reasonable prices. Satisfaction guaranteed.
Sunside Stock Farm. T. A. COX, BRANTFORD, ONT.

LARGE ENGLISH BERKSHIRES

Sows in pig. Young boars fit for service. Orders booked for

young pigs sired by Baron Lee IV. and Victor XII. For prizes won by us, see Toronto Industrial and Guelph Fat Stock Show of 1895 and 1896. Write for prices, or come and see us.
J. G. SNELL, Snelgrove, Ont.
Station: Brampton, C. P. R. and G. T. R. -om

English Berkshires.

Herd headed by three first-prize boars. Large size, strong bone, fine quality, and a choice lot of breeding sows. Orders booked for spring pigs.
GEORGE GREEN, Fairview P.O., Ontario. Stratford Station and Telegraph Office.