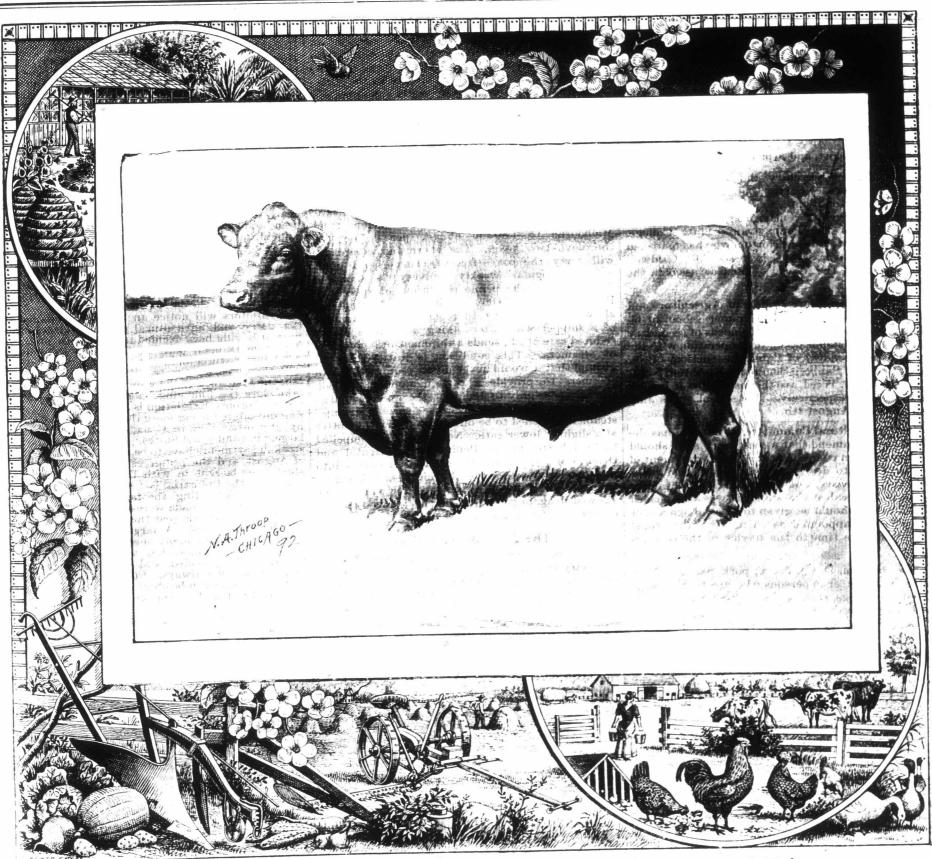


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VOL. XXIX.

LONDON, ONT., AND WINNIPEG, MAN., JULY 2, 1894.

No. 361



POLLED - DURHAM BULL "RED DUKE,"
THE PROPERTY OF J. F. & A. E. BURLEIGH, MAZON, GRUNDY CO., ILLS.

EDITORIAL

Take time to hand-pull weeds if not so numerous as to make that task a hopeless one. In growing grain use the "spudder" on Canada thistles.

Particulars regarding the next Ontario Fat Stock Show prize list, of special interest to breeders and others, appear on page 275 of this issue of the ADVOCATE.

A conference of road associations, State, county, township and municipal authorities, corporations and individuals concerned in road improvement, will be held at Ashbury Park, N. J., July 5-6.

A great deal of time may be saved and frequent mishaps avoided by carefully going over harvesting and other machinery before it is actually required for use. If any repairs are required, have them made at once.

Mr. M. A. Carleton, late assistant in the Bontanical Department of the Kansas Agricultural College, has been made an assistant in the Division of Vegetable Pathology, U. S. Department of Agriculture. The rusts of cereals and other plants will be his special objects of study.

The Massachusetts Agricultural College, at Amherst, recently lost its large barn and contents, except the live stock, by fire. The institution has been unfortunate of late, cases of tuberculosis and (suspected) hydrophobia having occurred among the cattle, the latter disease, or something resembling it, having killed eleven head.

We find the people of Australia are quite alive to the subject of export. Among the new additions to the Royal Agricultural Prize Schedule of Australia for this year is a prize of £6 for cheese suitable for export to the British market, not older than three months. Also a prize for dressed poultry suitable for export, and a prize for dressed capons.

The office of Secretary and Treasurer of the American Guernsey Cattle Club has been moved from Farmington, Conn., to Peterboro, N. H. Mr. Wm. H. Caldwell, recently Assistant Professor of Agriculture in the Pennsylvania State College, succeeds the late Edward Norton, who has managed the office for over seventeen years. Mr. Caldwell had charge of the World's Fair Guernseys in the dairy test.

The New Hampshire College of Agriculture and Mechanic Arts announces a summer school of biology, especially adapted to the needs of secondary teachers. This step is taken in co-operation with the State Superintendent of Public Instruction. Prin. C. A. Clark, of Sanborn Seminary, Kingston, N. H., and Prof. C. M. Weed, are the instructors in botany and zoology respectively. The school opens July 5th and ends August 4th.

The Agricultural Committee, at Ottawa, has decided to recommend that a veterinary staff should be appointed in connection with the Department of Agricultural, to deal with tuberculosis and other infectious diseases, and that Dr. McEachran be retained as head of the staff. It was also decided that a salary should be given to Dr. McEachran, or whoever was appointed as chief, so that he could devote his sole time to the service of the Govern-

Messrs. Wm. Davies & Co., pork packers, have addressed a letter to persons who are feeding large numbers of hogs, such as cheese factory proprietors and others, warning them against buying short, chunky store hogs for that purpose. Long, rangy, growing shoats are the sort wanted. They are also cautioned against making the hogs "too fat." "Give us," say this above firm, "nice, smooth, long, what we used to call half-fat hogs, and you will receive better prices and obtain a better return for the food given. Canadian bacon is under a cloud in England because of its over-fatness."

The Utah Experiment Station has issued a bulletin, which treats of the economical use of grain when fed alone, or when fed with green grass, and also of the economy of raising hogs on grass alone. Furthermore, the relation of exercise to the economical use of food is treated of. The experiments were so extensive as to prove almost conclusively that pigs allowed to roam over a large area of good grass, while receiving a liberal grain ration, made the most rapid growth, and made the best use of food fed. Those confined and fed grass and grain made more rapid gain than those fed growth to be profitable.

About one hundred and fifty members of the British Dairy Farmers' Association have been on an excursion to Switzerland, mainly for the purpose of gathering information regarding the dairy methods of that country. There is much to be learned from the Swiss, as would appear from the article on one of their famous breeds of cattle which appeared in the last issue of the ADVOCATE.

The Melbourne Australasian states that the trial shipment of Australian frozen pork, shipped from Victoria and sold in Old London at 4½d. per pound, is disappointing to those who had hoped for an extension of export trade in that direction. One mistake was made in putting up too heavy weights, and at the wrong time of year. The charges in connection with the shipment were 2½d. per pound, so that very little was left for the farmer who grew the pigs. The experiment will be continued. Choice bacon pigs have been selling at about 3d. per pound in Melbourne. The Australasian states that 140 is the most profitable weight.

The Australian Government has undertaken to introduce legislation providing for the advance of loans on leaseholds. The advances about to be made by the Savings Bank Commissioners will be on freehold land only, the act under which they operate prohibiting them lending money on the security of leaseholds. The Government will, however, when this bill is passed, accept leases of land in process of alienation from the Crown as security. The rate of interest will be 5 per cent., but in addition to that 2 per cent. per annum will have to be paid as a sinking fund for the redemption of the loan. The advances will be made, not by the Ministry, but by commissioners specially appointed for that purpose, and free from political influence, so that the danger of pressure being brought to bear by members of Parliament to restrain the commissioners from foreclosing on those who have fallen in arrears with their payments will be minimised.

A contract has been entered into between the Peninsular & Oriental and Orient Steamship Companies and the Agricultural Department at Melbourne, for the carriage of butter from Melbourne to London at 3d. per lb. net for the next two years. The steamship companies will carry the boxes free of charge, and guarantee a regular weekly delivery in London. This is one of the prime conditions of success in British markets. One condition in the contract allows either company to reject the consignments of a shipper who, after taking advantage of the reduced rate of 3d., sends a shipment by a rival line of steamers. This condition is justified on the ground that it would never do to require the mail steamers to provide a certain amount of coolstorage space only to find that the expected cargo was not forthcoming because some "tramp" steamer happened to be offering to carry the butter at a slightly lower rate. No one will be compelled to send butter by the Peninsular & Oriental and Orient Companies, but if an exporter comes into the contract to secure the 3d. freight, and then goes out to suit his own convenience, he will not be allowed to again participate in the reduced freight except with the sanction of the shipowners.

The Cultivation of Corn.

It is not many years since it was thought necessary to plant corn in hills, rowed both ways, so that cultivating could be pretty thoroughly done by horse labor. That idea was all right, but some hand hoeing was necessary to be done about the hills. In the corn-growing States, where ordinary farmers have from 75 to 100 acres, the old process is found to be far too slow and expensive. Corn is now sown in drills about three feet apart, and a single stalk every eight to ten inches. As soon as the blade appears above ground it is harrowed. thus pretty thoroughly cleaned of weeds, as well as rendering the soil friable and moist. Now and then a corn plant may be torn up, but when planting, a slight excess of seed may be put in to allow for this loss. While horse cultivating seems a great improvement on hand hoeing, it is now thought to be necessary to use the two-horse cultivator, working two rows at once. If the rows are straight, a good man can cultivate so close to the rows as to destroy nearly all weeds, and to cover up the very last of them. It is said that from fifty to seventy-five bushels of shelled corn can be grown per acre by this method.

In cultivating, it is well to cultivate pretty deeply, after harrowing ceases, in the centre of the rows: but as growth advances, shallow cultivation is necessary, or many roots will be broken off. The surface soil should be kept mellow for a couple of inches down, to act as a mulch to retain moisture and assist the ramification of the roots in search of plant food.

The Toronto Exhibition.

There are prospects that this year's Toronto Industrial Fair, from the 3rd to the 15th of September, will be much larger than any of its predecessors. Already a large number of important exhibits that were at the World's Fair last year have been entered for the Toronto Fair, and as there is no Columbian Exhibition this year to compete with the Industrial, every department is sure to be well filled. The grounds have been vastly improved. and the new stables and cattle sheds erected last year have had the finishing touches put to them. The prize list has been issued, and the amount is even larger than last year. A proposition was made to reduce the prizes in some departments, but this the directors decided would be a retrograde movement, and instead of a reduction, an increase has been made to the list. The only decrease made in any class was in the striking out from the list the class for agricultural horses. The principal additions and alterations made in the live stock department are as follows:—Special prizes are offered in addition to the regular prizes for Hackneys, by Mr. H. N. Crossley, of Rosseau; by Mr. John Holderness, of Toronto, and by the Canadian Hackney Horse Association. Two sections have been added in the class for saddle horses; for two and three-year-old geldings or fillies, not thoroughbred, but this the directors decided would be a retrograde year-old geldings or fillies, not thoroughbred, but sired by a thoroughbred horse, likely to make a good hunter or saddle horse. Valuable prizes are offered for four-in-hands, tandems and turnouts, etc. A lot of purses are offered for trotting and running races during the Fair. A prize of \$50 is added to the Holstein class for bull and four of his progeny, and special prizes are offered by the Holstein-Friesian Association of Canada for fat Holstein grades. New prizes are added in the sheep department for Canadian-bred pens of Leicesters, Lincolns, Oxford-Downs and Dorsets; prizes for similar pens in Cotswolds, Shropshires and Southdowns having been put on the list last year. Special prizes are also given by the American Shropshire, American Oxford-Down, and American Southdown Associations. In the swine department a new class has been added for Duroc-Jerseys, and two sections have been added in every class for a boar and four of his progeny, and for a sow and four of her progeny. Special prizes are offered by the American Berkshire Association. offered by the American Berkshire Association. The poultry list remains exactly the same as last year. In the dairy department new sections have been added for June cheese, both white and colored, as well as the usual prizes for August cheese. The exhibit of cheese and butter has increased so largely at this Exhibition that in future a whole building will be set apart evalueively for a whole building will be set apart exclusively for this purpose. The Eastern Dairymen's Association and the Ontario Creameries' Association have made grants towards the dairy prizes.

Exhibitors will notice an important change in the dairy and agricultural products classes this year, it having been decided to have both of these departments open both weeks of the Exhibition. All dairy products and roots, grain and vegetables, will, therefore, have to be delivered by September 5th, the first week of the Fair, and the judging will take place the following morning. The prize list for the Toronto Exhibition is a very liberal one, the amount offered being more than double that given by any other Fair in Canada, and equalling the largest in the United States. All entries in the live stock departments have to be made before the 11th of August, and the pedigrees of all thoroughbred stock must be sent in with the entry. The stock exhibit at the Industrial last year was a very large one, notwithstanding the fact that many of the best herds from Canada were at the World's Fair at the time, so that this year the exhibit will undoubtedly be much larger. A larger number of special attractions, which many seem to look for at the present day in connection with an Agricultural Show, will be provided, and cheap excursions will be given on all railways. Copies of the prize list and entry forms can be obtained by dropping a post card to Mr. H. J. Hill, the manager, Toronto.

Mr. Mey, a young gentleman who came from Germany a couple of years ago, and who has since spent some time at the Agricultural College, Guelph, and later at the Minnesota State Experimental Farm at St. Athony Park, has now settled down on his 600-acre farm near Niverville, on the east side of the Red River. Mr. Mey has built a good substantial dwelling house, and one of the best barns in the Province. He brought with him from St. Paul three fine teams of horses. The farm is well adapted to mixed farming.

Teaching the Colt to Back.—This should be done when the colt is small, but it seldom is until he is being broken to harness. Hitch him up with an old horse that will back at the word of command, and stop them where the wagon will move easily; tighten up the lines a little, and say "back, back." If he refuses to step back with the old horse, don't try to pull him back, or he will brace up against it, but have an assistant step in front of him with a buggy whip, and, as you say "back" and pull gently on the lines, switch his fore leg that is most advanced, and as he moves that back, touch the other one. Don't whip him around the fore legs, but switch him just enough to make him pick up his foot. Keep trying, and keep "sweet." Exchange.

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THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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THE FARMER'S ADVOCATE, or THE WILLIAM WELD CO.,

LONDON, ONTARIO, CANADA.

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The Big Cheese Analyzed.

A representative sample of the Canadian mammoth cheese taken from the block of 70 pounds, as returned from England, was found on careful analysis to have the following composition:-

trysis to have the 1911		-	Percentage
			99 06
Water			34.43
Butterfat			28.00
('urd (casein and albumen)			
Ash, salt, milk, sugar, etc.	10	****	
And the second s			

Prof. Shutt, of Ottawa, who made this analysis, reports that the cheese was perfectly sound, and that the relative proportions of fat and curd, upon which palatibility and digestibility depend, was eminently satisfactory.

Swiss Agriculture.

The article on Brown Swiss cattle and the extent of dairying in Switzerland, which recently appeared in the FARMER'S ADVOCATE, has occasioned further enquiry into the status of agriculture in that wonderful little republic. At a convention held in connection with the visit of the British Dairy Farmers' Association to Switzerland, Herr Mettler, medical officer of health at Zurich, imparted some interesting information which our readers will appreciate. He said the Swiss farmers were not troubled very much with the rent question, most of the land being in the hands of the owners in fact, not more than five per cent. of the cultivated land in Switzerland is rented. The average value of agricultural land in rural districts is £60 per English acre. The value increases, of course, according to proximity to a town, rising in the immediate neighborhood of large towns to £500 or £600 per acre. What little land is in the hands of tenant farmers bears an average rent of 35s per tenant farmers bears an arrived that the English acre. Judging from the extensive practice of house-feeding in the valleys, we expected to hear that labor is cheap, but this is hardly the case so far as continuous work is concerned. The Swiss farmers recognise the fact that if they are to keep the laborers on the land they must pay wages equivalent to those which the laborers could earn in the towns. There seems no difficulty about the extra labor required in hay-making, though the Swiss farmers very rarely co-operate. At such times there is less difficulty in getting occasional laborers than permanent ones.

Agricultural aborers are of two classes—(1) Those receiving board and lodging and from 8s to 20s per week in addition, according to the quality of the men. (2) Those which are not boarded or lodged. These receive more near towns than they would in the country, the minimum daily wage being 2s in the country and the maximum 4s around Zurich. Farm rates are altogether unknown in Switzer-All the taxes are massed together and take the form of an income tax, every man being taxed

the form of an income tax, every man being taxed according to his ability to pay.

This Utopian state of agricultural bliss caused much discussion, and some surprise was exhibited when Mr. Jesse Collings, M. P., asked if a laborer getting 15s a week would be required to pay income tax. To this Herr Mettler replied that every man had to pay. A reduction of £20 is allowed to every one, and every Swiss who has a yearly income exceeding this amount has to pay tax on that excess. In some cantons (Zurich, for example) the tax is a progressive one, the rate of taxation increasing with the income. The announcement of this fact was received by the British dairy farmers with prolonged cheers.

At dinner in the evening Mr. Jesse Collings, in a humorous speech, proposed "Success to Swiss Agriculture." He pointed out that the Swiss, although being with navigable rivers, mineral wealth, or coast line, were yet blessed with plenty of water and fresh air, and had managed, by patient industry, to make themselves into a prosperous people by agricultural pursuits. He believed the great secret of their success to be in the fact that the people were tied to the soil, the small holders being proprietors of the land. How can you expect patriotism from men who can sling all they possess upon their backs and march wherever they please? Mr. Collings complimented the Swiss upon their endeavors to promote dairy education. "There is a common saying," he said, "that you cannot teach an old dog new tricks." And so with farmers. an old dog new tricks. And so with larmers. They are very slow to change their habits. You must catch them young, and this the directors of the Zurich Dairy Farm School were endeavoring to do.

Abortion in Cattle.

At a recent meeting of the English Royal Agricultural Society a report from the Special Committee on Abortion was submitted. So far as the inquiry had extended, the Committee believed that they were justified in making the following recommendations:-

"(1) For practical purposes, and with a view to the adoption of the necessary precautions, the disease should be deemed to be contagious; (2) for the purposes of prevention, strict sanitary precautions, including habitual cleansing and disinfection of places where breeding cows are kept, should be insisted on, and particular attention should be paid to the character of the food and the water with which the animals are supplied; (3) the treatment by the aid of antiseptics is certainly to be recommended, and the evidence which has been already furnished in favor of the use of a solution of bichloride of mercury appears to the Committee to justify the advocacy of its general employment in every case where the disease presents itself in a herd. It may be advisable to state that in veiw of its poisonous nature, it is necessary to guard against any injurious consequences arising to pigs or poultry from the careless disposal of the sweepings from the sheds in which this disinfectant has been used; (4) on the question of experiments for the purpose of proving whether or not the disease is of a contagious character, the Committee do not feel justified in advising the Society to expend a large sum of money in this direction. At the same time, it is impossible not to realize that a decision on this point is a matter of very considerable importance, and the Committee recommend that an additional sum of £200 be placed at the disposal of the Veterinary Committee for the purpose of further scientific investigations into the causes of abortion in

Bath and West of England Show.

The Annual Show of this excellent Society, which was held in Guildford from May 30 to June 4, was a decided success. All branches of live stock, except hogs, were out in good form and numbers.

In the Agricultural horse classes Shires made the greatest showing, although the few Clydesdales were of superb quality. In Hunters and Hacks there was a fair representation. Hackneys and ponies also filled a conspicuous place in the stables. CATTLE.

The Bath and West of England Show is always looked forward to with an anticipation of seeing a splendid show of the rosy reds in the form of Devons, and this year was no exception, as these juicy red plumbs were out in strong numbers and excellent quality; the best that has been seen for many years.

Shorthorns. These were well represented in nearly every direction. Herefords were also out in good force. Many deserving animals were compelled to go away with barren honors, so keen was the competition. The Sussex classes were well filled, being near their native home. Aberdeen-Angus heretofore have not been given a place at the Bath show, but this year the Society allotted them a place, which brought a fairly good showing of the bonnie blacks out for competition. Kerries and Dexters were not very numerous, the latter exceeding their black sisters in point of numbers. There was a very large turnout of Jerseys at Guildford, and on the whole the quility was good. The Guernseys, too, were a good lot, much improved from what they were a few years ago, both in form and shape of udder.

SHEEP.

The Leicester and Cotswolds were very meagre in point of numbers, but of admirable quality. Southdowns and Shropshires made a magnificent display, the latter excelling the former both in numbers and preparation. The Oxford-Downs prizes were all captured by one breeder, which shows that they are not so general as some others. Summerset and Dorset-Horned sheep were well shown. Hampshire-Downs were not very numerous, but superior specimens could be seen among them. A few pretty little Exmores and other mountain sheep were also exhibited.

Unfortunately, the prevalence of swine fever necessitated the council—upon the advice of the Society's veterinary inspector to cancel all the entries that had been made in the pig classes.

It was with sore regret that it had to be done, owing to the fact that it was the largest entry of pigs that the Society had ever had; but it was felt that no other course could be safely pursued.

POULTRY.

Poultry, as usual, formed an attractive feature of the show. Although the entries fell a little below those of last year, the quality was good, and some of the classes were particularly strong.

IMPLEMENTS.

The implement department was of a very representative character, and formed both to the general and practical visitor a most attractive feature of the show. Every class of agricultural machinery was well represented.

WORKING DAIRY AND DAIRY PRODUCTS.

The dairy always appears to have formed an especial feature in the labors of the Bath and West of England Society. We may safely say that no other English exhibition at the present day other English exhibition at the present day can at all compare with it in the excellent uniform display of cheese, butter, or cream. A vast improvement has taken place within the last nine or ten years, which, there can be no doubt, is owing to lessons that have been learned in the working dairy, many dairies of cheese that in former years were only saleable at a very low price being now nearly double in value, owing to the greater skill used in manipulation. Many dairies in butter are also very much increased in value. In going through the various classes of dairy produce, it can be noticed how, from year to year, in many instances the same names and farms continue to hold their position, showing their method of manufacture has become a certainty, and that guess or chance work is a thing of the past. The working dairy was a scene of great activity within and of interest without, churning the whole of its working hours. The chief business, however, going on were the lectures and illustrations in the improved methods of butter-

The English Jersey Cattle Societies butter test at the Royal Jersey Society's Show, held at St. Helens, proved the best cow's capacity to be able to produce 2 pounds 3\(\frac{1}{2}\) ounces in one day, another 2 pounds 1\(\frac{1}{2}\) ounces. Twelve animals yielded an average of 1 pound 15 ounces of butter each for the

Cows should be milked in the stable the year round. In summer it saves much annoyance from the flies, and then the cows always stand better, too. It is neither pleasant nor profitable to be kicked over in the barnyard with a pail of milk, and all trouble of hooking and fighting will be avoided by putting the cows in the stable. And should spraying for horizontal be necessary, it can be done very cooling to the stable. easily in the stable.

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Polled-Durhams.

The accompanying illustration, together with the front page engraving, represent typical specimens of that valuable new breed known as "Polled-Durhams." The bull "Red Duke," is a very superior animal, weighing, at four years old, 2,360 lbs. He is registered in the American Shorthorn Herd Book, No. 105051, and No. 28 in the Herd Book for Polled-Durhams. He is owned by J. F. & A. E. Burleigh Mazon, Grundy Co., Ills., and was a World's Fair premium winner.

The cow "Daisy," No. 2, A. P. D. H. B., bred and owned by Messrs. Burleigh, is a noble animal, with splendid dairy qualities, having a record of 24 quarts per day, and is an easy keeper. She traces back on the dam's side through successive generations of Polled cows bred to Shorthorn sires to a Polled native muley in 1860. Her progeny are easy keepers and good feeders; young bulls weighing, at one year, from 800 to 1,000 lbs., and 2,000 lbs. at maturity. She is 14 years of age, and dropped, in 1893, a very fine Polled heifer calf, from Red Duke. The herd to which these animals belong were successful in capturing many of the World's Fair premiums, many of the cows being quite as good as any Shorthorns shown.

Mr. Burleigh, who is probably the oldest breeder of Polled-Durhams, has kindly favored us with a short history of the breed. Mr. Burleigh says he commenced breeding the horns off the Shorthorns or Durhams about 1860, and has now over eight generations polled on the dams' side, and over five top crosses Shorthorn blood, making them practically as good as the pure blood. Since 1881 nothing

but Polled sires have been used on the herd, and the object has been to breed for both beef and milk. No cross of any other established polled breed is allowed to go on record. We mention this to correct the statement that has frequently been made that the breed took their polled qualities from a cross of Aberdeen-Angus; but this is incorrect, as this breed was started before the Aberdeen-Angus cattle were imported into America. About 1881 there occurred a "sport" or "freak" in the recorded Shorthorn cattle of the Guinne and Duke line, in the form of twin heifer calves. In 1883 the same cow dropped a polled bull calf. These are all recorded in the American Shorthorn Herd Book, and from these have sprung a class of pure blood Pølled-Durhams, eligible to entry in both the Polled-Durham and Shorthorn Herd Books. Messrs. Burleigh have been breeding this class of Polled-Durhams for about four years, and had seven pure blood Durhams in their herd of 13 head of Polled-Durhams on exhibi-

tion at the World's Fair—all their breeding except one. These pure bloods are very scarce, probably not 50 bulls of them in the world. A few other breeders are now breeding in this line. A short time ago these gentlemen purchased two bulls and a heifer bred from a "sport" occuring in the Craggs Renick, Rose of Sharon and Young Mary tribes of Shorthorns; these will be used as an out-cross in breeding. In Messrs. Burleigh's old line of breeding, the potency of the polled quality has been so fully established that young bulls bred by them got all their calves hornless from horned cows. In the pure line of breeding, polled bulls bred from horned cows get from 50 to 75 per cent. of their get hornless from horned cows, and from 90 to 100 per cent. from polled dams. These gentlemen are practising the utmost skill in breeding, and the demand for their stock has been so great that all young stock are purchased before old enough to breed, except specially reserved, and at much better prices than horned cattle are selling of equal merit.

Dehorning appears to be on the increase, but since many have their objections to that practice, the breeding of polled cattle is certainly an easy way out of the difficulty. Under these circumstances, such a grand general-utility breed as the Polled-Durhams should make friends for themselves and grow in popularity.

See that your pigs have all the pure water they want to drink.

A dairy writer says that you had better begin durying with two cows and a strong desire to thoroughly learn the business, than with ten cows all hands in the business.

STOCK.

Chatty Stock Letter from the States.

FROM OUR CHICAGO CORRESPONDENT.

Late June prices for top grades of live stock at Chicago: Beef steers, \$4.75, against \$5.10 two weeks ago and \$5.60 a year ago. Hogs, \$5.15, against \$4.90 two weeks ago and \$6.90 a year ago. Sheep, \$3.85, against \$4.50 two weeks ago and \$5.25 a year ago.

Hot weather has again interfered with the market for very heavy cattle, and fat little 700-lb. yearlings have been selling for as much per 100 lbs. as some pretty good beeves weighing more than twice as much. The main cause of this discrimination against ripe, heavy beeves was the falling off in the export demand. When the condition of foreign markets does not justify shipments of heavy cattle, it makes a very serious difference to the farmof the States.

People over here feel that the charges abroad that Canadian cattle are debarred free entry on account of disease are utterly groundless, and, worse than that, dishonest.

Good grades of fed Texas cattle, averaging 1,000 and 1,200 lbs., have lately sold at \$3.60 and \$4.00, while inferior to fair grass Texas steers sold at \$1.75 and \$2.25. The bulk of the grass Texas steers so far have sold at \$2.50 and \$3.00. A good many very thin cattle were sent in from drouthy regions.

The demand for stock and feeding cattle at this season is generally light, but it is uncommonly so now. In a majority of the cattle-feeding sections of the West the pasturage has lately been very badly damaged by drouth.



BRED AND OWNED BY J. F. & A. E. BURLEIGH, MAZON, GRUNDY CO., ILLS.

Some money has lately been made by Chicago lished breeds, are a mixture of several varieties.

At the Montreal exhibition a number of specishippers of sheep by sending them via Montreal to Glasgow. Reports from the Northwest indicate a favorable season for sheep on the open ranges. Grass is good and sheep are doing well. Dealers are already loading up the supplies for filling the feed lots next fall. The sheep market got on the toboggan slide again and went down with a rush.
The big drop in prices checked the run again, and
the latest reports on good grades are a little better. On one day an exporter purchased 450 head at \$3.85, which was the top of the market. ('hoice lambs reached \$5, which makes them about 75c. higher than a week ago. The medium and common grades of lambs sold no better, and sellers complained that the market was slow. Sales included some good 87-lb. Texas sheep at \$2.75, and a thousand head to a feeder, averaging 69 lbs., at \$1.40. Most of the natives sold at \$2.25 and \$3.25, and lambs largely at \$4 and \$4.75.

The best heavy hogs are now selling 15c. higher that best light, while a year ago at this time light were at a premium of 20c.

June marketing of hogs was liberal, but the demand was good, and packers bought with a freedom that indicated light stocks and a good con-

sumptive demand, despite trade depression. The summer dullness in the horse trade is on, and dealers are finding it difficult to get rid of ordinary stock. Good, smooth blocks seem to be in fair demand at prices ranging from \$45 to \$75, according to weight and quality. Draft horses are low, and not bringing \$15 to \$20 what they were three weeks ago. Expressers are only in fair demand, and the buyers do not seem very anxious for them at prices over \$100. Carriage teams and fancy drivers are in a little more demand than most any other class, but the best of them have not gone theroughly learn the business, than with ten cows and a confident feeling that you can succeed as well as a soli hands in the business.

over \$150 to \$175 lately. Many horses come to market that have not been properly broken, and, of course, they have to be sacrificed.

Ayrshires in 1893.

[Paper read by D. Nicol, of Cataraque, before the Ayrshire Breeders' Association.

At the principal live stock exhibitions held in Canada last fall, Ayrshires were shown in greater numbers than any other kind of cattle, notwith-standing the fact that many of the best animals were away at the World's Fair.

Within the last few years the popularity of this breed in this part of the country has been wonderfully increased, doubtless because experienced dairymen have found that for their special purpose they are of all known breeds the most economical. The dairymen who supply the inhabitants of Montreal with milk have long been notable for shrewdness, and after fair trial of the various breeds, they seem to have come to this conclusion.

Their highest ideal in this matter is a low-set cow, with a broad posterior, deep flank, and widepread, capacious udder. It is noticeable, however, that cows of this description generally possess in large degree all the other less important points characteristic of the best dairy cow, the body tapering from the rear towards a fine neck and head, along with light crops, straight back, thin skin, slender tail, and fine horns. Great coarse horns never grow on a well-bred Ayrshire; they grow only on a thick-skinned, coarse-haired, long-legged race of cattle. At several Ontario county fairs a herd of cattle said to be Ayrshires were exhibited, but the length of their legs, the narrowness of their rear ends, the coarseness of their horns, and the smallness of their milk vessels precluded the belief that they were in any way related to the Ayrshire

The bull which headed the herd was built somewhat like a buffalo, with his head seemingly on the wrong end of his body. The herd, on the whole, was a scandal on the breed, and the judges seem to have regarded it in that way.

In the Scotch standard scale of points the udder counts 33 per cent., yet no good judge would award first place to an old broken down cow, merely because her udder is of extra-ordinary size. I have seen cows with large, fleshy udders, which were not profitable producers.

Ayrshires generally are good and true breeders, yet there are exceptional cases in which an animal fails to breed, perhaps from the effects of over-feeding.

I have seen on the show ground an excellent specimen of an Ayrshire cow, perfect in many respects, but which, apparently, had not had a calf for several years, consequently her udder was shrunken to small dimensions, giving no indication of ever again producing milk; yet the exhibitor found fault with the judges because they did not award her a prize. I have never known a judge or set of judges who could give entire satisfaction to every exhibitor.

We have now in Canada about a dozen breeds of cattle bred specially for dairy purposes, and yet we are to have another, to be called the Quebecers. Some call them by another name, but it is not calculated to create respect for them. They are certainly not indigenous, but, like other estab-

men cows of this kind were shown, but I cannot describe them, because individuals differed so much in size, contour and general appearance. Beauty, however, is not one of their characteristics, but that does not necessarily affect their productiveness, and no doubt some of them are fairly good producers.

I do not know what general advantages they may possess, as compared with other dairy breeds. An exhibitor said they can endure, without injury to their constitutions, more exposure to cold weather, and thrive longer and better on rye straw than any other kind of cattle.

There is no saying what they may prove to be; probably they are well suited for a certain class of farmers in some localities which we know little about.

At the Montreal exhibition prizes were also given for Ayrshire grade cows, and among the large number of this class shown were many apparently first rate dairy-business cows. I have, however, good reason to believe that the best of them were fairly well-bred Ayrshires.
It seems that for improving the common dairy

cattle of the country, there is no breed giving more

satisfactory results than the Ayrshires.

I would favor the giving of prizes for the best dairy cows of any breed or mixture of breeds, but I think offering prizes for grade cows is a mistake, because it leads to the retrogressive practice of breeding from mongrel bulls.

The only persons whom I have known to decry the Ayrshires are they who are trying to boom some other breed, and some who have been disappointed in not obtaining a very large yield on starvation rations; and I doubt whether cows of any other breed will come nearer fulfilling their

Many years ago some Ayrshire cows had small teats: now, however, they are generally about the

most desirable size. Very large teats are nearly always on flabby, narrow, deep-hanging bags, which are detested by experienced dairymen. Such vessels are never seen on Ayrshire cows; they are always neat and trim. It is a mistake to suppose, as some do, that large teats are an indication of great pro-Large teats are readily injured, and ductiveness in keeping them clean there is much trouble.

The ordinary life of man is too short for individuals to be experimenting with many different breeds of dairy cattle; hence, methinks, parties engaging in the dairy business should be guided largely by the experience of others.

Some of the Many Things I Do Not Know About Shorthorns.

[Paper read before the Shorthorn Breeders' Association by John Idington, Q. C., of Stratford.]

In this Province there are estimated to be about two million cattle; of these the pure-bred Jerseys, Guernseys, Holsteins, Herefords, Polled-Angus, Galloways and Shorthorns form but a small portion. It is not assuming too much, I fancy, to say that pure Shorthorns outnumber all these other purebred cattle put together. And it may be claimed, without offence to the breeders of these others, that the grade Shorthorn in a still larger proportion outnumbers the grades derived from all these others. Can this ascendancy be long maintained? Can it be made still more marked in the process now going on of pushing the nondescript scrub out of the field? What hinders and what will help such a result may well come under consideration on this occasion. In making these suggestions it occurred to me to throw into a short paper some of many things I don't know about Shorthorns.

The special purpose cow has very earnest advocates. If we had special purpose farms these men might have, if not the best of the argument, at least enough on their side to command attention. But what are the facts? The census returns of 1881 show for this Province 782,243 milch cows, and 896,661 "other cattle." Assuming same proportion to exist now there are nearly nine hundred thousand milch cows in stock. What classes of people own them? To what use are they put? Are they not chiefly in the hands of the ordinary farmer to supply his family with milk and butter, and a surplus of butter for the market? And are not the other cattle, as distinguished from the milch cows, chiefly in the same hands, and consisting of stock

raised from these cows?

The breeding of Shorthorns, under such surrounding conditions, should be viewed in the light of what is needed to render these cattle profitable. Is it for that purpose desirable to breed the sort of Shorthorns that will make for beef alone, regardless of milk and its products? How many farmers make the raising and feeding of cattle for beef the main part of their business? Is it not the case that in Ontario the steer is, as it were, mainly a by-product of the farm? Is this not also true of the old cow, the non-breeding heifer, or the unprofitable cow? What sort of bull will tend to increase the value of these by-products, whilst preserving the main object of getting that fairly good milker these farmers want?

As we have no large ranches solely devoted to pasturage or corn, with which to feed cattle, can our farmers afford to use the Shorthorn bulls that will obliterate the milking qualities of their herd? Have we not been working in this direction? How long can we persist in doing so under the conditions surrounding us without a reaction setting in against our favorite breed? And if that reaction does set in, will there not be a serious danger, not only of the Shorthorn ascendancy being lost, but also of some other breed commanding the field as

Shorthorns do now?

We are told on the highest authority that "the longhorn cattle in their native home were suddenly swept away, as if by some murderous pestilence, by the introduction of Shorthorns." Is a recurrence of such a phenomenon at the expence of Shorthorns an impossibility here? How many Shorthorn herds, for example, exist now in the State of New York Compare what are there now with what were there thirty years ago or so. Are they either absolutely or relatively, either in numbers or quality, what from their position then might have been confidently predicted for them now? Have they not been largely supplanted by the Jersey, the Guernsey, the Ayrshire, and the Holsteins? And have not the Shorthorns moved West? Will ours nave not the Shorthorns moved West? Will ours move West? Is it desirable they should, and be supplanted by breeds such as so largely supplanted their kindred in New York State? Is that desirable, either for the welfare of this Province or the Shorthorn breeders? If not, can we, and are we doing that which will avert it? How can we avert it? The ordinary farmer buying a bull often become it? The ordinary farmer buying a bull often knows

little of pedigree, and less of the past history of Shorthorns. He follows where the majority of the members of this Association leads. He wants milk and butter, and beef to use or carry to a profitable market. He has been buying, and is yet buying, our stock on the faith of their producing this combin-ation. He knows what he wants, even if he don't understand the pedigree, or what has made, or will come from the animal offered. Are we giving him that animal that will produce it?

Again, the dairy farmers who supply our cheese factories and creameries raise but few calves, and are only concerned in the beef question to the extent of selling to advantage their cows that from age or accident have become unprofitable. The dairy farmers form but a fraction of the great aggregate mass of cattle owners. They are, however, of the best and most prosperous farmers in this country. Their requirements and opinions must have a powerful influence in fixing the judgment and forming the fashion that will prevail, not only amongst and for themselves, but also all other farmers in regard to the best breed of cattle to use. Can we meet their requirements? The Columbian Fair Grounds, and many an English dairy farm, answer in a way to encourage us to hope that we can. If we cannot monopolize their custom as absolutely as we can that of the ordinary farmer already referred to, can we not at least share it? Can we not make of them friends, if not partizans of our Shorthorns? Are we not coming dangerously near to courting their hostility? My questions may seem to suggest guesses at truth that resemble danger signals. If no need to hoist the signal, sail on as fearlessly as of yore. But if there be rocks ahead, and close at hand at that, how came they there, and how can they be removed or passed? The high prices of beef cattle, not so long ago,

for a considerable time encouraged the breeding of Shorthorns of a purely beef tpye. The open market of the great corn belt, and the greater ranch ground of the more remote West, seemed to furnish an unlimited market for bulls of the same type. That market is practically closed by quarantine regulations, and even if these be in a few years removed, the market from other causes will not be what it has been. The price of beef cattle has fallen to such an extent that it would be unwise to attempt to force, if we could, farming into the special purpose of raising beef alone. Meantime we have become so much accustomed to admire the fine appearence of a plump, fleshy, nicely rounded, smooth animal, that we keep in much the same old line. Can we afford this to please the eye and gratify the butcher and his customers? I hear that early maturity compensates. Is early maturity a quality that belongs only to this sort of cattle? Even if it is, has the pursuit of early maturity been pure gain? Has the idea of early maturity not been pushed to an unreasonable extent, and in a wrong direction, and by erroneous methods? How much have we lost in its pursuit? Has it, in the manner of its attainment, not tended to beef at the expense of milk in the quality of the animal? Even from a beef point of view alone, have we got nothing but gain in getting early maturity? Can the very early maturity of any breed be brought about without lessening the size of the animal? Has not early maturity in Shorthorns in some cases been attained at the expense of size? Or has reduction in size contributed to early maturity: Or has size been maintained whilst early maturity

has been obtained? Can the breeder profitably do more in this aim at early maturity than eliminate from the structure of his animal such, or reduce so much of the parts thereof as may, under changed conditions of existence, be desirable? The reduction of bone or dropping of horn, for example, may save expense of food. But when the process has gone so far as is consistent with maintenance of size, is there any

gain in further reduction?

Is there an early maturity that may be gained by increased food and care, and another that may be gained by reduction of size without increased food? How is the latter got? Does early mating produce it when persisted in for several generations? Is it, when thus got, a desirable result? Have we Short when thus got, a desirable result? Have we short-horns that, in whole or in part, thus acquired it? When systematic breeding for several generations has reduced a larger to a smaller type, and thereby fixed a small type that has in the process acquired some advantageous qualities, can we expect to use successfully this smaller type by crossing it upon the original larger one? Assume each, in all its parts, equally well proportioned, can a cross either way be prudently adopted.?

Is it not extremely probably that in the process there will be a disturbance of the symmetry of proportions of some of the various parts that will tend to destruction? Is this mistake not being made, even in the home of Shorthorns now? What bearing has the length of life upon the quality of early maturity, or the quality of early maturity upon the length of life? Will an animal that carries in it, from birth, life forces destined to bear t along for a period beyond the average life of its kind, attain maturity as soon as one in which the original life forces are such that it will naturally

die short of such average life? Does the breeder not feel more at ease with

animals whose pedigrees show in their immediate ancesters an unbroken series of long livers than with a herd whose history is the reverse of this?

Returning from this digression of what may be set down as very heterodox challenges of received

what other causes than beef type, by early maturity or otherwise, have operated to deprive our herds of their milking quality? What has the enormously high prices of certain tribes not done to injure their race? Granting that these high prices attracted the enterprise and valuable support of many most desirable friends, and advertised and pushed forward the extended use of the breed in a way nothing else could possibly have done, has there not

followed great evil?

Assume that orginally a man of genius moulded a cow that surpassed all others in the qualities we now need, are these qualities there now? If there, are they so in as marked a degree as when the master's hand was withdrawn? If not, what contributed to their loss? We often hear and read of inbreeding having wrought, if not disaster, at least loss of many valuable qualities in certain tribes of what were once held to be our best Shorthorns. Is this the so'e cause, or even the main cause, that truly accounts for what is alleged against it? Is it not rather the least forceful source of the evils complained of? Is it not rather the truth that the very excellence of the cattle thus produced laid the foundation of their deterioration, if not of their destruction? This may seem paradoxical, but yet is it not true? The good surpassing qualities brought enormous prices. The enormous prices tempted the owners to use everything that would live and breed. There was no selection, and without selection, either natural or by the directing mind, nothing that lives or grows can maintain a high standard of excellence. The marvelous profits that seemed within the grasp of anyone owning and breeding these cattle tempted men of means, sometimes ignorant of everything that the breeder must, to succeed, know, to invest and embark in that for which they had neither the genius, the instincts nor the training to bring to a successful issue.

The necessity to please the eye tempted the abandonment of milking, or even nursing calves with such precious matrons as these. Could the original good milking qualities be thus maintained or propogated? We are told to remedy these mistakes of the past by selecting the good animals, and then see if the pedigree be right. Both may be found unobjectionable and yet may lead astray. Is it not a fact that Shorthorns have diverged in type to such an extent that the crossing of

tremes of type, even with most excellent individuals, might be the grossest blunder?

What, then, is to be done to meet the present emergencies? Will our masters please rise and tell us? I believe that he who wishes to learn must begin to doubt and to question-no progress is made by unquestioning faith; hence, I have been bold enough, with very limited experience and none of the qualifications of an expert, to submit in this paper much that challenges the work of my superors in Shorthorn breeding.

If I provoke the discussion of these superiors on many points regarding which, in common with many others, I dwell in ignorance, I shall be amply satisfied. If I ventured to suggest anything, it would be something like this: The common Canadian cow is often an excellent milker. Encourage the selection and use of the best of such for breeding, and the destruction of all else. Encourage their owner to select the milking families of Shorthorns in adopting the Shorthorn cross. Encourageour farmers to believe that Shorthorns are not made for beef alone. Encourage our Shorthorn cows to milk. Encourage our Shorthorn breeders to select from the sort of Shorthorns they have, bulls of the like, but of the best milking families of kindred type of cattle. Encourage the Shorthorn importer to keep his eye in his buying so open to see the animal that will revive and restore the milking qualities of our

And I would say to the young man beginning to breed Shorthorns, that if he devote his life energies to it, there is, if he has the instinct and genius for the business, as rich a field here in Ontario to mould out of broken pieces a harmonious whole as he can wish, and there awaits fame and fortune in the evening of his days.

Feeding Fat Into Milk.

Hoard's Dairyman of June 22nd records the facts of an interesting experiment, conducted in Schoharie County, N. Y. Four cows were treated to find out whether fat fed influenced the fat of milk. Before the experiment commenced, cow No. 1 weighed 1,189 pounds, and made fourteen pounds of butter per week. Cow No. 2 weighed 1,130 pounds, and made twelve pounds of butter in a week. Cow No. 3 weighed 1,168 pounds, and gave eight and a-half pounds in seven days. No. 4 weighed 1,000 pounds, and gave thirteen pounds one ounce butter in seven days. On an average 23 pounds of milk were required to make one pound of butter. The previous feeding was, per day, 40 pounds ensilage and twelve pounds of a mixture of wheat bran, cotton-seed meal and corn meal. The skim milk was also fed back to the When the experiment began one-quarter of a pound of tallow was shaved and mixed with the ration twice a day, increased to two pounds per day in two weeks. The following is the result: Cow No. 1 made 20 pounds of butter in seven days; cows No. 2 gave 17½ pounds; No. 3, 16 pounds 14 ounces; and No. 4, 17 pounds and 1 ounce in seven days. Just 184 pounds of milk was necessary to produce one pound of butter. The quality was so near like that made before the experiment, that no difference could be detected by customers who opinions, and coming again to our milk supply, regularly received the butter.

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DAIRY.

Farmers, Beware! "A NEW BOGUS BUTTER."

"In Illinois, where they have no end of fine dairy cattle and abunbance of pasture, they have recently been reviving an old scheme of making a sort of cheese-butter or butter-cheese, by subjecting the milk to a high temperature and taking from it both the cream and the curds, so making nearly four times the amount of 'butter' than could be made by the old process. Of course, it is not butter, but neither is it a sophistication of 'butter and other substances not the product of pure butter or milk. The Commissioner of Internal Revenue has been appealed to in vain, he deciding that the new compound was not a violation of the law. Many of the manufacturers of the Fox River and other dairy districts are said to have engaged extensively in the new process, and their product has been put upon the Chicago market, where it competes with oleo and the lower grades of dairy butter, When quite

fresh, it is not particularly objectionable, but it is said to require a certain doctoring to give it any keeping quality. Certainly dairy butter is low enough now without being compelled to suffer the competition of such a vile 'bosh' as this. A State law should be secured in the interests of the purchasing public, classing the new compound with adulter-

ations and forbidding its sale."-Country Gentle-We would caution dairy farmers, or those about

to embark in that line of farming, to be on their guard against bogus butter in any shape or form. Thanks to persistent exposure, "black pepsin seems to have been squelched, but the trouble is these things do not stay squelched. They are constantly cropping out in new forms, designed to catch the unwary. A scheme whereby it is claimed that two or three times the quantity of butter can be got out of milk is a glittering bait compared with the returns from orthodox buttermaking; and the above paragraph indicates that some who are either not very well informed or not very scrupulous may imagine that there are "millions in it." Dearly bought experience will teach them their mistake. It is the duty of dairymen to guard against the inroads of all such projects. Sooner or later, somebody is deceived and wronged by them. The private consumer pays for what he thinks is butter, but which is something else. Severe penalties are being meted out in the United States to restaurant-keepers and others who serve their guests with "oleo," etc., instead of butter, without having placards publicly exposed to that effect, as the law requires. That these schemes are

An Experiment in Cheesemaking.

may make their appearance.

berth, no matter under what name or guise they

Mr. W. W. Hall gives the following account of an experiment in cheesemaking at the Cornell University Dairy School last winter, the results of which in the main correspond with those ascertained by Mr. J. A. Ruddick, of Prof. Robertson's staff, in this country:

"I placed in vat No. 1, on Saturday, March 3rd, 300 pound of milk that contained 3.4% fat; in vat No. 2, I put 300 pounds of milk that contained 4.3% fat; in vat No. 3 was put 260 pounds of milk that contained 5.2% fat, and we proceeded to make the whole into cheese, following the most approved scientific methods to the letter.

RESULTS

"The 300 pounds of 3.4% milk made 26.10 pounds of cheese, requiring 11.48 pounds of milk for one pound of cheese, and produced 2.56 pounds of cheese for every one pound of fat the milk contained.

"The 300 pounds of 4.3% milk made 33 pounds of cheese, requiring 9.09 pounds of milk for one of cheese, and made 2.56 pounds of cheese for each pound of fat in the milk.

"The 260 pounds of 5.2% milk made 32.80 pounds of cheese, requiring 7.90 pounds of milk for one of cheese, and made 2.43 pounds of cheese for

every pound of fat. "Here was disclosed a difference of 3.58 pounds of milk required for one of cheese; also that the solids, not fat, increase as the fat increases and decrease in the same proportion that the fat decreases.

"The 300 pounds of milk containing 4.3° fat made 6.90 pounds more cheese than did the 300 pounds of the 3.4% milk; yet, for every pound of fat in the milk, we made 2.56 pounds of cheese in

both cases. "The 200 pounds of 5.22 milk fell short pounds of cheese for one pound of fat, showing that there is a limit beyond which the other solids do not follow the fat in the same ratio as in that below, and that that limit is at about 5% fat.

"The results, reduced to a monetary basis, give the following:

"Dividing this by three—the number of hundreds of pounds of milk used—we have 23 cents per 100 pounds of milk more for the 4.3% than the 3.4% milk. The value of 100 pounds of the 3.4% milk was 87 cents; that of the 5.2% milk, \$1.27—a difference between the two grades of 40 cents." Difference...

FARM.

Harvesting Peas.

The pea crop, although a remunerative one at the present day, has a tendency to be too small in acreage, owing to the amount of work, and barn room necessary in the harvesting. In localities of Ontario, where this crop is one of the most extensively grown, the plan adopted is to allow the peas to ripen quite hard, pull them with the old revolving horse-rake, although some use the sulky rake and others the regular pea harvester. In a couple of days the crop is ready to thresh, which is done of days the crop is ready to united, while in the field, barn or barnyard, as the case may be, in the field, barn or barnyard, as the case may be, in the crop of the control of the contr according to where the straw stack is to be. We will give what we consider the advantages in this

1. The tedious and tireing job of stacking or hauling into a barn by few hands is done away

2. The rapidity with which they can be threshed when not allowed to mat or settle together in a stack or mow.

3. The short time it requires to clear a large field by the 3, 4 or 5 teams hauling to the machine, and therefore little risk in getting wet several times, which necessitates continued turning, and therefore

4. Early threshing, so as to be ready for the early market, which is very often as good or better than

5. The threshing, although much more rapid, is sier on the men than when taken from a stack The objection may be raised by some that the

whole neighborhood cannot get men and machines to thresh all at the same time, but to this we would answer that peas may remain ripe unpulled for a considerable time without injury to the grain.

Farmers having ten acres or more of peas will do well to try it this year, which will convince doubting ones that it is by far the better plan.

English Farm Prospects.

According to late reports, the agricultural outlook at the present time is not particularly bright. The prospect in the early part of May was very good, but a severe frost a few weeks ago has done considerable damage. Potatoes have, in some localities, been so badly cut down that they cannot recover sufficiently to produce a crop. Bean and pea blossom has also been ruined in many places. The hay crop, although fairly heavy, has been seriously damaged by rain after being cut. In detrimental to legitimate dairying is obvious, and some parts continued rain has hindered all hay to our readers everywhere we say, give them a wide cutting, and has done considerable damage to lowlying and undrained lands.

OUESTIONS 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.

RUSTY OATS.

R. G. DRYDEN, St. Agathe: "Will rusted oats affect the health of the horse? My horses are down in condition; I do not know the cause; I feed five quarts of oats three times a day to each horse, and good fresh green prairie hay twice a week; I give cut hay and chopped oats, twelve quarts, mixed, at night. My oats were considerably rusted when harvested last fall."

[Rust is a vegetable fungus or mushroom, of the same family as ergot, mould and mildew; and though not in a high degree poisonous, as some of those fungoid plants are, we have had ample opportunity of observing that it, in a large measure, depreciates the value of oats as food for the horse. It makes grain less digestible and less nutritive. It may be better to feed rusty oats than no oats at all, but, if possible, the feeding of such oats should be alternated with rations of other grain, such as chopped barley, boiled wheat, bran mash, etc.

W. A. DUNBAR, V. S., Winnipeg. OBSTRUCTED TEATS.

J. A. M., Springbank :- "In July of '93 I bought a valuable registered Shorthorn cow. The man I bought her from told me that she only gave milk from three teats. She calved a few days ago, and the quarter of her udder that was blind seemed gorged and full of milk. I at once concluded that some slight obstruction in the teat or udder was the cause. Unfortunately, I had no milking tube, and cause. Unfortunately, I had no milking tube, and instead I picked up a small hen's feather, which I oiled and put in the teat; I put it up quite a ways, and after a time the milk came quite freely. I put my hinder next year's trouble.

hand on her teat twice, and, to my dismay, the feather went up her teat entirely, and there it remains. Will you please inform me what I shall do; do you think it will injure her, or how am I to get it out?

Throw the cow down, so that the teat containing the feather is uppermost; draw the upper hind leg well forward by a rope attached first above the hoof, while the other end is made fast by a hitch taken through between the forelegs and around the neck just in front of the shoulders. Have the head held down by an assistant; provide yourself with a small dissecting forceps and a very narrow bladed, sharp knife; endeavor, by external manipulation, to bring the feather as near as possible to the end of the teat; grasp the teat firmly with your hand; in-troduce the forceps, and by exercising a little patience, care and skill, you may be able to seize the offending body and draw it out. If you cannot reach the feather in the way mentioned, it will be necessary either to enlarge the passage or make an incision in the side of the teat. I was going to describe the manner of further operating, but I think, as your cow is valuable, if you are within a reasonable distance of a veterinary surgeon, you should by all means secure his services.]

W. A. DUNBAR, V. S.

INDIGESTION IN LAMBS. P. B. McLaren, Clearwater, Man .: - "There is a disease among my lambs; I have lost quite a number. When they take it first they appear dull, and

stop nursing. As the disease increases they pant for a while, and then give a long breath; they hang the head when standing; live four or five days. Please let me know what is the trouble?" [The few symptons you have mentioned would indicate a form of indigestion. In the lamb and other young ruminants the abomasum, "rennet," frequently becomes overloaded with a mass of curd. This occurs in certain states of the stomach when the digestive juices become overcharged with acid, or when the milk taken into the stomach contains too much acid. If you notice the ailment at its earliest stage, try the following drench, every six hours, until three or four doses have been given: Epsom salts, half-an-ounce; bicarbonate of soda, one drachm; carbonate of ammonia, thirty grains; dissolve in a small teacupful of warm water, and add a tablespoonful of treacle. W. A. Dunbar, V.S.

Miscellaneous.

APPLE TREE BARK LOUSE.

H. W. CHICK, Dunville, Ont .: - "Would you lease inform me whether there is a remedy for bark lice on apple trees? Can they be destroyed without injury to the trees?"

To understand the destruction of the bark louse, it is necessary to know something of its life history. If the little scales are examined in the spring up till about the first of June, they will be seen to contain a great many very small eggs. About the first week in June the eggs hatch out very small lice, which can be seen with the naked eye by close observation. These move about for a few days till a suitable place is found to insert their little bills, and anchor themselves for life. In a short time a scale forms over them, which is commonly called the louse. Here the female lives and sucks a living till the following spring, when she lays from 30 to 100 eggs, dies and dries up, leaving the eggs to hatch in the early part of June. This year the little fellows were active on June 10th in the Agricultural College orchard at Guelph, and on June 11 the trees were thoroughly sprayed with kerosene emulsion, and in from one to two weeks sprayed Professor Panton expressed himself as being satisfied that this method would prove successful in exterminating the trouble. Kerosene emulsion is prepared as follows:—Hard soap, a soap, a pound; boiling water, 1 gallon; kerosene, 2 gallons. Dissolve the soap in hot water or by boiling, add the kerosene, and churn with a pump for five to ten minutes. Dilute with water ten to fifteen times before spraying.]

CANKER WORM.

HENRY WILLS, Winger, Ont.:-"I send you a sample of some worms that have attacked an orchard. I would like to know what they are, and the best method of destroying them? The orchard has about 200 trees, large enough to bear from six to nine barrels of apples per year. The worms have spread all over it since spring, destroying the entire foliage. The leaves have the same appearance as if a flame of fire had passed through the trees. Will the trees come out in leaf again next year?"

The insects are caterpillars, known as canker worms. The proper remedy is to spray the trees promptly with Paris green—1 lb. to 200 gallons of water, in which two pounds of fresh lime have been mixed. The trees are not likely to die, although stripping them of their leaves must injure them considerably.]

JAS. FLETCHER, Dominion Entomologist. To attack an enemy with success, it is essential that we know his vulnerable points. In this instance the female is without wings, and can, therefore, be overcome by attaching an appliance to the trunk of the tree to hinder her ascent to lay her eggs. The best device that we have seen for this purpose is a sort of inverted, funnel-shaped collar, manufactured by McGill Bros., 355 Richmond street, London, whose advertisement appears in this paper. For canker worms, the 'Protectors should be put on the trees about October 1st, to hinder next year's trouble

VETERINARY.

Dentition and Dental Diseases of Farm Animals.

BY DR. MOLE, M. R. C. V. S., TORONTO. (Continued from page 49.)

In ruminants, as already mentioned, there are thirty-two permanent teeth, eight incisors, and twenty-four molars, but forty-four is said to be the typical number. There are three kinds-the incisors, which are chisel shaped, for cutting; the canines, for tearing, absent in the ox, and molars, for grinding.

The incisors are smallest in the insectivora, larger in the carnivora, and of great strength in the herbivora, and always somewhat loose, the table inclined forward and border sharp; these sharp teeth become more and more blunt and narrow, until in old age they are reduced to very small stumps, standing out quite free from each other. When the enamel is worn from the table, which takes place about the tenth year, the entire crowns of the teeth wear down until in extreme old age only the necks

Molar teeth are named and numbered according to their position; in the temporary set there are three molars on each side of the upper and lower jaw, and in the adult these teeth are changed for permanent, while the three additional teeth, the fourth, fifth and sixth in position, all of which are permanent teeth from the first, making the full set of permanent teeth-six on each side of the upper and lower jaw. At birth the temporary molar and incisors are all so advanced that they may be seen in outline; frequently the cutting edge of incisors is quite through, as seen in figure 14.

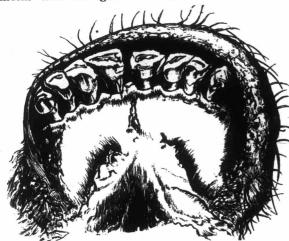


[Figure 14—Incisors of calf at birth.]

As soon as the calf is on its legs, the advance of teeth proceeds rapidly, and at one month the temporary incisors are all in view, and the temporary molars can be seen on inspection. As the jaw enlarges the teeth are less crowded, and the fourth molar appears at six months as a permanent tooth, although its posterior surface will be still covererd with the gums.

Between six and twelve months the temporary incisors become worn, the space between them enlarging in preparation for the permanent teeth. It is difficult to estimate the age in months of a calf; up to one year butchers take notice of the growth of horn.

The figure No. 15 will give a pretty accurate des. cription of the incisor teeth at one year; the fifth molar will also guide the opinion, which is very



ix ns he

[Figure 15—Incisors of steer at 1 year.]

much like the fourth molar in appearance at six months. No change occurs in the incisors except that which is caused by the wear of the teeth and the growth of the jaw. At the age of one year and and nine months the two central become loose, and the first broad teeth begin to project through the gums.

The figure No. 16 shows the teeth of a heifer at the age of one year and ten months, which may be accepted as indicative of the general appearance of

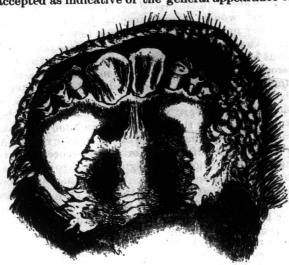


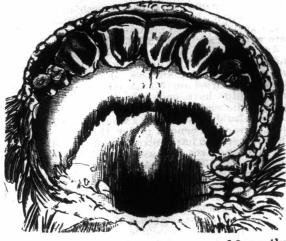
Figure 16—Incisors of heifer at 1 year and 10 months.

the incisors at that age; while the incisors are advancing, the sixth and last permanent molar makes its appearance, and in position at two years old.

The first and second permanent molar replace

the temporary about a month or six weeks later. It often happens that young cattle are entered as under two years old at agricultural shows, but when they show four broad teeth well developed. there need be no hesitation in saying that their teeth show the animal to be above that age.

From two years and three months to two years and six months the second pair of broad teeth replace the temporary; from mal-nutrition or disease,



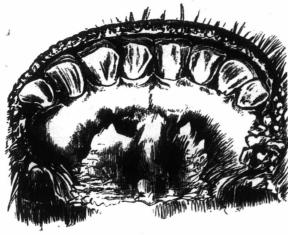
[Figure 17—Incisors of ox at 2 years and 6 months.]

it may be delayed until three years, but the variation is never on the earlier side. We have been referee in many disputes from this cause. On one occasion we remember to have withdrawn our original opinion; the corroborative evidence of certificates was in favor of the animal, yet he was over two years old, because he had four broad teeth and the sixth molar well in wear

Shortly after the first and second molars are cut, third makes its appearance. The animal at the age of three years will have three anterior molars cut and level with the other teeth, but showing very little signs of wear. The third pair of permanent incisors may occur at any time between two years

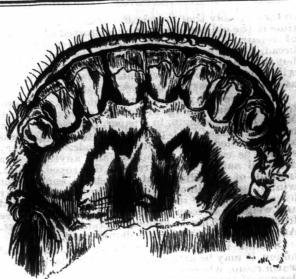
and six months and three years of age.

The fourth pair of broad incisors are the corners, and show more variation in the time of cutting than any of the others in the figure No. 18. The



[Figure 18—Incisors of ox at 3 years and 3 months.

state of the incisor teeth at three years and three months is depicted. The eruption of the corner permanent incisors; the fourth pair of broad teeth completes the permanent dentition of the ox, and after this period the changes in form, which are due to wear, will somewhat assist the examiner in forming an opinion of the age, but no ex-



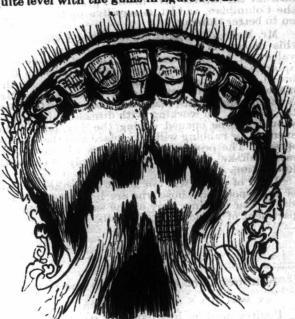
[Figure 19-Incisors of ox at 5 years.]

amount of worn surface is apparent, and as the ears increase the difficulty of judging the age by the appearance of the teeth is not diminished.

It is not usually a matter of importance whether an ox is five, six or seven years old, and there are no well defined marks other than the rings on the horns; some men add two to the base, and count all the rings. We prefer to count all the rings, and add three for apex. Both ways are correct, but there seems to be less liability to error by counting the apex as three years; for the first, second and third years rings can hardly be defined.

The teeth become narrower and more widely

The teeth become narrower and more widely separated from each other year by year; the pegs are only visible, whilst some of the central ones are quite level with the gums in figure No. 20.



[Figure 20—Incisors of ox at 10 years.]

The mouth of the ox at ten years of age is shown, but, as we have before stated, there is not the same change resulting from regular wear as may be seen in the horse, so that no definite opinion can be advanced.

APIARY.

Report of the Bee-keepers' Association.

The report of the Ontario Bee-keepers' Association has been received, from which we glean a few of the many valuable points taken up and discussed at their last annual meeting, held in Lindsay in the

at their last annual meeting, held in Lindsay in the early part of January.

An interesting and instructive paper on "Extracted Honey" was read by R. H. Smith, Bracebridge, in which he advocated the provision of two supers for each colony. The first should be put on just before the bees become crowded. Two combs containing brood should be removed from the body of the hive to the extracting super to induce the workers to work in the upper spaces. If the honey flow is good the second super should be placed beneath the first, which will be filled, while the upper one is ripening. It is advised to put on a queen exone is ripening. It is advised to put on a queen exone is ripening. It is salvised to put of a queen excluder, so that no brood will be found in the extracting combs. The question of the different hives was well discussed under this head, and the opinion was generally in favor of the Langstroth hive, it being of medium size: but for successful work, more depends on the man than on the hive. It was strongly advised to have either comb or foundation. One prominent bee-keeper stated that he would spend his last dollar in comb or foundation, if necesspend his last dollar in collid or loundation, it necessary, if he wanted to produce honey. The honey should be left in the hive till the very last thing, till it is thick. If honey is extracted before it is ripe, and marketed in that condition, it will ruin ripe, and representation. any man's reputation. As to the use of comb or foundation, it was advised that old, dark comb should not be used when white honey was wanted, as it would discolor the white product considerably act estimate can be based on such evidence. At five years old, see figure No. 19. A considerable mended, when the combs became dark. Some went so far as to say that foundation was economical of time if the old comb was at all distorted or in need of repair. To clean old comb and remove beebread, it may be soaked about fourty-eight hours, but this should be the limit of time, or the comb will be injured to some extent. will be injured to some extent. Drone comb is just as good for extracting purposes as any other.

There are many little things which may be done to make bee-keeping in Canada more profitable.

Mr. R. F. Holtermann, in a paper, pointed out a few needed changes. At present too many queenless and enfeebled colonies are wintered. The apiary should be carefully examined, and anything of a doubtful nature in this respect destroyed. Next, instead of guessing that bees have enough for winter, and finding out when too late that they have insufficient stores, they must be examined and weighed as soon as the combs are fairly free from brood. This is generally about October 1st. Any one not able to do this should not keep bees. Any one not able to do this should not keep bees.

Should it be necessary to extract unripened honey, it may be artificially cured by placing in a warm room, where evaporation can go on without danger of incorporating impurities or undesirable flavors. But only skilled apiarists should attempt this process.

In a vigorous speech, Mr. S. T. Pettit, of Belmont, said that the manufacture of sugar-honey has been said that the manufacture of sugar-honey has been carried on to far too great extent in some parts of the Province by feeding syrup to the bees. This should be dealt with as an adulterated product, and it is the Bee-keepers' Association that are anxious to obtain legislation to hinder this fraud, making offenders punishable. A continuation of this process will eventually destroy the demand for a product which can be put upon the market even in the purest condition by our country. We have to develop markets for our honey outside our own land, and should a cry be raised that our honey is not pure, it will seriously handicap the apiary business for the future. We made a grand showing at the Columbian, and let us now live up to it, and go the Columbian, and let us now live up to it, and go on to better things.

Mr. McEvoy's report on foul brood shows that this malady is decreasing, although far too prevalent in many places yet. Out of eighty-nine apiaries visited, thirty-four were affected with foul brood. Many losses had been sustained before the inspector's circuit, but, by close observation to Mr. inspector's circuit, but, by close observation to Mr. McEvoy's directions, many have been able to arrest the trouble. In working with diseased hives, they should not be opened during the day, but in the evening, or rubbing will take place and the disease spread. The proper thing to do is to remove the racks, shake them down and supply them with foundation. foundation.

Lack of space will not admit of further review of the report, but those who are interested and desire it, can obtain a copy of the same from the Department of Agriculture, Toronto.

POULTRY.

Summer Care of Poultry on the Farm.

BY MRS. IDA E. TILSON, WEST SALEM, WIS.

Poultry need far less food in warm weather, but practice giving some grain. The sun stews so much moisture out of stock, that the water supply is especially important. From our large ice-box a tube carries the waste water out into an iron dish, which, when necessary, I shade with a few boards. This is the favorite drinking place for one flock, because cold, running water of the purest kind, which reminded me that I once had a neighbor with chronic bowel complaint, cured by drinking, for over a year, no other water than melted ice. The other hen-house, farther away, has to depend on my frequent refilling of dishes from the cool tank close by. A grass run is, of course, the best provider of green food. A man being asked whether he raised chickens and vegetable, said he raised the chickens, and they razed his vegetables. My father planned to put a wire-netting fence across our garden this summer, but if high and in good shape, it would cost \$1 a rod, or about \$12, and we calculate our otherwise well-fed hens will take several years to do that much damage to a farm garden. The village fowl or the neglected hen, which never saw a vegetable, is the one that eats all before her, like a hungry boy at a picnic. In spite of some unsightly holes and my father's mournful prophecies, our rows of peas, etc., come up every year, green, straight, and free from insects. I try to sooth him with soft words, make a great pretense of "shooing" them away, and boil potatoes and chop beets and onions into May. We use many cranberries in the family, so last winter I saved and boiled all the poor ones with the hens' potatoes, and they liked them. I used so much clover chaff then that my fowls came out neither spring-poor nor hungry. Barn sweepings were not enough, therefore my father threshed more with a flail. As we shall probably have only timothy next year, I have some barrels of the clover chaff put away in a dry place. Last summer I saw two yards with soil packed too hard for mere claws, and seeming as from lice.—[Ex.

though nothing short of a spade could break it up. Pertions of the spaces were occupied by plantains gone to seed, which I have seen fowls eat, and such a covert would attract insects, but part of the greenery mowed would have given new, tender eating. The roosting places adjoining those neglected yards had quantities of droppings to poison the hot, damp air. When fowls are confined, lawn clippings are relished, if young and fresh. Be careful about throwing out grass roots, large pieces o bacon rind, or raw vegetable, as such may be jammed down by the horny beak and bony throat, but fail to be pushed on out of the elastic crop. A crop-bound hen often pulls or twists her neck in eating, but that is not a sure sign, because roupy, sorethroated fowls do likewise. When a hen has been crop-bound so often or long that her crop becomes stretched, some old, decaying food remains in the sag, below level of outlet. Her breath will be foul, and eggs apt to taste bad, even though she continue to keep flesh and lay. Having read about a little girl who, before she gave them any supper, always felt the crops of her flock, presumably a small, tame company, and, admiring her research, I have noticed such things more, and opened the crop of a chick I killed last spring with cornmeal. The swelled and sticky mass was a good lecture on the effects of clear cornmeal. Some kernels of shrunken wheat were also found, increased to full size, which emphasized the lesson that whatever is going to swell does so inside, if it has no chance outside, and due allowance must be made. The passage from crop seemed large enough for a full-size kernel, so I continued my shrunken wheat with success. I am sure bowel trouble is constitutional, because I have seen it go down several generations in certain lines of fowls. Do not set eggs from such a hen, nor used her for a brooder, as repeated observation has taught me her brood are apt to get the same trouble, perhaps through getting some of her droppings on them, and finally into them. A neighbor lately asked me how cracker crumbs comneighbor lately asked me how cracker crumbs compare with bread. They are harder to crumble, and if wet go to slop. The bread itself should be stale, and I have read about one man who got, at hotels and restaurants, quantities of pieces, which he spread and dried on his attic floor. Three neighbors of mine have each adopted this plan, one of our three hotels keeping a boy there for table scrape. our three hotels keeping a box there for table scraps. I am so afraid of bones that I would have to sort the mess somewhat, hence I prefer the good graces of the butcher who has contracted my poultry again, and gives me liver, because he says he wants those chickens nice. This season I had my first experience with Brown Leghorn chicks. I knew they were hatching very promptly, but intended taking them off the twenty-first day, like all my more phlegmatic kinds. When feeding their mother, the twentieth day, some of her chicks came out and took mouthfuls that would not have been unsuitable for a child. Then I took them off (not waiting 24 hours before I fed them, either), and they are eating and growing yet. The Brown Leghorn is probably most like the original wild hen, and a breaker of rules and precedents.

I once had a clucker lift up her little slat yard on her strong neck, and go out free. This year two have learned to dig out, when the yard is on sand instead of turf. One was bright enough to squeeze in again when she saw a storm coming. A neighbor has built a detached shed-like structure, which two men could move. Its front also is boarded, but has three large windows. There are simple doors in back, and the interior is divided into three little yards, with a coop in each. The broods within got considerable sunshine, and needed no attention in wind or rain. All such things are convenient for shade and shelter throughout the season. Riding out a stormy day last fall I saw several fowls very sensibly betake themselves to a small natural cave in the bank along the creek. A neighbor, while living in Dakota and before she got poultry conveniences, set half a dozen hens successfully in a pile of stones gathered off their pasture, and piled near the house. The climate there is dry, and a good dog kept marauders away.

Dry Food for Chicks.

Dough is objectionable as food for young chicks, for two reasons: First, it contains too much water, and the chicks are thus forced to swallow more water in the food than they otherwise would. Second, there will be a portion left over, which is liable to ferment, thus leading to disease, the gape worm being one of the ills to consider. Dry food is more suitable. It is not necessary to feed chicks until they are thirty-six hours old, and then rolled oats or oatmeal may be given every two hours, only a small quantity being required. Stale bread or mashed potatoes may be added by way of variety. When a week old, screenings may be allowed, and as soon as they can eat it, whole wheat and cracked corn may be given. At this stage, three times a day will be often enough to feed, and no food should remain over. It is better for the chicks to be underfed than overfed. If they have a grass plot upon which to exercise, they will find many substances for use, and will grow rapidly, if kept dry and free



THE STORY.

Over the Edge of the World.

"Some of you must remember Graham." "Stout man with a pretty daughter?"

"Some of you must remember Graham."

"Stout man with a pretty daughter?"

"Possibly. But when I last saw him he was slim, and the daughter a bald baby. That was just after he died of cholera."

We in the smoking room sat up with glances wavering between the speaker's face and the whisky bottle, but there was nothing unusual in the appearance of either one or the other. There was a pause.

"I dare say it seems strange to talk of meeting a man after his death," began the speaker again. Some one murnured a polite hope that it had not been an unpleasantly warm expedition, whereat the gray man with the brown face got up quictly and lit another cigar.

"It was a bad year," he went on, between the puffs. They were dying like sheep in the Salpur district."

Windows set wide open to the summer air, let in the noisy vitality of Lordon streets, yet memory grasped many of us with her resistless hand, leading us back to silent, solitary days when the punkah throbbed intermittently in darkened rooms, and we sat wondering—more with a vague curiosity than fear—what havot che cholera fiend was wreaking outside in the blaze of yellow sunlight. Now, when a man has once so waited and wondered, the interest abides in him always, so that the very name of cholera awakens a desire to hear and know more. We sat up and listened, but nothing came.

"A case of suspended animation, I suppose," remarked a young doctor. "It is not uncommon. I remember one—" "So do I," interrupted the gray man imperturbably, "but this was different; Graham really died. I am sure of it."

Again we waited, expecting more, but the gray man was silent. Then we turned and looked to the Major. In cases of this kind he was our referee. He lifted his coat-tails and stood judicially in front of the fire.

"I think," he said, "that when a man offers a statement of that sort for the acceptance of this smoking-room, he is bound to explain it."

"I can't," replied the gray man; but as we don't dine for

that sort for the acceptance of this smoking room, he is bothed to explain it."

"I can't," replied the gray man; but as we don't dine for half an hour, I will tell you the story, such as it is. Perhaps some of you may understand it, I don't. I never shall till we see things face to face."

"The tone of his voice gave me personally quite an unpleas ant shiver down my back, and I felt impelled towards a sherry and bitters, though I had read all the month's magazines, and in consequence was well posted up in the latest ghost developments.

ments.

"When I first knew Graham," began the gray man, "he was a graff at Allahabad, as good-looking, cheeky, high-spirited ayoung competition wallah as ever passed an examination only fit for bookworms. How the Government of India can ex-

"Point, sir, point," murmured the Major.

"Point, sir, point," murmured the Major.

"I beg your pardon; well, how he managed to have kept up such an absorbing interest in the formation of his white ties or such a keen appetite for all things digestible or indigestible in the whole solar system was even then a mystery to me. For, although I was but a few years older, I already wore spectacles and felt myself circumscribed by the Penal Code. Graham, on the other hand, was absolutely untrammelled. except, perhaps, by good nature, and he was coming near the inevitable smash when typhoid fever stepped in between him and the dogs. To be brief, he fell out of the hands of a bad woman into the hands of a good one, who nursed him as she had nursed many another homeless boy through the valley of the shadow.

woman into the hands of a good one, who nursed him as she had nursed many another homeless boy through the valley of the shadow.

I am not going to say anything about this particular woman, because many of us have met her like when we were sick and sorry, and can supply her portrait from memory. Let us call her the mem sahib. Some of us, at any rate, have known her under that name. After herecovered, heused to spend his leave with them, and more than once she came to look after him when he was ill; for there never was a more reckless chap as far as he himself was concerned. He was for ever coming to grief at polo, or half killing himself with malaria. One sees a lot of sham sentiment of the motherly sort in India, but now and again one comes across a real case of adoption. This was Graham's luck, and as the years went by, the tie of confidence between him and the mem sahib grew closer than that of most mothers and sons. I was stationed with him several times in outlying districts, and have often watched his face brighten when a letter from her came to cheer the long, monotonous days. Then he married—a charming wife to whom he was absolutely devoted, and we drifted apart, as men do after marriage, even when it brings the most charming and tolerant of wives. Shortly after the mem sahib's husband left India for good, and she, if I may say so, left it for bad. At any rate, she left many people in a sorry plight, for she was one of those women who have the knack of helping others.

I remember attempting to express my own sense of forlorness to her one day when Graham was by. She gave a half-jesting reply that old-fashioned Gamps were no longer necessary, since a sick man could go to the station hospital and get nursed by the most scientific of sisters. Whereupon Graham, in the same half-jesting way, declared he would never part with his Gamp, and that she was welcome to every "piller" he possessed if she would only continue to come and nurse him. "Over the edge of the world?" she asked, still with a half smile. Addi

"Over the edge of the world?" she asked, still with a half smile. Adding, in a lower tone, "I would if I could, you know that well."

"Then I'll chance it," he replied. The look between them was good to see. After that the conversation drifted away into the borderland of the unknown—it had a trick of doing that when the mem sahib was among friends; and I remember her saying that life limited us more than death might do. She was full of fanciful theories and dreams. That was the last time I saw her; she died before I went home on furlough. I think the wrench was too hard for her soft heart.

To return to my story. Graham's wife had a baby, so it happened that we chummed together again during one hot weather when our respective wives were in the hills. Cholera raged in the district, and as it was Graham's first independent charge, he felt the responsibility a good deal. Nothing would serve him but to inspect the worst villages, and as my work lay that way, I went with him into camp, in the vain-dope of making him take reasonable care of himself. But when the idea of duty seized him there never was any sparing of himself, and I was scarcely surprised, on returning to my resthouse one evening, to find him down with the disease in its worst form. Of course I sent to headquarters for medical assistance at once; but we were twenty miles off, and the chance of its coming in time was very small.

Graham's bearer was in too great a funk to be useful, but a new khansaman, who had been put on when Graham's wife went to the hills, taking the regular cook with her, did very well. It's a digression, but I've always thought that filching away of the best servants by our wives is simply brutal; perhaps they think it is the only way of impressing the horrors of absence on our minds. Well, Elahi Baksh showed such a knowledge of what ourset to be done that I complimented him on his unusual skill. The man's impassive face never relaxed.

"I am of a family of hakims, sahib," he replied gravely.

"I have fa family of hakims, sahib,"

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I looked at him inquiringly.
"The old man died," he replied; "my father was away and I was a child. How could I learn the elixir—but I have seen and tasted it."

and tasted it."

He said no more, but obeyed my orders with a sort of mechanical, hopeless alacrity. The first hours passed quickly in restless busyness. I remember the room in which Graham lay jutted out into the little oasis of green garden, and as it had a support of the chicks, right away in restless busyness. I remember the room in which Graham lay jutted out into the little oasis of green garden, and as it had windows all round, I could see, through the chicks, right away on all sides to the dusty, level, whitey-brown plain, which looked so much lighter and more distant than the sky; that was purple-black with heavy rain clouds, save in the west, where the horizon showed a sudden dull red. Graham recognized his danger calmly, as I knew he would, and gave me clear instructions how, if need be, the worst was to be broken to his wife. He laid great stress on her unfitness for travel, and even if he rallied she was not to be allowed te come and nurse him, or run any risk of any kind; adding, with one of his kindly looks, that he needed no better nursing than he had. Yet, though he never mentioned her name, I felt certain, from his expression, he was thinking of mem sahib far away on the other side of the world. He made a good fight for life, waking up, as it were, every now and again from the dream of pain and death, to something of his imperious ways. Then he would wander again, and so drift into unconsciousness. It was in one of these throbs of life that a smile came suddenly to his face.

"I forgot," he murmured; "give me the forms, dear old boy;"

something of his imperious ways. Then he would wander again, and so drift into unconsciousness. It was in one of these throbs of life that a smile came suddenly to his face.

"I forgot," he murmured; "give me the forms, dear old boy."

"What forms?" I asked.

He signed feebly to the writing-case on a table hard by. In opening it my hands fell on a bundle of telegraph forms, such as every Indian official carries about with him. His eager, wistful eyes gave assent, and I brought the papers to him.

"Pencil," he whispered; "quick, or it will be too late!"

Ere I could return with the latter, the cruel pain had seized him once more; but his mind was set and fixed. His cramped, blue fingers forced themselves to write. The effort was pitiable to see, and I was glad when the resolve in his face melted away into the blank of unconsciousness. A glance at the paper, as I hurriedly put it aside, showed me that the effort had been in vain. Beyond one illegible scrawl, nothing was to be seen. After that he never rallied, and before the doctor came, his holsters crammed with remedies, poor Graham was gone. It is curious how trifles strike one more strongly than the important factors in these tragedies of life. I remember thinking the scatter-brained Irish doctor was more sorry at losing the chance of trying some new nostrum than at the actual death of my poor friend. He waxed eloquent in regret at the delar, asserting that one little half hour might have saved a life; producing as proof a small bottle containing some infallible remedy which, he said, he had lately received from a native hakkim. As the man was an inveterate gobemouche, for ever thinking geese were swans, I paid little attention to him, and left him to Elahi Baksh while I went to make necessary arrangements. If Graham's last wishes were to be obeyed, I had to make sure that the bad news, travelling proverbially fast, should not reach his wife through some side channel. The only way to prevent this was to wire precautions to her immediate neighbors. I therefore

"The bearer is a fool," he said, "fear hath made his brain dissolve. Nevertheless, the sahib need not be alarmed; I will watch, and no harm shall come to my master in your honor's cheener."

dissolve. Nevertheless, the sahio need not be alarmed; I will watch, and no harm shall come to my master in your honor's absence."

Somehow, I felt inclined to trust the man, and it was a relief as I rode away to see his still, impassible figure crouched beside the oil chiragh in the verandah. The night was dark as death itself, and I remember wondering how the feeble flicker of the oil lamp, which scarcely showed the darkness around it, could shine so far into the night. I must have been a good half mile away when I turned to look for it the last time, and there it was, like a star. The rain came down in torrents; altogether a night to be remembered, with its ghastly rousing of carpenters and grave-diggers, and dreary, dreary preparations. Through it all the flicker of that oil lamp seemed to light up one corner in my tired brain—that which held the memory of the dead man lying all alone.

It cleared towards dawn, and half an hour after I had, in the darkness, charged and temporarily scattered a dismal little procession carrying the roughly-made coffin on a string bed, I drew bridle in front of the resthouse once more, and dismissed the wearied beast to find its own stable. The glimmering dawn whitened the bare outlines of the bungalow, and showed me Elahi Baksh still crouched beside the oil lamp.

I thought he was asleep, but at the first touch on his shoulder he stood up alert.

"Hazar! mem sahib!" Then, with a swift glance, salaamed low, adding in apologetic tones: "I did not know it was your honor. I thought it was the mem sahib one more."

A strangely dazed look in his eyes made me think he had been eating opium, and I reproached him angrily with having neglected his promise.

"Before heaven, my great lord!" he answered, gently, "I have not slept all night; I have watched. If your honor doubts his slave's word, let him ask the mem sahib?"

Involuntarily I asked: "What mem sahib?"

The dazed look became stronger. "How should a poor man know! I mean the mem who came after your honor left."

"Came! after I l

rn-alf-es-get m, art 'he im. alf

hot lera lent lay lay lak-

"Came! after I left! Why!—where is she now?"
"With the sahib," he replled; "or stay! she is coming

"With the sahib," he replled; "or stay! she is coming out."

He pointed to the door, and, as I live, something—the wind of dawn, perhaps—swayed the chick, turning it to one side as if an invisible presence were passing through it. For a moment I hesitated; then reason rose in wrath against my fear, and I entered the room. All seemed the same as when I had left it, and the low bed with its white covering still gleamed, the only distinct object amid the pale shadows of dawn. Suddenly I felt a rush of blood to my heart, and heard a cry. I must have uttered it, but I was unconscious of every sense and function save sight, as I strained my eyes with an awful eagerness to the outline of the sheet. Surely—surely—something moved! Rising and falling—rising and falling. A great horror seized me, and I could have fled from the fear of life as I had never fled from the dread of death. Slowly I forced myself to approach the bed, and turn back the sheet from the still face. My friend was dead, I told myself; what could disturb his rest! It was a trick of fancy! a wavering shadow! Yet my hand shook, my feet failed me. A moment after, the knowledge that what I teared was true removed my terror. I found myself looking down on Graham's sleeping face with perfect calm; for it needed but a glance to show me that this was sleep, not death. Life, with all its possibilities, lay in the even, regular breathing, the quiet, painless face.

Then came the thought, urgently, persistent. Whose hand had guided him back? Whose care had come to his aid when friends forsook him? In my heart I knew, but I set the knowledge aside impatiently. Elahi Baksh still stood outside with folded arms. Him I would confront and question; there could be no mystery—nothing beyond explanation. So I went to him and asked him when this thing happened.

"What thing, my lord," he answered.

"Don't look like a boiled owl," I cried; you know quite well the sahib is alive—the danger is past—he will recover."

"God be praised!" was the reply. Shall I make tea for the mem, she must be tired.

"There is no mem sahib!" I cried, angrily; you have been asleep and dreaming."

asleep and dreaming."

"Before heaven, I have not slept? How could I? The mem came so often, crying: 'Elahi Baksh! Elahi Baksh!'"

Then I spoke quietly to him, for I saw he believed what he was saying, and told hin he was mistaken; but he shook his

was saying, and told hin he was mistaken; but he shook his head.

"She came just after you left, sahib," he insisted. "I was sitting by the light, and when I looked up she stood there where you stand, and her voice was so kind and soft as she said: Elahi Baksh, your master is not dead; his soul is dreaming by the gate of life. I have come to let him in, for the gate of death is ajar for me. Bring fire to warm the empty house. So I brought fire. Sometimes when I looked up she was there, and sometimes she was not there. She came and went, calling: Elahi Baksh! Elahi Baksh! And everything she bid me do, or bring, I did. She must have come a long way to nurse the sahib; she looked so pale and tired. God grant her and her children long lives."

do, or bring, I did. Sne must have come a long with each ib; she looked so pale and tired. God grant her and her children long lives."

"And when did you see her last?" I asked.

He put his hand to his head in confused thought.

"The night was so long, sahib, and she came so often, calling: 'Elahi Baksh! Flahi Baksh! At the false dawn, sahib, she touched me on the shoulder. I must have been drowsy. She was so white, and her hand cold as ice. The jackals were slinking away. I saw two by the pillar yonder. 'The door is open, she said, 'bring food to welcome the master home.' So I brought it."

"And when you went into the room, was the sahib alive?"
Again he passed his hand over his forehead, and hesitated.

"I was not in the room, my lord. There was no light—nothing but the mem sahib standing where you stand, and calling to me: 'Elahi Baksh'. 'Elahi Baksh.' Her voice was so soft, like the voice of some one far off—very far off."

I walked up and down the verandah several times before I asked him if he had ever seen this mem sahib or anyone like her.

asked him if he had ever seen this mem sahib or anyone like her.

He shook his head. "I have seen few mem sahibs. I do no know the face of my mistress; doubtless it was she."

Well, Graham recovered, but returning health brought him no memory of anything between the time of his trying to write the telegram and his awakening next morning; nor did I think it wise to tell him Elahi Baksh's strange story. I hinted at it to the doctor, but he was in a furious rage at the loss of his bottle of elixir, which he had left behind him in Graham's room by mistake, and which was not to be found next day. He declared that Elahi Baksh had tried its efficacy on his master, and finding it succeed, had stolen the remainder, enough to have made him—the doctor—famous for life. "Twas an old beast of a fakir gave it to me; what the divvle was in it, I don't know; but Graham was as dead as a doornail, and now he is as fit as a fiddle. And the elixir's gone. What do you say to that it except that I was a fool not to try it myself." It seemed reasonable; more reasonable than Elahi Baksh's story, till time brought a curious confirmation of the latter.

Coming home three weeks after, I found Graham at his writing table. He lifted a pained, set face as I entered, and pushing the letter, over which he had been leaning, towards me, said:

"There is bad news. The mem sahib is dead." I glanced

me, said:

"There is bad news. The mem sahib is dead." I glanced at the letter, scarce seeing the words.

"It would not have been so hard," he said, after a while, "if there had been any message, any thought; but there was none."

e—none. "Perhaps there was a message," I began. "No; read it. There was no time. It was so sudden at the

She had been found late one morning dead at her writing table, her head resting on her clasped hands, beneath which lay a telegraph form on which was traced an illegible sorawl. Whether, feeling ill in the night, she had risen, intending to telegraph for her husband, who was away at the time, or whether she had fallen asleep forever as she sat writing late into the night, as was her wont, no one could say. Nor could any one decipher the secret of the telegram. It was an Indian form, but as others of the same sort were found in her desk, even this clue was lost.

I put my hand on Graham's shoulder, feeling, as it lay there.

I put my hand on Graham's shoulder, feeling, as it lay there, e long-drawn breath of a strong man's grief. "Graham," said, "there was more than a thought—more than a message, ie kept her promise and came to you when you sent for her." Then I told him Elahi Baksh's story. And he was com-

There was a pause. Then the young doctor spoke. "A clear case, as I said, of suspended animation. It is not in the least uncommon."

"But how about the telegram," asked the gray man; and the various replies lasted till the dinner-bell rang.—The English Illustrated Magazine.

A prize of \$2.00 will be given for the best essay on "Women in the Light of History." All communications to be in our office by August 3rd.

MINNIE MAY.

"No more glorious victory can be gained over another than this, that when the injury begins on his part, the kindness should begin on ours."

Lighten Home Work.

Have a stool of the right height, so that you can sit down when doing the family ironing; you will be able to get through a big basket of clothes much more easily, especially if you have the board in a cool room, say the dinning room. The exertion of rising to change the irons will not be great.

Even the washing can be done very comfortably.

rising to change the irons will not be great.

Even the washing can be done very comfortably by a woman not over strong physically, if she will not fret about it, but will go to work the right way. The white clothes should, of course, be placed in warm water and soap at night, and by morning they will easily rub clean. Into the boiling water should be poured a teaspoonful or a trifle more of kerosene, which will whiten the clothes. which will whiten the clothes.

And then carpets! There are still a great many carpets used in modest homes, where the care of them is wearing out the housewife. Even soft pine floors can be prettily stained and varnished, after the cracks have been filled in with putty, and the pretty, cleanly method of laying rugs about will give the room the wholesomeness of our grand-mother's days and do away with the principal bother of house-cleaning time, to say nothing of the labor of frequent sweeping. The soft, long-handled brush will remove most of the daily ac-cumulation of dust.—Home Queen.

THE QUIET HOUR.

My Lambs.

I loved them so,
That when the Elder Shepherd of the fold
Came, covered with the storm, and pale and cold,
And begged for one of my sweet lambs to hold,
I bade him go.

He claimed the pet—
A little fondling thing, that to my breast
Clung always, either in quiet or unrest.
I thought of all the lambs I loved him best,
And yet—and yet—

In those white shrouded arms, with bitter tears; For some voice told me that, in after years, He should know naught of passion, grief or fears, As I had known. I laid him down

And yet again
That Elder Shepherd came; my heart grew faint:
He claimed another lamb, with adder plaint,—
Another! She, who, gentle as a saint,
Ne'er gave me pain.

Aghast! I turned away. There sat she, lovely as an angel's dream, Her golden looks with sunlight all agleam, Hor holy oyes with heaven in their beam,— I knelt to pray.

Is it Thy will?
My Father, say, must this pet lamb be given?
Oh! Thou hast many such, dear Lord, in heaven.
And a soft voice said: "Nobly hast thou striven;
But,—peace be still."

Oh! how I wept,
And clasped her to my bosom with a wild
And yearning love—my lamb, my pleasant child;
Her, too, I gave. The little angel smiled
And slept.

"Go, go," I cried, For once again that Shepherd laid His hand Upon the noblest of our household band. Like a pale spectre, then, He took His stand Close to his side.

And yet how wond'rous sweet
The look with which He heard my passionate cry:
"Touch not my lamb, for him, oh! let me die!"
"A little while," He said, with smile and sigh,
"Again to meet."

Ay! it is well— Well with my lambs, and with their earthly guide; There, pleasant rivers wander they beside, Or strike sweet harps upon its silver tide—

He Shail Gather the Lambs.

There was a poor mother standing by a very little grave and weeping as if her heart would break. Then there came to her an old man, who said: "My child, my daughter, listen! There was a Shepherd, and He had a flock, and in the flock was one sheep with a very little lamb by its side. Do you listen? Now, the sheep loved the lamb very dearly, and followed wherever it went, straying away after the lamb far from the fold. Then the Shepherd, who saw that the sheep might be lost, and the lamb, too, in some pit or on some wild moor, caught up and carried the lamb in his arms away to the fold. And the sheep came meekly and patiently by His side. It followed the Shepherd then, for He had the lamb, too." then, for He had the lamb, too.

Jesus Called a Little Child Unto Him.

Oh! ye angels, ye who flutter Whitest wings, unstained with clay, Ye who endless praises utter, Wherefore bore ye him away?

Wherefore? That his soul may be Cleansed from all impurity.
Wherefore? That his opening mind Wisdom's only spring may find.
Wherefore? That his heart be filled All with love from God distilled; That his body never know Throb of pain, or pang, or woe, But all beautiful and wise In the Resurrection rise.

Oh! ye angels, ye who flutter Whitest wings, unstained with clay, Ye who endless praises utter, Whither bore ye him away?

Whither? To a world so bright
That its darknesses are light!
Whither? To a life so blest
That its weariness is rest.
Whither? To a Home so fair,
Praises, only, form a prayer.
There the little children meet,
Gathered round the Saviour's Feet.
There the little children rest
On the tender Saviour's Breast;
There the little children dwell
In His love ineffable;
Far from earthly care and woe In His love ineffable;
Far from earthly care and woe
Suffer thou this one to go;
Far from tears and eyesight dim,
Let him closer be to Him;
To His glory, free from blot,
Spare him, and "forbid it not."

Baby's Bed.

So straight and narrow is the quiet bed
In which my precious little darling sleeps,
I could not leave her there, in peace, alone,
Without the knowing—God doth mark His own,
And keeps safe watch o'er all these little beds
Which cast short shadows in the morning sun,
Ended their pilgrimage ere day begun,
And throws soft coverlet of summer's sheen,
Bordered with daisies and grasses green,
Or winter's pure white sheet of drifted snow
Above the dreamless form that slumbers low.
And so, I could not leave my tender lamb alone,
Without the knowing—God doth mark his own.

UNCLE TOM'S DEPARTMENT.

My DEAR NEPHEWS AND NIECES:-

"Once upon a time," as the fairy tales begin, the pupils of a certain school were called upon, each one to write a stanza of original poetry, and this is what one boy wrote:

Of all the glad words that tongue can speak, The gladdest are these: 'No school next week.'"

And now these words seem very appropriate as the hot, sultry weather is beginning, and I am sure you all agree with him, do you not? Well do I remember with what longing we counted the weeks, and near the last, the days that preceded the much-loved vacation; even the approaching examination lost half its terror in the anticipation of the freedom we were so soon to enjoy. Although I had to do my share of weeding as soon as school closed, I generally managed to have a pretty good time, and can yet recall many a pleasant ramble we had berry-picking, and enjoying ourselves in our own fashion.

Many a time we returned from the "berry patch" almost too tired to move, but the next time a crowd was going we forgot all about the past weariness, and started off as merrily as ever. Times may be changing, but one thing seems inalterable—the spirits of our Canadian children, and may it be ever so! While I admire a manly man, I also like to see a childish child.

I hope that during the past term my boys and girls have made much progress, and that the exam-

inations now pending hold no fears for them. I think you must all have been applying yourselves very closely to studies orother work, formy supply of letters has greatly diminished, a fact I am truly sorry to admit. Those who have been sending answers very rarely have their work in in time for publication. Now, as we are commencing a new halfyear, I wish very much that you would try to be more punctual; so much depends on the habit of punctuality, that it well deserves to be ranked among the cardinal virtues, and is most worth y of cultivation.

I am not satisfied with the number of contributors. What is the matter? Do not the present arrangements for prizegiving meet with your approval? If so. why not offer some suggestions as to how we may make them more agreeable? I shall be always pleased to receive suggestions for the benefit of our department, and whenever practicable to carry them out. I hope all

our old puzzlers will begin again, and not only that, but let each one try to induce one or more of his friends to contribute also, and thus our family will be once more what it formerly was—a delight and pride to us all

our circle during the past year, and regret that so many have absented themselves lately; so at the conclusion of this letter I will give the roll-call of the absentees, and hope that next month almost all will be prepared to answer "present."

To those who contribute puzzles, or wish to do so, I must again say that it is not necessary that they should all be in rhyme, for, while they sound pleasanter, many of our best puzzles have been in prose. I would be pleased to have more variety also. Why not try some old-fashioned cross-word or numerical enigmas, diamonds, half squares, transpositions, etc. Charades are very good indeed, but we have had so many lately that perhaps our readers are becoming tired of them. I would be very glad to receive any new style of puzzles that are not too difficult of solution. Now for our roll-call: A. R. Borrowman, H. McKim, I. Irvine Devitt, Agatha Prudhomme, J. Umbach, Oliver Snider, Addison Snider, M. Rodgers, Lily Day, Fred Hall, Amos Howkins, Henry Bobier, Edith Fairbrother, Henry Beck, Ernest Richardson, Elsie Hammond, Percy Gray, Willie Hunter, Mary Morrison, Clara Rilance, A. B. Pickett, Lizzie Miller, Morley Smithson, George Rogers, Jessie Sutherland, Minnie Moore, G. Garside, Irene M. Craig, Minnie Harley, Jessie Gordon, J. W. Moore, Alice Anderson, and

Ada and Beatrice Fowler.

Your return, my dear nephews and nieces, accompanied by a long letter from each of you, will greatly cheer your old

""

UNCLE TOM.

Wild Boars in the Forest of Fontainebleau.

FROM THE ORIGINAL PAINTING BY GIUSEPPE PALIZZI.

(ETCHED BY PETER MORAN.) Associated most intimately with the romantic history of some of the famous palaces and castles of Europe are the noble forests which form a part of their ample domains. Confining our attention to France, the palaces of Fontainebleau, St. Cloud, and to a certain extent, Versailles, may be cited as among the most familiar examples. Here, side by side with the utmost refinements in architecture and decoration, with exquisite floral and landscape gardening, are stretches of venerable forests almost primeval in their wildness, their grandeur, their solemn, mysterious beauty. And these gloomy recesses have been the theatre of the exciting chase, of scenes of gallantry, of treachery, of blood. Concerning the forest of Fontainebleau, one of the finest and most picturesque in France, an appreciative writer says: "The forest of Fontainebleau is full of mystery, of noises, of by-ways, of light, of obscurity; there are profound caverns, there are little paths which sweetly wind beneath the shade upon the flowery turf; there are waves of sand which escape from the half-opened rock; there is a drop of dew which falls with a soft murmur from an inert hill; there are a thousand strange forms, as there must have been many on the earth after the



WILD BOARS IN THE FOREST OF FONTAINEBLEAU.

deluge, when the waters had disfigured at pleasure everything in creation. At each step you take in these mysteries, you meet some of these novelties, the effect of which is all-powerful. The artists, the poets, the romancers, the lovers—those great poets—have, from time immemorial, made the forest of Fontainebleau the empire of their dreams. It is composed of nearly forty thousand acres of ancient and majestic trees; it is bounded on the west by the Seine, on the south by the Canal de Briare, and is no less than sixty miles in circumference.

Oh! what terrible and touching histories this aged forest has covered with its shadow,—an ancient, silent, profound shadow, reached by no other

horn resounding through the wood."

Our artist has pictured one of the many picturesque openings in the old forest, in which nestles an emerald pool known as "La Mare Verte." The remote loneliness of the spot is suggested by the presence of the wild boars who range here undistribled.

noise than the stag braying, the bird singing, the

turbed.
Giuseppe Palizzi was born at Lanciano in 1813.
He at first studied jurisprudence, but abandoned that profession in 1836 for that of painting, which he studied in the Academy of Nayles. In 1844 he went to Paris, where he had Troyon for a master. Most of his art life has been spend in France. As a painter of landscapes, figures and animals, he holds high rank. He is Chevalier of the Legion of Honor.

Joys come to us like blossoms, and we think we have them: and then, when, like blossoms, they fall, we think we have lost them, although the seed or shadow is left; but they are not gone because they have passed through a particular period of their development.

Puzzles.

1—ENIGMA.
In Italy and sunny Spain
I'm the centre of attraction;
In Africa, o'er many a plain,
I'm surely proud in action.

In France and Asia I am known, So my origin now trace; In America 'tis plainly shown I hold a leading place.

In India, China and Japan
I'm certain to be found;
In Switzerland and Austria,
And Canada I'll be bound.
What am I?
2—RIDDLE.

FAIRBROTHER.

Upon the grocery counter, in any store I'm found; And also in the river With the fishes I abound.

The urchin eyes the tempting fruit, By me he gains the prize; Thus in the different forms of life, Step by step I rise.

By me a hundred miles is shown
To be an inch in length,
But only those who know me well,
Can estimate my strength.
CHARLIE S. EDWARDS.

3—ENIGMA.

A man one day went fishing,
Without a line or hook,
He did not spear, nor did he troll,
Yet all the fish he took
Unto his wife—did make her stare.
"Where got he them?" you say.
An instrument of music name,
The mystery 'll fade away.

ADA ARMAND.

4-SQUARE WORD.

My First a curling tail displays,

My SECOND is a tail always,

My WHOLE'S a tail of other days.

Oriental Justice.

Semi-barbaric law is sometimes more just than that of more civilized countries. A story is told of an aged man who once appeared before the Cadi at Damascus. He was in distress.

"What can I do for you this morning?" asked the Cadi. "Hassan, the rich

merchant, has done mydaughter, Fatima, a grievous injury. She was engaged to be married to a young man whom she loved. She was as lovely as the rose, but Hassan spread evil reports abouther, and he who was to have married her has abandoned her in consequence of these false reports. She is now broken in health and spirits, and longs for death. Justice! oh, Cadi! let justice prevail!"

The Cadi wrote out a capias, placed it in the hands of his deputy, and in a short time Hassan was brought into court.

brought into court.

He pleaded guilty. He admitted that he had spread the injurious reports, and that he knew they were false. He signed a complete retraction, in which he confessed that he was a liar and a slanderer.

The court took the case under advisement.

Next day the decision was rendered.

"Hassan, stand up," said the Cadi. "You have done this unfortunate girl a great injury. You have robbed her of her good name, which was all she had. The slightest punishment for robbery is the loss of your ears. The executioner will cut off your ears, to remind you that you must not cut off

the reputation of others."

At the given signal, the public executioner lopped off both of Hassan's ears.

"I am not done with you yet, Hassan," said the

Cadi.
"Mercy! Mercy!" pleaded the unfortunate
man; "have I not restored the girl's reputation by
my public retraction?"

"Yes, you have restored her reputation, after a fashion, and now I propose to restore your ears, after a fashion. The executioner will proceed to sew on your ears again."

And it was done. —Home Queen.

A sweet girl graduate, says an exchange, thus describes the manner in which a goat butted a boy out of a droot vard: "He hurried the previous end of his acatemy against the boy's afterward with an earnestness, and velocity which, backed by the pooles say of the goat's avoirdupois, imparted a modest are treat was not relaxed until he landed on a cross on it wond the pale of the goat's jurisdic-

AU

JULY 2,

Owing to decid WE E I My whol horn Ca heifers, t and show also a nuin the he condition Perfec Bull, go Lovely 1 Eight Catalogy Station,

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AUCTION SALE SHORTHORNS

Owing to poor health and want of help, I have decided to sell by Public Auction, on My whole herd of choicely-bred Scotch Shorthorn Cattle, consisting of thirty cows and heifers, twelve bull calves and the grand stock and show bull, Perfection =9100=. There are also a number of fine show cattle of both sexes in the herd. The stock is all in good breeding condition, and all females old enough are in calf. Perfection =9100= is a pure Cruickshank Bull, got by Barmpton Hero =325=; dam imp. Lovely 19th =306=.

Eight months' credit will be given. Send for Catalogues. Farm, half mile from Ethel Station, G. T. R., Huron Co. WEDNESDAY, JULY 25

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stud, though stud, though commenced in 1890, has achieved unparelleled success at all the leading Canadian shows, sometime as Montreal, Toronto and London, also at the CHIRAGE MEDICAL TO

don, also at the CHICAGO WORLY'S FAIR The most notable in this stud are, the Shire horse Bravo II. 12835, winner of first at Toronto, Montreal and London, and also beating all Clydes at the latter show in the sweepstakes. Hackney, Fireworks No. 3602, winner at Chicago, Toronto and London. Shires and Hackneys always on hand for sale. For further particulars apply to the Proprietor, Rosseau, Muskoka.

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Stock from imp. bulls and imp. and home-bred cows. Catalogue now in printer's hands. Send for one. H. CARCILL & SON. CARGILL, ONT.

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At the head of my herd is the Kinnellar bull imp. Royal George, while my cows and heifers are principally of the Wimple and Rosedale, also of Kinnellar breeding. Young bulls are now offered.

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I will sell bull calves from my stock bull, Royal Sovereign, at prices to suit₂ the times. Come and see me or write.

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Choice young stock of all the above breeds always on hand, and for sale at reasonable prices. W. G. PETTIT,

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To avoid in-breeding I must sell my stock bull, Netherland Romulus. This is one of the best Holstein bulls in Canada. He won second premium at the Industrial this year in the strongest class ever shown there. Warranted right every way, perfectly quiet, and as good as when he was a two-year-old. Price very low. R. S. STEVENSON, Ancaster P. O., Ont.

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The first Royal winner, Royal Chester, at the head of the flock. Ewes from the best English flocks, such as those of Dudding, Bailes, Wright and Clark. Rams to head flocks a

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In lamb to an English royal winner that has proved himself a great stock sire. Ram lambs and ewe lambs from imported stock, which will make good show sheep, for sale at hard times prices. WM. THOMPSON,

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Ram and Ewe Lambs -FROM IMPORTED STOCK. ALL REGISTERED. T. HARDY SHORE,

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BROOKLIN, ONT., Sept. 4th, 1890.

DEAR SIR.—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders.

Aff Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to ROBERT WICHTMAN, DRUCCIST, OWEN 30UND,ORL.

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Duckering, Sanders Spencer and Walker Jones breeding stock, of all ages, for sale; also a few Bates bulls of milking stock.

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The largest herd and the most profitable type of Yorkshires from the feeder's standpoint in America. Over fifty sows bred to seven different stock boars for the spring trade. Pigs for exhibitors purposes a specialty. Stock shipped to order are guaranteed to be as described. Personal inspection solicited. J. E. BRETHOUR, Burford, Brant Co., Ont. 3-y-om

Large Improved YORKSHIRES AND ENGLISH BERKSHIRES

A few choice sows in farrow, last June, July and October pigs, also a few boars fit for service at once, also a choice lot of spring pigs. Many of the above pigs are bred from imp, stock. Pairs supplied not akin. Prices reasonable. Apply to

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T. TEASDALE, CONCORD, ONT., breeder of high class Berkshires. Some fine pigs October litters, both sexes, for sale. Also fine lot young pigs farrowed in March. Come and see my stock, or write for prices and description.

6-y-om 6-y-om

ISRAEL CRESSMAN, New Dundee,





W. C. EDWARDS IMPORTERS AND BREEDERS.

PINE GROVE Rockland, Ont.

TCH SHORTHORNS. The imported Cruickshank bull Grandeur is at the head of this herd of Imported and Home-bred Cows and Heifers of the most approved

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Shorthorns, Shropshires and Berkshires Our flock is from the choicest English flocks, headed by the ram sent out by Mr. Thos. Dyke; also milking Shorthorns, with imported bull Ploneer at the head of the herd.

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Ayrshires, Jerseys and Berkshires. Imported Emperor at the head of a grand lot of Imported and Canadian-bred Ayrshires; also St. Lambert Jerseys and Imported Berk.

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My herd are imported or bred from imported stock, and have carried winnings at leading shows for years, including sweepstakes over all breeds at last Guelph Fat Stock Show. Pigs of all ages for sale, pairs supplied not akin.

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GEO. GREEN, Fairview, Ont.

9-y-om

19-1-y-om

I have on hand the best young CLYDES-DALE Horses and Mares on this continent. Bred from the well-known sires, Prince of Wales,

Grand Dispersion Sale

JERSEYS, HOLSTEINS, SHROPSHIRE & DORSET HORN SHEEP

CHESTER WHITE PIGS.

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INTENDS OFFERING FOR SALE ON SEVENTH JULLY, AT OAKWOOD FARM, ABOUT TWO HUNDRED THOROUGHBRED SHROPSHIRE SHEEP AND FIFTY LAMBS, DORSET HORN EWES AND LAMBS, INCLUDING SHEARLING EWES AND RAM LAMBS OF BOTH BREEDS. ALSO A LARGE HERD OF REGISTERED JERSEY AND HOLSTEIN CATTLE, ALL AGES. PATRON EXCURSION TICKETS WILL PERMIT OF STOPPING OVER FOR THE SALE.

This Sale will ofter an opportunity for Canadian farmers to put in a foundation stock of any of the above, at prices they have never been sold for or oftered in this country before. Mr. Stratford's business for years past has rested with the Americans, and he is fully determined now to see if it is not possible to bring about a revival action with our Canadian farmers in the matter of handling these different breeds of cattle and sheep. The Jerseys are from the original stock of Valancey Fuller, at Waterdown. The Holsteins are of the Royal Aaggie family, while the Shropshires and Dorsets are from the best flocks in the United Kingdom. Watch for date later on, and don't miss the first grand opportunity of buying, at farmer's prices, the best kind, and from the best flocks ever sold in Canada.

From all Points East and West in Canada, that a Two-Day

Excursion will allow, to

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Bring your wives and daughters, with your lunch baskets, and put in a grand day with us at the Telephone City and the home of the Farmers' Binder Twine Company. Don't let this excursion interfere with your sending in your orders for twine immediately. Write at once for Posters and all particulars to BRO. JOSEPH STRATFORD. See that you advertise it well in your locality. Station Agents all along the line will also

know about it.
Remember Bro. Joseph Stratford's Sale of Thoroughbreds, Jerseys, Holsteins, Shropshires, Dorset-Horned Sheep, and Chester White Pigs, will take place at his Oakwood Farm, SATURDAY, JULY 7th.

Tickets good to return Saturday, July 7th.

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SOLD AGAIN! Three of the four Guernsey bulls advertised by us are sold and delivered. We still have one more, the 3rd prize calf at the World's Fair, now fourteen months old—a dandy. Lowest price, \$200.

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IMPROVED YORKSHIRES.—We claim to have the longest, deepest and most typical LARGE YORKSHIRES in AMERICA, and the reason is we have paid more money and imported more pigs from the best herds in England than any two Yorkshire breeders on the continent. Orders booked now for spring pigs. Two very handsome COLLIE BITCHES, seven months

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Bred for butter. G. sons and g. daughters of "Massena," the greatest cow of her age in the world,—8,000 lbs, milk and 654 lbs, butter in her 16th year; also stock from "Signal of Belvedere," whose dam made 20 lbs. 6 ozs. butter in one week on second calf. Also stock from the greatest living prize bull, Canada's Sir George, whose dam made 26 lbs. butter a week and 57 lbs, milk a day. Splendid bulls, six months old and registered, \$100 each.

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Orders can now be booked for Shearling Rams, Ram Lambs and Ewes, sired by by the celebrated prize-winning English ram, Bar None. Also Rams and Ewes of this year's importa-

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HEIFERS and BULLS

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Have for sale some Holstein Cows, one good young Bull, also a number of

THE HOME OF THE BERKSHIRES. J.G. SNELL & BRO., Ontario. Edmonton,

Now is a good time to order pigs from litters farrowed this year. We never had so many fine sows to breed from as at present. Can supply a few pigs from litters farrowed in January and February. These will be right for the fall exhibitions where prizes are given the supplementary of the supplementary.

H. J. DAVIS, Woodstock Ont., Breeder of High-class Large Berkshire and Imp. Large White Yorkshire Swine, Short-



lot of young pigs ready for shipment from prize-winning stock. Stock ship ned to order. Satis

BERKSHIRES Of the best strains not con-

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All ages for sale, including sows in farrow.
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Canada, including plgs
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- OF-POLAND-CHINAS I have a few pairs of good fall pigs, unrelated, yet for sale. Send for Cata-logue just out, for Spring Litters.



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Whites and Duroc-Jerseys ever brought to
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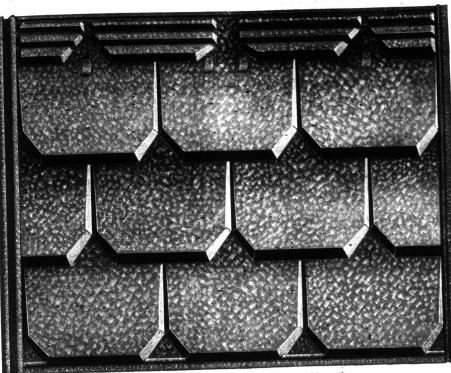
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Young pigs of allages
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Our herd of Improved Poland-Chinas won 36 first, 18 second and 6 third prizes in 1893, including the Herd prize at Montreal and Toronto, for best boar and two sows, any age. Stock, both sexes and all ages. Pairs and trios not akin for sale at all times. Correspondence solicited or inspection of herd invited.

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CHESTER WHITE SWINE. Our herd won more first prizes and sweep-stakes than all others combined, including Toronto, Montreal, London. Thirty im-ported and home



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Canadian agent for Webster & Hannum Bone Cutters. Write me for prices of the Cutters and all kinds of poultry. JNO. J. LENTON,

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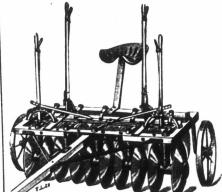
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Single Comb White and Brown Leghorns, Silver Laced Wyandottes, S. S. Hamburgs and B. P. Rocks. I have some good yearling birds for sale very cheap, if sold at once, also chicks in Sept. or Oct. very cheap. Prices on application. All letters cheerfully answered. Address

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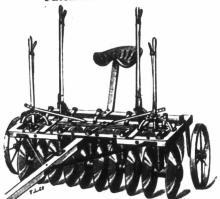
STOCK GOSSIP.

RHEUMATISM P. H. FORD

COULD HARDLY WALK

ON ACCOUNT OF





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STOCK GOSSIP.

AFIn writing to advertisers please mention the Farmer's Advocate.

Mr. John Hallam, of Toronto, writes:—"Mr. J. C. Snell, of Edmonton, sold me 246 fleeces unwashed wool, weighing 2,957 lbs., and Wm. Oliver, Avonbank, 49 fleeces, 590 lbs. This beats the record."

MF. R. W. Stevens says he has the most promising lot of lambs he ever had. They are all got by imp. Royal Chester, which has proved a very valuable sire, both with Mr. Stevens and Messrs. Gibson & Walker. Mr. Stevens' shelp are Lincolns.

Mr. Alex. Mr. Stevens' shelp are Lincolns.

Mr. Alex. Lawrence's (Morden) Silver Wyandotte pullets, consigned to Sharp Butterfield Windsor, Ont. A pretty good testimony of what Mr. Butterfield's opinion of these Wyandottes are, when he sends all this way for stock.

John Thornton & Co., 7 Princess St., Hanover Square, London W., Eng., announce the following sales of Shorthorn cattle.

John Thornton & Co., 7 Princess St., Hanover Square, London W., Eng., announce the following sales of Shorthorn cattle.

The Ontario breeders of Berkshire swine are making preparation for the largest and best exhibit of Berkshire swine at the 1894 fair that has ever been seen at Toronto. The American Berkshire Association has agreed to aid our breeders in this matter by the offer of the following liberal prenntum stream of the Record of the American Berkshire Association necessary to complete the set of the successful competitor, and valued at five dollars per volume.

(a) Best breeding pen of Berkshires, registered in the American Berkshire Association necessary to complete the set of the state or volume.

(a) Best breeding pen of Berkshires, registered in the American Berkshire dollars. Let be considered in the State of State of

NOTICE.

NOTICE.

500 NORTHWEST FARMS FOR SALE.

Attention is directed to the fact that some 500 farms located in that fine South Saskatchewan district known as "The Temperance Colony have been placed upon the market. They comprise the choicest of land, equally well suited for grain growing or mixed farming, and are near the flourishing town of Saskatoon. D. Blackley & Sons write as follows: "We came here in 1884; have farmed here ever since. We have a high opinion of the country. The soil is for the greater part a rich clay loam, easy of cultivation, and yields abundantly. Roots grow to great size. Wheat and oats are remarkable. The climate is singularly healthy. There is a never failing supply of pure water, and abundance of material to construct buildings. Our prospects are encouraging," Another settler calls attention to the fact that cattle do well, and are raised very cheaply, compared with Ontario. Note the advertisement elsewhere of these lands offered by Mr. C. Powell, Toronto, or Osler, Hammond Nanton,

EXCELLING

CANADA'S GREAT

INDUSTRIAL FAIR

TORONTO,

September 3rd to 15th, 1894 CHATHAM FANNING MILL,

THE GREAT LIVE STOCK AND AGRICULTURAL EXPOSITION OF THE DOMINION. VAST IMPROVEMENTS DURING THE PRESENT YEAR.

The largest list of prizes ever offered in Canada for every kind of farm product.

No Agriculturist should miss attending this great Fair, and bringing his family with him. Worth travelling many miles to see. New inventions and special attractions.

INSTRUCTION AND AMUSEMENT COMBINED.

CHEAP EXCURSIONS ON ALL RAILWAYS.

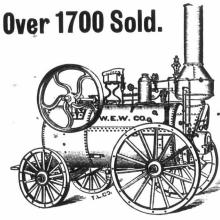
ALL ENTRIES CLOSE SATURDAY, AUGUST 11th.

For prize lists, entry forms, and all information, drop a post card to

JOHN J. WITHROW,

President.

H. J. HILL, Manager, Toronto.



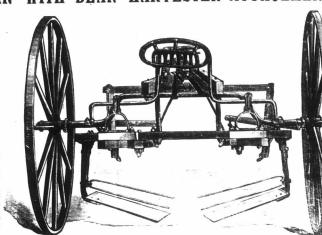
With their perfect water spark arrester, simplicity and ease of management, thoroughly reliable construction, are still the FAVORITE with FARMER and THRESHER. We build two styles of Horizontal Boilers -"Return Tubular" (same as cut) and the Economic, the latest and best portable boiler built.Consultyourown interest.

A few Second hand and Rebuilt Plain and Traction Engines in stock; will be sold or exchanged on favorable terms. Prices reduced to suit the times. Write us before buying.

WATEROUS, Brantford, Canada.

NEW AMERICAN WITH BEAN HARVESTER ATTACHMENT.

The Bean Harvester is an attachment which is easily put on to the New American Harrow and Cultivator after removing the sections. It pulls two rows of the sections at once, leaving them in a perfect windrow, and harvesting from 12 to 18 ac esin aday. This machine is indissensable to bean growers, and is highly recommended, by all who have seen it. As a larrow its work is perfect; the teeth have reversible points and can be locked down or allowed to float. As a cultivator the New American has no equal; it cultivates inon Arms two rows of beans can be cultivated at once. We sell the New American either as a cultivator or bean harvester. If you have one of the machines you can obtain the attachments for making the other at a small expense.



Knives can be Locked in any Desired Position.

AMERICAN HARROW CO., Detroit, Michigan, or Windsor, Ontario,

10-m-o ADVERTISE IN THE FARMER'S ADVOCATE

HOW TO MAKE OTHERS DOLLARS out of WIND.



It will Save Many Dollars in Time and Trouble if you buy a

With Bagging Attachment. It Cleans Alsike Clover to Perfection; also . Marrofat and Black Eye Peas. . .

1,000 Mills Sold, 1884
1,330 Mills Sold, 1885
2,000 Mills Sold, 1886
2,300 Mills Sold, 1887
2,500 Mills Sold, 1888
3,600 Mills Sold, 1889
4,000 Mills Sold, 1890
4,500 Mills Sold, 1891
5,000 Mills Sold, 1892
6,000 Mills Sold, 1893

More than have been sold by all the factories in Canada put together and doubled.

Send for circular.

MANSON CAMPBELL, CHATHAM, ONT.

For Sale by all MASSEY-HARRIS CC. Agents in Manitoba and N. W. T. 11-1-g-THRESHING MACHINES AND HORSE POWERS



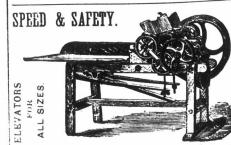
The best Tread Horse-Powers and Threshing Machines made. Take the lead wherever introduced. Also Drag and Circular Saws and Ensilage Cutters. Agents wanted. John Larmonth & Co., Manufacturers, Pt. St. Charles, Montreal, P. Q.; E. G. Prior & Co., Agents, Victoria, B. C.; A. L. Gruggen, Agent, Moosomin, N. W. T. OLDS' PATENT



DROP A POSTAL IN THE SLOT

of the mail box, and draw an answer that will be of great advantage. Write on the card—where you live, how many acres of land you own, how much live stock, what kind of fence you have, what it cost per rod, and how much new fence you need to make your crops safe against unruly stock from within or without. Address card to

The Page Wire Fence Co. of Ontario, Ltd. WALKERVILLE, ONT.



Our cutters will fill your silo with speed and safety. They are equally good at Eusilage, Hay, Straw, or other fodder.

M. MOODY & SONS,

END for Catalogue of CHAMPION EVAPORATOR. THE G. H. GRIMM Co., Montreal.

LEAD& SNOWE

Ontario

HAYMA SOLID S'

It is Mac Send for HAYING ENGI FEED GF TOR TANKS

ONTARI

100

write di

FREE

Calgary

THE BEST WACON ON WHEELS!



SNOWBALL WAGON CO.STGEORGE ONT. SNOWBALL WAGON stands in the es DINUW DALL WAGGET timation of the public. It has stood the test for fifty years, and to-day 1,000 of our customers advise their friends to buy the SNOWBALL. We are very busy at present, and would advise any one wanting a SNOWBALL to order early and give us time to look carefully after the work.

Remember We Only State Facts. Other firms may give you fairy tales. We never do. You run no risk in buving a SNOWBALL WAGON. We know farmers who have run a SNOWBALL WAGON for forty-five years, and still in fair shape. Always address

SNOWBALL WACON CO., ST. GEORGE, ONT.

ONTARIO WIND ENGINE & PUMP CO.



Made of the best Annealed Malleable Iron.
Guaranteed Second to HAY CARRIER. None.

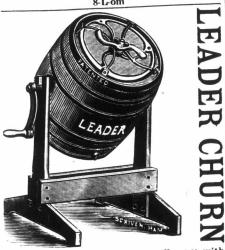
It is Made for Either Steel or Wood Track.

Send for Illustrated Catalogue and Pamphlets fully describing our HAYING TOOLS, WOOD AND STREL WIND ENGINES, WOOD AND IRON PUMPS,

FEED GRINDERS, CYCLONE DUST COLLEC-TORS FOR THRESHING MACHINES, TANKS, AND PUMP AND PIPE FIT-TINGS, ETC.

ONTARIO WIND ENGINE & PUMP CO., 10-y-om 367 Spadina Ave., Toronto. Ont.





Ask your dealer for the LEADER CHURN, with Patent Gas Vent, best Churn in the market, or write direct to manufacturers for Catalogue.

DOWSWELL BROS., Hamilton.

Manufacturers of Churns, Wringers, Washers and Mangles.

13-1-tf-0

YOU CAN'T AFFORD IT! TO LET AVALUABLE ANIMAL BECOME SICK MAUD S" CONDITION POWDER AND LOSE FLESH. HAS A WONDERFULLY GOOD EFFECT IN BRINGING HORSES & CATTLE BACK TO GONDITION PRICE, 25c. AND 35c. PER PACKAGE.

We offer to mail for 10c. a regular 25c. package to anyone who wishes to try them

DAVIS & LAWRENCE CO. (Ltd.),

MONTREAL.

HOUSE WARM! KEEP YOUR YOU CAN

FROM CELLAR TO GARRET, AND DO IT CHEAPLY, WITH - - OUR - -

Famous Magnet Wood Furnace.

EVERY USER GLADLY TESTIFIES TO THIS.

If your local dealer does not keep our goods, write our nearest house.

THE McCLARY MFG. CO

7-y-om LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER.

Manufactured at Central Prison, of

PURE MANILLA ONLY.

Each bale-of 12 balls will weigh 50 lbs., NET WEIGHT of twine, yielding 600 feet to 625 feet per lb.

It will bind MORE GRAIN for LESS MONEY than any other twine in the market.

Price \$8, in lots of not less than 100 lbs. Cash must accompany order.

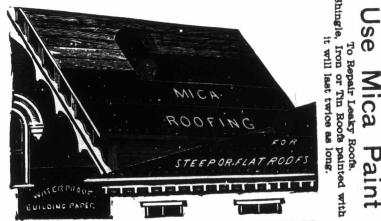
FOR SALE BY . . .

JOHN HALLAM,

Highest Cash Prices Paid for om

85 Front St. East, TORONTO.

Roofing n all your buildings. er than Shingles. Water Proof and Fire F Mica on s 0 S



RAPIDLY TAKING THE PLACE OF SHINGLES Is put up in rolls of 108 square feet each, 36 feet long by 3 feet wide, and cost 2½c. per square foot, thus affording a light, durable and inexpensive roofing suitable for buildings of every description, and can be laid by ordinary workmen. One man will lay ten square in a day, which brings the cost of Mica Roofing about 75c. per square cheaper than shingles. Special terms to dealers who buy our Mica Roofing to sell again. Orders and correspondence answered promptly.

HAMILTON MICA ROOFING CO., Office-101 Rebecca Street, HAMILTON, ONTARIO.

Land for Everybody.

FREE GRANTS OF GOVERNMENT LAND.

CHEAP RAILWAY LANDS FOR SALE ON EASY TERMS

AMPLE FUEL!!! PURE WATER!!

GOOD SOIL! The construction of the Calgary and Edmonton Railway, and the Qu'Appelle, Long Lake and Saskatchewan Ry. has opened up for settlement two districts of magnificent farming land, viz., that between the North and South Saskatchewan Rivers, and that between Calgary and Red Deep

Tail Red Deer.

Full information concerning these districts, maps, pamphlets, etc., free. Apply to

Calgary and Edmonton Railway, Qu'Appelle, Long Lake and Saskatchewan Railway Company.

OSLER, HAMMOND & NANTON,

LAND OFFICE, 381 Main St.. WINNIFEG.

17-1-y-om

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NOTICES.

In writing to advertisers please mention he Farmer's Advocate.

the Farmer's Advocate.

When in Beamsville a short time ago, one of our staff was invited by Mr. Tallman to accompany him to the farm of Mr. Isaac Kratz, Jordan Station, to see his new patent improved Double Disc Harrow working. Arriving at the farm, we found Mr. Kratz at work cultivating his orchard with another make of a disc harrow, but after testing Mr. Tallman's harrow, both in the same ground and between his grape vines, he was so well pleased that he decided to keep it, and settled up for it on the spot. Though only patented last October, this harrow is rapidly coming to the front as a labor-saving implement, and we predict a great trade this season for Mr. Tallman. By means of this harrow the ground is thoroughly worked without leaving a strip of land uncultivated, or the ridge, which is objectionable in many Disc harrows. See advertisement in this issue.

FARMERS' EXCURSION.

Arrangements have been made whereby members of the Patrons of Industry and others will be enabled to enjoy a two days' excursion to Brantford—the home of the Farmers' Rinder Twine Company—on Julys 6th and 7th, the return privilege extending to the latter day. Brantford is a beautiful and progressive city, with the Grand River and many other natural attractions. It is well worth a visit. Send a card at once for further particulars to Bro. Joseph Stratford, Brantford. A great many will cake advantage of this excursion to visit and inspect the successful binder twine establishment, and to attend Mr. Stratford's great sale of pure-bred stock, which occurs on Saturday, July 7th. This promises to be the great excursion of the season.

BINDER TWINE FOR 1894.

The rapidly maturing grain crop of 1894 (it promises to be an exceptionally large one) is already turning the attention of farmers once more to the necessity of securing in ample time a reliable supply of binder twine. For many reasons, it is very unwise to determaking such arrangements until the last minute. The Farmers Binder Twine Co., of Brantford, have established the principle of dealing direct with farmers, thus saving the expense of middle men. Mr. Joseph Stratford, the President, makes an important announcement in another column. Any other information required will be promptly secured by writing him at Brantford. The twine factory in that city, established through the instrumentality of the Patrons of Industry, is equipped with the most improved modern machinery and appliances, and no doubt a large number of farmers will take advantage of the excursion to Brantford, on July 6th, to visit the institution. The business of 1893 was very successful, but Mr. Stratford expects that it will be far outstripped by that of 1894.

very successful, but Mr. Stratford expects that it will be far outstripped by that of 1894.

We wish to draw special attention to the advertisement of the Farmer's Magnet Wood Furnace in this issue. For a long time there has been a demand for a wood-burning furnace, easy to regulate, a powerful heater, and one in which the various parts would be durable and capable of being thoroughly cleaned without disturbing any of the pipes. All the above good qualities have been successfully combined in the above-named furnace. Owing to the fact that wood fuel deposits a large amount of soot along the pipes, it will be readily perceived that the question of ease in cleaning has always been an important problem. In the Magnet Furnace, as manufactured by the McClary Manufacturing Co., London, this is accomplished by openings in the furnace front, into which a brush can be introduced and the pipes thoroughly cleaned with ease, the deposit falling back into the ash pit. This furnace is exceptionally heavy in all its parts, and has met with the approval of all who have tested it. A farmer can make his house comfortable from cellar to garret with one of these fixtures, more cheaply, and with much less labor, than he can do with stoves. The fire is easily retained over night. The company will be pleased to furnish information and full particulars on application to their agencies at either London, Toronto Montreal, Winnip g or Vancouver.

OUR BOOK TABLE.

We have received a copy of the Dominion Experimental Farm's report, which contains an enormous amount of very valuable information. All branches of agricultural research have been carefully and exhaustively investigated, and conclusive results are given in good form. All who wish copies can receive them by applying to the Dominion Department of Agriculture, Ottawa.

form. All who wish copies can receive them by applying to the Dominion Department of Agriculture, Ottawa.

"Country Roads."—From Mr. Isaac B. Potter, 33 Park Row, New York, Secretary of the New York State Road Improvement Association, we are in receipt of the first number of "Potter's Good Roads Library," the volumes of which are issued bi-monthly at 50 cents per year. Inbrief, it is agraphically illustrated little hand book, showing why country roads should be made better, and how to make them so. "A good road," says Mr. Potter, "is a splendid investment. It raises the value of every acre, saves distance to market, saves time, wagons, horseflesh, harness, makes larger loads possible, lessens the burden, making it possible to haul two tons to market with the same power that now leaves one ton stuck in the mire. It brings people closer together, drives away gloom, makes neighbors of hermits, discounts farm mortgages, and brings joy and contentment to every community." The farm produce hauled to market in the United States in one year aggregrates 152,000,000 tons, the cost of hauling which may be decreased at an extremely low estimate by 10 cents per ton, thus effecting a saving of \$15,000,000 tons, the cost of hauling which may be decreased at an extremely low estimate by 10 cents per ton, thus effecting a saving of \$15,000,000 ton one year. The first chapter deals with the general question of good roads v4 bad roads; the second, with road drainage; the third, improving the surface by the use of road machines; fourth, crossdrains and culverts; fifth, bridges. Chapters two and three, we may say, appear to be very much in accord with the position taken by the Farmer's Advocate, and one of its contributors in our issue of May 15th. Too much information on the road question cannot be circulated, and Ar. Potter is doing a grand work in that direction

STOCK GOSSIP.

LTI In writing to advertisers please mention the Farmer's Advocate.

PROLIFIC BERKSHIRES-PREMIUM OF ONE HUN DRED DOLLARS OFFERED BY W. E. SPICER, HARVARD, NEBRASKA.

PROLIFIC BERKSHIRES—PREMIUM OF ONE HUNDRED DOLLARS OFFERED BY W. E. SPICER,

HARVARD, NEBRASKA.

The undersigned claims for the Berkshire breed that the sows are prolific breeders and good sucklers, and that early maturity and profit in feeding are marked characteristics of the breed, while the superior excellence in the quality of the pork of a Berkshire is unquestioned. As an advocate of the claim that the large breed of Berkshires meet all the demands of the breeder and feeder of swine for profit, and the wants of the most critical packer and consumer of pork products for incomparable quality, the following premium is offered for the Berkshire sow whose litter of pigs exceeds in weight at one hundred days after farrow that of any of her competitors. The premium will consist of a boar and two sow pigs of my own breeding, that could not be purchased at private sale for one hundred dollars cash. Conditions—lst. The competing animals must be recorded in the American Berkshire Record, and be the property of the competitor. 2nd. That early notice of intention to compete for said premium must be filed with the Secretary of the American Berkshire Association. Col. Charles F. Mills, Springfield, Illinois. 3rd. That three disinterested and reputable parties shall weigh the sow and pigs one hundred days after farrow, and that said parties shall certify to the weight of the sow and each of the pigs in said litter. 4th. That each competitor shall file with his entry a statement of the method of feeding and caring for the sow prior to farrow, and the attention and character of rations given the sow and pigs from date of farrow until the expiration of the one hundred day test. 5th. The above premium is offered for the purpose of developing data of the greatest veight of food used during the one hundred day test is not required, competitors are earnestly requested to keep accurate account of the weight, and report each kind of food consumed daily by the sow and her litter of pigs during the continuance of the test. 6th. Ent

THE BEST HAM-PREMIUM OF ONE HUNDRED DOLLARS OFFERED BY A. J. LOVEJOY, ROSCOE, ILL.

ROSCOE, ILL.

The Berkshire Ham is recognized throughout the world as the standard to which the breeder, feeder and dealer endeavors to attain in the production of the most highly-flavored, delicious and palatable article of food prepared for delighting and stimulating the appetite of man. The art of breeding a hog that will furnish the feeder the best foundation for the development of a lean, tender, firm and juicy ham, has been attained by a comparatively few of the many thousand farmers engaged in this business. The feeder who has given the matter of providing a ration for the production of the best quality of well-marbled ham, of fine toothsome grain and excellence in flavor, is the rare exception. The man who has mastered the science of selecting the best quality of ham and curing the same in such an artistic manner as to improve the flavor, retain the juicy quality characteristic of the most tender and palatable ham, and add to it the color and aroma that makes the plate containing the delightful morsel of food a most appetizing gem of art, can render his day and generation no better service than by widely advertising tender and palatable ham, and add to it the color and aroma that makes the plate containing the delightful morsel of food a most appetizing gem of art, can render his day and generation no better service than by widely advertising said information. For the purpose of directing the attention of the breeder, feeder and dealer in Berkshire pork products to the great importance of attaining a more general and higher degree of excellence in the production and preparation of the best quality of Berkshire ham, the undersigned offers a premium for the best ham exhibited by a Berkshire breeder residing in the United States or the Provinces of Ontario or Quebec, Canada. The premium will consist of a boar and two sow pigs of my own breeding, that could not be purchased at private sale for one hundred dollars in cash. Conditions—1st. That the ham entered in competition for the above prize must be from a pure-bred and recorded Berkshire barrow. 2nd. That early notice of intention to compete for said premium must be filed with the Secretary of the American Berkshire Association, Col. Charles F. Mills, Springfield, Illinois. 3rd. That each competitor shall file with his entry a full and complete statement of the method of feeding the barrow, and detailed information concerning the preparation, curing and handling of the ham from slaughter to the date of shi, ment of the ham to the committee on awards. 4th. The above premium is offered for the purpose of developing data of the greatest value to swine breeders and dealers in pork products, and while the exact weight and variety of the rations fed the barrow for this competition is not required, competitors are earnestly requested to keep accurate account of the weight and report each kind of food consumed by the barrow prior to killing. 5th. Entries on the form prescribed by the American Berkshire Association from the selection of the best ham from each State to compete for this International premium will be made by three disinterested and reputable residents of the respective

GEORGE WHITE & SONS

Admitted to be the Best Threshing Engine Made in Canada.

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Every Engine Tested by an Expert before allowed to Leave the Shop.

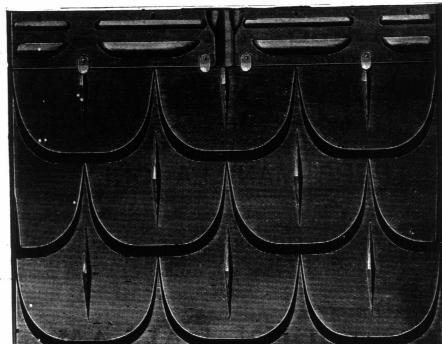


Threshing Engines

The Most Durable Engine in the Market. Guaranteed to give Satisfaction. Suitable for Threshing, Creameries. Factories and Brick Yards.

WHITE & SONS, GEORGE ONTARIO. LONDON,

THE - PEDLAR - PATENT - STEEL - SHINGLE



FIRE-PROOF, LIGHTNING-PROOF, WATER-PROOF. Nearly as Cheap as Wooden Shingles. Send for Illustrated Catalogue. Reliable Agents wanted in every vicinity, ADDRESS-THE PEDLAR METAL ROOFING CO., OSHAWA, ONT.

THE FARMER'S COMPANY

EVERY FARMER HIS OWN MANUFACTURER.

THE MERCER M'F'G. CO. (LTD.)

UNITE THEIR INTERESTS WITH THEIR CUSTOMERS.

The problem solved how to secure cheap machinery. Every farmer co-operating with and taking stock in the Company secures his machinery at wholesale prices. No farmer can afford to miss this opportunity to secure his machinery and supplies at right prices and protect himself from designing combines.

The Mercer Manufacturing Company (Limited) is a chartered Company (under the Dominion Act granted January, 1894), and shareholders are only liable for the amount for which they subscribe. Shares are only \$10,00 each, and more than this amount is saved in one implement. Hundreds have already become shareholders, and every farmer studying his own interests will not delay in connecting himself with this Company.

LIST OF MACHINES MANUFACTURED AND SUPPLIED BY THE MERCER MFG. CO. (LTD.): Binders, Reapers, Mowers, Rakes, Tedders, Hay Forks, Cultivators, Seeders, Drills, Rollers; Walking, Sulky and Gang-Plows; Harrows, Disc Harrows, Spade Harrows. Cutting Boxes (three sizes), Root Cutters and Pulpers, Grain Crushers, Small Horse-Powers, Wagons Democrats, Buggies, Carts, Sleighs, Cutters, Etc., Etc., In fact every implement required on the tarm. ALL MACHINES GUARANTEED.

Pay no attention to agents of other companies, as we sell direct to the farmer, and our method of doing business has only to be looked into to be appreciated by any intelligent farmer. Write for particulars to

THE MERCER MANUFG. CO. (LTD.) Head Office.

Branch Offices and Warerooms. LONDON AND BRANTFORD. Foreign Agencies—London, England; Padston, England; Cape London, England; Ballarat, Australia; Dunedin, New Zealand; Cape Lowe, Scotth Africa cotland, Kelse Sept

Worn-Out FARMS require so much fortifiers won't Produce a Profil, that turns and purchase won't Produce a Profil, the rich, leave so of Archigan Vaems presents the world. Write to me and I will be so the set in the world. Write to me and I will be so the set in the world. Write to me and I will be so the set in the set in the world. Write to me and I will be so the set in the set in the world. Write to me and I will be so the set in the

23 L o Immediately on receiving notices of the ADVERTSE IN THE FARMER'S ADVOCATE prizes, we at once wrote Mr. Chas. E.

BRANTFORD



STEEL TOWERS-IRON PUMPS-WATER-TANKS PIPING, ETC.

The IDEAL JR. Sec. SHAPLEY tional Power Mill is a Wonder.

Send for circulars, and mention this BRANTFORD CAN.



Address: CHAS. BOECKH & SONS. Toronto, or to the WATSON MANUFACTURING CO., Ayr, Ont. 13-y-om

. . . THE . . . EXCELSIOR :: LIFE

Insurance Company. Incorporated 1889. Head Office, TORONTO. Issues the most attractive policies in exence. Foremost in features conducive to coess. I argest surplus security for policy-

RELIABLE AGENTS WANTED.

E. F. CLARKE, MANAGING-DIRECTOR,

ALL KINDS OF FRUIT PACKAGES AND BASKT.



OAKVILLE BASKET CO., Oakville, Oat.



sects, viz.: Codling Moth, Tent Caterpillars. Climbing Cut Worms

Canker Worms, Tussock Moth, Mottled Umber Moth. Patented Feb. 6th, 1893.

The only effective remedy against the second ground of Codling Moth. For special information are the second control of the second co McGILL BROS.

Sole Manufacturers for the Dominion of Canada OFFICE AND FACTORY: do 355 Richmond St., LONDON, ONT. Agents wanted everywhere.

HAY, STRAW & CORN EXPORTERS Consignments received by JAMES SERGEANT, and 191 Derby Road, Liverpool, My stores or been established 30 years, and are situated ose to the Langton & Alexandra Docks, arpool. References—Bank of Liverpool.

12-f o

THE L**ocked-W**ire FENCE CO.,

ONT.

INGERSOLL,

* *** * The accompanying cut represents five panels of fence and gate of the LOCKED-WIRE FENCE which is now built with improved conveyanted. is now built with improved corrugated
hardened steel stay
and Bessemer steel
clamp, a combination
which is proof against
the most unruly stock or designing men. The crimp in the wire, in combination with steel clamp, when locked acts as a spring, adjusting the fence to heat or cold heat or cold.

-PERFECTLY-

Safe, Stronger, Better AND CHEAPER

than any other fence, and without doubt the best fence on the American continent.

All persons having wire fences erected in the past, should use the stays and steel clamps of the Locked Wire Fence Co. on them. The crimp consumes all the slack. makes the fence tight. and adds over 100 per cent, to its value, at a very small cost.

We desire to inform the farmers and pub lic generally that we are prepared to supply the material or erect this fence throughout the Dominion of Canada.

Recollect, we are the only firm that is furnishing the genuine material in the form of the corrugated hardened steel stay and Bessemer steel clamp.

THE BEST FENCE

MADE FOR

tarms and Railroads.

> * * * Agents Wanted

> > In every Township.

Send for cir culars and par

ticulars. Address

IT.

RS

LOCKED - WIRE

-THE-

FENGE Go. INCERSOLL, ONT.

THE HIGHEST AWARDS

WORLD'S COLUMBIAN EXPOSITION, BY THE WROUGHT IRON RANGE CO., ON

STEEL



HOTEL AND FAMILY RANGES. CARVING AND STEAM TABLES.

BROILERS, MALLEABLE WATERBACKS, ETC., ETC.

by our Traveling Salesmen is sold only by our Traveling Salesmen from our own wagons at one uniform price throughout Canada and the United States.

Made of MALLEABLE IRON and WROUGHT STEEL and will LAST A LIFETIME If properly used.

SALES TO JANUARY Ist, 1894, 277,188.

MADE ONLY BY WROUGHT IRON RANGE CO., MANUFACTURERS OF Hotel Steel Ranges, Kitchen Outfittings and "Home Comfort" Hot-Air Steel Furnaces.

OFFICE, SALESROOM AND FACTORY, 70 to 76 PEARL STREET, TORONTO, ONTARIO, ST. LOUIS, MO., U.S.A. 70 to 76 PEARL STREET, and Washington Avenue, 19th to 20th Streets, ST. I Founded 1864. Paid up Capital, \$1,000,000.

We have received the following goods and have them in our warerooms at the following prices, at which they cannot be secured again. Our stock is very limited. Cash has to accompany all orders for these goods. We guarantee them first-class goods in every respect. So don't delay your order if you want any of

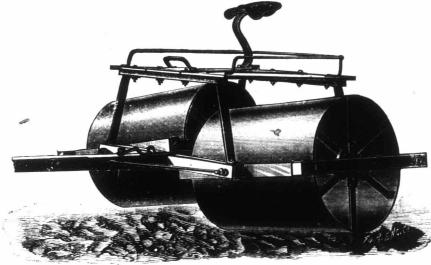
A good, large Bell, suitable for school, worth \$16, we will send you for \$12 A Thomas Organ, Woodstock, worth \$110 dollars, for A Karn Organ, Woodstock, worth \$150 A Mercer Grain Binder, complete, for A 14-inch Ensilage Cutter, with 10 feet of carriers, for A Large Ensilage Cutter, without carriers A Trenton Fanning Mill, No. 1, only We want you to distinctly understand these are a job lot bought for much less than manufacturers' prices, and will be sold to the first buyer.

THE GRANGE WHOLESALE SUPPLY CO. (Ltd.)

126 King Street East, TORONTO.

The DALE PIVOTED LAND ROLLER (Patented)

A Steel Roller, the drums of which oscillate on pivots and adapt themselves to the unevenness of the ground.



The bearings are the only wearing parts, and are guaranteed to last from Ten to Fifteen Years, and can be replaced at a nominal cost. It rolls all the ground, no matter how rough. There is no axle shaft, no strain, and consequently no wear. It is easily oiled between the drums. If your local agent does not supply you, write direct to T. T. COLDMAN, SOLE MANUFACTURER, SEAFORTH, ONT. Mention this paper.

CREAM SEPARATOR BELTS

ANTHON CHRISTENSEN & CO.,

Niagara Falls, Ont., Canada; Suspension Bridge, N. Y., U. S. A., and Dursley, Eng., MANUFACTURERS OF HIGH-CLASS BILTS FOR DRIVING CREAM SEPARATORS.

Our belts are used successfully all over the world. It is settled they have no equal in price, quality, durability and workmanship.

FARMER'S BINDER TWINE.

Prices on Binder Twine will shortly be advertised by our Company in this paper. Order forms and notes in any quantity can be had on application to President Joseph Stratford, Brantford, Ont. Terms will be same as last season, payable October 1, 1894. The duty of farmers and Patrons to this Company is very plain. If you want the principle established of buying direct, thereby saving about one or more cents a pound through middlemen or agents, unite with your neighbors, if only for a few hundred pounds of twine, and send your order straight to the Farmer's Company. You will by this means assist in establishing what you have been struggling so long for, PURCHASING DIRECT FROM THE MANUFACTURER. Get your orders in early. Remember, goods on way freight trains are longer in reaching their destination than you figure on.

We Guarantee every pound of Twine we make.

STOCK GOSSIP.

Mills, Springfield, Ill., Secretary of the American Berkshire Association, asking if Canadian breeders would be allowed to compete for these pigs. The following letter was received in

reply]:—
"Your esteemed favor received in reference to the premium offered for 'Prolific Berkshires' and the 'Best Ham.' Canadian breeders are most cordially invited to compete for said premiums. The publication of the premium, as proposed by you, will be duly appreciated by the Berkshire breeders of Canada and the United States, also by the American Berkshire Association. Yours truly, Charles F. Mills.

Mr. Valancey E. Fuller, formerly of Canada, is now manager of a Jersey herd at Lowell, Mass., owned by Mr. C. I. Hood, a number of whose cattle were recently destroyed by fire.

Mr. Mortimer Levering, Lafayette, Ind., the talented and popular Secretary of the American Shropshire Registry Association, is now in England inspecting the flocks of British breeders.

E. Gaunt & Sons, Lucknow, report the fol-lowing sales:—One cow, Vancuna 6th, to E. A. Christie, Utica, Ont.; the sixteen months old bull, Banker, to J. A. McKenzie, Tiverton; and a heifer to T. Patterson, Gravenhurst.

and a heifer to T. Patterson, Gravenhurst.

We have just received from the editor, Mr. C. S. Stephenson, 76 St. Gabriel street, Montreal, a copy of the second volume of the Canadian Ayrshire Herd Book. Copies of this work can be obtained from Mr. Stephenson. Price, \$2.00. It seems to us a mistake has been made in binding an important book of reference like this in paper covers.

We are pleased to notice that W. C. Edwards.

reference like this in paper covers.

We are pleased to notice that W.C. Edwards, Pine Grove Stock Farm, Rockland, Ont., has engaged as stockman to manage his Shorthorn herd Mr. Joseph Barnet, who goes to Mr. Edwards well recommended, having been stockman for the Hon. John Dryden for a considerable term of years. He also had charge of the cattle, sheep and swine at the Ontario Agricultural College Farm for a considerable time. We know of Mr. Barnet's abilities as a stockman, and feel assured that Mr. Edwards' Shorthorns will go forward.

DISPERSION SALE.

Special attention is directed to the great dispersion sale of pure-bred stock at Mr. Joseph Stratford's "Oakwood Farm," Brantford, on Saturday, July 7th, an announcement of which appears in another column. The offerings include a grand lot of Shropshire and Dorset-Horn sheep, Jersey and Holstein cattle, and Chester White swine. The Jerseys are from the famous stock of Valency E. Fuller, whose fame as a breeder and handler of Jerseys is world wide. The Holsteins are of the noted Royal Aaggie stock, exceptionally great as performers. This will be a grand opportunity to make selections to found pure-bred herds and flocks, as Mr. Stratford's advertisement elsewhere intimates. Read it carefully.

elsewhere intimates. Read it carefully.

H. Bollert, Cassel, Ont., writes:—"My heifer, Jennie 4th, has now closed her second monthly milk record. During the thirty days she produced 1,385 lbs. 11 ozs., or an average of 46 lbs. 3 ozs per day. Taking into consideration that she was only twenty-five months old, and that it rained more or less during twenty consecutive days of this time, so that pasture was at times all flooded, and that she had nothing but grass, I think it fully bears me out in saying (without fear of contradiction) that she is without an equal in the country, and that Maple Grove is the place where the best only are bred. I will from time to time report what she is doing."

J. Oughton, Crystal City, Man., in a letter to our office of recent date, reports the loss of a very promising five months' old Yorkshire boar, which he was fitting for the Winnipeg Industrial, he having been killed by a kick from a horse. His weight dead was 247 lbs., at five months lacking three days. Mr. Oughton, however, reports having "good luck" with his Yorkshire saws this season. A daughter of nowever, reports naving good naving yorkshire sows this season. A daughter of Lincoln Lass littered fourteen in her first litter. Lincoln Lass littered fourteen in her insertation, thirteen of which are now six weeks old and choice pigs. Lincoln Lass herself had fifteen strong pigs in her last batch. A young Gladiator sow, out of Lady Laundress, bred by J. E. Brethour, Burford, Ont., has also a fine litter of pigs. The demand for Yorkshires, Mr. Oughton says, is good.

NORTH BRUCE BERKSHIRES.

NORTH BRUCE BERKSHIRES.

The proprietor of this herd is Mr. J. H. Sieffert, North Bruce P. O., who began about five years ago by purchasing individuals of such a character that they have already established him as a breeder of good reputation. Mr. Sieffert evidently does not believe in half-way measures, and found that the farmers of his locality were just as critical/in their judgment as those living elsewhere. He therefore decided to commence with animals of the best blood obtainable, and not only of the best breeding, but individuals which were sufficiently good to speak for themselves. While inspecting the herd, during a recent visit, we were first shown the aged boar Jumbo, which is entitled to be numbered among the best we have seen. He was bred by Messrs. J. G. Snell & Bros., Edmonton, Ont., and by their celebrated prize-winning (imp.) boar, Enterprise, his dam being (imp.) Maid of the Painted Lady family. Another boar is Boydston Boy, which was bred by S. Cox worth, Claremont. He is by Highelere Prince, and is a very large-boned, lengthy, deep-sided hog, with good covering of hair, descended from timp.) Sister A, bred by Major Peploe, Carnston, England. The timp.) boar, Robin Hood, was also used in the herd. He is a fine, smooth, hog, of good length, with exceptionally large bone, and good full hams, strong loins, with an exceedingly good covering of hair of good quality. Among a number of good sows. Lady Oxford, by Huron Chief, is of the right type for present demands. She has exceptional length, with good depth of rib and even finish. She is the dam of Nettie (2074), a very lengthy-sow of over 700 lbs., with extra breadth, depth of side, a very neat head and even finish. She is the dam of Nettie (2074), a very lengthy-sow of over 700 lbs., with extra breadth, depth of side, a very neat head and even finish. Coquette, by Gimp.) Pilot, is another good one which deserves mention; she is a very large sow, although not yet matured. But we bave not time to note them all. We could not help admiring an exceed

The Universal Verdict of the Farming Community is in Favor of

STERLING, RED CAP AND BLUE RIBBON

FARMERS!

CAN SECURE THESE BRANDS AT THE FOLLOWING PRICES:

6 1-2c. Sterling, 7c. Red Cap, Ribbon, Blue

ADDRESS ALL COMMUNICATIONS TO:

CORDAGE CO. (Ltd.)

MONTREAL. Cash Must Accompany the Order. -:-

NO SPECIFICATION RECEIVED AMOUNTING TO LESS THAN 100 POUNDS.

THE NEW =

Chatham and Chautauqua Giant

WAGON

With Unbreakable Axles and Unbreakable

ARMS

The Best Made on Earth -- SO SAID THE JUDGES ON VEHICLES AT THE

WORLD'S FAIR=

WHO AWARDED US A

GOLD = MEDAL = AND = DIPLOMA

Over the heads of numerous old and extensive builders in the United States and Canada. The axles are unbreakable, because

VAN ALLEN'S PATENT GIANT

Throw all the load directly on the arms, and the arms are also unbreakable, because they are the best refined

= MALLEABLE IRON.-

Warranted as strong, more durable and lighter running than Steel Skeins. These Giant Arms completely revolutionize the building

stronger, though less in price, than any ordinary 3¼ to 3¾-inch cast-iron arm wagon, and our 2½-inch Malleable Giant Arm Wagon is warranted stronger

than any ordinary 3-inch cast-iron arm wagon and less in price. for these wagons is so great that though we are turning out 12 per day we are taxed to the utmost to supply it.

Send in your orders early.

CHATHAM MANFG CO. (Ltd.)

CHATHAM, Feb. 9th, 1894.

Clas

The Ontario Provincial Fat Stock Show.

An agreement has been again consummated between the Agriculture and Arts Association of Ontario, the Dominion Sheep and Swine Breeders' Associations and the Guelph Fat Stock Club. As the result of this agreement, the united societies will hold a Provincial Winter Show at Guelph on December 11th, 12th and 13th, 1894. The Premium List has already been printed. Those interested may obtain copies by addressing Mr. Henry Wade, Toronto. The General Rules and Regulations have been slightly changed since the last show. since the last show.

The Prize List has been considerably augmented. We trust that breeders throughout the Province will take a lively interest in the success of this

For several years past the Annual Provincial Winter Show has been conducted by the same societies as control it this year. The Show last December was the best of its kind ever held in America. This year the Directors desire to make it even better than heretofore. Last year the Prize List was a liberal one; this year it is in advance of last, several important prizes being added.

amo	prizes	DOINE	auu	ou.			
The !	follow	ing is	the	comp	lete	list	:

THE TONOWING to the complete	
CATTLE.	1
Class 1.—Shorthorns. Pedigrees to be Produced.	•
QECT 5 C	.
1 Rost steer, 2 and under, 3 20 0)
2nd do 15 0	0
2nd do 15 00 3rd do 10 0	
2. Best steer, 1 and under 2 20 0	n l
2. Best steer, I and under 2 20 0	2
2nd do 15 0 3rd do 10 0	
3rd do 10 0	Ų l
3. Best steer, under 1 year 15 0	U
2nd do 10 0	0
2nd do 10 0 3rd do 5 0	0
4 Rest cow or heifer, 3 years	
and over	0
2nd do 10 0 3rd do 5 0	0
2-4 do 5 0	0
5. Best heifer, under 3 years old 15 0	ñ
and do 10 0	n
Zhu do.	
3rd do. 5 U	
Special prize given by the Dominio	n
Shorthorn Breeders' Association-	- 1
\$25.00—to be awarded to the bes	st
registered Shorthorn steer.	
Class 2.—Herefords. Pedigrees to be Produced.	ю
SECT	C.
1. Best steer, 2 and under 3 15)()
10 /	M

1. Best steer, 2 and under 5	10	00
2nd do	10	00
3rd do	5	00
2 Rest steer, 1 and under 2	15	00
2nd do	10	00
3rd do	5	00
3. Best steer, under 1 year	10	00
2nd do	5	00
4. Best cow or heifer, 3 years		
and over	15	00
2nd do.	10	00
Class 3 Polled Angus, Pedigrees	to	be

Produced. Same as Herefords above.

Class 4.-Galloways. Pedigrees to be Produced. Same as Herefords above. Class 5.—Devons. Pedigrees to be Produced.

Same as H	erefords abo	ve.		
		ofonyl	2ro	he
Class 6.—Grad	les or Crosse	or any i	8	c.
SECT.	r, 2 and unde	r 3 vrs.	25	
2nd	do.		20	W
3rd	do.		10	00
2 Best stee	r, 1 and unde	er 2 vrs.	20	00
2nd	do.		15	U
3rd	do.		10	00
3. Best stee	er, under 1	ear	15	00
0 1	,		10	O

do.

4. Best cow or heifer, 3 years

	and	over	20
	2nd	do	15
	3rd	do	10
5	Regt. h	neifer, over 2 and under	c
₩.	3 🔻	ears	. 15
	2nd	do.	. 10
	3rd	do.	. 5
ß	Roet l	heifer, under 2 years	. 15
υ.	2nd	do.	10
	2na 3rd	do.	. 5
	sra	uo.	

Class 7.—Championship Prize. 1. For the best fat animal on the ground, of any breed or sex, Silver Medal by the Agriculture and Arts Asso-

ciation.

	SHEEP.	
Class 8.—Long wolds, Lin	wools. To	include Co Leicesters.
SECT		\$
1. Best ewe,	1 year and	under 2. 15
2nd	do.	10
3rd	do.	5
2. Best ewe	under 1	year 10
2nd	do.	0
3rd	do.	4
3. Best weth	er, 1 yr. an	d under 2. 15
2nd	do.	10
3rd		5
1. Best weth	er, under l	year 10
2nd	do.	6
23	do	4

,	E	Post 3 ou	es, under 1 ye	ar	20	00
	Э.	2nd	do.		19	w
		3rd	do.		10	00
	в	Best 3 we	thers, under 1	vr	20	00
١	0.	2nd	do.		19	w
		3rd	do.			
	7.	Best 5 sl	neep, under 2 ed by the exh	years	~~	00
١		old, br	ed by the exh	ibitor	25	00

Class 9.—Oxfords, Hampshires & Shrop shires will compete in this class. The sections and prizes are the same

Class 10.—Southdowns, Horned - Dorsets and Merinos will compete in this class. Here also the sections and prizes are the same as in Class 8.

Grand Sweepstakes. Best pure-bred wether, any breed, under 2 years old, bred by

exhibitor..... Best pure-bred ewe, and breed, **\$20** 00 under 2 years old, bred by exhibitor 20 00 Special prize, given by American Southdown Breeders' Association, viz.,

for best two lambs, one ram and one ewe, bred and raised in Ontario by a resident of the Province, the animals to be recorded in the American Southdown Record(S. E. Prather, secretary). The four published volumes of that

PRIZES OFFERED BY THE AMERICAN SHROPSHIRE RECORD ASSOCIATION. To be awarded at the Ontario Provincial Fat Stock Show

Grand Sweepstakes, if won by a registered Shropshire sheep, \$50.00, in 1894, and also in 1895. And for registered Shropshire wether, two years old or over, first premium, \$10.00; second premium, \$6.00; third premium, \$3.00. One year old and under two—First premium, \$10.00; second premium, \$6.00; third premium, \$3.00.

Under one year old—First premium,

\$10.00; second premium, \$6.00; third premium, \$3.00.

Extra special premiums wethers sired by registered Shropshire rams and out of grade ewes :-Two years old and over-First prem ium, \$10.00; second premium, \$6.00.

One year old and under two-First 5 00 premium, \$10 00; second premium, \$6. Under one year—First premium, \$0.00 \$10.00; second premium, \$6.00.

Sheep, to be eligible to compete for

any premiums offered by the American Shropshire Registry Association, must be recorded and have a number in the record, a certificate of which must be filed with each entry certificate made. Each registered sheep must bear an ear tag, with number and initials corresponding to that given on the certificate, and all must be owned by the exhibitor at least ten

days before going into the ring.

Messrs. William Cooper & Nephews,
of Galveston, Texas, manufacturers
of the celebrated Cooper Sheep Dip, offer for the second time the sterling silver cup, valued at \$100, as a sweepstake prize for the best sheep bred by the exhibitor and shown at the next Provincial Ontario Fat Stock Show, to be held in the City of Guelph,

December 11, 12 and 13, 1894. To become final owner, an exhibitor must win the cup twice in succession,

Sheep and Swine Breeders' Association, and will be on exhibition at the Secretary's office, in Guelph, during shaw, Glanworth. Reserve Judge, S. 4 00 the time of holding the show.

PRIZES GIVEN BY THE SOUTHDOWN BREEDERS' ASSOCIATION OF ENGLAND.

1. For Sweepstake Ram-The first three volumes of the Southdown Flock Book of England. 2. For Sweepstake Ewe — Same

premium. These premiums are offered on the

following conditions:—

1. That these premiums will be paid

that is to the owner of ram or ewe that is awarded sweepstakes premium, provided that said owner has not already won a set of these volumes, in which case the premium will be paid to the owner of the animal next in order of merit who has not won the premium; also providing that the same animal will not be entitled to two awards, and that these conditions extend to and include all fairs at which these premiums are offered.

2. That the animals competing for said premiums shall be recorded in the American Southdown record as owned by the exhibitor prior to the date of entry for the exhibition, and that the party making the entry furnish the Secretary of the American Southdown Breeders' Association, at the time of making entry, a copy of same making entry, a copy of same.

3. That the premiums will be paid by the Secretary of the American Southdown Breeders' Association on the presentation of certificates from the proper officer of the Fair Associa-

4. That these offerings and conditions be printed in the premium lists of the fairs in connection with the classification of sheep, or to the publication of this announcement elsewhere in the premium list.

Class 11.—Grades and Crosses. 1 Best ewe, 2 years old or over 12 00 8 00 do. 2nd .. 4 00 do. 2. Best wether, 2 years old or 2nd do. 3rd 3. Best ewe, 1 year old and 12 00 under 2.... 8 00 4 00 do. 4. Best wether, 1 year old and under 2...... do. 12 00 8 00 2nd do. 3rd 5. Best three ewes, under 1 year 20 00 15 00 do. 7 00 do. Best three wethers, under 1 do. 7. Best wether, under 1 year... 6 00 do. 2nd do. 3rd 8. Best ewe, under 1 year ... \$8 00 2nd do. 3rd do. 9. Best, wether, any age.... 10. Best ewe, any age..... SWINE.

Class 12.—Berkshires. 1. Best barrow, over nine and under eighteen months ... 12 00

MILECE	_	
3rd	do.	
2. Best bar	rrow, nine mo	nths
and u	nder.	
2nd	do.	
3rd	do.	
3. Best sow	over nine and u	nder
eighte	en months	
2nd	do.	
3rd	do.	
4. Best sov	v, nine months	and
under.		
2nd	do.	
3rd	do.	
		-

do.

SECT.

5. Best three pigs, the offspring of one sow, bred by the exhibitor 20 00 15 00 2nd do. 3rd

Class 13.—Poland-Chinas. Prizes and sections same as Class 12.

Class 14.—Yorkshires. Prizes and sections same as Class 12.

Class 15.—Chester Whites Prizes and sections same as Class 12. Class 16.—Tamworths and Jersey Reds.

Prizes and sections same as Class 12.

Class 17.—Suffolks, Essex, Victorias and other small Breeds. Prizes and sections same as Class 12.

Sweedstares.		
Best pure-bred barrow, any age or breed	15	00
Best pure-bred sow, any age or breed	15	00
Class 18.—Grades or Crosses	ΨP	c.
1. Best barrow, over nine and under eighteen months	12	00

SE	CT.		Ф	C.
1	Dont	barrow, over nine and		
1.	une	der eighteen months	12	00
	2nd	do.	8	w
	3rd	do	4	00
0	Doct	barrow, nine months		
Z.	Dest	d under	:12	00
		do.	8	00
	2nd		A	00
	3rd	do.	*	w
3.	Best	sow, over nine and under	10	00
	eig	theen months	12	00
	2nd		8	00
	3rd		4	00
4.	Best	sow, nine months and		
	un	der	12	00
	2nd	do	8	W
		do	4	00
		10 Commentaires for Ho	ora.	

Class 19.—Sweepstakes for SECT. 1. Best grade hog of any age, breed or sex.....Silver Medal.

	Cla	as 20	-Dresse	d	Poultry.	•	_
K	ALEA .					\$	c.
ı	Doct	pair t	urkev	CO	ckerels,		
Le	hot	ched 1	MALA/E			5	00
	Om d	CHOU I	do	• • •		4	00
	zna		do.			2	00
	3ra		do.	-	mullate	-	•
2.	Best	pair	turke	y	pullets,	5	or
	hat	ched l	894			9	oc
	2nd		do.			4	UU
	3rd		do.		1004	2	U
2	Rest.	1 resse	d turble	·	17984	·	w
٠.	2nd	22 0000	do.	•		4	00
	3rd		do. do.			2	00
	Dark		anda	na d	or geese,		
4.	Dest	pair or	gande		or Boose,	R	O
	hatci	16a 126	94			P A	n
	2nd		do.			9	0
			do.		ducka	2	U
5.	Post.	nair	orakes	O	ducks.		
0.	hat	ched	1894				0
	2nd		do.			4	0
	2nd		do.			2	0
0	Doct	main	fowl	Ċ	ockerels,		
o.	Dest	pair	1904	-	ocitor cro,	6	0
	na	cnea	1004			A	
	2nd		do.			6	0 0
	3rd		do.			-	U
7.	Best	pair	pullet	s,	hatched	١.,	

6 00 1893..... 2nd do. 3rd 8. Largest and best turkey, any 9. Best display of poultry, hatched 1894..... 2nd do. do. 10. Best collection of undressed 6 00 3rd do. All the aforegoing agreements, rules, regulations, prize lists, judging committees, etc., etc., were duly considered, discussed and unanimously

4 00 adopted. IDGES.

4 00

6 00

4 00

12 00

CATTLE-PURE-BREDS. R. Gibson, Delaware; Ald. Crawford, Toronto; Alternate, James Miller, Guelph.

GRADES.

J. Allison, Galt; Henry Thurlow, Fergusondale; Alternate, C. M. Sim-SHEEP—CLASSES 8 AND 11.

James Russell, Richmond Hill; Alex.

Smith, Maple Lodge. Reserve Judge, Wm. Thompson, Uxbridge. CLASSES 9 AND 10.

H. Arkell, Teeswater; W. S. Hawk-Lemon, Kettleby.

The Judges of Classes 8, 9, 10 and 11 shall be a committee to award the Sweepstake prizes in the sheep divi-

SWINE-CLASSES 15 AND 16.

Jos. Featherstone, M. P., Streets-ville; Jos. Brethour, Burford, Ont.

CLASSES 12, 13, 14, 17, 18 AND 19; ALSO SWEEPSTAKES.

S. Coxworth, Claremont; A. Elliott, Galt. Reserve Judge, Thos. Teasdale, Concord.

Do Not Insure

Until you have seen the Double Maturity Policy of the Manufacturers' Life. Ordinary prudence suggests that you should carry some life insurance, if ever so little, and it is as well to know where the best is to be had, both for security and profit. Life insurance creates an immediate capital at a trifling outlay, which returns, as a rich and ample investment to a man's family or himself at its period of maturity You should find out about this Double Maturity we speak of.

MANUFACTURERS'

Life Insurance

COMPANY, 63 Yonge Street, Cor. Colborne,

Toronto, Ont.

13-1-y-om

CANADA SHIPPING COMPANY.

BEAVER LINE

OF STEAMSHIPS.

SAILING



MONTREAL AND LIVERPOOL DIRECT. From Montreal every Wednesday at daybreak
From Liverpool every Saturday.
These Steamers have First-class Accommoda
tion for Saloon, Second Cabin and
Steerage Passengers.

RATES OF PASSAGE MONTREAL TO LIVERPOOL

RAIES OF PASSACE MONIREAL TO LIVERPOOL:
SALOON, \$40, \$50 and \$60; Round Trip, \$80, \$90 and \$110, according to accommodation. The \$40 Single and \$80 Return per Lake Nepigon and Lake Winnipeg only. SECOND CABIN, \$30; Return, \$65. STEERAGE, \$24.
Each steamer carries a duly qualified surgeon and experienced stewardess.
The attention of Importers of Horses and Live Stock generally is directed to the fact that these steamers have the highest record for the successful carriage of the same, and a trial shipment is solicited.

For freight or passage, apply to H. E. MURRAY, R. W. ROBERTS, Manager, 21 Water St., 8-L-om Liverpool. H. E. MURRAY, General Manager, Montreal.

THREE DISTINCT SERVICES FROM MONTREAL WEEKLY.

Mail Service to Liverpool, via Quebec, Rimouski and Derry, or via Portland & Halifax in Winter.

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. For schedule of sailings, rates of passage or other information, apply to H. & A. ALLAN, Montreal.

W.&F.P.CURRIE&Co.

Wholesale General Merchants, 100 GREY NUN ST., MONTREAL

IMPORTERS OF Scotch Glazed Drain Pipes, Chimney Tops, Vent Linings, Flue Covers, Fire Bricks, Fire Clay, Portland Cement, Roman Cement, Canada Cement, Water Lime, Whiting, Plaster of Paris, Borax, China Clay, etc., etc.

MANUFACTURERS OF BESSEMER STEEL

80FA, - CHAIR - AND - BED - SPRINGS

A LARGE STOCK ALWAYS ON HAND. WM. CURRIE.

FOR SALE THREE EXCELLENT FARMS.

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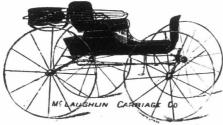
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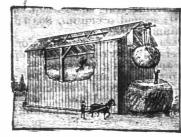
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