

MANITOBA AND WESTERN EDITION

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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J.H. Grubb
Exp. Farm, Ottawa
Feb 20, 1901

VOL. XXXV. WINNIPEG. SEPTEMBER 5, 1900. MANITOBA. No. 50.

At Qu'Appelle Fair

IN conversation with a representative of FARMER'S ADVOCATE, who visited the above exhibition, we were advised that one of the exhibitors of stock there showed him a splendid young filly that had been badly cut by barbed wire and nicely cured by using Dr. Warnock's Ulcerkure. He stated he kept a number of horses, and has some cut by wire nearly every year, and would not be without ULCERKURE. Nor should any person keeping animals be without it.

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WHEN WRITING MENTION THIS PAPER.

ILLUSTRATIONS.

TWO-SHEAR SOUTHDOWN RAM: 484. HENRY DUDDING AND THE THOUSAND-GUINEA LINCOLN RAM: 485. BERKSHIRE BOAR, "SAMBO": 486. ROYAL FIRST-PRIZE YORKSHIRE SOW, "WREXHAM VENUS": 487. HACKNEY STALLION, "ROSELLAN": 487. A TYPICAL KERRY COW: 488. HIGHLAND BLACKFACED RAM: 487. A TYPICAL KERRY COW: 488. CHEVIOT RAM: 488. LIMOUSINE BULL: 488. KERRY AND DEXTER KERRY BULLS: 488. PANTHENAISE BULL: 488. BAZAIDAISE BULL: 488. MR. F. S. PEER, MOUNT MORRIS, N. Y., IN HIS OFFICE: 489. CHAMPION RAMBOUILLET MERINO RAM: 489. CASCOUNE COW: 489. FIRST-PRIZE MERINO EWE OVER EIGHTEEN MONTHS OLD: 489. SECOND-PRIZE HORNLESS MERINO RAM: 491. "BELLA OF YORK" AND "GIPSY MAID": 491. IMPORTED PRIZEWINNING HAMPSHIRE DOWN RAM LAMBS: 492. FIRST-PRIZE WINNING GALLOWAYS AT WINNIPEG EXHIBITION: 492. SHORTHORN BULL, "PRIDE OF COLLYNIE": 492. TWO-YEAR-OLD LINCOLN RAM: 492. LINCOLN SHEARLING EWES: 493. COUNTESS OF OXFORD 14TH RAM: 493. LINGOLN SHEARLING EWES: 493. COUNTESS OF OXFORD 14TH RAM AND NEW YEAR'S GIFT: 493. OXFORD DOWN SHEARLING RAM: 493. SHIRE BULL, "GIANTIC STUNNER" (3872): 493. IMPORTED JERSEY COW, GOLDEN ORE 127228: 493. MESSRS. D. & O. SORBY'S NEW HORSE BARN, NEAR GUELPH, ONT.: 494.

GRAIN STACKING.....	483
GIVE WEEDS A FINISHING TOUCH.....	483
THE TUBERCULIN TEST PLAGUE.....	483
CANADIAN PRIZES FOR BRITISH SCHOOLS.....	484
PUBLISHERS' ANNOUNCEMENT.....	484
THE PERMANENT SITE OF THE ROYAL SHOW.....	484
WILL IT PAY TO HOLD WHAT?.....	484
TWO AMBITIOUS AGRICULTURAL PROJECTS.....	484
RETROGRESSIVE OR PROGRESS IN STOCK BREEDING.....	485
HIGH BUTTER SCORES AT THE WINNIPEG INDUSTRIAL.....	485
MISSTATEMENTS REGARDING MANITOBA BUTTER.....	485
AMENDMENTS TO WINNIPEG INDUSTRIAL REPORT.....	485
LAND COMMISSIONER OF THE C. P. R.....	485
SOURIS SUMMER FAIR: WHAT IS HUMUS?.....	486
REGINA FAIR.....	486
CASH AND STORAGE RECEIPTS UNDER NEW GRAIN ACT.....	486
WHAT BROMUS CAN DO.....	487
MOOSMINE FAIR: OUR SCOTTISH LETTER.....	487
SOME OLD COUNTRY BREEDS OF LIVE STOCK WHICH MIGHT PROFITABLY BE INTRODUCED INTO CANADA.....	487
ROAMING DOGS AND MANGLED SHEEP.....	488
AMONG THE LIVE STOCK AT THE PARIS EXHIBITION.....	489
MR. PEER AT HOME.....	490
SCHOOL GARDENS.....	490
CHARACTERISTICS OF THE NEW KANSAS WHEAT.....	491
PARTURIENT APOPLEXY.....	491
WINTERING BEES IN MANITOBA.....	492
FREEDING BEES FOR WINTER.....	492
SELLING THE OLD HENS.....	492
GLANDERS IN MINNESOTA.....	493
THE FINANCIAL SUCCESS OF THE INDUSTRIAL.....	493
FALL FAIRS; TURKEYS; POULTRY FATTENING.....	493
RAISING CHICKENS FOR EARLY MARKET.....	493
TERRITORIAL WOOL CROP.....	494
HONORARY COMMISSIONER TO PARIS.....	494
PASTEURIZATION IN CHEESEMAKING.....	494
OLEOMARGARINE IN COFFINS.....	494
MESSRS. SORBY'S NEW HORSE BARN (ILLUSTRATED).....	494
MAKING CHAMPIONSHIP ENGLISH BUTTER.....	494
AN EXCELLENT BUTTER RECORD.....	495
TWICE-FLOWERED SUMMER-FALLOW.....	495
WHITE VS. BLACK OATS.....	495
CAN'T AFFORD TO DO WITHOUT IT.....	495
QUESTIONS AND ANSWERS: - VETERINARY: SWOLLEN HOCKS; COMPLICATION OF DISEASES IN COW; ECZEMA IN MARE; LUMPS ON LEGS-DISLOCATION OF PATELLA; PROBABLY ROARING IN HORSE; SKIN DISEASE IN HEIFER.....	495
MISCELLANEOUS: BRANDING HIDES DEPRECIATES VALUE; TRANSFER CERTIFICATES; CATTLE POISONING (ILLUSTRATED); SOW FAILING TO BREED; THE SIPHON FOR RAISING WATER (ILLUSTRATED); PASTURING STEERS; MANURE CELLAR-CREAM SEPARATOR; COW LEAKING MILK; RED LICE ON POULTRY.....	495-96
MILK FEVER CURE.....	497
NEW RULES GOVERNING THE DAIRY DEPARTMENT OF THE ONTARIO PROVINCIAL FAT STOCK AND DAIRY SHOW.....	497
AN INTERNATIONAL LIVE STOCK EXHIBITION.....	497
CHATTY STOCK LETTER FROM CHICAGO.....	497
TORONTO MARKETS.....	497
BUFFALO MARKETS.....	497
ATTRactions AT SHOWS.....	498
HOME MAGAZINE-FAMILY CIRCLE.....	498
THE QUIET HOUR.....	498
AN OLD CHIEF OF THE SARCEE TRIBES (ILLUSTRATION).....	499
THE CHILDREN'S CORNER.....	499
A NOBLE WARRIOR OF THE BLACKFEET INDIANS, N.-W. T. (ILLUSTRATION).....	500
UNCLE TOM'S DEPARTMENT.....	500
PUZZLES.....	500
GOSSIP.....	502, 505, 506, 507, 508, 509, 510
NOTICES.....	502, 506
ADVERTISEMENTS.....	481 and 482, 501 to 512

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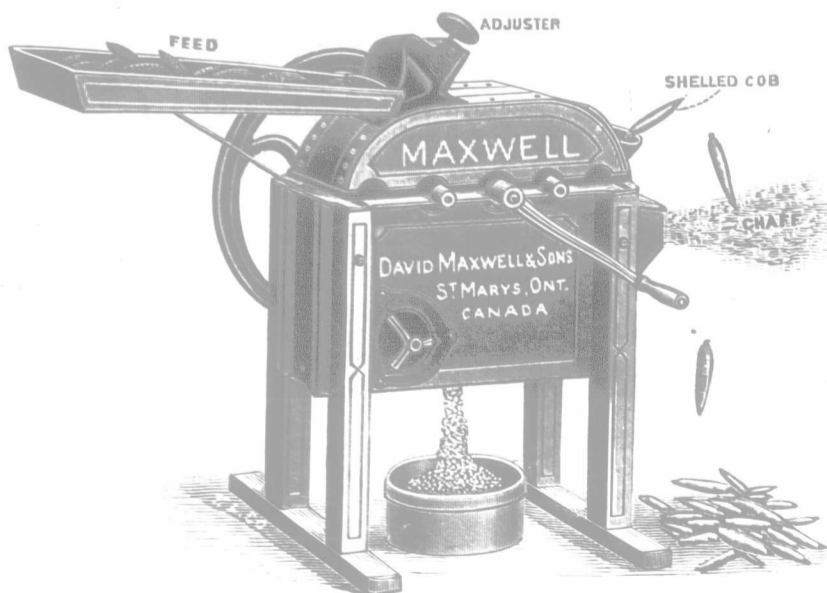
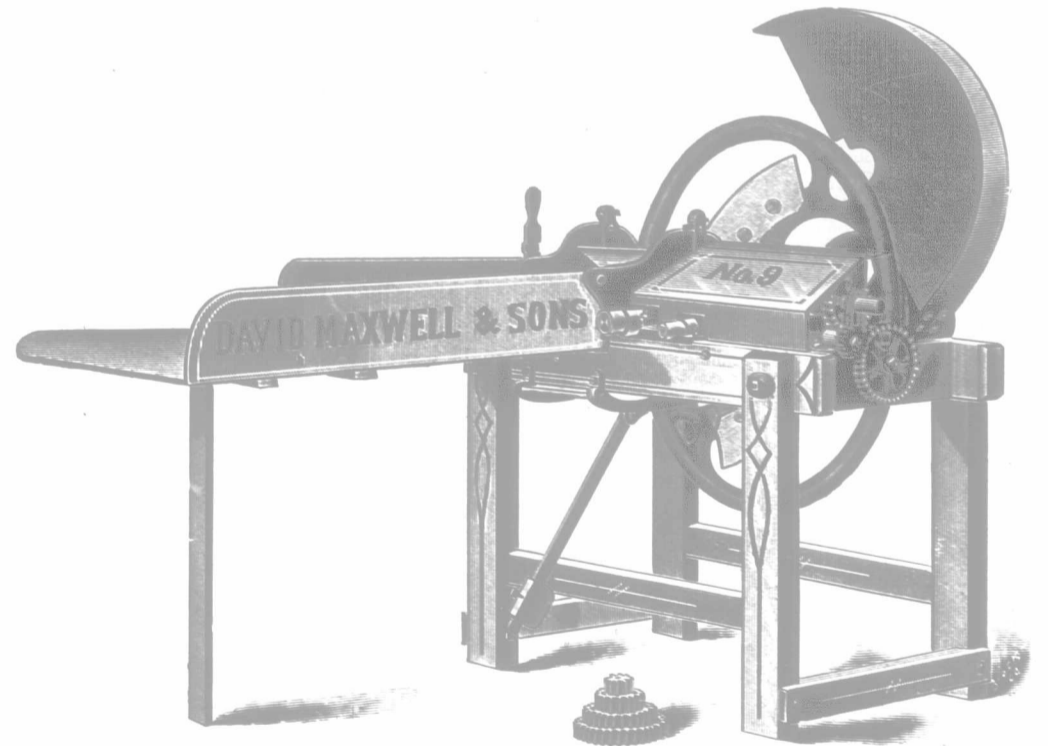
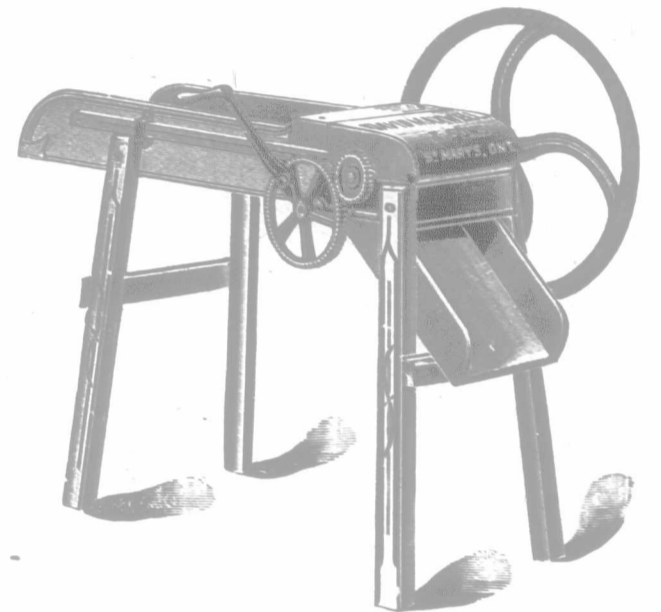
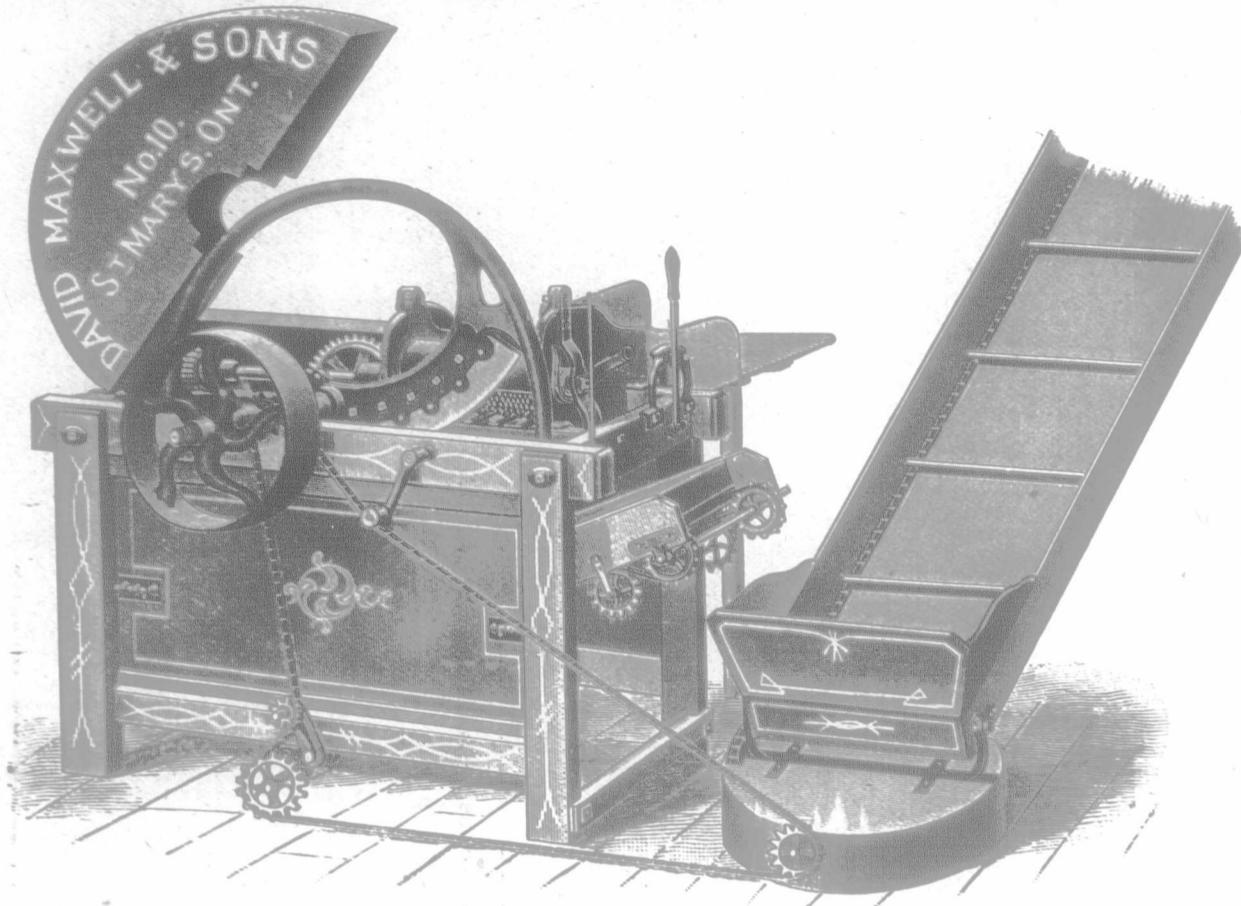
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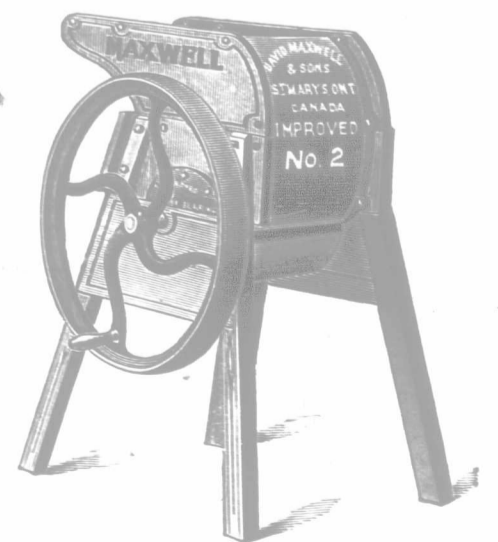
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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE. *

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VOL. XXXV.

LONDON, ONT., AND WINNIPEG, MAN., SEPTEMBER 5, 1900.

No. 509

Grain Stacking.

Owing to the early harvest, a very considerable portion of the grain is already in stack or has been threshed from stook. Still, in some of the northern or newer districts of the Province and Territories, where there was a more generous rainfall during the earlier part of the season, and consequently heavier crops that have not ripened so rapidly, there is yet stacking to do, and a word of caution may yet prove helpful, especially to some of the newer settlers who may have had little experience in stacking grain. Owing to the comparative shortage of fodder and hay in many sections, it is important to stack all the best of the straw, as bright, well-saved straw is much better stock feed than poorly-cured or late-cut swam. Therefore it is well in selecting stack sites to bear the straw stack in mind and arrange, if possible, that they be not left in the middle of cultivated fields, to be a continual nuisance throughout the following year. It has been found a good plan to have a piece of unbroken sod centrally located and reserved for a stack yard, unto which all weed seeds are drawn along with the grain and can be burned off and destroyed the following summer. A little care in stacking the straw turns the wet, prevents it from being blown about, and leaves it convenient to draw in during the winter.

Grain stacks can be built round or oblong, the former are now common and can perhaps be more easily built, but in a long stack more stuff can be put away from the weather, and when properly "placed" they are equally convenient for threshing. Round stacks are generally placed in sets of 4 or 6, thus: , with just room between for the separator. A brief description of how a round stack should be built to turn rain may be of interest, and we reproduce from an article on grain-stacking published a year ago, the following:

"Beginning a round stack, start with a round stook in the center, continuing the stook, keeping the sheaves as upright as possible, till the foundation is large enough. In this way no heads touch the ground to get damp, and an even foundation is given, which makes the stack less liable to slip out when building, and less liable to lean when settling. Before beginning the regular outside tiers, it will likely be necessary to lay some extra sheaves in the center to bring it up full, and keep all sheaves on the next tier sloping downwards towards the outside. Now begin a layer of sheaves round the outside, laying the second row at the same time, and placing the butts of the second about to the band of the first. The stacker should keep his weight off the outer row, and in laying the inside rows continue round and round systematically, laying one row at a time as closely together as possible, stepping on each sheaf as laid, each course overlapping the one below about to the bands, or sufficiently to keep the center well above the outside row. Thus the outside will settle more than the center, as it will not be so compact and solid, and all sheaves slope downwards and outwards. By putting on a bulge—that is, letting the stack out a little larger each course till high enough for the take-in—more grain can be put under the same roof than if the stack is built with straight sides. At the "take-in" be sure and have the center full. Continue as before, taking in each course a little, and keeping the heart very full. The butts of the sheaves become set in the stooks, and by a little care in placing them with the slope downward on the outside roof tiers, a very smooth, neat job can be made, and if the heart is always kept full there will be little danger of wet getting in. Every course of sheaves should be continued systematically to the center of the stack: it makes the stack more solid, and more stuff can be put in than when merely a pile of sheaves are thrown into the middle. It is not necessary to carry the stack very high, or make a roof like a church steeple. A sharp-pointed stick about four feet long run down through the cap sheaf will hold it on and let in no water.

I hope you will allow me to say that I am simply charmed with the high standard of excellence to which you have brought the *ADVOCATE*. With best wishes, I beg to be, my dear sir,
Yours faithfully,
J. G. DAVIDSON.

Give Weeds a Finishing Touch.

A careful and observing man, who had recently been on an extended trip through the Province, remarked in our office the other day that "The battle with noxious weeds is only well begun." Almost everywhere he had been fields and roadsides were showing abundant evidences that noxious weeds were still a very live issue. In spite of all that has been said and written on the subject, and in spite of the fact that nine out of every ten farmers *know* better, still annual weeds are allowed to ripen seeds by the million, and biennials and perennials to produce leaves, and thus store up in their roots the food necessary for continued growth and seeding the following year. A piece of land is set apart for summer-fallowing, it is carefully plowed, and perhaps harrowed or cultivated a couple of times, then the rush of harvest and threshing comes on, and no more attention is given to it, or the balance of the season is so fully occupied that there is really not time to give the fallow any more work, so great is the amount of work undertaken by most of our wheat farmers. In the meantime, the biennials, such as the evening primrose, false tansy, golden fumitory, and others; the perennials, as the thistles, couch grasses, morning-glories or sunflowers; and the winter annuals, like the stinkweed, tumble mustard, fleabane, blue bur or skunk-tail grass, are silently, but surely, making their preparations for another year's mischief, undoing much of what has been accomplished by the cultivation already given.

Another stroke of the cultivator right now may be needed on your fallows. See to it.

The Tuberculin Test Plague.

THE *FARMER'S ADVOCATE* has freely devoted much attention and space to the discussion of the subject of bovine tuberculosis, its origin, causes, prevention, and possible cure, giving special emphasis to the value of ventilation and a full supply of pure air and sunlight as an essential agency of prevention, the cheapest and best of the possible provisions against the insidious disease, which is largely a sequence of modern methods of stable construction, and is seldom contracted in open-air conditions. The tuberculin test as an agency for the diagnosis of the disease was, a few years ago, with much assurance proclaimed a discovery of great value, being, it was claimed, practically infallible in its operations, and coming with the almost universal endorsement of veterinary scientists, it was received by stock-raisers and the public generally with all the consideration due to a discovery of such vital importance. The earlier exhibitions of its efficiency as an agent for discovery were certainly such as to warrant much of the merit claimed for it, and in so far as that is concerned, we are not sure that when intelligently applied by careful and competent practitioners it has lost much ground in the estimation of unprejudiced witnesses, but in the hands of inexperienced and incompetent manipulators, and under unreasonable and irksome regulations its vagaries have brought it into such general disrepute that there are now comparatively few so simple as to do it reverence. It may yet have its place of usefulness when judiciously applied, especially in the case of city dairies, where sanitary conditions are not sufficiently observed; but its indiscriminate application to imported animals for breeding purposes has always appeared to us, in view of the uncertainty or very distant possibility of its contagious character, to be an unnecessary hardship to importers, and one which they have borne with a patience worthy of a better cause. It is surely an absurdity to suppose that practical men will pay large prices and all the added expenses of transportation for stock of which they have the least suspicion that they are unhealthy. There are well-authenticated

cases of animals purchased for America being condemned on the tuberculin test in Britain, and after a few weeks re-tested and passed as sound. In our last issue reference was made to a case in which five high-class bulls purchased for the Argentine were tested by English veterinary surgeons and certified sound, but two of them being condemned by the Government veterinary at the Argentine port, on the same test, they were returned to England for slaughter, where a careful examination by a qualified veterinary failed to find any trace of disease. It is such instances as these that serve to bring the test into contempt, and when to this is added the opinion of breeders that in not a few instances the application of the test has had an injurious effect upon the health of animals, especially pregnant cows, subjected to it, there need be little wonder that importers are strongly disposed to declare war against regulations which hamper and harass enterprising men in the discharge of a business which tends to the public benefit as well as their own. In the State of Illinois, appeal has been made to the courts by cattle owners for protection against the squirt-gun of the vet. under cover of the law, and owing to contrary decisions by judges in different counties as to the legal right to enforce the test, the Governor of the State has wisely declared the regulations of the State Board of Health inoperative, pending the appeal to a higher court. This is probably but the beginning of a fight for freedom from official bondage, which will grow into larger proportions unless relief come soon in the form of more rational requirements. Importers have loyally submitted to a ninety-days quarantine for the discovery of contagious diseases—a precaution which all agree is proper—but when cattle have to run the gauntlet of two tuberculin tests within four months, as many have when sold by Canadian importers to go to the United States, it is a severe strain upon the patience of the breeders, as well as upon the constitutions of the animals.

Canadian Prizes for British Schools.

One of the signs of the times is the greatly increased attention given by the Government of Canada to the development of this country as the greatest colony of the British Empire. The latest step taken by Lord Strathcona, Canadian High Commissioner in London, Eng., is the distribution of books on the subject of the Dominion to schools in the United Kingdom, and the presentation of a bronze medal for competition in each school which takes the subject up. The books themselves are valuable educational works, and quite interesting, one an atlas and the other a reading book which treats of the history and present condition of Canada. It is by E. R. Peacock, M. A., of Upper Canada College, Toronto, with an introduction by the Very Rev. G. M. Grant, LL. D., Principal of Queen's University, Kingston, and is beautifully printed and illustrated, and teeming with information conveyed in a clear and agreeable style. The little atlas is a gem of its kind, and contains seven teen excellent maps of other countries (the U. S. excluded), in addition to ten relating to Canada, accompanied by a geographical text of the most comprehensive and compendious character. Not only will the pupils but the teachers derive a great deal of information from these two valuable little school books, and the idea of offering a prize in each school for the best essay at Christmas is as ingenious as it is novel. The idea is an admirable one, and will not only afford the boys and girls of Britain accurate knowledge of this part of the Empire, but cement the ties existing between Canada and the motherland. The High Commissioner is to be congratulated upon the efforts he is making.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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1. THE FARMER'S ADVOCATE is published on the fifth and twentieth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.
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Publishers' Announcement.

The FARMER'S ADVOCATE steadily grows in popularity upon its intrinsic merits. The best farmers claim to profit by reading it regularly. It carries with it the gospel of better and more profitable agriculture by bringing in the light that expels the darkness. To canvass new subscribers to the FARMER'S ADVOCATE affords both pleasure and profit—the pleasure of doing good to your neighbor—and the premiums we offer elsewhere in this issue afford very alluring remuneration. Our books are standard works of highest authority; our "Post" pens are all that is claimed for them in the advertisement; and our watches do keep correct time and wear well, having been obtained from one of the largest and most reliable firms in Canada. We confidently recommend each and all of our premiums as possessing superior merit, and we trust our readers will at once set about securing one or more of them by sending us the required number of new subscriptions. See our premium pages in this issue.

The Permanent Site of the Royal Show.

The council of the Royal Agricultural Society of England, some time ago decided to permanently locate their annual show, and recently, by a substantial majority of the council, London was chosen as the city near which the show is to be held after next year. The peripatetic plan had plainly outlived its day of usefulness, as the failing receipts for admission in the last few years had proven, the deficits from year to year proving serious and burdensome. The selection of the Metropolis as the future fixed site for the show is doubtless a wise one, the city being fairly central, while its great population and the facilities which it offers in the way of accommodation and its attraction for visitors, make it peculiarly the place to secure the attendance which gives eclat to an exhibition. We anticipate with every confidence the successful outcome of the new departure made by the Society in selecting for its future home the grand old city on the Thames.

Will it Pay to Hold Wheat?

Periodically, the above question confronts the farmer whose granary bins or elevator space is filled with wheat. We have in mind cases where wheat-growers have made a decided hit by a big rise in prices after holding their grain for a year or so, but they are the exception and not the rule. It is almost if not impossible to forecast with any degree of accuracy future prices. Great wars have their effect, but not so much so now as in years gone by, owing to improvements in the preparation, storage and transportation of food products. Drought and rains influence crops, but these are rarely, if ever, universal, so that the failure of one grain or in one country will be offset elsewhere. By keeping thoroughly posted as to crop conditions, supply and demand, etc., men may conclude when it is best to dispose of their crop, but as a rule the safest plan has been selling soon after threshing. If wheat does not rise, it is decidedly a losing game to hold, because one must reckon the cost of storage, shrinkage (which is considerable unless the grain is very dry), losses from rats and mice, danger from water or snow, and insurance to cover risk of fire, and interest on the cash value of the wheat locked up, all of which would probably require an advance of 10 or 15 cents per year per bushel to make good. It fact, it has been computed by some that if 60 or 70 cents per bushel represented the "bird in the hand," 90 cents or \$1.00 would be a fair representation of the "bird in the bush" one year hence. With these facts in mind, if the farmer can afford to do so and feels disposed to speculate by holding his crop, why all well and good—it will be his own funeral or otherwise, according as prices go down or up.



TWO-SHEAR SOUTHDOWN RAM.
First prize and champion, Royal Show, 1900.

Two Ambitious Agricultural Projects.

Mr. Hanley, of Minnesota, who was the presiding officer at an International Congress of Agricultural Associations held during the Paris Exposition, and who is an officer of the National Cotton Growers' Association and the Grain Growers' Association, has returned to the United States, and gives to the press a report that at the Congress two propositions were thoroughly discussed: first, to reduce the grain acreage of the world by twenty per cent.; second, to secure from the world's rice-eating nations customers for the farm products of civilized lands. The Congress decided unanimously, he reports, that steps must be taken to secure an Oriental market for surplus grain crops. In America, he continues, there will be an effort to make the price of wheat one dollar a bushel at Liverpool. The farmers will be urged to hold or "corner" their supplies, in order that the price may be raised to that point and maintained. The programme of national legislation proposed for the United States, he says, provides for the subsidizing of freight steamships, the appointment of a trade commission which shall devise plans for getting the desired Oriental trade, the abolition of the Interstate Commerce Commission, because it has failed to prevent unjust discrimination in freight rates (interesting to Canadians, in view of the proposal to establish a similar body here); the abolition of the forecast crop reports which are issued by the Department of Agriculture, because they are "of so hopeful a nature" that they lower the value of stored grain and growing crops; the abolition of bucket shops, and the appointment of Government inspectors to take charge of terminal elevators and prevent the mixing of different grades of grain. This programme is said to have been approved by the Grain Growers' Association, the Cotton Growers' Association, the Farmers' Alliance, and the National Farmers' Federation.

Retgression or Progress in Stock Breeding.

An experienced breeder, than whom we have had no more observant or outspoken a critic of the ups and downs of stock breeding in English-speaking lands during the past half century, gives our modern self-satisfaction a rude poke in the ribs. Calling up the FARMER'S ADVOCATE, he inquires are the best of our pure-bred cattle and sheep equal to what they were years ago? Did we not reach a pinnacle of achievement in Great Britain beyond which there has been no advance? Are we not actually slothfully retrogressing? Is it the tyranny of the herdbooks or of fashions in pedigree, or both, that tie men's hands and paralyze efforts at new achievements in breeding? These are questions in which there is food for reflection, and their consideration will probably lead most breeders to the confession that the standard of excellence attained in the case of the best and the average is far from satisfactory. This criticism does not apply equally in the case of all breeds. It surely does not to some of the dairy breeds of cattle, to some of the beef breeds, to most of the breeds of sheep and hogs, or to many of the breeds of horses, in all of which classes distinct improvement has been made in conforming to the utility type most suitable to the requirements of present-day markets; but it certainly does in the case of all those in the breeding of which pedigree fashions have unduly prevailed and line breeding has been too largely followed, the tendency having been to breed exclusively, with too little regard to individual merit, from animals carrying the blood of certain families which for the time being are popular because of the record of one or more ancestors in showyard or test, or because of a whim of fickle fashion, founded, it may be, on even a less enduring basis than either of these.

He would be a bold critic who would openly attack the herdbooks which have gained so strong a hold in the realm of records, and charge them with being a cause of retrogression in the standard of the individual excellence of our stock, since the conviction that herdbooks are contemporary with and essential to permanent improvement is deep-rooted and generally acknowledged by breeders as a confession of faith if not as a creed.

And yet, is it not too true that the fanatical worship of pedigree is the rock which has wrecked many men financially, and been the means of undermining the constitutional structure of once grand and useful tribes of cattle? For this the herdbooks can only be held responsible in so far as they have placed before the eyes of breeders the printed page on which is more readily traced family relationships, which, if wisely and judiciously used and directed, might have produced magnificent results, but which, on the other hand, through a blind following of fads, have wrought ruin and disaster to many a reckless devotee.

And the pity of it is that so few are willing to learn and profit from their observations of the experience of those who have erred, and so many are apparently bound to prove the aphorism that history repeats itself, no matter what the consequences to the breed, so long as there is money in it for them in the meantime.

We have no quarrel with any breed or with any strain within the breed, so long as meritorious individuals are propagated and used for its improvement, but it is when inferior seed stock is used, simply because it is straight bred, in preference to such as have superior individual merit coupled with superior ancestry, that our patience gives out and we are led to protest.

The record of the showing is supposed to set the standard of excellence, and there pedigree is not considered, but each animal stands on its own merit. Does the record of the leading shows in Britain and America demonstrate that the animals straight-bred in popular lines win the highest honors? What of the champion Shorthorns at the Royal in this year of grace, and of the leading winners in Canada last year? Would they conform to the requirements of straight line breeding? We trow not. And what of the lineage of those which brought the highest prices at the recent record sale at Chicago, where men were looking for show animals? Were not the top-priced bulls and the highest-priced females motley mixtures of Booth and Bates and Scotch? But when winners are wanted, pedigree fads have to be dropped, for when seeking that sort men are in their right mind, which is more than can be said when they pay two prices for a pedigree with a scrub at the end of it.

The crying need of the present day in breeding circles is better sires and more of the better sort as the only hope of lifting some of the breeds from the slough into which they have sunk. We have too many tails and too few tops. The dead level of the average is too low. If this fact be due mainly to the bondage of fashions and fads, as it appears to be, where is the Moses that will lead us out of the wilderness of mediocrity? Shall he be a St. Duthie, or look we for another? The need is urgent, the occasion opportune; the man ought to be forthcoming, and the dawn of a new century will be a convenient milestone to mark a period of progress.

High Butter Scores at the Winnipeg Industrial.

In many departments of most of our exhibitions the educational feature has not received the attention it should, but the introduction of the score card in the judging of dairy products has done much towards advancing the educational side of the dairy departments. With the score-card system and a thoroughly competent expert judge, every exhibitor has an opportunity of learning just in what particular quality his product is lacking, and can thus study to improve. The Winnipeg Industrial was fortunate this year in securing the services of Mr. G. L. McKay, Dairy Instructor at the Iowa Agricultural College at Ames, and a study of the scores in detail reveals many evidences of very close work that could only be done by a trained expert.

In the score for two 56-lb. packages of creamery butter there were 10 entries, both Manitoba and Territorial creameries being represented. The highest score made in this section was 96½, the lowest 88½, and the average 93. Six of the entries scored 93 and over. The averages in either sections of creameries were about the same.

It was in the farm dairy sections, however, that the judge had his work cut out for him, the entries being numerous and the competition close, as shown by a detail study of the score cards. There were no less than 40 entries in the section for 20-lb. package of farm dairy, the scores spreading from 96½ to 85½, the average being 91½, 20 entries scoring 92 and over. In section for 10-lb. prints there were 31 entries, scoring from 95½ down to 89½, averaging 90½, with twenty-four 92 and better. In the section for table butter, not less than 5 lbs., there were 13 entries, 95 being the highest score, 89½ the lowest, 93½ the average, and 10 of the 13 scoring better than 93½. There was strong competition in the section for 20 lbs. farm dairy made by farmer's wife or daughter, there being 33 entries, 94½ being the highest score, 92 the average, with 22 entries scoring 92 points and better. In the sections for 20 lbs. made by dairymaid under 18 years of age there were 12 entries, with the exceedingly good average score of 92½, the spread being from 91 to 94½.

When it is remembered that all exhibits in the dairy classes are entered with only the exhibitor's entry number being visible, the skill of the judge may be realized when one follows any single exhibitor's entries through several sections where the competition was large; for instance, in the farm dairy class Mrs. R. H. Wilcox, Winnipeg, entered in 4 sections, scoring 94½, 94½, 95, 94½. Mrs. N. Scott, of Meadow Lee, entered in 6 sections, scoring 95½, 94, 92½, 92½, 93½, 93½. Mrs. Isaac Scott, Marquette, 5 entries, 94½, 93½, 94½, 91½, 91½. John Gorrell, Carberry, 6 entries, 92, 90½, 93½, 94½, 94½, 93½.

The high run of the scores throughout all classes evidenced the superior quality of the exhibit of butter as a whole. As much cannot be said of the cheese exhibit, which was small, and some of the entries were not up to a very high standard.

Misstatements Regarding Manitoba Butter.

To the Editor FARMER'S ADVOCATE: In the August 11th issue of the *Commercial*, under the heading, "Bad Butter Shipments," is an article from their British Columbia correspondent referring in the strongest terms to shipments of butter coming from Manitoba, and stating that "disgusting" is the only word that applies to the condition of the goods.

He also states that the butter was wrapped in newspaper and common wrapping paper and placed in square, greasy, round masses and unsightly chunks, in boxes marked "Tar Soap," "Starch," etc., and that many of the discolored, shapeless chunks were covered with well-known creamery labels, but had been squeezed out of shape by bad packing. The correspondent further states that this particular lot is worse than usual, but a general complaint was due from mostly all of the wholesale produce merchants owing to the wretchedly packed consignments of butter sent to British Columbia from Manitoba.

This correspondent was either misinformed or else was so busy manufacturing news that to determine the exact facts in reference to this particular consignment was too much of a task, and so made a general stab at Manitoba butter, which, in the main portion, is entirely wrong.

The butter mentioned consisted of a shipment, or shipments, of about 13,000 lbs. It was shipped by a country merchant in the Territories, about

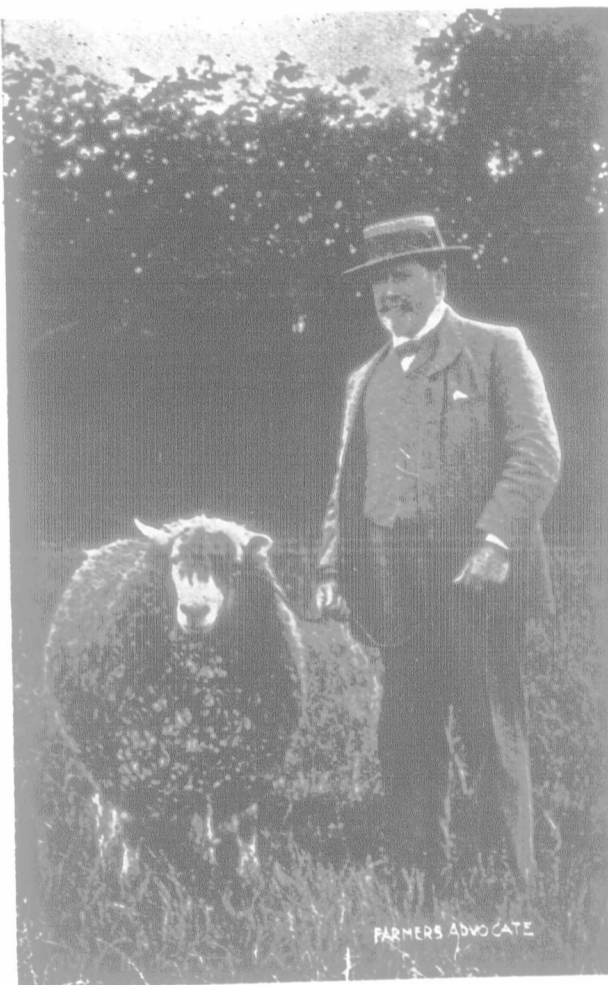
thirty-five miles north of Whitewood, and consigned to F. R. Stewart & Co., with instructions to pay the money received for it to a firm in Winnipeg, so Manitoba must stand the blame. The goods were not shipped as creamery butter, and if they were wrapped in well-known creamery labels of any Manitoba creamery, it was a direct fraud, as the butter was not manufactured in Manitoba. A more thorough investigation into matters of this kind by the British Columbia correspondents of Manitoba firms would produce information of a more reliable and accurate nature and minimize the danger of laying the blame of such shipments in the wrong place.

C. A. MURRAY,
Dairy Superintendent.

Amendments to Winnipeg Industrial Report.

In our review of the Winnipeg Industrial, the stallion Ryshawk was credited with second place in the carriage class. This was the position accorded him by the judge, until an examination into his breeding revealed the fact that he was only recorded in E. King Dodd's registry, which is not recognized by the Exhibition Association. Consequently, Knight of the Vale, owned by Muir Bros. & Matthews, of High Bluff, was put into second place, and Ingmanthorpe, owned by Frank Walker, Boissevain, into third place.

An unfortunate omission was made in our report of the aged Shorthorn bull class in not referring to the bull, Admiral, owned by A. & J. Chadbourne, Ralphton. This bull took fourth money—



HENRY DUDDING AND THE THOUSAND-GUINEA LINCOLN RAM.

Sold at his annual sale, August, 1900.

no discredit to any beast in such a ring. He is a low-set, level, well-proportioned bull, shown in good working condition, and by the excellence of his calves is proving himself a good sire.

Land Commissioner of the C. P. R.

Those of our readers who have business with the Land Department of the Canadian Pacific Railway Co. will be pleased to learn that Mr. J. T. Griffin, for many years Assistant Commissioner, has been appointed Commissioner, succeeding Mr. L. A. Hamilton, who has been forced by ill-health in his family to relinquish the position. Mr. Hamilton, by his good judgment and courtesy has ever been a most popular official. He has always taken a wide personal interest in the agricultural development of the West, and realizing the great importance of the live-stock interests in that development, has been ever ready to assist in every possible way any movement that would advance those interests. To his personal effort, in a great measure, may be attributed the improved transportation facilities and reduced freight rates on pure-bred stock. He has also rendered invaluable service to the live-stock and agricultural interests as a member of the Winnipeg Industrial Exhibition Board, and especially as Chairman of the Prize List Committee.

While his retirement will be greatly regretted, his successor, Mr. Griffin, can be counted upon to ably and satisfactorily fill the position.

Souris Summer Fair.

The directors made special efforts to make the sixteenth annual exhibition a crowning success, and, in spite of unfavorable weather the last day, were amply rewarded for their labors. There were over nine hundred entries in all classes.

About one hundred horses in all exhibited, agricultural, general purpose, and the roadster class being best represented. The roadster class was the best ever seen here; Thos. Kelly, the judge, said the best he had seen this year. The principal exhibitors on heavy class horses were: John Schaeff, Stan. Staples, and Jos. Taylor; light horses, Geo. Moffat, Fred Moffat, and James Herriot.

There were seventy-five head of cattle exhibited. In the Shorthorns, Cockburn took nearly all the prizes. W. V. Edwards was the only exhibitor in the Jersey class, and showed fifteen animals. In the Holsteins, J. Herriot had it nearly all his own way. In the Polled Angus, West Speers, Griswold, and J. Turner, Carroll, divided honors, Speers getting the lion's share. The beef grade class brought out a lot of good animals, Stanley Staples, a new exhibitor, taking most prizes; K. Muchison and J. Herriot taking the balance. In the dairy class, James Herriot and W. V. Edwards took all the prizes, Herriot getting five and Edwards three.

In the sheep, J. S. Hitchcock, a new exhibitor, took most of the prizes in the Leicester class and the Sheep and Swine Breeders' diploma. Mr. Saunderson was the only exhibitor in the Shropshire class. Alex. Wood took all the prizes in the Oxford Down class and the diploma.

Pure-bred swine was not a large exhibit, but they were good. In the Improved Yorkshire class, W. B. Cockburn took all the prizes. The grade class was well represented, and the honors were about even with Stanley Staple and Jonathan Atkinson, both new exhibitors.

Entries in field roots were not large, but some good exhibits were made. The vegetable class was good, considering the season. Most of the old-timers won prizes, viz., Wm. Saunderson, K. Murchison, Robt. King, James Herriot, Mrs. Webster, and Mrs. Crisp. The exhibit of grains and seeds was good, the principal winners being James Robinson, Wm. Saunderson, W. A. King, and Robt. King.

The poultry show was the best ever seen here. Wm. Anderson and J. A. Carter, Brandon, were large exhibitors, and took the lion's share of the prizes. There was also a large exhibit by local poultrymen.

Dairy products and home manufacture were very good indeed.

Plants and flowers were a grand display, and completely filled the tent.

The ladies' work and fine arts were the best exhibit ever seen here, but owing to the heavy storm and hurricane on Tuesday night, the tent set apart for this class was blown down, and the exhibit so demoralized that it was impossible to judge it.

On Wednesday a splendid programme of horse races and sports was successfully carried out, and an equally good programme was arranged for Thursday. But one of the worst thunder storms of the season coming on Wednesday night and raining on Thursday, the directors met and declared the fair at an end. This was most unfortunate, as the attendance would have been large on Thursday—even larger than the first day. In spite of the weather, the directors hope to pay one hundred cents on the dollar.

What is Humus?

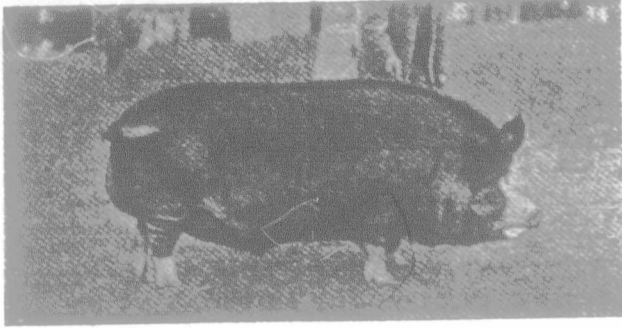
PROF. O. C. GREGG, SUPT. FARMERS' INSTITUTES IN MINNESOTA.

First we must learn to recognize the word "humus," and to know what it means. It should become a common word in agricultural reading and speaking. Humus is "decayed and decaying vegetable matter." Manure makes it; green crops plowed under form it; clover roots when decaying in the soil create it; every plant when it returns to mother Earth takes the form that is called humus, and adds two things to help coming crops. Heretofore most of us thought that it did only one thing, add fertility to the soil. We all know that manure makes the land richer, as we say, but they are comparatively few who understand that not only does humus make the land richer, but it also preserves soil moisture under the influence of hot winds and scorching suns. Humus is one of Nature's methods for storing up and holding moisture. Our clay subsoil will store up water, but when the south winds blow and the hot suns burn it begins to give up water by the ton, and it is carried away from the crop that stands so much in need of it. But when humus takes up water, as it can in large quantities, it holds it locked fast, in spite of sun and wind. When the roots of growing grain take hold of this humus to feed upon its fertility, they also find in it the water; it supplies drink as well as victuals. The moisture of the soil may have been largely evaporated, but wherever the roots find humus they find food and the water needed to dissolve it. Humus is the cheap means that can and will be used in dry sections to prevent the losses of what otherwise would be disastrous droughts.

The weather in most sections of Ontario during the last half of August has been especially favorable for preparing the land for the sowing of fall wheat, frequent and copious showers of rain having fallen.

Regina Fair.

On August 8th His Honor Lieut-Governor A. E. Forget declared the Regina Agricultural Association Exhibition opened, and the same was successfully continued for two days, the 8th and 9th of August. The entries made were more than double that of last year, showing that a greater interest was taken in the Exhibition than formerly. This is no doubt due to the vigorous efforts put



BERKSHIRE BOAR, "SAMBO."

Winner of first prize and championship at Oxford, England, 1900.
BRED AND EXHIBITED BY RUSSELL SWANWICK, CINCINNATI, OHIO.
NOW OWNED BY C. I. HOOD, LOWELL, MASS.

forth by the energetic Secretary, Mr. Wm. Trant, who is ably assisted by a strong and representative board of directors. Regina and surrounding districts each had representatives on the directorate to work up interest in their respective localities. The Association is also fortunate in having Mr. G. Spring-Rice, of Pense, Assa., as President, and although business kept him in the Yukon until near show time, he was home but a very short time when he was on the grounds and lending valuable assistance and encouragement to those in charge of the different departments of the Exhibition.

HORSES.

An increase was noticeable in this department over former years, yet we would like to have seen a larger showing in the aged heavy draft stallion section. R. J. Kinnon's Glenfarg (8658), sired by Prince of the Glen, a strong, showy brown horse, and a former winner in the ring at Regina, was placed first; the second went to Brown Bros.' Boydston's Heir, a stallion bred by D. & O. Sorby. In stallions 3 years and under, Messrs. A. & G. Mutch showed Prince Stanley, by Grandeur, a nicely-topped horse, with splendid legs and feet. The special diploma given by the Horse Breeders' Association of Manitoba and N.-W. T. was also won by Prince Stanley. The second prize on colt 3 years and under went to a stallion of good quality, exhibited by John McMichael, of Qu'Appelle. The first prize on team to wagon, not less than 3,000 pounds, went to a strong pair owned by Thomas Barton; second was won by A. & G. Mutch on a team of useful Clydes. Four brood mares with foals at side entered the ring. All were in fair condition and handled well. The first was given to James D. Traynor, 2nd to E. J. Martin. They also won on foals in the order named above. Messrs. A. & G. Mutch won first and second on two excellent fillies in the 2-year-old class, Charming Eva and Lady Charming, sired by Sorby's Lord Charming.

In the general purpose class we were pleased to note the section for stallion any age, unregistered, only brought out one competitor. It is a mistake and a detriment to the breeding of high-class horses to encourage this class, no matter how showy the horse may be, and we hope the fair management will eliminate this section from their prize list before another show. The balance of the sections in this class were well filled, the younger animals and the teams being really good exhibits. The road and carriage classes brought out more competitors than the other classes, and competition was keen throughout. John Forrester's Madward won first in the Standard-bred stallion class, and the stylish Rumpus, owned by R. S. Fulton, secured the first in Thoroughbreds. The first prize for roadster team in harness was won on a well-matched team of smooth goers exhibited by James Mair, and second by A. Blair. The pairs of carriage horses brought out five competitors, and they were well matched and showed good action. The first prize went to R. S. Fulton, Moose Jaw, on a team of bays of Standard-bred breeding; second to John Godson on a young team from a blood mare bred to an undersized Clydesdale stallion. The single drivers brought out seven. First prize went to Thomas Elliott on a bay from a trotting mare and Standard-bred stallion; second to F. G. Arnold; third to Wm. Child. The younger sections brought out good competition, and showed good breeding, the progeny of the Standard-bred stallion, Madward, coming in for a good share of first prizes. A class for ponies, driven single and double, and under saddle, brought out well-filled sections, and useful, strong ponies were shown. Sargeant R. G. Matthew, V. S., of the Northwest Mounted Police, placed the awards on horses, and gave every satisfaction.

CATTLE.

There were six aged bulls competed in the Short-horn class, and this was the largest filled section in the cattle classes. Charles Hill, of Qu'Appelle Station, a large winner in Shorthorns, was awarded

first prize on his roan bull, Highfield Boy =24684=, by Guardsman (imp.), and also received diploma. Charles Martin, of Wascana, took second on his red bull, King of the Plains =25012=, sired by Monarch of Mapleton. Two nice young bull calves, Gloster =34157=, a roan, and a red-and-white, Islington Boy =34156=, sired by Highfield Boy, exhibited by Charles Hill, were placed first and second. S. Beach won on bull under two years. D. A. Purdy showed a good Hereford cow in Empress of Beresford, with heifer calf, Princess Lily, and both were awarded first prizes. Ayrshires were out fairly strong, the chief exhibitor and prizewinner being J. C. Pope. On his bull, Hutton 10188, imp. in dam, he won first as two years and under, and also headed the prizewinning herd. A very handsome 9-months-old bull calf, Prince Teck =11301=, sired by Nonpareil, was awarded first in his class and also won the diploma. Cows from this herd were also successful. Pauline Johnstone, sired by Leonard of Meadowside, won first in Ayrshire class and milch breeds. Gusta's Queen, by Hamilton Chief, took second in the above section. Dolly Dutton, sired by Macneill, and the young heifer, Lady Gusta, were also winners. A. E. Risk won first on bull over 3 years. The judging of cattle was done by Mr Ferguson, Moose Jaw. The milk test was won by a dairy cow exhibited by C. Stenshorn, J. C. Pope winning second, and R. E. Tennant third.

The exhibits of pigs and sheep, while being ahead of previous years, can yet be improved upon. In Berkshires, Regina Industrial School, J. V. Boyd and James D. Traynor exhibited. Robert McKell, John Brown, Thomas Elliott, S. Beach and C. Barnes each participated in the division of prizes for grades. Joseph Fessant, of Edgely, exhibited Shropshire sheep.

The poultry and dog exhibit was a fair one. The chief attraction in the main building was the exhibit of flowers, and was a credit to the district. The ladies' department was also well filled. The exhibit of grain of 1890 was small. The grain and grasses in sheaf brought out an attractive exhibit. Harold D. Buchanan, of Cottonwood, had a collection of grain on which he secured first prize, and was successful in field roots. He also exhibited a collection of noxious weeds, which, with the Territorial Government display in charge of Mr. Willing, gave visiting farmers an opportunity of becoming familiar with their chief enemies.

The exhibit of dairy products was a large increase over past exhibitions, and the quality of exhibits was first-class. Mrs. J. C. Pope, John Martin, A. E. Rick and Mrs. D. Kennedy were winners in the farm dairy, sweepstakes going to Mrs. Pope. W. J. and Wm. Clancy were winners in colored and white cheese, and R. Bourne with cream cheese. In separator butter class, Robert McKell was first and John R. Hoyle, Jr., second.

The officers and men of the Mounted Police and the Regina, Moose Jaw and Virden baseball teams put up interesting attractions.

Cash and Storage Receipts Under New Grain Act.

A subscriber, Souris, writes: "Kindly insert in your next issue what changes are being made in the shipping of wheat through elevators or flat warehouses. I am under the impression that the farmers are to receive the gross weight, dockage and net weight of grain delivered on their receipt tickets. I hope this is the case and that it will be strictly adhered to."

A brief summary of the Act to regulate the grain trade in the Manitoba inspection district, as passed at the late session of Parliament, was referred to in our issue of June 20th. Below we give copies of the forms of cash and storage receipt tickets as provided for by the new Act, which must be given by all elevator and flat warehouse operators on demand.

CASH TICKET.

No. Station.
Purchased from (date)
Grade. Kind of grain Net bushels pounds.
(Net weight in words.)
Price per bushel, \$ Total cash payable, \$
Total price in words Gross weight, bushels pounds. Dockage
Net weight By Agent.

ELEVATOR STORAGE RECEIPT.

No. Man.
Elevator (or warehouse) Bush.
1900, received into store from
Grade Kind of grain
(Weight and grade guaranteed by this warehouse to be stored and insured against loss by fire under the following conditions:
The charge for receiving, cleaning, insuring against loss by fire, handling, storing 15 days, and shipping grain is cents per bushel. It is provided by law that this charge shall not exceed per bushel.
Each succeeding 30 days or part thereof is of a cent per bushel, including insurance against loss by fire. It is provided by law that this charge shall not exceed of a cent per bushel.)

Upon the return of this receipt and tender or payment of above named charges accruing up to the time of said return of this receipt, the above quantity, grade and kind of grain will be delivered within the time prescribed by law to the person above named or his order, either from this elevator or warehouse, or if either party desires in quantities of not less than carload lots at any terminal elevator in the Manitoba inspection district on same line of railway or any railway connecting there-

with, as soon as the transportation company delivers the same at the said terminal and certificates of grade and weight are returned, subject to freight, weighing and inspection charges at such terminal point, the grade and weight of such grain to be delivered to be such as will conform to the grade and as near as possible to the weight first above mentioned on Government inspection and weighing thereof at such terminal point.

No storage charges shall accrue in this elevator or warehouse after seven days' notice has been given in writing by the owner of the grain to the warehouseman to ship from this elevator or warehouse.

Weight (gross) Bushels. Pounds.
Dockage Bushels. Pounds.
Weight, net Bushels. Pounds.
Net weight in words By Agents.

FLAT WAREHOUSE RECEIPT.

No.
Flat warehouse
Received into bin No. of this warehouse
from bushels pounds.
kind of grain. Weight and identity guaranteed by this warehouse, under the following conditions:

The charge for use of such bin for six days (inclusive of one day for loading on car, but exclusive of Sunday) and for weighing in and out is of a cent per bushel; the maximum charge allowed by law therefor being of a cent per bushel. This warehouse does not insure grain.

Upon return of this receipt and payment or tender of above charges, the owner of said grain will be entitled to have it weighed for him while it is being taken out by him for shipping on car.

Such bin is furnished and such grain received on the understanding that the owner will within six days from the time such bin was furnished to him place therein and have ready for shipping and loading on car one carload of such grain. Provided that if the owner is not furnished with car by the end of the fifth day of such period of six days, such period shall extend to twenty-four hours after the car is furnished.

If a carload of grain is not delivered in said bin and loaded on car within the time above provided, the grain then in said bin will be loaded on car by this warehouseman, at an additional charge of one-half of one cent per bushel, and shipped to terminal elevator for the owner, subject to freight and weighing and inspection charges and all charges of this warehouse, including such additional half cent per bushel for loading on car, or this warehouseman may sell such grain on account of the owner thereof, and shall then be liable to account to the owner for the proceeds, after deducting all proper charges.

By Agent.

Where cleaners exist, operators to clean grain before weighing when requested to do so. If cleaning is done before weighing, the requirements of the Act as to the statement of gross weight shall not apply.

We understand the elevators intend charging this season 1 1/2 cents per bushel for the first 15 days, including insurance, and 3/4 of a cent per bushel each succeeding 30 days or part thereof for storage, including insurance.

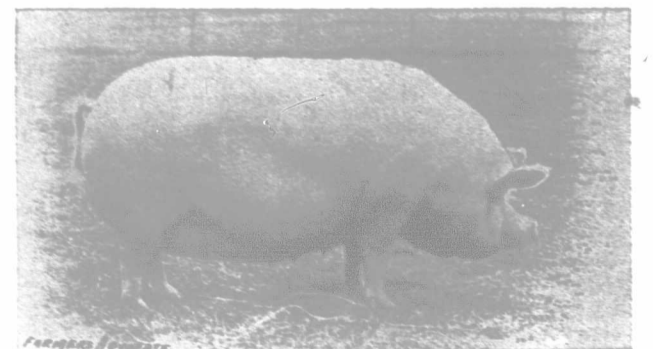
Where disputes arise as to dockage, samples may be submitted to the chief grain inspector, whose decision shall be final. Any complaints should be immediately communicated to Warehouse Commissioner, Mr. C. C. Castle, Winnipeg, whose duty it is to enforce the regulations under the new Act.

What Bromus Can Do.

To the Editor FARMER'S ADVOCATE:

It may interest you to know what Bromus grass has done in this hayless year. On the 25th of June, the bloom beginning to fall from the flower stalks, I cut, it being then about two feet eight inches high and yielding over two and a half tons to the acre. It is now (Aug. 15th) in bloom for the second time this year, and will be ready to cut next week, with a swath that will be a good three tons to the acre, and the grass is as lush as if on a water meadow. It is nearly three feet high, and has fine bottom.
WM. TWAIN CREALOCK.
Portage and Lakeside Municipality, Manitoba.

Seven years ago a farmer in this neighborhood hung his vest in the barn-yard; a calf chewed the pocket in the garment, in which was a gold watch, says the Guelph Herald. One day recently the animal, a staid old cow, was butchered for beef, and the watch was found in such a position between the lungs of the cow that the process of respiration—the closing in and filling of the lungs—



LARGE YORKSHIRE SOW, "WREXHAM VENUS."
First at Royal Counties Show.
PROPERTY OF F. ALLMAND, WREXHAM.

kept the stemwinder wound up, and the watch had lost but four minutes in seven years. Sceptics are shown the watch in evidence of the truth of the story.

Moosomin Fair.

The Moosomin Agricultural Society held its annual exhibition on Aug. 7th and 8th, the second day being the "big" day. Quite an attendance assembled. This Society has a very large main building where exhibits can be shown to good advantage, and we hope that at the next year's fair the people of the district will see to it that the space is better filled than this year. What was shown was good, but there was not enough in competition. In the ladies' work, displayed upstairs in the main building, Miss Grafton and Mrs. Burdett won a number of prizes. Mrs. Webster won 1st on homemade bread, and Mrs. W. W. Peters and W. J. Merrin on fruit cake. Miss Annie McLean won two 1st



ROYAL FIRST-PRIZE HAMPSHIRE DOWN SHEARLING EWES.

PROPERTY OF HILLHURST FARM, HILLHURST, QUE.

prizes on girls' work under 15. The exhibit of dairy produce was small, Mrs. Webster and W. J. Merrin being chief exhibitors. There was a fair display of roots and vegetables, and, considering the year, proves that with favorable circumstances this district can produce abundantly these desirable products. The exhibits of grain in sheaf was good, the straw was a good length and the grain heads well filled. The poultry helped to attract interest in the lower storey of main building. W. H. Taylor, of Fleming, showed some good Plymouth Rocks from foundation stock imported from Waterloo, Ont., and from Messrs. H. A. Chadwick and M. Maw, Winnipeg.

Cattle.—The entries in this cattle classes were not large, the different beef breeds competing in one class and the dairy breeds in another. The judge had to choose the winners out of the different breeds shown. In the aged bulls (beef breeds), a large roan bull exhibited by Mr. McNeil, bred by R. J. Phin, won 1st prize, subject to his pedigree being produced to the directors. The red Shorthorn bull, Billy Redmond 25803, shown by J. R. Thompson, received 2nd place. R. McLeod received 1st on a Polled Angus yearling bred by W. T. Crisp. J. F. Day received 1st and 2nd on bull calves, on calves of his own breeding. J. F. Day, the chief exhibitor in Shorthorns, won the herd and most of the female prizes. In the dairy breeds there were four aged bulls shown, a Jersey, Guernsey, and two Ayrshires. Isaac W. Pearce's Jersey bull, Star Messena 57217, bred by J. B. Powell, an excellent representative of the breed, was awarded 1st; the 2nd going to Klondyke of Grandview, exhibited by M. Colville. In dairy grades, I. W. Pearce had out some good large Holstein grade cows, and, along with W. J. Merrin, was a prominent winner in this class. Some good Shorthorn grades were shown by Thos. Gillman, R. McLeod, J. F. Day and Wm. Moran, and they each won prizes. Mr. James Bray, of Longburn, acted as judge on cattle, sheep, and swine.

Horses.—The best exhibit and some sections were filled with individuals showing good breeding. T. Fisher won 1st in heavy draft on his Clyde stallion. Colin McLean was 1st on Thoroughbred. The Heavy Draft teams brought out five competitors, and the judge had considerable work in picking out the winners, they all being well matched and horses of good quality. Mr. John Webster, Hilborn, received the red ticket on a handsome team of bay mares registered in the Canadian Draft H. B., and the blue went to a team of bays owned by R. McLeod. Some good things, chiefly of Clyde breeding, were exhibited in the younger horse sections. In the General Purpose class there were seven brood mares with colt at foot competing. Five foals faced the judge, and the 1st went to a very handsome colt sired by the Shire stallion, Eden Magnet, exhibited by Wm. Clements; 2nd going to a good youngster shown by John Waines. The teams also in this class were good, useful horses and brought out in good form. There were a nice lot of well-bred horses shown in the Roadster and Carriage classes, testifying that the people of this district are using good sires. Some good colts sired by Jase Phillips were shown in this class and won honors. J. R. Thompson came in for a number of

prizes in this class. Stylish, smooth movers were shown in single and double drivers, the 1st in the former going to J. Fyke. Geo. Garmerson received 1st on his team. A. B. Smith was the principal exhibitor of sheep, he having some good types of Cotswolds and Southdowns on exhibition and won a number of prizes. He also showed a pair of Chester White swine.

We regretted the sudden illness of the Sec. Treas., Mr. Jas. Anderson, on the first day of the exhibition, which made it impossible for him to attend to duties on the second day. He, however, was fortunate in having an able directorate, presided over by J. M. L. Young, and they looked after every detail of the exhibition in a very creditable manner.

Our Scottish Letter.

Various Canadian and American friends have been visiting us of late, and have purchased a considerable number of Clydesdales and Shorthorns. Mr. N. P. Clarke, St. Cloud, Minn., has been the most extensive shipper, but he has gone much deeper into the cattle than into the horses. He shipped thirty head of the former and seventeen of the latter, and his shipment of both kinds included numerous prizewinners. He took seventeen of his thirty Shorthorns from Lord Roseberry's herd at Dalmeny, and a very fine, level lot they were. Amongst them were the first-prize cow at the Highland, and the champion Shorthorn at Edinburgh, and all the cows and heifers of age for service are expected in calf to Villager, second-prize bull at the Highland. Mr. Clarke had also other well-bred Shorthorns, mostly of the Cruickshank cult, and none of them will disgrace any herd on the American continent. His horses were quite a superior lot, and included several prizewinners. They were headed by a horse which for several years has been at the head of the Queen's stud at Windsor, and won the Clydesdale championship at the Royal at Warwick in 1892. A considerable number of the younger animals were got by the famous breeding horse, Baron's Pride 9122, and all were purchased from Messrs. A. & W. Montgomery, Kirkcudbright.

Of greater interest to the readers of the FARMER'S ADVOCATE will be a shipment made by Mr. Wm. Colquhoun, Mitchell, Ont., an old friend of the Clydesdale, whose allegiance to the Scottish breed has never faltered. Many years have passed since Mr. Colquhoun first visited our shores, and he has always purchased solid, thick and weighty, short-legged horses of the old Clydesdale type. This time he takes away horses of great weight, which Canadians will appreciate. One of the best of these is Prince of Craigwood, which gained first prize at the Royal Northern Show at Aberdeen two years ago, and another, named Caledonia, was got by the great show horse, Cairnbrogie Stamp 4274, out of Chrystal 5387, a daughter of Darnley, and one of the finest examples of a Clydesdale brood mare which ever wore a first-prize ticket at the Highland Society. There will be several other shipments shortly, but there is no "boom," and prices remain very much in buyers' favor. The trend of opinion at home is in favor of an improved market, and leading owners have been putting in supplies of colts from which good stallions will be made. The most recent county shows have revealed great success for foals got by sons of Baron's Pride, and should these youngsters redeem the promise of their youth, we will have a large number of good breeding horses after this sire.

Cumberland breeders of Shorthorns had a big day at Low Houses, Armthwaite, this week, when a large draft from the herd owned by Mr. Edward Ecroyd were sold by Mr. Thornton. The Armthwaite herd is very largely Bates in blood, but Mr. Ecroyd has been trying to thicken the flesh of his cattle by the use of Scottish bulls. He has so far succeeded, and, while misses are not unknown in this attempt, the general result is to show that good cattle can be so bred. Mr. Fletcher, of Rosehaugh, has also been at work in the same direction and has bred Smithfield-winning steers from a Scottish bull and Duchess cows. The averages at Low Houses were fair, but not extravagant, the South American outbreak of foot-and-mouth disease having damped the demand for bulls from that quarter. Forty-six head of all ages made an average of £31 5s. 10d., twenty cows and three-year-old heifers made £34 16s. 1d., ten two-year-old heifers made £28 9s. 1d., and nine yearling heifers made £31 12s. 4d. The highest price was 71 gs., paid for a dark roan heifer which goes to New Zealand. The cattle exposed were, as a rule, very stylish, although one of the best of the cows in respect of carcass had an unpardonable head. Where she got it would baffle most experts in Shorthorn lore. A good feature of many of these cattle having a strong

dash of Bates blood in their breeding is their fine length of quarters, and both Scottish and Booth cattle are deficient here. Another good point about the Bates tribe is their fine, gay carriage. They keep their heads up and always give a good first impression. On the other hand, not a few of them are too high on the leg, and their thinness of flesh is undeniable. When crossing Bates and Scottish there is a tendency to get somewhat disappointing colors. Putting a red Bates cow to a white Cruickshank bull may give a good dark roan calf, but it may also give a white and red calf, or, as the Ayrshire men would say, a flecked calf. In an Ayrshire this is a good color, but in a Shorthorn it is to our eyes about one of the worst. Still, Scottish and Bates make a good cross, and by means of it, more than by any other means, the fine style and long quarters of the Bates cattle may be preserved to the Shorthorn breed. "SCOTLAND YET."

Some Old Country Breeds of Live Stock Which Might Profitably be Introduced into Canada.

Take, for example, the sheep classes, in which we have the Blackfaced or mountain breed and the Cheviot sheep of Scotland, also the grand Roscommon sheep of the Province of Connaught in the west of Ireland.

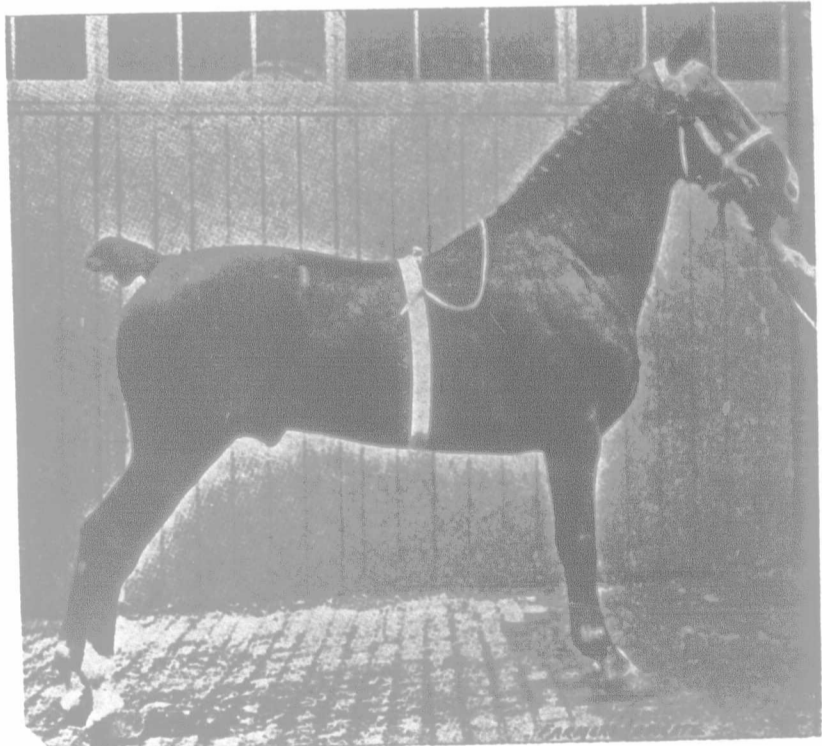
Of the Blackfaces we may say that they are spread over the midland, west highland, and south-western counties of Scotland, and are probably the handsomest and the hardiest domestic sheep in existence to-day.

A full-grown ram of this beautiful breed is indeed a picture. His magnificent head is crowned by a set of spiral horns, of a length often extending over three feet from base to tip, and his stately carriage and gait makes him among sheep easily "the monarch of the glen." The extreme hardness, however, of this fine sheep constitutes its most valuable characteristic. Their native hills furnish them only with "heather" as a staple food, although in most hill grazings there is a kind of harsh bent grass which takes the place of the heather around the mountain springs and along the course of their overflow from the highlands to the valleys below. In taking a hill grazing, the sheep-man looks eagerly for the presence of those small rivulets or mountain springs, because their number constitutes the value of his prospective holding.

We have in this great country thousands, nay, millions, of acres of rough lands which might be made to yield a splendid revenue if clad with the Blackfaces of Scotland.

Their winter feeding and care would be of the simplest possible description. A stack of pea straw or clover hay, within easy reach of an open shed facing the south, would get them easily over the winter months, and in summer the difficulty would be to keep them from getting too fat on many of our waste or broken lands.

The points of the Blackfaces are as follows: In the ewe the horn should be flat or "open," standing out well from the head; the color of the face



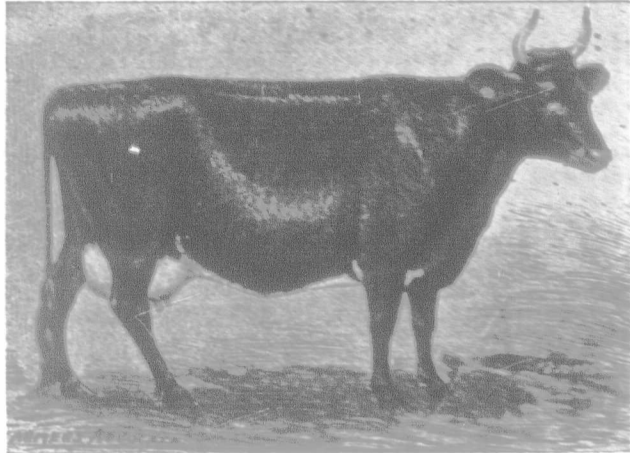
HACKNEY STALLION, "ROSELLAN."

The best young stallion at the Hackney Show, 1900. THE PROPERTY OF AND BRED BY MR. F. W. BUTTLE, YORK, ENG.

and legs is black, and occasionally speckled, but a uniform dark color is preferred; forehead broad; jaw long and broad; eyes bright, not too near the root of the horn; shoulders well laid; back broad and straight; body short, but well barrelled; good haunch; wool rather coarse (used in manufacture of carpets, rugs, etc.); quality of mutton second to none.

The Blackface exhibit of Mr. C. Howatson, of Glenbuck, at the last two shows of the Highland

Society, created, perhaps, as much interest as all the sheep exhibitions put together. Their "wildness" used to be urged against them, it being humorously said about them that when you appeared over one hill, they disappeared over the next. They are now, however, as tame and as



A TYPICAL KERRY COW.

gentle to handle as any of the other breeds. The writer believes that for our northern conditions, say for Muskoka and New Ontario, they could be made simply an ideal sheep of great value to the settlers.

The Cheviot Sheep takes its name from the Cheviot Mountains, situated partly in Scotland and partly in Northumberland, and they occupy almost all the hill pastures in the south of Scotland, and in the north large flocks are kept in Sutherland, Ross and Caithness.

The Cheviot is without horns, although occasionally a "snig" appears in the lamb; head and legs white, with an occasional dun marking; eyes bright; ears fine and lively; body long; legs clean and fine; mutton of excellent quality; full-grown sheep average about 20 lbs. per quarter; wool about 6 lbs. Professor Wilson describes the Cheviot wool as "a small-haired wool of medium length, suitable for worsted and woollen purposes." It is a soft, rich wool, and is liked by the manufacturers. As a commercial beast it ranks with the Roscommon breed, being midway between the Backfaced and the heavier-fleshed English breeds of sheep.

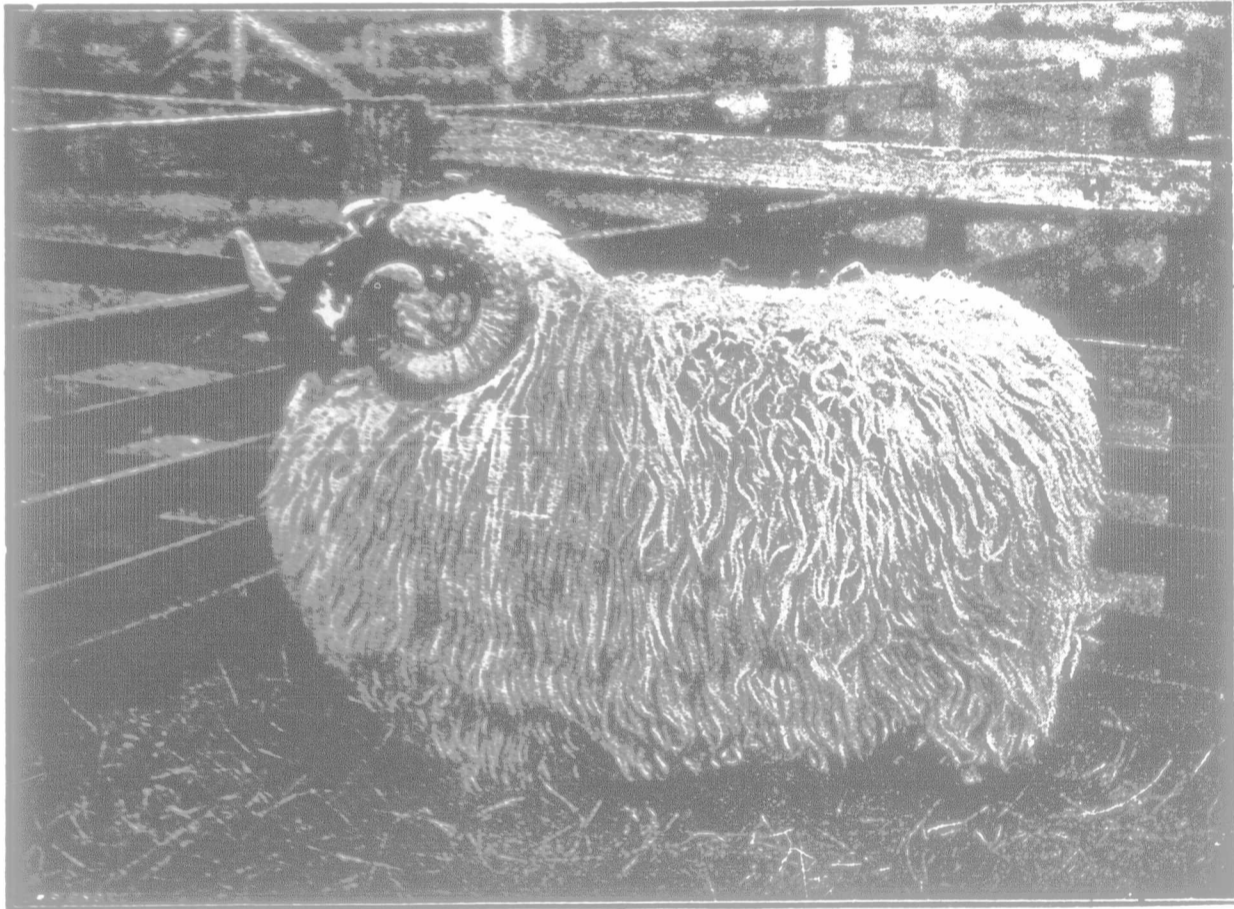
We come now to the third variety mentioned above, the great Roscommon sheep of the west of Ireland. It has been claimed for them that they are the heaviest and the largest sheep in existence to-day. Be this as it may, the writer can testify that on and under natural conditions, viz., grass in summer, with the addition of a little meadow hay in winter, no breed can equal the Roscommon in growth of carcass and wool. On the above fare lambs can be made to weigh 200 lbs. when fat, and their wool is long in staple and fine in quality. At the great fair of Balinsloe they can be seen in all their glory. It is said that they owe their present fine form to crosses on the Leicester, but it is beyond dispute that many choice flocks have been bred for over fifty years with no foreign admixture, and these are to-day the leading types of the breed in the west of Ireland. The ewes of this breed make excellent mothers, and very prolific, and can be very easily flushed for the ram. They can be fattened on turnips and hay, quite up to the top notch, and they put on less tallow than any other breed, with the single exception of the Blackfaces.

Kerry and Dexter-Kerry Cattle.—Coming now, with your kind permission, to the cattle classes, we have in the Old Lands two breeds of dairy cows which could not fail to be of great value to this favored country. They are the Brittany cattle of old France and the true Kerry of the Emerald Isle.

It was the writer's good fortune to have in Ireland the experience of both breeds. The late Lord Avonmore having at one time lived in Brittany, he was struck with the great value of the little cow on the broom-covered hills of old Bretagne, and on returning to his fine estate of Belleisle, on the banks of the beautiful Shannon, he brought with him a number of the choicest cows to be found

in the country. They had been for some years in Ireland before the writer saw them, and the magnificent pastures and high feeding given them on His Lordship's home farm had almost entirely changed their original appearance. They had been crossed by the Shorthorn, Hereford and Angus bulls of the district, and through His Lordship's kindness the writer had every opportunity of examining the produce, besides being presented with some of the calves as they came. The crosses showed in a very distinct manner the value points of the breed, especially as regards their milking qualities.

The original cows were all of one type, white and black, with an occasional brown or dark red marking. They were low-set, broad and deep, having the pelvic arch high, well-formed udders, and rich yellow skins. Horns upright and turned back, eyes very prominent and gentle, with square muzzle and broad between the eyes. The quality of their milk was especially rich in butter-fat, and beautifully colored. As above stated, the cows had been crossed by neighboring bulls, but at the time spoken of His Lordship's gardener had imported a cow for his own use, and the produce, as luck would have it, turned out to be a bull calf. It is needless to say how his growth was watched by those of us who took an interest in the little fellow. He was an exact reproduction of a well-bred true Kerry bull, showing clearly that the black cattle of Wales, the Brittany cattle and the Kerries had all the same origin. This type, then, is what may be considered the most valuable characteristic of the Kerry and Brittany cattle, and a cross of, say, the Shorthorn or Hereford on either breed produced exactly the same result, an exact counterpart of the present-day Dexter-Kerry.



HIGHLAND BLACKFACED RAM.

This would seem to indicate that the original Dexter-Kerry was the result of a cross, although there is no authentic history of this being the case.

This much, however, may be said, that taking the outward conformation of the present-day Dexter-Kerry as a guide, we may safely hold that to the Shorthorn belongs the credit for the change in type from the true Kerry, because when the color of a Dexter-Kerry happens to be red, the animal, if a good one, is simply a miniature Shorthorn.

Senator Drummond has the credit of having brought into the country perhaps the choicest herd of Dexter-Kerries in existence to-day. We believe also that the Brittany cattle have been to some extent introduced into Lower Canada, but so far as we know the true Kerry has yet to be imported. This beautiful animal does not in the least resemble any of our improved breeds—perhaps an old-fashioned Guernsey has most points in common.

The following are the true Kerry points: Head very fine; face long; muzzle thin and tapering, giving the head a great look of breeding and refinement; eyes lively, projecting, full of fire and animation; horns white, tipped with black, and turning back with a gentle sweep; neck slight, clean, and perfectly free from loose skin; rump narrow; legs rather long and deerlike, with very fine bone; color velvety black, also an orange shade of red. General appearance very beautiful, having the erect carriage and elastic step of a deer; tail fine; udder well formed; skin soft, unctuous and of a fine orange color, which is visible about the eyes, ears and muzzle; quality of milk excellent—from eight to ten quarts a day and up to a thousand pounds a year

has been obtained from a fine specimen of this valuable breed. The beef is tender, well marbled, and commands the highest price in the market. This fact gives the Kerry such a high standing among the dairy breeds, that along with their value at the pail, they produce besides the choicest quality of prime beef. They are also the only breed in existence that resemble the prehistoric cattle or *Bos Longifrons*. Their length of face is clearly a point in favor of their long pedigree. The bulls of the breed are unique of their kind, cat-hammed, with thick neck and high shoulders, but the females produced by this stamp of bull have many points of great beauty, long fine heads, thin muzzles, with no loose skin under the neck or jaw. In conclusion, we can with confidence claim for the little "mountain blackberry," that, weighing only some six or seven hundredweight, she can give from 500 to 1,000 gallons of very rich milk a year, and when fattened can be made to yield a choice round and roast of beef.

Simcoe Co., Ont.

J. G. DAVIDSON.

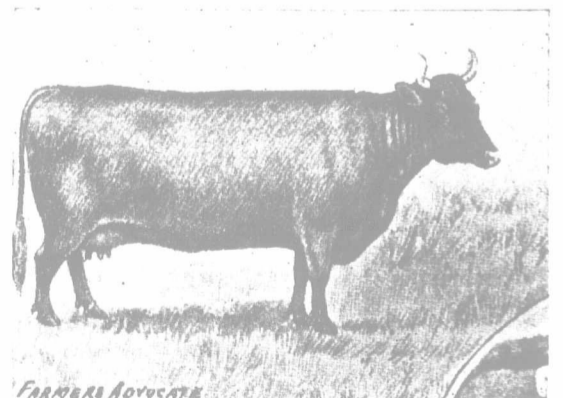
Roaming Dogs and Mangled Sheep.

To the Editor FARMER'S ADVOCATE:

SIR,—I have read in the ADVOCATE the communications on the above subject, but fail to see in them any remedy for the evil. My observation is that we must remove the desire to roam before we may hope to effect a cure. How is this to be done? is the natural question. The only permanent cure I know is to castrate the dogs, the same as other domestic animals, and thus remove the desire to roam. But will this keep dogs at home? I will answer the question by asking one. If all our young male stock—colts, calves, lambs, and pigs—

were left entire for a few years and allowed access to the highways the same as dogs are, would we not soon have a worse plague than we have with dogs? If castrating keeps these other animals in subjection, why will it not keep dogs. Nature has placed this sexual passion in every living creature. To those writers who recommend feeding dogs better to keep them at home, I would ask why do some rich men in our cities go roaming into houses of questionable repute? Is it because they are half fed at home, or because they are too well fed? I fancy I hear some of your readers ask, If this is the cause, why, then, do not all dogs roam? I believe for the reason that this passion is stronger in some animals than in others. It may be asked, Will a dog be as good for hunting and watching after castration as before? I claim that they are as good grit and a great deal more useful in every way, for they are at home when wanted. I could give the

experience of several in our section who have castrated their dogs during the last year or two who now would not keep an entire dog on any terms. There is no danger in castrating a dog at any time of the year. I have known it to be done in the heat of summer and in midwinter, with no

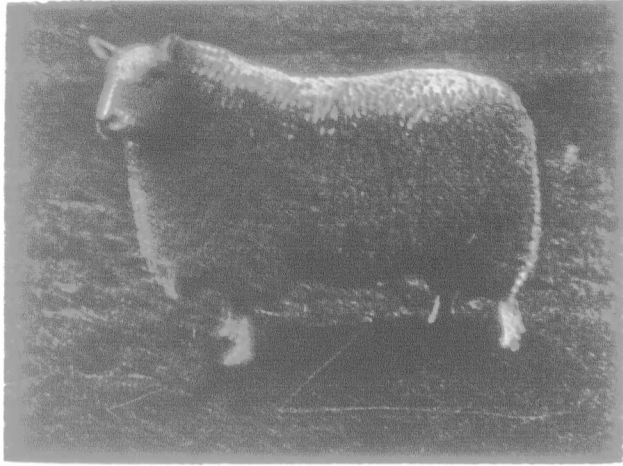


DEXTER-KERRY COW.

IMPORTED AND OWNED BY SENATOR G. A. DRUMMOND, HUNTLEYWOOD FARM, POINTE CLAIRE, QUE.

injury to the dog. Now, if our Governments would pass a law compelling owners to castrate all dogs, except those needed for breeding purposes, sheep breeders would derive more benefit in one year than from all the tags and taxes collected in a lifetime.

Now, a word about these tags and taxes. I think every intelligent person will agree with me that, to take the whole country through, a very small percentage of dogs kill sheep. I do not think there is one dog in a hundred, but suppose we call it one in fifty. What do our law-makers virtually say to



CHEVIOT RAM.

Winner of first prize at Royal Show, 1900.

these owners of dogs? You have here forty-nine faithful animals, many of which you would not take twenty dollars for; but, because Mr. So-and-So has

the country; but would our law-makers then dare to make oath that one sheep-killing dog had been destroyed? Is not the rich man's dog as apt to kill sheep as the poor man's? Suppose you take your dog and cover him over with tags, and print all the names in your household and the names of all the members of the Royal Family on the tags, how far will it go to keep a dog at home? If I had hold of the reins of power for a short time when our legislators were passing these laws, I would hire about fifteen Montana cowboys and have them drive the whole fleet aboard the first cattle train, regardless of class, color, creed or politics, and ship them direct to old Kruger, with an elaborate recommendation, if he wanted a load of material to concoct and impose unjust and unfair laws on British subjects, here was a load that would gratify and exceed every wish of his heart. But, coming back to the question: If we had a law taxing every man who kept an entire dog about five dollars, those who had them castrated to be exempt, or else those who owned an entire dog to be required to show a line from someone who owned a bitch that they were going to breed to his dog, in ten years the class of dogs in our country would be worth ten times what they now are, and the value of the sheep in the Province would probably increase in nearly the same proportion.

D. MCLELLAN.
Lanark Co., Ont.

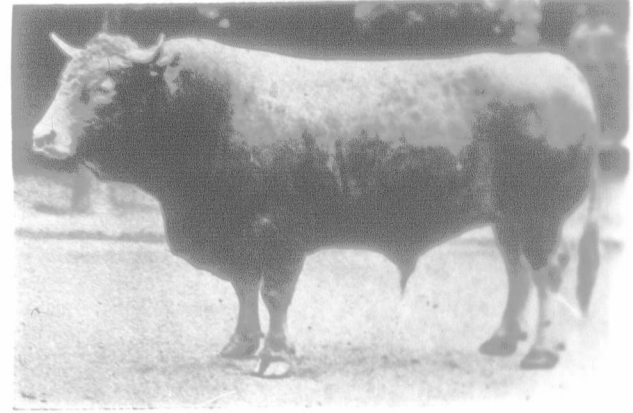
Among the Live Stock at the Paris Exhibition.

BY F. S. PEER.

The greatest drawback to the Paris Exhibition

It seems that England will not permit any cattle or sheep to come over from France. If an exhibitor goes there, the animals cannot return, and the owner is sometimes obliged to dispose of them at a price the Frenchmen are willing to pay.

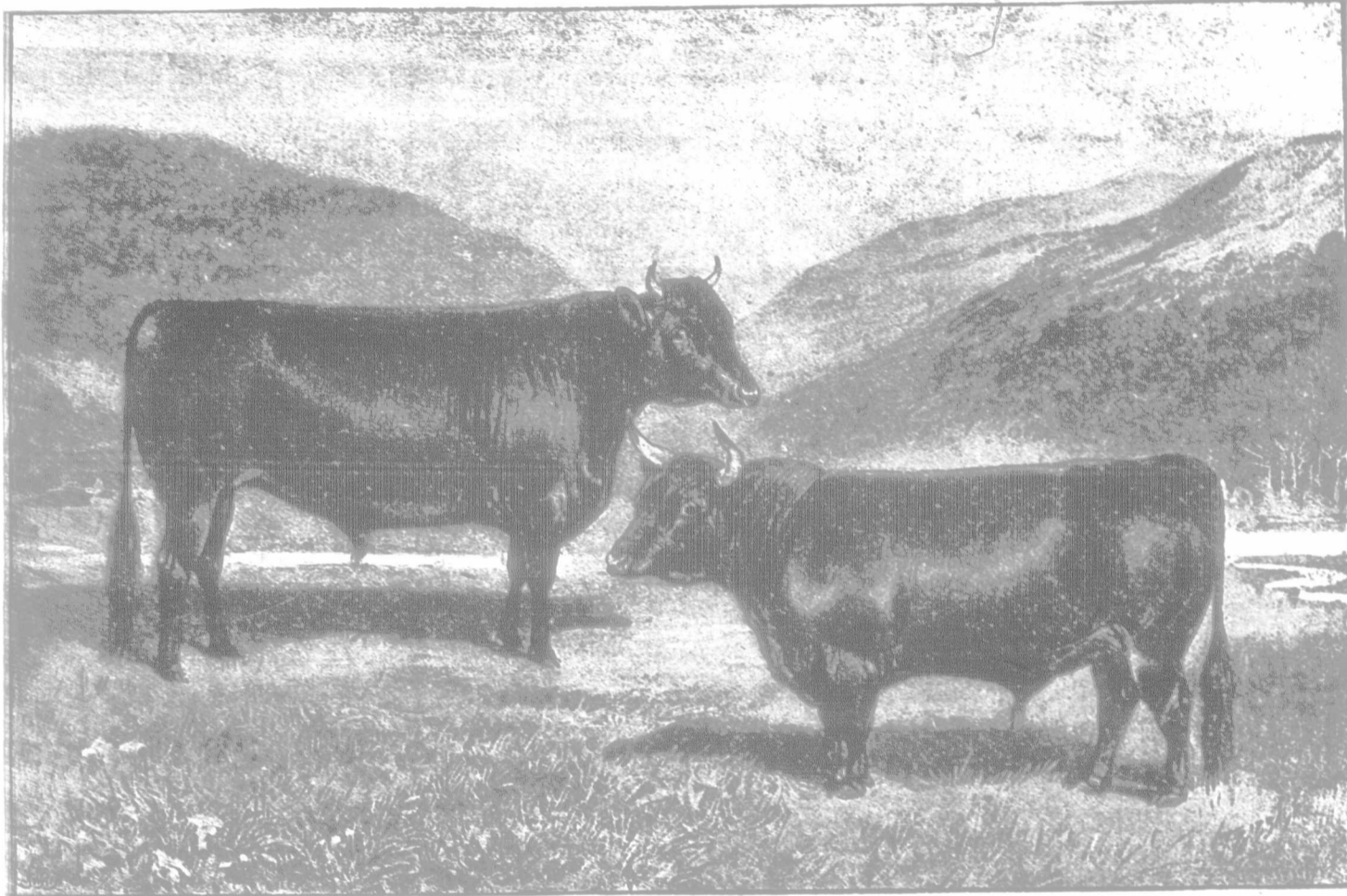
The Prince of Wales sent over a few Southdown sheep, and won a first prize on a ram and a second



LIMOUSINE BULL.

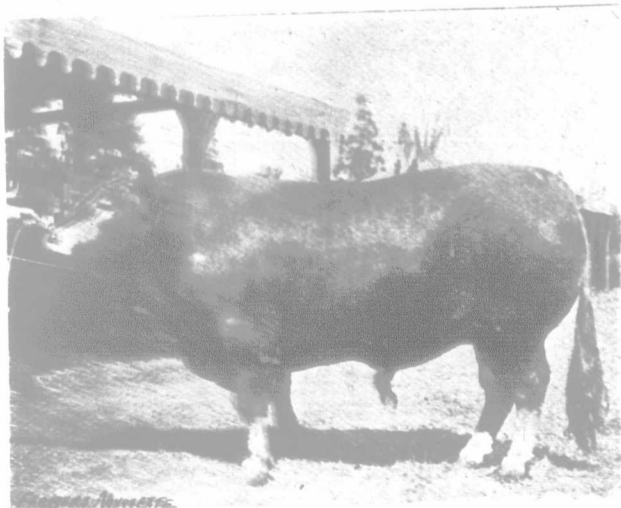
First prize, Paris Exhibition.

prize on a ewe. What a game sportsman—what a gentlemanly sportsman is the Prince of Wales! He breeds horses, cattle, and sheep, and exhibits them at all the leading fairs in England, Ireland, and



KERRY AND DEXTER-KERRY BULLS.

a roaming, worthless cur, we will tax you all to the tune of one dollar each, and the unfortunate owner of a bitch, two or, it may be, four dollars, although she may never roam from home. Suppose there



PARTHENAISE BULL.

First prize, Paris Exposition, 1900.

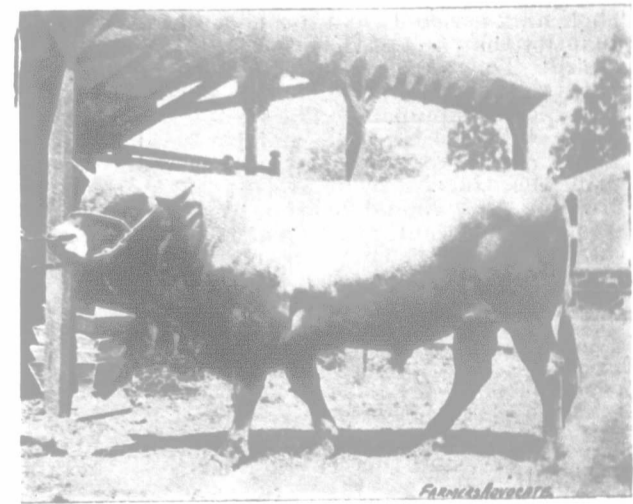
was a law passed that every person who kept a dog be taxed twenty or thirty dollars. This would do away with, I suppose, about one-half the dogs in

is that it is so scattered, while the live stock department is some six or seven miles from the Exhibition grounds proper.

The trouble I had with guides, interpreters, and with the farmers to induce them to talk or show their stock was enough to undo all my "Sunday-school bringing-up." The exhibitors came from widely different sections, from far-away mountain regions, and their heathenish dialects nearly broke my interpreter's heart. The guide claimed to speak four languages, and as he seemed sometimes to speak all of them at once, I had great difficulty in understanding him; besides, live stock was a subject not down in his vocabulary. I principally wanted to get some photographs of the winning animals of the various native breeds, but only three or four of the natives would consent to have their animals photographed. What they thought would happen to them or their cattle, I cannot imagine. Fearing my guide was not able to make them understand, I asked a gentleman to write in my notebook a very polite request, which said: "The gentleman would be greatly obliged to you if you would kindly permit him to photograph some of your prize animals." With this, I started out with renewed courage. But no; it was with great reluctance I could get the breeders to take the book in their hands and read what it said. When they did, they shut their jaws tight and were determined not to do what was wanted from the first. They simply shook their heads, so I went on for a whole day, and only succeeded in getting about half a dozen snapshots in all. It was most annoying; they seemed such a superstitious set.

There were very few English-bred cattle present.

Scotland. The Queen is also a constant exhibitor in the same sportsmanlike way, but nothing is exhibited except what are bred on her own farm. Both are beaten in the ring far more often than they win,



BAZADAISE BULL.

Third prize, Paris Exposition, 1900.

by common tenant farmers. But defeat at any game never hurts a true Briton. Defeated he may be, but downed, never! It was a sight this year to see the

coming king of the most powerful government in the world walk down among a row of tenant farmers, sheep-breeders and shepherds, who were holding their rams in a paddock for his inspection. As he walked down the line, shaking hands with this and that old farmer, saying a kind word to a

of fine-wooled sheep that, it is safe to say, were ever seen in any country.

It is a great pity that on account, I am told, of some rulings at Washington, neither cattle nor sheep can be brought to the United States country from France.

The most interesting thing to me in the whole live-stock exhibition was the hornless Merinos exhibited by Mr. M. Lesage and others. They are, as I understand it, not fixed in this particular characteristic: still, they are more than a sport, as I saw the same thing in 1883 and 1885 at the National Agricultural Fair in Paris. I asked questions enough about them to have settled the Alaska boundary, but was not able to satisfy myself in regard to this point, as the answers were most conflicting.

"Are they a sport? How long since? Are the feeders trying to encourage it or otherwise? Can a hornless ram be depended upon to reproduce himself?"

The Frenchmen had their shoulders nearly out of joint with shrugs, and that is about all the satisfaction I could get. I have written several letters, and so far without result. They are, as the photos show, very grand sheep, quite as large as the Rambouillets, without a wrinkle, and the grandest fleeces I ever saw, of the greatest length. I was, as the ladies say, quite carried away with them. I would like, above all things in the sheep world, to cross the hornless French Merino ram on Cotswold

or Lincoln ewes, for instance, with a view of establishing a new breed of sheep; also to select a few hornless Merinos and try and breed them with that particular feature, which, I understand or infer, has not been attempted in France. Of the native breeds of sheep, there are many, and some of them are the most ungainly-looking brutes that ever



MR. F. S. PEER, MOUNT MORRIS, N. Y., IN HIS OFFICE.

Author of "Soiling Crops and Ensilage."

shepherd lad who was holding a ram while the Prince parted the wool to inspect the staple, a "thank you" and a smile to a ruddy-faced Scotch shepherd who in the excitement of the moment forgot to remove his cap in his eagerness to display the fleeces of his favorite blackfaces—yes, it was a sight to make any Briton proud of his king. You need not ask why the Prince of Wales is the most popular man in England. A genuine gentleman, a genuine sportsman, these qualities are so mixed in his nature that every subject in the land points to him and says, "He is a man." But I lose myself, I must travel back to France.

CATTLE.

Of the native French breeds of cattle there were many, and the entries in some of the classes were large. They were all of the beefy order. The photographs of the Limousine and Parthenaise bulls represent the general characteristics of all the French cattle.

The Normandies are about the only breed of French cattle that can be classed as dairy animals, and it is straining a point to say that. This breed of cattle are about on a par with milking Short-horns. Some of them are grand dairy cows and some are out-and-out beefers, giving hardly milk enough to rear their young.

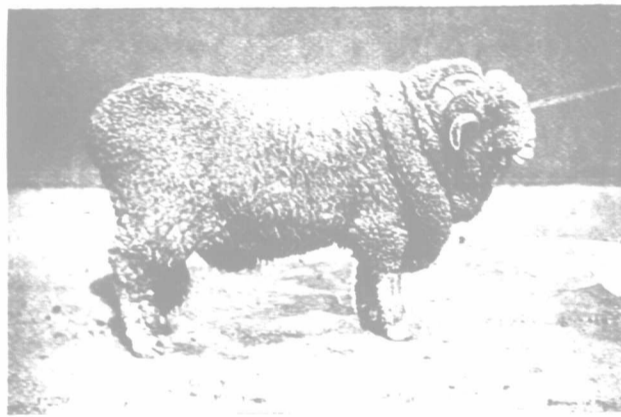
It is a gamble whether a heifer from the best dairy cow out of a bull from an equally good dairy cow will come up with good, fair, or indifferent dairy qualities. No matter, said the Frenchman. If zee what you call heifer come good to zee milk, she go in zee dairy for make much milk; if she go to zee fat, she will come to zee butcher—all zee same make money.

The most businesslike-looking animals in France for dairy purposes are the Race Flamande, a beautiful solid dark red cow, as dark as a Devon. These animals are not natives, but Flemish; however, they have been for many years owned and bred in France. They are in general type and characteristics a red Holstein, about one or two sizes smaller. They are genuine dairy cattle, and a great credit to any country. I wonder they have never found a place in America. Altogether, they were the best lot of dairy cattle at the Exhibition. I include Jerseys, Guernseys, Holsteins, and Normandies. Their milk is richer than the Holstein and more in quantity than any of the other breeds I have mentioned. They are quite equal in quantity and quality to the Ayrshire, which is paying them a very high compliment. They cannot be compared to the Ayrshire for style and perfection of form; still, I should say they have better-shaped udders than the Guernseys or Holsteins. With careful breeding, they should be brought up to a very high standard, but the French farmers cannot be called careful breeders. They are nowhere in the race, compared with the English or Scotch breeders.

"What about their horses?" you ask. That is Government work, and just goes to illustrate the value of intelligence in selecting and mating farm stock. In the hands of the farmers, it is little beyond turning a bull loose in a herd of cattle and leaving the result to Providence or luck. The only real evidence I saw of careful breeding was in sheep and poultry, and this is confined to a very few persons.

SHEEP.

The Rambouillets have, in the hands of Mr. M. Gilbert and Mr. M. Theronin-Sorreau, and perhaps a half dozen all told, attained a degree of perfection that stamps these gentlemen at least as well up in the art of breeding for improvement. The two gentlemen named exhibited the grandest specimens



CHAMPION RAMBOUILLET MERINO RAM.

Paris Exhibition, 1900.
PROPERTY OF M. GILBERT.

paraded in sheep's clothing, which was about the only qualification that seemed to entitle them to be classed as sheep.

My guide said, "Zay are what you call a mix together of devil and goat from zee mountains on the Swiss border."

As I considered this one of his most reliable statements, I wrote it down in my notebook. I asked him which was the sire and which was the dam.

"O zee devil, he come always by zee female," was his very ungallant remark; but when he told me he had been married three times and that all three of his wives were living, I thought perhaps he spoke from practical experience, and I set that down in my notebook also. F. S. PEER.

Mr. Peer at Home.

We have the pleasure of presenting to our readers a photo of Mr. F. S. Peer, author of the new book on Soiling, Ensilage, and Stable Construction, referred to on page 506 (notice). Mr. Peer is very well known as a breeder and importer of horses, cattle and sheep in the States, and to the great majority of Canadian breeders as an expert judge on dairy cattle. No man from over the line has ever given more general satisfaction in the Canadian showing than Mr. Peer. He has judged satisfactorily seven years at Toronto Exhibition, which is a sufficient guarantee that his work is well received and endorsed by our best breeders, the uniformity and consistency of his work being an education in itself to young breeders on the most approved type of each breed. He is equally as well known in Montreal, Quebec, and Halifax, where he has judged year after year with great satisfaction to exhibitors. From Halifax Mr. Peer each autumn goes into the woods for a few days' shooting. Heads of Nova Scotia moose, caribou and deer decorate the walls of his office, as shown in the photograph. We understand Mr. Peer is going to try his skill again this year after the Halifax exhibition, this time in New Brunswick. We wish him good success.

School Gardens.

A distinguished fruit man of Iowa, a delegate to our annual meeting, said he had one criticism to offer on the Minnesota Society: It was composed of old men, and needed to take in the young men and women of the State to preserve its vitality. I could only say that in all new countries guide boards were needed to keep travellers from going astray, and we old fellows could not be expected to do much, but we ought to be able to point the way. An elaborate discussion of school gardens is not desirable at this meeting, and I shall only attempt to call the attention of the Society to the importance of beginning work in our line among the children.

The common country school is still an unsolved problem. I do not need to picture the surroundings of the most of them, but when we know that environment has so much influence in the formation of character and habits of after-life, it is greatly to be regretted that early school life should not be surrounded with all the appliances necessary to infuse the mind with a love of the beautiful and a knowledge of the useful. The great majority of us now are, and are to be, dependent on agriculture and its handmaid, horticulture. It follows, then, that nature study, including plant life, fruits and flowers, should be a systematic part of school life. Nature has done her part for us. We have ample grounds, a fertile soil, and a climate adapted to a great variety of productions, and a perpetual school fund, self-imposed, that enables us to rank with any other people educationally. The city schools are working under different conditions, but the kindergarten has been found to be the basis of much of their superior excellence. Some of the teachers of the city schools will claim that there is no room for more studies, that the pupils are now overworked, and no doubt this is true in some schools. The drill is all mental and intellectual, the physical entirely neglected. We are willing to admit that a broad intellect is more capable of grappling with the necessities of active life than a dwarfed one, but nature-study, as indicated, has a tendency to develop all the faculties, to stimulate habits of thought and of observation, and to round out an otherwise incomplete life.

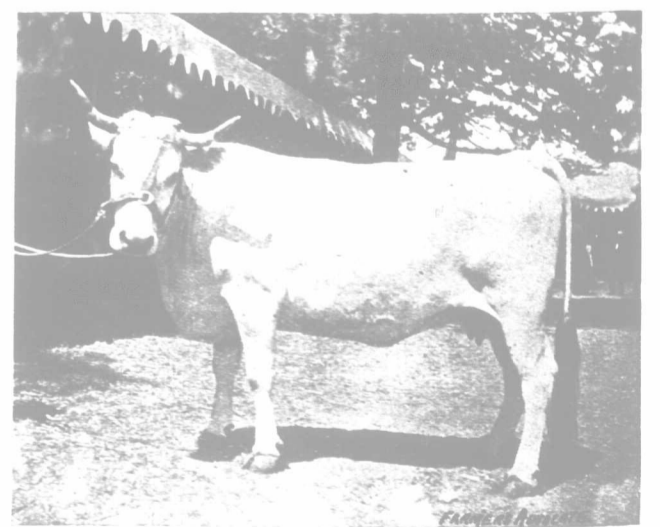
The most pressing want at the present time for beginning this work is competent teachers. Let this State Society formally ask our school workers, our members, our State Farmers' Institute teachers, to consider this subject, and the request will be cheerfully heeded, and the time not be far distant when every school will be supplied with a practice ground in addition to the playground.

Sweden now takes the lead of other countries, as every school there has a garden. Germany, France, Austria and Italy are closely following. There are a few schools in this country with a garden attached, and fruits, vegetables and flowers are planted and cared for by the pupils. Their influence has proved most beneficial in checking the tendency for vandalism among the boys, and in affording a means of pleasant occupation of leisure time, stimulating them to habits of industry and usefulness, and storing the mind with practical knowledge available in mature life.—O. M. Lord, *Minnesota City, in the Minnesota Horticulturist.*

Characteristics of the New Kansas Wheat.

To the Editor FARMER'S ADVOCATE:

SIR,—I have a few acres of the Kansas wheat. It stood in the field alongside of Early Red Clawson, and was considerably shorter in the straw. The straw is very fine and soft. It stools remarkably well, but the heads are very small, and the grain is small too. It has very long beards. It stood the



CASCOUNE COW.

First prize, Paris Exposition, 1900.

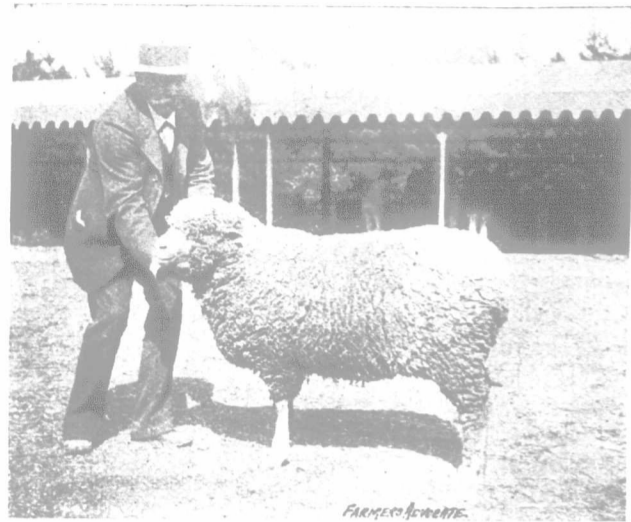
winter about the same as the Clawson; no rust; and ripened about three days earlier than the Clawson. I will report about the yield as soon as I have it threshed. JOS. B. SNYDER.

Waterloo Co., Ont.

Parturient Apoplexy

(MILK FEVER).

I have noticed lately in your journal several articles re treatment of parturient apoplexy (commonly called milk fever) in cows. Some of these articles are, to a person conversant with the disease, amusing, and cause him to wonder how the



FIRST-PRIZE MERINO EWE OVER EIGHTEEN MONTHS OLD.
Paris Exposition, 1900.
OWNED BY M. LESAGE.

cow could possibly survive such treatment. As stated on different occasions by yourself, very early in the disease the animal loses, to a greater or less extent, the power of swallowing, and by the time she becomes unable to rise, and in a partial or complete state of coma, this is entirely gone, and any liquids poured into the mouth will simply gravitate downwards, a greater or less portion passing down the trachea into the bronchial tubes. If the quantity thus entering the trachea be great, death will result in a few minutes, sometimes almost immediately. If the quantity be less, inflammation of the bronchial tubes and lungs will result, and this often is the cause of death, even after the symptoms of the original disease have disappeared. Any person who has had considerable experience in the treatment of this disease, when liquids were administered in the ordinary way, can call to mind many cases in which the cow became much worse immediately after the administration of a dose of medicine, respiration became more labored, fluids of a frothy nature escaped from mouth and nostrils, and death soon took place. There is no doubt whatever that the very large percentage of fatal cases of this disease is caused, not by the medicines given, or for want of the proper medicines, but from the manner in which they are given. And there is no doubt in my mind that many apparently severe cases would recover if no treatment whatever, except keeping the animal as comfortable as possible, were adopted. I do not mean by this that it is not well to treat, for no doubt a much larger percentage of cures can be effected by treatment than by non-treatment, but I mean to say that it is much better to give no medicine than to give it in the ordinary manner, viz., by drenching.

The Schmidt treatment has been and is highly lauded by many, and I would say to those who have had good success from this treatment to stay with it. To some the theory advanced by Schmidt, viz., that the disease is due to a toxic material in the udder, and by destroying this with a solution of potassium iodide you remove the cause and effect a cure, appears irrational. The disease is wrongly called "milk fever." There is no fever, and we would naturally look for fever in a disease caused this way. The normal temperature of a cow for a few days following parturition ranges from 102° to 104°, while the temperature of a cow affected with parturient apoplexy (before it becomes complicated with bronchial, lung or other trouble) is in most cases below 100°, and I have never met with a case in which it reached 102°. This shows that the temperature in all cases is below normal. However, I am not going to take issue on the nature and pathology of the disease. Veterinary literature from the earliest period teems with opinions as to the causes and cures, and as yet opinions differ materially. Putting aside all discussions as to causes, etc., after all the most important point is the treatment. I remember some years ago being called to attend a cow, that while still on her feet and able to walk, showed unmistakable symptoms of parturient apoplexy about 8 hours after parturition. I extracted 2 gallons of blood from the jugular vein (in advanced stages of the disease I have been unable to draw more than an ounce or two of blood) and administered a purgative of Epsom salts in the usual manner. She stood and was fairly strong on her feet during this, and appeared to be swallowing fairly well, but almost immediately after the dose was given she fell, frothy fluid escaped from mouth and nostrils, respiration became very labored, and she died in less than 10 minutes. This caused me to do a great deal of thinking. I knew that the disease was not the cause of death, and I could arrive at no conclusion but that I had killed her by pouring liquid down the trachea. This was hard on the owner, as she was a valuable cow, but I could not go to him and state that I had killed her (she would probably have died anyway

under the most improved methods of treatment known then) and give him her price. I have treated several cases for the same party since and all made perfect recoveries. Since that day I have never drenched a cow even in the very early stages of this disease, and I have had at least 90% of recoveries. I have also given up the practice of blood-letting, although I do not consider that bad practice in the early stages.

My method of treatment is as follows: We all know that there always is a great tendency to constipation, and this should be counteracted by a moderate dose of physic. I take about 1 to 1 1/2 lbs. Epsom salts and 1 oz. of ginger, and dissolve them in about 1 1/2 qts. warm water. I also dissolve 2 ozs. each potassium bromide and chloral hydrate in a little warm water. Now, whether she be standing or lying, whether comatose or not, I get an assistant to catch her horns, if she have any; if not, her ears, and hold her nose out. I put the ordinary gag in her mouth as if going to pass a probang. I have about 6 feet of rubber hose especially adapted for the purpose, with rounded and smooth ends, but the same length of ordinary 1/2-inch garden hose answers the purpose just as well; this I pass through the hole in the gag over the root of the tongue into the gullet right down until it enters the stomach. I insert, into the exposed end of the hose, a funnel, have the assistant hold her with the head as nearly in a straight line with the gullet as possible, the nose well elevated, and pour the liquids into the funnel and it gravitates downwards and reaches the stomach without any danger of any of it passing to the lungs. I then draw a little milk out of each teat. The secretion of milk, I find, is almost suspended without the pot. iod. Remove the contents of the rectum (which is usually dry and dark) with the hand, and give an injection of warm water and a little soap. If she has been down any considerable time, I draw the urine off with a catheter; pad her up with straw as well as possible, clothe her well with blankets—heavily if in cold weather, and exclude drafts. I endeavor, if possible, to get the body to perspire, and put pounded ice to the head just behind the horns. In about an hour after the first dose I repeat the potassium and chloral in 2-oz. doses (of course if she be a very small cow give less doses), and about every 3 or 4 hours afterwards I give 1/2-oz. doses of each until she regains her feet. In the meantime, should she be slow to regain consciousness, I give injections per rectum and pass the catheter about every 6 to 8 hours, also draw off a little milk if it be secreted. They usually regain their feet in from 12 to 24 hours, but sometimes it is as long as 48 hours, or in rare cases longer. She should also be turned from side to side about every 8 hours, and a careful attendant should remain constantly with her to prevent her injuring herself in her unconscious or semi-conscious struggles. If after becoming conscious she appears weak and unable to rise, stimulants as 4 to 6 ozs. whisky, diluted, should be given every 2 hours. All medicines to be given by means of the tube. Students of materia medica may ask why I give such large doses of bromide and chloral. I might answer because I have had such good results. In one sense this answer might be satisfactory, in another it is not. Bromide is an excellent nerve sedative, and I give it for that purpose. Chloral hydrate is an excellent antispasmodic and hypnotic; it relieves distress and appears to hasten the comatose state (which usually results in all cases) and keeps the animal quiet until the symptoms of the disease, from whatever cause, pass off. I don't claim this treatment as a specific. I believe there are other drugs of like nature, that if given in the same manner might give equally good results. My opinion of treatment should have the following objects in view: Keep her as quiet and comfortable as possible, and get the bowels acting freely as soon as possible, prevent her from injuring herself, draw the urine off, and keep the body warm and head cool. Many will say that purgatives are useless unless the coma has passed, that there is no digestion during this stage, but experience teaches differently; intestinal murmurs can be heard during this stage in most cases, and where this is not the case, of course no digestion is taking place and we will have bloating, and my experience has been that where digestion ceases, bloating will take place and in all probability the case will end fatally. All who have treated these cases will acknowledge that in a few hours after cleaning out the rectum by hand and injections, it again becomes filled with feces. This proves that there is a backwards movement of ingesta, which will not take place when digestion is suspended. On this account I consider it well to give a moderate dose of purgative medicine at once, as absorption, while certainly not as active as in health, at the same time is not entirely suspended, even during the comatose state. After gaining her feet she must be carefully excluded from drafts, and warm food and water given for a day or two, in order to avoid complications. I have already stated that for a number of years I have had over 90% of recoveries by this mode of treatment, and I don't think any treatment will give better results.

Even though careful treatment will give good results, I consider preventive better than curative treatment. If proper preventive treatment be adopted very few cases of the disease will occur. This consists in reducing the cow's rations for 1 or 2 weeks before parturition is expected and 2 or 3 days after it occurs. For that length of time before parturition she should be fed a limited quantity of dry food, food that is not calculated to produce

plethora; then about a week before parturition she should be given a brisk purgative, say 2 lbs. Epsom salts and 1 oz. ginger. Immediately after parturition repeat the purgation and take good care of her. Three or four days after calving the danger is practically past and she can be fed to produce a large flow of milk. Sometimes a cow will calve before she is expected, and in that case the first purgative will not have been given, but there is no excuse for neglecting to give one immediately after. Even after all the possible precautions have been taken, we may have the disease, but it rarely occurs, and when it does treatment is much easier.

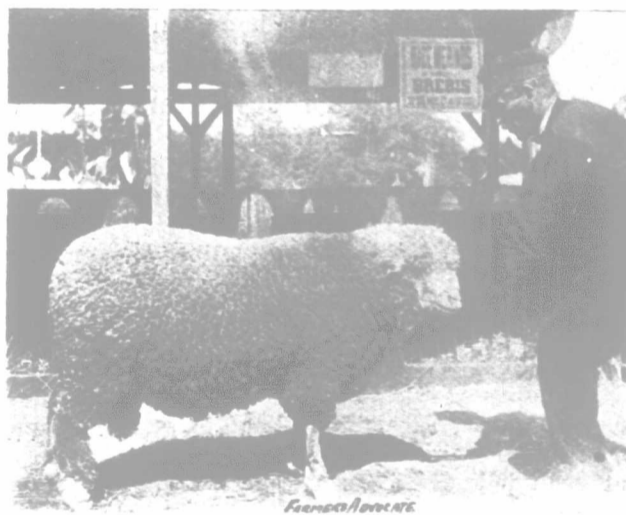
Guelph, Ont. J. H. REED.

Wintering Bees in Manitoba.

Mrs. R. H., Oak River, writes me as follows: "Kindly give me some advice on wintering bees, either by letter or through the FARMER'S ADVOCATE, which I take, before time for putting in cellar, and oblige."

Now is the proper time to prepare for wintering. If there are any weak swarms, they should be united before the honey season closes. As soon as the honey flow stops, or while the weather is yet warm in September, remove the supers and extract all surplus honey. In the Jones hive, the body of which is large, the bees should be confined to seven or eight frames left in the front of the hive, with division board behind. The rule is to leave them only as many combs as they can cover. In the Langstroth hive, the whole first story or brood chamber may be used. If the hive, when thus contracted, contains less than thirty pounds of honey, feed up to that quantity with syrup made of best granulated sugar and just enough boiling water to dissolve it. This may be fed from any of the patent feeders, but just as well from a dish of any sort that will fit in the back of the hive, or in an empty super above the frames, always taking care to float enough bits of thin wood on the syrup to ensure the bees against drowning. To prevent robbing, this is better done after dark, and if possible, all the hives should be fed at the same time. If enough cannot be given at once, the balance should be given the following night. When the feeding is done, make everything snug and leave the bees alone till winter sets in, when they should be removed to the cellar. This should be dry, clean, and provided with good ventilation. The temperature should be as even as possible and some degrees above freezing, though if everything else is right a few degrees of frost won't matter. The hives should be set on benches at least eighteen inches from the floor, and away from the walls, especially if these are of stone. If there is no danger of mice, the covers might be removed and a few folds of cloth substituted; at any rate, the cover should be raised enough to allow air to pass freely through the hives, so as to prevent the accumulation of moisture. Once in the cellar, the bees should not be disturbed until the willows begin to bloom in spring, which is the proper time to set them out.

Red River Valley. J. J. GUNN.



SECOND-PRIZE HORNLESS MERINO RAM.
Paris Exposition, 1900.
OWNED BY M. PARENT.

It is estimated that a pair of lice may become grandparents of 100,000 lice in two months. Chicken lice hatch at the end of the fifth or sixth day, and produce at the end of the eighteenth day, all of which goes to prove the necessity of the poultry-raiser's keeping these pests of chicks, old or young, in subjection if there is to be any profit or pleasure in the poultry business.

Red mites do their work at night, lying in wait all day, grouped on the under side of the perches, hidden in crevices—any place to hide away through the day—but as soon as the "chickens go to roost," they sally forth a conquering host, they get in their deadly work of bloodletting. Many insecticides have been tried, with more or less success; cleanliness must be the rule, not the exception; hot whitewash, kerosene emulsion (to which turpentine has been added), the removal daily or tri-weekly of all excrement and litter, will lessen the propagation of these "vermin" to a controllable degree, if not totally annihilating them. It is helpful to add a pint of salt and four tablespoonfuls of sulphur to each pail full of whitewash. If one has a sprayer, the whitewash can be so thin that it can be applied with it, which greatly expedites the work.

Selling the Old Hens.

We are speaking advisedly when we say too many old hens are kept on farms. We know of farms where hens are kept to a ripe old age and old hens are scarcely ever sold off. When selling is done, the fittest are gathered in and marketed, and this does not include the old hens. On many farms there is no system of marking, and the old hens are not distinguishable from the young ones except as



"BELLA OF YORK" AND "GIPSY MAID,"
Dairy Shorthorn cows.
THE PROPERTY OF F. MARTINDALE, YORK, ONT.

they become so old as to have large spurs, and then they are considered too old to sell, since no one cares to buy them. The shortest way out of the business is to let them remain on the farm.

It is always a good plan to send hens to the market the summer after they are two years old. Not all hens are unprofitable after that age, but as a rule so many will be found so that it is a good plan to send them off unless a personal knowledge of their individual value warrants keeping them longer. Occasionally a hen will be found that will be a steady layer until she is five or six years old, but where one of this character is found, there will be many that will prove unprofitable. Practical egg farmers know when to sell hens and when to keep them for egg production. These men are almost a unit that a hen ought to go the summer after she is two years old. This will not be so much a matter of importance now as it will be in the winter. In winter too large a share of the profits is absorbed by the non-producers. Though the remainder of the flock are good producers, they are not good enough, as a rule, to support the companions that are in idleness. If no other way of marking them can be devised, sell them now when the pullets can be distinguished from the old hens. If not too large, they will sell well at this season of the year. Later on, larger hens can be sold. *Homestead.*

Feeding Bees for Winter.

BY MORLEY PETTIT.

The value of a colony of bees is estimated by its ability to work during the honey flow, and that depends largely upon the number and vitality of bees in the hive. This fact was especially demonstrated in this locality during the past season. The clover flow came suddenly and was of short duration, but was very heavy while it lasted. Bees that were ready for business filled their supers rapidly, but weaker ones got into good working shape just about the close of the flow. That is, a large number of colonies throughout the country ate honey and occupied space for a year without yielding enough to pay for their keep.

How may this be avoided? By having the best conditions possible in the brood chamber, by more careful winter and spring management, and, especially, by giving sufficient feed of the best quality in fall to last until next year's flow. After the middle of September, when supers have been removed, examine each hive to make sure it has good combs; *i. e.*, combs containing little or no drone comb and not too much pollen. In some districts pollen is not too plentiful, but here it becomes a burden and good combs are rendered useless every year because they are filled with it. When the overhauling is going on it is well to have a number of good worker combs containing honey to replace empty or defective ones. These can be saved out during the extracting season.

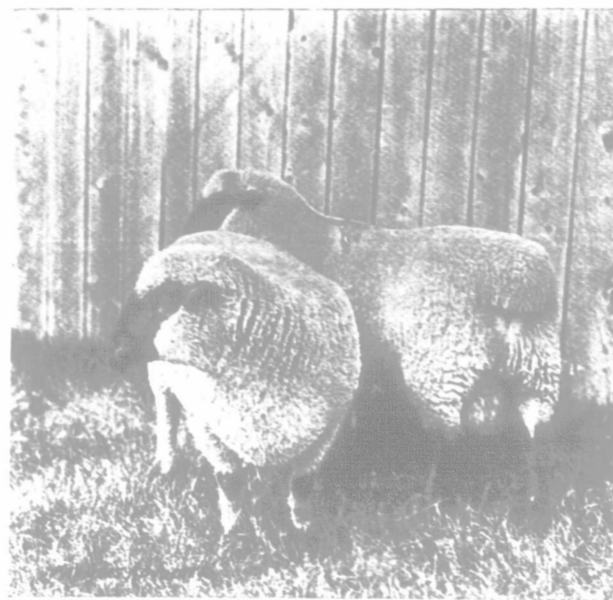
Having adjusted combs, weigh each hive to determine how much must be fed. If you have an assistant, a pair of steelyards and a trunk strap are most convenient for weighing. Remove cover and cushion and buckle the strap around the hive as on a trunk, but loose enough to slip off the end without unfastening. Catch the lower hook of the steelyards in the strap, and the upper hook over a fork handle or other suitable stick, which is then raised to the shoulders of the weighers, lifting the hive free from the stand in position for weighing. Thirty pounds is the amount allowed for each colony; hence, when fed, it must weigh that plus the weight of hive and bees. With the Pettit hive

this is about 65 pounds, but it will, of course, depend on the style of hive and material used. Following our system of marking the record on hive back at the time of weighing is (*c. g.*) 9-28-99-45-20, signifying that on the 28th September, 1899, it weighed 45 lbs. and requires 20 lbs. feed. After feeding change to + 20 v, checking to show that it is ready for the cellar.

Feeding excites the bees, and if continued several days sets them breeding. They then consume much of their stores and are liable to starve before spring. Whatever style of feeder is used should be large enough to feed the lightest hive in one evening. A cheap and convenient feeder is a square-cornered tin basin 10 1/2 inches by 14 inches, and 6 inches deep. This holds about 30 lbs. A wooden float 2 inch by 10 inches by 13 1/2 inches prevents bees drowning, and leaves a space all around the edge to get at the feed. Keep it away from the sides of the tin and up from the bottom when the feed is out by means of small nails driven in to the corners and projecting about 1/4 inch. This allows the bees to get all the feed from beneath the float.

The feeding syrup is made of white honey, best granulated sugar and pure water in the proportion of 5 lbs. honey to 20 lbs. sugar to 4 wine quarts water. Bring the water to a boil and pour in the sugar, stirring it until it is dissolved. Cover until it boils again, stir in the honey and remove from the stove. Do not allow it to burn, for burnt sugar is very injurious. Weigh out in feeders and allow it to cool enough to bear the hand before feeding.

The only safe time to feed is in the evening,



IMPORTED PRIZEWINNING HAMPSHIRE DOWN RAM LAMBS.
THE PROPERTY OF HILLHURST FARM, HILLHURST, QUE.

when no robbers are about. Remove cover and cushion and turn back the front edge of the cloth about 12 inches to allow the bees to come up. Set the feeder on the cloth so as to hold back this edge, and put on an empty super, partially covered with a thin board to support the cushion. After the cushion is carefully fitted down to exclude robbers, replace the cover. Now the bees have their warm feed in a little room free from intruders, yet separated sufficiently from their home to make them carry it down as rapidly as possible. Usually by the following afternoon even a 30 lb. feed will be disposed of, but this depends on the temperature of the night. It is always best to have the supers in a warm room several hours before using, and when the nights are very cool, warm bricks should be put in beside the feeder. Partly close the entrance to keep the heat in and robbers out.

Too great care cannot be taken to have the feed the most nutritious possible and free from granulation. Sugar syrup that is at all thick will granulate unless mixed with honey that has been raised to the boiling point as in the feed described above.

Dark honey, or honey dew, contains a greater percentage of that which cannot be assimilated by the bee digestion than white honey. The same may

be said of cheaper grades of sugar as compared with the best. This refuse matter must accumulate in the intestines of the bee until a cleansing flight, which is impossible with cellar wintering. The chief cause of winter loss is dysentery, brought on by poor feed or other unsuitable conditions. Hence it is of utmost importance that bees be given a plentiful supply of the best quality of feed for winter and spring.

Glanders in Minnesota.

M. H. Reynolds, V. S., of the Minnesota School of Agriculture, in addressing the annual meeting of the State Agricultural Society, recently, on "Infectious Diseases of Animals," spoke in reference to glanders as follows:

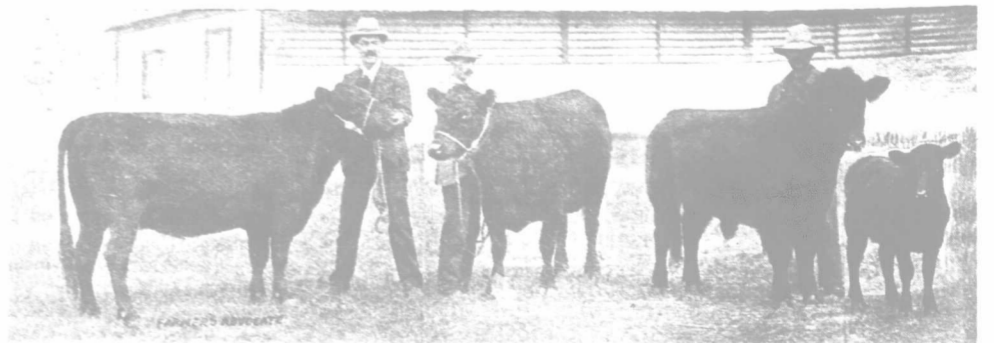
State control of glanders involves two fundamental propositions: protection for the public and protection for the individual. The first is not apt to be overlooked, but there is a tendency to give too little attention to the second. It is undoubtedly possible in many outbreaks of glanders to protect the public without involving the owner in heavy loss. There is no longer serious question concerning the proper disposition of clinical cases, and the majority of veterinarians are agreed as to the proper disposition of horses which react on mallein test, but show no external symptoms. I think there can be no question but that it is important to have such horses under observation, to know where they are and watch for possible development into clinical cases.

I have corresponded and conversed with nearly all of the prominent veterinarians in the United States who are doing this kind of work, and I have found no good reason for recommending any radical change in our present rules or accepted methods of dealing with this disease. It has been our common practice to insist on killing the obviously glandered horses, and those which react and show any of the recognized symptoms of glanders, according to directions given in the "Rules and Suggestions Concerning Glanders Farcy." Our rules leave the disposition of the reacting but nonclinical cases to the judgment of local health officers, merely insisting that such horses must be either killed or quarantined for re-test, and that they must not be released from quarantine unless they fail to react under future re-test. It has been my custom in unfortunate cases where a very large number or practically all of a man's horses react to recommend the local health officers to consult with the veterinarian in charge, and the owner, and select one team, or if advisable two teams, and give the owner permission to use these horses upon the road under certain restrictions concerning stabling, watering and use of public hitching-posts. It may be found advisable, as experience in this line accumulates, to quarantine in this way all horses that react under mallein test, but show no other symptoms of the disease.

It is evident that glanders is seriously prevalent, more prevalent than people have usually supposed. The mallein test has already revealed a serious prevalence of glanders where we had previously no reason to suspect the presence of this disease. Post-mortems usually support the mallein diagnosis, and we have been forced to the conclusion that this is a larger and more serious problem than people have commonly realized.

I have become fully convinced that it would be of material assistance to this work, and in most cases nothing more than bare justice to owners, if we could pay a reasonable compensation for horses destroyed in the course of this work. There would be less hiding of these cases; they would be reported more freely to local health officers; they would not be traded about so much, and owners would feel more kindly toward the work.

During the past quarter there have been made 123 original tests of horses, 41 re-tests, 5 horses killed without test, 35 killed on first test, 12 killed on second test; a total of 52 killed during the quarter. Twenty-two horses were quarantined on first test and 21 quarantined on re-test. The following table makes a comparison of the number of horses tested and the number killed during 1897-98-99:



FIRST-PRIZE WINNING GALLOWS AT WINNIPEG EXHIBITION.

Bred by the imported bull, Waterloo, bull champion of the class.

Owned by WILLIAM MARTIN, HOPE FARM, ST. JEAN BAPTISTE, MAN.

	1897.	1898.	1899.
Not tested	1,291	381	490
Not killed	180	163	188

The Financial Success of the Industrial.

Close upon \$16,000 in prizes have been paid out this year by the Exhibition Association. Total receipts run about \$51,000 from all sources. The expenditure will, by the close of the financial year,

Raising Chickens for Early Market.

To the Editor FARMER'S ADVOCATE:

In reply to the enquiries made by your Cochrane subscriber in the August 20th issue, I would offer the following opinions: To raise chickens and ducks for early market without previous experience, it would be advisable to start with a small flock, selecting some large and hardy breed (B. P. Rocks are good) and experiment with them; then the flock could be increased, if success warranted it. Raising chickens requires time and attention to small matters to make it a success, one of the most important being cleanliness. Some seasons every effort seems to bring success; other seasons, the same rule applied results only in failure. So a person must have some practical experience to meet each difficulty as it comes along, for failure in a large flock means heavy loss as well as discouragement. It is much easier to fail with a large flock than a small one. Here, where the winters are long and severe, it would be difficult to have early chickens ready by the 1st of May; and even if possible, it would require a good market and fancy prices to make it pay, as shipping them to a far-off market takes away the profit. To be ready by the 1st of May, chickens would require to be hatched in February, necessitating raising them inside the poultry house. If hatched with an incubator, they

summer provisions must also be supplied in winter, in the form of green feed, turnips, cabbage, and stewed fine-cut hay.

A frame house lined with tar paper seems preferable, but when logs are plentiful and expense a chief consideration, a good one can be built of logs, either square or circular in shape (the latter being more easily warmed), well plastered and white-washed, with plenty of light, but having the windows shaded, if possible, as glass heats up a place very quickly in hot weather, and cools it off rapidly in cold weather. It is always preferable to keep chickens in small flocks, not more than forty in one building, and it is safer and more profitable if these, again, can be subdivided into three or four flocks by means of wire, laths or small poles. The size of building for forty hens should be 16x8 feet, 7 feet high at front, and 5 at back, with a tight roof. Sod roof is perhaps the warmest. For heating where wood is to be used, a good-sized box stove in the center of room, bricked in to retain the heat, and inclosed with wire netting so the fowls will not get too close to it, is a good way for warming. Some use coal-oil stoves and some use hot-water pipes running from a feed cooker. One objection to log houses is, if the vermin once get in, it is hard to get rid of them, but with frequent white-washing that can be avoided.

As for ducks, they can be made profitable if near a good market, as they grow quickly if well fed from the start. Bulky food seems best for them, such as roots boiled and mixed with chop or shorts, but it is necessary to market them as soon as they get their first feathers, at about nine or ten weeks, for if they go over that time, even for a week, the second feathers are beginning to grow and it is impossible to make them salable until they get all their feathers again, and by keeping them so long one loses all the profit. It is also better to begin with a few until experience is gained as to the best and cheapest way of feeding them.

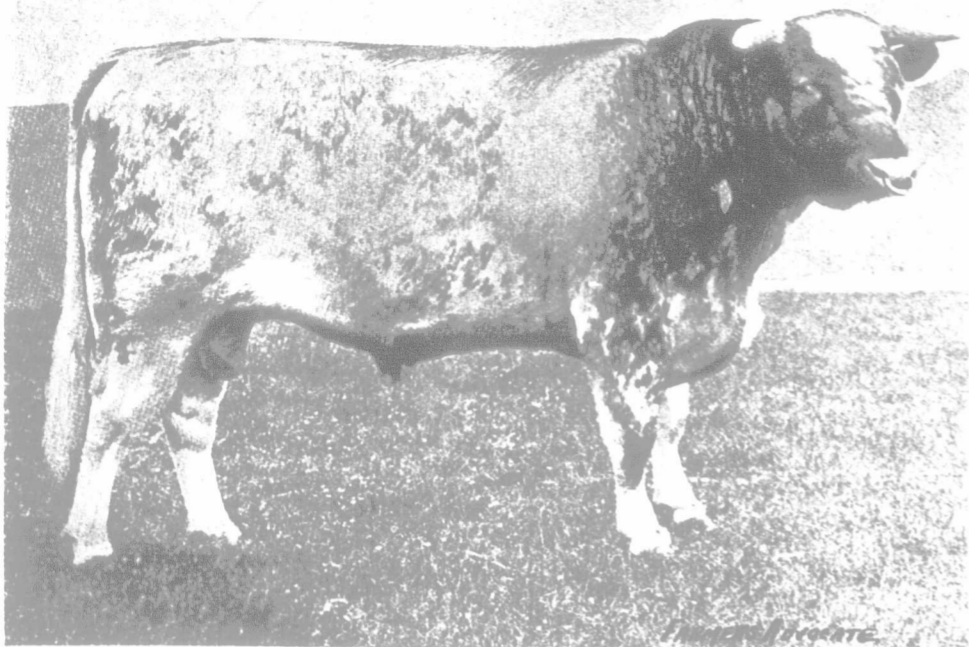
MANITOBA FARMER'S WIFE.

Territorial Wool Crop.

An item entitled "Territorial Wool Crop" appeared recently in the columns of the *Commercial*, of Winnipeg, and was very extensively copied throughout the Territories, in which Mr. H. Leadley, representing the Toronto Hide & Wool Co., speaking of the Territorial wool situation, estimated the clip of our range districts to "run close up to half a million pounds." The Department does not pretend to know the authority upon which Mr. Leadley made this statement, but as it is grossly at variance with facts, and certainly would have a tendency to discourage competition from outside buyers, it has been thought well to draw your attention to the matter.

Any person who takes the trouble to consult the last annual report of the Territorial Department of Agriculture will find that, after a careful census, the number of sheep in the various portions of the Territories in 1899 was placed at 235,520, including last year's lambs, which, of course, would be shorn this season. The average weight per fleece was 7.29 lbs. Dealing exclusively with the range country, viz., southern Alberta and western Assiniboia, the sheep stock numbered 213,370, exclusive of this year's lambs and natural shrinkage. The average weight per fleece was 6.33 lbs.; the clip of 1898 averaged 6.58 lbs., and that of 1897, 5.96 lbs., which would justify an estimate of 6.29 lbs. for the current year, or a total clip of over one and a third million pounds for the ranching districts alone. Only a fraction of this product is consumed at home, and it is safe to say that the Territories as a whole will have at least one and a half million pounds of wool for export, or three times the quantity estimated by Mr. Leadley. CHAS. W. PETERSON, Deputy Commissioner, Regina.

As a dressing for ordinary cuts and wounds there is nothing better, says a British exchange, than a mixture of carbolic acid and olive oil in the proportions of 1 part of the former to from 25 to 30 parts of the latter. This dressing is an excellent aseptic, and if regularly used it will be found an effective preventive of any suppurative of the injured parts.



SHORTHORN BULL, "PRIDE OF COLLYNIE."

Two years old. Champion at the Bath and West, and reserve for champion at the Royal, 1900. THE PROPERTY OF H. R. H. THE PRINCE OF WALES.

exceed this amount, but nearly \$8,000 has been invested in permanent improvements, in addition to the grand stand and horse stables erected out of capital account. The prize money taken up this year is the largest in the history of the Association, there being entries to absorb nearly every prize offered.

Fall Fairs.

Calgary	Sept. 12th to 15th.
Lethbridge	Sept. 19th and 20th.
Manitou	Sept. 25th and 26th.
Grenfell	Sept. 25th and 26th.
Broadview	Sept. 26th.
Oxbow	Sept. 26th.
Dauphin	Sept. 26th and 27th.
Stonewall	Sept. 26th and 27th.
Birtle	Sept. 27th.
Imperial	Sept. 27th.
Morden	Sept. 27th and 28th.
Crystal City	Sept. 27th and 28th.
Fairmeade	Sept. 27th and 28th.
Saskatoon	Sept. 27th and 28th.
Wapella	Oct. 2nd.
Pilot Mound	Oct. 2nd and 3rd.
Swan Lake	Oct. 3rd.
Meadow Lea	Oct. 3rd.
Lacombe	Oct. 3rd.

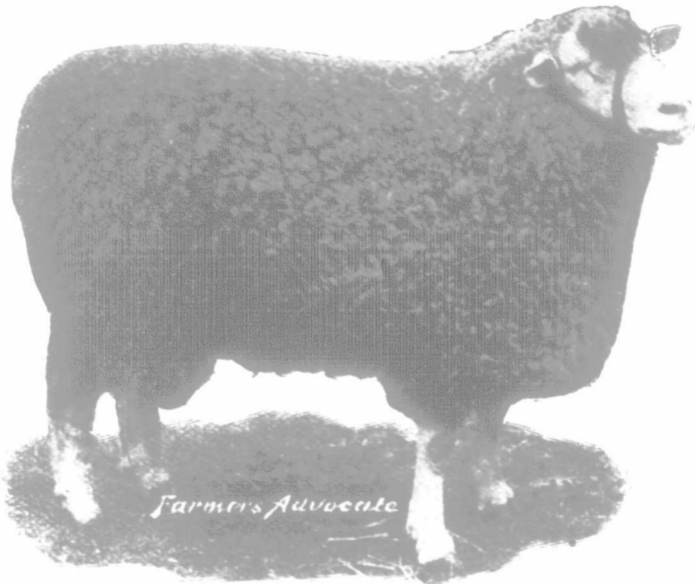
Turkeys.

BRINGING THEM HOME IN EVENING.

Never was the turkey crop more abundant or the quality better. My prediction is that the market will have to be watched very closely if turkeys are to be sold for high prices. They can be sold at a profit and at good prices if you know when to sell and how to deliver. While the early spring was wet and cold, yet May, the month to hatch turkeys in, was an ideal one and the poults have done well. I have never known so few complaints of little turkeys dying as there has been this season. Now that the wheat has been harvested, farmers do not even have to feed their flocks, and what the flock of turkeys brings is almost clear gain. Soon they will begin to feed hogs and cattle, and the turkeys will fatten right along with them. They are now picking the grasshoppers from the corn, thereby benefiting the fodder, which grasshoppers so often injure, if not entirely destroy. Grasshoppers furnish the fresh meat so beneficial to turkeys. My turkeys have been entirely free from disease this year, but pigs, cats, and a "varmint" of some kind made havoc among them in the day time for a period. I killed the cat, set the dog on the pigs, which action scared the "varmint" away, and now they are having a good time. I have taught the poults to come up without going to hunt them, and much strength and shoe leather are saved thereby. Turkeys can be taught to stay at home, and I have trained the hens that carry mine to come up at night, which is a comfort to me.—Mrs. G. B. Mackay, in *Reliable Poultry Journal*.

Poultry Fattening.

All Canadian farmers who are interested in poultry fattening for export to Great Britain will find a large amount of valuable information in Prof. Jas. W. Robertson's latest evidence on fattening poultry, which may be obtained from the Department of Agriculture, Ottawa. Prof. Robertson, in his report, deals with the class of poultry required for fattening, the best system of feeding, and the method of killing and packing preferred in Great Britain. The Department will answer all inquiries, give practical information in all branches of the work, and will assist farmers desiring to become fatteners in every possible way. Correspondence with the Department is invited.



TWO-YEAR-OLD LINCOLN RAM.

First at the Royal Show, 1900. BRED AND EXHIBITED BY MR. TOM CASSWELL, POINTON. IMPORTED AND OWNED BY J. H. & E. PATRICK, ILDERTON, ONT.

would require the heat of a brooder; one at night for the first few weeks, as they need more warmth at night than when on the move in daytime. I have seen accounts of homemade brooders that cost very little, and, I think, would answer the purpose very well.

Chickens do not do as well shut up all the time as when they have an open run. Much care must be exercised in feeding them, unless they have plenty of exercise when they are growing. Plenty of grit and dust, with cold wood ashes thrown in, should be provided. They will pick out all the pieces of charcoal, which help to keep them in good health, and the dust and ashes keep them to a certain extent free from vermin. Pieces of crockery broken up fine make good grit. Meat chopped fine, or cut bone, is also necessary for them in winter time, for they have not the opportunity of getting that form of food in the shape of insects, etc. Milk will largely take the place of meat. Another of nature's



LINCOLN SHEARLING EWES.

First prize at Royal Show, 1900. BRED BY MR. HENRY DUBING, RIBBY GROVE, ENG. IMPORTED BY MESSRS. J. H. & E. PATRICK, ILDERTON, ONT.

Honorary Commissioner to Paris.

The Hon. Thos. Ballantyne, Stratford, Ont., one of the fathers of advanced dairying in Western Ontario, has appropriately been appointed, by the Dominion Minister of Agriculture, Honorary Commissioner to the Paris Exposition, now in progress.



COUNTESS OF OXFORD 14TH AND NEW YEAR'S GIFT.

First-prize cow and champion Shorthorn female at Royal Show, 1900, and her yearling son, second prize at Royal Show, first at Bath and West of England Show, 1900.

OWNED BY W. F. HOSKIN, CORNWALL, ENG.

He will represent the agricultural and dairying interests of the Dominion at the several international congresses to be held there, to report on the system of agriculture and dairying as there displayed, and the appliances used, as to their suitability to Canadian practice. Mr. Ballantyne has, on several previous occasions, worthily executed like commissions, and well deserves the honor and confidence bestowed upon him. In 1876 he had charge of the Canadian dairy exhibit at the American Centennial. He also selected all the cheese for the International Dairy Exhibitions in New York in 1878-9, and supervised the Canadian dairy exhibit at the "Callendries" in London, Eng. These valuable services were gratuitously given, he bearing his own expenses. The Paris commission carries with it no remuneration, only travelling and hotel expenses will be met with public money. The Hon. Mr. Ballantyne's practical knowledge and wide experience, together with his understanding of commercial and public affairs, render him peculiarly fitted for the duties entrusted to his care.

Pasteurization in Cheesemaking.

To the Editor FARMER'S ADVOCATE:

SIR, — In the month of July last we scored some cheese which had been kept in our curing room since last December and January to note the effect of lime solutions in the making of pasteurized milk into cheese. I was surprised to note the marked difference in quality in favor of those cheese in which the chloride of lime solution had been added to the milk, as compared with cheese made from similar pasteurized milk and which was treated exactly the same, except that no lime solution had been added.

The cheese made from pasteurized milk without lime were mealy in texture, dull in color, and had a flavor peculiar to pasteurized milk cheese, while the cheese from pasteurized milk with lime had the qualities of a good Canadian Cheddar cheese six months old.

Although the chloride of lime solution restored the natural qualities of the curd and cheese in a large degree, yet we do not think the system of pasteurizing milk for cheesemaking is practicable in Canadian factories. For buttermaking we pasteurize all the whole milk before separating it, then cool the cream in a vat and run our skim milk directly from the separator over a Lister cooler, whence it is pumped into a tank overhead, and then run into patrons' cans. We find that if patrons will put this skim milk into a tank of cold water, on its return to the farm, it will keep sweet for 24 to 48 hours, and we have yet to hear of a complaint this season on account of the skim milk, except that the patrons cannot get enough of it.

While the system of pasteurization has proved very beneficial in buttermaking, both summer and



IMPORTED JERSEY COW, GOLDEN ORA 127728.

Daughter of Golden Lad. Has milked over 1,000 lbs. in a month, and has a test of 16 lbs. 1 oz. butter in seven days without forcing.

OWNED BY BELMONT FARMS, BELMONT, N. Y.

winter, with us, we cannot, so far as our present knowledge goes, recommend the system in cheesemaking. The process is too complicated, requires too much labor and machinery, and takes too long a time for the cheese to cure to permit of being introduced on a large scale.

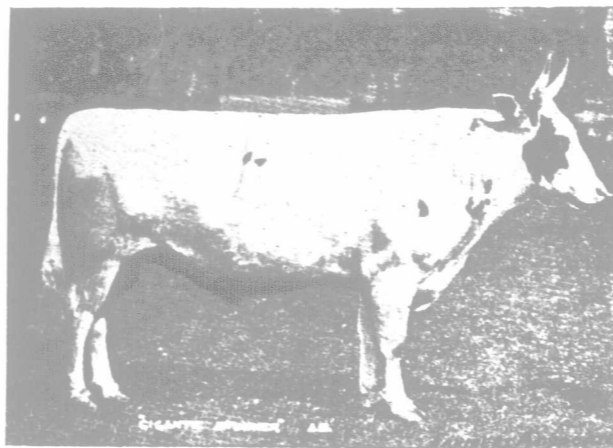
For home-dairy cheesemaking where flavors are troublesome, or where it is desired to make pasteurized skim milk into cheese, the system might be adopted.

H. H. DEAN.

Ontario Agricultural College.

Oleomargarine in Coffins.

The Connecticut Dairy Commissioner found oleomargarine concealed in coffins in New Haven. It seems to us that this was a most appropriate disposal of the stuff. If we could get all the oleomargarine screwed up in coffins and most of the dealers locked up in the penitentiary, we should be doing the public a signal service. Unfortunately, the lying conglomeration seldom gets into a coffin until it goes in with the dead body of some victim. We have no more doubt that oleomargarine has bred disease and killed thousands than we have that we are writing these lines, and nothing disgusts us more than to read, even in some dairy papers, that the stuff, if carefully made, is a health-



AYRSHIRE BULL, "GIGANTIC STUNNER" (3872).

First prize at Kilmarnock and champion at Ayr, 1900.

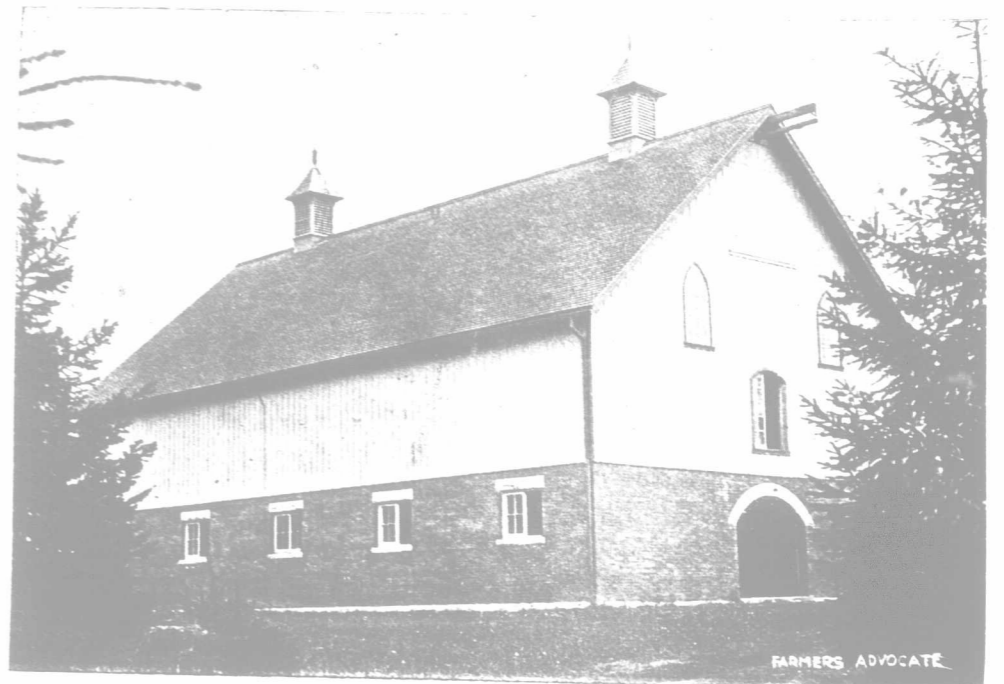
PROPERTY OF ROBT. OSBORNE, LOCKERBY, SCOTLAND.

ful product. Unless it contains poisonous preservatives, it begins to rot as soon as it is made.—*The (U. S.) Practical Dairyman.*

[In Canada the manufacture and importation of either bogus butter or filled cheese are and have been strictly prohibited by law, consequently the legitimate industry rests upon a secure and solid basis, and our home and foreign trade is going ahead by leaps and bounds. It was a fatal blunder, as far as the dairy industry of the States was concerned, when bogus products obtained a status, and the making of filled cheese virtually ruined their export trade in the genuine article.]

Messrs. Sorby's New Horse Barn.

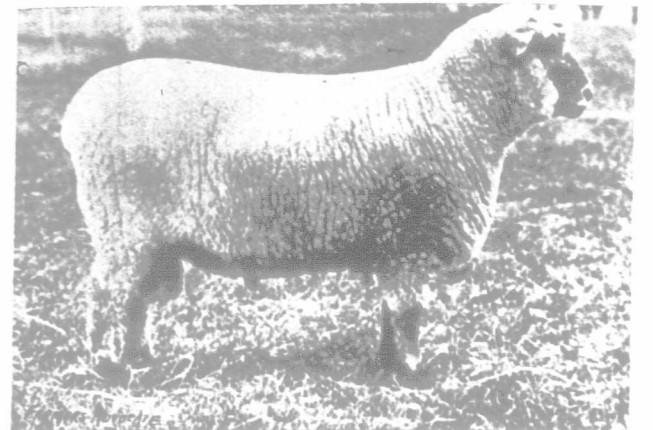
The horse barn illustrated herewith, constructed in 1888, on the Clydesdale and Hackney stud farm of Messrs. D. & O. Sorby, Guelph, Ont., is 76 feet long and 12 feet wide. It has a 12-foot passage from end to end, dividing two rows of box stalls 15 feet square. It is constructed in a most substantial manner, conveniently arranged for feeding and watering, well lighted, and tastefully finished in every detail. This is one of three similar ranges on Messrs. Sorby's farm, all being constructed on the same general plan and finished in the same tasteful, substantial manner.



MESSRS. D. & O. SORBY'S NEW HORSE BARN, NEAR GUELPH, ONT.

Making Championship English Butter.

Miss M. H. Harris, of Stalbridge, Dorset, has written an interesting account of how she won the championship in the buttermaking contests held in conjunction with this year's show of the Bath and



OXFORD DOWN SHEARLING RAM.

First prize at the Bath and West and Royal Counties Shows, 1900.

PROPERTY OF J. T. HOBBS, GLOUCESTER, ENG.

West of England Society at Bath. The appliances used by Miss Harris in this contest—in which Professor Carroll, of Glasnevin, was one of the judges—were the ordinary end-over-end butter churn, the Cunningham butter-worker, and the usual Scotch "hands," etc. These appliances were all thoroughly scalded and scoured with salt and then rinsed with cold water immediately before operations began. Miss Harris then goes on to describe the process as follows: "Each competitor was given an equal quantity of cream. After receiving mine, and taking the temperature, which was 62 degs., I stood the cream in ice-water, which brought it down to 54 degs., at which temperature I commenced churning. After churning twenty minutes, my cream thickened. I carefully watched the glass of the churn, and when the grain was sufficiently large, I added some cold water at 50 degs., and after churning again for a few minutes, I found the grain was large enough. I then drew off the buttermilk, and poured into the churn a bucketful of water at a temperature of 44 degs., and after a few swift turns found the grain of the butter was right. I next drew off the water through a sieve, strained brine into the churn at a temperature of 42 degs. (of course, all these waters were prepared before I commenced churning). Having allowed the brine to remain in the churn for ten minutes, I removed the butter from the churn to the butter-worker with the scoop and sieve, taking care not to crush the grains together, but to have them all as separate as possible. I next commenced working the butter very slowly, so as to get out the moisture with the least possible injury to the grain. When I considered it sufficiently worked, I made it up into pounds and half pounds, according to instructions. I placed it all on the board, covering well with damp muslin, and placing a little ice round it. It was then quite ready for judging. I then thoroughly cleansed and scoured my utensils, and reported my work to be finished in one hour and twenty-seven minutes after I commenced churning."

An Excellent Butter Record.

The capabilities of Jerseys as butter-producers are well shown in a return published in the recently-issued English Herdbook of the breed, and giving a summary of the yields of milk and butter produced during the past year by the 30 odd cows kept in the Buckhold herd belonging to Doctor Watney. The detailed returns, as certified by a London firm of accountants, show that during the year the 32 cows comprised in the herd produced a total yield of 13,014 lbs. of butter, or an average of 388½ lbs. per head for the year.

Twice-plowed Summer-fallow.

In your issue of August 6th, K. McIvor, of Wallace Municipality, writes: "I have in view two fields of wheat lying alongside each other; both were summer-fallowed last year, same sort of soil; one was gang-plowed two or three inches deep immediately after seeding, and harrowed to kill the germinated weeds during the summer, and then plowed six or seven inches deep before harvest; harrowed again several times before fall; was carefully drilled in the spring, resulting in a very fine stand of grain at first: now there is only an odd head of wheat to be seen in a mat of weeds. The other field was plowed once (about midsummer) and harrowed once or twice after, resulting in at least twice the wheat and one half the weeds."

Last year I summer-fallowed three hundred acres of land which had been cropped too severely in the past. I began plowing June 15th, three inches deep. After thus plowing eighty acres, I plowed the balance from six to seven inches, turning up about an inch and a half of virgin soil. Before finishing plowing, July 1st, the harrows had been over the first eighty acres once. I then put the gangs on the first shallow plowing and plowed six and a half inches, finishing August 15th. Until fall I harrowed what I could—not as much as I wished—with common and spade harrows. In walking over the twice-plowed land, I seemed to break through. The hard soil from below was upon the pulverized soil of the first plowing. I feared drying out from the circulation of air below, so I got a subsurface packer, and with four horses, three hundred pounds of stone and a man on it, I packed this eighty acres, excepting ten left to note the difference.

Results: I am now cutting, and estimate the yield as follows: Land twice plowed and packed, sixteen bushels per acre; land twice plowed, twelve bushels; land once plowed, eight bushels. The land twice plowed and packed is quite free of weeds, the balance seriously weedy since the first rain came.

The agent said to me: "Take that packer, and if, a year from now, you are not convinced that it has made its price, bring it back and pay nothing. I have got to pay for that packer! This year I am plowing half my fallow twice and packing well."

N. WOLVERTON. Cornwallis Municipality, Manitoba.

White vs. Black Oats.

There is a difference of opinion as to the comparative values of black and white oats for horse-feeding purposes. The former is somewhat more thick-skinned, and bulk for bulk it does not contain as much nutriment as the latter. In practice, however, the difference between them for feeding purposes is not found to be worth taking into account. For milling purposes, however, the white oats, with its thinner husk and proportionately larger kernel, is the more valuable, and it consequently commands a somewhat higher price than the black variety.

Can't Afford to Do Without It.

To the Editor FARMER'S ADVOCATE:

SIR,—We are pleased to add our testimony to the merits of the FARMER'S ADVOCATE. It is a welcome visitor to our home, and should be to the home of every farmer in Canada. For a man to say he cannot afford it, is a great mistake. He cannot afford to be without it. He will find something in it during the year that will repay him many times for his outlay, besides furnishing intelligent, pure reading for his household. B. H. BULL & SON. Peel Co., Ont.

The study of agriculture will be introduced into the country schools in Illinois in the fall, and an effort will be made to have the city schools also adopt it. The first list of studies are of the most primary character. None is more difficult than the requirement of the scholar to tell how many rows of corn there are on a cob and what color the cob of an ear of white corn is?

QUESTIONS AND ANSWERS.

Veterinary.

SWOLLEN HOCKS.

HORSE BREEDER, Man.: "I have a three-year-old Standard-bred filly. When one year old she swelled in front of both hocks exactly like bog spavin, one more than the other. In course of time the swelling on one leg went away altogether, the other very nearly. The following spring, when she was two years old, the swelling that had not quite disappeared came on again worse than ever. Veterinary surgeon recommended blistering. I kept her in box stall all summer and blistered four times. Sometimes the swelling could hardly be noticed, and other times was as bad as ever. In the fall, in disgust, I turned her out with other colts. The swelling went down, but occasionally came back during the winter. This last spring the swelling was worse than ever, and the back of the hock swelled as though it were capped. I commenced to drive her some this summer, keeping her in single stall. When driven, the swelling in front of hocks goes down, but comes back during the night, and the cap on hock does not go away. At present it is better than for a long time. She has never shown any signs of lameness at any time, is a big, growthy mare, and promises to make a capital driver with considerable speed."

[The swellings, although resembling bog spavin, are not due to any special disease, but rather to a faulty conformation of the joints and an excessive secretion of synovia (joint oil), hence there is no accompanying lameness. These swellings are frequently found in connection with very upright or very crooked hocks and in coarse or weak hocks of any description. Sometimes such hocks remain sound as long as those of a better formation, but not infrequently heavy drawing and the concussion of hard roads will sooner or later produce evidence of unsoundness. In some cases the swellings gradually disappear as the animal attains its growth, and I would advise you not to apply further treatment for the space of two months, and if at the end of that time there is no change for the better, please communicate again with the FARMER'S ADVOCATE. W. A. DUNBAR, V. S., Winnipeg.]

COMPLICATION OF DISEASES IN COW.

M. E., Addington Co., Ont.:—"I have a valuable Ayrshire heifer which calved at about two years of age, in May last. She seemed before this all right. After calving, she got very bad in the kidneys apparently, and remained in a humped state, trying to urinate nearly all the time. For this, I gave saltpetre and two doses of Epsom salts. Also, with above trouble, she ran water at the eyes, which caused them to turn a milky shade, and after four weeks she became totally blind. Her skin appeared to die and turn black in spots all over her body, some of these as large as a cent. She is also chafed and sore between bag and legs. She has a fair appetite, and gives about ten pounds of milk. I keep her in a dark corner of stable now."

[In all probability, the distress your heifer exhibited after calving was due to uterine rather than to urinary trouble. She suffered from a sub-acute form of metritis (inflammation of the womb) or else from vaginitis (inflammation of the vagina). In either case, when proper treatment is not resorted to early, there is a danger of chronic disease called leucorrhœa, and in some cases there is absorption of some of the septic matter into the circulation, which causes a form of septicæmia (blood poisoning). The eruptions mentioned are probably due to this cause. The treatment at first should have consisted in flushing out the womb and vagina once daily with a solution of creolin, one part to one hundred, and fifty parts water; or corrosive sublimate, one to two thousand water; and administering by the mouth four-dram doses of hyposulphite of soda three times daily. If there be any discharge from the vulva now, or if she stands with back humped and straining, flush out as above. In any case, give the hyposulphite of soda, as above, and dress the affected parts of the skin with carbolic acid, one part, and vaseline, eighty parts. The affection of the eyes is in no way connected with the other abnormal conditions. She has had inflammation of the eyes, a disease that is quite common in cattle, and called infectious ophthalmia. Like the other troubles, it has become chronic, and what appears as a white scum is an exudation of lymph between the layers of the cornea (the external coat of the eye). Continue to keep her in the dark stall, and bathe the eyes well with warm water three times daily, and put a few drops of the following lotion into each eye after bathing: nitrate of silver, 6 grs.; distilled water, 1 ounce. If you have patience, you will probably be able to effect a cure, even at this stage. J. H. REED.]

ECZEMA IN MARE.

D. D., Huron Co., Ont.: "I have a fine mare, ten years old, which for the past four years has been bothered with pimples coming on the shoulder, neck, the side of the head and just above the tail. It is annoying to her, being so itchy. She will scrape the piece out on the fence, or bite it continually when she is hot. This disease comes in the spring and stays as long as the weather is warm; it then appears next summer as soon as the weather gets warm. When it goes away it leaves the skin as if nothing had been wrong."

[Dissolve one half ounce hyposulphite of soda in one quart boiling water, and mix in her feed each morning and evening for fifteen days; then give her a tablespoonful of Fowler's solution of arsenic night and morning for fifteen days. Feed bran and oats and clean hay, with hot bran mash twice a week at night.]

LUMPS ON LEGS—DISLOCATION OF PATELLA.

G. A., Prescott Co., Ont.: "Will you advise me through your valuable paper on the following questions:

"1. Have all well bred Clyde stallions lumps on their front legs just above fetlock joint, on inside, about the size of a plum? There is a Clyde stallion in this section which has them, and most of his get have the same kind of lumps on their legs. Some claim it to be a Clyde mark, others claim it to be splints. What would you call it?"

"Can these lumps be taken off successfully while the colts are young? They are foaled with them on."

"2. I have a young mare which takes cramps in left hind leg. When moving her ahead she drags her foot. I pulled her foot up towards her head with a rope. In the struggle her leg got all right. Has had it different times. What is the cause?"

[In all horses the splint bones extend from the knee to about two inches above the fetlock and terminate in a nodule, which is often mistaken for splint by those not conversant with the anatomy

of the parts. It is seldom these nodules attain the size of a plum, but in heavy horses they sometimes do. In most cases the nodule on the outside of the leg is the same size as that on the inside, but there are also exceptions to this. These little lumps can be felt in any horse, and also, as a rule, show more plainly in hot-blooded animals where the skin is fine, lies closely to the bone, and no long hair is present. They are seldom, if ever, visible in a Clydesdale, the long hair hiding them from view. Still, they are present and can be felt. Careful manipulation will determine whether the lumps you speak of are splints or the nodules mentioned. Splints are situated higher up the leg, and are usually not so circumscribed. The lumps mentioned on foals certainly are not splints, as foals are not affected with such a disease at birth. Therefore it would be unwise to endeavor to remove them, and it cannot be done without a surgical operation. They certainly do no harm. It may be that the stallion mentioned has an abnormal development of these nodules, and, if so, it is quite within the laws of nature that his progeny should have the same peculiarity of conformation. If he be a good individual in other respects, I certainly would not object to him as a sire on that account.

2. Your mare is subject to dislocation of the patella (stifle bone), and when it regains its normal situation she goes all right. I would advise you to apply a good blister, say 2 drs. each biniodide of mercury and powdered cantharides, mixed with 2 ozs. vaseline, to the front and inside of the stifle joint, to strengthen the ligaments. Apply the blister twice in the usual manner, the details of which have been frequently given in these columns. If the bone becomes displaced in the stall, tie her foot forward by attaching a rope to fetlock and tie to collar for a few days after applying the blister. J. H. REED.]

PROBABLY ROARING IN HORSE.

W. B., Simcoe Co., Ont.:—"We have a two-year-old colt which had a bad attack of distemper a year ago last winter, swelling badly under the jaws. Since then he exhibits a wheezing or hardness of breathing during the slightest exercise. He has no cough and is in good condition. The trouble seems to be in the throat only."

[We are suspicious that your colt is affected with what is known as roaring, for which there is no cure. It may be due to a mere thickening of the mucous membrane of the larynx, and, if so, the following powders will be found useful: Potassium iodide, 1½ ounces; powdered nux vomica, 6 drams. Mix and divide into twelve doses, and give one each night and morning in the feed. Continue this treatment for a month.]

SKIN DISEASE IN HEIFER.

SUBSCRIBER, Perth Co., Ont.: "I have a Short-horn heifer, one year old, which has had a breaking out in the skin for about three months; first raising in little pimples running water like gold; then she will rub and lick until the blood comes, then a scab forms and breaks out. It is almost all over her, the neck, shoulders and rump being the worst. Fed well during winter."

[Your heifer has a skin disease, a form of eczema, due, in all probability, to overfeeding when a calf. It is not probable you can have her fit for show purposes this fall, as you have delayed treatment too long. Give her a purgative of 1 lb. Epsom salts and 1 oz. ginger; feed nothing but a little bran for 24 hours after administering drench. Get the following powders: Sulphate of iron, 3 ozs.; nux vomica, 2 ozs.; bicarbonate of soda, 3 ozs.; nitrate potash, 3 ozs.; arsenious acid, 4 drs. Mix well and make into 24 powders; give a powder every night and morning in damp food or as a drench, mixed with a little water. Repeat the prescription as often as necessary. In the meantime you will need to feed lightly, as it is very hard to treat skin diseases if the animal be highly fed. Local treatment should be as follows: With good strong warm soap suds and a scrubbing brush, give all affected parts a thorough washing; only necessary to wash once. Apply to the parts 3 times daily a mixture of one part creolin to 60 or 70 parts water. Should any of the parts become dry and scabby and inclined to crack, apply a little oxide of zinc ointment to which has been added 10 drops carbolic acid to the ounce. It will in all probability take considerable time and trouble to effect a cure. J. H. REED, V. S.]

Miscellaneous.

BRANDING HIDES DEPRECIATES VALUE.

J. N., Kinbrae, Assa.:—"Will you kindly give, through your paper, answers to the following questions, and oblige a number of subscribers: Does the branding of cattle with hot iron depreciate the value of hides? If so, to what extent, both at home and in the Old Country market?"

[Yes, very materially, depending somewhat, of course, upon the extent of the branding. The hides of ranch cattle are generally of extra quality, and were it not for the brands on them, would bring higher values than average hides. In some cases the price is affected to the extent of 1½ cents per pound. Some hides are rendered almost valueless.]

TRANSFER CERTIFICATES.

J. J. W., Manitoba:—"Will you give me information respecting the registration of cattle? I have a registered Holstein cow. I have certificate of same. I am the third owner since she was registered. 1. Is it necessary to have the registration transferred to each individual? 2. Or can I get a transfer certificate by producing the last one?"

[1. No, it is not necessary to have the registration transferred to each owner, but the transfer certificates should be duly made out each time the ownership of the animal changes. These transfers can then be produced when the third, or any subsequent owner desires to have the animal registered in his name, and the name of each respective owner will be recorded on the register certificate.]

CATTLE POISONING.

O. A., Clanwilliam, Man.: "I shall be glad if you will inform me, through the medium of your widely circulating *ADVOCATE*, if grass grown where poisoned animals have putrefied 2 or 3 years previous will kill cattle or horses eating it? Some of my neighbors have lost several head of cattle from poisoning, and that is the only way they can account for it. If such is the case, it should be a warning to all farmers, not only to cease putting out poison, but to try and enforce the law prohibiting it by informing against any party detected in doing so."



American water hemlock (*Cicuta maculata*).

[In reply to Mr. A., I beg to say that the poisoning of cattle in the way he suggests is impossible. This is clear from the way in which plant life is sustained. Grasses, and most other forms of plants, draw their sustenance partly from the air, through their leaves, partly through their roots, drawing up in a state of solution such elements as the earth can furnish for their maintenance and growth. From the air are derived carbonic acid and water, out of which come, by a wonderful process, the organic compounds—chiefly starch, sugar, albumen. These together form what are known as albuminoids. From the soil come nitrogen and various mineral or inorganic elements, such as calcium, iron, phosphorus, potash, lime, etc. These are drawn up by root action either in a state of solution or decomposition. They form from one-tenth to three per cent. of the weight of fresh plant tissue. Except in this way, no solids can be drawn up or absorbed by such plants as grass or others consumed by cattle. It is therefore impossible that plants growing where poisoned animals may have putrefied should poison animals eating them. From what I have seen of the aversion cattle have to such spots, where air and soil are tainted, I do not think they would be very likely to feed there. If they did they could take no hurt from the grass, rank as it might be, any more than we are injured by feeding upon raw fruits and vegetables grown where foul—even poisonous—substances have been thrown as manure or otherwise. It is stated that the dead animals in question were poisoned two or three years ago. I presume the usual drug strychnine—was used. Now, this drug, which is an alkaloid of nuxvomica, is soluble in water (1 in 5760 parts of water), and it kills by its action on the heart through the blood. In two or three years, then, the small quantity held in the blood of a dead animal would not only thus be distributed over a greater or less surface, but under the action of rain and melting snow it would surely have been dissolved most effectually and dissipated in the soil. There, as I have shown, it could not injure or taint any plants that might grow. Nor do I think there could be any possible danger of harm from the licking of the soil by cattle; for not only is the chance of any right-minded cattle touching soil so badly tainted with decaying animal matter extremely unlikely, but even if it were done, the quantity of poison, supposing any to remain undissolved, would be so extremely small that it could never do any harm. Strychnine is given to people as a medicine in doses of one-thirtieth to one-twelfth of a grain; a much larger quantity could be taken safely by cattle. Thus the "licking" theory can hardly be upheld.]

It is most probable that the cause of the poisoning of cattle referred to is to be found in the "cowbane," or water hemlock, which is an exceedingly common plant. The following is a description of the plant, which should be known to every person

keeping cattle: "A smooth, erect perennial, 3 to 8 feet high, with a rigid hollow stem, numerous branches, finely dissected leaves, white flowers in a flattish cluster; the roots fleshy and tapering, and in a cluster from 1 to 3 in. long. It abounds in swamps and wet meadows. Cattle eat this in the spring; occasionally, no doubt, pull up and eat the roots, and also are possibly poisoned at times by drinking water from little pools in which the root has been tramped. The symptoms of poisoning are colicky pains, staggering, unconsciousness, and convulsions, soon proving fatal." It will be interesting to learn if the symptoms in the cases of the cattle referred to corresponded to the above.

W. A. BURMAN,
St. John's College, Winnipeg.

So plentiful has this water hemlock become in North Dakota that the Agricultural College of the State has issued a special bulletin relating to this poisonous plant, and in referring to it say:

"The season has been so unusually dry that stock are grazing the 'sloughs' much closer than usual, and already we have reports of many cases of poisoning, probably in many instances due to eating water hemlock, one of the most poisonous plants found in this country. Water hemlock is found growing in the 'sloughs' and wet lands of this State. Meadows will be cut for hay closer than ever this summer, and many animals will, judging from past experiences, be poisoned from eating, in the fall, the hay containing this plant. See that no water hemlock gets into the hay if you would save your animals. Horses, cattle and sheep alike may be poisoned by eating the hay, the green plant, or from drinking the water where the roots are being tramped upon. It resembles, in general appearance, wild parsnip, but grows in wet land, and not in high, dry lands, as does the wild parsnip."

SOW FAILING TO BREED.

SUBSCRIBER, Bruce Co.:—"I purchased a pure-bred Tamworth sow last fall, which as yet has proved a non-breeder. She has, apparently, never come in season. Tried her to the hog once or twice when it was thought she might be in season. She is now about one year old. When I received her in November it was some days before she got over a chill contracted in shipping."

[As the sow does not come in season now that she is well and thriving, it is doubtful whether she ever will, and we do not believe that any treatment will remedy the matter. She will probably bring about as much for pork as will buy a young sow for breeding, and that is probably the best disposition to make of her.]

THE SIPHON FOR RAISING WATER.

SIR,—In your August 6th issue you published a design of a contrivance for storing water from a spring and delivering to a hydraulic ram. I am sending you a sketch of another plan which is much simpler and cheaper than any previously thought of. In looking for elaborate machinery I forgot the siphon, which is simply a bent pipe, one end of which extends to the bottom of the store-tank at the spring, and the other connects with the ram. The necessary conditions are: The ram should be situated from six to ten feet lower than the bottom of the tank, so as to give sufficient fall for the water when the tank is nearly empty. The end of the siphon opening into the tank should be widened so as to prevent sucking up air and water together when the water is lowered to the mouth of the siphon. The tank should extend nearly a foot above the bend of the siphon, which insures the filling of the siphon.



As soon as the water in the tank has risen a little above the bend of the siphon the water will begin to flow from the latter as from an ordinary pipe. The siphon-action begins when the water is below the level of the bend, and will continue until the tank is empty, then the water will be sucked out of the siphon, and the tank will fill and the siphon begin running as before.

The dimensions of the tank will not affect the operation of the siphon, although for a uniform flow it would be necessary to have it shallow, say from two to three feet deep; otherwise, any size and shape that is convenient. A large trough-shaped tank will serve as well as any.

J. B. REYNOLDS,
Ontario Agricultural College.

PASTURING STEERS.

D. T. C., Glengary Co., Ont.: "I understand one of your editors has had some experience in pasturing steers. What is the nature of his land? How much land does he require for each head of cattle, and what does he realize per head? Are those cattle in good order going out? What do they gain in weight?"

[This year 46 steers two and three years old had the run of 30 acres of old grass and 30 acres of clover and timothy of last year's seeding. Besides this, they have eaten 11 acres of millet, and 10 acres of rape is coming on for September and October feed. The cattle were divided into two equal groups and changed occasionally into fresh fields. We believe they would have done better had they not been changed, as the fresh new clover proved too laxative. The land is clay loam of good quality, water by running springs. We think it well to secure nearly half the number of a class heavy enough to ship towards the end of July. This gets them away during the flush of the grass, before the fly season, and provides against a possible shortage of feed. The remainder of the herd will then have abundance of feed and will finish well on the rape.]

By allowing the land to meet the winter well covered with old grass, it enables one to get very early pasture which is likely to keep up well throughout the season. The most serious drawback to this class of farming this year is the horn-fly pest. We are convinced many of the cattle actually failed in weight during the last few weeks while on good pasture and some of them getting grain. We find many of them are sore inside the flanks and down each side of the dewlap. We believe it would pay to apply a spray of kerosene emulsion once a day as the cattle are driven through a narrow gap. In addition to this the raw spots should be touched with pine tar and grease. These cattle, bought in Toronto, cost, laid down thirty miles away, about \$1.15 per cwt. They will probably realize \$1.50, and will gain perhaps 200 pounds each. The cattle should be well bred and in good order when turned out. Those to ship in July should be half fat and weigh 1,100 to 1,200 pounds each, and those held till October, about 1,000 pounds each when purchased in the spring.]

MANURE CELLAR—CREAM SEPARATOR.

CLOD HOPPER, Compton Co., Que.:—"1. What is your opinion of manure cellars underneath stables?"

"2. Can you recommend the American cream separator, or what kind would you prefer?"

[1. The manure cellar does not grow in favor with farmers, and we incline to the opinion that it never will. The favored method of handling manure is to haul it direct from the stable to the field and spread it as soon as made. Where this is not practicable, a shed that will protect the manure from rain will answer as a storage for a short time. Manure kept in bulk for any considerable time loses value by decomposition, whether in cellar, shed, or in an open pile. From a sanitary point of view, the manure cellar appears to us decidedly objectionable.]

2. The American cream separator is a very satisfactory machine, ranking with the best made, such as the Alpha de Laval, Alexandra, Melotte, National, etc.]

COW LEAKING MILK.

E. C. A., Huron Co., Ont.:—"A fine large grade Shorthorn cow leaks milk freely as milking time approaches. Is there any treatment that can be adopted for this trouble?"

[Leaking milk is due to a laxness of the sphincter muscle at the lower end of the teat. Treatment is useless, except that of frequent milking, thus preventing undue distension of the udder.]

RED LICE ON POULTRY.

E. W. C., Antigonish, N. S.: "I have become the victim to red lice among my poultry. How long before they would all die if I should remove my henhouse, and how can I destroy those the hens have on them?"

[I am glad to be able to say that I think I am entirely rid of the red mites on my poultry. I sprayed with the corrosive sublimate 3 times, I think, and now every time I have the fowl house cleaned I use our force pump and orchard spray hose, and spray all the roosts with pure coal oil. I am delighted to say that I have hardly any ordinary poultry lice this year, which is a great comfort. Our clergyman was here recently and told me his poultry house was swarming with mites. I showed him my article and told him what I had done, and he said he could not dissolve the corrosive sublimate, even in alcohol. I did, in water, but it took a long time. He is fully convinced (likewise the druggist he bought it from) that it requires the strongest spirits to dissolve it. I think it only takes time. I hope my experience will benefit others.]

B. J. BERRY,
Carleton Co., Ont.

ED. NOTE. The preparation and application of corrosive sublimate was referred to on page 331, June 20th issue. The solution is prepared as follows: Corrosive sublimate, 1 oz.; common salt, 1 oz.; dissolve in 2 to 4 qts. of water. When completely dissolved dilute to 25 gallons. Sprinkle or spray thoroughly every nook or crevice. Red mites will live a long time about a building—too long to wait when coal oil and corrosive sublimate can be used to destroy them. It must be borne in mind that corrosive sublimate is a deadly poison, so that it must be carefully used to avoid accidents.]



The Little Seamstress.

She sat in her little rocking-chair,
A-sighing and twirling her thumbs,
"Oh, everything for my doll is done,
And never, never to mending comes!
I haven't a morsel of sewing,
Dear mother, in all the town,
Can't you find me one doll,
No matter how small,
Who will wear out her gown?"

The Lookout Regiment.

Some of the letters for the prize competition have come in, but, of course, I can't be sure of the prizewinners until the end of the month. Here are two letters which have pleased me very much:

DEAR GENERAL,—
We are so glad that we joined the "Lookout Regiment." The badge is a great help to keep a person from forgetting the rules, and they look so pretty. Mamma says she thinks it is just a splendid idea. We made quite a number of blunders at first, but Mamma would hear us, and remind us of our rules. She helped us over the first and worst part.
My uncle, auntie, and cousin have been visiting us for a while, but left last Thursday, and we girls went along to the depot, which is five miles away. Just after the train had pulled out, a gentleman, one of Papa's old friends, came up, and, after finding out why we looked so tearful, he began to chat about a picnic he had been to, and when the carriage came, we were ever so much lighter-hearted than we expected to be for a couple of days.
Well, I must stop now, for my brother has just come in and said that I'd better stop, or my general wouldn't have time to read it all. Well, good-bye.
Your loving cousin,
EDITH BOWMAN.

I am glad to see that you are keeping the rule about seeing other people's good qualities, Edith dear, and from your sister's letter I can judge that you are both trying to keep the other rule, and doing your best to make home happy.

As for my not having time to read your letter, it certainly is not any too long. Besides, I am in quarantine just now, nursing a patient who is recovering from scarlet fever; and when one is shut up and can't talk to one's friends, letters from friends at a distance are very thoroughly appreciated.
Here is the other letter:

DEAR COUSIN DOROTHY,—
I received my badge quite a while ago. I think it is helping me to live closer to Christ; it also helps me to keep the rules. I enjoy reading the "Lookout Regiment" in the Advocate. I will do my best to further the cause. I hope it will grow fast and do much good. I made some mistakes, but Edith would correct me. I think it is a grand thing, and I hope it will help to strengthen God's cause.
A while ago Mamma sent Edith and me off for three or four days on a visit to my auntie. She did not send us off because she didn't need us, but so that we would be free from work for a few days. I must close.
Yours affectionately,
HILDA BOWMAN.

It is a great pleasure to me to find that you are trying to be soldiers in reality as well as in name. We are all soldiers of Christ, and every kind and loving thought or action is sure to please Him. He knows each one of His soldiers, and sometimes sends trials or disappointments to prove their mettle. Patience and endurance are true soldierly qualities, as well as obedience and courage. Be sure our great Commander is watching with loving care each soldier in His great army.
COUSIN DOROTHY.

A Little Boy's Trouble.

I thought when I'd learned my letters
That all my troubles were done;
But I find myself much mistaken
They only have just begun.
Learning to read was awful,
But nothing like learning to write;
I'd be sorry to have you tell it,
But my copy-book is a sight.

The ink gets over my fingers;
The pen cuts all sorts of shins,
And won't do at all as I bid it;
The letters won't stay on the lines,
But go up and down and all over,
As though they were dancing a jig;
They are there in all shapes and sizes,
Medium, little, and big.

There'd be some comfort in learning
If one can get through; instead
Of that, there are books awaiting,
Quite enough to craze my head;
There's the multiplication table,
And grammar, and oh, dear me!
There's no good place for stopping,
When one has begun, I see.

My teacher says, little by little
To the mountain top we climb;
It isn't all done in a minute,
But only a step at a time.
She says that all the scholars,
All wise and learned men,
Had each to begin as I do;
If that's so—where's my pen!

Fowl Play.

Someone gave Tennyson a beautiful setter, upon which the poet bestowed the name of Don. During the night, whilst the dog was still a stranger in the household, Tennyson suddenly bethought him it might not have been fed, and so he quietly went downstairs "in the dead vast and middle of the night," and stole (as his son puts it) a chicken for Don. Next day, when the cook went to the cupboard and found it bare of at least one fowl, the puzzle was, where had the chicken gone? Then the poet told the truth; and, indeed, if he had not confessed, some innocent person, possibly even the new dog, might have got into trouble.

A Woman's Epitaph.

Here lies a poor woman
Who always was tired,
Who lived in a house
Where no help was hired.
Her last words on earth
Were, "Dear friends, I am going
Where washing ain't done,
Nor sweeping nor sewing;
And everything there
Is exact to my wishes,
For where they don't eat
There's no washing up dishes.
I'll be where loud anthems
Will always be ringing,
But having no voice,
I'll get clear of the singing.
Don't mourn for me now,
Don't mourn for me never,
I'm going to do nothing
For ever and ever."

Travelling Notes.

Our stay in Vancouver this time was short, as there were various little visits to make on the way back at Banff, Calgary, Brandon, etc., and little visits take up a good deal of time; so again was good-bye said to dear Vancouver, and again we set out on our travels.

Beautiful as our glorious mountain scenery seemed to us on that memorable Press Association trip a year ago, far, far more impressive did it seem on this second trip. It makes so much difference when one's mind is somewhat prepared by previous knowledge and one's body not so tired out with "rush" sight-seeing. Every mountain, valley, waterfall and rapid river was endowed with fresh beauty and wonder. We feel again like pronouncing the Rockies the most wonderful and glorious scenery, but, as was before said, it is so usual to think that the particular spot one is at the most beautiful, that we refrain this time, as we have not positively been all over the world; but that the scenery of our Canadian Rockies is grand in its magnificence, is beyond question.

Our first stop was at Banff, where we remained nearly a week. As with Honolulu, we do not wish to reiterate description, but again was felt the vast difference of merely hurrying partially over a place and restfully staying at it. The ideal beauty of Banff National Park is almost beyond words, when one can leisurely drink it in, as it were. At an altitude of nearly five thousand feet, situated in a valley twenty-six miles long by ten miles wide, and surrounded by snow-capped mountains and the beautiful Bow River flowing through, it is possible to imagine the glorious scenery, even without seeing it. There is the pretty little Lake Minnewanka, about eight miles distant, where there is good fishing; a lovely drive past the herd of buffalo (about twenty-five) and through a forest of trees and wild flowers. The drives and walks are simply lovely, and one seems to inhale new health and spirit with the smell of the pines and the clean light air. So much has been said already about hotels, but we can't pass over the C. P. R. Hotel at Banff, which, for comfort and first-class management, is second to none we at least know of. After this delightful week, we came on to Calgary, where we remained about three weeks, seeing now the mountains only in the far distance.

Calgary seems at first sight flat, desolate, and barren, but it has its own fascination, and we grew to fairly love it. The air is perfect, and the nights so cool for sleeping that we get most alarming appetites. Calgary has become a noted health resort, and no wonder! We were staying five miles out from the town, in a most comfortable home, and thus had a good chance of seeing country life. This has been a phenomenal year for Alberta, it being almost entirely a grazing country; so that the pteuous rainfalls have made the grass most luxuriant. To see the thousands of cattle and horses feeding and getting fat in those fertile valleys and on the hillsides is indeed a sight. The ranchers can coolly look on and see their riches increase, and they have good health and seem happy. Of course, they have certain deprivations, but certainly they do not work as hard as our Ontario farmers. A dreadful pest throughout the Northwest Territories is the gopher, although the ranchers and farmers are constantly snaring and poisoning them. The Government offers \$5 per one thousand gophers, which seems a small sum in comparison with Sydney (Australia), which, when we were there, gave sixpence (twelve cents) for every rat, but this was a precaution against bubonic plague, as doctors discovered that rats carried the true bacilli of that terrible disease. The outcome of this generous offer was that five hundred to one thousand rats per day were brought in and cremated. Although the gophers may not be as dangerous to man as these bubonic rats, they are a terrible plague, and the country would be better without them, and a thorough crusade will have to be made against them, and also the coyote, or prairie wolf, which causes great destruction to sheep and fowls. The wild duck season opens on August 23rd, and the little lakes and sloughs were filled with them; and the delicious prairie chickens were not to be shot until the 15th of September, but we could not stay for either of these delicacies.

It is very easy to get lost on these immense undulating prairies, with trails leading in every direction in many places, no defined roads at all, and houses five and ten miles apart, so that there is small chance to enquire the way. However, it sounds like one of Fenimore Cooper's novels to be lost on a big prairie, and although we did not do it on purpose, we were lost! We were driving home, took a wrong trail and went miles out of our way before we happened to come across someone who put us onto the right track. Luckily it was early in the afternoon when we started, and we got home about 6 p. m. It made you think how easily you might be lost in winter—utterly beyond help—and, indeed, many have perished in this way.

The branding and rounding-up of all the cattle and horses twice a year is a great work. The ranchers and others look with contempt upon our Ontario cattle, which they call "dogies," and which are sent up there in the spring and driven out to the prairies to take care of themselves.



AN OLD CHIEF OF THE SARCEE TRIBES.

We Can't Have It All.

The man who has wealth often hungers for health;
The man who has health may lack bread;
The man on the top of the ladder of fame
May long for the bottom instead.
We never can tell what a smile may conceal,
What skeletons stand to appal,
But this is as certain as certain can be—
We can't have it all!

"Now, that isn't so," very likely you'll say,
But it is, almost always in life.
The statesman, triumphant and haughty to-day,
Is wretched and worn with strife.
The "star" of the playhouse, admired and caressed,
Has moments as bitter as gall.
The gourmet dines richly, but gone is the zest—
We can't have it all!

Dear Ralph Waldo E., we with you must agree;
Compensation's a natural law,
And that is the sauce that should flavor each course.
Whoever the cooking is for,
Try this excellent plan both for woman and man
Be cheerful, whatever may befall;
Think that fortune is fair if she sends you a share—
You can't have it all!

Humorous.

The other day a military officer engaged a cab in Dublin, and at the end of the trip paid the driver a shilling. A shilling was the exact amount due, but more gracious customers were in the habit of paying sixpence more for the same distance. "Bad luck to the Boers," muttered the driver ruefully, looking at the coin in his palm. "What is that you say?" asked the officer sternly. "Bad luck to the Boers, sir." "Why do you say that?" "Faith, your honor, because they have taken away all the eighteenpenny officers and left none but the shillin' ones."

The Mounted Police of the Northwest are invaluable in keeping people honest. Their duties keep them constantly in the saddle, riding and reporting from station to station, hearing all complaints and seeing that they are rectified; also in order that the headquarters may know he is doing his duty, the mounted policeman has to have papers signed every day at different houses far apart, on pain of dismissal from the force.

A most interesting, though not beautiful, sight is the Indians one comes across, and of these we give illustrations: The Sarcees, the Blackfeet and the Stony tribes are chiefly found near Calgary, their natural beauties added to by paint, feathers, leather, blankets, and dirt. Laziness and thriftlessness are their characteristics, and riding and driving a great herd of ponies, they camp for days wherever their fancy leads them, and we must suppose they enjoy life.

The Noble Redskin.

In feathers and leather and paint,
He certainly looketh most quaint,
And he's quite an expert
In blankets and dirt,
And his manners are free from restraint.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

The merry holidays are over, and my boys and girls who have the good fortune to still be students have returned to their work. How I envy them, despite the (to them) dull routine of ceaseless lessons! My school days were among the happiest in a life which knew but little shadow, although I sometimes got into trouble, as all boys will. I can scarcely understand the make-up of a child who does not like to go to school. Granted that the number of studies demanded by present educational rulers is somewhat appalling, yet the modern methods of imparting knowledge so far eclipse those of earlier periods that the undertaking is not so very difficult.

All cannot absorb and assimilate knowledge in a like degree, but even the dullest, by faithful everyday application, can accomplish a great deal. To many of my nephews and nieces, the school term just ended is their last, but they should bear in mind the fact that not to advance is to go backward, and that it will require frequent brushing up to keep their already-acquired knowledge bright, fresh, and ready for use. Then, do not pile away your books and slates, as things for which you have no further use, but make it a rule to spend at least half an hour every day reviewing the work you have already gone over. This will be amusement, not labor, and the very habit may have an important influence upon the success of your future life. There are many people like Wilkins Micawber, who are "waiting for something to turn up," while nine out of ten of them are not ready to take hold when it does turn, and thus the chance slips by, leaving them still in the same old rut. The capable person gets the preference every time, just as the big potatoes come to the top of the much-shaken basket.

Life is a school from cradle to grave, and he who does not learn his task can only expect as his lawful portion the dunce's seat and cap. The young person who would be successful in life needs to be armed not only with a fair modicum of knowledge, but also with courtesy and an obliging disposition, ready, when occasion requires, to overstep this limit of work without waiting to consider whether he shall also receive additional remuneration.

I believe some of the cousins desire a new contest, and have suggested an essay as a suitable subject for competition; so now, when all young minds are full of national pride and patriotism, it would be fitting to have them express their views on paper. I therefore offer three prizes for the best essays on "Canada—Why do we love her?" The contest will be governed by the following rules:

The competitors will be divided into three classes, and one prize given for the best essay in each class. Class 1 will consist of those over sixteen years of age, class 2 of those under sixteen and over twelve, and class 3 for those under twelve. Each competitor shall state in which class he competes, and shall write on one side only of paper. All papers for this contest should reach London not later than October 15th, and should be addressed, "Uncle Tom, FARMER'S ADVOCATE, London, Ont." The prizes will be cloth-bound books, well worth winning, and I hope to have a large number of competitors.

Your loving Uncle Tom.

The window-sashes rattle,
The curtains rustling sway,
The table dishes shiver,
The guests burst every way
For all around the table
There is an awful crash
Of crockery—'tis the time that pop
Stung pepper on his back.

Housewives' Helps.

A basin of water put into the oven with cakes or pastry will keep them from burning.
When you have crusts or broken pieces of bread, put them in a tin, brown in the oven, grate them fine, and put in a closely-covered jar. You will find them invaluable for croquets, sauces, etc.

To Clean Steel.—Make a paste of powdered bath brick and sweet oil. Rub the steel well with this till all stains are removed, rub dry with a soft cloth, and polish with chamois leather and dry whitening.

To remove grease from zinc baths, pails, etc., saturate a flannel well with paraffin oil and rub briskly, afterwards washing with soda water. It will remove dirt and grease quickly, making the article look like new.

To Remove Mildew.—Lemon juice, mixed with an equal weight of salt, powdered starch, and soft soap. Rub on thickly, and lay on the grass in the hot sun, renewing the application two or three times a day, until the spot fades and comes out.

If a cellar has a damp smell, and cannot be thoroughly ventilated, a few trays of charcoal set on the floor, shelves, and ledges will make the air pure and sweet. If a large basketful of charcoal be placed in a damp cellar where milk is kept, there will be no danger of it becoming tainted.

To re-fit handles to knives and forks, nearly fill the handles with finely-powdered resin and bath brick in the proportion of three-parts resin to one of bath brick. Make the steel that goes into the handle red hot, and then gradually work it into the handle. By this means the handles will be as firm as when new.

To Renovate White Straw Hats.—Dissolve a pennyworth of oxalic acid in tepid water. Brush



A NOBLE WARRIOR OF THE BLACKFEET INDIANS, S.-W. T.

the mixture thoroughly over the straw with a soft brush; dry in the open air (sun, if possible, as it makes the hat a better color). A pennyworth is sufficient to clean one large hat or two sailor hats. The acid is easily procured at any chemist's.

The Use of Borax.

So many and varied are the uses to which borax can be put, both in the household and the toilet, that it may be useful to readers of Home Hints to have a few of those uses brought before their notice.

Of its uses in connection with the toilet I will not here speak, beyond saying that it is a most effective and simple softener of water. Everybody knows that nothing ruins the complexion more than to wash in hard water, and it is a good plan to have a small pot of borax standing on the washstand, and put a pinch or two into the water when required.

In matters domestic borax is simply invaluable, and no household is complete in which it has not a place of its own. In washing clothes the addition of borax to the water will be found an advantage, especially in the case of all kinds of woollen goods and lace. The introduction of borax into starch gives it an extra gloss. The proportion is about a teaspoonful of borax to two tablespoonfuls of starch.

Cockroaches and ants and various other household plagues have a great objection to this harmless-looking white powder, and if it is sprinkled liberally about their haunts they will speedily forsake them.

Moths also have an objection to it, and when putting away furs and other clothing they should be sprinkled with borax, and kept in air-tight boxes.

For washing silver it is a very good thing. The silver should be left for two or three hours in boiling water to which borax has been added, and then cleaned in the ordinary way.

Puzzles.

[The following prizes are offered every quarter, beginning with months of April, July and October: For answers to puzzles during each quarter—1st prize, \$1.50; 2nd, \$1.00; 3rd, 75c. For original puzzles—1st, \$1.00; 2nd, 75c; 3rd, 50c.]

This column is open to all who comply with the following rules: Puzzles must be original—that is, must not be copied from other papers; they must be written on one side only of paper, and sender's name signed to each puzzle; answers must accompany all original puzzles (preferably on separate paper). It is not necessary to write out puzzles to which you send answers—the number of puzzle and date of issue is sufficient. Partial answers will receive credit. Work intended for first issue of any month should reach Pakenham not later than the 15th of the month previous; that for second issue not later than the 5th of that month. Leave envelope open, mark "Printer's Copy" in one corner, and letter will come for one cent. Address all work to Miss Ada Arnaud, Pakenham, Ont.]

My first is to injure by malicious falsehood, my second is a common Chinese name, my whole is a sign we often see in city gangways. IKE ICICLE.

2-CANADIAN TOWNS.

- 1—An animal, a part of an animal.
- 2—A man's name, a word of incitement or encouragement.
- 3—To prattle, a boy's name.
- 4—A color, a thousand, an exclamation, a syllable used in music.
- 5—Relation, an explanatory or other note in a newspaper, a preposition, a vowel.
- 6—A country in Europe, a dwelling. IKE ICICLE.

3-CHARADE.

"First me the first second,"
Said the stately old Jew,
As he entered the temple grand,
And out of his mouth he took a chew
Of Solomon Bag's tobacco,
"Where is the golden table, Rabbi,
And the second of the twelve tribes
Of ancient Israel, long forlorn
The land of the Pharisee and Scribes
Not here, Rabbi, Raica! Raica!"
IKE ICICLE.

4-SUBTRACTION.

Behold a certain number odd,
'Tis even then you'll see;
And if the latter you curtail,
Your mother and mine you'll see. F. L. S.

5-RIDDLE.

Without me, man is altogether vile
And mean and spiritless, you'll own;
Yet that which makes him worthy to be loved,
The very instant that he loves, is gone.

6-ENIGMA.

I have not got it, I do not want it; but if I had it,
I would not sell it for a million dollars.

7-RHOMBUS.

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Across: 1, part of a year; 2, a girl's name; 3, a musical instrument; 4, a guide; 5, part of the month.
Down: 1, a large number; 2, above; 3, denying; 4, a snare; 5, custom; 6, a cavity; 7, an animal; 8, two letters; 9, one letter. F. L. S.

8-A CURIOUS WORD.

What word has two syllables in the singular and only one in the plural?
F. L. S.

Answers to Aug 6th Puzzles.

- 1 Bazaar—she needs only one bear.
- 2 Lowland.
- 3 Biliouness.
- 4 H O U S E
- 5 M E T A L, h o r s e, r e g a l, p e n a l,
- 6 D O N O R, d u c a l, s t o o p, b e a s t,
- 7 M O U R N, d e f e r, c o r a l, v i a l,
- 8 B O Y
- 9 B R O T H E R
- 10 C O U N T
- 11 R A C I N G
- 12 B O Y

SOLVERS TO AUG. 6th PUZZLES.

"Deed," Mrs. Annie Rodd, "Grace," J. G. McLean, "The Leech."

ADDITIONAL SOLVERS TO JULY 20th PUZZLES.

Edna McKinnon, J. G. McLean.

A letter bearing "W" for post mark was lost on the way from the post. Will the writer kindly send contribution again?
ADA A.

"You do not marry for to-day, or for to-morrow, but for a lifetime, and for all sorts of situations. If she be gentle, and wise, and true, you have a bride not only for the wedding day, but for sickness, and poverty, and for old age. If she be handsome she will some day grow ugly; but if she be good and true she will stand with you. Try to know her before you take her."

Want a Good Watch?

WE have succeeded in procuring from one of the most reliable jewelers in Canada a complete list of Gents' and Ladies' Watches of sufficient variety to suit every one, and have no hesitation in recommending them to our readers as premiums worthy of an effort to secure. These are not by any means the same class of goods as are hawked around fair grounds, but first-class in every particular, and we assure you that you will be pleased with whatever of the above premiums you may obtain. Let us hear from you at an early date with a good list of new subscribers, and take your choice.

Gents' Watches.		Ladies' Watches.	
	New Subscribers.		New Subscribers.
No. 1. Yankee Nickel Watch.....	2	No. 15. Gun Metal Swiss Chate- laine.....	4
No. 2. Trump Nickel Watch.....	4	No. 16. Sterling Silver Swiss Chate- laine.....	5
No. 3. Trump Gun Metal Watch.....	5	No. 17. Nickel American O. F., large size.....	5
No. 4. No. 11 Silver Watch.....	8	No. 18. Gun Metal American O. F., large size.....	5
No. 5. 7 Jeweled Gent's Elgin in 3 oz. Nickel Case.....	10	No. 19. Nickel, small size.....	9
No. 6. 7 Jeweled Gent's Elgin in Gun Metal Case.....	11	No. 20. Gun Metal, small size.....	10
No. 7. 7 Jeweled Gent's Elgin in Sterling Silver Case.....	14	No. 21. Sterling Silver, small size.....	10
No. 8. 7 Jeweled Gent's Elgin in 20- year Filled Case.....	18	No. 22. 7 Jeweled Elgin in 20-year Filled Hunting Case.....	20
No. 9. 7 Jeweled Gent's Elgin in 25- year Filled Case.....	21	No. 23. 7 Jeweled Elgin in 25-year Filled Hunting Case.....	22
No. 10. 15 Jeweled Gent's Elgin in 3 oz. Nickel Case.....	15	No. 24. 15 Jeweled Elgin in 20-year Filled Hunting Case.....	23
No. 11. 15 Jeweled Gent's Elgin in Gun Metal Case.....	15	No. 25. 15 Jeweled Elgin in 25-year Filled Hunting Case.....	25
No. 12. 15 Jeweled Gent's Elgin in Sterling Silver Case.....	18		
No. 13. 15 Jeweled Gent's Elgin in 20- year Filled Case.....	21		
No. 14. 15 Jeweled Gent's Elgin in 25- year Filled Case.....	25		

Description of Watches.

The accompanying cuts fairly well represent all the Ladies' and Gents' Watches, and a description of each as numbered is as follows:

No. 1. American Nickel Key-wind Boy's Watch that is absolutely guaranteed to keep good time and give satisfaction.

No. 2. Gent's Nickel American O. F. Watch; stem wind, and push-in stem and turn to set hands. This is a very strong, reliable Watch.

No. 3. Same as No. 2, excepting that it has Gun Metal case instead of Nickel case.

No. 4. Is a smaller-sized Gent's Watch, has sterling silver case, O. F. Screw Back and Bezel; stem wind, and push-in stem and turn to set hands. This is the lowest-priced and most reliable Boy's or small Gent's Silver Watch that is on the market.

No. 5. Is fitted with 7-Jeweled Nickel, first-quality Elgin movement. The case is a 3-oz. O. F. Nickel case; stem wind and set; screw back and bezel case.

No. 6. Same movement in Gun Metal or Black Steel screw back and bezel case.

No. 7. Same movement with Sterling Silver O. F. screw back and bezel case.

No. 8. Same movement in 20-year guaranteed Gold Filled O. F. screw back and bezel case.

No. 9. Same movement in 25-year guaranteed Gold Filled O. F. screw back and bezel case.

Nos. 10, 11, 12, 13 and 14 are fitted in the same style of cases as Nos. 5, 6, 7, 8 and 9; the difference is in the movement, and the movement is 15-Jeweled Nickel, first-quality Elgin movement.

No. 15. Is a small-sized Swiss O. F. Gun Metal Chateleine Watch.

No. 16. Is the same, only with Sterling Silver case, which can be had nicely engraved.

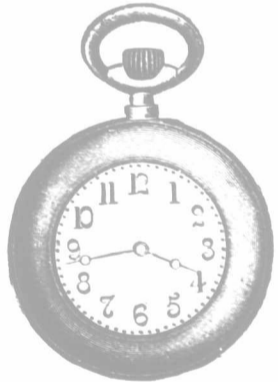
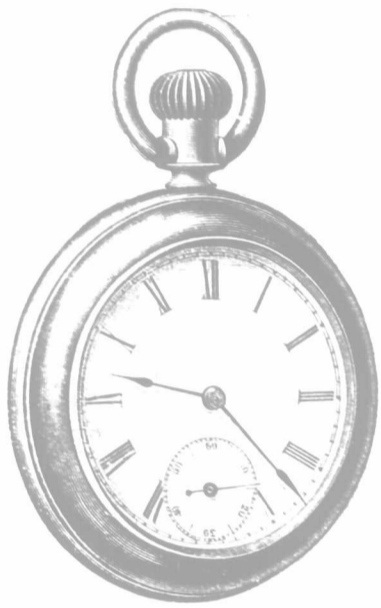
Nos. 17 and 18 are a good quality American Watch, O. F. stem wind, and push-in stem and turn to set hands. These are a little larger than the usual Ladies' Watches, and are smaller than the usual Boys' Watches, though can be used for either Boys, Girls or Young Ladies.

Nos. 19, 20 and 21 are small sized; in fact, are the exact size of cut. These are American Watches, O. F. stem wind, and push-in stem and turn to set hands, and are first-class timekeepers. Will give perfect satisfaction.

If a nice leather wrist case is desired with these watches, send two extra subscribers.

Nos. 22, 23, 24 and 25 are similar to the accompanying cut. These are regular Ladies' Hunting Watches. Nos. 22 and 24 are fitted in 20-year guaranteed Gold Filled cases, nicely ornamented, or to be had in plain or plain engine turned, and the same applies to Nos. 23 and 25, excepting that they are fitted in 25-year guaranteed Gold Filled cases, and 14K Gold Filled. Nos. 24 and 25 are fitted with 15-Jeweled Nickel, first-quality Elgin movements.

When making your choice of Watch as premium, be sure to mention its number as given in premium list, also whether Lady's or Gent's.



Our Farmer's Library

A RECENT bulletin prepared by Prof. J. B. Reynolds, of the Ontario Agricultural College, gives a list of meritorious books on Agriculture, Live Stock, Dairying, and Fruit Growing, from which we have made a selection and added a few others. How to obtain, see below:

SOIL AND CROP.

- THE FERTILITY OF THE LAND. *Roberts*, 372 pages. \$1.25.
- A BOOK ON SILAGE. *Woll*, 183 pages. \$1.00.
- SOILS AND CROPS. *Morrow & Hunt*. \$1.00.
- FORAGE CROPS. *Thos. Shaw*. \$1.00.
- SOILING, ENSILAGE, AND BARN CONSTRUCTION. *F. S. Peck*, 247 pages. \$1.00.

LIVE STOCK.

- THE STUDY OF BREEDS (CATTLE, SHEEP, AND SWINE). *Prof. Shaw*, 400 pages; 99 engravings. \$1.50.
- HORSE BREEDING. *Sanders*, 422 pages. \$1.50.
- LIGHT HORSES—BREEDS AND MANAGEMENT. 226 pages. \$1.00.
- HEAVY HORSES—BREEDS AND MANAGEMENT. 219 pages. \$1.00.
- CATTLE—BREEDS AND MANAGEMENT. 270 pages. \$1.00.
- SHEEP—BREEDS AND MANAGEMENT. 232 pages. \$1.00.
- CATTLE BREEDING. *Warfield*, 386 pages. \$2.00.
- THE DOMESTIC SHEEP. *Stewart*, 371 pages. \$1.75.
- THE SHEEP. *Rushworth*, 496 pages. \$1.50.
- PIGS—BREEDS AND MANAGEMENT. *Sanders Spencer*, 175 pages. \$1.00.
- FEEDS AND FEEDING. *Henry*, 600 pages. \$2.00.

GENERAL AGRICULTURE.

- AGRICULTURE. *C. C. James*, 200 pages. 30 cents.
- FIRST PRINCIPLES OF AGRICULTURE. *Foorbes*, 207 pages. \$1.00.
- AGRICULTURE. *Storer*, 1,875 pages, in three volumes. \$5.00.
- CHEMISTRY OF THE FARM. *Warrington*, 183 pages. 90 cents.
- FARMYARD MANURE. *Aikman*, 65 pages. 50 cents.
- BARN BUILDING. *Sanders*, 280 pages. \$2.00.
- IRRIGATION AND DRAINAGE. *King*, 302 pages. \$1.50.
- IRRIGATION FOR THE FARM GARDEN AND ORCHARD. *Henry Stewart*. \$1.00.

DAIRYING.

- AMERICAN DAIRYING. *H. B. Gurler*, 252 pages. \$1.00.
- THE BOOK OF THE DAIRY. *Fleischmann*, 330 pages. \$2.75.
- MILK AND ITS PRODUCTS. *Wing*, 230 pages. \$1.00.
- TESTING MILK AND ITS PRODUCTS. *Farrington & Wall*, 255 pages. \$1.00.

POULTRY.

- ARTIFICIAL INCUBATING AND BROODING. *Cypher*, 146 pages. 50 cents.
- PRACTICAL POULTRY-KEEPER. *Wright*. \$2.00.

APIARY.

- THE HONEYBEE. *Langstroth*, 321 pages. \$1.40.

FRUIT, FLOWERS, AND VEGETABLES.

- VEGETABLE GARDENING. *Green*, 221 pages. \$1.25.
- FLOWERS AND HOW TO GROW THEM. *Barford*, 175 pages. 50 cents.
- THE PRINCIPLES OF FRUIT-GROWING. *Baldy*, 511 pages. \$1.25.
- BUSH FRUITS. *Card*, 37 pages. \$1.50.
- HORTICULTURIST'S RULE BOOK. *Baldy*, 312 pages. 75 cents.
- SPRAYING OF PLANTS. *Lobman*, 320 pages. \$1.00.
- THE NURSERY BOOK. *Baldy*, 365 pages; 152 illustrations. \$1.00.
- AMATEUR FRUIT-GROWING. *Samuel B. Green*, 587 inches; 131 pages, with numerous fly leaves for notes; bound in cloth, and illustrated. 50 cents.

PLANT AND ANIMAL LIFE.

- THE STORY OF THE PLANTS. *Grant Allen*, 213 pages. 40 cents.
- THE STUDY OF ANIMAL LIFE. *J. A. Thomson*, 355 pages. \$1.75.
- INSECTS INJURIOUS TO FRUITS. *Sanders*, 196 pages. \$2.00.

HOW TO OBTAIN THESE BOOKS:

We will furnish present subscribers any of the above books as premiums for obtaining new yearly subscribers to the FARMER'S ADVOCATE, at \$1.25 each, according to the following scale:

Books valued at from	\$0.30 to \$0.65,	for 1 new subscriber.
"90 to 1.25,	for 2 "
" 1.50 to 1.75,	for 3 "
" 2.00 to 2.50,	for 4 "
" 2.75	for 5 "
" 5.00	for 9 "

We can furnish any of the above books at the regular retail price, which is given opposite the title of the book. By a careful study of the above list, any farmer can choose a select list of books suited to his needs, and for a small outlay in cash, or effort in obtaining new subscribers for the ADVOCATE, secure the contents of a useful library.

The William Weld Company, Ltd., Winnipeg, Man.



Lister's Cream Separators

At the Portage Show, July 17th and 18th, the agents of the Alpha De Laval Cream Separator published a challenge to all makers of Cream Separators. We were the only makers to accept that challenge, and after a thorough test, extending over two days, to determine: 1, Capacity; 2, Ease of Turning; 3, Thoroughness of Skimming; 4, Facility for Cleaning; 5, Simplicity and Durability of Construction, the award of the judges was given to our Melotte Cream Separator. We also append an extract from a letter which the judges published in the Daily Graphic of the 25th July, in answer to certain objections made against the award by our competitors:

"After carefully watching both Separators for two days, each of us was quite decided that if we were going to buy a Cream Separator, we would, without any hesitation, buy a Melotte.

"THOS. SISSONS,
"C. E. GROBB,
"P. CAMERON," Judges."

In an ad. on page 473 in your Aug. 20th issue one of our competitors gives the result of "ANOTHER CONTEST." We wish your readers to observe that our No. 1 Melotte, advertised capacity 350 lbs. per hour, separated 78 lbs. in 12 minutes, or 43 lbs. over what it is guaranteed to do. The competing machine, which is guaranteed to separate 450 lbs. per hour, fell 35 lbs. below what it is represented to do. The only further answer we have to make to this latest unprovoked attack on our goods is the following letter from the man at whose place the contest was held:

STARRUCK, MAN., 24th Aug., 1900.

MR. WM. SCOTT,
Manager for R. A. Lister & Co., Ltd.,
WINNIPEG:

Sir,—Yours of the 21st is to hand. In reply, respecting the contest held here at my place on the 6th and 7th inst., I beg to say that after using the two machines and seeing the test, I AM THOROUGHLY CONVINCED THAT THE MELOTTE IS A BETTER MACHINE.

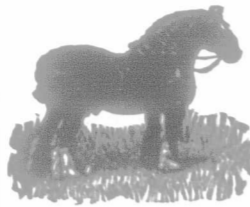
The test was between a No. 1 Melotte and a No. 2 Alpha, resulting with the No. 1 Melotte being nearly equal in capacity to the No. 2 Alpha, and with one test of the milk the Alpha gained .05, but with the next the Melotte gained .02, leaving but a slight advantage to the Alpha in skimming. This is more than balanced by ease in turning, oiling and cleaning in the Melotte No. 1, which I would not trade for a No. 2 Alpha.

Yours truly,
A. HOUSTON.

For prices, terms, etc., apply to

R. A. Lister & Co., Limited,
232 KING ST.,
WINNIPEG.

Clydesdales and Shorthorns.



Young stallions, bulls, and heifers. Herd headed by Best Yet—14371—and Mint-horn—24084—, bulls bred by Hon. John Dryden and H. Cargill & Son. PRICES ON APPLICATION. D. McBeth, Oak Lake, Manitoba



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

For

Galloways

APPLY TO

T. M. CAMPBELL,
Hope Farm, St. Jean Baptiste, Manitoba.

"PRAIRIE HOME STOCK FARM."

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



Yorkshire and Berkshire Swine. Clydesdale Stallions and Shropshire Sheep. Shorthorn and Ayrshire Cattle.

THOS. GREENWAY, Proprietor. JAMES YULE, Manager, Crystal City.

THREE BULLS

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

Shorthorns and Berkshires.

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

SHORTHORNS

Masterpiece = 25730 =, by imp. Grand Sweep, out of an Indian Chief dam, at head of herd. Imp. Large Yorkshires for sale.

JAMES BRAY, LONGBURN, MAN.



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

THORNDALE STOCK FARM, MANITOUL.

JOHN S. ROBSON, PROP. Females of all ages FOR SALE. Write for particulars.

"DOMINION" PIANOS & ORGANS



HAVE been before the public for thirty years, and are in use to-day in 60,000 Canadian homes. If you want a piano or organ that is above criticism, get a "DOMINION." For catalogues address—



THE "Dominion" Organ and Piano Co., Limited, Bowmanville, Ont.

Maw's Poultry Farm, Winnipeg.

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

D. FRASER & SONS, EMERSON, MAN.

Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale. 9-y-m

SHORTHORNS, YORKSHIRES AND TAMWORTHS.

Stock of all ages and both sexes, at prices according to quality. Auction sales of farm stock undertaken. Improved farm and wild lands for sale in the Winnipeg district. Correspondence solicited.

W. G. STYLES, Sec. 12-13-1, West, Rosser P. O., C. P. R.

STEEL BROS., Glenboro, Manitoba, BREEDERS OF Ayrshire Cattle.

Choice young stock for sale. 21-2-y-m

Bulls! Bulls! Bulls!

We have 9 young Short-horn bulls, home bred, and recently imported from some of the best Eastern herds. All fit for service. We are quoting prices down in order to dispose of the lot as quickly as possible. A few good sows for sale cheap, to farrow May and June. B. P. Rock eggs, \$1.50 per setting of 15. Roland, N. P. R.

ANDREW GRAHAM, Pomeroy P. O.

LAKE VIEW RANCH

Herefords and Galloways

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

SHORTHORNS & COTSWOLDS.

The proper kind bred and kept on our farm. Good stock for sale at easy prices. Rams for sale, and fine yearling bull still here. Also bull calves. D. HYSOP & SON, Box 492, Killarney, Man.

JERSEY BULLS

2 high-class Jersey Bulls for sale. Also farm buds. H. R. KEYES, Midway, Man.

THE Gold Standard Herd



Are home from the exhibitions, where they won 27 prizes, including 17 firsts against the strongest aggregation of home and Ontario-bred stock that ever appeared in a Winnipeg showing, including first prize winners at Toronto in 1899. I now offer for sale the first prize cow and her 6 months at Winnipeg, Brandon and Neepawa. The other first prize cow also three beautiful calves, ready to ship, of three prize-winning sows. Rosamond, Neepawa and Jubilee Bett. Address: J. A. McGILL, Neepawa, Man.

MAPLE GROVE FARM.

High-class Shropshires, Rams and Ewe Lambs for Sale.

My sheep are stock bred by John Campbell and Hamner & Sons, the noted Ontario breeders. Won all first prizes with my Shrops at Winnipeg this year. D. E. CORBETT, SWAN LAKE, MAN.

LEICESTERS!

Young rams and ewes for sale. Write or call on A. D. GAMLEY, Box 193, BRANDON, MANITOBA.

J. C. & A. W. FLEMING, Rosebank Stock Farm, Pilot Mound, Man. Breeders of Poland-China pigs and Cotswold sheep of choice quality, offer select seed potatoes of eighty varieties. Write for catalogue.

Norwood Bridge Poultry Yards.

Houdans, White Plymouth Rocks, White Wyandottes, Bronze Turkeys, and Pekin Ducks. Stock from my prizewinning birds for sale. First-class stock. Fair dealing. Reasonable prices. JOSEPH WILDING, Proprietor, Norwood Bridge, Winnipeg, Man.

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Young stock for sale—some beauties. Satisfaction guaranteed. A. M. ROBERTSON, KEEWATIN, ONT.

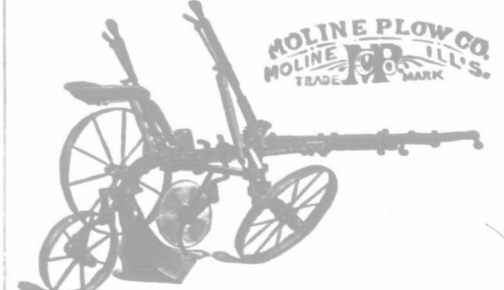
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Breeders of all the principal varieties of poultry and fancy pigeons. A few choice birds for sale. Write for particulars. S. LING & CO., Fort Rouge Poultry Yards, WINNIPEG.

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So is our Ideal Flax note-paper and envelopes. 120 sheets of paper with 100 envelopes, mailed for 60 cts. This is only one of the many snags we offer. We carry a full stock of office, school, municipal supplies. Write us for catalogue. Our store is "value." The FORD STATIONERY CO., One door north of P. O. P. O. Box 1273. 407 Main St., Winnipeg.

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Blackleg Vaccine.

[SYMPTOMATIC ANTHRAX VACCINE]

WE SUPPLY THIS VACCINE IN TWO FORMS:

- A. **SINGLE VACCINE:** each case containing ten doses. With this the animal is vaccinated but once. Price per case.....\$1.50.
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SUPPLIED BY ALL DRUGGISTS.

WE also furnish this case containing the apparatus required to successfully prepare and administer Blackleg Vaccine.

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SPECIALLY MADE FOR

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SAVES CATTLE FROM

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Nearly 2,000,000 successfully treated in U. S. and Canada during the last 5 years. Cheap, safe and easy to use. Pamphlet with full particulars, official endorsements and testimonials sent FREE on application.

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STEEL ROLLER BEARINGS IMPROVED STEEL FRAME

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

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We can supply you with any Drug, Medicine or Toilet article advertised in this or any other paper.

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A full line for farmers and stockmen. Easy to work, and cheap. Satisfaction guaranteed.

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METAL EAR LABELS
Used by all Live Stock Record Associations.

Sheep size, per 100.....\$1.50

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Punch and Pliers for attaching labels to ear, each \$1.00.

Name on one side and any numbers wanted on reverse side.

F. S. BURCH & CO.,
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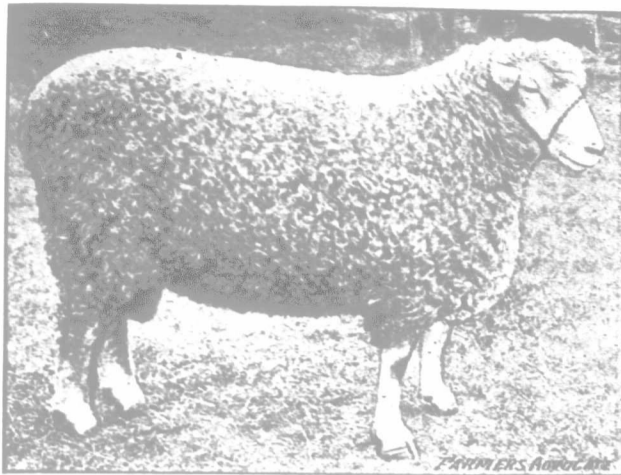
DR. BARNARDO'S HOME.

The managers of these institutions invite applications from farmers and others for boys and youths, who are being sent out periodically, after careful training in English homes. The older boys remain for a period of time at the Farm Home at Russell, where they receive practical instruction in various farm work before being placed in situations. This home is situated in Harten, placed from the district of Harten, Winnipeg. Applications for admission should be addressed to the Resident Superintendent, Dr. H. B. Barnardo, Winnipeg, or P. O. Box 960, Harten, where some possessing experience in farm work, or Manager, Dr. Barnardo's Farm Home, Harten, Ont.

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PLEASE MENTION FARMER'S ADVOCATE.

. Fairfield Flock of Lincoln Sheep .



THE largest flock of imported Lincolns and the largest number of Royal first-prize winners of the breed in America. Representatives of this flock won the first flock prize at Toronto last year, and the championship at London. Over 60 imported sheep now in flock, and over 100 field rams and ewes, purchased in England, to follow soon. A large number of yearling rams and ewes, ram lambs and ewe lambs for sale.

See our Sheep at the leading fairs.

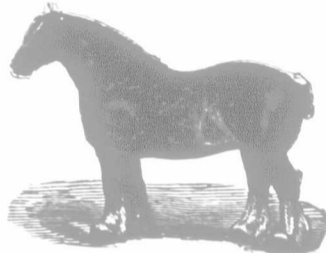
Write us for prices, or come and see.

J. H. & E. PATRICK, ILBERTON, ONT.

THORNCLIFFE Stock Farm

The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages,

"LYON MACGREGOR."



Stallions and Colts

From the best blood in Scotland and Canada. Ayrshire bulls and heifers from imported stock. Jersey heifers and bull calves, sired by the prize-winning bull, Distinction's Golden. Best milking strains, with good teats.

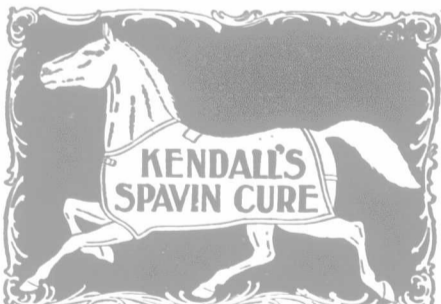
A visit to Thorncliffe will well repay you.

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Farmers' Live Stock Ear Labels. Every farmer and live stock dealer should have them; also the handy punch and nippers to insert them. Please send for circular and price list. Tack this ad. up where you can see it when you are ready to write and order. Address—**R. W. JAMES,** Bowmanville Ont.

Spavins, Ringbones, Splints Curbs, and All Forms of Lameness Yield to



Works thousands of cures annually. Endorsed by the best breeders and horsemen everywhere. Price, \$1; six for \$5. As a liniment for family use it has no equal. West Lorne, Ontario, Can., Dec. 14, 1898.

DR. B. J. KENDALL CO.
Dear Sirs:—A year ago I had a valuable horse which got lame. I took him to the Veterinary Surgeon who pronounced it **Oscult Spavin** and gave me little hope, although he applied a sharp blister. This made matters only worse and the horse became so lame that it could not stand up. After trying everything in my power I went to a neighbor and told him about the case. He gave me one of your books and I studied it carefully and being resolved to do the utmost in favor of my beast, went to the nearest drug store and got a bottle of your Spavin Cure and applied it strictly according to directions. Before the first bottle was used I noticed an improvement, and when the seventh bottle was about half used, my horse was completely cured and without leaving a blemish on him. After ceasing treatment I gave the horse good care and did some light work with him, wishing to see if it had effected a cure. I then started to work the horse hard and to my entire satisfaction he never showed any more lameness through the whole summer. I can recommend Kendall's Spavin Cure not only as an excellent, but as a sure remedy, to any one that it may concern. Yours truly, **SAMUEL TRITTON.**

Ask your druggist for Kendall's Spavin Cure, also "A Treatise on the Horse," the book free, or address **DR. B. J. KENDALL COMPANY, ENOSBURG FALLS, VT.**

We visited the Winnipeg Stock Yard recently, and looked over a splendid lot of stockers on route to British markets. Two carloads of them were in charge of Mr. James Morrison, from Mr. Paul's ranch at Medicine Hat. They were Shorthorn and Hereford crosses, and were a choice lot.

THE BIG FOUR. GREAT PREMIUM PICTURE OFFER

For obtaining prepaid new subscribers to the FARMER'S ADVOCATE, at \$1 per year.

- "Canada's Ideal."—Admitted by judges, breeders and artists to be the most magnificent engraving of high-class modern Shorthorns ever issued in any country. 21 x 33 inches. Twelve animals.
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ROBT. NESS & SONS, HOWICK, QUE.
BREEDERS AND IMPORTERS OF
Clydesdale Horses & Ayrshire Cattle
Also the leading breeds of fowls for the farmers.

Shorthorns for Sale.

12 FEMALES, from 1 to 7 years old, descended from Red Knight (53512), Hopeful (53903), Crown Prince 10637, Canada 19336, and Riverside Stamp 23589, on a Crimson Flower and Stamford foundation. All in good breeding form.
WM. SHIER, SUNDERLAND, ONT.

Pure Scotch Shorthorns for Sale. Two bulls and fifteen months old, and three two-year-old and two one-year-old heifers. All right. Good ones. Meadowdale station, C. P. R. **S. J. PEARSON & SON, Meadowdale.**

Shorthorns and Leicesters.

Herd Established 1855.
A number of young bulls, cows and heifers for sale. Herd headed by imported Christopher 28859, and Duncan Stanley = 16364. Grand milking cows in herd. Also a number of Leicesters of both sexes, from imported foundation.
JAMES DOUGLAS, CALEDONIA, ONT.

SPRINGBANK FARM.

Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale.
JAS. TOLTON, WALKERTON, ONT.

Bonnie Burn Stock Farm

Forty rods north of Stouffville station, Ont., offers for sale Shorthorn bull calves and yearling heifers, Shropshire lambs and shearlings (both sexes), om **D. H. RUSSELL, Stouffville, Ont.**

SCOTCH SHORTHORN BULLS AND HEIFERS

HERD ESTABLISHED IN 1872.
Such sires as imported Royal George and imported Warfare have put us where we are. Imported Blue Ribbon now heads herd.
A. & D. BROWN, ELGIN COUNTY, IONA, ONTARIO.

SALE OF SHROPSHIRE SHEEP—The greatest sale of Shropshire sheep ever held in America will be made at the sheep pens on the State Fair Grounds during the Indiana State Fair, on Wednesday and Thursday, September 19th and 20th. Five hundred head will be sold at public auction to the highest bidders. The sale will be conducted under the auspices of the American Shropshire Association. For particulars, address **MORTIMER LEVERING, Secretary, Lafayette, Ind.**

Shropshires for Sale

Rams and ewes of good breeding, fine lusty fellows. Prices reasonable. om
ABRAM RUDELL, HESPELER, ONT.

Shorthorns and Cotswolds

One 2-year-old Isabella bred bull. Also yearling rams and ewes, and this year's crop of lambs.
JOHN C. ROSS, Jarvis, Ont.

H. CARGILL & SON,
CARGILL, ONTARIO, CANADA.

WE have the largest herd of Cruickshank and Scotch-bred imported cattle in Canada. Herd headed by the Duthie-bred Golden Drop bull, imp. "Golden Drop Victor," assisted by the Marr-bred Princess Royal bull, imp. "Prince Bosquet." The herd will be augmented about 14th August by a fresh importation of fifty-two head, personally selected by Sylvester Campbell, of Kinellar, an expert judge both as to individuality and pedigree. The cattle in this lot will compare very favorably with any lot yet imported. All females of suitable age are bred to the very best bulls obtainable. Correspondence or personal inspection invited. Catalogue and service list upon application.

Cargill Station is on the Farm, Half a Mile from Barns, and 70 Miles North-west of Guelph. See Catalogue for Map.

W. G. Pettit & Son, FREEMAN, ONT.
IMPORTERS AND BREEDERS OF
Scotch Shorthorns and Shropshire Sheep

OFFER FOR SALE:
20 Imp. bulls.
40 Imp. cows and heifers.
6 Home-bred bulls.
30 Home-bred cows and heifers.
7 Shearling rams.
20 Ram lambs.
25 Ewe lambs.

Our importation of this year arrived home August 17th, and is one of the largest made this year. Selected by ourselves from the leading herds in Scotland.

Our new Catalogue, with full information, is now ready to mail.

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

The Breed THAT FIRST MADE Hillhurst Famous
THE HIGHEST-PRICED
SHORTHORN FEMALES

Ever sold in Great Britain and the sire and dam of the 4,500-guinea Duke of Connaught were bred at Hillhurst. To-day "Joy of Morning," the highest-priced Scotch-bred bull ever imported to Canada, and "Scottish Hero," brother in blood to the Royal champion, "Marengo," are in service in a herd of 65 Scotch and Scotch-topped Shorthorns in a hilly limestone district, where cool summers, green pastures and winter food more closely approach Aberdeenshire conditions than any other part of the continent. **HAMPSHIRE DOWN and SHROPSHIRE SHEEP.**

M. H. COCHRANE, HILLHURST STATION, COMPTON CO., P. Q.

Ayrshires, Guernseys, Yorkshires and Shropshires are our leaders.

ALL high-class, pedigreed stock. Those desirous of purchasing thoroughbred animals should write for particulars at once. Orders booked now in rotation for present and future deliveries. Address—
ISALEIGH GRANGE FARM, Danville, Quebec.
J. N. GREENSHIELDS, PROP. **T. D. MCCALLUM, MGR.**

Rapids Farm Ayrshires.

REINFORCED BY A RECENT IMPORTATION of 20 cows, 2 bulls, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Will be represented at the Exhibitions at—

... Toronto, London, and Ottawa, in September.
Do Not Fail to See Them. Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Robert Hunter, Manager
for W. W. Ogilvie Co., Lachine Rapids, Quebec.

LIGHT YOUR HOME WITH Sunlight Gas

The best light in the world. No more expensive than coal oil.

WRITE FOR PARTICULARS TO
The Sunlight Gas Co., Ltd.,
1, LITTLE ST. ANTOINE ST., MONTREAL.
SEE TESTIMONIAL BELOW.

Nurse's Hotel, The Humber, Toronto, Feb. 7th, 1900.

THE SUNLIGHT GAS CO., LTD., Montreal, P. Q.

GENTLEMEN:—I have used your machine for the past four months, and must say that I am well pleased with it. The light is most beautiful and economical. I am using sixteen lights, most of them being used from 5 to 10 p. m., and six from 5:30 to 7:30 a. m., and for the whole time these are in use I only consume five pounds of carbide. I shall be most happy to give any information to any intending purchaser and remain, Yours truly,
C. NURSE.

Gombault's Caustic Balsam

WORKS WONDERS.

It Removes Bunches on Horses or Any Other Live Stock

THEREBY INCREASING THE VALUE OF THE ANIMAL FULLY 50 PER CENT.

IT CURES

Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Windpuffs, all Skin Diseases or Parasites, Thrush, Diphtheria, Pink Eye, all Lameness from Spavin, Ringbone and other Bony Tumors; also, all obstructions in circulation, and imparts new life and vigor. It is a peerless remedy for all Throat and Bronchial Troubles. Impossible to produce any scar or blemish.

It is the safest and best blister.

A trial will surely convince you of its merits.

For Sale by all Druggists

or sent by Prepaid Express on receipt of **\$1.50**

THE LAWRENCE-WILLIAMS CO., Toronto, Ont., and Cleveland, Ohio.

SOLE AGENTS FOR THE UNITED STATES AND CANADA.

GOMBAULT'S CAUSTIC BALSAM IS THE ONLY GENUINE AND ABSOLUTELY SAFE AND RELIABLE ONE.

Horse Owners Should Use
**GOMBAULT'S
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Balsam**
The Great French Veterinary Remedy.
**A SAFE, SPEEDY AND
POSITIVE CURE.**



Prepared exclusively by J. E. Gombault, ex-Veterinary Surgeon to the French Government Stud.

SUPERSEDES ALL CAUTION OF FIRING
Impossible to produce any scar or blemish. The safest best Blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses or Cattle.

As a **HUMAN REMEDY** for Rheumatism, Sprains, Sore Throat, Etc., it is invaluable. **WE GUARANTEE** that one tablespoonful of **CAUSTIC BALSAM** will produce more actual results than a whole bottle of any liniment or spavin cure mixture ever made.

Every bottle of **Caustic Balsam** sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address: **THE LAWRENCE-WILLIAMS CO., Toronto, Ont.**

Maple City Jerseys.

One Jersey bull two years old. Some very choice bull calves from 2 to 5 months old, and a few high-grade heifers and heifer calves. All of the choicest breeding. Write for prices. -om
Box 552. W. W. EVERITT, Chatham, Ont.

A SURE PRIZEWINNING BULL

to head their Jersey herd, I offer
Prince of Belvedere 11655
5 years old, solid bronze fawn. Dam, 17 1/2 lbs. butter a week; sire's dam, 20 lbs. 6 ozs. a week. Also, **Golden Fawn** Cow, 5 years, superb udder, grand butter record.
Also a **Young Stock**, both sexes and rare quality.

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

Maple Hill Holstein-Friesians

SPECIAL OFFERING.
Bull calf 8 months old, sired by DeKol 2nd's Paul DeKol Duke. Bull calf one week old, sired by Daisy Teak's King. Also several fine females, all ages.

G. W. CLEMONS,
HARRISBURG STN. -om. ST. GEORGE P. O., ONT.

Maple Glen Stock Farm.

The home of officially tested, Advanced Registry, dairy test and showing-win. A grandson of the great 1st prize bull, Johanna Rue 2nd's Paul De Kol (2172), at head of our herd. Also bull calves at reduced prices. Fine chance to start herd of pure-breds.

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

WE WANT TO SELL A FEW Holstein Heifers, coming 2 years old

THEY are of the richest and largest producing strains, fine individuals, and bred to as good bulls as there are living. We have a few bull calves and yearling bulls also for sale. -om

HENRY STEVENS & SONS,
LACONA, OSWEGO CO., N. Y.

OWING TO DROUTH

will sell five Holstein-Friesian heifers, two or three years old, for \$350. Fine animals, of rich breeding, and bred to the great 1st prize bull, Johanna Rue 2nd's Paul De Kol (2172), at head of our herd. Also bull calves at reduced prices. Fine chance to start herd of pure-breds.
SOUTH SIDE FARM CO., ST. PAUL, MINN.

BROOKBANK

Is headquarters for Holstein bulls. They are going fast; be quick if you want one. In writing, state age, etc., preferred. -om
GEO. RICE,
Oxford Co. Currie's Crossing, Ont.

IN WRITING
PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

THE DUAL PURPOSE COW TO THE FORE.
At the Tring Milking and Butter-test Trials of 1900, held last month in England, Mr. E. Dawe's Shorthorn cow, Cherry, gave in one day 67 lbs. 10 ozs. milk, from which was churned 4 lbs. 4 ozs. of butter, a butter ratio of 15.79, winning the first prize of £20 in the milking competition, and the first prize of £20 in the butter test for cows exceeding 900 lbs. live weight. The second prize went to Dr. Watney's Jersey cow, Lady of the Sunny Isles, which gave 46 lbs. 12 ozs. milk, and made 2 lbs. 6 ozs. butter, a butter ratio of 19.30. Lord Braybrooke's Jersey cow, Mistral 4th, gave 38 lbs. milk and 2 lbs. 10 ozs. butter, ratio 14.58. At last year's trial of the same society, Lord Braybrooke's Jersey cow, Sundew 4th, made a record of 3 lbs. 6 ozs. The Shorthorn has made a new record, and goes up head.

THE FAIRVIEW SHROPSHIRE.
One hundred and fifty high-class pedigree Shropshire sheep in the flock of Mr. John Campbell, Woodville, Ont., were recently seen grazing on the green pastures of Fairview farm, looking the picture of health and vigor, and showing the typical characteristics of the best of the breed, with a degree of uniformity calculated to delight the eye and the heart of a connoisseur in the art of breeding and fitting high-class Shropshires. The laird of Fairview is a past master, and is ably seconded by Don, the devoted shepherd and kinsman, to the manor born and brought up. What they two do not know about breeding and fitting for the fairs and flock would be worth a fortune to find out. The 1900 importation, comprising 40 head of various ages, will be found to measure well up to the standard of former importations in type and quality, and the owner evidently considers them even a better lot than any that have preceded them in the flock. Half a dozen shearing rams and the same number of ram lambs, 25 shearing ewes, and a choice bunch of ewe lambs from the flocks of A. E. Mansell and Harry Williams, bear the noted stamp of the stock from which they come, in quality of flesh and fleece and bone, in color, covering, constitution and character; while the Colonial contingent, the home-bred shearing rams and ewes, ram lambs and ewe lambs, by the famous sires, Newton Lord, Fair Star Dreamer, and The Paragon, compare favorably with their compeers from over the sea, and will stoutly contest with them for honors at the leading shows in Ontario in the present month. Shropshires bred from the Fairview flock made a grand record at the late Winnipeg Exhibition, winning 1st in every section of the class, and it will be a cold day when they get left in any competition on this side of the sea. Mr. Campbell in his advertisement invites the farmers visiting the fairs to look over his exhibit, and those who cannot come, to write for what they want, and all may depend on what he ships being true to the description.

Choice Ayrshires, Barred Rocks and Eggs.

4 FINE BULLS fit for service. Bull calves, and heifers. A few Barred Rock cockerels. Eggs for hatching from choice matings in Barred Rocks, at \$2 per 15; incubator eggs, \$4 per 100; Cayuga duck eggs, \$1 per 11.



JAS. McCORMACK & SON,
-om. ROCKTON, ONTARIO.

Thorold Cement

AT THE
TORONTO FAIR

AUG. 27 TO SEPT. 8, 1900.



FARMERS!

YOU will find our Mr. James Battle at our MODEL BARN just in the rear of the GRAND STAND. You will find it a nice cool spot. Drop in and have a chat with him about Cement.

Estate of John Battle, Thorold, Ont.

Maple Cliff Dairy and Stock Farm.

Breeders of **FOR SALE:**
AYRSHIRES, 1 yearling and 6 bull calves from 2 to 8 months old.
TAMWORTHS, Bore and sows, 6 to 8 months old, and sucking pigs.
BERKSHIRES, Breeding orders for young pigs.

R. REID & CO., Hintonburg,
Farm 1 mile from Ottawa. Electric cars to farm. om

THE LINCOLN RAM SALES.

At the annual sale of Lincoln rams, held in the City of Lincoln, Aug. 3rd, Mr. Dudding's 5 rams averaged 471 88.; Mr. J. E. Casswell's 25 rams, 415 17.; Mr. Tom Casswell's 29 rams, 430 17.; Mr. S. L. Dean & Son's 19 rams, 421 9.; Mr. John Pear's 13 rams, 420.; Mr. Henry Smith's 6 rams, 438 15.; Messrs. Wright's 20 rams, 428 88. The highest price was 150 guineas for one of Mr. Dudding's; the next 130 guineas for a ram of Messrs. Dean's; and the third 100 guineas for a ram of Mr. Tom Casswell's.

Elgin Watches
possess accuracy and endurance under all conditions and in all degrees of temperature.
Full Ruby Jeweled.
Sold by jewelers everywhere.
An Elgin Watch always has the word "Elgin" engraved on the works—fully guaranteed.
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WATER BASINS.
Do You Require an Up-to-date Article ?

Point 1. They are perfectly automatic, and you rest easy that your cattle are always watered. They cannot overflow or run dry. This is a feature which puts them ahead of all others.
Point 2. (See next issue.)

Ontario Wind Engine & Pump Co. LIMITED.
TORONTO.

SHOW AYRSHIRES FOR SALE.
As we are not going to show any cattle at the fairs this year, we will sell the imported prizewinning bull, Napoleon of Anchenbrain, champion and head of first prize herd at Toronto, 1898. Also first class 2-year-old bull and three choice bull calves of last fall. These are all fit for the showing, as we kept them for that purpose. For prices and particulars come and see, or write.
James Boden, Mgr.,
St. Anne de Bellevue, Quebec.
Farm close to St. Anne Station, G.T.R. & C.P.R., 20 miles west of Montreal.

Ayrshire Bulls: Write to **J. YULL & SONS, Carleton Place,** for special prices on Ayrshire bulls from 11 years to 6 months. Four over 15 months, fit for service, from special milking stock. Sired by prize bull, Dock of Burnside—1684—, also females of all ages. Shropshire sheep of all ages; a number of fine ram lambs, Berkshire pigs of either sex, of the best bacon type. B. P. Rocks.

For Sale: Six Ayrshire bulls, ranging from 5 months to 1 year past. Also a few cows and heifers, thoroughbred fowls, and Scotch collie dogs.
WM. STEWART & SON, MENIE, ONT.

EUROPEAN ADVERTISEMENTS.
FAMOUS ALL OVER THE WORLD.
ALFRED MANSELL & CO.,
LIVESTOCK AGENTS AND EXPORTERS,
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BRITISH STOCK selected and shipped to all parts of the world. Write for prices to **ALFRED MANSELL & CO.,** Shrewsbury, England, or to our American representative, **Robert Miller, Stouffville, Ont., Canada.**

W. W. Chapman,
Secretary of the National Sheep Breeders' Association,
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and late Secretary of the Southdown Sheep Society.
Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.
Address: **FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W.**
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Conducted in all parts of the country. Pedigree stock a specialty. Write for terms. References: John Isaac, Newark; John L. Holson, Guelph; Hon. M. H. Cochrane, Compton, P. Q.; or this office.
JOHN SMITH, BRAMPTON.

GOSSIP.
In writing to advertisers, mention the "Farmer's Advocate."
D. G. J. Fitzgerald, V. S., London, Ont., has recently imported from the U. S. the grand 5-year-old Thoroughbred stallion, Rappahannock, by Potomac, he by the Derby winner, St. Blaize; dam Lavina Belle, by Longfellow; her dam was Belle Knight, the dam of Queenland. Potomac was the winner of the Futurity and other stakes aggregating \$125,000 during his career. Rappahannock is a handsome chestnut, 16 hands high, on stout legs, heavy bone, and is well calculated to produce hunters and saddlers of the highest type.
The two days' combination sale of Berkshire swine, announced to be held at Springfield, Ill., Aug. 8th and 9th, proved a miserable failure, though extensively advertised, being attended by few others than the contributors. On the first day of the sale fine large sows of the best breeding sold at prices little if any above pork prices. It was anything but encouraging to the breeders who prepared and shipped stock to the sale at considerable expense.

Messrs. Henry Stevens & Sons, Lacona, N. Y., send us the following report of recent official butter tests made by Holstein-Friesians at their Brookside farms:—We have recently closed a seven-day butter test of thirteen head, ten 2-year-olds, two 3-year-olds and one 5-year-old. As this test was conducted on two different farms, Prof. H. H. Wing kindly sent us two representatives of Cornell University to conduct the test. Mr. M. M. Underdown and Gilbert M. Tucker, Jr. While our animals made no phenomenal records, we think, as a whole, they made a very creditable showing. The lowest test made by any of the 2-year-old heifers was 11.1 lbs., this by a heifer less than 23 months old. The highest test made by a 2-year-old was 16 1/2 lbs. Nine 2-year-olds made an average of 50 lbs. milk per day for seven days, and over 13 lbs. butter in seven days. Three 2-year-olds averaged over 55 lbs. milk per day for seven days, and 14.72 lbs. butter in seven days. The youngest of these ten heifers was 1 year 10 months 24 days old, and the oldest was 2 years 2 months 18 days, and their average age was 2 years 1 month 2 days. The two 3-year-olds in this test, at an average age of 3 years 2 months, made, respectively, 15.36 lbs. and 15.69 lbs., and the 5-year-old made 15.45 lbs. We now have in our herd over 50 animals that have made official butter records; among them are the three largest tests that have ever yet been made. The herd contains 200 registered animals.

F. BONNYCASTLE & SON'S SHORTHORNS, COTSWOLDS, AND BERKSHIRES, AT CAMPBELLFORD, ONT.

When in Northumberland County the writer visited the above named firm and was shown over the herds and flocks. It will be remembered that Mr. Bonycastle launched out by purchasing the foundation of the present herd of Shorthorns in the early '80s from the late F. W. Stone, of Guelph, in the selection of Anchovy 2nd, by Airdrie 8th 1328, and out of Anchovy (imp.) from the herd of J. A. Mumford, Brill House, England, a straight Bates-bred cow by Second Duke of Claro (21576), and out of Alahambria Duchess, tracing to Queen of Spain and Iniquity.

Anchovy 2nd proved herself a highly profitable investment for her owner, even in face of the fact that it took a long time to tempt her owner to part with her, as she was known to belong to a prolific, lusty tribe, carrying Short-horn character of no mean value, and possessing excellent milking qualities.

At a more recent date, and at the dispersion sale of the late Robert Cockburn, Messrs. Bonycastle again selected a member of the favorite Cruickshank Cecelia tribe, from which they have been able to retain a few of the best select produce. This tribe originated in the famous Sittony herd, which is now so eagerly sought after in Shorthorn circles. From these two tribes the extensive herd of 40 odd females at Campbellford sprung.

The Messrs. Bonycastle have always exercised much caution in the selection of their bulls, and have drawn from the leading thick-fleshed Scotch families, the first selected being Prince of Northumberland 8553, by Prince of Florence, and out of Cecelia 4th (imp.), by Gladstone, who headed the herd for four years and left the strong, thick-fleshing qualities peculiar to his strong Scotch ancestry, the impression of which still remain in much of the younger stock. Then for three seasons, Walter Duke 17789, by the imported Cruickshank bull, Premier Earl, and out of Minnie March, did valuable service, and left a lot of useful red and rich roan things to be bred to the Duchess of Gloster bull, Redman 21765, by Imp. Tofthills, and out of Canadian Duchess of Gloster 26, by Lord Abbot (imp.), which followed for three more seasons, doing excellent service. Redman was a dark red bull and large proportion, true in the Duchess of Gloster type, strong in character, and a sire of excellent females, a number of which the firm have on hand.

The present stock bull is Prince George 2873, a good representative of the present popular Miss Ramsden tribe, a race as equally noted for their hardy prolificness as the Anchovy's, a tribe rich in popular Scotch blood and full of size and quality, and to Prince George the firm give the credit of producing the most uniform and thrifty lot of calves they have ever reared, having good length and depth of body, and all well covered with a glossy coat of dark red and roan hair.

The firm have, as their ad. shows, a choice lot of bull calves under a year, a few heifer calves, yearling heifers and cows in their prime. In Cotswold sheep the firm have been breeding to a specific type, with due regard to fleece and conformation, with the result that a sample of wool was selected for exhibition at the Paris Exhibition this year, and pronounced by the Commissioner as very excellent in length and quality. Descendants of imported sires have figured conspicuously in this flock for several generations, and this year the firm are open to price anything among the 50 odd ewes and their crop of lambs, also three shodding rams now on hand.

Their Berkshire herd contains the blood of such strains as Baron Lee 13th and Enterprise, and are true in type and quality. Note the firm's offerings.

IN WRITING PLEASE MENTION FARMER'S ADVOCATE.

Summer Hill Herd
HEADQUARTERS FOR THE IDEAL BACON HOG.

The largest herd of pedigreed Yorkshires of the large English type in Canada. Purity of breed, size, and general excellence is my motto. One hundred awards with one hundred and five exhibits at 7 shows in 1898. A choice selection of young boars and sows of all ages for sale; also boars fit for service, and pregnant sows. Fifty breeding sows, of which 25 (twenty-five) are imported; also three imported stock boars bred by such noted breeders as Sanders Spencer and Philo L. Mills. Am also using two Canadian-bred stock boars, first prize at Toronto in 1898-99. Express charges prepaid. All stock carefully shipped and guaranteed as described. Telephone, Millgrove, Ont. Telegraph 254 Bay St. S., Hamilton, Ont.
D. C. FLATT, MILLGROVE, ONT.

METAL ROOFING.
Ottawa, January 27th, 1900.
Gentlemen, The "Safe Lock" Galvanized Steel Shingles purchased by me last fall were used to roof the dwelling house on my farm at Myrtle, Ont. The workmen who put them on pronounced them of excellent quality. When the work was completed they presented a very pleasing appearance. I do not expect to have to touch the roof again during my lifetime. I recommend your shingles to anyone desiring a really good roof.
F. W. HONSOX,
Live Stock Commissioner,
Ottawa.
Ask for free samples and estimates of our "SAFE LOCK" SHINGLES.
The Metal Shingle & Siding Co.,
PRESTON, ONT. Limited.

Catalogue Printing our Specialty.
Many of the best Catalogues in Canada are produced by us. Latest type faces, designs, ornaments, and modern machinery.—Best in America. Up-to-date covers designed by special artists without extra charge.
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Huntlywood Southdowns & Dexter Kerry Cattle
Flock of 300 head, imported and home-bred. Selected from the flocks of H. R. H. the Prince of Wales, the Duke of Richmond and Gordon, and the late Mr. Coleman. We are now offering for sale rams, ewes and lambs; also a Dexter Kerry bull calf, by imp. Bantam 257, champion R. A. S., Manchester. Apply to
W. H. GIBSON, Manager,
Hon. G. A. Drummond, Beaufort, Point Claire P. O., P. Q., Proprietor, on Canada.

CONTAGIOUS ABORTION
HAS BEEN CURED BY
WEST'S FLUID
In several of the finest herds of prize stock in the country; but as it would injure the reputation of the breeders, they will not give written testimonials. These statements are facts.
Write for circular on this disease, specially prepared by a V. S.
Headquarters for "STANDARD" Sheep Dip.
Manufacturers: **The West Chemical Company,**
Agents Wanted, in **TORONTO, ONT.**

Dorset Horn Sheep.
This season's crop of 20 ram and ewe lambs, out of imported ewes and their descendants, by the Royal winner, Lord Roberts 1833, I will exhibit at Toronto and Western Fair.
R. H. HARDING, Thorndale.

Shropshire Rams and Ram Lambs
From Tainer, Minton and Brulhorn foundation. Uniform and first-class in quality, size and covering.

Estate James Cooper,
KIPPEN, ONTARIO.

SHEEP BREEDERS' ASSOCIATIONS
American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.

Shropshire Rams and Ewes
Newly imported from the greatest English breeders. Home-bred rams and ewes of best quality. Scotch Shorthorns and Clydesdale horses for sale at moderate prices, and in large numbers, by
ROBERT MILLER,
STOUFFVILLE, ONT.

SHROPSHIRE SHEEP AND CHESTER WHITE SWINE.
WM. E. WRIGHT, GLANWORTH, ONT.

Berkshires.
We are offering a fine lot of Young Pigs of the High-cloze and Sallie families. Can supply pairs not akin. Two good stock boars for sale, one of them imp, in dam
JOHN RACEY, Jr., Lennoxville, Que.

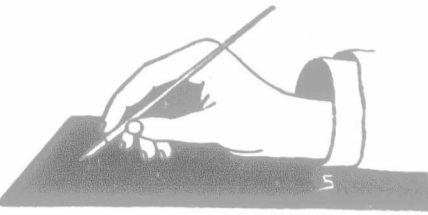
Snelgrove Berkshires.
When others fail to please you with a good pig, come to us. Our herd is bred from the best strains of the Large English Berkshires. We now have a very promising lot of young pigs, April farrow, sired by Colonel Brant 5350 (first prize under 12 months, Toronto, 1900) and Dictator 5944. Write for prices.
SNELL & LYONS,
Snelgrove, Ont.

Berkshires—Large, lengthy, English type. Five first prize boars in service. Spring pigs ready for shipment. Boars fit for service. Sows ready to breed.
GEORGE GREEN,
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OAK LODGE
Type of Yorkshires
We have now on hand a large herd of pigs of different ages, and they are as good as we have ever offered. The winnings of this herd have been greater than all other herds combined at the largest Canadian exhibitions.
All stock shipped to order, fully guaranteed.
Brethour & Saunders, Burford, Ont., Can.

Large White Yorkshires.
An offering during this month a grand lot of boars and sows ready for breeding. Pairs supplied, no skin from show stock, also several sows in pig to imported boar. Young pigs from 2 to 3 months old, all of the most improved bacon type. Registers furnished. Express prepaid. Address:
H. J. DAVIS,
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TAFE BROS. Importers and breeders of Ridge-town, Duroc—Address: Ridge-town, Ontario.
Jersey TAFE BROS. Swine, Ridge-town, Ont.
IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.



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This is the strongest Business School in Canada, because it employs more competent teachers, has far superior equipment, enjoys the largest patronage from all over the Dominion, and sends the largest number of students direct into good paying positions.

You may enter any time from Sept. 4th, when fall term opens.

Write for particulars.

W. H. Shaw, Principal.

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FOUR WELL-EQUIPPED DEPARTMENTS.

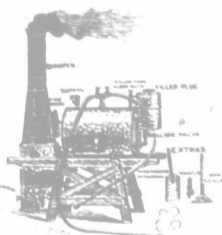
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Send for the illustrated catalogue for 1900; 132 pages (32nd year). Address

ROBINSON & JOHNSON, F.C.A.

Ripley's Improved Reliable Feed Cooker, Tank Heater and Steam Generator.



SOLD under a positive guarantee to do all claimed for it or money refunded. We guarantee it to cook more feed and heat more water in less time, with less fuel and attention, than any other cooker on the market. Made of galvanized boiler-steel, thoroughly riveted. Uses any kind of fuel. You cannot blow it up. Used and endorsed by Ontario's Agricultural College, J. E. Brethour, D. C. Platt, H. J. Davis, J. A. McDonald, Geo. B. Hood, and hundreds of the leading Canadian breeders. For circulars address

Ripley Hardware Co., Box 215, Grafton, Ill., U.S.A.

Agricultural College

GUELPH, CANADA.

The Ontario Agricultural College will reopen

September 14th.

Full courses of lectures with practical instruction suited to young men who intend to be farmers.

Send for circular giving information as to course of study, terms of admission, cost, etc.

JAMES MILLS, M.A., Principal.

Guelph, July, 1900.

LIGHTNING WELL MACHY PUMPS, AIR LIFTS, GASOLINE ENGINES THE AMERICAN WELL WORKS.

AURORA ILL. - CHICAGO - DALLAS TEX.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE



In league with hygiene

Hygiene demands absolute cleanliness in the bath room.
 No room seems to soil with greater ease.
 Nothing will clean and brighten with equal ease like SOBRITE.
 No dirt escapes it—no germs can live where it goes—it is nature's own dirt exterminator—beautifies, brightens and cleans.

SOBRITE 10 CENTS

Rapid action cleaner will not scratch

GOSSIP.

Messrs. Graham Bros., of Clarendon, Ont., recently purchased from the Chestnut Hill Stock Farm, Pa., the Hackney stallion, Stampede 341, sired by the famous Wild Fire No. 371, by Confidence 1265.

Henry Arkell, Arkell, Ont., writes: "I have just received from England, through Mr. Geo. McKerrow, Sussex, Wis., a nice importation of ten yearling ewes and two rams, the latter to head my flock. They should have some good blood to heart. To use Mr. McKerrow's words: 'He was the best Oxford field yearling I saw in England.' I have sold all my fitted show-stall, Woodhall. They went to Wisconsin, Ohio,

New York, Iowa, Illinois, British Columbia, Ontario, and Nova Scotia. I have 20 field yearling rams on hand, 100 fine ram lambs, and a few yearling and two shear ewes, for sale at reasonable prices."

BRAMPTON JERSEY HERD.

This herd is in excellent form, and although deprived of stables, owing to rebuilding, are doing big work in the dairy, some of them making large records, while the young animals are growing beautifully. Several important sales have been made recently, some of the young Monarchs, sons of Imp. Monarch, who holds the championships of Ontario, being widely scattered. One, Artisan of Brampton, has been cutting quite a figure in Manitoba, winning first in his class and sweepstakes as the

best bull of any age at Winnipeg and Brandon, in July. This is nothing more than might be expected from such a sire and such superior cows as the Brampton herd is composed of. There are six of those bulls still for sale, from such cows as Minette, Rhoda, Sunbeam, Rhoda Pogis, all of Brampton, a rare chance for Jersey men to put a desirable animal at the head of their herd. Nineteen entries have been made for the Toronto Industrial. The stables which are being built for this herd are nearing completion. They will accommodate upwards of sixty head, and are pronounced by some cattlemen to be equal to any they have seen, being light, airy and convenient, with silos and dairy attached. The firm are to be congratulated upon their enterprise and success.

MANUFACTURERS' Life Insurance Co.

HEAD OFFICE: TORONTO.

INCREASE DURING FIVE YEARS OF PRESENT MANAGEMENT:

	1894.	1899.	Increase.
Assets	\$ 821,320	\$1,810,155	120 per cent.
Net income	296,468	583,352	97 per cent.
Assurance in force	9,555,300	11,394,478	30 per cent.

1899.

"Death claims paid".....\$ 109,573 50
 Surplus for security of policy-holders.....665,648 01
 Assets.....1,810,155 17
 Business in force.....14,394,478 00

J. F. JUNKIN,
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Excelsior Life Insurance Co.

HEAD OFFICE, TORONTO, ONT.

Best Policies
 For protection and investment.
 Absolute security. Agents wanted.

WINDMILLS

If you are at the **Toronto Exhibition** You will not have the pleasure of seeing our exhibit, but **We will welcome you** At our works, which are adjoining the grounds, and show you **Every Feature** of our goods. **Our Pumps, Tanks, Grinders, etc.** Are well known throughout **CANADA.** **Ontario Wind Engine and Pump Co., Ltd.,** TORONTO, ONT.

Manitoba Agents: **BALFOUR IMPLEMENT COMPANY, Winnipeg, Man.**

BRANTFORD STEEL WIND MILLS 19th CENTURY

20th CENTURY

MY! WHAT A COMFORT THAT BRANTFORD MILL IS

POWER AND PUMPING MILLS. STEEL TOWERS AND FLAG STAFFS, IRON AND WOOD PUMPS, MAPLE LEAF GRAIN GRINDERS, BEE SUPPLIES.

COCKSHUTT PLOW CO. (Ltd.), Agents for Manitoba and N-W-T, Winnipeg.

TORONTO ENGRAVING CO.

92 BAY ST

CUTS BY ALL PROCESSES
 LIVE STOCK A SPECIALTY.

FIRE Safety

is best secured by using **"Safe Lock" Shingles**

on all your buildings. Prevents many fires and makes others easier controlled. The Safe Lock Metal Shingles are lightning proof too and keep out the snow and rain.

Small Shingle showing construction mailed free.

The Metal Shingle & Siding Co., Limited
 PRESTON, ONT.

Messrs. Hogate & Sons, Toronto, have recently imported from Scotland five Clydesdale stallions, purchased from W. S. Park, Bishopston; Geo. Anderson, Meldrum; and John Marr, Cairnbrogie. Mr. Park's three are the well-known horses, Royal Hampton, Royal Verdict, and Jock the Lad. Scottish Archer was a prize-winner at the Royal Northern, and sire by the celebrated Sirdar. Valentine is bred from one of Mr. Marr's best mares.

A GREAT HERD OF IMPORTED SHORTHORNS.
 The largest and one of the very best herds of imported Scotch-bred Shorthorns on the continent of America at the present time is that owned by Messrs. H. Cargill & Son, of Cargill, Ont. Few breeders are so well situated for handling a large herd, having a large tract of excellent grazing land and permanent pasturage for summer range, and rich uplands on which heavy crops of grain, roots and fodder are grown for winter feeding. Being in possession of extensive timber limits and water privileges, saw-mills and grist mills, they have the advantage of cheap lumber for building and the by-products of the mills for feeding, while their roomy, well-lighted, perfectly ventilated and conveniently-arranged stabling is admirably adapted to the raising of healthy, robust cattle, a feature which is strikingly noticeable in the herd as a whole, constitution, quality and symmetry being combined in a very high degree. Gifted with a genuine liking for fine stock, enjoying a personal acquaintance with the leading Scotch breeders of Shorthorns, and having the advantage of the agency of Mr. Sylvester Campbell, son of and successor to the late sage of Kinellar of the same name, himself a successful breeder, occupying the historic holding, whose good judgment is unquestioned where he is known, and whose instructions are to buy the best available at any time, the Messrs. Cargill are in a peculiarly favorable position to handle high-class cattle at a minimum of expense, and can afford to sell, as they are disposed to do, at a reasonable profit, price, quality and breeding considered, one of their principal pleasures being derived from seeing the animals they sell do well for and prove profitable to the purchasers, a luxury which has been theirs to enjoy in a large measure in the present year. As evidence that the Messrs. Cargill are not simply cattle dealers, but breeders in the best sense of the term, it may be mentioned that theirs is the only herd in America that can show 20 choice young breeding cows selected from the noted herds of Mr. Duthie, of Collynie, and Mr. Marr, of Upper Mill, Aberdeenshire, that are not for sale, but are being retained in the herd as breeders, with the object of supplying choice young bulls to their patrons, and adding to the excellence of their herd by their female produce. To give an idea of the extent of their business operations in the breeding, importation and sale of Shorthorns, it may be recalled that in addition to their original herd, based on and containing choice Scotch-bred cattle, principally from the Collynie and Kinellar herds, they have imported in the last three years over 150 head direct from Scotland, their latest importation of 51 head having been received at Cargill about the first of August in this year, while it is understood that another consignment is expected shortly.

The lately issued catalogue of the herd contains the pedigrees of 98 animals, and the recent births have run the number up to over one hundred. A review of the catalogue reveals a rich variety of the best known and most popular of the Scotch-bred families from leading herds, and a blending of the blood of a long line of noted prize-winning bulls and cows, which have made their mark in imperishable lines on the history of the breed.

The chief stock bull in service in the herd at the present time is the red imported 2-year-old Golden Drop Victor, bred by Mr. Duthie and sired by Nonpareil Victor, who, as his name denotes, belongs to that most desirable Cruickshank family, the Nonpareils, while his dam is of the favorite Golden Drop tribe, bred at Kinellar. He was the choice of the offerings at the Duthie-Marr sale last year, and cost over \$1,500 as a calf under a year old. He is a short-legged, deep-bodied bull, wonderfully full in his parts, and carrying a wealth of flesh of the best quality, and cannot fail to prove a prepotent sire. There are seven excellent imported yearling bulls in the herd which are held for sale, five of which are red and two roan, and all bred from most desirable families, while individually they are well up to the standard of first class. In the herd are typical sons and daughters of such noted sires as the Sigtion-bred Scottish Archer, and his seven Signal sons, Marengo, Brave Archer, Lordly Archer, Sassy Victor, Sigtion Archer, Prince of Archers, and Prince of Fashion. Others are sired by such noted bulls as Pride of Morning, by Star of Morning, and his son, Pride of Fame; Wanderer; Emancipator; the Missile bull, Musgrave; the Marr-bred Merry Mason; the Cruickshank Clipper, Clan Alpine; Count Lavender, Spicy Robin, Strongbow, Cyprus, by William of Orange, and others of equal fame and value to be named. A noticeable characteristic of the Cargill herd is uniformity of type, being low set, level, smoothly turned and, fully fleshed, while they are always in presentable condition, thanks to their own good feeding practice, and the care of Clancy, the cow-boy, who, with his 1200

Easy Harness

All harness, old or new, is made pliable and easy—will look better and wear longer—by the use of **Eureka Harness Oil**

The finest preservative for leather ever discovered. Saves many times its cost by improved appearance and in the cost of repairs. Sold everywhere in cans—all sizes.

Made by THE KYLE OIL CO.

Ensilage Cutters

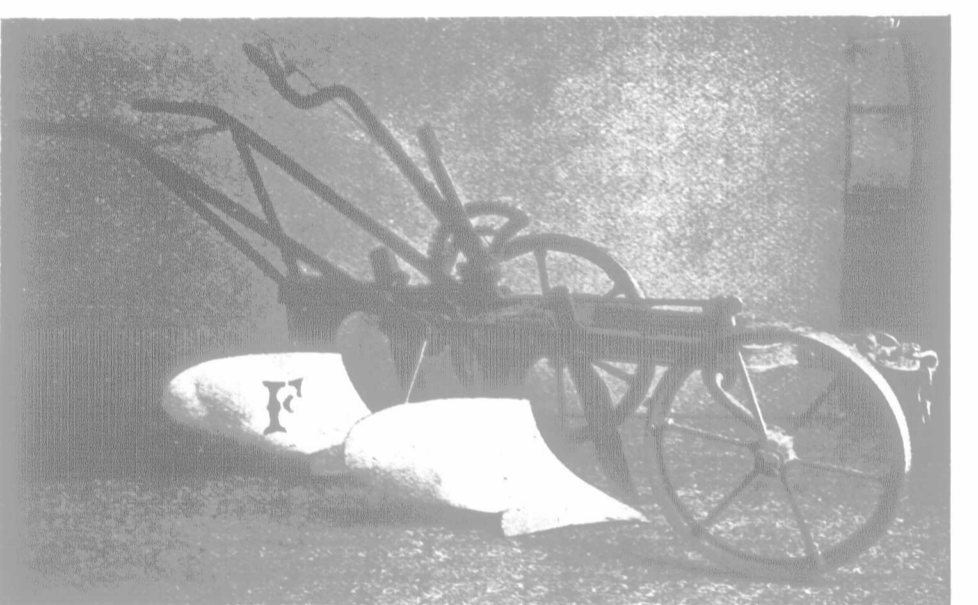
With Pneumatic Elevator (Blower).

B. 6. 12-inch mouth, two knives: fifty to one hundred tons of corn per day.
B. 8. 14-inch mouth, three knives: sixty to one hundred and twenty-five tons of corn per day.

These machines are giving great satisfaction and would please you. If you intend to buy an ensilage cutter this year, we would be glad to hear from you.

"I was engaged with my engine to drive one of your combined Ensilage Cutters and Blowers at Mr. Prout's. It ran with 50 lbs. of steam, giving entire satisfaction, and I highly recommend it to all intending purchasers."
 Vachel, Sept. 10th, '99. ROBERT GALBRAITH.

"Enclosed find notes for B. 6 Cutter. I was at a bee last week where this cutter was working, and I must say it worked fine. It blew the green corn up twenty-five feet. Mr. F. is highly pleased with the box."
 Creemore, October 9th, '99. D. CURRIE.



BIG GANG NO. 3.

This plow is intended for **Fall Work**, and will do about the same work and as much as two walking plows. Satisfaction guaranteed.

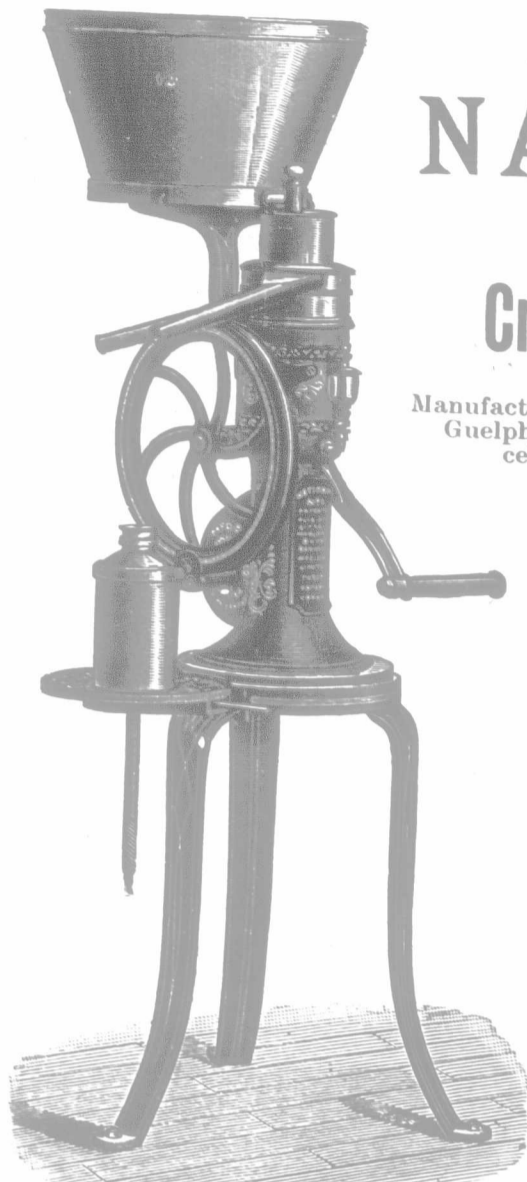
"The No. 3 Gang is doing fine. All those who have them are well pleased. Mr. Baker is plowing sod with his, and he says he can do a better job with it than he can do with his walking plows. You ought to make a thousand of these Gang plows, as they are taking like hot cakes."
 ALEX. Mc DONALD,
 Stayner, Ont., July 27th, 1900.
 See our nearest agent or write us.

J. FLEURY'S SONS, AURORA, ONTARIO.

Medals for plows: World's Fair, Chicago, 1893; Paris, 1900.

BORDER LEICESTERS.
 At Kelso last month there was a splendid exhibit. The aged rams were a superior lot, but the Highland form was not altered. Mr. McIntosh's Dundee champion being first, and Mr. Templeton's Galashiels champion Sensation second. Mr. Richard Ross had the third, and Mr. A. Fairbairn the fourth. In a class of no less than 18 shearing rams Mr. Thos. Clark, Oldham-stocks, secured all the prizes, with typical representatives of this well-known flock. His first-prize sheep was the winner of the president's medal at Stirling, and also secured the special for the best shearing ram. Mr. Jas. Nisbet, Lambden, Greenlaw, was first for Leicester ewes which have reared a lamb in 1900 with an outstanding animal. Mr. Matthew Templeton, Sandyknowe, Kelso, was second with a nice level sheep, and Mr. Thomas McIntosh, Radquharn, Brechin, commented. The crack sheep of this section, however, was Messrs. J. & J. R. C. Smith's first-prize shearing ewe by the Hawkrig ram Snow in Summer. She is quite an exceptional animal, and was second at the Highland. She was not looking so well at Stirling as she was here when she was awarded the challenge cup for the best exhibit in the Border Leicester classes. Mr. Thos. Clark was second, highly commended, and commended, with three fine animals.

CLYDESDALES FOR CANADA.
 From the *Scottish Farmer* we learn that Mr. Robert Ness, Howick, Quebec, recently sailed from the Clyde with a choice selection of six Clydesdale stallions, four of which are two-year-olds, one a three-year-old, and one a four-year-old. Three of the former are by the celebrated Baron's Pride (1922), and were purchased from Messrs. A. & W. Montgomery, and the fourth is by the great Sir Everard (3333), the sire of Baron's Pride, and was purchased from his breeder, Mr. A. A. Lang, Garmylead, Paisley. His dam was Mr. Lang's noted prize mare, Broomfield Lass, by the Darnley horse, Gartsheer (2900), with more he bought at a long price at Mr. Sinclair Scott's sale. The three colts bought from the Messrs. Montgomery are Copyright (1972), Baron Frederic (4818), and Zenith (1960). The first is a remarkably well-bred colt, bred at Barcheskie, and out of the Macgregor mare, Trilby of Barcheskie (1282), whose dam was by the Glasgow premium horse, Lord Hounston (2965). The second was bred at Drumflower, and is out of the fine Darnley mare, Fanny Moody (1060), the dam of several prize animals, and a granddaughter of the dam of the famous Drumflower Farmer (286). The third, Zenith, deserves his name, and is out of a Macgregor mare, whose dam was by the great show horse, Baron Keir (34), which won on both continents. From Mr. James Kilpatrick Mr. Ness has bought the thick, short-legged four-year-old horse, Up-to-Date (1047), by the great cavalry Cup champion, Royal (1871) out of a mare by that lovely horse, Orlando (822), a horse of unusually good breeding; and the three-year-old, Casper (1914), got by the Caydon Cup horse, Prince of Kyle (132), out of a mare by the Darnley horse, Johnnie's Style. These are a pair of right useful horses, and the six make up an unusually strong shipment.



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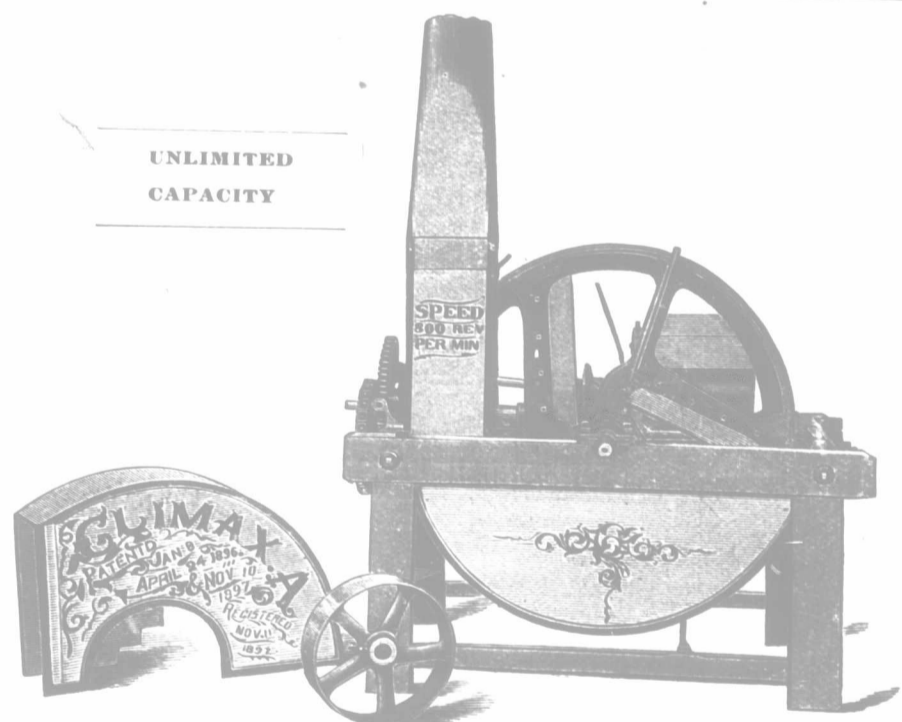
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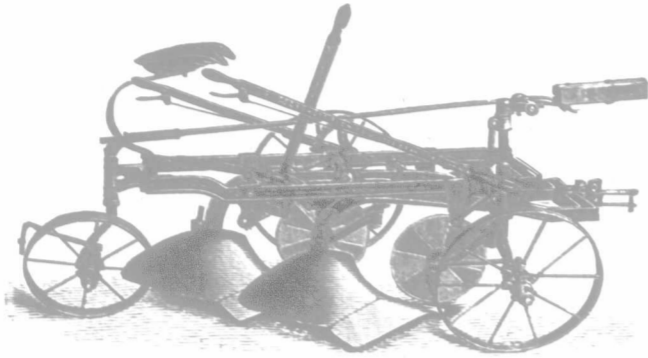


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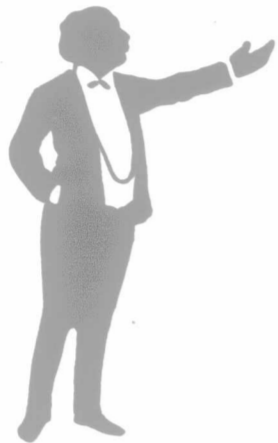


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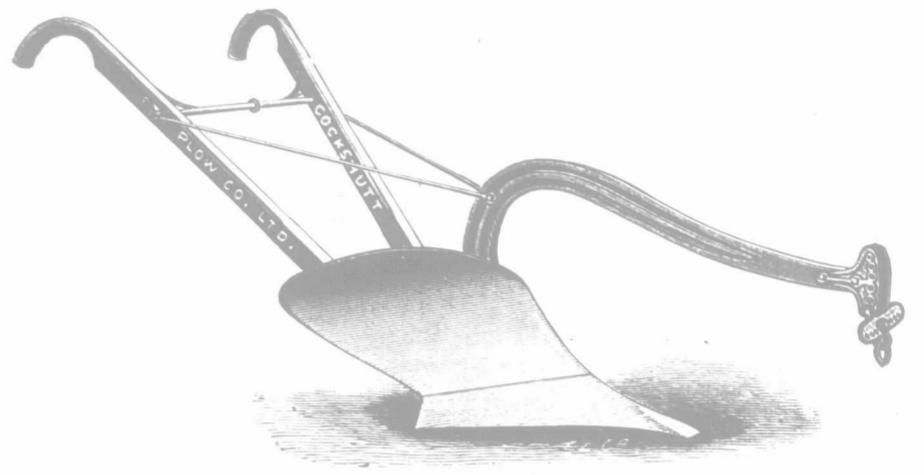


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