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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

VOL. XXXIV. LONDON, ONTARIO. JULY 20, 1899. WINNIPEG, MANITOBA. No. 482.

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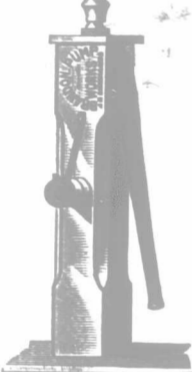
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No. 482

The Winnipeg Industrial a Great Success.

The Winnipeg Industrial Exhibition has come to be looked upon not only as the "great annual carnival," but in a business point of view, as an index of the productions, progress, and prosperity of Western Canada; and the directorate, ever watchful to further the country's interests, while making the show itself a success, has succeeded, from an immigration standpoint, far better than they know. The Industrial now attracts hosts of visitors, not only from our Canadian Provinces, from the Atlantic to the Pacific, but thousands come every year from the States to the south of us. We welcome our American cousins, and believe we can offer them great advantages to settle on our cheap and fertile lands. Although during the fore part of the week the outlook was threatening and changeful, by Wednesday it settled to our usual clear, cloudless summer weather. We in this western land glory in our sunshine, and while at times it "warms us up," we submit, because, after all, this is what makes our world-famed wheat and grass, and compensates for our northern latitude. On the whole, the weather could not have been better, and the attendance surpassed all previous records. The grounds were simply thronged with delighted thousands.

In some of the live stock departments there was a considerable falling-off numerically, although the quality of the exhibits was fully up to the average. In our review of the stock we have tried to give credit where credit was due, but have not foreborne to criticise, always aiming to assist in the educational objects of the fair. In the horse barns there was a marked decline in exhibits, particularly in the heavy classes. The beef breeds of cattle were fully up to the average, Shorthorns, of course, making the show. In sheep the exhibit was about average, with lots of room for improvement. The lack of interest here is undoubtedly due in large measure to the depredations of the prairie wolf. The swine pens were well filled with good exhibits. The poultry exhibit was the largest and best ever made. The exhibit in the dairy building was large and particularly good, and with few exceptions the average was well maintained throughout all departments. There were also grand exhibits of agricultural products and machinery.

The attractions were of a somewhat different character from the usual run, and were not, perhaps, as much appreciated as performances of a more thrilling nature. The horse races were fast—lots of entries and hot competition.

Among the many distinguished visitors to the fair were: H. F. Brown, the well-known Shorthorn breeder and exhibitor, of Minneapolis; Capt. Thomas Robson, of Iderton, Ont., breeder of Shorthorns and Lincoln sheep; Wm. Graham, the celebrated horseman, of Claremont; Henry Wade, Registrar of Dominion Live Stock Records; Dr. Jas. Fletcher, Dominion Botanist; J. X. Perrault, Dominion Commissioner to the Paris Exhibition; and the stock judges, Messrs. John Davidson, Ashburn; Wm. Hendrie, Jr., Hamilton; Dr. Willoughby; D. B. Charles, Galt; Wm. Watt, Salem; Wm. Stewart, Menie; J. C. Snell, London; Sharp Butterfield, London; and Prof. Haecker, of the Minnesota Agricultural College.

On succeeding pages we give complete reviews of the leading departments of the show.

Kildonan Farmers' Institute.

[Address by Prof. Geo. Day, O. A. C., Guelph.]

The annual meeting of the Kildonan Farmers' Institute, held on July 3rd, was addressed by G. E. Day, Professor of Agriculture and Animal Husbandry at the Ontario Agricultural College, Guelph, and Mr. D. A. Stewart, of Pilot Mound. The meeting was not largely attended. The officers of the preceding year were all re-elected. Prof. Day spoke briefly on the "Selection and Feeding of Live Stock." From what he had seen of Manitoba, he had not any doubt but that Manitoba would yet be a large producer of live stock. In Ontario the breeding and feeding of live stock had become an absolute essential to successful farming. They had to raise stock to be able to raise grain, and to raise grain, to be able to raise stock. The sooner Manitobans take up stock-raising, the better it would be for the country, as it was not only much safer than exclusive grain-raising, but gave profitable employment throughout the year, and would keep the young men out of mischief during the winter months. He had heard people in this country remark that they did not intend to go in for stock-raising on account of the *drudgery* necessitated in feeding and caring for stock during the long months of winter. Whether stock-feeding is *drudgery* or not depends largely upon how you look at it. Given good stock, in which the feeder can take a pride, and there is no *drudgery* in caring and feeding such; and once get the boys of the farm interested and proud of the live stock that they have to work with, and there will no longer be the complaint that the boys leave the farm for other occupations.

One of the great difficulties is that men do not possess the dogged perseverance necessary to success in stock-raising. Men are not satisfied to start at the bottom, or according to their means, and stick to it with unwavering perseverance until they reach the top. In starting a herd or flock it is not necessary to have pure-bred females, but it is necessary to have an *ideal* in one's mind in order that an intelligent and persistent effort be made to attain a high standard. A man must *know* a good animal, and knowledge must be the basis upon which success is founded. In stock-breeding, of whatever breed is decided upon, the best individuals only should be retained, culling out those that are inferior. In common practice it is generally the best that are sold, simply because they bring the most money at the time; and in consequence the herds and flocks are continually degenerating. Then, for lack of a fixed purpose, people switch off from one breed to another. This practice he could not too strongly condemn, and believed that whatever breed a man selected he should stick to that breed, using the best sires obtainable.

In addition to careful selection, it was most essential to feed, and to feed properly. He was often asked, "What is the best ration for dairy cattle or for beef cattle?" He did not think there was any best ration. It depended very largely upon what feed was at hand. It was important, however, if it was necessary to buy feed, to understand the composition of a proper ration in order that the most economical feed might be bought. The fact is frequently overlooked that an animal can only return a profit in milk or beef out of the feed consumed above what is required for the maintenance of the body. An animal that will not pay for good feed cannot be made to pay at all. Nowadays more attention is given, in feeding stock, to the cheaper part of the ration—the coarse fodders. By careful study along this line, together with experience, it was found that considerable saving can be made in the amount of grain fed by making the fodder ration so palatable that the animals will eat a large amount of it. If cattle are fed good hay one meal and straw the next, they

will not eat the straw, but wait for the next feed of hay; but if the hay and straw are cut and mixed together, along with ensilage or roots, or both, the cattle will eat all clean, and thus get the benefit of whatever nutriment there is in the straw. In this way meal rations for stall-fed cattle have been reduced within the past few years about one half. He cited a number of tests that have been made at the Agricultural College in feeding cattle. He strongly recommended roots, and was sure they can be grown in any part of this country with satisfactory results. Roots are also particularly useful in hog-feeding, and where they are fed during the winter months in suitable proportion there is much less trouble from crippling, and the hogs are in much better shape to be finished off with a heavy grain ration.

Mr. Stewart exhibited samples of Brome grass, which, he said, was doing exceedingly well wherever tested in the Pilot Mound district. He strongly recommended it for pasture and for hay, for renewing old land by supplying humus or root fiber to the soil, to prevent drifting of light soil or baking of heavy soil, and also pointed to its usefulness on dirty land to hold weeds in check. He had found that seven pounds of seed per acre of home-grown seed was sufficient in his district, and thought likely that quantity would be suitable anywhere on the heavy lands of the Red River Valley.

The N.-W.T. Government and Agriculture.

C. W. Peterson, Deputy Commissioner of Agriculture, Regina, in speaking at some Institute meetings in the Territories lately, referred to the great good that would result from the holding of Institute meetings and the discussion of practical subjects by the farmers. The Territorial Government would do everything they could to assist such meetings, and suggested that the agricultural societies should take up this work. He also pointed out the advisability of a number of adjoining societies uniting for the purpose of holding one good show, which would bring about keener competition than now existed by the holding of small shows by each society. An amalgamation of societies would enable liberal prizes to be offered, which would induce outside breeders to enter into competition, and thus the stock of particular districts could be compared with animals having a show record. Plowing matches might also be held with advantage, and he said it was intended to offer prizes for plowing in connection with the coming Regina Fair. He also stated that the Commissioner of the Department had expressed his willingness to supply judges for all agricultural shows in the Territories if satisfactory arrangements could be made. Unless the directors of fairs co-operate to some extent in respect to times of holding them, a scheme such as he had indicated would not be practicable, and it would be necessary for the Department at Regina to be consulted as to the dates. If convenient dates could be arranged, there was no doubt whatever but that the Government could see its way to take entire charge of the judging, at least in the cattle and horse classes.

Nelson Farmers' Institute.

The annual meeting of the Nelson Farmers' Institute was held on July 1st. There was a good representation of the farmers of the district present. The election of officers resulted as follows: Duncan Stewart, President; Harold Elliott, Vice-President; Lin Watson, Secretary-Treasurer; Thos. Boulton, Auditor. Directors—Jas. Nelson, H. Laycock, W. Kendall, T. Boulton, T. Sandercock, Jas. Godkin. The President then called upon Mr. D. A. Stewart, of Pilot Mound, who spoke on "Rotation of Crops and Brome Grass," and Prof. Geo. E. Day on "Selection and Feeding of Stock." Much information was given by the Professor in answer to questions.

[The addresses were along similar lines as reported from Kildonan Farmers' Institute. Ed.]

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

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Hartney Farmers' Institute.

The seventh annual meeting of Avondale Farmers' Institute was held in Hartney on June 29th, and was one of the best if not the best meeting in the history of the Institute. Mr. S. J. Thompson, Provincial Veterinarian, gave a very able and practical address on "Feeding Farm Stock," after which he gave the large audience the privilege of asking questions about contagious diseases and their treatment, to which he replied to the satisfaction of all. Mr. Thompson is a very plain and practical speaker, and his address was very much appreciated. Mr. Isaac Usher, of Queenston, Ont., gave a masterly address on the use of cement and concrete for the building of farm structures, and explained very fully the method of mixing and building with it. He claims that cement and concrete walls are much drier than stone walls, and if properly built are practically frostproof. The freight on cement from Ontario is a great barrier to the extensive use of it in Manitoba at present, but Mr. Usher, who is a large manufacturer of it in Ontario, feels quite confident that it can be manufactured here, and assured the audience that he would give it a thorough test, and if successful he would establish a factory in Manitoba.

The Secretary-Treasurer's report showed that the Institute is in an active condition, and has a substantial balance of cash on hand. The following officers were elected for the coming year: President, W. J. Higgins; Vice-President, G. Morrison; Secretary-Treasurer, R. T. Sibbald. Directors—Messrs. J. Duthie, J. W. Alcock, Jno. Aikenhead, W. Laughland, J. M. Fee, R. Jackson, and Dr. Graham. R. T. SIBBALD, Sec.-Treas.

Neepawa Institute.

The annual meeting of the Neepawa Institute was well attended, and the addresses of Prof. Day, of the O. A. C., Guelph, on the selection, breeding and feeding of live stock, and D. A. Stewart on cultivation and Brome grass, were thoroughly appreciated. The officers elected for the ensuing year are: President—T. B. Willans; Vice-President—S. Benson; Directors—J. Laidler, E. Lee, J. W. Jackson, J. Jackson, H. Irwin, and M. Kilpatrick; Secretary-Treasurer—J. Dwydale; Auditors—George Mathers and A. M. Dalton.

Brandon Farmers' Institute.

The annual meeting of the Brandon Farmers' Institute was held on June 20th, when the following officers were elected for the ensuing year: President, R. McKenzie; Vice-President, R. Reid; Secretary-Treasurer, M. E. A. Jones; Directors—J. Allen, W. Anderson, W. McPherson, A. McPhail, William Nelson, and E. J. Stewart; Auditors—Henry Nicholson, J. A. McPherson, and J. E. McPherson.

Portage la Prairie Institute.

On July 5th the Farmers' Institute held a meeting to hear addresses from Professor G. E. Day, of the O. A. C., Guelph, and Mr. Stewart, Pilot Mound. Mr. Sissons presided.

Professor Day spoke on stock-raising. Manitoba, he held, would of necessity soon become a strong competitor with Ontario in the export beef trade. The cleaning of the land in Manitoba more than the question of fertility would cause a large increase in stock. The idle time in winter would then be beneficially employed in attending the herd, and making manure for the recuperation of the soil. He would not advise them to purchase expensive pure-bred stock at first, but to weed out and select and breed from pure-bred sires. Do not trust altogether to pedigree, but rather to individual merit. Economy of production was often more a question of individual merit than pedigree or breed. Don't jump from breed to breed. Have a definite line laid out and keep to it. Follow nature's method as much as possible, and use succulent foods in winter. He then spoke of hog-raising, and the value of roots in winter. He advised that coarse fodder should be largely used and made palatable.

Mr. Stewart dealt with rotation of crops, dealing largely with grasses, especially Brome grass.

A lively and interesting discussion followed. The routine business of the annual meeting was postponed.

Farmers' Institute Meetings.

The series of Institute meetings held during the latter part of June and first week of July were, on the whole, very satisfactory. There were some failures, and in some cases, owing to the backwardness of farm work, meetings were not largely attended. Institute speakers nearly all report some exceedingly interesting meetings, with a deep interest shown in the subject under discussion. There is a great interest in cultivation, grass, trees, buildings, live stock, and, in some localities, dairying.

Portage la Prairie Summer Fair.

The 25th annual exhibition held by the Portage la Prairie & Lakeside Agricultural Society on Island Park, Portage la Prairie, was in many ways the most successful fair held for some years. Coming the week previous to the Winnipeg Exhibition, however, many people evidently did not turn out, and it was evident that the chief attraction was not so much the agricultural exhibition as the programme of races given under the auspices of the Turf Club. The exhibit of stock was decidedly better than last year. There was a fair turnout of light horses, and some fine carriage teams in competition. T. D. Stickle, Carberry, headed the class; with a pair of Kilburn colts, bred and exhibited by James Bray, Longburn, going second. There were two handsome Thoroughbred stallions—Dr. Rutherford's Kilburn and the horse imported last fall by—Thompson, of McGregor, the latter being awarded first premium. There were a number of very promising colts by Kilburn also among the entries. John Wishart showed a very neat, tidy little Hackney stallion. Mr. Wishart also showed, in the Clydesdale class, a grand brood mare by Granite City, with a foal at foot by St. Gatian. William Caskey, of Longburn, showed a general purpose team—low-set, thick, blocky fellows, with clean, hard bone, and good action. The exhibitor—quite a young lad—brought his team out fitted and harnessed in the best of style.

Cattle.—There were no beef breeds of cattle exhibited except Shorthorns, and in this class there was a very good exhibit by Messrs. F. W. Brown, Walter Lynch, Thomas Wallace, and others. The class was judged by James Steele, a visitor from the County of Bruce, Ont. In the class for bulls three years and over, F. W. Brown was first with Lyndhurst 3rd; John Gerrie second with a big, strong, useful bull, recently imported from Ontario. Two nice two-year-old bulls were shown, first going to A. J. Fraser, of Oakland; second to Henry Little, of Oakville, on Bruce Champion. Both of these bulls were imported from Ontario last spring. In yearlings, T. L. Bell had a good first in Golden Duke; Thomas Wallace second with Charger, a son of Judge; and Thomas Sissons third with Harry B. The class for bulls under one year brought out three from the Pioneer Herd of Walter Lynch, of Westbourne, the first going to Grey Hero, the twin son of Monique, by Village Hero; his mate being the roan heifer "Grisette," whose portrait appears in the July 5th issue of the FARMER'S ADVOCATE. The second prize went to Brownie, a big, suppy red and white son of "What-For-No." In calves of '99, F. W. Brown got first with a well-topped red. Although the youngest calf in the bunch, he in many respects was the most promising. J. A. Fraser showed a very good roan, which was awarded second; and Thomas Wallace third on a red out of Maiden's Blush, of Watts breeding. In four-year-old cows F. W. Brown got first and second, T. Wallace first and second on two-year-olds, with Maiden's Blush, by Royal Sailor, and Vanilla 2nd, by Scot-

tish Pride; both bred by Watts, and a very nice, square pair of heifers they are, and both nursing good big calves. In yearlings, F. W. Brown showed a very strong one, imported from James I. Davidson's herd a year ago. Walter Lynch's young roan heifer "Grisette" was first in her class. In heifer calves, F. W. Brown had a remarkably sweet, mellow roan, by Lyndhurst 3rd, out of Gaiety; the second going to a red (shown by Thomas Wallace) by Riverside Stamp, out of Vanilla 2nd. The herd prize went to F. W. Brown, as did also the diploma for best bull any age. Dairy breeds were judged by W. M. Champion. James Glennie showed a full class of Holsteins without competition. I. R. Snider, of Portage la Prairie, showed a bull calf and two heifer calves in the Ayrshire class—yearlings full of dairy character and quality, imported recently from the herd of Jos. Yuill & Sons, Carleton Place. J. Webster showed a couple of Jersey cows and a bull calf, all of which were of exceptional merit.

In *Sheep*, Leicester were shown by Duncan Sinclair, of Oakville, the flock being headed by a three-shear ram of nice quality, shown in very good fit. This ram was imported two years ago from John Gardhouse. F. W. Brown showed Cotswolds, headed by a ram of nice quality; O. W. Bailey Shropshires and fat sheep, also an Oxford ram; K. McKenzie also showing an Oxford ram, winning first on him.

In *Swine*, F. W. Brown's entries filled the class, with no competition. William McBride was also alone with entries in the Chester White class, James Bray with Yorkshires, and L. Bradley with Tamworths.

The Exhibit of Grain, while not very large, was of good quality. For the best collection, A. E. Mellon was awarded first prize. Two bushels of wheat—H. Mellon first and A. E. Mellon second; K. McKenzie, Jr., third; and Robert Gibb fourth;—all being good samples. In white oats, W. W. Cuthbert, Robert McCowan, and George Tidsbury were the prizewinners, in the order named. W. W. Cuthbert won first on an excellent sample of two-rowed barley.

The Exhibit of Butter was both larger and of better quality than in previous years. George Simpson was one of the principal winners, winning first in the 20-lb. lot, with Mrs. Andrew Kirk second. In 5-lb. lots, Thomas Sissons first and John Brydon second. In creamery 5 lbs., George Simpson first and James Bousfield second.

The Poultry Exhibit was larger than any previous year, John Kitson, of Macdonald, and Messrs. Armstrong and W. H. Ross, of Portage la Prairie, being the principal exhibitors.

Messrs. McLeod and Nicholls, pump manufacturers, had exhibits of their wooden pumps; the Caniff Stubble Burner Co. had three sizes of their stubble-burning machine; and George Ashdown also exhibited a stubble-burner. These machines attracted considerable attention.

Nature Study.

The Agricultural Department of New York is doing a work through the public schools of that State which is worthy of emulation everywhere. Leaflets, designed only for the eye of the teacher, are issued, giving instructions as to how to train the pupil in perception and develop its appreciation of the processes of nature which are constantly within the range of its view. The teacher is told to avoid technicalities beyond the limits of necessity, and to burden the pupil very lightly with definitions and classifications, leaving the child to supply as far as may be these omissions. Leaflets already issued bear these titles: "How a Squash Plant Gets Out of the Seed," "How a Candle Burns," "Four Apple Twigs," "A Children's Garden," "Some Tent Makers," "What is Nature Study?" "Hints on Making Collections of Insects," "Leaves and Acorns of Our Common Oaks," "Life History of the Toad," "The Birds and I," "Life in an Aquarium," "How the Trees Look in Winter," "Evergreens and How They Shed Their Leaves." A tactful teacher finds an immense field of possibilities just here, and can invariably enliven a dull hour or concentrate flagging attention by giving a lesson from nature. In no direction is popular education moving more steadily than toward the essentially sensible and practical.

Legislation Against Scrub Sires.

Many plans for legislating scrubs out of existence have been suggested—chief among them State inspection and licensing of sires—but Colorado makes the first practical test of this matter in this country. A law which goes into effect next month provides that no inferior or mustang stallion, no Texas, Mexican, Cherokee or other inferior bull, and no scrub ram, shall be allowed to run at large. The Jersey is classed with the scrubs in beef-producing Colorado, and no Jersey bull, though his blood is the bluest of St. Lambert, will be permitted to roam on the range. All persons who own cows which run on public ranges must furnish one high grade bull for every twenty-five cows. Violations of this law are punishable as misdemeanors. Moreover, anyone is authorized to castrate scrub sires that are found at large. It will be interesting to note the effect of such legislation upon Colorado live stock. If the experiment is found practicable, other range States will doubtless follow with anti-scrub laws.—*National Stockman*.

Winnipeg Industrial Exhibition.

HORSES.

In accordance with the upward move of the horse business, the interest in the horse exhibition is increasing, especially in the heavy draft, general purpose, and carriage classes. These classes appeal more directly, and properly so, to the farmer breeder. The number of exhibits was not large, yet the visitors to the ringside and the stalls were quite numerous.

CLYDESDALES.

Clydesdales were the first class to face the judge, Mr. Jno. Davidson, of Ashburn, Ont. Macmillan's (Brandon) Burnbrae, Cartwright's (Russell) Golden Hero, Ross' (Cypress River) Aberdeen, composed the ring of aged stallions, and were a good line. The competition was very keen between the two first-named horses. The great bone, good feet, legs

is a fairly good mare, but could stand more bone for the draft class (3-year filly). In two-year-olds, D. T. Wilson's bay Queen won 1st. She is a beauty, having good bone and feet, and plenty of substance. The Prince of Eastfield filly, belonging to Stewart (Dugald), is a good one, but had to be content with the blue ribbon. Only one animal was shown in the yearlings, a very fair bay filly of Wilson's. In foals, a sorrel filly belonging to Cummings won 1st, Cartwright's colt foal, Harry, getting 2nd place. The draft teams excited a lot of interest among the bystanders. Lawson (Thornhill) got 1st, with a very good, blocky team. Wilson's team were 2nd; being young, and hardly used to team work, hence were fidgety. They will make a good pair later on. The 3rd prize team belong to the Lake of the Woods Milling Co., and are of Percheron stock. The sweepstakes mare, any age, went to Wilson. This is a good mare. Feet and limbs pretty good. Many judges, however, would have placed the Thornhill mare 1st. She is a very good mare, with lots of action.

Inkster getting the red ticket with a foal out of Fi Fa. The stallion progeny prize and special went to Sharper.

ROADSTERS.

In Roadsters the competition and quality was fair. Hardy's (Pomeroy) Birdie, a good brood mare, with blood-like character, taking 1st; Preston, of Pilot Mound, got 2nd with a bay; Henderson's (Fernton) mare being 3rd. Two-year-olds were a fairly good class; Moffat's May, by Stanton Chief, getting the red ticket; Brown, a breedy-looking colt, by Dr. Hurd, out of a native mare, getting 2nd place. Yearlings were few; Preston, Pilot Mound, getting 1st with a chestnut filly. The foals were numerous, but none of them of surpassing excellence. In the teams there were quite a number of entries. Dr. Hinman won with a very fine black team of stylish-going horses; the others were only average quality. Jas. Bray won 2nd prize in Roadster teams with a pair of nice horses, the get of Thoroughbred Kilburn.

CARRIAGE.

Carriage horses were judged by Wm. Hendrie, Jr., Hamilton, Ont. In the aged stallion class Knittel Bros.' (Boissevain) Knight of the Vale had a walkover. This wonderfully good horse, in spite of a heavy season, came into the ring as good as ever. He is a good type of a horse for the Manitoba farmer to use. Only one animal was brought out for the three-year-old stallions. In brood mares McDermid, Winnipeg, got the red ticket. This mare is a good one, and has won in good company several times; 2nd prize went to Scott's (Atwell) bay mare. A rare good mare, by Western Sprague, came out in the three-year-olds; she is owned by Mullen, Cypress River, and was considered by the judges as being of superlative merit. In the two-year-olds some good colts were shown. Fraser got 1st with a good gray colt, Jack, being hard pressed by Scott's (Atwell) bay Victor, which would have been higher up only he lacked the necessary action required of a carriage horse; 3rd place also went to Fraser. In yearlings Fraser again won; Wishart's colt, by Kilburn, taking the blue ticket. Foals were a fairly good class, Fraser winning 1st, with McDermid 2nd. The Fraser exhibit are the get of Disturbance, out of common mares, and show how useful the Thoroughbred blood may be to the farmer breeder. The carriage teams were not numerous; Stickle, of Carberry, again winning with a big, upstanding pair of bays; McDonald, of Emerson, got 2nd place with gets of Sharper and Wildmont. In the singles Maw got 1st with a good mare, Mabel Sprague, a mare that showed quite a turn of speed; Dr. Simpson got 2nd, and Watson, Pilot Mound, 3rd prize. The 2nd and 3rd prize lack height to properly come in the Carriage class. The Stickle entry was withdrawn owing to a misunderstanding at the time of judging, as it had already been shown as one of a team. Knittel had a walkover with Knight of the Vale in the progeny prize.

HACKNEYS.

Hackneys were judged by D. B. Charles, Galt, and although few in number, yet were good, the 1st and 2nd prize stallions especially so. R. I. M. Power's (Carberry) imp. March Past won out. This is a grand, good horse, especially for use on compact mares; he has great action and size, and owing to his thin condition looked a little long in the middle. Mr. Hendrie stated to the ADVOCATE



PRINCESS. GOLDEN BELLE. CHIEF JUSTICE = 27996 =. NECKLACE OF POMEROY. EVELINE.

YOUNG HERD OF SHORTHORNS.

The calves won first prize as four bred and owned by exhibitor. They were all sired by Manitoba Chief = 20044 =. The group of five were the first-prize herd, all under two years old, winning special given by Dominion Shorthorn Breeders' Association.

ALL OWNED AND BRED BY ANDREW GRAHAM, POMEROY, MANITOBA.

and feather of Burnbrae won him the red ticket; yet, so close were the horses that it was no disgrace to take second place. Burnbrae has lots of size and substance, as shown by his present weight of 1,950 lbs., and it is only a pity that there are not more of his type in Manitoba. This horse is of the Macgregor-Darnley blood, so is bred right, even to suit the most fastidious draft horse fancier. Cartwright's horse, Golden Hero, is a good one, and by his progeny, a number of which were on the grounds, proves his right to be considered an A1 horse and sire. The judge considered the two horses as of extra quality. The balance of the Clydesdale classes showed lack of substance, although there were a number of good individuals. Mr. Davidson's opinion seemed to be that the stallions used of late years have been about two to three hundred pounds too light. In the three-year-olds, Byerley's (Cook's Creek) Gem Prince had it all his own way. He is a sweet colt, with a good middle and limbs, although his hocks might be a little finer. If a little larger, he would make a very strong horse in future competitions. Only one two-year-old stallion appeared, Hamilton's (Coalfields, Assa.) Pride of the Baton, and was awarded the red. The brood mares were good. Thompson's (Hamiota) Lady Almondale again took the red ticket. This is a rattling good mare, and has the essentials of a draft mare—good bone, legs and feet. As a matron she is a success. She has been a winner from foalhood up. Wishart's (Portage la Prairie) Lady Granite is a good one of the right sort, but had to be content with the blue. However, she got her revenge in the foals. Jones' (Atwell) Maud took 3rd place. In brood mare and two of her progeny, we fancy Thompson would have liked competition, as he has the animals to win with. Three-year-old fillies went to Byerly's Lady Ellen. Two-year-old fillies was a stronger class. Purves Thomson's (Pilot Mound) Lady McArthur 2nd is a rare good one, and was able to capture the red. This filly will, barring accidents, make an extra good mare, and should be heard of in the future. Thompson's (Hamiota) Admirer took 2nd, 3rd going to Wishart's Lady Tower. The yearling filly class was fair. The foals were a good class, Wishart's Lady St. Gatien, a very good sorrel filly, out of Lady Granite, winning the 1st premium. J. B. Thompson had to be content with 2nd, with a very promising colt foal; the Jones bay colt foal in 3rd place. Mares of any age was a strong class, and went to J. B. Thompson's Lady Almondale. In stallion and three of his get, Golden Hero was shown. The progeny are of a good, useful type.

SHIRES.

Shires are always weak, numerically, at the Industrial, and were fewer in number than usual. Only two Shires appeared. Woodman's (Rathwell) Blacksmith got the 1st premium. This horse is well known, and still preserves his old-time action, lacking in size, yet, judging from his breeding, which is gilt-edge, his stock should be good. J. A. Macmillan's Shire stallion, Nailstone Morning Star 2nd, was unable to be in the ring, being taken sick at Brandon after a big season. The sweepstakes for aged stallions, Clydesdales or Shires, was Burnbrae's, as was to be expected. The Brandon farmers are to be congratulated in having such a useful horse available.

DRAFT HORSES.

In draft horses, Wilson, of Assissippi, was again on deck with a lot of good stock. The brood mares with foals were an average exhibit, Cummings' (Lone Tree) Sorrel Daisy winning 1st. Cartwright's Kate

animal should be clearly defined. It is not advisable to allow progeny, which were shown either as draft or carriage, to again come before the judge as general purpose stock. The judge was placed in an awkward position, and had he withheld the prizes in that section, it would doubtless have been more correct, and more satisfactory. The brood mares were only three in number. Wishart won with the stylish bay, Lady Coleridge. This mare has capital feet and limbs. Cartwright's mare was 2nd—a good mare, with clean limbs and good action. The 1,350-lb. brood mare class had only one exhibit, a stylish gray mare, belonging to Fraser. Brood mare and two of her progeny brought out some good stock. Wilson got 1st with his sweepstakes mare and two of her progeny—three very good animals. Her colts were draftlike in character; in fact, had won in that class. Cartwright took the blue ticket, with a gray mare and progeny. They were good individuals, but not in as good shape as the others. Fraser took 3rd place with his gray mare and two carriage colts. Cummings (Lone Tree) had it all to himself in the three-year-olds. Two-year-olds were a good class, the red going to Russell's (Madford) roan mare, Queenie, a very nice mare indeed; has the size, action, and quality necessary for her class. She was an outstanding winner here. Bradley got 2nd with a sweet filly, Wilson getting 3rd place. In yearlings, 1st and 2nd went to Wilson, Cartwright taking 3rd place. The quality was only average. In foals, Wishart got the red, with a colt by St. Gatien. The teams were over 2,700 lbs. First prize went to Edwards (Kerfoot), with a cracking good team, having good size, action, and finish. This team was raised in Iowa, and are sired by a Shire stallion. Wilson got second here again. The prize for teams under 2,700 lbs. was won by Wilson. The sweepstakes mare or gelding competition brought out a good exhibit, Wilson winning with his bay mare, Gentle. Had the judge awarded it to Queenie, a grand roan two-year-old, it would have suited equally well. The chances are that the decision would be reversed by another judge. Anyhow, the merits of both are pretty nearly equal, with, we think, the balance in favor of the roan.

STANDARD-BREDS.

Standard-breds were passed upon by Dr. Willoughby. That good old veteran, Sharper, had it his own way, and now sports the red ticket. There were several other good horses, such as John Henry, Stanton Chief, Tengel Jr., and Pathmont entered. In three-year stallions, Hargrave's (Winnipeg) Gordon Sharper won out; Knittel's (Boissevain) Alcalava 2nd, and Moffat's (Souris) Harry Stanton 3rd. Only one yearling stallion was shown—a fair specimen owned by Conley, Winnipeg. In brood mares the Conley mare, Belle W., a breedy-looking mare, got 1st, 2nd going to a smooth mare, Fi Fa, owned by C. Inkster, Winnipeg. Moffat's two year-old filly won in her class,



Chilthen of Brandon, first prize and sweepstakes aged bull; Black Annie, first prize aged cow; Black Prince, first prize bull calf at the Winnipeg Industrial.

THE PROPERTY OF HON. WALTER CLIFFORD, AUSTIN, MAN.

POLLED ANGUS PRIZEWINNERS.

that this is the type of Hackney now being extensively used in England, and that the sire of the high-priced horses at Sandringham sale is of just such a large type. Macmillan's (Brandon) Prince Danegelt is a good horse, and would by many be fancied for 1st place; he is a very compact horse, with lots of substance, good bone, feet and legs, but was faulted by the judge for his lack of action. The 3rd prize horse, Claimant, was outclassed altogether. In the competition for the gold medal given by the Horse Breeders' Association, Prince Danegelt was an easy winner.

THOROUGHBREDS.

Thoroughbreds were quite numerous, and with some good newcomers excited a lot of interest. In stallions four years or over, five horses faced the judge, Wm. Hendrie, Hamilton. Jose Phillips took the red ticket. He is a breedy-looking race horse, and resembles his sire, Great Tony. Besides being a race horse, he has sired such good ones as Clow, Didsbury, Yukon, Pickaninny. Rumpus, a big brown horse, owned by Fulton, Brownsville, Ont., got 2nd place; he is a very rangy fellow, and has a stride like a road horse. Power's Hard Lines got 3rd place, and in spite of a heavy season, appeared in good shape, and was well thought of by the judge. A very interesting and useful competition was for stallions best calculated to improve the common



CROCUS 24th (Imp.) AND BULL CALF.

Second prize three-year-old and second prize calf under six months, at the Winnipeg Industrial. OWNED BY W. S. LISTER, MIDDLECHURCH, MAN.

stock of the country. Thompson, McGregor, had an outstanding winner in Dermot. This chestnut horse is considered by Mr. Hendrie to be of superlative merit, and of the right sort to beget hunters. He is a well-backed horse, has raced, and is sound. The Carberry race horse, Dr. Hurd, won the blue ticket; while that good horse, Disturbance, had to be content with 3rd place. The three-year-old stallions were a very average class. The yearling stallion, Carberry, a fairly good horse, was alone in his class. In brood mares Shaw's Fulda was 1st over Beckton's Imogene II. The 1st prize mare shows her breeding rather more than her competitor. In three-year-olds and yearlings there was only one entry of each. In foals Beckton got 1st place with a youngster of good racing type, the blue ticket going to the Shaw foal by Dr. Hurd. In stallion and three of his get, Disturbance won out with three capital half-breds, the type of horses that, when properly fixed up, sell well. Dr. Hurd and his progeny had to be content with 2nd place. It is questionable whether half-bred progeny should be shown here. It would be better if the progeny were all to be Thoroughbreds, and the same procedure followed as is done with the cattle classes. In the sweepstakes, Dermot and Jose Phillips came into the ring. Both are cracking good horses, but the younger horse, Dermot, could not be denied the place, and hence is the sweepstakes horse of 1899. He is probably the best light horse on the grounds.

SADDLE HORSES.

In the saddles, V. H. G. Pickering, Minnedosa, won 1st; with McLoig's (Moosomin) Sir William 2nd; Beckton's (Cannington Manor) Miss Fox being 3rd.

In ponies, in the harness class, Power won 1st with Jumbo, Bowman getting 2nd place. Saddle ponies, 12 to 14 hands, went to A. B. Fleming, Pickering 2nd and 3rd. Harness ponies, under 12 hands, went to Woodley, Winnipeg. These ponies were the center of attraction for the children. The horse exhibit as a whole was very fair, but there is yet plenty of room for improvement, especially in the fitting of the animals exhibited. The feet of some of the stock have been neglected in the past, and it will pay the owners to look after such matters in future.

THE CATTLE.
SHORTHORNS.

The active demand for beef cattle, the improved prices prevailing for pure-bred stock of this breed, and the commendable liberality of the Dominion Shorthorn Breeders' Association in granting the munificent sum of \$2500 to supplement the prize list, practically duplicating the list of the Industrial in all the sections for single animals, aroused unusual interest in this class, and had the effect of bringing out the largest and best display of Shorthorns ever seen in these great western provinces. It is safe to say that never has such rapid progress been made in the introduction of a new class of stock into so young a country. The Shorthorn were the largest class in the show in number of exhibitors, there being over 100 entries of single animals, catalogued, besides those for herds and family groups, and some 400 entries which were not in time to appear in the

printed catalogue, so that there must have been fully 150 head of Shorthorns in competition. In addition to these there was a splendid contribution of over 30 head from the famous Prairie Home herd of Hon. Thos. Greenway, the former Premier of the Province, which were out for exhibition only and not for competition, and which attracted much attention, and were the subjects of general admiration.

The principal exhibitors were J. G. Barron, Carberry; W. S. Lister, Middlechurch; F. W. Brown, Portage la Prairie; D. Allison, Roland; Andrew Graham, Pomeroy; Purves Thomson, Pilot Mound; Walter Lynch, Westbourne; Thos. Speers, Oak Lake; J. S. Robson, Manitou; Geo. Allison, Elkhorn, and H. O. Ayearst, Middlechurch. Single entries were made by many others, who were, in several instances, successful in winning prizes. Mr. W. B. Watt, Salem, Ont., was the single judge, and he did his work expeditiously, without undue hesitation, with a confidence born of experience in the handling of high-class cattle, with general satisfaction to onlookers, and with little, if any, complaint from exhibitors.

The section for bulls four years old and over included Mr. J. G. Barron's red seven-year-old Topsman, by Stanley, dam Nonpareil Victoria, a first prize winner and champion in former years, and sire of the champion bull at the leading shows in Ontario last year and in several former years. Topsman carries his years easily and is fresh and smooth yet. His levelness of top and bottom lines, width and fulness of crops, thickness through the heart, the perfect setting on of his tail, the length and thickness of his thighs and fulness of twist, and his grand constitution evidenced by his great heart-girth and superior quality of flesh, made him invincible in his class, and carried him safely through in the competition for first honors in his section and the male championship of the breed. In the former case he had to contend with Purves Thomson's doughty Caithness, the red four-year-old who won 1st in the same section and headed the Premier's 1st prize herd last year, and was favorite with not a few this year. His level lines, great scale, massive and majestic appearance and many good qualities made him a powerful rival. He was on this occasion given second place. Mr. Lister showed 16th Crown Jewel, a bull of great substance and thickness of flesh, who was first as a three-year-old at Toronto last year, where he was shown in fine bloom; but on this occasion he was rather overfitted and walked clumsily, which was greatly against his appearance. He was placed third.

Three-year-old bulls were headed by F. W. Brown's red Lyndhurst III., by the sire of Gem of Athelstane, the champion female at Winnipeg in 1898. He is a bull of good parts, deep-bodied, level, and of fine quality and character, and was a strong claimant for the championship. Andrew Graham's roan, Robbie O'Day, by the Duthie-bred imp. Prime Minister, and his dam by Challenge, made a worthy second. He shows fine character, and will develop into a grand old bull, while his stock is showing the influence of the good blood that is behind him.

In two-year-old bulls the first place was given to Lakeview Chief, a red, shown by Geo. Allison, Elkhorn; and the second to Mr. Lister's Heir of Parkdale, by Gravesend Heir II. Yearling bulls made one of the most interesting sections in the show. In this were three imported bulls, all good ones, yet only one found a place in the prize list. He is Baron's Pride, imported last year by Messrs. Cargill, and shown by Thomas Speers, Oak Lake. He is a sappy, substantial roan, with a good quality of flesh and hair, and is a thrifty sort. He was awarded 1st honors, second going to Riverside Stamp 2nd, bred by Thos. Russell, and shown by D. Allison. He is of the approved type, low-set, long and level, with deep ribs and flanks, a good head, and fine handling qualities. W. E. Baldwin won third money with Village Duke, a roan bred by Andrew Graham, and sired by Village Boy. It may be surmised that the winners were of no ordinary sort, when Mr. Barron's imp. Nobleman

and Mr. Lister's imp. Prince Alpine, which are both right-good ones, and have gone on well in their new homes, were left unplaced. Bull calves were a strong list, numbering 15, with hardly a weak one in the lot. First honors were won by J. S. Robson, Manitou, with Royal Judge, a rich roan, of fine form and quality, bred by Mr. Greenway, and sired by Judge, the champion bull of last year. Second prize went to Mr. Barron for Judge 2nd, another roan, of similar style and quality, and a close competitor, bred by the Premier, and sired by Judge; while 3rd prize went to Andrew Graham for Chief Justice, by Manitoba Chief, which many would have chosen for 1st—a thrifty, stylish, level, well-proportioned calf, that evidently has the material in him to make a high-class bull. Mr. Lister won 4th prize with Advance, by Gravesend Heir, and showed two other exceedingly good ones, Manxman and Twilight, by the same sire. Walter Lynch showed a quartette of very meritorious calves, the get of Village Hero and What-For-No; H. O. Ayearst, a pair of very promising youngsters, by Gravesend Heir; and Mrs. C. H. Brown, Manitou, an excellent red calf, President, bred by Purves Thomson. Bull calves under 6 months numbered a round dozen, and 1st prize went to Alex. McNaughton, Roland, for Master Butterfly, by Robbie O'Day; 2nd to Mr. Lister for Crocus, imp. in dam, and by Violet Boy; 3rd to D. Allison for Daisy's Pride, a son of Daisy of Strathallan 12th, and by Hillary.

Cows over 4 years old numbered 14 entries, and were a very good collection. Mr. Lister was fortunate enough to win 1st and 2nd prizes with Rosabel, bred by Arthur Johnston, sired by imp. Vice Consul and out of imp. Rosabel, and Indian Princess, by Indian Prince, out of imp. Princess Royal 23rd; both of them of fine character and quality. F. W. Brown got into 3rd place with Gaiety 5th, by Clipper King, bred by the Watts, a lengthy, level roan, with a fine udder, and nursing a very promising calf. Among the other good ones in the section were Mr. Allison's Daisy of Strathallan 12th, bred by Mr. Simmons, the 1st prize cow of last year, shown in prime condition, and displaying an immense breadth of back, strong, and smooth, excepting at the rumps, where she has grown somewhat patchy, but she is a grand good one yet. Mr. Barron's Red Baroness 3rd, by Topsman, is another cow worthy of high commendation, having a capital back and much quality. Seven three-year-old cows lined up for review—an exceptionally good lot; Mr. Barron scoring with imp. Jenny Lind, a lengthy, level roan, bought at John Isaac's sale, a cow of much merit, and worthy of her place. Lister came in for 2nd with Crocus 24th, a straight, smooth roan, imp. by Arthur Johnston. She was handicapped by having raised the 1st prize bull calf under 6 months, or she might have made it more interesting for Jenny Lind, who has not yet calved. Mr. Allison scored in two-year-old heifers, with Jubilee Queen, the 1st prize yearling of last year in the Prairie Home herd, bred by Joe Lawrence, and sired by Indian Warrior. She is a big, strong, smoothly-fleshed heifer, with few, if any, faults in her personal appearance, and was further honored by being made the champion female of the class. Second prize went to Lister's Rose Alberta 3rd, a white daughter of Gravesend Heir, nursing a lusty calf. James Gardner, Cypress River, won 3rd prize with Blossom, a capital red heifer, bred by Mr. W. C. Edwards, and sired by Scottish Knight. Mr. Barron's Baroness 2nd and



PRIZEWINNING AYRSHIRE TRIO.

First and second prize winning Ayrshire cows, Heather Daisy and Jessie Wallace, and first prize bull calf under six months, Cock o' Bendie.

OWNED BY STEEL BROS., GLENBORO, MAN.

Louise, both by Topsman, were among the short leet drawn out by the judge, and are heifers of much merit. Mr. Allison had an outstanding winner in the list of a dozen yearling heifers in Crimson Cloud, a very smooth and shapely red and white, bred by Wm. Shier, and sired by Canada. Andrew Graham had a worthy 2nd in Golden Belle, a handsome red, by Golden Royal, and F. W. Brown, a very good 3rd, a daughter of Village Boy IX. This rating left out Mr. Lister's very handsome and promising imported roan heifer, Caroline II., purchased at Mr. Isaac's sale last winter, and which had grown and kept her form well, but is a little off in her handling.

Walter Lynch came to the front in heifer calves under a year with the twin Gresette (recently illustrated in the FARMER'S ADVOCATE), a comely daughter of old Village Hero. Mr. Graham had

the second and third in his Necklace and Princess, by Manitoba Chief. Mr. Brown had a worthy first in heifer calves under 6 months in a sweet, mellow roan out of Gaiety 5th and by Lyndhurst III. Mr. Borron won 2nd with a nice red calf from imp. Rosy 5th, and Mr. Ayearst 3rd with the roan Crimson Duchess, by imp. President.

In the herd and family groups, the 1st prize for four calves under a year, bred and owned by exhibitor, went to Andrew Graham for one bull and three heifers, all by Manitoba Chief; and 2nd to Walter Lynch for a bull and heifer by Village Hero and two bulls by What-For-No. The prizes for bull and two of his get were awarded 1st to Barron, for Topsman and his daughters Baroness 3rd and Louise; 2nd to F. W. Brown, for Lyndhurst III. and two of his calves. For cow and two of her progeny—progeny bred in Manitoba or N.-W. T.—Mr. Lister got first place with Rosabel, the 1st prize cow, and her daughter, Rosabel III., and son, Heir of Parkdale. Mr. Ayearst won 2nd with Crimson Queen, Crimson Princess and Crimson Duchess. For herd, one bull and three females, bred in Manitoba or N.-W. T., Barron won 1st with Topsman, Baroness 3rd, Louise and Red Bess. A. Graham 2nd, with Robbie O'Day, Golden Belle, Necklace of Pomeroy and Princess. Lister 3rd, with 16th Crown Jewel, Rosabel 3rd, Daisy Earl and Rose of Alberta 3rd.

The open herd prizes for 1 bull and 4 females were awarded as follows: 1st to Barron, for Topsman, Red Baroness, Jenny Lind 4th, Rosy 5th and Louise; 2nd to Lister, for 16th Crown Jewel, Rosabel, Indian Princess, Rose of Monrath and Rosabel 6th; and D. Allison 3rd, for Riverside Stamp, Daisy of Strathallan 12th, Jubilee Queen, Crimson Cloud and Prairie Flower.

For herd, 1 bull and 3 females, all bred in Manitoba or N.-W. T., the special gold medal was awarded to J. G. Barron, for Judge II., Baroness III., Louise and Red Bess.

The special prize by the Dominion Shorthorn Breeders' Association for herd of bull and four females, all under two years old, the 1st prize was won by Andrew Graham (whose record as a winner with a small herd of his own breeding at this show was distinctly remarkable), for Chief Justice, Golden Belle, Necklace of Pomeroy, Princess and Eveline; 2nd by D. Allison, for Riverside Stamp, Crimson Cloud, Prairie Flower and 8th Constance of Maple Lodge.

Prairie Home Herd.—The selections from the herd of Hon. Mr. Greenway occupied a whole barn, which was gaily decorated with flags and bunting, and was a center of attraction for stockmen. Among the notable animals in this string were the roan three-year-old bull, Judge, the championship bull of the breed here last year, looking well, in moderate condition. His long, level quarters, wealth of natural flesh and fine handling qualities make him a fit head for a high-class herd, and his calves proclaim him a successful sire of the right sort; the first and second prizes for bull calves at this show going to his sons. The imported red yearling Jubilee, a thrifty, compact, well-proportioned bull of fine type and character, has been selected to breed to the daughters of Judge, and promises to worthily fill the place. The first and second prize bull calves above mentioned were bred in Mr. Greenway's herd and sold some time previous to the exhibition, to be delivered here, and quite fulfilled the expectations of the purchasers. The roan four-year-old cow, Freida, winner of 1st honors as a three-year-old last year, has her second calf by her side, a handsome roan, by Judge, and she keeps her marvellous smoothness and quality unimpaired. Gem of Athelstane, now in her three-year-old form, who was 1st prize two-year-old at this show in 1898, and the championship female of her class, is as smooth as ever, and is one of the most perfect Shorthorns of her day. The massive imported cow, Missie 142nd, of the famous Uppermill tribe of that name, and two other charming young imported cows, Red Rose and Clara 33rd, were included in the display, as well as a number of other typical members of the herd, which space forbids us to mention. In addition to these there were many fine animals in competition which had been sold during the year from this herd and were winners in the different sections, and others which were strong claimants for honors.

POLLED ANGUS.

The exhibit of black polls was smaller this year than usual, the Welwyn herds of J. Traquair and F. J. Colyer being missed; the exhibitors being Hon. Walter Clifford, Austin; Alex. Cummings, Lone Tree; and A. B. Fleming, Brandon, a new exhibitor in this class. Breeders do neither themselves nor their stock justice by showing them in poor condition. The public like to see show stock in better shape than the ordinary stuff that runs on the prairies. Some of the entries in this class were not fit for the showyard, being unmanageable as well as thin and scrubby-looking. Clifford got 1st and sweepstakes on aged bull, Chiltern of Brandon, a bull of good size, carrying a fair amount of flesh. He is well balanced, and with some fitting would make a capital showing. Cummings' Victoria's Montrose, bred by J. Traquair, was a close second, but lacks size, and was in thin condition. Clifford was also first in bull calf, and in aged cow with Black Annie. Cummings got most of the other 1sts, including yearling bull, Rosebank Lad; and three-year-old cow, Rosebank May 2nd; two-year-old, Rosebank Susy 2nd; yearling, Rosebank Beauty 3rd; heifer calf, Rosebank

May 3rd; also the herd prize, and Cattle Breeders' diploma for two calves, bred and owned by exhibitor.

HEREFORDS.

In this breed, J. E. Marples, Deleat, Man., made the strong showing, having recently purchased many of the best things in Wm. Sharman's herd. John Wallace, Cartwright, was his principal competitor, while Wm. Sharman showed one entry, the two-year-old bull, Pride of Westview, a bull of good size and excellent handling quality. John Cram, Pilot Mound, also had one entry in the bull class. All the stock from the Poplar Grove herd of J. E. Marples came in right off the grass, without any special preparation; and while more flesh would have made a better showyard parade, they all were in excellent condition. In the aged class, Spotless of Ingleside, bred by H. D. Smith, Compton, P. Q., was an easy first. He has size, and is well and evenly covered. Wallace's Dominion Hero is a fairly good bull, particularly in the fore end, but a little bare on the back. A couple of his calves won 1st and 2nd in the bull class; the 1st, Sir John, being particularly well covered on the back, thick quarters and thighs. Spotless of Ingleside was sweepstakes bull any age. In females, Mr. Marples was without competition, but presented a nice, even lot. Constance of Breeze-lawn, a very neat, smooth, thick-hearted four-year-old, defeated her bigger but less stylish stall-mate, Countess of Ridgewood. In three-year-olds, Flossie turned down Daisy of Ingleside, the latter a growthy, fine-quality heifer, but hardly in the finish of her successful companion. In the two-year-old Isabel, bred by Wm. Sharman, by Cronkhill Chief, out of Belle of Fellhampton, Mr. Marples possesses one of his very best numbers. She has size, thickness, depth, and carries an abundance of flesh, evenly distributed; and withal has lots of style and quality. Her mate, Duchess of Poplar Grove, is smaller—a little light behind, but good forward. The one-year-old heifer, My Valentine, by Valentine, out of Lady Wilton, is one of the sweetest things in the string, full of quality and breed character. The first prize calf went to Spot of Poplar Grove, by the sweepstakes bull, out



CRIMSON CLOUD.

By Canada—19336—, out of Crimson Flora. First prize yearling heifer at the Winnipeg Industrial.

OWNED BY D. ALLISON, ROLAND, MANITOBA.

of Heather Bell, and a nice sweet thing she is, and a good thrifty doer. The herd prize went, of course, to the Poplar Grove herd.

HOLSTEINS.

Whether the breeders of the black and white record-breakers have lost pride in their breed, or the active demand and good prices for stockers have caused them a temporary discouragement, is a matter, perhaps, of speculation; but certain it is that the exhibit of Holsteins was not up to previous years, and it was the common opinion of those about the arena that the entries were brought out in poor fit—mostly right from the pasture fields—with harsh hair and sunburnt hides. Whatever may be said against showing stock in too high condition, it certainly does not help to popularize a breed to show them in poor fit. A year ago six aged bulls faced the judge, this year but two—the 1st and 3rd winners of the previous year. Oughton Bros., Middlechurch, got 1st with Royal Duke, a bull of great scale and very well brought out. He is, however, somewhat beefy and thick in the thighs for a typical Holstein. His sire, Yekma Mercedes King, from the herd of Jas. Glennie, Longburn, was placed second. He is up in years and very low in condition. In two-year-olds, W. E. Baldwin, of Manitou, a new exhibitor in this class, drew the red on Prince of the North, bred by D. Marwood, of Treherne; Glennie second on Tempest 3rd Clothilde; with A. B. Fleming, another new exhibitor in Holsteins, from Brandon, third on Pride of Maple Grove. There were but three entries in the yearling bull class. Sir John, a son of Daisy Teake's Queen, shown by R. Waugh, made a good first. He is a bull of very fair breed character, and well brought out. Second went to Fleming's Pride of Maple Sweet, and 3rd to A. B. Potter, Montgomery, Assa., on Sir P. J. DeKol. There were just enough entries in bull calf under a year and bull calf under six months to take up all the ribbons. In the first, Oughton's was 1st, Flem-

ing 2nd, and Glennie 3rd; and in the latter, Glennie 1st, Fleming 2nd, and Potter 3rd. Oughton's aged bull, Royal Duke, got the sweepstakes. But five cows came out in the aged class, against ten in 1898. Daisy Teake's Queen was once again an outstanding winner, with her daughter, Fanny Teake, 2nd, and Rose Teake 3rd, all from the herd of Jas. Glennie. A daughter of Daisy T. Queen, Fossetta Teake, won the red for Glennie in the three-year-old class—a good cow, but not equal to her illustrious dam; Potter's entry 2nd, with Oughton's third. In the younger females there were none of special merit, the ribbons going in the following order: Two-year-olds—Fleming, Oughton, Potter; yearlings—Glennie 1st and 2nd, Baldwin 3rd; heifer calves—Fleming, Oughton, Glennie; heifer calves under six months—Oughton, Glennie. Daisy T. Queen was 1st female any age in milk, with her daughter 2nd. Glennie 1st on herd, 1st on three animals bred in Manitoba, and 1st on two calves bred and owned by exhibitor.

JERSEYS AND GUERNSEYS.

This class had about the usual representation numerically, and most of the entries were very nicely presented. The animals were in most cases the same as in previous years, but few new exhibits appearing. In the aged bull class, James Walsham, of Portage la Prairie, had an easy winner in Belvedere Signal, of Mrs. Jones' breeding. He was also declared best bull any age. He has great substance, being deep and good at the chest, has a good barrel, excellent dairy points, and was shown in fine fit. W. V. Edwards, of Souris, had 2nd with Dean of Highfield, a bull of fairly good quality, but lacking somewhat in depth; Lord Pogis of St. Lambert, shown by W. J. Buxton, of Moosomin being placed third. The calf for two-year-old bulls brought out the only Guernsey in the show—Klondyke of Grand View, of Green-shields' breeding, and shown by A. McArthur, of Welwyn. He is a strong-backed bull of good quality, but deficient in depth of rib. Munroe Creamery Co. got 2nd on Linda's Pride. Edwards was alone with a very promising son of Yankee's Rosebud—Souris Chief—in the yearling class. The under-six-months bull calf shown by John Webster, Portage la Prairie, called King of Portage, was one of the best in the show—full of quality. The aged cow class contained half a dozen fairly good ones, without an outstanding winner in the bunch. The Munroe Creamery Co. had four entries, and drew the red and the white on Daisy Dean and Prairie Rose; the first, a straight-backed, deep-bodied cow, showing lots of constitution, with a fairly good udder. Edwards' Yankee Pogis was 2nd, a cow of fine quality, with a capital udder and teats; but she is very hollow in the back, and lacking in depth and substance. Edwards' Duchess Malone headed the three-year-old class. She is a fine-quality heifer, with nice square udder. Munroe's Pet of Oak Grove was 2nd. Three good entries made up the two-year-old class. Edwards again winning with Baby Malone, a young cow with nice large udder and teats, good substance and character, and a nice skin, her head, however, a trifle rough. Webster got the blue with a nice, milky-looking heifer, the dam of the 1st prize bull calf; Edwards following in third place. To the Souris exhibit of Mr. Edwards also went the prizes for yearlings and heifer calves; for females any age, in milk, on Yankee's Rosebud; but this herd had to be content with second place on herds, first going to a string of big, strong-looking, milky cows, shown by the Munroe Creamery Co.

AYRSHIRES.

There were but 4 exhibitors in this class; Messrs. Steel Bros., Glenboro; Wellington Hardy, Pomeroy; E. F. Petar, Souris, a new exhibitor, and W. M. Smith, Fairfield Plains, Ont. The judge, Wm. Stewart, of Menie, Ont., took great pains with all his work, and his decisions gave general satisfaction. He looked for quality, substance, and business capacity, rather than fancy points. Hardy's St. Patrick, was without competition in the two-year-old class for bulls. Smith got 1st in yearlings, with a fair bull, Commodore, by Surprise of Burnside; Steels 2nd, with Royal Chief, bred by Dyment, of Clappison's Corners, Ont.; and Petar 3rd with Silver Prince, a son of Steel Bros.' What-Care-I. Smith's Surprise of Fairfield, by Surprise of Burnside, out of Annie Laurie, shown in the calf class, was undoubtedly one of the finest-quality things in the class; a skin like satin, a beautiful head, neck, clean, narrow shoulder top and fore rib, strong back and loin, deep barrel, good heart-girth and flanks, and thin thighs, and quality all over. He also won sweepstakes for best bull, any age. Steels' What-Care-We, 2nd, and Hardy's Prince Patrick, 3rd. In calves under 6 months, Steels had in Cock o' Bendie, by Perfection, one of their best-quality entries, with good dairy points, and a fine skin. Steels' Royal Star, 2nd, and Hardy's St. Lawrence, 3rd. In cows over 4 years, but 5 came out; Steels got the red and the blue on Jessie Wallace and Heather Daisy. Up to this time the latter has always been the winning cow, but she is settling a bit in the back, and hardly in the prime she once was, although later down the lists she won over her stall mate in a class of 6 "any pure-breed or grade for best milk cow." The Glenboro herd, although brought in from the fields without special fitting, were all in fine condition, having a slight sunburn and hair harshness, incidental to outdoor living. Petar came in for 3rd on Lassie Jean. Midge, bred and shown by Steels, was alone in the three-year class, and their

Nellie in the two-year-old class, both What-Care-I heifers, of nice quality. In yearlings the Glenboro herd had 3 entries, winning 1st and 3rd on Lady Diana 2nd, by Stacey's Carlisle of Lessnessock, out of imported Lady Diana, and Spunky, by What-Care-I; Petar's Jenny Lind getting 2nd; while Hardy's Primrose, a heifer of fine appearance, but hard handling, did not get placed. Petar had in Lady Minto, a daughter of Surprise of Burnside, the 1st prize calf under a year, and Steels the 1st under 6 months. The Glenboro herd got 1st with Royal Chief, Jessie Wallace, Heather Daisy, Midge and Bella, and the Souris herd 2nd with Silver Prince, Lassie Jean, Stately Twin, Jenny Lind and Lady Minto. To the Glenboro herd also went the 1st and 2nd for three animals bred in Manitoba, the get of one sire, with What-Care-I's Midge, Bella and What-Care-We. Also the Cattle Breeders' diploma for two calves on Cock o' Bendie and Nancy.

SHEEP.

This department of the show was not so well filled as last year, but many really good animals were shown. Mr. J. C. Snell, of London, was the judge in all the classes.

COTSWOLDS

were shown by F. W. Brown, Portage la Prairie; A. B. Smith, Moosomin; Oughton Bros., Middlechurch. Mr. Brown scored in rams 2 years and over, with a strong sheep, of good quality, which was also awarded the male sweepstakes, Mr. Smith taking 2nd and 3rd with sheep of good quality and with excellent fleeces. In shearling rams, Oughton Bros. won 1st and 2nd. There were no ram lambs shown. In ewes 2 shears and over, Smith won 1st with sheep of good quality, one of these winning the sweepstakes for best ewe of any age, a very level, well-proportioned ewe, showing strong breed character. Oughton Bros. were 1st and 2nd with shearling ewes and ewe lambs, and also won the open flock prize, and Mr. Smith took the special prize offered by the Sheep and Swine Breeders' Association of Manitoba and the N.-W. T. for best pair, ram and ewe.

LEICESTERS

were exhibited by Alex. D. Gamley, Brandon; James Murray, Lyleton; D. Preston, Glen Ewen. Mr. Gamley had the 1st prize ram over two shears, who was also the champion winner as best ram any age; a sheep of grand character and quality, well fitted, standing on a splendid set of legs, and having a very nice fleece. Murray had the 2nd prize sheep, and Preston the 3rd, a ram that had been a winner, but was out of condition on this occasion. Murray scored in shearling rams, with a very tidy sheep, but was closely followed by Gamley, with one of larger type and good quality, but handling a little hard at present. In ram lambs, Preston scored 1st and 2nd, Murray 3rd. Murray won 1st and 2nd for ewes two shears and over, and 1st for shearling ewes; Gamley 2nd. Preston was 1st for ewe lambs. Murray won the flock prize, and Gamley the special for best pair.

LINCOLNS

were represented by one exhibitor, W. T. Lytle, Beaconsfield, who showed a good strong lot of sheep, in good condition, and was awarded all the prizes he entered for.

SHROPSHIRE

were shown by R. S. Preston, Pilot Mound; D. E. Corbett, Swan Lake, and Oughton Bros., Middlechurch. Some very good sheep were shown, though not in as high condition or as well fitted as they might have been. Preston won 1st in aged rams, Corbett 2nd. In shearling rams Corbett was 1st, Oughton Bros. 2nd. Corbett won the sweepstakes for best ram and for best ewe, any age; 1st for aged ewes and shearling ewes; the 1st prize for flock (open to all), one ram, two ewes, and two ewe lambs; 1st for best pair, and the special prizes by the Shropshire Association for best four lambs, and for best flock, one ram and three ewes.

OXFORD DOWNS

were shown by Alexander Wood, Souris, who had out a really good exhibit of strong sheep, of good quality, and in good condition. He was awarded all the prizes for which he made entries.

SOUTHDOWNS

made a very good show, the exhibitors being W. M. Smith, Fairfield Plains, Ont.; A. B. Smith, Moosomin, and D. Fraser & Sons, Emerson, the last two named having only a few entries, and the bulk of the prizes going to the Ontario flock, including the pen prize and specials for flock by the Breeders' Associations.

HORNED DORSETS

were represented by a selection from the flock of R. H. Harding, Thorndale, Ont., which were typical animals, in fine condition, were much admired, and were awarded all the prizes for which entries were made. The prizes for fat sheep were won by W. M. Smith, Jas. Murray, D. E. Corbett, D. Fraser & Sons, and Oughton Bros.

SWINE.

The display of hogs was large in number, and the general quality was very good. In Berkshires and Yorkshires there was keen competition in most of the sections, and many very meritorious animals were brought out. Mr. J. C. Snell was the judge in all the classes.

BERKSHIRES

were shown by R. McKenzie, Pilot Mound; F. W. Brown, Portage la Prairie; and A. B. Smith, Moosomin.

Pomeroy, who had two or three entries. The quality of the exhibit was high-class, and the competition close in nearly all sections. In boars two years and over the contest was between McKenzie's Proud Victor, by Baron Lee 4th, and Brown's Tippecanoe, by Enterprise. The latter has been a very successful prizewinner, and has many strong points in his favor, but the flesh has fallen away from his loins as a result of age, and he was relegated to 2nd place on this occasion. Proud Duke, with great length and strong character, carrying his flesh well up on top, was awarded 1st honors and sweepstakes as best boar any age. In yearling boars Brown won 1st, 2nd and 3rd prizes with capital hogs, his only competitor being Mr. Graham, who had one entry. In boars over six months and under a year old, Brown scored 1st and 3rd, and McKenzie 2nd. For boars under six months, McKenzie 1st and 2nd, McDermott 3rd. Sows over two years were a strong class, Brown scoring 1st and 2nd on Alma, by Manor Hero, and Cora Bell, by Baron Lee 7th, and McKenzie 3rd on Maiden Lass. Yearling sows were a grand lot, and here Brown won 1st and sweepstakes on Flower, by Fitz Lee, and 3rd on Highclere of Plainview, and Graham 2nd on Bessie Lee, by Tom Lee. In sows over six and under twelve months, McKenzie got 1st place for Artful Belle XXI, bred by Mr. Gentry, of Missouri, and got by Baron Lee 4th; a sow of fine length and good quality, smooth shoulder and a strong back. Brown 2nd and 3rd. For sows under six months, McKenzie got 1st and 2nd, and Brown 3rd. The sweepstakes for best sow was won by Brown's 1st prize yearling sow, bred by T. A. Cox, Brantford, Ont. For sow and litter, McKenzie got 1st place with Maiden Lass and a fine litter, Brown 2nd. For herd of one boar and three females, bred in Manitoba, Brown won 1st. For herd, one boar and three sows (open to all), McKenzie was 1st.

YORKSHIRES

were well shown in the female sections, the entries being numerous and the quality first-class; but the sections for boars were not well filled, and those for hogs over a year old were nearly blank. The exhibitors were: Andrew Graham and W. Hardy,



ROYAL DUKE.

First prize aged and sweepstakes Holstein bull, son of Daisy Teake's Queen.

THE PROPERTY OF OUGHTON BROS., MIDDLECHURCH, MAN.

Pomeroy; Jas. Bray, Longburn; A. B. Potter, Montgomery; and Oughton Bros., Middlechurch. Graham had the only entry in boars one year and under two—Snowman X., which was awarded 1st prize. In boars over six months and under twelve, Graham scored 1st with Snowman XI, and Bray got 2nd and 3rd prizes. In boars under six months, Graham won 1st with a young pig of fine type, imported by D. C. Flatt, Millgrove, Ont. Breeding sows over two years old were a strong class, and Bray won 1st money with Millie 4th, a sow of great length and depth, which also won the sweepstakes as best sow any age. Graham came in for 2nd with Jubilee Queen, a sow of fine type, but reduced a little in flesh by nursing a litter. Third prize went to Hardy for Primrose, a good sort. Sows over one and under two years were an exceptionally good lot, and 1st prize went to Potter for Brampton Maid, a sow of fine type, lengthy, smooth, and deep-bodied, though in moderate flesh, having raised a litter. Second went to Bray for a very handsome sow with broad back and splendid hams, but not so near the bacon type. Potter had also a good one for 3rd place. In sows over six months and under twelve, Graham showed a trio which swept the prize list. They were extraordinary and up-to-date, and easily won everything in sight in the section. Mr. Graham was also successful in the section for sows under six months, with a pig recently purchased from D. C. Flatt, which won 1st prize in strong competition, Mr. Bray winning 2nd and Mr. Hardy 3rd. For sow and litter, 1st went to Bray for a capital sow, nursing a litter of 12 splendid pigs, 2nd to Potter, and 3rd to Graham. For the best herd of one boar and three females, bred in Manitoba or the N.-W. T., Mr. Bray won 1st, as also the special offered by the Swine Breeders' Association for best herd of one boar and three sows, open to all. Graham won sweepstakes for best boar, and Bray sweepstakes for best sow.

CHESTER WHITES

were shown by R. S. Preston, Pilot Mound; K. McLeod, Cleveland; Wm. McBride, Portage la Prairie; and Oughton Bros. Many of the entries were of good type. Preston won 1st and McLeod 2nd in section for boars two years old. McBride 1st, McLeod 2nd and Preston 3rd for yearling boars. For boars over six months, McBride was 1st and McLeod 2nd. For sows over two years the rating was McLeod 1st, Preston 2nd, Oughton Bros. 3rd. Yearling sows, McBride 1st, Preston 2nd and 3rd. Sows over six months, McLeod 1st and 2nd. Sows under six months, McLeod 1st and 2nd, Preston 3rd. Sweepstakes for best sow and best boar, McBride 1st. Sow and litter, McLeod 1st, Oughton Bros., 2nd. Herd, McBride.

TAMWORTHS

were a very good class. There was not much competition, but most of the entries were creditable specimens. The exhibitors were L. A. Bradley, Portage la Prairie; W. E. Baldwin, Manitou; and R. S. Preston, Pilot Mound. Bradley won 1st for boar over one year, boar under one year, sow over one year, sow and litter, and sweepstakes for best sow any age; Baldwin taking 1st for boar under six months, sow under six months, herd of boar and three sows, and sweepstakes for best boar any age.

POLAND-CHINAS

were shown by W. M. Smith, Fairfield Plains, Ont.; Oughton Bros., Middlechurch; and W. L. Trann, Crystal City. There were some very good specimens, with fair length and smoothness, though some were too short and thick. Smith won 1st prizes for boar over two years, boar under one year, boar under six months, sow under a year, sow under six months, sow and litter, and sweepstakes for boar any age. Trann secured 1sts for yearling boar, yearling sow, herd of boar and three sows, and sweepstakes for best sow any age, also 2nd for sow under a year, and boar under a year. Oughton Bros. won 2nd for two-year-old boar, 3rd for boar under six months, sow under a year, and sow and litter.

DUROC-JERSEYS

were shown only by W. M. Smith, Fairfield Plains, who had a very useful lot, and was awarded all the prizes he showed for.

OTHER PURE BREEDS

were represented by Suffolks and Improved Suffolks, shown by K. McLeod, Dugald, who had some very good ones, and secured all the prizes he entered for.

FAT PIGS

were shown by Jas. Glennie, who won 1st and 2nd prizes for best three pigs of one litter under one year, with a splendid lot of Berkshire-Yorkshire cross-breeds of approved bacon type, and R. McKenzie won 1st for best pig under six months with a Berkshire of faultless form for the packer's purposes, and W. M. Smith 2nd with a Poland-China that would fill the bill very well for the same purpose.

POULTRY.

The poultry exhibit at the Industrial is a good one, and must have been satisfactory to Mr. Chadwick, the director in charge. Exhibits were present from Ontario and the U. S. A. The Provincial birds, however, held their own well. Mr. Sharp Butterfield again placed the awards in this department. The utility breeds—Plymouth Rocks, Brahmans, Leghorns—were well represented and the competition was keen. Ling, Winnipeg, won the pen prize with G. L. Wyandottes. Kitson, Burnside, got there with a pen of White Wyandottes, Woods with the pair and also in pen of Black Wyandottes. Smith, of Fairfield Plains, showed S. P. Hamburgs, and won out. Luxton, Georgetown, Ont., got first with a fine pair of Black Leghorns; his Red Caps also took a red ticket. F. G. McArthur won in Buff Wyandottes, Bull (Portage la Prairie) in Cornish Indian Games, while Muller, of Cypress River, took first in Brown-Red Games. Ling showed a pen of large C. I. Games, also some good Langshans. Wm. Rutherford won the pen prize in Barred Rocks with a very good trio, but had to be content with second on pair. Grundy won first on pair of Barred Rocks, his male bird being of superlative merit. Smith, of Athens, Ill., got first. In Buff Cochins, Hon. T. A. Greenway got the red tickets with a pair of large birds. Dark Brahmans were a good class, the premier position being awarded to the Wisconsin exhibit. In Light Brahmans, Chadwick was quite in evidence. E. R. Collier had a pair of Anconas, a new breed to this country. They are of southern Europe origin, and it is claimed for them that they are a utility breed, laying a good number of fair-sized eggs. Midwinter won in China and Toulouse geese, the Toulouse being especially good fowl. Guineas were exhibited in fair numbers, Midwinter (Winnipeg) and Smith (Fairfield Plains) taking the honors. Maw had some fine Toulouse geese in the exhibit. In turkeys Maw's big Bronze tom again took the red ticket, both for best and also largest bird. The prizes for Rouen ducks went to the Whitewater (Wis.) exhibit, and to A. G. H. Luxton, from Ontario. E. R. Collier won the Chadwick silver cup for the best pen of Light Brahmans.

The prizewinners in the dairy and grain classes will appear in our next issue.

Provincial Plowing Match.

The second annual Provincial plowing match, held under the auspices of the Brandon Farmers' Institute, on July 6th, on the Experimental Farm, was a most successful affair, and, in conjunction with the annual picnic held by the Institute, attracted many thousands of people from the city and surrounding country. The day was perfect, the grounds in every way attractive, and the Farm, with its beautiful plots of grains and grasses, its avenues and hedges, trees, shrubs and flowers, made one of the most attractive and instructive picnic grounds imaginable. A good programme of sports was provided, with something over \$200 in prizes, and the officers of the Institute spared neither effort nor time in making the affair a success.

The plowing match was directly under the supervision of a committee—Henry Nichol, Fred. Thornton, and Wm. Nichol. The ground selected was a piece of stubble, a lightish loam, from which the rank growth of annual weeds had sapped considerable of the moisture, leaving it, in some places, somewhat hard and dry. The ground, however, was fairly uniform, so that each competitor had an equal chance. Each plowman was allotted half an acre. Plowing started at 10 o'clock, and was to have been completed by 3 o'clock, but an hour's extension of time was found necessary. Several of the men were unreasonably slow in setting out their lands. Gauge wheels and chains were permitted—only two using gauge wheels, but all using chains to assist in covering the weeds. The competition was open only to plowmen who had taken first prizes in a plowing match in Manitoba this year, and out of a possible 9 or 10, there were 6 entries. All used 14-inch plows. The following is a list of competitors, their standing at other matches this year, and the plow used by each:

George Charleson, Blyth, was 2nd at Blyth in the 16-inch class, and 1st and sweepstakes in the 16-inch class at Wawanesa. At this match he used a Canton Clipper plow, and made a fairly good finish, with a 6-inch furrow.

F. W. Doubt, of Douglas, was 1st in the 14-inch class at Wawanesa, using a Moline Scotch Clipper, making a rather poor finish, with an 8-inch furrow.

James Sutherland, Brandon, was 1st in the 14-inch class at Blyth, and 1st at Oak Lake. He used a Canton Clipper, and finished with an 11-inch furrow, but it was poorly covered and not very straight.

Willow Elder, of Blyth, was 1st in 12-inch gang at Blyth, 1st with 16-inch plow, with three horses, at Wawanesa, making a very fair finish, with a 7-inch furrow, using a Canton Clipper plow.

A. T. Elder, Blyth, was sweepstakes winner in the 16-inch class at Blyth, and Provincial champion in '98; made a good level finish, with a 9-inch furrow, and scored within half a point of the winner.

William Croy, Brandon, the sweepstakes plowman at Bradwardine, made an excellent finish, with a 10-inch furrow, using a Moline Scotch Clipper.

The judges were Messrs. Sissons and McCowan, of Portage la Prairie, whose findings met with general approval. The score card was used, a copy of which we give below, together with the score of each competitor:

	Possible points—	Straightness.	Feathering.	In and out.	Depth and Width of Furrow.	Evenness of Top of Land.	Finish.	Covering Weeds.	Width of Land.	Total.
	15	10	10	10	10	10	10	5	100	
Geo. Charleson	6	6	5	6	6	6	7	20	56	
F. W. Doubt	4	6	6	6	5	6	6	22	56	
Jas. Sutherland	5	7	5	5	5	5	6	18	53	
Willow Elder	6	6	6	6	6	6	8	20	57	
A. T. Elder	5	7	5	5	5	6	8	24	62	
Wm. Croy	5	5	5	5	6	8	9	24	63	

Wawanesa Plowing Match.

The South Brandon Farmers' Institute held its third annual plowing match on June 23rd on the farm of John McKenzie. There were not as many entries as last year, but the attendance and interest was all that could be desired. The prizewinners are as below:

Class 1—Walking plows, open to all comers.—1st (\$20), Geo. Charleson, 95 points; 2nd (\$10), Wm. Croy, 92; 3rd (\$5), Wm. I. Elder, 87.

Class 2—Walking plows.—1st (\$22), F. W. Doubt, 91 points; 2nd (\$10), R. Traw, 72; 3rd (\$5), H. Payne, 71.

Class 3—Walking plow, three-horse.—1st (\$22), Willow Elder, 90 points.

Class 4—Walking plows; open to boys 17 years of age and under.—1st (\$22), Geo. Elder, 55 points; 2nd (\$10), C. McCulloch, 48; 3rd (\$5), W. H. Martin, 44.

Class 5—Gang plows.—1st (\$25), James Ross, 60 points; 2nd (\$10), D. Foster, 52; 3rd (\$5), Wm. McCulloch, 48.

Best groomed and harnessed team.—Wm. T. Elder, Blyth.

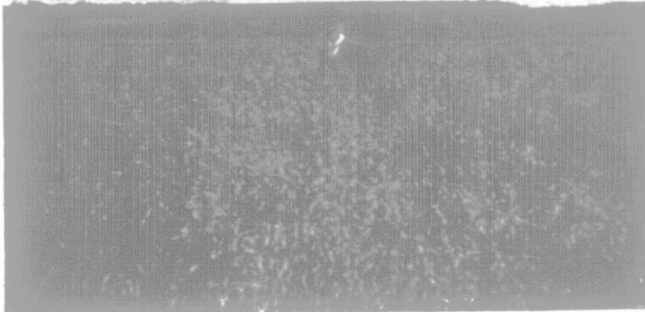
Sweepstakes for the F. O. Fowler (M. P. P.) cup, to be won three successive years, was hotly contested by Wm. Cory, last year's winner, and George Charleson, the latter winning on this occasion with 95 points, against Cory's 92.

The English *Live Stock Journal* states that British imports of bacon rose from £10,856,000 in 1894 to £14,216,000 in 1898, coming from the United States, Denmark, and Canada. Danish bacon sells for double the price of U. S., and Canadian about 70 per cent. more, though still below Denmark, who have gained their place, says the *Journal*, by breeding the bacon type of hogs and curing after English fashion.

Viriden Plowing Match.

The Farmers' Institute and Agricultural Society of the Co. of Dennis held a plowing match on Tuesday, June 28th, on the farm of Major Hosmer, two miles south of Viriden. The day was a grand one for the occasion—fine, clear, and cool. Between one thousand and fifteen hundred people were on the grounds. The throngs of prosperous and contented people, the many fine carriages and comfortable turnouts, and the troupe of cavalry maneuvering under the command of Major Hosmer, created a very animated scene. Those principally instrumental in getting up the match were: J. Elder, Peter McDonald, H. W. Dayton, C. E. Ivens, W. Lothian, W. Pines, and Duncan McDonald.

The land was fairly well adapted, but hardly as even in character as we would have liked, and owing to there having been a heavy rain the night before, some spots were a little sticky, especially when the sulky plows worked. The land was divided into three-quarter-acre lots, about 200 yards in length, every lot numbered, and each contestant drawing lots for position, and for each class there was very little difference in quality of land. The boys made particularly fine work, drawing forth much admiration from spectators. The work done by the men in both 14 and 16 inch class was decidedly under the mark. The sulky plows did excellent work, especially that done by A. Reid, with a Cockshutt sulky, he easily winning first. The honors were about evenly divided between the Cockshutt, Verity, John Dere, and Scotch Clipper plows. Mr. Bedford, of the Brandon Experimental Farm, was present, and made an excellent speech, touching upon the value of plowing matches in general. He spoke of the excellent work done by the three little boys, one of whom was not much above the plow handles, making the best work and scoring the highest of any on the ground. Mr. Bedford showed some grasses, over four feet high, grown on the Farm at Brandon. He recommended Brome grass, but said a great many preferred rye grass. He also spoke of the value of trees and shrubs, and referred to the beautiful grounds where the picnic was held, which had



BROME GRASS (Bromus inermis).
Sown June 1st, 1893. Photographed July 6th, 1899. Fifteen pounds home-grown seed per acre. Experimental Farm, Brandon.

been made by planting trees and shrubs on the naked plains.

The successful competitors at the match were as follows:

Sixteen-inch walking plow (men's class).—John Reddon, 68 points; D. H. Evans, 58; John Edwards, 37.

Fourteen-inch walking plow (men).—F. W. B. Chapple, 73; Wm. McIntosh, 67; Joseph Johnston, 65; John Johnston, 65; K. Horn, 64.

Fourteen-inch walking plow (boys).—Leslie Wisner, 76; John Johnston, jr., 70; Wm. Sproat, jr., 68.

Sulky plows (men).—Alex. Reid, 63; Geo. Wiles, 58.

The judges of plowing were: Mr. Wright, Oak Lake; John Buck, Viriden; Mr. Sutherland, Brandon; Jas. Tolton, Oak Lake; K. McKeown, Viriden.

Best handled team.—Wilmer Richmond, D. H. Evans, Wm. Sproat, jr.

Best matched team.—John Johnston.

Judges of teams were: Peter Milliken, Donald Forsyth, James Lothian.

Hamiota Plowing Match.

The first plowing match held by the Agricultural Society of Hamiota came off successfully on June 28th, on the farm of Wm. Pedlow. The prizewinners were:

Walking plow (men's class).—Geo. Lorimer, 70 points; Robt. Pearson, 68; Jesse Delbridge, 56. There were 6 entries in this class.

Sulky plows (1 entries).—A. D. McConnell, 81; H. Milne, 71; Jas. Milne, 65.

Gang plows.—Wm. Bishop, 59; Robt. Feltstead, 49.

In the boys' class but one entry was made, Wm. White, who also won first prize for best groomed team.

The judges, who performed their duty satisfactorily, were: Fred Thornton, Foreman Brandon Experimental Farm, and E. Henry, Oak River.

Notes of the Blyth Plowing Match.

BY D. R. N.

Very general satisfaction was expressed with the work done, particularly in the boys' and young men's classes. Most gratifying was the fact that double the number of boys competed for honors this year, as compared with last. A similar increase should have taken place in the young men's class also. Thirteen competitors appeared for the first time, and no fewer than eleven were successful prizemen, the Brandon vicinity contributing the majority of them. Fred Terry, Brandon Hills, the champion of the young men's class, with a score of 65, will doubtless enter the arena for the Provincial championship at the Experimental Farm picnic in July. And T. Elder and Jas. Sutherland, the other champions, were successful first winners in previous contests, the first named being the Provincial champion for '98. The aggregate scores of the first six winners in the 14-inch and 16 inch walking plow class, respectively, and the young men's class, are 428, 434, and 369, average being 71, 72, and 61, against 461, 456, and 372, average 76, 76, and 62, at last year's match. The gang plow classes show decided improvement this year, 71, against 66 for last year, being the average, aggregate score being 285, against 264. In the 12-inch, 220, against 176 for last year, is made, average being 71, against 66. Some very fine work was marred by unjustifiable finishes, Messrs. W. Croy, George Boles, and Fred Doubt being a trio who were particularly and regrettably unfortunate in this way. The number of entries (52) equalled last year's, and were all that could be desired, and is an encouraging proof that the interest in the work remains undiminished. It is a matter of deep regret that the sister match at Wawanesa suffers in this respect by a comparison with last year's excellent match. From the handsome prize list, 33 out of 52 were successful prizewinners, five additional securing prizes in the special class. There has never been a closer tie for the sweepstakes, which was awarded to A. T. Elder. Prizes in men's class, 14-in., numbered 7, amount being \$60.50, as against 8 prizes, \$120, in '98 match; following in 16-in. class with 6 prizes and \$61.50, against 7 prizes, \$76; young men's class, \$61.50, and 6 prizes, against 7 prizes and \$74; boys' class, 4 prizes, \$35.50, against 7 prizes and \$31; 14-in. gang, 4 prizes and \$51, against 4 prizes and \$56; 12-in. gang, 4 prizes and \$40, being the same as last year; and special prizes, amounting to \$26, against \$27. [Received too late for July 5th issue.]

Barley as a Cleaning Crop on Strong Land.

To the Editor FARMER'S ADVOCATE:

I notice in your issue of July 5th some interesting letters on "soil cultivation," and although the season for that kind of work is now practically over, still perhaps a few words on the subject will not be altogether out of place. As to the frequency of summer-fallowing, I think it depends entirely upon the nature of the soil. Poor, thin soil should be fallowed frequently; whereas, with strong soil summer-fallowing should depend upon the quantity and nature of weeds that infest the ground. With very weedy land, every fourth season would not be too often. Our soil being strong and rich, we summer-fallow by plowing deeply about the 10th of June, taking great care that everything is well turned under, then work the surface repeatedly so as to keep weeds from gaining headway until the season's growth is over. This necessitates constant work, but leaves a solid, well-packed seed-bed for the following year. Plowing more than once with us leaves the ground too loose, and results in too much growth of weak straw, which produces, at best, an inferior sample.

Instead of summer-fallowing, we would suggest the sowing of barley about the 10th to the 20th of June; treat the land as though it was to be summer-fallowed. Harrow twice immediately after plowing, then drill in the barley a good depth, and give it two strokes of a light harrow after the drill. After the barley is nicely up go over the ground twice with one of the new weeders, say three to four days between strokes. This you will see is a good foundation for a summer-fallow, and the barley immediately comes up and covers the ground, and should any weeds spring up they are held in check with the luxuriant growth of barley. As for wild oats, the barley will be ripe before them, and in this way dispose of most of this pest. Those who have repeated this for two seasons on the same ground claim they have completely killed this enemy. We have no hesitation in recommending this method as being better than the ordinary summer-fallow, particularly for the stronger lands, as in this way the ground is producing. The sample of wheat grown on the ground the following year will, without doubt, be superior to that grown after summer-fallow; in fact, we have never had but No. 1 hard after a barley crop. Again, this crop of barley comes off early, the ground can be plowed and prepared for a wheat crop the next season. Of course, if the ground is very dirty we certainly recommend repeating the barley crop for a second year.

D. FRASER & SONS.
Franklin Municipality, Man.

JOHN HOOD, Heriot Bay, Valdes Island, B. C.:—"Yours of April 10th to hand, also the premium Bagger's Bible, with which we are well pleased. It is the best premium we have seen given away yet, and the best of it is that it is not marred with advertising in any way; and anyone wanting a good Bible I do not think could get it more easily than by obtaining new subscribers for the FARMER'S ADVOCATE."

Summer-fallow a Necessity.

To the Editor FARMER'S ADVOCATE:

Summer-fallowing is perhaps a nearly thread-bare subject to many. Still, there are many of your readers who have not had long experience in this country, and I willingly offer mine in replying to your questions.

In strong clay land it is no doubt not necessary to summer-fallow as frequently as with the ordinary light, loamy soil, especially that bordering on sandy, and that which is liable to drift with the wind, although some heavy land will drift with our strong winds, especially if the roller is used. I consider two crops of wheat and one of oats or barley the maximum cropping our light land should be given between fallowings.

I have not given any previous treatment to plowing as a rule, although I think where the stubble is not very heavy a disk harrow first, and then the ordinary harrow as soon after seeding as possible, would be desirable.

As to when the plowing should be done another question arises, whether it is desirable to plow once or twice? I have had occasion when my land gets overrun with rose bushes, etc., to plow twice to check them, as I find once plowing increases the evil by transplanting. In this case I would plow as early as possible after seeding, and do it as lightly as possible, so that the roots and all weeds are cut clean and covered. In only plowing once I would begin just early enough so that I could get all my fallow land plowed before any of the weed seeds get nearly ripe. It should be borne in mind that many of the seeds will ripen under ground if too far advanced. I also advocate deeper plowing, on the old land especially; there is far too much of the skimming done. In my opinion every time the land is fallowed a little fresh soil should be brought on top. We need not be afraid of turning up the clay; even if that were done it might not be a disadvantage.

After-treatment.—I like to harrow down one day that plowed the day before, or as soon as each land is finished, and then continue this harrowing as quickly and often as you see the weeds just started. Where the land is twice plowed it should be done at least before the harvest is finished, and harrowed down as above.

I do not think summer-fallow should be dispensed with even when seeded down. I have had, up to the last year or two, fairly good success in seeding down timothy with wheat on summer-fallow, then taking off two crops of hay, and then plow lightly immediately the hay is off. Let all be turned down nicely and backset as soon as rotten. This plan will destroy the sweet June grass, and is almost as good as summer-fallowing. The land is left in fine condition for wheat next season. It has not yielded a heavy crop of straw, but a good yielding stiff straw and grain of first-class quality. Owing to the past dry seasons my timothy has not been so successful. I have not tested Bromo or other grasses yet, to be able to speak of them in this respect. I am a fairly old settler. Still, I find I have not attained perfection. Seasons vary so much, and often our "best theories" give us the worst results. Wm. WENMAN.

Glenwood Municipality, Man.

Weeds in Assiniboia.

The series of meetings held throughout Assiniboia in June and July, addressed by Dr. James Fletcher, Dominion Entomologist and Botanist, under the auspices of the Territorial Government, were throughout very successful. The attendance was good at nearly every meeting, and great interest shown in the questions under discussion. The Hon. G. H. V. Bulyea, Commissioner of Agriculture, attended most of the meetings and explained the provisions of the ordinance governing noxious weeds, and stated that the Government would enforce the law as rigidly as possible in order to protect the careful and diligent farmers from their careless neighbors who would not, of their own free will, take the trouble to keep down noxious weeds. He also stated that the Government were doing everything they could to have the railway companies comply with the requirements of the ordinance. The Government have appointed Weed Inspectors in all the farming districts, and have in Mr. T. N. Willing a very competent official to supervise the work. Mr. Willing was in attendance at a number of the meetings.

Dr. Fletcher's addresses were much along the same lines as he has followed in Manitoba for the last two or three years, in describing the nature and characteristics of the principal troublesome weeds, showing the importance to the farmer of knowing the proper names, and the best method of treatment. A special feature was in having farmers bring to the meetings specimens of weeds and plants that were showing signs of becoming troublesome in their particular localities, and at all the meetings great interest was manifested in these practical studies of weeds. In most parts of Assiniboia they are, as yet, exempt from the scourge of weeds that infest many of the older settlements, but it is well that every farmer should acquaint himself with the weeds most likely to give trouble and so be prepared to fight them at first sight. The Government's action in taking up the matter thus early is most commendable, and a more competent lecturer than Dr. Fletcher could not be found.

Testing British Cattle for Export to Canada.

To the Editor FARMER'S ADVOCATE:

SIR,—I inclose you list of the veterinarians in Great Britain authorized to test cattle for shipment to Canada, and to sign the necessary charts and certificates. I also inclose you copy of the form of chart to be used by the British veterinarians in connection with these cattle, and of the directions given to them. As there are so many Canadians now importing cattle from Great Britain, the information contained in the documents inclosed will no doubt be of valuable service to many of your readers. You will observe that the form of chart inclosed is the only one which will be accepted by officials at Canadian ports.

I have the honor to be, sir,

Your obedient servant,

W. B. SCARTH,

Deputy Minister of Agriculture.

Ottawa, July 5th, 1899.

List of veterinary surgeons in the United Kingdom, whose certificate of tuberculin test will be accepted by Dominion Cattle Quarantine Officers in Canada:

- Sidney Villar.....Greenhill, Harrow-on-the-Hill, Middlesex.
- Prof. Jno. Wortley Axtell.....La. Lower Sloane, St. Sloane Square, London, S. W.
- George A. Banham.....Cambridge.
- Adolphus LeSueur.....Haut-de-L'Orme, Trinity, Jersey.
- James Lathwood.....Congleton, Cheshire.
- C. Blackhurst.....Broughton, Preston, Lancashire.
- Frederick Low.....Norwich.
- George H. Elder.....Somerset.
- Harry Peale.....Durham.
- William Hunter.....Blakelaw House, Corporation St., Newcastle-on-Tyne.
- Thomas A. Huband.....Cheltenham.
- Thomas Bennett Goodall.....Christchurch, Hants.
- John T. Holmes.....Bourne, Lincolnshire.
- Richard John Verney.....Oxford, Shropshire.
- Alfred MacKenzie.....Market Drayton, Salop.
- Joseph Donald.....Wigton, Cumberland.
- Harry J. P. Oliver.....Tamworth, Staffordshire.
- T. McMillan McConnell.....Wigtown, N. B.
- Thomas Anderson Douglas.....Kilmarnock, Ayrshire.
- John Robert Urquhart Dewar.....Edinburgh.
- James Thomson.....Flour Mill Brae, Aberdeen.
- W. Williams.....Llandilo, Carmarthenshire.
- John McKerlie.....High St., Hungerford, Berks.
- John Dunstan.....St. Mellion, Cornwall.
- David Morrison Storrar.....Abergavenny, Monmouthshire.
- R. C. Tennant.....54 Thames Street, Windsor.

free from tuberculosis and other contagious diseases, certifying to that fact.

I send you by concurrent mail bulletin issued by the Canadian Government, in which you will find directions which may be of use to you. I also forward a supply of chart forms. These are the only forms which will be accepted by the Official Veterinarians at Canadian ports. The charts must show satisfactorily on their face that the animals described in them are free from tuberculosis, and must have your certificate that they are not only free from that disease, but from all other contagious diseases. Any animals arriving in Canada without such charts and certificates will be tested at the ports at which they arrive.

For your information I may state to you that cattle from Europe are subject to a quarantine in Canada of 90 days, less the number of days occupied by the voyage.

You will observe that the chart form in the bulletin is not the one now in use. At the time the bulletin was issued five temperatures were required to be taken before injection. Now two are all that are required.

I beg to suggest that the same scale of fees be charged by you as is charged by the members of the veterinary profession in Canada, who test animals for exportation to the United States, viz.: for one animal, £1; for the next nine animals, 4s. each; for each animal in excess of ten, 2s.

I have the honor to be, etc.

Pasteurizing Cream for Buttermaking.

As has been pointed out on several occasions in these columns, the St. Mary's (Ont.) Creamery Company in their effort to produce a uniformly high quality of butter that would build up a reputation for itself in the British market, adopted the Danish method of pasteurizing all their cream. That they were wise in so doing has been amply demonstrated, as they not only get the highest price in England for Canadian butter, and sometimes for any butter, but the demand for their particular brand has grown so rapidly upon its own merits that it has been found necessary upon several occasions to increase their list of patrons by opening new skimming stations. We have frequently heard it claimed that butter made from pasteurized cream must of necessity be deficient in body and grain, or lacking in high flavor. The expressed opinions in this regard have, we believe, been largely theoretical, or the results of practical pasteurization wrongly conducted, as not only does St. Mary's Creamery Company get satisfactory results but we learn from Mr. S. L. Jensen, butter-maker for Deerfoot Farm Co., Southboro, Mass., that after extended experience in making butter from pasteurized cream, compared with raw-cream butter it invariably scored higher. Regarding pasteurizing cream Mr. Jensen says in a letter to the *Produce Review*:

"Pasteurization, as well as other kinds of creamery work, must be done carefully to insure success. My advice is to start in a small way at first by only pasteurizing part of the cream, until the buttermaker is sure he knows how to do it right.

"My method is to heat the cream to 158° F., stirring at the time if pasteurized in a can, and cool to 45° F., then reheat to 70° F. and add the starter, from 10% to 12%, and stir until thoroughly mixed. Keep it at 70° F. until it has reached an acidity of 5.2 to 5.5%. I prefer not to stir the cream during the ripening. Then cool it down to 46° F., and keep at this temperature until ready for churning, when it should be reheated to the churning temperature I employ, which at this time of year is 54° F. For a starter I use the O. Douglass Duplex Butter Culture, which I prepare as follows:

"Take eight quarts of skim milk in a deep, perfectly clean and well steamed can, which I place in a tub of hot water, 170° F., and keep stirring the milk until it reaches 165° F. Keep it at this temperature for fifteen to twenty minutes, then set the can in cold water and cool the milk to 90° F. Add the culture and stir; cool down to 65° F., and close the can with a cover, putting parchment paper between cover and can so as to make it perfectly airtight. Place can in water 65° F., and let stand for forty to forty-eight hours. Watch it carefully until it curdles, when I stir it up and place it in ice water, until I am ready to use it.

"This makes eighteen pounds of fresh starter. Of this I keep back enough to use for the next day's starter. When I, for instance, have 600 pounds of cream, then I take 60 pounds of skim milk pasteurized in the same way as explained above, but heated to 185° F. and cooled to 75° F. To this I add 10 or six pounds of the fresh starter. When this is ready for use I keep back enough for next day, and so keep on for a week, when I make a new starter from the culture.

"Do not attempt to make pasteurized butter without this culture. I always work the butter twice, adding the salt with first working. When the buttermilk is worked off, I leave it long enough to give the salt time to dissolve, about three hours, and then rework. I never have had any trouble with mottles, and I think no one else would if they worked their butter twice. Our butter is salted from 2 to 5 to suit customers. Most of our butter is printed in half pounds and sold in Boston, where the Deerfoot Farm butter, as well as their milk and cream, has always been up to the highest standard of excellence."

FORM OF CHART,
CATTLE TESTED FOR EXPORTATION TO CANADA.

Tuberculin Test at _____ County of _____

No. 104, Chart No.	No. Age. Sex. DESCRIPTION.	Date 180	Date 180	REMARKS, DECISION.
		Date 180	Date 180	
		TEMPERATURE.		
		Before Injection.	After Injection.	
		5 p. m. 8 p. m. 6 a. m. 12 a. m.	6 p. m. 9 p. m. 9 a. m. 6 p. m.	
		Reaction.	Maximum.	
		Normal.	Maximum.	

I hereby certify that I have tested with tuberculin the above described animal, and in my opinion free from tuberculosis and all other contagious diseases.

Date _____
Veterinary Inspector.

LETTER OF INSTRUCTIONS TO BRITISH VETERINARIANS.

SIR, I beg to inform you that you are hereby authorized by the Minister of Agriculture for Canada to test with tuberculin cattle for shipment to that country, and to sign charts for those that are

Union Beekeepers' Convention.

(Continued from page 294.)

At what stage should honey be extracted?

Owing to the increasing quantities of honey being exported, it was deemed very important that every precaution should be taken to prevent inferior honey going to market, and to improve as far as possible all that is produced, as it is the quality of such products that regulates the demand. To this end all honey should be fairly well capped before being extracted, otherwise it is liable to be thin and of rank, unripened flavor. A number of the best beekeepers make a rule of allowing the combs to become from two-thirds to three-quarters capped before throwing it out. While honey in this stage is usually fairly well ripened, some careful men do not rely on this indication alone. Mr. Holtermann claimed that the honey should present a shiny, glossy appearance in the cell before being taken from the hive to be extracted. Mr. Heise goes by the weight of the honey as his guide. When he is ready to extract he throws out the honey from a couple of lightly capped combs and weighs it. If the honey weighs less than 12 pounds to the imperial gallon it is considered too light, and is allowed to further ripen before extracting more. Sometimes honey will go as high as 13½ pounds to the gallon. When honey is extracted too thin it will usually thicken up and ripen fairly well if left uncovered in a warm room, but it is better to allow it to ripen in the comb before being taken from the hive.

How should honey be stored, and where?

The important thing to preserve in honey is aroma, which, when unduly exposed or agitated, is liable to be lost because of its volatile nature. It is also important that honey be not exposed to moist atmosphere or it will become thin and watery. It therefore should be kept where there is artificial heat or where a good deal of sunlight strikes in during the day and warms the room. Mr. Miller claimed he always retains the fine aroma best by not exposing the honey. It is considered good practice to seal up the honey while it is yet warm, as soon as extracted. One member finds satisfaction in storing in cans of 300 to 400 pounds capacity, and covering with 3 or 4 plies of paper held on by a string or lid. Another plan expressed is to keep the honey in large cans covered with cheese cloth in a warm room for four or five days, and then run it off into 60-pound cans, which are sealed up and kept so until marketed. The main points in storing ripe honey seem to be to keep it in sealed cans in a warm, clean room. Honey that is too thin should be left uncovered in a warm pure atmosphere until it reaches the proper consistency.

Where should combs be kept after the extracting season?

Combs should be stored so as not to become infested with moths, nor become moldy. Mr. Miller generally keeps them in stacks in his honey room. He puts a cover on them and smokes them well with sulphur. Some leave the combs in the supers till August or September. They are then covered at the top with cloth or paper and the top put on so as to be moth proof, and are stored away in a dry, moderate temperature. If stored in a cellar they are liable to become moldy. It was claimed that moths frequently get in their work of egg-laying when the combs are left exposed over night after being extracted. They should, therefore, be returned to the supers or other places of protection the same day as extracted.

What is the best way to have the bees clean up the comb?

When there is a little light colored honey remaining in the combs, it is not important to have it cleaned out, but buckwheat honey in all cases should be thoroughly cleaned out in order to prevent its tainting or coloring the next season's light honey. The practice which some beekeepers follow of allowing the combs to be indiscriminately cleaned out by the bees by setting the extracted supers in the open yard was referred to as a good means of scattering foul brood throughout the entire beeyard, provided one or more colonies were affected with the disease. This, Mr. Holtermann considered too great a risk to run, since one might easily have foul brood in the yard without knowing it. The plan which he suggested is to move the extracted super over simply one hive, which would lessen the chances of distributing foul brood to a minimum.

Breeding Shorthorns for the Dairy.

John Evans, of Burton, near Lincoln, England, is a breeder of Lincolnshire Red Shorthorns, and has, for the last seven years, been breeding them with a special eye to dairy purposes. Selecting only from his own herd, he has gradually increased the yield, in eight years, 150 gals. per cow. Profit, one of his herd, was champion dairy Shorthorn for 1897. She gave a total yearly yield of 15,531 lbs. milk, or 37 lbs. daily, producing 420 lbs. butter. For seven years the average stands:

- 31 cows, 1890, averaged 710 gals. per cow.
- 35 cows, 1891, averaged 720 gals. per cow.
- 31 cows, 1892, averaged 735 gals. per cow.
- 38 cows, 1893, averaged 732 gals. per cow.
- 30 cows, 1894, averaged 831 gals. per cow.
- 43 cows, 1895, averaged 877 gals. per cow.
- 43 cows, 1896, averaged 879 gals. per cow.
- 45 cows, 1897, averaged 889 gals. per cow.

We can see, in the above example, the profit that lies, even in so short a time as eight years, in being obedient to the true principles of dairy breeding.

Summer and Fall Work in the Apiary --- A Manitoban's System.

A question that will very soon begin to agitate the mind of the incipient apiarist, if it has not already caused him serious loss of sleep, is, When may I begin to use the extractor? This depends on the strength of the several colonies. One hive may yield a considerable quantity of honey before another has taken in more than enough for its immediate wants.

It is claimed by some that honey should not be extracted until the combs are full and capped. Until then they say the honey is not "ripe," and therefore an inferior article. While this is true, it is also true that after exposure to the air in large, open tins, this unripe honey becomes ripe, and can't be distinguished from capped honey extracted on the same date; so when honey is being brought in freely, we consult our convenience and the state of the weather only, emptying capped, partly capped and wholly uncapped combs, and putting the honey all together in a tin tank 24 inches in diameter, and which holds when full about 300 pounds. This tank has no other cover than a cloth sufficiently fine to keep out dust, and in it the ripening process seems to be accomplished fully as well as in the hives. Of course any honey of inferior quality or color is kept separate.

For this operation a warm, sunny day is chosen, when the bees are too busy to notice what is being done. On such a day, too, the honey is more easily thrown from the combs. As a rule we extract from the best hives once a week during the height of the honey season. Of course, if one has plenty of combs, he may simply remove from the hives those that are full and capped, putting empty ones in their places. The extracting may then be done at leisure. For uncapping the combs a knife made especially for that purpose is required. Beginners may think the cost of an extractor too great to incur the first season. But a good extractor may be had for ten or even eight dollars, and a honey knife for one; that is all that is necessary to gather the first year's harvest; and in a favorable season the honey from one colony and its swarms will easily pay the cost.



TIMOTHY. BROME.
Fourth crop of each under equal treatment, July 6th, 1899.
Experimental Farm, Brandon.

I find that my figures given in a former issue as to the yield of the last two seasons—143 lbs. per colony in '97 and 110 in '98—have been taken by beekeepers in other places with considerable salt. But those figures were right, nevertheless. This is what two colonies, of which I took particular account, did last summer. They each threw off two swarms (one first swarm of which I failed to secure), and rolled up the very creditable total of two hundred and forty-six pounds of honey—with the assistance of their progeny, of course. At twelve and a half cents per pound this gives \$30.75, less say \$1.75 cost of sugar fed to them for winter, or a net return of \$14.50 per colony, to say nothing of the swarms.

As the work of extracting goes on it is important to keep the question of wintering in mind. All weak and backward colonies should be cared for at this time. The condition of every one should be known, and steps taken to have it in good shape for winter when the honey flow ceases. It can scarcely be done successfully after that. Feeding may and should be done immediately after, but the uniting of weak colonies should be attended to at an earlier date. Directions for uniting swarms will be found in all reliable modern books on beekeeping. It is a simple matter, though even in it circumstances may alter cases. The only danger is that the two parties may take to fighting, with the result that ever awaits a house divided against itself. I have done it successfully in this way: After dark, when the bees are all in, bring hive No. 1 up beside hive No. 2, where it may be left for a day or a week, until a cool evening occurs. Then lift the combs with the bees on them from hive No. 2, and place them in hive No. 1 behind the division-board. Place No. 1 on the stand of No. 2, and the thing is done. If the evening is cool the chances are that the bees will huddle on the combs till morning, and everything will go on smoothly. If, however, after half an hour or so they are found to be fighting, spill a half cup of honey in the hive, letting it run down the sides and ends. The fight will be adjourned till this is looked after, by which time they won't be able to tell "one from t'other or other from which." The

next day the division-board may be removed and the combs moved up together. Of course the queens will fight it out when they meet, and the fittest will survive.

As soon as the harvest is over—that is, when it ceases to come in such quantities as make it worth while to extract—the hives should be contracted by removing all combs but those the bees can cover well. These should be left in the front or center of the hive, and a division-board placed behind them. Combs with honey in quantities not worth extracting may be left for a day or so in the back of the hive till the bees empty them. Then, if they have not at least 25 pounds of honey, they should at once be fed.

A cheaper food, and at the same time one as good as the best honey, is granulated sugar. This may be fed either as syrup or as candy. The syrup is made by dissolving twenty pounds of sugar in about one gallon of boiling water. For feeding syrup there are a thousand and one sorts of feeders advertised, but anyone can make his own, if, indeed, he has not something ready made that will serve the purpose. We use boxes made water-tight, of course—ten inches square and four deep. In one of these we put as many pounds of syrup as a colony is supposed to require, floating on it enough bits of shingle to ensure the bees against drowning, and place it after nightfall in the hive, either above, or, if there is room there, behind the combs. By morning the bees will have it all stored away. If the feeder does not hold enough at once, some more may be given the following evening. Twenty-five pounds of stores is as little as it is safe to winter on, and it would be wise to give thirty—none of it is ever lost.

If feeding is delayed till cool weather sets in, it may be found that some of the bees will not store the syrup offered them, most likely the weaker colonies, which require it most. It would then be better to feed candy, which is made to solidify in an ordinary comb frame, and so placed in the hive. When feeding is done remove the supers, and see that the quilt is in place over the frames, so as to prevent as much as possible the escape of warmth from the nest.

The cellar should be seen to, too, and made clean and dry, and benches at least eighteen inches high provided to set the hives on. When winter has come to stay, the hives should be carried down and placed with alighting-boards projecting over the bench. After all are in place open the entrances, which have to be closed when moving the hives; and if the temperature of the cellar is likely to remain right throughout the winter, say ten degrees above freezing, and there is no danger of mice, the covers may be removed and a woollen cloth substituted. If the covers must be retained, it is necessary to provide the hives in some way with ventilation. Good ventilation must also be provided for the cellar; and a cheap and wholesome precaution is to place a quantity of quicklime on the floor. The best thing to do next is leave them alone till the willow buds begin to burst. J. J. GUNN.
Red River Valley.

Bogus Butter.

A Montreal correspondent writes us that a capitalist in that city has been endeavoring to get the consent of the Dominion Minister of Agriculture to a project for the manufacture of oleomargarine and butterine in that city for export only. The idea propounded was to have the material produced under Government supervision, as are whiskey, beer, and other excisable articles. We understand, however, that the Minister of Agriculture is firm in his determination not to advise any relaxation in the Dominion law which absolutely prohibits the manufacture, either for domestic consumption or export, of this class of material. And as Hon. Sydney Fisher is himself a practical farmer, and can speak for the whole dairy trade of the Dominion, we have no doubt that his colleagues will back him up in the stand he is taking. At the present time our butter and cheese command higher prices in the British markets than do similar products made in the United States, but how much longer would this be the case were it made known to the world that we had receded from the high stand we had taken in favor of the production and marketing of nothing but the genuine article in every branch of the dairy trade? When we have attained so favorable a position in the markets of the world, it would be a backward step to license the production of "bogus butter" in Canada, even for export, and we are glad to learn that the Dominion Minister of Agriculture has no intention of proposing any alteration in the law prohibiting the production of oleomargarine. In taking this stand he has correctly interpreted public opinion. Canada stands for honest butter, cheese, and every other product of the farm.

A correspondent of the *Live Stock Journal* says that a brisk trade in Australian horses is anticipated in the Philippines. The Americans offer good prices for animals for military purposes, and a fair traffic in this direction is possible. A member of a New York firm is on his way home from Manila, and mentioned to a Sydney horseman that he would take any number of ordinary Australian horses, but the local stock were too small for cavalry. General Otis bought thirty for Manila from an Australian farmer some time ago, though many hundreds are required for use in the American army of that region.

Daylight on the Royal Honor Roll.

To the Editor FARMER'S ADVOCATE:

Allow me space to reply to Mr. Linton's letter in your last issue. As you are aware, I prepared the list of Royal winners. Without comment you asked me to write in connection therewith such notes as might be interesting to your readers. I did so for the reason that I thought such might prove of value to young breeders and those whom we hope to enlist in our ranks, not for the old guard who know more about the old herds than I do. There has been a sort of Rip Van Winkle somnambulism amongst our breeders. We have remained dormant, as it were, while admirers of others of the beef breeds have taken advantage of our self-esteem, or self-satisfaction, which has prevented us from using the press to the same extent



SHORTHORN BULL, BAPTON EMPEROR.

PROPERTY J. DEANE WILLIS, BAPTON MANOR, CODFORD, WILTS.
First at Exeter and Windsor Shows. Male champion at the Royal Show, Maidstone, 1889.

as they. Not an agricultural paper, especially in the West, can one pick up without noting how persistently the Hereford and Angus men are booming their respective breeds, with the result that they are enticing to their ranks the enterprising young men just starting herds, whom we ought to have with us, as Shorthorn breeders. To do something for the breed was my intention when I prepared the bill, as I feel that the time has come when an effort must be made in the direction named, viz., by the use of the press. To be of benefit to the breed we must sink our petty jealousies and work as a unit for the Shorthorn, not for Bates or Booth or Linton. To give food for thought to our future breeders, the "Roll" was prepared, and no one strain or favorite blood-lines were sought to be forced upon the reader, but crumbs were thrown out, which were hoped might prove even like unto those cast upon the waters, which returned in many days. Mr. Linton accuses me of attempting to be the "historian" of the breed and of "elaborating," etc. Nothing of the kind. I simply supplied notes whereof I was cognizant, and banked not upon my imagination or upon patent medicine chromos and advertisements.

Mr. Linton writes, addressing the editor: "Sir, — In the construction of the notes under the record of 1888, in the Honor Roll of the Royal, I presume you took your data from the London *Live Stock Journal* of July, 1888, which reads as follows: 'Mr. Robert Thompson, of Inglewood, takes five out of the eight first prizes,' etc. This would have been all right, and there could have been no exception. But what was the note to which I took exception? It reads as follows: '1888 and 1889 were two remarkable years, as Mr. Thompson in the former won five first prizes with animals sired by one bull.' This I pointed out was not correct, as the five were not by the same bull, three being by Beau Benedict and two by Royal Baron.

Again Mr. Linton writes (see page 285): 'Mr. Thompson also broke the record by winning every first prize in the female classes in 1888, two being by Beau Benedict and two by Royal Baron,' etc.

This statement is absolutely untrue, though Mr. Linton tries to hide behind the *Live Stock Journal* report of 1888. In 1889, instead of winning every first prize in female classes, he won two with Molly Millicent and Belle Madeline, while Mr. I. Stokes won one first with Gladys Rose and the Duke of Northumberland, and one with Fairy Rosebud. It is not only untrue to publish such a statement, but unjust to those who did win first prizes.

Again, Mr. Linton takes exception to the statement that old breeders did not hesitate to place the Duke of Northumberland ahead of any bull produced since. He gets this off as settling the question for all time: "There have been thousands of bulls his peers since his day." I will accept the above with the reservation that I prefer the statements of Messrs. W. Torr and W. Wetherell, for the reason that they formed their opinions from the animal in the flesh, and Mr. Linton from newspaper illustration. The case was argued at Wexley, shortly before the Manchester Show, by Mr. Torr, then Editor-in-Chief, with others, who, of course, declined just before starting. It was the intention at Wexley to have a private view, and I was favored with an invite. The discussion arose as to merits of the Shorthorns of early days, and then with the question

that the Duke held his own with any since produced, but that Lady Fragrant had never been equalled. As, however, Mr. Linton judges from pictures, and is evidently satisfied with those of Molly Millicent and Lord Irwin, as illustrated in the *Advocate*. I would ask your readers also to study pictures. But what fools we have all been to take our cattle to the shows, not only at great expense to the exhibitor, but with risk to the animal, when we could have them judged at home by just mailing the pictures to a judge. I commend this to H. J. Hill's notice. In Thornton's Circular, Vol. VI., written in 1880, the history of the breed closes with a sentence regarding Booth's Bracelet, which reads as follows: "No record of her measurement exists. Many old breeders, however, still maintain that as Duke of Northumberland 1940 was one of the finest bulls, so Bracelet was the finest cow of their recollection."

I cannot conceive where Mr. Linton gets his "thousands of peers" from, seeing he has been in Canada the last forty years. He must speak of those he has seen in Canada. He would certainly not refer to those he has not seen, but perhaps the artists have improved.

Again Mr. Linton writes: "We knew Thos. Bates, and we knew his cattle in his lifetime." To meet a man is one thing, to know him is another. He may in his youth have thought he knew Mr. Bates, but as the latter died at the good old age of 75 in 1849, it cannot be conceived that a boy of 8 or 10 could have been very intimate with the Kirklevington breeder, or at that age be competent to form a very correct idea of the herd. English boys, as a rule, in those days were not the precocious youths of to-day. Again Mr. Linton writes: "Mr. Bates never won a prize after the Booths stepped into the arena." What rot! I am not advocating Bates cattle, nor do I find it necessary to defend them. This silly idea of Bates or Booth has been dropped for years, and only the old fossils harp upon those strings. It is now Shorthorns versus Herefords and Angus. Those are things in the flesh, not the ghosts of dead and defunct dynasties. As a matter of history, what are the facts as regards Mr. Linton's last assertion? At the Yorkshire Show held at Northallerton in 1840, Mr. Bates won first for best cow, Mr. J. Booth second. At the Royal, same year, Mr. Bates won for best cow. In 1841, at the Yorkshire at Hull, Mr. Bates won two firsts for bulls, first and second for three-year-old cows, and Mr. J. Booth won with Bracelet for best cow of any age. See Bell, page 258. Mr. Bates had always been on most friendly terms with Mr. John Booth, who frequently visited at Kirklevington, and was always a guest at Yarm Fair in October. Mr. Booth took especial delight in bantering Mr. Bates about Shorthorns and his declining to exhibit at the Royal, and joked that he dare not show a cow, and if he would he (Mr. Booth) had a rod in pickle for them. This referred to Mr. Booth's cow Necklace. It required no ordinary courage to enter the list with such a heroine as Necklace. To meet this cow, supposed to be the best the Booth herd had ever produced, Mr. Bates had his broken-legged cow, Duchess 34, that had never been exhibited. She had no training whatever, and walked by road about 40 miles to York, with her son, the Duke of Northumberland. There were fifteen competitors. Duchess 34 won, Booth's Necklace 2nd, and a cow of J. Mason Hopper's third. Comment is unnecessary. In conclusion, Mr. Linton dismisses my effort with this curt statement, "that with very few exceptions it is a repetition of the Royal Agricultural Show." I wish to say that is all that was intended, and I am glad I have not been accused of drawing altogether upon my imagination. Mr. Linton must have access to the full lists of Royal winners. I have not, and I would suggest that he prepare a second honor roll of the two-year-old bulls and heifers. I have such partially written out, but do not want to monopolize the idea. Anything to help the breed, with all sectionalism and narrow-minded blood-lines eliminated, will receive my hearty support. And, as I wrote, any corrections in my list will be heartily recognized and acknowledged, but no man can try and wring incorrect statements over my signature without a kick.

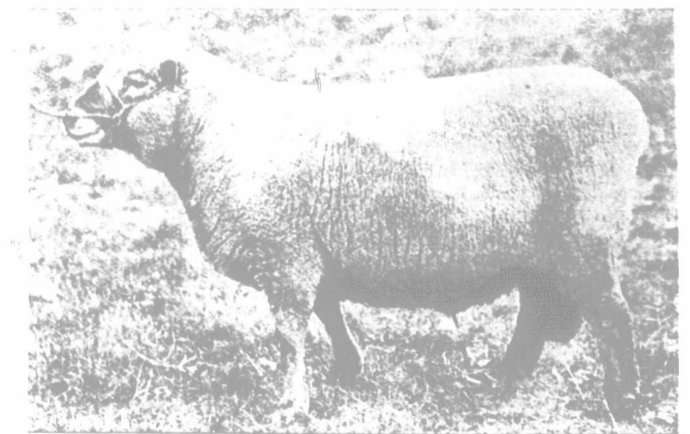
RICHARD GIBSON.

The New Cure for Milk Fever.

Some months ago the *FARMER'S ADVOCATE* published a statement regarding the German, or Schmidt, treatment for milk fever, concerning which the *Farmer's Gazette*, of Ireland, gives the following statement: "Several correspondents have recently written to us for instructions as how to use the iodide of potassium, recommended in these columns some months ago as a cure for milk fever in cows. For the information of the querists in question, as well as such others of our readers as may be interested, we now repeat the gist of the information already given on this subject. The 'new cure,' as it has now come to be described, consists in the injection into the udder of a solution of iodide of potassium. The first thing to do is to obtain some clear warm water and to add to it a little Sanitas, or other disinfectant, and then thoroughly sponge the udder with it. About fifty grains of iodide of potassium should then be taken and dissolved in one and a half pints of water prepared by first heating it to the boiling point and then allowing it to cool down until it reaches 100 F. It is at this stage that the iodide of potash should be added. An India-rubber syringe with a teat syphon fitted should then be procured,

and immersed in boiling water in order to render it perfectly clean, as if proper precautions are not taken in this direction inflammation of the udder may be brought about. The syringe, after being duly cleaned, should be filled with the iodide of potassium solution and one fourth of the quantity specified injected into each teat. Two or three hours after the injection the udder will usually be found to have become full and hard; when this is the case a little milk should be gently drawn, but the whole contents of the udder should not be abstracted. A Scottish veterinarian, who has had very successful results with this treatment, and who recently communicated some interesting details of his experiences to one of our contemporaries, advises the administration—directly after the injection into the udder of the iodide of potassium—of 2 lbs. of treacle and a pint of castor oil, given in two quarts of warm ale. This he recommends, however, only where the animal is conscious; if insensible, no attempt should be made to administer anything, but the animal should be trussed up so as to rest on her breast bone and abdomen, and should then be left alone until sensibility returns. This gentleman also considers it a good plan to offer the affected animal some small quantities of cold water to drink at frequent intervals, and when the cow gets on her feet he advises giving her small portions of any kind of food she relishes best, and leaving the calf with her for five or six days, or failing in this, to take small quantities of milk from her three or four times a day, but on no account to remove all the milk from the udder at once before five or six days elapse after calving."

In our issue of April 5th of this year, page 171, we referred to two cases of milk fever that were successfully treated by the new treatment by Dr. Tennant, V. S., of London, Ont. Since that time the Doctor has met with ten pronounced cases, bringing them all successfully through the disease, and all but one of them has made complete recovery. The exceptional case so far recovered as to be able to walk around and eat grass, and was apparently doing well, when her owner administered several draughts of homemade painkiller, which, it is supposed, caused complications that robbed her of life and her owner of a cow. Of the twelve cows treated by the Doctor with the potassium iodide udder injections, they were all, with one exception, down and helpless when he reached them. The first four were given physic, either before the injection was given or as soon after as the action of the injected medicine would make it possible. Since then no physic has been given, but in every case stimulants are used in the form of whiskey, with nuxvomica or other drug. The cows were all milked out as soon as reached and the udder injected. Great precaution is taken not to give the cow anything whatever for six hours after the injection. At the end of ten hours the udders of the cows were again milked out and injected. This is all the treatment that he now uses, and it is proving to be all that is necessary. The cases have all gotten onto their feet in from six to eighteen hours, and with the one exception made a rapid recovery. We interviewed a number of the owners of the cows treated, and found them very sanguine over the new system, as they had invariably lost several previous cases. In some cases the cows were milked for a few days before calving, and one of these took the disease before her calf was born.



SOUTHDOWN RAM.

BRED AND EXHIBITED BY THE DUKE OF RICHMOND AND GORDON, R. G. GOODWOOD.

Male champion at the Royal Show, Maidstone, 1899.

Dates of Fairs.

Virden	July 25th and 26th.
Regina	" 25th " 26th.
Glenboro	" 25th " 26th.
South Edmonton	" 25th " 26th.
Cypress No. 1 (Glenboro)	" 25th " 26th.
Oak River	" 26th.
Cypress River	" 27th.
Turtle Mountain Boissevain	" 27th and 28th.
Killarney	Aug. 1st and 2nd.
Central Assa. (Indian Head)	" 2nd and 3rd.
Minnedosa	" 2nd.
Carberry	" 3rd and 4th.
Neepawa	" 8th to 10th.
Moose Jaw	" 9th.
Manitou	" 9th and 10th.
Rolling River	" 18th.
Industrial Exhibition, Toronto	Aug. 28 to Sept. 9.
Calgary Industrial	Sept. 3rd, 4th and 5th.
Western Fair, London, Ont.	Sept. 7 to 16.
Central Canada, Ottawa	" 11 " 23.

Imports from Canada to Great Britain During June.

London, July 7.—The imports from Canada during the month of June reached the following proportions: 14,017 cattle, valued at £234,616; 5,248 sheep and lambs, valued at £8,013; 44,076 cwt. of bacon, valued at £73,452; 11,480 cwt. of ham, valued at £22,037; 11,974 cwt. of butter, valued at £52,005; 147,752 cwt. of cheese, valued at £319,221; 479 great hundreds of eggs, valued at £130; 515 horses, valued at £13,998.

Mares and Foals on Pasture.

To the Editor FARMER'S ADVOCATE:

SIR,—I have come to the conclusion that mares and their foals should receive a reasonable quantity of grain while on pasture. To my Clydesdales I feed about six quarts of chopped oats and wheat to each mare and foal per day in two feeds when not working, and twice that amount when the mares are worked. I always sow a sprinkling of wheat along with my oats, as I find I get more and better feed than by growing oats alone. I tie the mares, and leave the foal loose to eat from a box of its own, as the mare eats too rapidly for the foal. I always sprinkle a little salt along with the chop.

My object in supplementing the pasture in this way is to gain size, stamina, and early maturity. I feel convinced that if a foal receives a little grain continuously until mature it will gain a year on one raised without it. I consider sloppy food, including bran, better than dry grain, and I place a high value on roots during the winter season. Occasionally we see a foal during the fall that has been overcrowded and apparently too heavy for its joints, but there is no danger of this provided the foal runs out, getting plenty of exercise. Of course, a foal should have a good-limbed parentage. I might say that it requires a horseman to breed and raise horses successfully.

When feeding a mare well, one should be careful not to have her too fat until she gets in foal, although she is more likely to conceive while in a thrifty condition.

I aim to allow foals to suck until they are seven or eight months old when I do not wish to work the dam. I find they can be weaned at that age without failing in flesh or halting in growth.

I have noticed, and have learned from experience, that a great many Clydesdales of the present day are becoming finer and smaller, and taking too long to mature. The conclusion I have come to regarding it is that inbreeding is one of the chief causes, while no doubt some neglect on the part of the breeder during the last five or six years has also played a part. You will no doubt have noticed that a great many of the imported Clydesdale stallions are closely related, and to some extent inbred. I would like to hear the opinions of FARMER'S ADVOCATE readers regarding the use of an occasional Shire cross on our finer Clydesdale mares to get larger horses. DAVID BURNS, Ontario Co., Ont.

[NOTE.—Mr. Burns opens a question regarding the Shire cross upon which there should be some opinions expressed by horsemen who are interested in producing the best class of exportable draft horses.—ED. F. A.]

Mrs. E. M. Jones on Registration of Pedigrees.

To the Editor FARMER'S ADVOCATE:

SIR,—Kindly insert the following, as I am very proud of it.

Last September I sold to John Webster, of Portage la Prairie, an elegant yearling Jersey heifer (in calf), Pansy of Belvedere, and he writes: "Well, she calved on the 7th of April—a fine bull calf, doing well. The heifer, Pansy, has done well. You would not know her—growing all the time. Gives a pail of milk twice a day, very rich. I am pretty sure if she was thoroughly tested she would make 14 to 16 pounds a week. She has a fine bag, is quiet as a sheep,—a regular pet."

I think the publication of this, showing how Jerseys thrive in the North, will be of great benefit to the farmers there, as well as to us breeders, especially coming, as it would, right on the heels of your splendid article giving the simply wonderfully cheap rates for which the Government now takes out pure-bred pedigreed animals. It seems to me that you never forget either the farmer or the breeder, but you always do the right thing at the right time, and all farmers are in your debt. I think, if I may suggest, that a short article on how to register cattle would be good. For instance, this man got the transfer of his heifer from me, and on that was marked the date on which Pansy was served, also name and number of service bull, signed by me as his owner. This ends the matter, because, as you see by reference to XX on enclosed sheet, he has liberty to make out his entry paper without any reference to me or further bother. But they don't understand. Nor yet that they ought to keep blank forms on hand. So Mr. Webster writes me in an awful hurry, enclosing \$2, and asking me to register his bull calf in time to show him on 6th July. The time is too short (1st), because, as I cannot sign for him (see X), I have to return his money and send him an entry form; and (2nd) he did not state color and markings of calf at all. As everyone ought to register, if possible, animals they show, would not a brief article from you be in order, with the heading "Cut this out and keep." Neither do they under-

stand that to get a transfer recorded free they must record it before 90 days. After that they are surprised to find it costs \$1. Nor yet that if they do not register an animal before it is two years old it then costs them \$4 instead of \$2 to do so!

Brockville, Ont. ELIZA M. JONES.

The subject suggested by Mrs. Jones in her letter is one which interests every owner of pure-bred pedigreed stock, and is one which is not so generally well understood as it ought to be. It is not surprising that those who have never owned pure-bred animals should enquire, as they frequently do, "How many crosses make a pure-bred?"—to receive the answer that the rules of all recognized Canadian and American pedigree Records of breeds of European origin require that the animal's pedigree shall trace in all lines to imported ancestry in order to be eligible to registry, so that no number of crosses by registered sires on native or grade stock entitles the produce to registration. It is, however, a little strange that many who are owners and breeders of pure-bred stock are so slow to understand the rules and regulations governing the registration of pedigrees and transfers of animals in the herd book of the breed in which they are interested. These rules are doubtless the result of careful consideration on the part of the officers of the various associations of breeders, and the forms provided on which applications for registry are required to be made are, we suppose, such as the observation and experience of the editors have shown to be best suited for the purpose; and if properly filled out by the applicant, after careful reading of all foot and head notes and explanations, are really all that is necessary; and yet, as a matter of fact, to new beginners most of them are more or less confusing, while in not a few instances breeders of many years' experience blunder in the use of them.

The rules governing registrations in the Herd Register of the American Jersey Cattle Club are, perhaps, as strict and exacting as those of any other pedigree record on this continent, and its forms of application as carefully prepared as any, and yet to many they appear complicated. The very first blank space on their "Form No. 1—A"

Form No. 1—A.1
Herd Register No. of Sire
Name of Sire
Herd Register No. of Dam
Name of Dam
Date when dam was served for this calf (exact date must be given)
Date when this calf was dropped
The owner of the sire at the time the dam was served must write his name and post-office address here.
The owner of the dam at the time the dam was served must write his name and post-office address here.
The applicant for entry (who must be the owner of the animal at the date of application) must write his name and post-office address here.
The Rules of the American Jersey Cattle Club compel the Secretary to return applications unless all the blank spaces are filled up, and the filling must be in ink, certified to upon the transfer of the pregnant dam; applicant must give the names of such owners, and X must write after each name: "For signature see transfer of dam."
NOTE.—The date of an application for entry is the date of mailing it as shown by the post-mark, provided the application is accompanied by the fee. In cases where the fee does not accompany the application, the date on which the fee is mailed is taken as the date of application.

(which we here reproduce), that for herd register No. causes confusion, from the fact that probably not one in fifty of the breeders of Jersey cattle have ever seen a copy of one of the volumes of the "Herd Register," which is simply what is generally called the "Herd Book" by other cattle breeders' associations. They hesitate on commencing to fill the first blank on the form because the animal they wish to have registered has no number. If they look over the footnotes on the form they may read that "the rules of the American Jersey Cattle Club compel the secretary to return applications unless all the blank spaces above (except that for Herd Register No.) are properly filled." We presume that this blank is for the convenience of the secretary, to be filled by him when the pedigree is entered on his books under a number, and the same number is marked in this blank on the form of application, to be placed on file for future reference, if necessary;

but would it not be an improvement to print directly under this blank, "Do not fill this space?" so as to make it as plain as our little girl meant to when she asked for "bread and butter, without any butter." This form rightly calls for the date of service of dam for the calf to be registered, and for the signature of the owner of the service bull, which is a certificate and a check on men who may be disposed to be dishonest, a precaution which, we note, is not taken in the case of some pedigree records. The second footnote on the form (marked *) refers to the fact that when the form of application for the registry of the transfer of a pregnant cow is signed by the seller and by the owner of the service bull, giving date of service, it is not necessary to have the signatures again on application for registry of the calf, as the secretary keeps on file the applications for transfers, and a reference to the signatures on the application for transfer of the dam is sufficient; but the names of the owners of the sire and dam at the time of service are required to be given by the applicant in the blank spaces provided for that purpose. We confess to a feeling that to the uninitiated the footnote referred to and the explanation here given will appear about "as clear as mud"; nevertheless, when it is carefully studied and a little experience is gained, it will be found to work out all right, but we must say we would be glad if it could safely be made so plain that he who runs might read and understand it. The directions for giving description of color markings which are given on the back of the form of application are also "fearfully and wonderfully made," and lead to endless bungling, since it is stated that "color other than white must not be given." It may be argued with a fair show of reason that white is not a color, yet it is only the white markings that must be given, except in the cases of tongue and switch, of which the color must be given. When there is no white on the animal, the instruction is to write "solid color" once across the blank, which makes it satisfactory if you don't forget to mark the color of tongue and switch in the blank spaces for these. If this be omitted, the form will be returned for completion before being accepted, even if the registration fee, which is \$2 for animals under two years old, has been enclosed. If application for registry is not made before the animal is two years old, the fee is \$4. Transfers in the A. J. C. C. Herd Register are registered and certificate of transfer granted free if application is made for same within 90 days after the sale of an animal; if not sent in within 90 days after sale, the fee is \$1. The offspring of an animal cannot be registered until the latest transfer of the sire and dam has been registered. These rules may appear very strict, but there are some in other associations that are more so. The American Hereford Association will not admit an animal over two years old to registry for love or money, and, of course, in that case the produce of such animal is also barred. The point to be noted by all owners of pure-bred stock is that it is well to apply to the secretary for a copy of the rules governing registration and of all the necessary forms of application for registry of pedigrees and transfers, to keep a supply of these on hand, to study them carefully, and to act according to the rules therein laid down. If this is done, there should be no trouble or friction in the work of registration.

The Foal's the Father of the Horse.

GENTLEMEN,—Our practice with brood mares is to turn them out in the spring as soon as possible before foaling. At foaling time we bring them in every night and watch them. After foaling we leave them in the stable until the foals are strong enough to be turned out, which is usually about a week. We then turn out mare and foal a little every day until grass has got properly through them, when we leave them out altogether, except perhaps in case of rain just at the start or in case of accidents. All our stock are carefully watched every day, but are never brought in again, except for the above or similar reasons, until about five weeks before the Toronto Industrial. When this time arrives the mares and foals which we wish to exhibit are selected and brought in during the daytime, out of the way of flies and to keep them from being sunburnt, but are still turned out at night until a week or two before the show. The rest are left in pasture until the fall. We have excellent pasture and consequently feed no grain so long as the stock is wholly at pasture. Should the pasture be scarce, we undoubtedly would feed grain. Should the foals not thrive well then an extra ration of milk for the foal would be advisable. (I need hardly mention that I am speaking of light horses. Heavy horse men will feed quantities of milk to their foals right straight along.)

The mares and foals brought up for exhibition are when taken up fed grain together in the same box at first. Just as soon as the foal begins to eat grain, usually a week or so, he and the mare are tied up at separate feed boxes, in the same loose box, so that each gets its own allowance, and the foal at the same time learns to be haltered and handled.

For the above feed we use oats and bran. We usually start to wean our foals when they are thoroughly rested from the exhibitions.

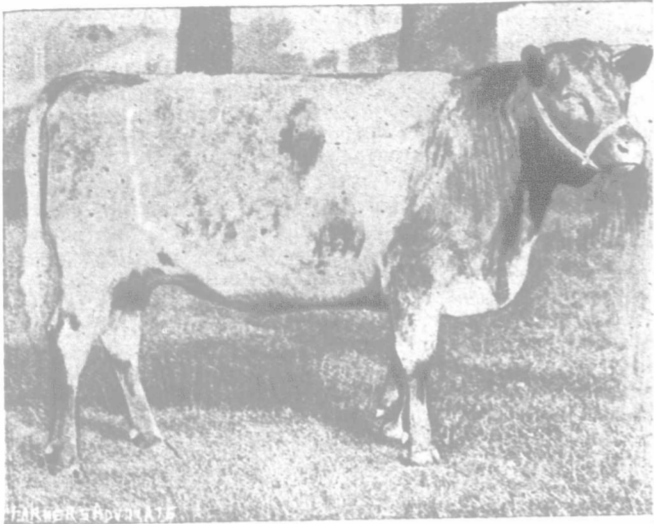
As to grain-fed foals, it is my opinion that many excellent show horses are ruined by grain and other kinds of high feeding when foals, and that so long

as the foal is thriving and is not being shown, there is no necessity for such feeding, provided the pasture is good. It is a maxim that has been proved times without number, with regard to the human species, that the most highly fed are not necessarily the best breeders. I can see no reason why the reverse should be the case with regard to animals. Perfect health, lots of exercise, enough of simple fare, are the best guarantees that a mare will breed well and successfully.

HORACE N. CROSSLEY,
"Sandy Bay Farm," District of Parry Sound.

Feeding Mares and Foals.

I believe in feeding some grain to both dams and foals during the summer, whether the dam is required to work or not. When the dams are required to work, I feed the dam about three gallons of oats and about three gallons of bran per day, with all the good hay or grass they will eat at



SHORTHORN, CICELY.

BRED BY AND THE PROPERTY OF H. M. THE QUEEN, WINDSOR.
Female champion at the Royal Show, Maidstone, 1899.

noons, and give them a good pasture at nights. Even when they are on grass it will pay to feed some bran when working. Always keep the foal in a good box stall when the dam is working—clean and well lighted, with no holes to allow it to get its head through, as it will be constantly fretting. Great care should be taken to allow the dam to cool, if warm, before suckling the foal. The foal should be taught to eat as soon as possible by mixing a small quantity of crushed oats and bran with a little sweet milk—just enough to wet it. Have a small dish for the purpose, and never take the dam away without giving it something to eat after it is two or three weeks old. A good way to start the foal to eat is by taking the dish and holding it up to its mouth with one hand, and getting it to nibble at it. In that way it will soon learn to eat. After the foal has learned to eat well it should be fed at the same time as the dam, in a separate box in another corner of the stall. And be careful to see that each commences to eat their own feed. In that way you may know just what each one gets. Some dams are cross when feeding, and will not allow the foal to feed at the same box. Others will, but it is very much better that they each learn their own place.

We have always fed our foals some grain, so that from experience I can hardly give an opinion, though I am led to believe that a foal fed with a fair amount of grain will develop better bones and muscles and have more ambition than one reared without it. With reference to grain-fed mares suckling foals being more likely to breed again than others, I would not care to give an opinion. I may say we have always fed grain, and we have very little difficulty in getting the mares with foal again.

My own opinion is, there is not much danger of foals getting too heavy on their joints if the dam is required to work. If the dam is allowed to run without being worked, and the foal is likely to get too fat and heavy for its joints, the best remedy I know of is to take some of the feed off both dam and foal. Get the foal as much exercise as possible without galloping. In cases of that kind, a great deal of judgment is required to know just how far you may feed without injuring the foal.

I would prefer to wean a foal at from seven to eight months old, when the welfare of the foal is the main consideration. By all means feed often after weaning.

JOHN GARDHOUSE,
York Co., Ont.

Brood Mares are Better Not to Get Much Grain Until They are With Foal.

To the Editor FARMER'S ADVOCATE:

SIR, We do not feed our brood mares much grain for three or four weeks after foaling, or, as a rule, they do not get much till they prove in foal. Mares are generally harder to get in foal if getting much grain. We feed rolled oats and bran, mixed with a little cut hay. We wean our foals at six months old.

D. & O. SOBRY,
Wellington Co., Ont.

Favors Grain Feeding Foals.

To the Editor FARMER'S ADVOCATE:

DEAR SIR,—I have found by experience that a little grain while on pasture is beneficial to both mare and foal. In order that each shall get a proper allowance, I tie the mare in a box stall, leave the foal loose and have a separate box for its grain. As to the kind of grain, I prefer crushed oats and bran, about five pounds—half and half—twice a day for the mare. I start the foal on about a pound and keep increasing until after a while I give it all it will eat. I certainly think that grain-fed foals make better horses than those raised without. We have never had any difficulty in getting mares to breed, whether grain-fed or not. I don't think it makes any difference. I do not think it is best to have a breeding mare too fat. We have had no trouble with grain-fed foals getting too heavy on their joints if given plenty of outside exercise. We bring the mare and foal up in the morning and keep them in just long enough to eat their grain, then turn them out, and the same at night. We usually wean our colts at about five or five and a half months, but if the mare is not with foal I don't think it injures the foal any to let it suck longer. It is my opinion that in order to raise good horses we should avoid extremes—not keep them too fat nor too poor, but in good thriving condition from the time they are foaled until they are matured.

VAL. FICHT,
Oxford Co., Ont.

Grain-Fed Foals Mature Early.

To the Editor FARMER'S ADVOCATE:

SIR,—We are at present feeding our brood mares about four quarts of crushed oats twice a day. We continue this during the summer, feeding in a manger low enough for the foal to reach the grain. We find they begin to take a little when very young. When mares are worked we give the foal all the crushed oats and bran they will eat while the dam is out.

We do not use any means of preventing mare from getting more than her share of feed until foal is old enough to tie up, when both are tied. While feeding, never tie dam and allow foal to be loose. We believe grain-fed foals will mature a year younger than those not being fed, as they continue to grow right along after weaning time. We do not think grain-fed mares are more likely to breed again than those not receiving any grain, but if too much grain is fed there is more difficulty in getting mares to breed again. We have had no difficulty with foals getting too heavy for their joints. Would say, breed to sires having a good quality of strong bone, and there will be little danger of foals getting too heavy for their limbs if allowed a fair amount of exercise. We wean foals at about five months, when mares are not required for work; if worked, it is better to wean at four months.

I. DEVITT & SON,
Halton Co., Ont.

The Ideal Bacon Hog Once More.

To the Editor FARMER'S ADVOCATE:

SIR,—I will not demean myself nor insult your readers by continuing the discussion on the merits of the Large White as a bacon hog in the pothouse style in which Messrs. R. L. Jarvis & Bro. appear to be so proficient, nor will I, as someone with a name like Solomon remarked, answer a — according to his folly, but give as brief a reply as possible to anything in their letter deserving of notice.

Messrs. Jarvis & Bro. must have a very poor estimate of the intelligence of your readers if they imagine that the slightest influence on the determination of the question of the merits of the Large White Yorkshire is likely to result from their recital of the fact that somebody had a few coarse pigs which were said to be Improved Yorkshires. This is very probable, as it is an admitted fact that several very inferior so-called Improved Yorkshire pigs have been imported into Canada. This is no proof that the Large White pig is of necessity a coarse pig, but a far better test of the quality of pigs of the breed can be furnished by Mr. D. C. Platt, of Millgrove, Ont., who has, or had, recently imported something like forty head of Large White pigs bred by me. Messrs. Jarvis & Bro., with no knowledge of the facts, may assert as long as they please that the Yorks, as they call them, are a large, coarse pig, but this will not affect the question in the slightest.

Messrs. J. & Bros. express surprise that I do not get some Englishmen farmers to say a word in recommendation of my pet York. The English farmers go one better, as they not only praise but buy my pigs and at prices that would frighten Messrs. J. & Bro. For instance, the public have bought of me nearly 200 boars, sows, and yelts for breeding purposes during the last three months and have paid me an average of over £6 per head. Actions speak louder than words.

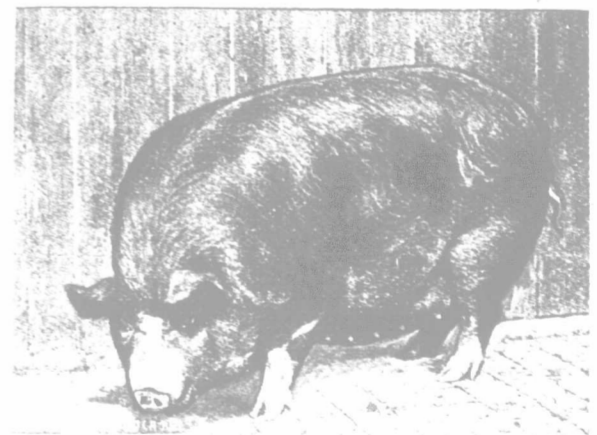
I fail to see the force of Messrs. J. & Bro.'s remark about the probability of the Swede being a friend or relative—he is neither—nor as to the probable want of competition in Sweden. There was strong competition, and they would know if they had any knowledge on the subject that the Danish and Swedish pigs are as a whole infinitely better than Canadian pigs, and that this marked superiority is solely due to the Scandinavian having for many years bought numbers of Large White boars, and of what is of still greater importance, are still importing them and giving high prices for others.

Messrs. Jarvis & Bro. complain that I did not give them recent evidence and from a good source as to the feeding and other good qualities of the Large White. Perhaps they will be content with the results of a trial which was carefully carried out at the Ontario College of Agriculture last autumn when pigs of the Large White, Berkshire, Duroc-Jersey and Tamworth breeds were tested for 112 days. The Large Whites made the greatest gain in a given time on the smallest proportionate quantity of food for gain and were highly spoken of by the managing director, Mr. J. W. Flavell, of the W. Davies Co. Of what possible value can the unsupported and wild assertions of Messrs. Jarvis & Bro. be against such evidence of truthful men who have no axe to grind nor pitiable jealousy to humor. In the course of the summer I hope to be able to furnish Messrs. Jarvis & Bro. with the opinion of the Large Whites as found by Mr. J. W. Flavell after a personal inspection of my head of 500 head, since that gentleman has arranged to come and see.

Holywell Manor, Eng. SANDERS SPENCER.

Shorthorns at the Royal Show, as Seen Through the Eyes of a Canadian Breeder.

Altogether, the Shorthorn exhibit at the Maidstone meeting of the Royal Agricultural Society, June 17-23, was good, some sections exceedingly so, and in some sections the standard reached was not very high. This latter was true of the first section—aged bulls; the number of entries was large enough (21), and all were in except one. We were very much at variance with the judges, and greatly disappointed when Brave Archer, the only good bull in the ring, did not get a place; a very thick roan, grand substance and good quality, without any very bad points, bred by Mr. Duthie, got by Scottish Archer, and exhibited by Sir J. Gilmour. The first prize went to Richard Stratton for Alto, by Excelsior, a big, coarse, rough bull, whose only redeeming qualities were a good masculine front and good coat of hair. Second went to H. R. H. the Prince of Wales for Stephanos, one of the same kind as was placed first. And third to Sir Lawrence Riby, exhibited by Sir Jacob Wilson; bull bred at Warlaby; plain, but good in the crops and heart. Mr. Willis' Bapton Victory was reserve number. In the two-year-old section the judges changed their type altogether, and then we were able to agree with them generally. The first went rightly to Mr. Geo. Harrison, Darlington, Yorks., for Count Beauty, bred by Mr. Duthie, and sired by Golden Count. He was rather too upstanding, but had a grand back, crops, loin and quarters, good depth of rib and good breast-girth. With a little less leg and better developed front, he would have been an easy champion in bull sections, for which he was reserve, being beaten by Bapton Emperor, the easy first in a grand string of yearling bulls. Bapton Emperor is one of those rare ones you see once in a long time, and with a little more finish behind would be a model; grand head and front, massive body throughout, magnificent flesh and hair, crops and heart perfect. He deserved and got the highest honors of the show. He was bred by J. Deane Willis, and was sold prior to the show to W. S. Marr, Uppermill, Aberdeenshire. The second prize in two-year-old section went to Mr. McClenan for Estimation, a very handsome red bull, a little off behind. We would have placed Bobt, Taylor, of Forfarshire, N. B., third, with Merry Merlin, a very thick roan bull by Tip Top, but the judges placed him fourth, and placed Matchless, by Captain of the Guard, bred and exhibited by Her Majesty, in third place. The latter was a genuine pony-built bull, with grand middle and a capital



BERKSHIRE SOW, PEEL JESSIE 6698.

Female champion at the Royal Show, Maidstone, 1899.

coat, but too effeminate in head and neck, and lacking behind as well. H. M. the Queen got second place in the yearling bull section with Royal Duke, a very handsome little roan, son of Prince Victor, and worthy of the place. Third prize went to Royal Jeweller, an exceptionally good-quartered bull, of very fine quality, but badly lacking around the breast. Bred by Mr. Brierly and exhibited by J. Deane Willis.

In the aged cow class there were no really good ones. First went to Miss de Rothschild for Miss Belladrum 6th, a matronly-looking cow, bred by Lord Lovat. But for a little roughness behind, the second prize cow, Countess of Oxford 11th, shown by Mr. Hoskin, should have been first. Third place

went to Mr. Geo. Harrison, Darlington, for Welcome, a plain daughter of Champion Cup. Lord Polwarth's Lady Beatrice was reserve number. The three-year-old class was a good one, large, smooth, heavy-fleshed heifers in milk, and showing grand udders. Mr. Leopold de Rothschild was rightly placed first with Mayflower 4th. And Mr. Hoskin secured second place with Wood Rose 2nd, one of much the same type, with a beautiful roan heifer calf about two months old at her side. Third prize went to Signet, a light roan with a grand shaped udder, and very fine quality of flesh, exhibited by Miss de Rothschild. The two-year-old heifers were the strongest class in the show. The 21 entries were all out, and the best seven proved a string I have not seen equalled in one class. The first prize went quite easily to J. Deane Willis for Bapton Pearl, by Count Lavender, dam by Golden Crown. This heifer was reserve number for the championship, but clearly entitled to first place. She is a rich dark roan, with abundance of soft, lean and mellow, yet prime, flesh, its smooth and ripe as a peach from end to end, and lots of size and character. Mr. Heaton, of Bolton, had a very good second in Daisy 4th, by Prince Victor, dam by Crown Prince. Third place was given to Mr. Willis for Bapton Fluff, another daughter of Count Lavender, of the same stamp, and very little behind the ones placed above her.

The yearling heifers were an excellent class also, and had the champion female in the first prize heifer, Cicely, exhibited by H. M. the Queen, and sired by Prince Victor, who was very successful with his progeny at this show, thus giving to the yearling classes both championships. Cicely was grand in forelegs and crops, but not up to the two-year-old heifer in quarters nor on shoulders. Second went to Mr. Thorley for Ringdale Memory 3rd, a very handsome roan; but I would have placed the third prize heifer shown by Mr. Garne, Glorie, ahead of her—a very heavy-fleshed, thick heifer, which got no commendation from the judges; the third prize going to Mr. H. Dudding's Lady Eva, three others being highly commended.

A. W. SMITH.

Our Scottish Letter.

Recently Scotchmen have been from home, and at the Royal at Maidstone a week ago the Scot, as represented by his particular brand of Shorthorns, was not so much at home as he has sometimes been. The cause of this was found in the fact that the judges were both South Country men, and not so familiar with (or, shall I say, enamored of) Scottish Shorthorns as the Northern men and some of the Southern men are. Differences of opinion amongst Shorthorn judges are by no means rare, and at Maidstone we had more than an average share of these differences. All the same, the butcher favors the Scottish type. It is not so long as Booth or so gay as Bates, but it is all beef; and, after all, that is the thing wanted. Many are still enamored of the idea that Shorthorns can be made both beef-producers and milk-producers. This is true of the breed as a whole, but it can hardly be predicated of every individual animal in the breed. Of no other breed can it be said with equal accuracy that it produces beef and milk, but the animal to excel alike at the pail and at the block has yet to be produced. Cruickshank cattle are not, as a class, dairy cows; Bates cattle are not, as a rule, beef-producers; and Booth cattle are invaluable for crossing purposes, but they do not, as a class, excel as fat stock or in dairy competitions. This year's Shorthorn champions at the Royal are both yearlings—the male owned by Mr. J. Deane Willis, Bapton Manor, Wilts., and the female by Her Majesty the Queen, Windsor. Mr. Willis came uncommonly near winning both championships. He had first with the male, and stood reserve with the female, a splendid two-year-old heifer which in some points fairly excelled the Queen's champion. No doubt it was all right, and in any case what shall the man do that cometh after the Queen but submit and say it is well?

Maidstone is the county town of Kent, but it has a small population, and is in no wise to be regarded as a first-class center for a show like the Royal. Indeed, we expect the Royal stands to lose heavily on its 1899 show. Next year it hopes to do better, when it visits the great county of York and holds its show beneath the walls of that ancient cathedral city. Its last visit to York was paid in 1883, and a very fine show it was. Few cities are more pleasant to sojourn in than that by the Ouse, and doubtless many pilgrims will resort thither. In spite of its obscurity, Maidstone has been one of the most interesting agricultural meeting-places on record. Exactly 100 years ago King George III. visited Kent and Maidstone to review the trained bands of yeomen and farmers assembled to repel the threatened French invasion. This year his g-grandson visited Kent, and in the name of the agriculturists of England welcomed the numerous representatives of foreign agricultural societies who assembled to view the interesting collection of agricultural products and utensils set out before them there. The leaders of the French and German bands were elected honorary members of the Royal Agricultural Society, and presented with their badges of office by the Prince himself. Many hundreds of visitors were present from across the water, and French was almost as much heard as English in the showyard. The international good feeling displayed will no doubt exert a beneficial influence on the public policy of Europe.

Farming in Kent is quite different from farming in Scotland. The leading article is hops, and the first idea which asserts itself is that farming must be a very expensive occupation in this county. What is the cost of cultivating an acre of hops is unknown to the writer, but he should imagine that hop-cultivation will be as big a gamble as there is in British agriculture. The average Briton dearly loves a gamble, provided it is not dignified by that name, and in hop-growing he gets it. Some Scotchmen have left Essex and gone to Kent. Life is not so slow in the latter as in the former, and if you do not spoil a horn you certainly make a spoon. The Scottish farmer sometimes emits a growl about the expense of raising turnips, but turnip-growing is tame business when compared with hop-growing. This season appears to be a favorable one for the hops, but in many parts of Scotland turnips threaten to be a failure, and in spite of maledictions, that is a bad business, because the swede and turnip are still the mainstay of the Scottish feeder. The weather has been unusually warm for some time, but recently more rain has fallen, consequently there is some hope now of saving the turnip braird, but hay is a poor crop, and it is too early to say much about any of the grain crops.

Beef and mutton are dearer here at present than they have been for many years, and these down-trodden gentlemen, the butchers, have consequently been compelled to increase their prices. Not for four years at least have the market quotations per cwt. live weight published in the *Scottish Farmer* appeared so high as they do this year, and over 40s. per 112 lbs. is freely being quoted. This is all right for the man who has heeves to sell, but the numbers of such are few, and unless something unexpected happens beef will be scarce. One risk attending a scarcity of fresh beef is that the public will take to buying tinned meats and frozen mutton, and once having acquired a taste for such and finding prices low, there is no saying how matters may end. The public may continue to buy these kinds of meat, and that in the end of the day will not help the farmer much. Good steady trade at a remunerative price is best for all parties, and the experience of the late boom in wheat is not calculated to make the Scottish farmer think much of "booms." The net result of that has been to lead sanguine farmers in not a few cases to pay absurd rents for good farms in the hope that the boom would continue. It has not continued, and a few of these men—it may be many—will get the "baby to hold."

AN AGRICULTURAL COLLEGE FOR WESTERN SCOTLAND.

The project to establish an agricultural college in the West of Scotland, on the lines of your notable institution at Guelph, is approaching completion, and very soon we will have a well-equipped teaching center in Glasgow and Kilmarnock worthy of the enterprise of the Western shires. This scheme has been taken up by the county councils, and the teaching staff includes Professor Wright and the whole of the equipment of the Glasgow Technical College in its agricultural department, as well as the staff and equipment of the Scottish Dairy Institute, presided over by your countryman, Mr. R. J. Drummond, one of the most efficient teachers of dairying ever seen in Scotland or England. Mr. Drummond is, indeed, too able a man for some folks, and they cannot abide him, but he is a splendid teacher, and makes everybody toe the mark. Some objection has been taken to a farm being run along with the college, and one gentleman has gone so far as to declare that a farm attached to an agricultural college is like a millstone around its neck, or a white elephant. I would like to know whether this is the view taken of the matter in Canada. The governors of the school at Guelph should be able to throw light on the question, and I would be pleased to hear what they say about it. Agricultural education in the West of Scotland under Professor Wright has made rapid progress in the past six years, and as a separate college the agricultural department should secure additional renown. "SCOTLAND YET."

Feeding Steers Loose Satisfactory.

To the Editor FARMER'S ADVOCATE:

SIR,—In regard to the steers I fed loose last winter I can only reply in general terms, as they were not weighed either before or after feeding. I sold the bunch in January for a lump sum, to be delivered April 10th. The steers were good and the price was satisfactory, and I intend to feed loose again next winter, as I consider that cattle do as well or better loose than tied up. They walked in to the railroad station (seven miles) almost as well as grass-fed cattle. Steers I have fed tied up I always had more or less trouble to take in. They keep cleaner and the manure is in better condition for spreading, and the steers seem more comfortable. They fed very peaceably together and none of them ever refused their chop. For the first month of feeding they received about four pounds per day each of crushed oats and barley in one feed, which was gradually increased to twelve pounds per day in two feeds. They had two small feeds of hay per day and as much good straw as would bed them well after they had picked it over. They were let out to water every morning before feeding chop.

Wallace Municipality, Man.

Remedies for the Horn Fly

(*Hematobia serrata*).

The expected has not occurred, since the horn fly (*Hematobia serrata*) has not disappeared, as was prophesied at the end of three years from the time it first made its appearance on the cattle of Canadian herds. The pest is still in evidence over a large portion of Ontario, and upon inquiry and observation we find many farmers looking about for a means of dealing with the pest that is cheap, easy of application, lasting and effective. The following replies have been received to enquiries made by us:

Of many kinds of oily substances tried on cattle to prevent the annoyance by the horn fly (*Hematobia serrata*), Mr. R. R. Elliott, the herdsman at the Central Experimental Farm, has for three or four years used, when necessary, a mixture of 1 pound of pine tar in 10 pounds of lard (applied once a week), and still finds it the most convenient and effective remedy. This mixture is smeared on all the parts of the animals liable to be bitten.

Central Experimental Farm. J. FLETCHER, Entomologist.

A mixture of fish oil and a little pine tar I have found to protect my cows fairly well. One application will last five or six days. Apply with a brush.

Wentworth Co., Ont.

The best application we have tried for horn fly is 15 pounds of tallow, 1/2 pound black tobacco, simmered on the stove for 24 hours, then add 1 gallon tanner's oil. Apply with a cloth once a week. We have used it for two years, and find it gives good satisfaction.

Lanark Co., Ont.

We have used almost every patent preparation we could get, besides several by local druggists, but all, more or less, have failed. We find that kerosene emulsion applied with a spray pump every second morning answers fairly well.

Huron Co., Ont.

To keep the horn fly off cattle we use seal oil and crude carbolic acid. To one gallon of the seal oil add four tablespoonfuls of carbolic acid. Apply once a week with an ordinary cattle brush over the whole body.

O. A. C., Guelph.

I am in receipt of your favor asking how we manage to keep the horn flies off our cows. There are many ways and different mixtures recommended in farm journals. We have only tried the application of one mixture and that is what is called Shoofly. We apply it with a flat, wide paint brush, twice a week. Or a quicker way of applying it is with a small sprayer, costing \$1.00, made for the purpose. The flies have not been nearly so bad this year, so we have not had to use any remedy as yet this season.

Oxford Co., Ont.

Incubation and Brooders.

NATURAL VS. ARTIFICIAL HATCHING.

To make poultry-raising pay, one must have early chickens. The cockerels must be ready for the early markets, and the pullets ready for the following winter's egg production. In order to get chickens early we must have artificial incubators or sitting hens. To get the latter we must first have winter layers, and given the winter layers, it does not always follow that we can get persistent sitters. We would require to begin with nine or ten of them to cover as many eggs as one 100-egg incubator. Frequently it is quite late in spring before the majority of us have any hens inclined to broodiness.

The very early chickens, if left to the tender mercies of the old hen, and the accommodations and companionship found in the henhouse, will die or become stunted from cold and rough treatment, and it is hard to decide that the few which manage to exist will pay for the eggs set, their food, and the time and food of the hens while hatching and mothering them. We are liable to compare with the incubator and brooder the success of the motherly hen, which, about harvest time, hides her nest in some remote corner, and hatches all or nearly all her eggs, and raises all of the chickens hatched. We decide in favor of the hen and against the incubator, forgetting that we might be apt to have just as good hatches from equally strongly fertilized eggs did we set our incubator full at the same time of the year. But we do not do it, because we have little use for late chickens, or those hatched in the middle of summer or fall. The price is too low to make the marketing pay, and the pullets will not lay until the following spring, when the price of eggs is so low that it scarcely pays to produce the eggs, to say nothing of wintering the birds. Their only excuse for living is found in the fact that by picking their own living

of waste grain they make cheap food for the home table.

Then, to make a reasonable comparison between hens and incubators, we should take the season of the year when chickens are in demand at high prices. We have never been able to get early pullets, and, consequently, have no early layers or early hatchers. As an experiment we purchased a 110-egg incubator, paying cash for it, with the understanding that it would be returned if unsatisfactory. About the beginning of February, and during the coldest weather, we purchased most of our eggs, and set it to work. (Our neighbors set some hens at the same time.) Over half of our eggs proved infertile, and from the remainder came only twenty-five chickens; of these seven were weak and deformed, and were killed. Many of the eggs contained dead chickens. We attributed our comparative failure to the stimulating food and the shut-in life of the laying stock, and to the incubator. One of our neighbors succeeded in getting two chickens from ten eggs. Both died. Another neighbor reported a complete failure. We put up a cheap brooder house, purchased a brooder, and raised seventeen chickens, which, at the end of eight weeks, brought seventy-five cents a pair. We kept the incubator, and set it a second and still a third time, with better success, and we have now sold enough to pay for the incubator, and have still left seventy-five chickens, which should pay for the eggs set, the oil consumed, and the food of the flock.

I never raised chickens that proved so satisfactory. They were healthy, lively, busy and growing all the time. By the time the turkeys and ducks were laying there were plenty of broody hens to cover the eggs, so I did not put all my eggs in one basket, or in the incubator, but set them under hens with fairly good success. One died on the nest. Some proved refractory, while some eggs were infertile and others contained dead birds, so that probably for the same number of eggs set the hatches were about equal. The cost of food for from eight to ten hens, and the non-laying of eggs owing to their incubating, would cover the consumption of oil, while the work of filling lamps and turning eggs would almost equal the work of caring for and feeding the sitters.

We had one hen conceal her nest under the barn. She brought out fourteen chicks; one stood chirping and did not follow the others. I caught it and examined it for parasites. They were there. I tried coal oil, they came to the surface, and I picked off over fifty and then stopped counting. It is scarcely necessary to say they died, and likewise the chicken and nearly all of the flock. Another went to an inaccessible corner of the hay mow, and there brought out ten chicks. I fed them regularly, and they were partly feathered when some midnight prowler or other enemy took nine of them. The chickens raised in the brooder house have always been and are entirely free from parasites, and have required no care nor looking after. Though they roam quite a distance, they always come to the house at feeding times, and have no kind (?) hen to coax them out in the cold and wet, and the brooder, even when the chickens are quite young, does not stand on one leg and refuse to keep them warm, nor does it tramp on them nor run away from them and leave them out to perish in the snow or rain.

GYRA.

Work that Combines Pleasure and Profit.

WRITTEN FOR THE AMATEUR, BUT OF GENERAL INTEREST TO ALL POULTRY-RAISERS—SUMMER CARE OF THE FLOCK—CURING LAWN CLIPPINGS FOR GREEN FOOD FOR WINTER.

BY C. H. CURTIS, PARK RIDGE, ILLINOIS.

Our plant of thirty-three acres, known as the Park View Poultry Farm, is located thirteen miles north-west of Chicago, in the pretty little suburb of Park Ridge. On the farm are our dwelling house, barns and comfortable poultry buildings, which, while not extensive, answer our purpose first-rate. Eleven years ago we started in to raise standard-bred poultry, and in those years we have found that there is a great deal to be learned. Like other beginners, we started in with a good many different varieties, and learned in time that one variety can be more successfully handled than can a number. We dropped all except the Partridge Cochins, which variety we have found a very good utility fowl, doing good work for us.

We are strong advocates of incubators and brooders. We never allow one of our hens to hatch or brood chickens, for various reasons. In our work of poultry-raising we have found three main causes for so many amateurs failing in their efforts. First, they do not provide warmth and dryness; second, do not guard against lice as they should; and third, are careless about giving proper food. We know that improper feeding has caused us much loss of time and money. The elaborate bills of fare laid out for young chicks are not only confusing, but are highly injurious, and the more simply the little chicks are fed the better it is for them.

We do not feed the chicks until they are twenty-four hours old, then we make sure that they have access to fresh, pure water to drink, and next place before them mica crystal grit, chick size. When they are from thirty-two to thirty-six hours old we take some of the eggs that were tested out of the incubator on the sixth or seventh day of incubation, boil them hard, and with a fork crush them up,

shells and all, very fine. We season this with a little black pepper well mixed in and feed for the first two days. Then we feed cut oats or oatmeal crumbled fine, giving them as much for a meal as they will eat up clean. The next meal consists of millet seed, and for the night feed oatmeal crumbled fine is used. After that their ration is about as follows: Hard-boiled eggs for breakfast, millet for dinner, and at night millet and oats together, or separately if preferred. Between meals we usually give a feed of oats or hard-boiled eggs. We are careful to keep plenty of fresh water before our chicks at all times, and take special pains to have it ready for them the first thing in the morning.

When the chicks are a week old we insist on their going out of doors every day that is fair, warm and bright, even if it is only one hour. When they get along this far we place a small box of ground charcoal before them, not too much. The young chicks are like children that like to play in sand, hence are apt to waste it. After the chicks are two weeks old, eggs are taken from their bill of fare and worms or ground meat (used cautiously) are substituted. They are now old enough to relish green food, which we supply by giving them small blades of grass or small weed leaves that are tender. If it is too early in spring for new grass, we furnish lawn clippings which are specially cured for the purpose.

During the summer when cutting the lawn we save the grass instead of throwing it away, and prepare it in the following manner: After it is cut we take care that it does not lie in a heap until it begins to heat, and that it does not get wet. We take the cuttings into a dry room in the poultry building, spread them on the floor two or three inches thick, where the sun cannot strike them, but where they will have fresh air. Every day or two we take a garden rake and rake the cuttings over just as we should if we were raking them on the lawn, and when we are through we see that they lie about three or four inches thick.

It takes about one week to dry lawn clippings in this way. After they are perfectly dry we make a square pile in this way: A layer of grass six to eight inches thick, a light sprinkle of fine salt, and so on until all is in the pile and the floor is ready for another lot of clippings. This makes an unsurpassed substitute for green food for hens in the winter and is the source of many a basketful of eggs that would otherwise not be secured. When the cold weather of winter comes on we take from this pile grass enough to make a feed for the fowls, pour boiling water on it and let it stand to cool. We do not let it get thoroughly cold or chilled, and feed to the hens, water and all. This sort of green food has never yet failed to give us good returns in eggs, and is one of the best ways we know of making your poultry bring in good returns.

Now to return to the young chicks. As they grow older we give them in the morning a scalded mash made of one part wheat bran, one part ground corn, one part ground oats, with plenty of mica crystal grit stirred in. We feed this mixture lukewarm, not hot, and mix it to such a consistency that it will be crumbly, but not puddy. You can soon learn how much grit is needed, and if too much is given there will be no harm done, as the chicks will go back and eat it when they get hungry. Other meals are made up of wheat, millet seed, cracked corn once or twice a week, whole oats occasionally, and all the green foods they will eat, with worms or ground meat two or three times a week. When feeding dry food, always scatter it in chaff or coal ashes. We prefer the ashes, for this reason: By means of same the youngsters help us to get rid of the lice, for ashes and lice do not agree.

With this kind of care and feeding we bring our birds to weigh two pounds at eight weeks old. Then comes the time for sorting out the birds that are to go on the Chicago market and bring back some of the money they have cost us. When we get our remittance for these early market birds (which is generally prompt in coming) we figure out our profit, and under the management here outlined the profits are satisfactory. Our next selection from the flock is for the breeders that are to be kept for winter layers. Then we select the exhibition specimens. As the fowls grow older we separate the male birds from the females, and the birds that we expect to exhibit at the fall and winter shows are gradually put in show condition. As the season advances the breeders we are to keep get one square meal a day in the morning, the rest of the day they are obliged to work for all they get until they go into their winter quarters, when they are cared for and fed with a view to producing eggs, for there is profit in a flock of fowls that are good winter layers. — *Reliable Poultry Journal.*

"The Up-to-date Farmer."

We note the following editorial in that enterprising and popular religious journal, *The Christian Herald*, of New York:—

"The up-to-date farmer takes the agricultural paper, reads the editorial column, the contributors' column, the advertisements—especially the advertisements. For the world of machinery is on the move; the agricultural world also. What are the improvements in plows, harrows, planters? What is the best stock? . . . Well, the up-to-date farmer knows about them and all other farming improvements."

Mark Reader, if your neighbor is not succeeding, is not an up-to-date farmer, induce him at once to subscribe for the FARMER'S ADVOCATE.

Creamery Butter.

HOW PROPER FLAVOR, TEXTURE, UNIFORMITY, KEEPING QUALITY, AND ATTRACTIVE APPEARANCE OF BUTTER ARE SECURED IN A WELL-CONDUCTED CANADIAN CREAMERY.

Excellence in creamery butter is dependent chiefly upon flavor or aroma, texture, uniformity, keeping qualities, and attractive appearance. The methods adopted by us to secure these may be briefly outlined as follows:—

Flavor or Aroma.—When the aroma of creamery butter is not what it should be, the milk supply is our first consideration. In a well-managed creamery any objectionable flavor or undesirable aroma in the product will usually be attributed to the lack of care or of skill or of experience on the part of the man at the weigh can. Milk that is tainted or sour should not be accepted, and our first consideration when our mind is on the flavor and aroma of our product is the condition of the milk supply, over which we practice a rigid supervision. The eyes, nose and palate of the man who supervises the raw supply of a creamery should be very thoroughly educated. We then exercise every precaution over the cleanliness of the apparatus, the building and surroundings as a second guard over the flavor and aroma of our product. These two, together with the use of a "starter," are the chief points in this connection. The "fermentation starter," commonly so called, we find an assistance toward securing a fine flavor, but we do not use it as the basis of flavor. For instance, we do not carelessly take in all sorts of milk and then expect our starter to keep us out of trouble; but, rather, if, after careful supervision of the milk, there be yet a development of bad flavor during the ripening of the cream that is difficult or impossible to detect in the earlier stages, then our starter is a safeguard. Of course, there are numberless minor matters that may affect the flavor of creamery butter. For instance, the salt may have absorbed bad flavors, or the coloring matter may be old and lack that fresh sweetness that always characterizes good coloring matter, etc. But, after all, these essentials (first, the milk supply; secondly, cleanliness; and, thirdly, the "starter") are the basic matters with us as far as flavor is concerned.

Texture.—That the food of the cows has to do with the texture of creamery butter is well known, but, of course, over this item the manager of the creamery has little control. The one main, all-important condition that affects the texture of our butter is TEMPERATURE. We exercise strict guard over the temperature from the time the cream leaves the separator until the butter is on board the refrigerator car. Our cream-cooling apparatus is not yet completed, but our purpose is to pass the cream from the separator over a "Lister" cream cooler, lowering the temperature to about 60 degrees F., ripening the cream at this temperature, then turning a stream of water (we have an abundant supply at about 46 degrees F.) through a bracket of tubing or piping, the bracket being right in the cream, and the overflow of water being utilized to operate the bracket up and down in the vat. This latter arrangement will enable us to cool our cream rapidly after ripening, as we esteem one of our greatest helps to fine texture and firm body is a low temperature (50 degrees F. or below) between the close of the ripening and the commencement of the churning. The cream should stand at least three or four hours at churning temperature before being churned. Then, as we churn in the early morning and our building is built for the purpose (there are eight thicknesses—lining, building paper, and siding—and one dead-air space between the inside and out, and blinds on all the windows), our cream does not heat up materially during the churning. We then use a "National" worker, which we think very much superior to an open platform worker. We are careful not to overwork the butter, working by number of revolutions. The butter is then packed in the boxes as quickly as possible and put into cold storage. Warm cream at churning time, warm washing water, and warm rooms for churning, working, and packing, are death to good texture.

Uniformity.—A set notion as to what constitutes good milk and a determination to accept no other; a uniform percentage of fat in the cream, varying only with the seasons; a "starter" of the same flavor day after day: These, with a careful adherence to our above outlined practice, assures us a uniform product. I may add here that we market our butter weekly, and do not, therefore, market any stale butter.

Keeping Qualities.—We exercise practically no special precautions re the keeping quality of our product. Now, this may seem a strange statement, but note that I say "special" precautions. Throughout our system every small item in our procedure really bears upon the keeping quality—we believe to its betterment; nevertheless, the keeping quality is one of our least considerations. And there are reasons for this. In the first place, our markets never find any fault with the keeping quality of our product. It keeps as long as is necessary, evidently. In the second place, it being well understood by the trade that butter, under ordinary temperature and conditions, rapidly loses its freshness, dealers provide themselves with cold storage privileges; and, when frozen, butter keeps, of course, indefinitely. In short, butter nowadays

in the best trade channels is in cold storage from the day it is made until it is sent to the table of the consumer; hence but little is said or thought of its keeping quality.

Attractive Appearance.—Under this head I may say that we use none but A1 boxes (56 lbs. net), and we keep them clean. All boxes, after being filled, are stamped with our own private brand and also by our registered number; and this is done neatly and always placed on the same side of the box, and the same position on the side. At present we are using the slide-lid box. We line the box (which is, of course, paraffined) with the best parchment paper we can secure—a very fine quality, weighing 60 lbs. to the ream (size of ream, 14 inches by 50 inches). We use five sheets to line a box, two of which cover the bottom and two sides, two more cover two sides and lap a little top and bottom, while the fifth covers the whole top of the butter. We buy our paper cut to order. Covering the paper is a light layer of dampened salt. We have seen no more attractive appearing box than this when thus finished. We are not using sacks at present, the chief reason being that the ordinary jute sack has so strong an odor.

Middlesex Co., Ont. F. J. SLEIGHTHOLM.

A Cement Wall Builder Describes His Work.

To the Editor FARMER'S ADVOCATE:

SIR,—I thought I would take this way of giving the numerous readers of your paper an idea of what I am doing at building cement and concrete walls. I have built a number of barn basements, among which are Mr. T. L. Pardo's (M. P. for Kent), which was 50 feet 6 inches by 100 feet 6 inches by 9½ feet high and 1 foot thick; also walls for a silo 15 feet square, outside walls being 16 inches thick and the same height as the barn walls. I did this amount of work in 8½ days, with the help of an average of 8 men, which is 58 feet for each man per day. For the walls mentioned I used 121 barrels of Thorold Hydraulic Cement and 59 loads of gravel, and a quantity of small field stone that a person usually has about the farm. The only advantage obtained by using the stone is this: that they will save a certain amount of teaming gravel and also some cement. I figure that the quantity of stone that I can use in a wall will save about one-fifth of the amount of gravel and cement that I would use if I hadn't the stone.

I will endeavor to give you an idea of how I managed the work. I first laid the footing coarse (which is a concrete foundation, 20 inches wide and 1 foot deep), then I put up the frame to build the wall. I had my men arranged in this way: three on the platform mixing the concrete and two wheeling it to the wall, where two men were continually ramming it and laying in the small stone. It is not at all necessary to have such a large gang, as five men can do very well, but not so fast. I raised the plank as much as three times a day. For the first six feet of wall that I built I wheeled the concrete, but the last three and one-half feet, instead of building scaffolds, I had a team and wagon and drove around the outside of the walls and threw it from the wagon into the walls. I find that this plan is much better and faster than the old method of building scaffolds. It is far quicker and not so much waste. I nailed boards on the sides of the standards that I put up to build the walls, for the men that were ramming the walls to stand on.

I also built a large barn basement, 44 x 80 x 9½ feet high, which took for the construction 80 barrels of Thorold Hydraulic Cement and 50 yards of gravel and a quantity of small stone, for Mr. David Almar, of the County of Norfolk. I did this amount of work in seven days, with the help of seven men, which is 49 feet per day for each man. I had my men arranged the same as for Mr. J. L. Pardo's, with the exception of the team and wagon. I had all the concrete wheeled, which I find is a loss of time.

Welland Co., Ont.

An Experiment in Destroying Wild Mustard Conducted at the O. A. C.

SPRAYED WITH COPPER SULPHATE.

Mr. W. M. Doherty, assistant biologist at the O. A. C., Guelph, has been giving some time to experiments in the destruction of wild mustard, along the lines found successful by a French scientist, and which the FARMER'S ADVOCATE has made mention of on several occasions. We also recommended that tests be made by our readers this season, which Mr. Doherty has done by the application of the recommended chemicals. About a month ago Mr. Doherty tried three different strengths of iron sulphate and three of copper sulphate on six plots. The iron sulphate did not do any injury at all to the crop, nor did it entirely destroy the mustard. The copper sulphate, on the other hand, completely killed the mustard and did a very slight damage to the grain. The copper solution used at that time was 1.3 per cent. and was applied with a Spramotor made in London. By strengthening the solution and spraying less generously, Mr. Doherty concluded better results would be obtained, and a more extensive test was made. A plot of about a quarter of an acre on an infested farm was selected and sprayed with a 2 per cent. solution of sulphate of copper. The result is entirely satisfactory. The mustard is all dead and the crop is not at all injured, a brown spot on the plant here and there

being the only evidence of the test. Being an annual, the mustard plant destroyed at this season of the year is destroyed forever.

The cost of the chemicals will be very light, \$1.00 worth being sufficient to cover an acre. If—as seems almost certain—this test indicates an easy and effective method for the eradication of wild mustard, Mr. Doherty has certainly demonstrated a good thing.

On July 10th, Mr. Doherty sent us a bunch of mustard plants that were taken from a sprayed plot, and which he states were completely killed in four days after the spraying occurred. He also states that the oat crop which was sprayed is slower coming out in head than the adjoining unsprayed plot. The sprayed portion has a deeper green color and is very sharply separated from the unsprayed portion by being 3 to 6 inches higher. This is attributed to the grain on the sprayed plot receiving the extra nourishment which the mustard was getting on the unsprayed plot. Mr. Doherty has found that in using a 4 per cent. solution of copper sulphate a less quantity is required, and results are fully as good as in using the 2 per cent. strength.

Thoroughbred or Hackney?

[From the English Live Stock Journal.]

We notice that the Canadian Minister of Agriculture has embodied in his annual report a live stock report from the pen of Dr. McEachran, and as the latter document is thereby invested with the importance of being an official document, it may be accepted as representing the opinions of the Government of the Dominion. It is, therefore, interesting to note how the Canadian report coincides with that recently issued by the American Department of Agriculture at Washington when referring to the high-class harness horse. *Appropos* of these, it is stated that "to find a ready sale they must have good knee and hock action, and be prompt in their movements—a class hitherto difficult to find in Canada." Such a statement can only be accepted as a very significant hint to horse-breeders of the Dominion when we find such observations in the report as "Horse-breeding can be made profitable there need be no doubt. That branch of stock-raising has seen its worst day. The scarcity of good horses for all purposes is very much felt in all populous centers and large cities." Yet we learn a few lines further on that "Canadian farmers will have no difficulty in realizing handsome profits on their horses, which are well known and appreciated in Britain." In fact, the report, which is written in an extremely optimistic vein, proves mainly three things: First, that the horse business in Canada is looking up; second, that by the exercise of a little trouble the breeders in that part of the world can greatly improve their stock; and, thirdly, that though Canadian horses are by no means as good as they ought to be, there is a considerable market for them in this country. Of course, the latter fact is one that has been known to exist for a long time, but it is all the same not very complimentary to ourselves to learn from a Canadian minister that we are ready to purchase animals that the producers do not prize very highly. It is to be hoped, however, that the Canadians will set to work in earnest to improve their harness horses, and this object can readily be achieved by the introduction of Hackney blood, which will ensure bone, substance, bottom and action in the foals. The report of Dr. McEachran suggests that Thoroughbred and heavy draft crosses are the most profitable, but it is extremely difficult to reconcile this advice with a desire to produce the "good knee and hock action" to which he refers. In the matter of advice, therefore, there can be no doubt that the American report, which bluntly and truthfully asserts that the introduction of "blood" is opposed to the production of action, is far sounder than that of his Canadian brother official, and we trust, therefore, that our countrymen of the Dominion will not be influenced by him into attempting to get high-actioned horses by a method which will render the attainment of their object impossible.

Manitoba Poultry Association.

The annual meeting of the Manitoba Poultry Association was held in Winnipeg during the week of the Winnipeg Industrial Exhibition. There was a much larger attendance of members than usual. The report and financial statement of last year were submitted, the latter showing a small balance on hand. The following officers were elected:

Patrons: Lieutenant-Governor Patterson and Hon. Thos. Greenway; Honorary President, E. L. Drewry; President, A. B. Stovel; Vice-Presidents, John Higginbotham, S. J. Thompson, J. Kitson, W. F. Crosbie, E. R. Collier; Secretary, E. R. Collier; Treasurer, E. B. Lemon; Auditors, G. Harcourt and C. Wise; Executive Committee: C. Midwinter, Geo. Wood, H. A. Chadwick, F. H. Chambers and J. Todd; Representative to the Winnipeg Industrial Exhibition Board, A. B. Stovel.

It was decided to hold the next annual poultry show in February next in Winnipeg.

British Markets.

Cables received from London and Liverpool yesterday show another sharp advance on top of last week. Choice States cattle in London selling at 12½c. and Canadians at 12c. to 12½c.; Liverpool being about 25c. per cwt. under these figures, at 12c. for States, and 12c. for Canadians; sheep, 10c. All quotations are for dressed meat, sinking the offal.

Paying for Milk on the Fat Basis, Plus Two Per Cent.

To the Editor FARMER'S ADVOCATE:

In response to your request, it affords me much pleasure to give a little of my experience with regard to paying on the fat basis, plus two per cent. We paid on the fat basis for two seasons, '93 and '94, and since then we have added the two per cent. to the readings. This plan I am pleased to say gives the best of satisfaction. Of course, there are a few patrons at our annual meetings who oppose it, but the number is so small that the motion to continue paying on the fat basis, plus two per cent., is always carried with a sweeping majority. In former years we had more or less trouble with patrons tampering with their milk. A committee was obliged, therefore, to go and see their cows milked, etc., and in some cases the milk had to be confiscated and fines imposed. Anyone in the dairy business will admit that this is a highly disagreeable and unsatisfactory state of affairs. With regard to the plan above referred to, the taking of samples, testing, and paying on the fat basis, involves a considerable amount of work and extra expense, but a cheesemaker or proprietor will find himself amply repaid for all trouble. He thus rids himself of the necessity of having his patrons' cows milked under the supervision of committee or inspector. However innocent a patron may be, his neighbors will be likely to lose faith in him if the inspector has once been obliged to perform this disagreeable duty. I may safely say, in conclusion, that I would be very sorry indeed if compelled to return to the old way of pooling milk.

A. T. BELL.

Oxford Co., Ont.

Symptoms of Tuberculosis and Condition of Carcass.

From "Enquirer," Bruce Co., Ont., we have received the following questions, which we leave Dr. Reed, V. S., to discuss, and whose replies we append:—

- "1. What are the general symptoms of tuberculosis in live cattle?"
- "2. What would be the condition of the carcass after slaughtered—the lungs, liver, heart, etc.?"
- "3. Would a butcher be likely to notice it if the animal was so bad as to be unfit for food?"

ANSWERS.

1. The symptoms of tuberculosis in the living animal are very insidious; in fact, in the majority of cases no physical symptoms are present until the disease has reached an advanced stage. An animal may be affected with the disease for months, or even years, and in the meantime eat and thrive well, and perform the functions for which he or she is kept in apparently a perfectly normal manner, not presenting any symptoms whatever that would lead a person to suspect disease. This condition may continue for an indefinite period; in fact, in many cases continues until death takes place from other causes; or under favorable circumstances the disease may assume an acute stage and cause death in a short time. Butchers or those in the habit of visiting slaughter houses often have occasion to notice the presence of tubercles on the pleura, bronchial glands, lungs, liver and the different viscera of animals which during life were not suspected of being affected with any disease. The disease may attack any organ in the body, and there will be no physical symptoms shown until it has reached such a state of development as to interfere with the functions of the organ or organs affected, and when shown will, of course, vary in different animals according to the parts affected. The glandular system is a favorite seat of the disease, especially the glands of the throat, bronchial tubes, and mesentery. If the lung substance be the seat, a short, dry, hacking cough at intervals, or following exertion or excitement, will be noticed. As the disease progresses, the cough becomes more frequent and more painful, and the animal will commence to pine, fail in flesh, hair becomes dry, she stands with the elbows turned out. An expert can detect an alteration in the lungs by auscultation. These symptoms will increase until she dies. If the liver or other important organ of the digestive system becomes affected to a sufficient extent to interfere with its functions, appetite and digestion will be observed, but, of course, no cough. Pining will soon be noticed, as in the other case, followed by death at a longer or shorter period. It is generally thought that in all cases of tuberculosis a cough is present, but it can be readily understood that no cough will be caused unless the respiratory organs are diseased. The only means of diagnosing the disease, except in advanced cases, is by the tuberculin test.

2. The parts affected will be found to contain nodules or tubercles, from the size of a mustard seed to that of a man's head—seldom as large as the latter. The nodules when cut into will be found to be more or less gritty, and of a yellowish color and quite hard, the larger ones frequently containing a thick fluid resembling ordinary pus, seldom, if ever, foetid.

3. If an animal had been affected with the disease in a sufficiently advanced stage to interfere with health, the butcher would certainly observe the tubercles.

J. HUGO REED, V. S.,
Professor of Veterinary Science,
Ontario Agricultural College.

Selection of Rams.

BY J. M. M'CAIG.

The cultivation of the animal form in both beef and mutton stock, for the best feeding and most profitable and desirable type, has resulted in a pretty definite and well-understood outline of animal as the meat ideal. Roughly speaking, the meat form approaches that of a solid figure as wide as it is deep, and with a length equal to about twice the depth. A figure of equal width and depth contains more of solid contents to a given external area than one that is either narrow or shallow, and the most profitable investment of feed is in a frame of this shape. Of course, in the animal frame we cannot have the figure of an absolute oblong square, as the ribs and body are more or less circular, but we may have a uniformly straight upper and under line, and pretty uniform thickness from front to rear. It involves considerable critical judgment to fully appreciate in detail the points that constitute this fullness and completeness of figure. In a meat-producing country like Canada an appreciation of these points among breeders and feeders is pretty general.

Among breeders, however, something more than this is necessary. The business of coupling is the arranging of mutually dependent, complementary and suitable parts, and, though unnatural and very broad contrasts are opposed to the production of suitable and symmetrical offspring, there are still characteristic differences between male and female that every breeder should try to appreciate. Nature relieves her similarities by well-defined contrasts, and generously endows man and beast alike with a separate and distinct individuality. It will be wise for us to observe this constant law, and not allow our fidelity to the symmetry of the meat form to force us into a dead level of uniformity with regard to males and females alike.

Contrasted with the female, the male is larger; in most breeds fully a third larger than the female. This difference may be either the result of the exercise of the special duties of protection, requiring greater weight and strength on the part of the male in earlier times; or, on the other hand, the smaller size of the female may be due to the greater tax on her in the reproductive office; a large part of the nutriment she gathers is not appropriated to her own organism. The question of how the difference in size and strength of the male and female arose is not a matter of much importance practically, except in so far as we may learn from a study of it that the differences are fundamental, and really points that go to constitute masculinity on one hand and femininity on the other. It is not to be inferred that in practice no deviation in the correct relative sizes should be made. On the contrary, sheep are subject to ready variation in a domestic state under the hand of man, and it would be quite wise, on the one hand, for a breeder to reduce the rawness and inordinate size of his ewe flock by using a tidy, medium-sized or smallish ram; or to increase the size by the use of a larger ram. There is no danger at lambing time from using a relatively larger ram on small ewes of the same breed; the size of the fetus depends on the size of the pelvic chamber, and on the nutriment provided by the ewe. The individuality of the offspring asserts itself more distinctly after birth, however, and both ewe and lamb will require generous treatment to keep the growthy lamb well fleshed up.

The additional strength of the ram over the ewe will be manifest, particularly in the form and features of the fore end of the sheep. The front of his barrel should be so full of large, vigorous and active blood-making machinery that his breast should hang well down between his fore legs, and should force them wide apart. He should be thick through the heart from side to side, and be low enough in the foreflank that his belly will not sag below a line from front to rear flank. He should be correspondingly well filled directly above the heart, behind the top of the shoulder. These parts generally correspond; light in the crops generally means light in the heart. The base of the neck should be strong, broad and rising. He should not drop in front any more than behind the shoulder. Neck has been almost wholly eliminated in the mutton sheep, and the head appears to be set on the corner of the carcass, but such as it is it should show a broad base and sturdy upper arch.

The head of the ram is where masculinity most appears. His original pugnacity has left him an aristocratic Roman arch. This is one of the first marks of ramminess; see that you get it. If it should happen that his actions correspond with his looks, don't think the worse of him for that; a fighting ram is generally a vigorous ram. A surly wrinkle or two towards the nose generally appear in old age. Undue coarseness of this kind is undesirable in a young sheep. The top of the head should be broad, and the general effect of the head short and square rather than long and thin. The eye should be clear and alert, and with this it will generally be noticed that he takes an active and rather assertive interest in whatever is going on about him. A good ram is usually not easily pushed about, or moved where he does not want to go, unless he has been carefully trained to lead while young.

Leaving the front of the ram, which, as contrasted with the ewe, is the end in which preponderating strength and character are looked for, let us look along his back. He should be long, level

and broad on top. His ribs should spring straight from the spine instead of stooping, so as to leave plenty of room above for his nutritive machinery, rather than to crowd it into a sagging belly. His loin should be strong and broad, his tail-head level with his back, and his width carried well out to the rear corners of the carcass. He should have a fairly strong dock, lying well to the rump; should drop straight behind, with twist well filled down and back, not forward and high. His testicles should be large, as these are very strongly developed in the ram, and his purse should not dangle by an apparently long, narrow neck, but should fill the cavity between the thighs throughout. A narrow-necked scrotum means thin and light spermatic cords. He should carry his ham meat well down to the hock. His legs should be short, well set apart and straight. His feet should not be large or spreading. He should not lean back on his pasterns, but should stand square on the end of his pegs. A sheep with a crooked hind leg has generally a light or cat ham.

The fleece of a ram should be at least a half heavier than that of a ewe of the same breed, partly from additional size, and partly from the fact of his devoting all his food to his own nutriment and adornment. A ewe that is not raising lambs shears much heavier than one that is milking. The same difference makes a corresponding difference in the weight of the fleece as between rams and ewes. Not only with regard to quantity, but with regard to the places bearing wool, should the ram differ from the ewe. The ram should have the wool crowding luxuriantly on every part of the body on which wool may appropriately grow. It is an easily observed fact that in the males of nearly all domestic animals and birds, as well as those in a free state, males are generously adorned as compared with females. This is supposed to be due to surplus nutriment crowded to the exterior of the males, but otherwise used to nourish offspring in the females. It may be safely laid down, then, that a ram light in the fleece has not the appetite and, consequently, vigor and constitution that appropriately belong to him as a male. It should be remarked here that there are great variations in different breeds as to the amount of covering deemed right at the extremities; for example, on the face and legs. The Leicesters, on the one hand, have a bare poll and legs, while the Shrops are woolled to the nose and toes. What has been said with regard to wool at the extremities, then, must be taken with appropriate modifications with regard to different breeds. Generally a ram with a light fleece and bare extremities will be found light in the vital parts, as heart, breast, etc. It might easily happen, however, that a sheep well covered as to special points might be weak otherwise. This might happen with a breeder, for example, who lost sight of fundamental points in seeking to attain fancy ones. It is, perhaps, the case that within the past ten years many a fine Shrop has been discarded for an inferior rival with more face and leg wool. Face and leg wool is all right on the right kind of a sheep, but it won't make a good sheep of a poor one.

A Year's Complete Record of Annandale Dairy Herd.

When I sent you my milk record last spring only 40 of my cows had gone dry, and I had to estimate what the other 15 would do. I now have a complete record of the whole herd of 55 cows for the whole season, and find that they have done a little better than I estimated. The average time that the 55 cows were milking was 12 months 3 days. The average amount of milk per cow was 11,472 pounds, testing 3½ per cent. butter-fat, making 475 pounds butter per cow. My best cow gave in 12 months and 15 days 20,131 pounds; milk testing from 3½ to 3¾, averaging 3¾ butter-fat, making 822 pounds butter. This cow did a little better than what I estimated in my last spring's report. We expect her to come in fresh in July. The averages by groups are as follows:

Ten best cows.....	15,083 lbs.
Ten second best cows.....	12,612 "
Ten third best cows.....	11,596 "
Ten fourth best cows.....	10,516 "
Ten fifth best cows.....	9,393 "
Five sixth best cows.....	7,794 "

Whole herd average, 11,472 pounds in 12 months and 3 days milking.

My cow No. 56 came in with her first calf in April, 1891, when about 2 years and 3 months old, and gave in her first milking period of 14 months, 12,000 pounds of milk. The next year she gave 15,000 pounds in 11 months and 21 days. Next year, 17,731 in 11 months 13 days. And this year, 20,131 pounds in 12 months 15 days. She is half Holstein and half Shorthorn. Test 3.4 to 3.8, average 3½ per cent. fat. This cow weighs 1,550 pounds, and now, heavy in calf to-day, 1,670 pounds.

We are now keeping our cows in the stable through the day, and out in pasture nights. We feed them all the ensilage and clover hay they will eat, and half a winter's ration of grain—3 pounds bran, 1 pound cotton-seed meal, 1 pound pea meal, 1 pound corn meal.

We commenced our haying 15th June, will finish Monday, 3rd July. Had 90 acres meadow, about 125 tons; not nearly as good as other years, owing to the severe winter freezing out the clover. Our hay is housed in excellent condition.

Oxford Co., Ont.

E. D. TILSON.

Ideal Buttermaking.

1. *Aroma or Flavor in Butter.*—The condition of the milk when it is received at the creamery is the controlling factor in producing butter with a fine flavor or aroma, and as the patron has all to do with it before it reaches the creamery, it will be readily seen that the flavor of the butter is to a great extent taken out of the hands of the butter-maker and is largely controlled by the patron.

My practice is to keep a strict watch over every can of milk as it comes in, and if any is found to be off flavor, to notify the patron at once and have the cause of the trouble removed. I have had more trouble with milk going off flavor from want of proper aeration and cooling than from all other causes combined, but where that is properly attended to I usually have no difficulty in getting a good flavor in the butter.

2. *Texture.*—To produce a good texture in butter from cream which has to be churned within 24 hours, I hasten on the ripening process as rapidly as possible in order to give the cream a chance to cool down several hours before churning time; but if I was anxious to get the very best results, regardless of labor, I would ripen the cream slowly at a lower temperature, and keep it 48 hours before churning, instead of 24 hours. The temperature of the room while the butter is being worked has considerable effect upon the texture, for if it is too cold and the butter is hard, it has to be overworked before the salt is sufficiently incorporated to insure uniformity of color, and if too warm the butter softens down too quickly and becomes greasy. In the latter case it is better to either salt in the churn (which I prefer) or to set the butter in the refrigerator after a slight working and let it stand until it hardens and the salt is dissolved. When butter is salted in the churn and remains an hour or so before working it requires less working and the grain and texture are more easily preserved.

3. *Uniformity.*—I think I am safe in saying that it is not possible to get a uniform product the year round, but we can secure excellent results by pasteurizing during the winter months or at any time when the cream is "off" in flavor from any cause. There are times during the heated term when the milk will not arrive in first-class condition, in spite of all we can do, and it is advisable then to pasteurize the cream, but many will hesitate to do so on account of the extra drain upon their water and ice supply.

4. *Keeping Quality.*—The keeping quality of butter depends a great deal upon the thoroughness of ripening the cream, and from experience I am of the opinion that cream which has been held 48 hours and slowly ripened will give a better-keeping butter than butter from cream only 24 hours old. Pasteurizing undoubtedly improves the keeping quality. In any case the buttermilk must be thoroughly removed, and the easiest and safest way to do it is to stop the churn when the butter is in the granular form, at which stage the buttermilk is easily washed out. A good deal depends upon the kind of package used for the perfect preservation of the butter. Any package that is not air-tight will in time allow butter to deteriorate in quality no matter how carefully it has been made. I use a heavy parchment paper to line boxes or tubs, which must be properly fitted in and folded over the top when full, putting an extra cap piece on and covering all with a thin layer of salt paste.

5. *Finish and Appearance.*—In putting up any class of goods for sale, and especially food products, it is necessary to have them attractive. In print butter, the wrappers should be put on smoothly and neatly folded and the shipping boxes kept clean and sweet. In packing the 56-pound boxes care must be taken that the butter is pounded firmly down so as to avoid cracks on the outside when the butter is turned out. When the box is full I cut off the surplus with a finisher, which is so arranged with set screws that I can cut off the desired amount to give the box the proper weight, and it leaves the butter as smooth as if the surface had been planed off, and when the package is opened up it presents a neat and finished appearance. Nearly all butter for export is now put into canvas sacks to prevent the outside of the boxes from becoming soiled in handling. J. STONEHOUSE.

Steer Feeding Test at the Indian Head Experimental Farm.

A very interesting steer-feeding test was conducted at the Indian Head Experimental Farm last winter, beginning on December 9th and ending on April 1st. Five lots of steers, averaging about 1,250 pounds each, were put on equal rations of ensilage and meal, 24 pounds of ensilage being the uniform ration, 2 pounds of meal the first 4 weeks, with an increase of 2 pounds each 4 weeks. For the rest of the ration each lot of steers was put on an equal ration by weight, 12 pounds per day, of oat straw, barley straw, wheat straw, native hay and Brome hay. In the 4 months' feeding, the average individual gain of each lot of steers was:

Lot No. 1—oat straw—126½ pounds.
Lot No. 2—barley straw—91½ pounds.
Lot No. 3—wheat straw—162½ pounds.
Lot No. 4—native hay—127½ pounds.
Lot No. 5—Brome hay—180 pounds.

In lots 1 and 3 there were four steers, whose total weight when put in first was 4,930 and 4,970, respectively, and at the conclusion of the test 5,435 and

5,020, respectively. In lot 2, three steers, total weight 3,675, and when finished 3,950. In lots 4 and 5, two steers in each, first weight 2,485 and 2,480, respectively; finishing weight, 2,740 and 2,840.

Brome hay gave the largest increase by 17½ pounds, while wheat straw came next, being considerably above native hay and oat straw, with the barley-straw lot away behind. Whether or not these gains can be attributed wholly to this portion of the ration is a matter that can only be guessed at. But tests along this line might well be carried on further.

QUESTIONS AND ANSWERS.

NOTICE.

We have decided to discontinue giving answers to legal questions, many of which we find are not of general interest. It is really no part of the legitimate work of an agricultural paper, and is not, as a rule, adopted by the best papers of this class; besides, our space has been pretty heavily taxed with questions upon agricultural and live stock, and we desire to encourage this feature by giving more prompt answers than we have been able to do in the past on account of the large amount of matter which at times accumulates in this department. Our friends, we trust, will take kindly this announcement, and not refer any more legal questions to us.

Veterinary.

RAISING YOUNG TURKEYS.

E. C., Fleming, Assa. :—"Will you be kind enough to inform me how to treat small turkeys so that they will not get diarrhoea. Every year I lose most of my turkeys with it. I feed them hard-boiled eggs, curds, and green stuff. I am very careful that they do not get wet. The hen is cooped, chicks can run in and out to her. I shall be greatly obliged if you will advise me?"

I have never fed any hard-boiled eggs. All I give my young turkeys when first hatched is dry bread, soaked in water or milk and squeezed dry. They want liberty, and must not be cooped up in a close pen. If you leave them under a turkey, let them go, wet or dry, the turkey will take care of them; if under a hen, the coop should be large and open all around, so that they can get lots of ventilation. If they can get lots of insects they will do all right. Be sure the hen has no lice on her. I used to pamper up young turkeys, and lots died with bowel trouble. Millet seed is very good feed, scattered around the coops for turkeys and young chickens when first hatched. It is very small, they like it, and it warms them up. Be sure they have free access to small, sharp grit. It is good to dust some sand on the bread. I give them no water the first few days. If you give them any, be sure it is hard water and fresh. Last year my young turkeys were with the hens from the first. I never cooped them, and we had some very wet weather. I did not lose one through sickness, but got several killed by accident.

M. MAW,
North Winnipeg Poultry Yards.
BRONCHITIS.

FARMER, Waterloo Co., Ont. :—"Please advise me as to cause and treatment of the following: Mare 18 years old, weighs about 1,100 lbs., keen traveller and good worker; has never been worked very hard, and always well cared for; she has been on pasture several weeks, worked, and driven a little. Last week I drove her a few miles, when, as soon as I started, she coughed every little while, and occasionally passed wind, just like as if she had heaves. I have hitched her twice since, and she does the same. When she stands I see nothing wrong in her breathing. She feeds just the same as usual. All the change I can see, she does not travel off quite so keenly. She is always in the stable at night, and gets a half gallon of oats morning and night when on pasture. We are very much pleased with the ADVOCATE."

[The mare probably has a slight attack of bronchitis, and it would not be surprising if it developed into heaves, at her age. Give soft mashes morning and night, in which mix a liberal amount of boiled flax seed, say half a teacupful, well boiled, in half gallon water; also give her one of the following powders in her feed each morning and evening: Chlorate of potash, 1 ounce; ammonia muriate, 2 ounces; powdered Lobelia leaves, 1 ounce; powdered stramonium, ½ ounce; powdered digitalis, 2 drams; powdered nux vomica, ½ ounce; all well mixed and divided into 12 powders. Do not allow her to overload the stomach with any kind of food, especially dry hay.]

LEUCORRHOEA.

S. M., Bruce Co., Ont. :—"I have a valuable cow that the afterbirth did not come all away after calving. About a week after we noticed a whitish-colored matter coming from her, more especially when lying down for the night. She does not seem to do as well as she should, although in the best of pasture and has access to water at all times. Please let me know what is best to do for her, as I am afraid she is not going to come in heat this summer?"

[The cow's ailment is leucorrhoea (whites), caused, no doubt, by the retention of part of the foetal membranes. The womb and vagina should be thoroughly washed out once a day with warm soft water. This should be done with a large syringe, and the injections should be continued each time until the water flows out quite clear.

After each washing the parts should be injected with permanganate of potass., two ounces; water, fifty ounces. Give internally in mash twice daily for two weeks, iodide of iron, one dram. As the discharge disappears the local treatment should be gradually discontinued.]

TAPEWORM IN LAMBS—COWS CHEWING BONES.

H. J. W., Norfolk Co. :—"Would you please tell me, through your valuable paper, what is the matter with my lambs? What do cows need when they are crazy for old bones, pieces of tin cans, or leather? Also, an excellent tonic for sheep, the tonic to be mixed with their salt; give proportions of each? Symptoms of lambs are: Their wool seems to stand out dry, harsh and dead, and they do not nor have not done well for a couple of months back. They are Shropshires, and have pastured some on low land. In their droppings you will often see little pieces of white mucus resembling a little worm about a sixteenth of an inch in length. Have examined them closely, and can't see any life in them. On one occasion I found a long, flat, ribbon-like worm about a foot and a half long; at least, I thought it was a worm, and it was apparently dead. The thought has just struck me that possibly my lambs have got tapeworms and the small worms are the excrement from the mature tapeworm. Please give advice."

[From the symptoms described, we are led to believe that the lambs are infested with one or other of the various species of Tenia, or tapeworm. The existence of the worms in lambs or sheep becomes evident by the appearance of the white segments attached to the small balls of dung voided by the sheep, or by their adhering to the wool about the tail. This, however, only happens after the lamb has been infested some time and the segments of the worm have become matured. It is when these segments are eaten by sheep along with the grass or other food that the tapeworm is propagated in fresh subjects. Infested pastures should therefore be abandoned. The worst results to infested sheep or lambs is due to the intestinal irritation set up by the worms, and the reflex action of this on the nervous system. The results are necessarily the wasting of the lambs, which become poor, unthrifty and hidebound, and frequently pot-bellied by distension from gas in the bowels, or shrunken and gaunt from want of sufficient support. The symptoms, in addition to these, are pale skin, dry, harsh fleece without yoke or oil, a tottering gait, and the lambs eat and drink more than with their natural appetite, but at the same time fail to digest their food or thrive upon it. Finally diarrhoea becomes more and more severe, and death occurs by actual starvation and exhaustion. If, however, the lambs can be carried over until the worms are all ejected as segments, and no fresh infection occurs, recovery is rapid and the lambs soon become thrifty again. Treatment is hopeful, and may consist of turpentine in half-ounce doses, on the empty stomach, for a few days; the roots of the malefern powdered, in two-ounce doses, given in two or four ounces of castor oil for a full-grown sheep, have all been more or less beneficial. Regular use of salt with a tonic is also a good preventive. A good tonic powder is gentian, ginger and sulphate of iron finely powdered and mixed and given in teaspoonful doses for grown sheep, and half that quantity for lambs. This may be given in the salt or in ground feed, or with molasses spread on the back of the tongue. It is also well to mix pine tar with the salt, sufficient to render it quite brown in color. This acts as a tonic, and is good at this season to prevent the gadfly from depositing its eggs in the nostrils of the sheep.

When cows chew bones and other unnatural materials, it is an indication of a craving for mineral or earthy matter. The writer has found it good treatment to mix wood ashes with their salt, in the proportion of 1 part ashes to 2 of salt.]

Miscellaneous.

BUTTER TO CREAM.

R. D., Huron Co., Ont. :—"How much butter can we make out of 12 inches of cream in a circular pail of 12 in. diameter, the cream testing 75% of butter-fat? I have taken the ADVOCATE since Christmas and think it the best farmer's paper in America."

[In answer to the question, "How much butter can be made from 12 inches of cream in a circular pail 12 inches in diameter, the cream testing 75 per cent. butter-fat (butter oil)," would say that the quantity which the patron would be credited with is 9 pounds. Any patron can reckon the amount of butter his cream will make by multiplying the number of inches of cream by the test and dividing by 100. For instance, a patron delivers 20 inches of cream testing 80 per cent. "butter oil," he is credited with 16 pounds butter; 30 inches, testing 90 per cent., = 27 pounds butter, and so on. From the test given by subscriber the creamery is using the "oil test churn," and the test is spoken of as so much per cent. "butter oil," and not "butter-fat," as in the case of the Babcock test. The main difference between the "oil test" and "Babcock test" is that the former gives the percentage of *churnable* fat or oil in the cream or milk, while the latter gives the *absolute* percentage of butter-fat in the cream or milk. The oil test is used largely in cream-gathering creameries, while the Babcock test is specially suited for whole milk or separator cream.

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

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Following table shows current and comparative live stock prices:

	Extreme prices now.	Top Prices		
		ago.	1888	1887
Beef cattle, 1500 lbs. up.....	\$5 25 to 6 00	\$5 10	\$5 10	\$5 15
1350 to 1500 lbs.....	4 95 to 5 75	5 55	5 25	5 20
1200 to 1350 lbs.....	5 05 to 5 80	5 50	5 35	5 05
1050 to 1200 lbs.....	4 55 to 5 50	5 10	4 90	4 80
900 to 1050 lbs.....	4 35 to 5 35	5 25	4 80	4 70
Hogs.....				
Mixed.....	3 65 to 4 05	3 92½	3 85	3 55
Heavy.....	3 45 to 4 05	3 92½	3 95	3 55
Light.....	3 65 to 4 05	3 95	3 85	3 55
Pigs.....	3 00 to 3 90	3 85	3 80	3 55
Sheep.....				
Natives.....	2 50 to 5 20	5 40	5 25	3 85
Western.....	2 75 to 4 85	5 15	4 75	3 60
Yearlings.....	4 50 to 6 50	6 10	6 00	5 00
Lambs.....	3 40 to 7 45	7 00	6 75	5 40

Chicago Stock Yard receipts of cattle, hogs and sheep for June, 1889, and the year to date, with comparisons:

	Receipts.	Cattle.	Hogs.	Sheep.
June, 1889.....	205,132	790,924	247,016	247,016
May, 1889.....	236,741	710,824	324,370	324,370
June, 1888.....	213,301	709,446	288,571	288,571
June, 1887.....	203,108	774,087	270,144	270,144
June, 1886.....	208,948	704,995	288,356	288,356
June, 1885.....	167,859	636,109	246,511	246,511
June, 1884.....	213,772	662,565	209,107	209,107
June, 1883.....	213,674	516,148	261,169	261,169
Six months, 1889.....	1,188,350	4,212,231	1,792,089	1,792,089
Six months, 1888.....	1,225,607	4,209,459	1,822,169	1,822,169
Six months, 1887.....	1,174,410	4,097,082	1,637,549	1,637,549

July receipts at Chicago for the last eight years were as follows:

	Receipts.	Cattle.	Hogs.	Sheep.
July, 1888.....	195,883	692,882	255,818	255,818
July, 1887.....	202,010	601,658	290,671	290,671
July, 1886.....	224,919	499,964	279,130	279,130
July, 1885.....	225,559	382,398	278,898	278,898
July, 1884.....	153,664	379,483	134,301	134,301
July, 1883.....	255,742	519,507	230,138	230,138
July, 1882.....	305,315	488,820	158,942	158,942
July, 1881.....	288,983	468,497	169,793	169,793
July, 1880.....	328,290	612,355	143,958	143,958
July, 1889.....	172,541	414,696	133,744	133,744

The noted Texas cattle feeder, J. B. Wilson, of Dallas, had on the Chicago market to-day 10 cars of Texas-bred and Texas-fed cattle which did credit to the State. They sold at \$5.00 to \$6.65, mostly at \$5.25 to \$5.30. The top cattle averaged 1,628 lbs., and sold the highest of anything since the Fat Stock Show cattle were here in March.

Brenton Bros., Dallas Centre, Iowa, had in four cars of Texas cattle, 1,223 lbs., the first of the season's feeding, which sold at \$5.15, or 10c. above the top price they got last year. They also had in one car of 1,200-lb. mixed native cattle that sold at \$5.55, and two cars, 31 head, averaging 1,278 lbs., branded Panhandle cattle, at \$5.35, containing three big slugs.

Cattle in June averaged 1,651 lbs., against 1,601 lbs. a year ago, 1,072 lbs. in 1887, and 1,118 lbs. in 1886. This shows that cattle are not being fed as long as usual, and that feeders are finding that early maturity pays.

Those specially fed 173-lb. Berkshire bacon hogs which sold at \$4 on June 30, did not prove to be as satisfactory as expected. The killing test showed that there were some very good fat hogs and some very good lean ones in the lot. They dressed close to 71 per cent., but were only considered the equal of good corn-fed hogs of the same weight. Armour & Co. paid \$4 for them when their drove cost \$3.83, and they feel that these hogs were not worth the difference. These pigs were fed on rye, barley, clover, corn, etc., and it was hoped they would meet the Canadian manner of feeding for bacon hogs, but they fell far short.

The June average weight of hogs was 236 lbs., against 232 lbs. in May, 229 lbs. in June of last year, 240 two years ago, and 249 lbs. three years ago.

C. S. Nelson, of Monmouth, Ill., one of the heaviest feeders of Warren County, had seven cars of cattle on the market yesterday, and two to-day. They sold at \$5.15, \$5.40 and \$5.45, with two cars at \$5.50. These cattle were all bought on this market in February. They cost an average of \$4.40 here in February, and made a gain of about 300 lbs. each, an excellent gain, and he said they made good money. He bought a lot of cattle to take home for his pasture and feed lots.

A good many young hogs are being bought here and sent to the country to feed. They are castrated and dehorned.

A Chicago man, who has returned from a hundred days' trip through Idaho, Washington and Oregon, says the past winter and spring were not favorable for lamb raising, and this year's crop will show a shortage of 60 per cent. Two-year-old sheep are also short of the usual supply. The movement to market will begin next month, and will be a little later than usual. There is a fair demand for stock yearlings, which have been selling mainly at \$2 per head. The range all through the west is in fine condition, except in Eastern Colorado, where it is at present very dry.

Farming conditions throughout the corn belt were never much more promising than at this time.

Montreal Markets.

Butchers' Cattle.—This particular branch of the trade has been rather dull for some time, and it is only the last two or three markets that receipts have anything like come up to their old standard, even showing a shortage on the regular average runs of stock. Yesterday, 600 head of cattle were offered; last Thursday, 500; previous markets, from 350 to 400. The reason has been the cost of cattle, which has had a large share in curtailing local consumption; butchers in almost all directions turning their beef over at a very small margin, if not at an actual loss. In other respects the stock markets have been good; good prices have prevailed, and clearances have sold as high as exporters; 4c. to 5c. for the limit, the last named figure not being obtainable on the last two or three market days, owing to the scarcity of good heaves; good beef ran from 1½c. to 1¼c.; common to medium fair, from 2½c. to 4½c. per lb.

Sheep and Lambs.—The recent decline in the British markets have forced the price of sheep down here, but notwithstanding that, shipments are going forward quite freely—almost equalling the record year of four years ago. Exporters are paying from 3½c. to 3c. per lb., while spring lambs are, varying from \$2.50 to \$5 each, according to size and quality.

Calves.—For the time of year, and indeed the whole spring, the run of calves have been light, and prices accordingly fairly good, ranging, according to quality, from \$1.50 to \$12.

Live Stock Shipments.—For the first time this season our shipments of cattle have equalled a like period of last year, the total in July 8 (Saturday) equalling 33,888 head of cattle, 14,579 sheep, and 1,730 horses, against the corresponding period of 1888: 23,711 cattle, 3,915 sheep, and 3,190 horses. This puts the present season in advance of 1888 by 177 cattle, 10,663 sheep, and 1,700 horses. The fact must not be overlooked, however, that of the total number this year fully 9,000 head were United States shipments, against some 1,800 head last year, and none in the previous years. What effect these shipments have had to offset our own short supplies will be seen by the following few comparisons:

	Cattle.	Sheep.	Horses.
Total to June 30, 90.....	28,827	11,835	1,533
To June 30, 98.....	28,899	2,682	2,834
To June 30, 97.....	37,011	6,556	3,032
To June 30, 96.....	28,780	9,066	4,715
To June 30, 95.....	29,830	18,720	4,410



A Lesson of Faith.

"Let me hire you as a nurse for my poor children," said a Butterfly to a quiet Caterpillar, who was strolling along a cabbage leaf in her odd way. "See these little eggs!" continued the Butterfly. "I don't know how long it will be before they come to life, and I feel very sick and poorly; and if I should die, who will take care of my baby butterflies? Will you, kind green Caterpillar? But you must mind what you give them to eat! They cannot, of course, live on your rough food. I can't think what made me come and lay my eggs on a cabbage leaf. Oh, how dizzy I am, Caterpillar! You will remember about the food—"

And with these words the Butterfly dropped her wings and died, and the green Caterpillar, who had not had the opportunity of even saying Yes or No to the request, was left standing alone by the side of the eggs.

"A pretty nurse she has chosen, poor lady!" exclaimed she, "and a pretty business I have in hand! Why, her senses must have left her, or she

nodded his beak towards the eggs. "What do you think it is to be?"

"Dew, and the honey out of flowers, I am afraid," sighed the Caterpillar.

"No such thing, old lady. Something simpler than that. Something that you can get at quite easily."

"I can get at nothing quite easily but cabbage leaves," murmured the Caterpillar, in distress.

"Excellent, my good friend!" cried the Lark. "You have found it out. You are to feed them with cabbage leaves."

"Never!" cried the Caterpillar, indignantly. "It was their dying mother's last request that I should do no such thing."

"Their mother knew nothing about the matter," said the Lark. "But why do you ask me and then disbelieve what I say? You have neither faith nor trust."

"Oh, I believe everything I am told!" said the Caterpillar.

"Nay, but you do not," replied the Lark; "you won't believe even about the food, and yet that is but the beginning of what I have to tell you. Why, what do you think those little eggs will turn out to be?"

"Butterflies, to be sure."

"Caterpillars!" sang the Lark, as it flew away. "I thought the Lark would be wise and kind," observed the Caterpillar, "but I find that he is foolish and saucy instead. Perhaps he went up too high this time. I wonder whom he sees and what he does up yonder."

"I would tell you if you would believe me," sang the Lark, descending once more.

"I believe everything I am told," reiterated the Caterpillar, with as grave a face as if it were a fact.

"That is what you call faith, is it?" asked the doubtful Caterpillar.

At that moment she felt something at her side. She looked around. Eight or ten little caterpillars were moving about, and had already made a hole in the cabbage leaf. They had broken from the Butterfly's eggs. Shame and amazement filled our green friend's heart, but joy soon followed; for, as the first wonder was possible, the second might be so too. She talked all the rest of her life to her relations of the time when she should be a butterfly. None of them believed her, but she had learned the Lark's lesson of faith, and when she was going into her chrysalis grave she said, "I shall be a butterfly some day."

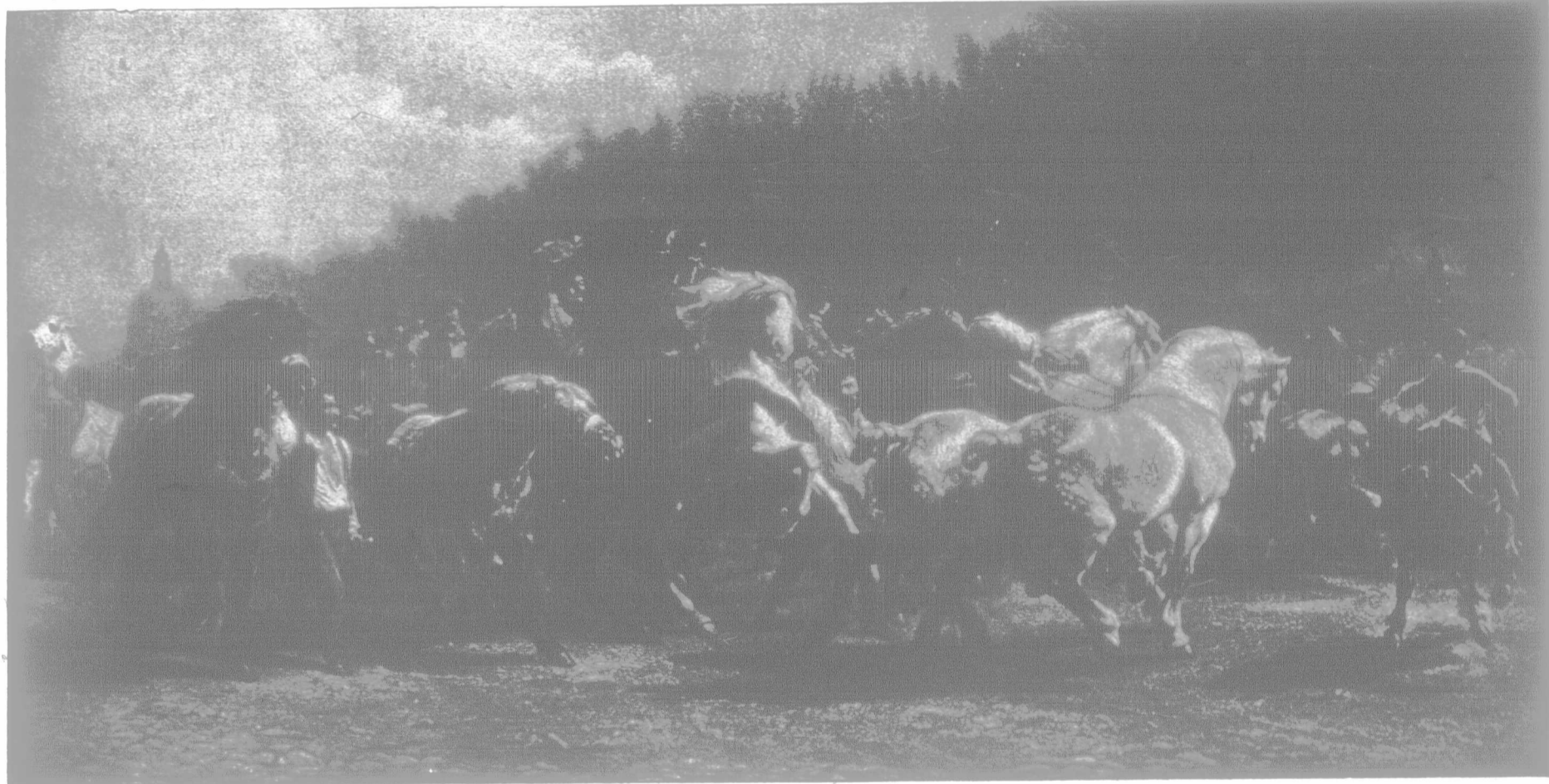
But her relations thought her head was wandering, and they said, "Poor thing!"

And when she was a butterfly, and was going to die again, she said:

"I have known many wonders; I have faith; I can trust even now for what shall come next."

"The Horse Fair."

It will be remembered that in our issue of June 20th there was a short account (with portrait) of Rosa Bonheur, the great French artist, who died on the 26th of May, aged seventy-seven. We now give the picture which made her so famous. There have been many celebrated animal painters—Sir Edwin Landseer, Ansdell, Harrison Weir, and others too numerous to mention—but perhaps no artist has been more discussed than this gifted woman. The distinguishing feature in Rosa Bonheur's work is its life—her animals are



"THE HORSE FAIR."

never would have asked a poor crawling creature like me to bring up her dainty little ones. Much they'll mind me when they feel the gay wings on their backs and can fly away out of my sight whenever they choose!"

However, the Caterpillar had a kind heart, so she resolved to do her best for the poor orphans. But she got no sleep that night, she was so anxious. She made her back ache with walking all night round her young charges, and in the morning she said to herself:

"Two heads are better than one. I will consult some wise creature upon the matter and get advice. How should a crawling creature like me know what to do without consulting my betters?"

Now, in the corn field there lived a Lark, and the Caterpillar sent a message to him to beg him to come and talk to her; and when he came she told him all her difficulties, and asked him how she was to feed and bring up the little creatures, so different from herself.

"Perhaps you will be able to inquire and hear something about it next time you go up high," observed the Caterpillar timidly.

The Lark promised to help her if possible, and soon went singing up into the blue sky. The Caterpillar almost jumped for joy, and it was not long before she saw her friend descend again to the cabbage bed.

"News, news, glorious news, friend Caterpillar!" sang the Lark; "but the worst of it is, you won't believe me!"

"I believe everything I am told," observed the Caterpillar, hastily.

"Well, then, first of all, I will tell you what these little creatures are to eat," and the Lark

"Then I'll tell you something else," cried the Lark, "for the best of my news remains behind. You will one day be a butterfly yourself!"

"Wretched bird!" exclaimed the Caterpillar. "You jest with my inferiority. Now you are cruel, as well as foolish. Go away! I will ask your advice no more."

"I told you you would not believe me," cried the Lark.

"I believe everything that I am told," persisted the Caterpillar; "that is"—and she hesitated—"everything that it is reasonable to believe. But to tell me that butterflies leave off crawling and get wings! Lark, you are too wise to believe such nonsense yourself, for you know it is impossible!"

"I know no such thing," said the Lark. "Whether I hover over the cornfields of earth or go up into the depths of the sky, I see so many wonderful things I know no reason why there should not be more. It is because you crawl, because you never get beyond your cabbage leaf, that you call anything impossible."

"Nonsense!" shouted the Caterpillar. "I know what's possible and what's not possible, according to my capacity and experience, as well as you do. Look at my long green body and these endless legs, and then talk to me about having wings and a painted feathery coat! Fool!"

"And fool you, you would-be-wise Caterpillar!" cried the indignant Lark. "Fool! to attempt to reason about what you cannot understand! Do you not hear how my song swells with rejoicing as I soar upwards to the mysterious wonder-world above? Oh, Caterpillar! what comes to you from thence, receive as I do, upon trust."

almost always in action. This can be observed in all her numerous works. Examine this picture. Every horse has its individuality. Look at that magnificent pair of grays, straining on the line held by the rider of one of them. Note that restive creature in the middle of the picture, evidently giving his rider all he can manage. That beauty on the left looks ready for anything, with bristling mane and proud carriage. You can almost hear the hurrying footfalls of the little horse speeding ahead, on the right-hand side. The figures of the men are no less lifelike. This truly great painting is a combination of separate pictures, for each little group, or even each animal, is a picture in itself. One may truly say that the two artists of modern times who have been more talked about than perhaps any others, are women. Miss Elizabeth Thompson (now Lady Butler), whose great military picture, "The Roll Call," caused a veritable sensation several years ago, and Rosa Bonheur, whose fame is deathless. A small, uncolored picture can give but a faint idea of "The Horse Fair" seen at its full size and with all its vivid coloring. One can, however, readily observe all its wonderful grouping, its action, its conception, all the more wonderful when we think of the difficulties a woman must have had to overcome in making studies for such a subject. It is well known that for her necessary studies at slaughter-houses and other places generally unknown to women, Mlle. Bonheur was obliged to assume male attire. As a strong proof that art has no nationality, and of how much she was loved and respected, during the Franco-Prussian war, the German Emperor gave orders that when the troops marched on to Paris, Rosa Bonheur's property at Fontainebleau was to be left untouched.

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,—

"All work and no play makes Jack a dull boy." So says the proverb, and it is true. Most of us can call to mind some one of our acquaintance who does nothing but "work, work, work, in the dull December light, and work, work, work, when the weather is warm and bright." Is such a one a favorite among her friends? Would we go to her to have a pleasant chat and to talk over things? Oh, no! she has not time for that—there are duties waiting which *must* be done. And so she becomes prematurely old and wrinkled and gray, and friends drop off, and by and bye, when she is unfit to continue the everlasting work, she finds herself incapable of enjoying repose and pleasant society.

Now, this is all wrong. We are creatures so constituted that we must have action and repose alternately; in other words, we must work and play. Every living thing that comes into the world loves play. The child laughs and crows whenever it begins to observe; and when a few years have passed over its head, how many games will it revel in! But this playfulness is not peculiar to children only. The lower animals have similar instincts. The little birds play hide-and-seek among the branches; the little fishes dart here and there in play; the tiny gnat sports and dances in the sunshine. Even the young of wild animals, such as lions and bears, are as playful as kittens; and we all know what that means, for who has not watched, with great enjoyment, the antics of kittens? Think of the little lambs too—how amusing it is to see their gambols in the fields—how they chase each other in play! All living creatures were intended to be happy, and this happiness and play are Nature's ways of developing and strengthening their powers.

As young lives, of whatever kind, grow older, their instincts for play become useful. Their elders take advantage of this to teach their offspring their life-work. Children are sent to the kindergarten, where they learn through play. The eye, the ear, the imagination, are all educated through games; mental and moral faculties are developed by exercise; physical powers are strengthened by playful movements. While the little ones think only of play, they are really being educated. (It is only when they become older that the dreariness of "hard labor," the cramming for examinations, the dreaded competitions, ruin the health, both of mind and body, of the rising generation, and bring them to the same dead level, like a row of ninepins. Why is it that, of all creation, *man* alone imposes on his children hard and unpleasant work, without any enjoyment, in the matter of education?)

Let us revert to the lower animals once more, beginning with those we farmer folk know most about. How does Mother Hen educate her birdies? She teaches them to eat by taking from your hand little morsels of food, and dropping these before the little ones. They sometimes pick from her bill too. She takes them here and there to look for worms, and seeds, and insects. She shows them how to keep clean by herself using the dust-bath. How she clucks when danger threatens, teaching them to protect themselves against enemies; and when they grow bigger, she shows how further to guard themselves from harm by roosting as high as possible. Tabby, too, educates her kittens by romping with them, and teaching them by play to catch mice in earnest. Some birds teach their young to fly by carrying the little ones on their parent-wings, and suddenly shaking themselves free. The birdlings at first think their mothers are only playing; but when they are alone in the air, they are obliged to spread their own little wings for their own safety, and so they find the use of wings. You may be sure Mother Bird is not far off, in case of accident. Observe, too, how the lambs and calves play at butting, the colts at kicking, and the dogs at worrying—all instincts of their race. And so it is all up and down the scale of creation—"play is a means of instruction in the future duties of their lives."

Thus we, the superior animals, turn to the lower for lessons in education and recreation. We must have recreation if we are to lead healthy, useful lives. Our nervous system is too fine to work continually, and, indeed, this is not desirable. "A little nonsense now and then is relished by the wisest men"; and if we, after a period of hard work, take a little leisure, the benefit will be great. By leisure I do not mean absolute idleness—mental lethargy. Change of work is restful; it brings another set of faculties into activity, and allows the first used to repose. We are all differently constituted as to taste—what one person would enjoy as a recreation might be to another hard work. The student will lay aside her books and indulge in physical exercise as a pastime; the farmer's wife will enjoy a cozy easy-chair and a good book; her daughter will find pleasure at her piano, or her easel, or her fancy-work; and the farmer himself will perhaps look forward to a consoling pipe.

Certain it is that recreation is necessary to health, and health consists in the perfection of the different organs of the body, and in their regular, harmonious, and unconscious working. Every one wishes to possess that best of blessings, good health. So, my dear nieces, let us try to arrange our duties so that we shall have an alternation of

work and play—a daily alternation too,—not a day or a week of work, and then a time of idleness; but a happy, daily doing of our duties, to be followed up with an equally pleasant time of rest and recreation.

Samuel Smiles says, "Labor is not only a necessity and a duty, but a blessing"; and in "The Intellectual Life," Philip Gilbert Hamerton says, "Rest is necessary to recruit your intellectual forces." Both of these writers knew equally well the necessity of both work and rest. So we, after a period of energy and activity, may safely, and with an easy conscience, allow ourselves a time of refreshment and recreation.

Your loving old Auntie,
MINNIE MAY.

THE QUIET HOUR.

Worldliness.

"Give us—amid earth's weary toil,
And wealth, for which men cark and care,
Mid fortune's pride and need's wild toil,
And broken hearts in purple rare—

"Give us Thy grace to rise above
The glare of this world's smelting fires!
Let God's great love put out the love
Of gold and gain and low desires!

"Still sweetly rings the Gospel strain
Of golden store that knows not rust:
The love of Christ is more than gain,
And heavenly crowns than yellow dust."

What is this worldliness against which we are warned so often? Is it, as so many religious writers seem to imply, found only in the giddy whirl of dissipation or in the profitless pursuit of pleasure as our only object in life? If that were so, it would hardly be necessary to mention the subject to hard-working farmers and farmers' wives. You know what real work is, and are more likely to harshly condemn a butterfly existence than to indulge in it. Are you, then, entirely free from worldliness?

The warning words, "Love not the world, neither the things that are in the world. If any man love the world, the love of the Father is not in him," have driven men into strange extravagances. Some who aimed at becoming unworldly refused to associate with their fellows, spending their lives in caves. Some tried to get as far from the world as possible by living on the top of high pillars. One who aimed at saintliness spent about thirty years on a pillar sixty feet high. Did he escape all temptation to worldliness? These frantic attempts to get out of the world were only flying from danger, not bravely fighting it. It is well to avoid temptation whenever possible, but a Christian should never run away from his duty in order to avoid temptation. Well, it is hardly necessary to wonder whether these ascetics of old were quite free from vanity and worldliness. We are not likely to follow their example. But let us look into our own lives and see what is the motive power that inspires us. Do we "rise early and so late take rest, and eat the bread of carefulness?" Are we frugal and industrious, wasting not a penny of precious money, nor an hour of still more precious time? Do we look with contempt and scorn on the lazy drones of society, who drift along carelessly, as though life were all play? But what is all this rush of work and strain of anxious care for? If it is to make ourselves rich, surely that is worldliness pure and simple. There may come a time when "a cup of cold water" given for Christ's sake, a present of fruit or flowers to a sick neighbor, a peaceful hour of prayer and communion with God, may be found to have more real value than all our years of labor. It all depends on the object for which the work is done. "Whether ye eat or drink, or whatsoever ye do, do all to the glory of God." If our lives are consecrated to His service, then the work He gives us to do will be consecrated work. Plowing a field may be as truly great and holy a work as preaching to the heathen, and washing dishes may be an act of service precious in God's sight. Did not our blessed Lord spend many years of His short and glorious life working in the carpenter's shop at Nazareth? If He who had such important work to do did not feel that those years of quiet, unnoticed industry were wasted, surely none of His followers need chafe at "the daily round, the common task."

The truth is that *all* work is great and lasting if done for God's glory or the good of our fellow-men, while *no* work is worth anything if done only for the sake of vain glory or an "inordinate love of riches." We are servants of God in name at least. Are we living as though there were *no* God? It is possible to live respectable, hard-working lives and scarcely think of God at all. If all our hard work is only intended to lay up treasure on earth, what waste of time and strength it is, to be sure! We must die before long, and if it is considered wise to prepare for our future in this world, is it not utterly folly to leave the long future of eternity entirely unprovided for?

You are working hard from morning to night, and, perhaps, feeling rather contemptuous towards a neighbor who, in your opinion, is inclined to be lazy; yet that neighbor may wake each day, glad in the thought of God's presence. He may, like Enoch, "walk with God." He may, like Abraham, be the "friend of God."

"And there are souls that seem to dwell
Above this earth, so rich a spell
Floats round their steps where'er they move,
From hopes fulfilled and mutual love.
Such—if on high their thoughts are set,
Nor in the stream the source forget;
If prompt to quit the bliss they know,
Following the Lamb where'er they go;
By purest pleasures unbeguiled
To idolize or wife or child—
Such wedded souls our God shall own
For faultless virgins round His Throne."

God does not wish to crush us by hard work. He is a kind father, and would see His children happy. The happiest people are those who take each day as it comes as a talent to be used for Him. They accept pleasure gratefully; when pain or trouble is given instead, they are glad to bear it for His sake; when the Angel of Death holds out his hands to them, they welcome him joyfully.

A single heart is rare—a heart devoted to God alone—but think of the influence for good one such single-hearted person can exert. Do you know any such men or women? Has the love of God crowded out the love of the world in your own soul? This is the true secret of unworldliness. If the love of the world is not checked it will soon crowd out the love of God, as weeds choke beautiful and useful plants; but, on the other hand, if the love of God is cultivated it will drive worldliness into corners, although in this life it may not be possible to weed it out altogether. The love of God may be cultivated by prayer and obedience, by living always consciously in the sunshine of His presence, by offering to Him little acts of service all the day through. This love is a *living* force, with a marvellous power of growth. Slowly, but surely, it will, if encouraged, fill the whole nature of man. No other love can completely satisfy the soul which God made to be His temple.—*Hope.*

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 Armand, Pakenham, Ont.]

1—A SWARM OF BEES.

1. Take the whole from a round object and leave a B.
2. Take loving from prevent and leave a B.
3. Take a bird from a deep dish and leave a B.
4. Take a drink from having sufficient strength and leave a B.
5. Take a story from a piece of furniture and leave a B.
6. Take a scoundrel from a dialect and leave a B.
7. Take an apartment from a dusting implement and leave a B.
8. Take a row from a river of Italy and leave a B.
9. Take a kind of spool from a revolver and leave a B.

F. L. S.

2—CROSSWORD ENIGMA.

My first is in fought, not in tax;
My second is in cat, but not in mule;
My third is in egg, not in wax;
My fourth is in lot and also in cool;
My fifth is in arrow and also in bow;
My sixth is in sought and also in tow.
My whole is the name of an animal in South America.

GERTIE KLINCK.

3—WORD SQUARE.

My First for "squares" is just the thing,
My Second can now be said of spring;
My Third you do when you depend;
Heat does my fourth; come now, perpend!

"K. K."

4—FOUND IN OUR CITIZENS' BAND (PARTLY PHONETIC).

1. A river in Britain.
2. To trifle.
3. Found in the ear.
4. The instrument of communication.
5. A headdress.
6. The antennae of an insect.
7. A falsifier.
8. To proclaim.
9. A channel in a column or pillar.

"ARRY 'AWKINS."

5—STUDIES IN ANAGRAM.

1. I that crime; 2. pa grey hog; 3. dig near; 4. arm, arm G; 5. ring wit.

F. L. S.

6—RIDDLE.

O what a pair of twins is this!
They're never cross, do naught amiss,
One can't exist without its brother,
For one's the complement of t'other,
Oft in the FARMER'S ADVOCATE
We've seen them lying stiff and straight,
Tho' brothers dear, they nevermore
Shall meet upon the golden shore.

"K. K."

7—CHANGED HEADINGS.

1. Whole a report changed a pain.
2. " to shove changed a boat.
3. " a collection changed a comrade.
4. " tied changed a prison.
5. " a girl's name changed small.
6. " an animal changed a fruit.
7. " a disease changed state.
8. " a nasty mark changed to scheme.
9. " a disease in sheep changed in a window.

Primals of original words will give industrious insects.
Primals of changed words will name a kind of grain.
"ARRY 'AWKINS."

8—CHARADE.

A little white TWO was set on a ONE
Softer's hoodlows did it, just for the fun;
And although the ONE was hard to beat,
He was well worsted by the little COMPLETE.
"DICKENS."

9-CROSSWORD ENIGMA.

My first is in sow, but not in reap; My second is in antelope, but not in sheep; My third is in walk, but not in creep; My fourth is in tear, but not in weep. My whole is a mineral. ALICE KLINCK.

10-ARITHMETICAL.

What is the length of a blade of grass which is only half as long as it will be when it is half a foot longer than half its present length? F. L. S.

11-AUTHORS TRANSPOSED.

1, Haegilr; 2, Preessn; 3, Abnnuy; 4, Edefo; 5, Yehostu; 6, Hdgilmost; 7, Hdoorstwv. "Dick."

Answers to June 20th Puzzles.

1-natal 3-l lama nadir later names atlas meats meato smyth arson

2-Kiln.

4-Part-art, play-pay, many-man, home-hoe, weep-wee, the-he, noun-nun, none-one=Plympton.

5-Again, naere, trooper, henna, over-careful, neguaac, yda (day), hectogram, Ochayedan, palla, Egeri. Anthony Hope; A. Conan Doyle; Ian Maclaren.

6-Arno, never, indri, matting, Abussi, talon, Elba, dwell=animated, original.

7-Brazil, Madrid, Gibraltar, McKinley, Stanley, Mediterranean.

8-Leapfrog.

9-Crow, thrush, duck, turkey, pigeon, swan, lyre, swallow, paradise.

10-LYNX, sable, ape, ferret, hare, aye-aye, bear, deer, buck, beaver, sloth, gnu.

11-The boast of heraldry, the pomp of power,

And all that beauty, all that wealth ere gave, Await alike the inevitable hour-The paths of glory lead but to the grave.

12-Agomska, Tanganzika, Falklands, Dauphin, Guatemala.

13-To assail a wearied man were shame,

And stranger is a holy name; Guidance and rest and food and fire, In vain he never may desire.

14-Pumpkin Pie.

SOLVERS TO JUNE 20TH PUZZLES.

M. R. G., Lizzie Conner, "Arny Awkins," Bertie Klinck, Emma H. Humble, Alice Klinck.

ADDITIONAL SOLVERS TO JUNE 5TH PUZZLES.

"Arny Awkins," Lizzie Conner.

COUSINLY CHAT.

"Dickens."-I presume your budget arrived safely, as your letters come very regularly. You get another prize this time, and although it is not the highest, I hope it will induce you to continue. In making "squares" or other form puzzles you should strive to use words that can readily be found in the dictionary, or if you use names, as in your last square, they should not be unheard-of ones. A successful anagram should bear some connection to the rest of the puzzle. Try again.

"Arny Awkins."-Am glad travelers arrived safely. Poor fellow, don't you wish them safe home again? Thank you, Arny, you are doing nobly by the "Dom." I only wish our other friends would prove as faithful.

"K. K."-If you will send more of your bright puzzles, you will give some of the older contributors a hot chase.

F. L. S.-Glad to see you again. The cousins will have to look to their laurels.

Gertie and Alice.-Come often, little friends; we have plenty of room for you. A. A.

Prizewinning Puzzlers.

The following prizes have been awarded for the months of April, May and June:-

For original puzzles-1st (\$1) to Henry Reeve ("Arny Awkins"), Toronto, Ont.; 2nd (50c.) to Miss Mary Nagle (M. N.), Almonte, Ont.; 3rd (50c.) to L. B. Force ("Dickens"), Oriel, Ont.

For answers-1st (\$1.50), M. R. Griffith, London, Ont.; 2nd (\$1), Henry Reeve, Toronto, Ont.; 3rd (50c.), Miss Lizzie Conner, Hyde Park, Ont.

The book offered for neatness, punctuality and correctness is awarded to Miss Mary Nagle. "Ena," "Toledo," "Dick," "Una Shepherd," "Dickens," "Arny Awkins," Lizzie Conner, and Jessie and Peter Hyde, were close competitors for this prize for a long time, but during this quarter several of them have dropped out. I hope the quarter now begun will see them all back again, as well as many new friends.

UNCLE TOM.

Scrap Chats.

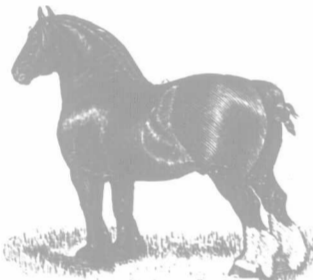
Amongst Old Country news items I was lately reading, was an account of the ripping to pieces of the Lord Mayor's state barge. This particular barge was called the "Maria Wood," after the wife of the then Lord Mayor of London, Alderman Matthew Wood, in 1815. This is no case of "Le roi est mort-vive le roi," because there will never again be a Lord Mayor's barge. Formerly old Father Thames was an important means of communication with various parts of London the Great. People had their private barges, and many of the old ducal mansions on the banks of the river have magnificently carved gates and a stairway leading down to it. Some of these still exist. Of course, all this

mode of traffic has died out more years ago than any of us can recollect. King Steam has changed all that.

This state barge was a very grand-indeed, gaudy-affair, richly carved and gilt. According to etiquette, it had the right of way even before the king's royal barge, was more gorgeous, and had two more oarsmen! This right of way did not, however, extend beyond the actual city portion of the river; beyond that, the king had his right of way, and I daresay the Lord Mayor then felt somewhat smaller! It is difficult to imagine that this historical state barge is an institution *sic* hundred years old. The "Maria Wood" (now no more) has been rotting away for many years in a secluded part of the old river, grass and weeds growing through her seams. Poor old barge! Yet she was comparatively young, only having been christened in 1815! Reading of all this brought back some far, far away days, when, as a very small child, I used to be taken to see the "Lord Mayor's Show" on the 9th of November-of double interest in England, as being the birthday of the Prince of Wales. There was always a procession, and the barges on the river looked very grand indeed. Everyone used to try and get a special peep at the Lord Mayor's state barge. This custom (then a mere imitation, of course) has long since died out, like so many other old customs and landmarks. Truly, steam and electricity have taken all the romance out of us-and oh! won't the streets look hideous when the horseless carriage holds a general sway, as the bicycle does already! How far less thrilling to think of the hero jumping off his wheel to save the beloved one from a nasty tumble over her handle-bar instead of a crashing fall from a noble and cavorting thoroughbred! Then, in lieu of a wild snatch at the reins and a stand right in front of a pair of champing steeds (looking them straight in the eye, too), *this* may occur: "Hello! Gladys, there's something wrong with the motor! Hold on-we're either going to stop altogether or crash into that wheeling party ahead!"

And all this frivolous chat because a dear old state barge is gone, and a far away, childish remembrance has flashed upon me. Truly, tears and laughter are near akin. THE CHATTERER.

J. E. SMITH, Box 274, Brandon.



Breeder and Importer of CLYDESDALE HORSES and SHORTHORN CATTLE, who owns one of the best and most extensive establishments of the kind in Canada, will hold his first

Annual Auction Sale Early in November, '99. The aim is not to dispose of old stock. Nothing but young animals will be offered. In order to make this sale a success, the public can depend that every animal put up will be sold without reserve. This will be the greatest opportunity that the farmers of Manitoba and the N. W. T. have ever had to secure first-class stock at their own prices. Catalogue later, on application.

J. E. SMITH, Box 274, BRANDON, MAN.

JOHN MCGREGOR & CO.

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Western Range Horses

One hundred head of AGRICULTURAL, DRIVING AND SADDLE HORSES now on hand. Terms and prices right.

Head Office: Fleming Block, Brandon. Bams and Corral, cor. 13th and Rosser ave. Selling agents at all principal points. Ranches: Rosebud and Bell, Montana; Townner, North Dakota.

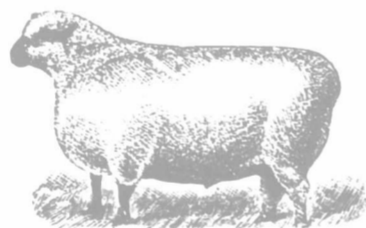


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Clydesdales, Shires, Hackneys.

STALLIONS:

Has a few choice ones for sale. Also Pure-bred



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Rams and Ewes, from the most fashionable imported blood. Inspection invited. For full particulars,

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SHORTHORNS



Will sell the yearling bull Lord Lossie 22nd 29271, sired by the celebrated prizewinner Caithness. This young bull is red in color, and of extra merit. Fit to head any herd of Shorthorns. Also a few

IMP. LARGE YORKSHIRES FOR SALE.

JAMES BRAY, LONGBURN, MAN.

12 YOUNG BULLS

of Missie, Mina, Rosebud, Strathallan, Wimple, and other choice Scotch breeding. Also, females at moderate prices.

W. S. LISTER, MIDDLEBURCH, MAN. Marchmont Stock Farm, near Winnipeg, Man.

GOSSIP.

Alex. Morrison, of Carman, bought during the Winnipeg Industrial, Precyfas, a magnificent thick roan bull calf, recently imported from Flatt's herd by Hon. Thomas Greenway.

Andrew Graham, of Pomeroy, sold a bull calf, Chief Justice, to E. Burridge, of Cypress River. This calf was illustrated in the July 5th issue of the FARMER'S ADVOCATE. Won 3rd prize in its class at the Industrial, and headed the 1st prize young herd, all under two years old, and the 1st prize four calves bred and owned by exhibitor.

Captain Thomas Robson, Iderton, Ont., visited the Winnipeg Industrial Exhibition, and while there bought the following Shorthorns, to assist in making up his show herd for the Ontario fairs: Topman, the sweepstakes bull; Jubilee Queen, the 1st prize two-year-old and sweepstakes female; Gem of Athelstone, the 1st prize two-year-old and sweepstakes female of 1888, and Freda, the 1st prize three-year-old in 1888, and one of the best females in Mr. Greenway's herd.

The Hon. Thos. Greenway, as well as making a fine display of Shorthorns at the Winnipeg Industrial, had in the same barn four Ayrshires of superlative merit, and all in the pink of condition. Surprise of Burnside, the bull at the head of the herd, is undoubtedly one of the finest specimens of the breed in Canada. The three females were: Stylish Dentry (imp.), Missie of Needpath, and Ruby of Hickory Hill. A few Yorkshires and Berkshires were also brought in for exhibition, but, like the cattle, not for competition.

Mr. E. Henderson, Swan River, Man., has just purchased from David Allison, of Roland, the Shorthorn bull calf, Daisy's Pride, winner of third prize at late Winnipeg Industrial Exhibition. The calf is from the famous Daisy of Strathallan, and is got by Hillary. He is a good one. Mr. Henderson purposes placing this bull at the head of his herd in time. He has in his herd besides, Sadie, a prizewinner at a number of Ontario fairs, and Helena 13876, two animals from whom the owner has hopes of getting some real good things. Mr. Henderson has also some good Berkshires of imported stock. See his advertisement in this issue.

John Oughton, having sold his stock farm at Crystal City to Hon. Thomas Greenway, has moved to Middlechurch, six miles north of Winnipeg, where, in conjunction with dairying and grain farming, he purposes, in connection with Mr. Matthew Oughton, late of Wood Bay, to continue the breeding of pure-bred stock. The herd of Holstein cattle is headed by Royal Duke, a son of the celebrated Daisy Teake's Queen. Shropshire and Cotswold sheep are also kept; and in swine, Berkshires, Poland-Chinas, Ohio Improved Chester Whites, and Large Yorkshires. Visitors will be met at Winnipeg or Middlechurch.

Wm. Sharman, of Ridgewood Stock Farm, Souris, having disposed of nearly all his large herd of Herefords to J. E. Marples, Delean, and T. W. Palmer, of Red Deer, has decided to go into the live stock commission business, and is prepared to fill orders from any point in the Territories for either stockers or pure-breds. Mr. Sharman is well and favorably known throughout Manitoba and the Territories. His thorough knowledge of the various breeds of stock, and of handling, fitting and shipping, together with his personal integrity of character, make him specially well qualified for conducting a business of this kind.

PLEASE MENTION FARMER'S ADVOCATE

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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

WILLOWDALE STOCK FARM.

SHORTHORN CATTLE CLYDESDALE HORSES

A number of young Clydesdale Mares and Fillies. Also a few choice young Bulls, sired by Caithness =22065. Address,

PURVES THOMSON, PILOT MOUND, 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 or their ancestors, and am always pleased to show them.

WALTER LYNCH, Westbourne, Man. P. O., Railway and Telegraph.

SHORTHORNS

STOCK FOR SALE. WRITE OR CALL ON

J. H. KINNEAR, SOURIS, MAN.

SHORTHORNS.

Cow and heifers for sale, of first-class breeding, in calf to imp. bull, Sir Colin Campbell. One young bull, 11 months. R. McLENNAN, Moropano, Man. m

Shorthorn Cows and Heifers for Sale

Of good breeding. Prices right.

GEORGE RANKIN, HAMIOTA, MAN. m

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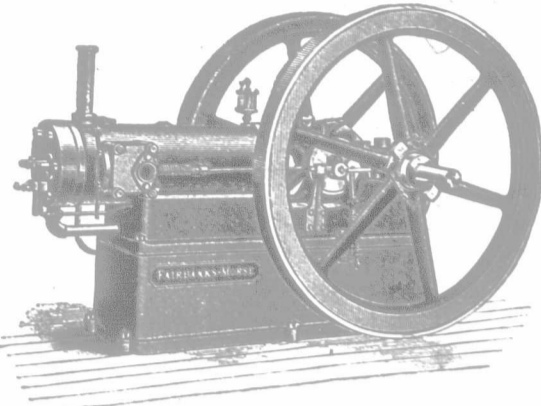
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All purposes:
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Simplest, most
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On the market.

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The 20 Century Washing Compound for all kinds of washing

LATEST, CHEAPEST, BEST.

Surpasses All Others in Washing Woodwork or Boiling Clothes.

It only requires to be tested to be appreciated. Warranted to do its work without injury to the hands or clothes. Contains no acid, no potash. Each package contains a coupon. Return those to your grocer and get a picture. With twenty coupons we present you one of our 14x17 pictures, framed; or, with fifty coupons, one of our 18x20 pictures, framed, or with twenty coupons and 50c. cash. Pictures can be seen at all grocery stores. Don't fail to try the wonderful labor-saver and be convinced!

.. MANGE CURE ..

Don't stand by and see your horses and cattle fail to skin and bone with that simple disease which is a mystery to so many farmers and cattle dealers in our Northwest country, which is nothing more than Mange, and can be permanently cured by our wonderful discovery, Yells' Combination Mange Cure. Follow the directions closely, and we will guarantee to cure the worst cases with three applications. We will send to any reliable man and parties. Boxes to be given on trial. No cure, no pay. Remember, all our goods are guaranteed.

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IN ALL KINDS INKS, OILS, SOAPS, WASHING POWDERS, TINCTURES, LIQUIDS,
GLUE, MUCILAGE, STOVEPIPE VARNISH, STOVE LEAD BAR, HARNESS
OIL DRESSING, FINE STOVE OIL DRESSING, SHOE BLACKING,
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ETC. MANUFACTURED SOLELY BY

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WINNIPEG, - MANITOBA.

PLEASE MENTION THE ADVOCATE.

GOSSIP.

Notice has been given by the World's Exposition authorities at Paris that the official programme of the live stock exhibit will be confined to classes of sheep, hogs, horses, and poultry, cattle being excluded from the list.

While the laws of the State of Illinois prevent cattle from entering, except they pass the tuberculin test, Gov. Tanner has exempted from the operation of the quarantine cattle intended for exhibition in the State, so that the displays at the fall fairs may go on as usual.

Affairs are decidedly on the move at the Michigan Agricultural College, as there is to be erected this summer a new dairy building, to cost \$15,000, as well as a cattle barn at \$4,000. At a recent meeting of the Board several changes in the faculty were made. Prof. Clinton D. Smith is to be relieved of the work of teaching, and to give his time to the Experiment Station as Director and to the Farmers' Institutes as Superintendent. Prof. Herbert W. Mumford becomes Professor of Agriculture and Superintendent of the Farm. Prof. Taft was relieved of teaching horticulture, and X. B. Hendrick takes charge of this branch as Assistant Professor of Horticulture.

No breed of poultry has reached the point where they have been able to command the admiration of the general-utility breeder as have the Plymouth Rocks. They are heavy producers of large eggs, mature quickly, and are among the very best table fowls. Among our largest breeders is Miss P. J. Caldwell, at Constance, Ont., whose untiring efforts have placed her yards among the foremost in importance in the country, and whose selections have been made from the most noted in the breed. She is in a position to ship what may be required in this breed, and as she handles the Barred Rocks exclusively, no risk is being run through errors. Peking ducks are frequently among her offerings, and parties desirous of adding to or improving their flocks will do well to consult her advertising space in FARMER'S ADVOCATE.

Following is a list of the Large Yorkshire pigs recently imported by Mr. D. C. Flatt, Millgrove, Ont., now in quarantine at Quebec, and which is the second importation made by Mr. Flatt this year:

Boar, Ruddington Lad 3rd, gained third prize at Royal in 1898; first prize at Lincoln. His sire, Ruddington Lad, won first prize at Royal and gold medal for best pig in white breed class.

Gilt Fanny B; sire Ruddington Lad, the Royal champion boar, and served by Duke of Rutland, first prize in pen of three at the Royal.

Gilt Fanny C; sire the Royal champion boar, Ruddington Lad; dam Miss Hollingworth 39th, she being the dam of many winners. Fanny C. is in pig to Duke of Rutland, first prize in pen of three at Royal.

Gilt Fanny F; sire Ruddington King David 8th, he being sire of the champion boar, Ruddington Lad; also served by Duke of Rutland.

Gilt Fanny P; sire Nichbourne, and in pig to Ruddington Lad 2nd, own brother to Ruddington Lad 3rd.

Gilt Fanny D; sire Ruddington King David 5th, a very grand old boar, and from a good sow.

Boar and Gilt Foret Ranger and Fanny F, are by Botesford Ranger 3rd, the sire of the first and second prize pens at the Royal.

Miss Hollingworth 58, own sister to first prize sow at Royal last year.

Mr. Flatt writes that these pigs will compare well with any importation previously made; in fact, they were considered amongst the choicest things in Great Britain.

D. H. RUSSELL'S SHORTHORNS.

The more enterprising Shorthorn breeders are considering carefully the selection of sires during these times of activity. Mr. D. H. Russell, whose farm is in sight of the R. R. station at Stouffville, Ont., is one of those who has given the matter very serious consideration, and although he has not a large herd, he has selected the best bred sires within his reach to employ on his cows of Isabella and Strawberry foundation, and while many are safely in calf to imported Northern Light, he is now employing a splendid young sire which he purchased from John Davidson, Ashburn, out of Scottish Lass 2nd, and by Sittytion Hero, having Premier Earl and Vensgarth in his pedigree. We saw some choice young things when we called a short time ago. Watch Mr. Russell's advertisement.

AWARDS ON SWINE AT THE ROYAL.

Following is the list of awards at the Royal Agricultural Society's Show at Maidstone, June, 1899, on the classes named:

Berkshires.—Boar, farrowed in 1897 or 1898—1st and 2d, Mr. J. Jefferson, Peel Hall, Chester; 3rd, Mr. Russell Swanwick, Cirencester; 3rd, Mr. Geo. T. Tomkin, The Mount, Marden, Kent. Three boar pigs, farrowed in 1899—1st, Mr. E. Burbidge; 2nd, Mr. J. A. Fricker; 3rd, Mr. J. Jefferson; r., Mr. Geo. T. Tomkin. Breeding sow, farrowed in 1897 or 1898—1st and 2nd, Mr. J. Jefferson; 3rd, Earl of Carnarvon; r., Mr. Geo. T. Tomkin. Three sow pigs, farrowed in 1899—1st, Mr. J. A. Fricker; 2nd, Mr. E. Burbidge; 3rd, Mr. Russell Swanwick; r., Mr. J. Jefferson.

Large Whites.—Boar, farrowed in 1897 or 1898—1st, Sir Gilbert Greenall, Watton Hall, Warrington; 2nd and 3rd, Mr. Philo L. Mills, Ruddington Hall, Notts.; r., Mr. Sanders Spencer, Holywell Manor, St. Ives, Hunts. Three boar pigs, farrowed in 1899—1st and 2nd, Mr. D. R. Daybell, Nottingham; 3rd, Mr. Thos. Duggle, Thorpe House, Ewerby, Sleaford; r., Mr. Sanders Spencer. Breeding sow, farrowed in 1897 or 1898—1st and 3rd, Sir Gilbert Greenall; 2nd, Mr. D. R. Daybell; r., Mr. Philo L. Mills. Three sow pigs, farrowed in 1899—1st, Mr. Sanders Spencer; 2nd, Mr. Philo L. Mills; 3rd, Mr. D. R. Daybell; r., Sir Gilbert Greenall.

Tamworths.—Boar, farrowed in 1897 or 1898—1st, Mr. D. W. Philip, Whitton, Coleshill, Warwickshire; 2nd, Mr. Robert Ibbotson, Knowle, Warwickshire; r., Mr. John Norman, Cliff House, Tamworth. Three boar pigs, farrowed in 1899—1st and 2d, Mr. Robert Ibbotson; 2nd and 3rd, Mr. D. W. Philip. Breeding sows, farrowed in 1897 or 1898—1st, Mr. D. W. Philip; 2nd and 3rd, Mr. John Norman; r., Mr. Robert Ibbotson. Three sow pigs, farrowed in 1899—1st, Mr. D. W. Philip; 2nd and 3rd, Mr. Robert Ibbotson; r., Mr. Robert Ibbotson; 3rd, Mr. Wm. Nisbet, Stratford St. Andrew, Saxmundham.

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**COMBAULT'S
Caustic
Balsam**
A Safe Speedy and Positive Cure
The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle 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. THE LAWRENCE-WILLIAMS CO., TORONTO, CAN.

PUMPS



Made of best B. C. Lumber. Easy to operate, and durable. Special pumps for deep wells. We handle FORCE PUMPS and MODEL CLOTHES DRYER. Call or write for prices.

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PORTAGE
PUMP FACTORY,
Portage la Prairie, - Manitoba.
Box 56.

Northern Pacific Ry.

ST. PAUL, MINNEAPOLIS, DULUTH, AND POINTS EAST & SOUTH.

BUTTE, HELENA, SPOKANE, SEATTLE, TACOMA, PORTLAND, CALIFORNIA, JAPAN, CHINA, ALASKA, KLONDIKE.

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Lv. Daily..... 1.45 p.m.
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PORTAGE BRANCH.
Portage la Prairie and intermediate points.
Lv. Daily ex. Sunday..... 4.45 p.m.
Ar. Daily ex. Sunday..... 11.05 a.m.

MORRIS-BRANDON BRANCH.
Morris, Roland, Miami, Baldur, Belmont, Wawanesa, Brandon. Also Souris River Branch, Belmont to Elgin.
Lv. Mon., Wed. & Fri..... 10.40 a.m.
Ar. Tues., Thurs. & Sat..... 1.40 p.m.

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H. SWINFORD, General Agent, Portage Ave., Winnipeg.



**E. HENDERSON
SWAN RIVER,
MAN.,
Breeder of**

HIGH-CLASS SHORTHORNS

AND **BERKSHIRES.**

My stock is from the winners of the highest awards, including sweepstakes at Winnipeg, '95 and '98.
YOUNG STOCK FOR SALE.
Reasonable prices. No business, no harm.

NOTICES.

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

The McCormick Corn Binder has proved itself a winner in many field competitions, and is giving very general satisfaction in the hands of farmers. It picks up down and tangled crops and binds it into neat bundles as it stands. It is very rigid, strong, easily handled, and of light draft. It ties the crop into neat, square-butted bundles, and drops them in groups, if desired, so as to be easily shocked in the field or loaded onto trucks to be hauled to ensilage cutter. It would seem that the reaphook of the cornfield has had its day, and is soon to pass out, as did the sickle of the wheat field.

Guernsey Year Book.—We are indebted to Wm. H. Caldwell, Secretary of the American Guernsey Cattle Club, for a copy of the Guernsey Breeders' Year Book for 1899. This book contains over 60 pages, and is intended for free distribution in order to disseminate reliable information regarding Guernsey cattle. It contains, in addition to the constitution and by-laws, lists of officers and members, a review of Guernsey interests for the past few years, and a list of some of the milk and butter records made by cows of this breed. There are also engravings of some typical Guernseys. Anyone interested in dairy cattle should secure a copy. Address the Secretary, Peterboro', N. H.

The Reliable Feed Cooker advertised in this issue by Rippley Hardware Co., Grafton, Ill., seems to be winning its way to popularity wherever introduced. It is inexpensive, economical of fuel, and convenient. It is in use on several Canadian stock farms, where its merits are highly proclaimed. The following testimonials from reliable men speak volumes for the cooker:

Ripley Hardware Co., Grafton, Ill.:
Dear Sirs,—I am well pleased with the Reliable No. 2 steamer bought of you. I am cooking feed for two carloads of cattle, making hot swill for 100 hogs, and heating a tank with mine. The hot feed seemed to be appreciated by the steers during this 20-below-zero weather and it kept their backs from "humping." I do not know as the feed so prepared by steaming is more digestible, but it is liked better by the steers. However, if it is only used for hogs it is well worth the money. FRANCIS BACON, Oregon, Ill.

Ripley Hardware Co., Grafton, Ill.:
Dear Sirs,—We have given your reliable feed cooker quite a thorough trial, and are highly pleased with its working. It takes very little fuel to run it, is very easily operated, and so far as we have been able to discover, is very safe as regards fire from sparks, never having seen any come from the smokestack. J. J. EDGERTON, Farm Foreman and Instructor in Agricultural Physics, Iowa Agricultural College.

The Gould, Shapley & Muir Co.'s Large Windmill Works.—A FARMER'S ADVOCATE representative paid a flying visit to Brantford, Ont., that hive of industrial activity, recently, and was attracted by the circling motion of the immense silver-winged steel windmill to the handsome new premises of the Gould, Shapley & Muir Co., situated in the heart of the city. We found Mr. John Muir, the well-known Vice-President, and the Secretary-Treasurer, Mr. Henry Yeigh—the Managing Directors—hard at work in their bright and handsome offices in the second story. A visit to the various departments of the extensive works revealed surprising activity. There is over 70,000 square feet of floor space, filled with the machines and material used in the different departments. Attention was called to the patent roller bearings used for all the 650 feet of line shafting as a practical proof of the firm's faith in their value, and further, the Superintendent, Mr. J. B. Detwiler, stated that it only takes nine horse power to run the shafting and machines when empty, while in another factory in Brantford, of similar size, it takes over 15 horse power to do about the same work. The Gould, Shapley & Muir Co.'s factory is probably the only one in Canada fitted with roller bearings. These bearings are patented in Canada by this company and are used almost altogether in their pumping and power windmills. "Ideal" power windmills and "Ideal" and "Steel King" pumping mills, and "Maple Leaf" grinders, iron and wood pumps, etc., were found in every stage of manufacture, from the crude iron and steel bars to the finished machine in the store-room. The greatest care is taken in the selection of the materials used and in the skilled labor employed to produce them. Mr. Yeigh stated that their "Steel King" pump, which is the invention of Mr. Jno. Muir, is selling rapidly, and the volume of sales increasing every month. The sprocket chain drive on the "Steel King" is a new and valuable feature. The firm are making it in 8, 10, 12, 14, and 16 foot sizes, the last being especially suitable for railway work, village waterworks and heavy pumping. In the wood-working department a new and up-to-date plant for the manufacture of high-grade wood pumps, adapted for all purposes, was seen. The designs shown are very neat, and some features are decidedly superior. The firm use only good quality quarter-cut pine in their wood pumps, and evidently expect to do a large trade, judging from their extensive machinery and large stock of pump timber. Mr. Neil McAlpin, an old and experienced pump man, is in charge of this branch, and of the wood tanks, which range in size from one barrel to two thousand barrels. The extensive galvanizing plant was intensely interesting, a whole vane or a full complete section of fans being dipped in the great tank, which holds nearly twenty tons of metal, worth over two thousand dollars. Seeing is believing, and all my doubts of the efficiency of galvanizing vanished after witnessing the process. Mr. R. F. Höltermann, manager of the bee supply department, and editor of the *Canadian Bee Journal*, published by the Gould, Shapley & Muir Co., reports the largest sales in the history of this branch, orders coming from every part of the Dominion, and several shipments being made to England and Scotland. The Company have spent many years of intense and intelligent labor in establishing their business, and deserve the success which is undoubtedly theirs.

\$ \$ \$ \$



It Means Money!

In the cattleman's pocket to know that he can save an animal with Lump Jaw.

Mitchell's Anti-Lump Jaw

Is guaranteed to cure Lump Jaw in cattle. It never has failed, and if it should we will return your money.

Scores of Testimonials from Cattlemen.

Send for booklet; it is free. Price, \$2.00, postpaid. All dealers, or send to

W. J. MITCHELL & CO.,
DRUGGISTS,
WINNIPEG, - MANITOBA.

Are You Thinking of Building?

IF SO, TO YOUR ADVANTAGE TO WRITE

Dick, Banning & Co.,

WINNIPEG, MAN.

Money to Loan

FARM Loans made at lowest rates, easy terms of repayment, lowest legal charges. For further particulars, address,

OLDFIELD & GARDNER,

433 Main St., WINNIPEG.

The Gem Fence Machine

Will be exhibited at the Manitoba fairs to be held shortly. Do not fail to come and see the very best fence-making device made. It is especially well adapted for use in the Nor-West. Price \$5. Write for particulars.

McGregor, Banwell & Co.,
Windsor, Ontario.

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HOTEL LELAND

The Leading Hotel of the West.

ALL MODERN CONVENIENCES. RATES, \$2 TO \$4 PER DAY.
BUS MEETS ALL TRAINS.

W. D. DOUGLAS, Prop., Winnipeg, Man.

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and you will be surprised to learn that you have been paying too much money for your stationery. We have everything you want—Account Books, School Supplies, Municipal Forms, etc., and will do your printing neatly and cheap. Give us a trial order, or write for prices.

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THE ONLY ORIGINAL AND GENUINE
FISH BROS. WAGON,
made only at RACINE, WIS. Send for catalogue to us, or our agents for your territory.

Minnesota Moline Plow Company,
MINNEAPOLIS, MINN.

PLEASE MENTION FARMER'S ADVOCATE.

THE MANITOBA FARMERS' Mutual Hail Insurance Co.

HEAD OFFICE: - - WINNIPEG, MAN.

ORGANIZED under the laws of Province of Manitoba to give its farmer members safe and reliable hail insurance at actual cost.

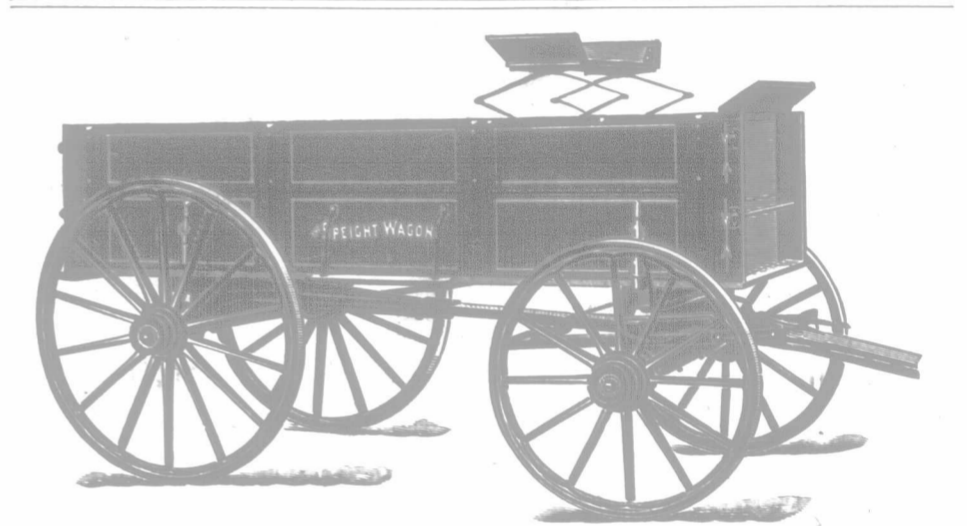
Every policyholder is a member of the company, and eligible to the election of an office at annual meeting of members.

We issue a five-year policy, giving a benefit of \$800 on a quarter-section.

For further information apply to

E. A. TAYLOR, MANAGER,

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H. F. ANDERSON, WINNIPEG, MAN., DISTRIBUTING AGENT. OR **THE SPEIGHT WAGON CO.,** MARKHAM, ONTARIO, HEAD OFFICE.

FARM HARNESS



For all purposes. The best made and at right prices. Write or call on

WRIGHT & VANVLEIT,
Harness, Saddlery, Etc.,
284 WILLIAM ST., - WINNIPEG,
(South side Market Square.)

STEAMSHIP Tickets

If you are going to the Old Country, or sending for your friends, apply to our nearest railway or ticket agent, who can supply outward and prepaid tickets at lowest rates.

Steamers leave Portland, Maine, every Saturday; St. John, every Wednesday; New York, every Wednesday and Saturday.

WILLIAM STITT,
General Agent, C. P. R. Offices,
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W. A. DUNBAR,
VETERINARY SURGEON,
5 1/2 JEMIMA STREET, - WINNIPEG.

Communications by letter or telegraph promptly attended to.

TELEPHONE 56. 25-23-11

Don't Work ALL THE TIME.

EVERYONE REQUIRES SOME RECREATION....

IF YOU WANT TO PASS THE TIME MORE PLEASANTLY, SEND TO US, WE HAVE EVERYTHING IN THE WAY OF

Sporting Goods....

SEND FOR OUR CATALOGUE AND SEE WHAT YOU'D LIKE.

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WINNIPEG, - MAN.

PHOTOS: Highest Quality. Reasonable Prices.

When you pay a visit to Winnipeg, call at our Studio, corner of Main street and Pacific avenue, and we will guarantee to give you a first-class likeness.

H. WELFORD, Photographer.

HAWTHORN HERD

OF DEEP-MILKING SHORTHORN.

3 heifers bred to Beau Ideal = 22554 =, of first-class quality and A 1 breeding.

Wm. Grainger & Son, - Londesboro, Ont.

GREAT AUCTION SALE!

THE ST. ANNE'S HERD of over 50 Pure St. Lambert Jerseys will be sold at the home of the proprietors.....

Massawippi, Stanstead Co., Que.,

WEDNESDAY, AUGUST 2nd, 1899.

The 5-year-old inbred Victor Hugo bull, Sir Wilfred of St. Anne's, winner of five first and two second prizes at the principal fairs in Canada. Young Hugo of St. Anne's, first prize yearling bull, having over 48 per cent. Victor Hugo. Six bull calves out of prize cows—Jolie of St. L. 3rd's Jolie, Queen Vic of St. Anne's 3rd, Pet of St. Anne's 2nd, and Jolie Juno of St. Anne's—all first prize winners at Toronto, London, Ottawa, Quebec, and Montreal. Thirteen daughters of Jolie of St. Lambert 3rd's Son; five daughters of Lady Fawn of St. A.'s Son; sixteen Golden Fawn daughters of Sir Wilfred of St. A. All grand St. Lambert Jerseys, and closely bred to the great St. Lambert cows. TERMS.—Six months' credit will be given on bankable notes, approved security, with interest at 7 per cent.; or 34 per cent. off for cash. Send for catalogue.

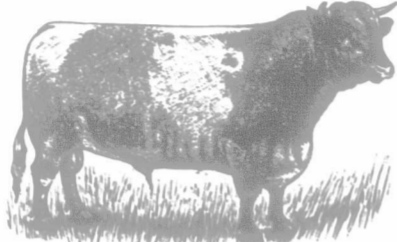
W. A. REBURN & CO.

2 Imported Shorthorn Bulls 2

4

2 - YEAR - OLD

HEIFERS.



ROYAL MEMBER (64741)

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1 - YEAR - OLD


HEIFERS.

HEIFERS ALL IN CALF TO IMPORTED BULLS.

Correspondence or a personal visit solicited. Catalogues on application.

H. CARGILL & SON, CARGILL, ONT.

Cargill Station and Post Office on G. T. R., within half a mile of barns.




NORTH NATION MILLS, P. Q.

W. C. Edwards

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IMPORTERS AND BREEDERS

Laurentian Stock and Dairy Farm,
Pine Grove Stock Farm,



ROCKLAND, ONTARIO.

Ayrshires, Jerseys, Shropshires, Berkshires.

Our excellent aged herd of Ayrshires is headed by our noted imported bull Cyclone. Tam Glen heads the young herd, and Lisgar Pogis of St. Anne's heads the Jerseys. The young stock are all from time-tried dams.

A. E. SCHRYER, Manager.

We can be reached either by steamboat, the C. P. R., or C. A. R.; the C. A. R. making connections with the G. T. R. at Coteau Junction. Rockland is our station on all lines.

Shropshires and Scotch Shorthorns.

The imported Missie bull, Scottish Pride, at the head of herd, assisted by British Knight. We have a few extra good young bull calves that will be ready for the coming season.

JOS. W. BARNETT, Manager.

PURE-BRED GUERNSEY CATTLE

Chester White Swine.



Duroc - Jersey Swine.

FOR SALE—Two young Bulls ready for service, and Heifers bred. First-class Pigs of all ages from imported and prizewinning sires and dams. Twenty head of HOLSTEINS for sale. Write for particulars and prices to WM. BUTLER & SONS, DEREHAM CENTRE, ONT.

GOVERNMENT ANALYSIS

LABORATORY OF INLAND REVENUE, OFFICE OF OFFICIAL ANALYST, Montreal, April 8, 1895.

"I hereby certify that I have drawn, by my own hand, ten samples of the ST. LAWRENCE SUGAR REFINING CO.'S EXTRA STANDARD GRANULATED SUGAR, indiscriminately taken from ten lots of about 150 barrels each. I have analyzed same and find them uniformly to contain:

99.99 to 100 per cent. of pure Cane Sugar, with no impurities whatever."

(Signed) JOHN BAKER EDWARDS, Ph. D., D.C.L., Prof. of Chemistry and Public Analyst, Montreal.

SHORTHORNS 9 BULLS, 4 HEIFERS,

Mostly Scotch-bred, and got by such bulls as Kinellar Sort (imp.), Northern Light (imp.), Prince and Prince Bismarck. Prices right. Correspondence Solicited, and Visitors Welcome.

G. A. BRODIE, Stouffville Sta., G. T. R. BETHESDA, ONT.

GLEN ROUGE JERSEYS.

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

W. G. PETTIT & SON, FREEMAN P. O., Burlington Junction, Ont.

10 SHORTHORN BULLS 10

By Indian Statesman = 23004 =, from 10 to 20 months. Twelve young cows or heifers with calves by side or in calf. Twelve ram and 20 Shropshire ewe lambs, sired by (Imp.) Flashlight. Also, Berkshire boars and sows, all of which will be sold at moderate prices. Farm half mile from Burlington Junction, G. T. R.

ADVERTISE IN THE FARMER'S ADVOCATE.

GOSSIP.

The Ontario Provincial Winter Fair will be held in London, December 12th, 13th, 14th, 15th. The prize list will probably be the best ever offered at a fat stock show in America. Everything points to a most successful exhibition. The Guelph Fat Stock Show will be held the previous week, and exhibitors will thus have the opportunity of taking in both shows in a circuit at a minimum of expense.

Messrs. W. C. Edwards & Co., Russell Co., Ont., are preparing a shipment of Shropshire and Lincoln sheep for Buenos Ayres, South America. This is the second venture of the kind made by this firm; first, made two years ago, consisting of Shorthorn cattle and some thirty sheep, having proved far from profitable; but they hope to profit by past experience in regard to the time of exportation and other details, and to do better this time, which we sincerely hope they may, for such enterprise is deserving of encouragement and success.

Messrs. A. & D. Brown, Iona, Ontario, have purchased from Capt. T. E. Robson, Ilterton, the imported Shorthorn bull, Blue Ribbon (63706), bred by S. Campbell, Kinellar, Scotland; sired by Royal James, and having in his pedigree such noted sires as Roan Gauntlet, Cumberland, and Champion of England. Blue Ribbon has been used very successfully in the herds of Mr. C. M. Simmons and Capt. Robson, and should do good service in the herd of Messrs. Brown, following such good bulls as imp. Royal George and imp. Warfare, who preceded him in service in the herd.

Mr. G. W. Clemons, St. George, Ontario, in clearing a change in his advertisement of Holstein-Friesian, writes: "Have just recently shipped four nice young Holsteins to D. A. Racicot, of Montreal, for his farm in Bagot Co., Que. The bull calf, Lady Akkrum 2nd's Colanthus, one of the best I have ever raised, and three heifers, Mary Mechthilde, Madge Merton 5th, and Inka 5th's Mercedes. I notice that in a stock note in the last issue of the ADVOCATE, when speaking of my young bull, Daisy Teake's King, you say that his half-sister, Daisy Teake's Queen, made 2.62 lbs. butter in one day in Winnipeg test of 1895. This should read 2.62 lbs. of butter-fat. The ADVOCATE had this mistake in the first report of that test, but it was corrected by Mr. Glennie in a subsequent issue. I believe Daisy Teake's Queen is the only four-year-old cow that ever produced 2.62 lbs. fat in a fair-ground test."

HOGS AT THE ROYAL COUNTIES SHOW.

There were short entries of every other variety but the Berkshires. In the section for boars over twelve months in this class, Mr. Edney Hayter's Highclere Topper came to the top as he had done at the previous shows of the season, Mr. Jefferson's Peel Swansea being placed 2nd. In boars under twelve months, Mr. E. Burbidge won first honors, and Mr. Benjafield's Manifesto, which had been first at Salisbury, was here placed second, and Mr. Swinwick had the reserve number.

Judges have differed immensely over the senior breeding sow class this season. Mr. Arthur Hiscock's May Burton III was placed first at Exeter, but at Salisbury the judge would scarcely look at her, but at Windsor she is reinstated as prima donna. Mr. Jefferson's deep, compact Peel Daisy being second to her, and the sows of the Earl of Carnarvon, Mr. J. A. Fricke, and Mr. Burbidge having to take subordinate positions. It will be interesting to see what will take place at the Royal. In the junior class for single breeding sows, Mr. G. T. Tompkin was first with a deep, full-shaped specimen, to which Mr. Jefferson's Peel Jessie was placed second, and the sow nearly as good as either, belonging to Mr. E. Burbidge, reserve. H. R. H. Prince Christian exhibited a fine, deep specimen, which was v. h. c., and a good sow of Mr. N. Benjafield's took honors. The young pairs of sows which the judges honored were very promising, which applies almost equally to Mr. Jefferson's first pen, the second one of Mr. E. Burbidge, and Mr. N. Benjafield's, which took reserve.

The Large Whites would have been only nine in number if all entries had been forthcoming, but Sir Robert Strenall's four were absent, consequently Mr. Sanders' Spencer and Mr. F. Allmand had it quite to themselves. Holywell Gigas, the second winner at Exeter, was first boar, and Mr. Allmand's Jove had second premium. In the female class, Mr. Allmand's Wrexham Belle and Bessie II. were the winners, both well-known as fine, lengthy sows.

JUNE SHORTHORN SALES IN UNITED STATES.

The public sales of Shorthorns, held June 7th and 8th, by C. L. Gerlaugh, Osborn, Ohio, and W. L. Wood, Williamsport, Ohio, were signally successful. The attendance was large, and sending twelve different States and the West India Islands, and prices ruled at very satisfactory figures. A significant feature was the presence of buyers from old Kentucky, once famous for fine Shorthorns. Mr. Gerlaugh's consignment of 29 head brought \$6,175, an average of \$212.53; the 16 females averaging \$232.18. The highest price paid for a bull was \$610, for imp. British Prince, a red two-year-old by Clan Campbell; Mr. A. Alexander, Morning Sun, Iowa, being the purchaser. The roan, home-bred yearling bull, Commodore, sold for \$365. The highest priced female was Prima Donna, a red-roan, five-year-old cow, who brought \$590, and was secured by John Cooper, Jr., Findlay, O. Mary Lavender, a red two-year-old, sold for \$490, to Wardrop & Son; Harlam, Ia. Missie May 2nd, a roan yearling, went to J. A. Gerlaugh, Harshman, O., at \$365. At Mr. Wood's sale 38 head averaged \$192.10. The roan yearling bull, Valasco Jr., by Valasco 21st, brought \$390, which was the highest price in this sale for a bull; the next highest being \$215. Two three-year-old cows by the World's Fair champion, Young Abbottsburn, brought \$500 each. One of these, the roan Abbottsburn's Champion Mary, sister of the famous Mary Abbottsburn 7th, went to J. W. Bothrock, Washington, C. H., O. The other, Phyllis Abbottsburn, a red, was bought by W. H. Colwell, Paris, Ill. Woodland Belle 7th brought \$100.

On June 7th, J. A. Teel, Rushville, Ill., held his fifth annual sale, at which 52 animals brought an average of \$100 each, the highest price, \$100, being made by Lady Cruickshank 5th, by Amos Cruickshank; sold to B. Whitsett & Son, Pre-emption, Ill.

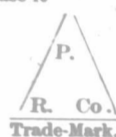


Persiatric Sheep and Animal Wash

For the complete and effectual removal of all insects or vermin peculiar to sheep and cattle. Powerful without being harsh; immediate in effect, without any irritating effects; it leaves the animal refreshed and in good spirits after use; does more than destroy the pests, it completely removes all traces of their attacks—healing sores or boils, curing open sores and leaving the skin whole and sound. Mr. G. A. Brodie, a prominent stock-raiser of Bethesda, Ont., used it with great success in castrating lambs, the wash healing the wounds rapidly and keeping the maggots away. He considers it the most effectual wash in the market, and heartily recommends it to farmers generally.

If your dealer hasn't it, write us for it, and tell us of anything special in the ailments of your flocks or herds and we'll advise you how best to use it.

THE PICKHARD RENFREW CO., Limited, STOUFFVILLE, ONT.



Durability Combined with Cheapness!

OUR HARNESS

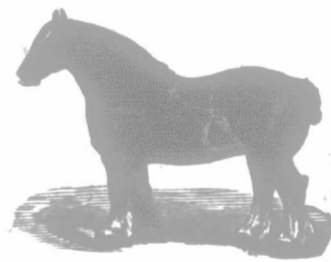
HAS STOOD THE TEST. IT WEARS BETTER AND LOOKS BETTER THAN ANY OTHER MAKE, AND CHEAPER.

PEIRCE BROS.

HARNESS MANUFACTORY, WINNIPEG, MANITOBA.

FOR SALE... IMPORTED AND CANADIAN-BRED Clydesdale Stallions

From One to Four Years Old. Also



SEVERAL THREE YEAR OLD FILLIES, All registered and warranted sound. Inspection invited.

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO.

FOR SALE: Nine Clydesdale Stallions

Just landed from Scotland; also a few imp. and home-bred Shorthorn females.

JOHN ISAAC, Kinellar Lodge, MARKHAM, ONT.

OHIO IMP. CHESTER WHITE PIGS.

Young stock, both sexes, for sale. Bred from imported and home-bred stock.

T. E. BOWMAN, BERLIN, ONT.

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BELLEVILLE BOGLE & JEFFERS, BUSINESS COLLEGE

Students have a **LARGER EARNING POWER** who acquire the following lines of preparation under our **efficient SYSTEM OF TRAINING. IT HAS NO SUPERIOR.**

1. Bookkeeping.
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4. Telegraphing (Commercial and Railway Work).
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Students may commence telegraphing on the first of each month, and the other departments at any time.

J. FRITH JEFFERS, M. A., Principal.
Address: **BELLEVILLE, ONT.**

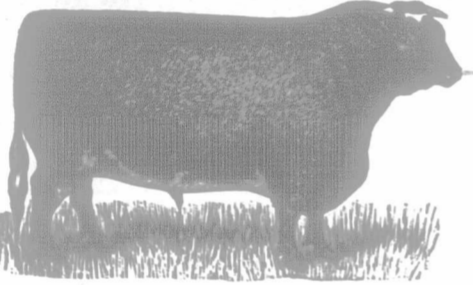
CLYDESDALES



We have several imported Clyde mares 3 and 10 years old for sale at moderate prices. Some of them in foal to Grandeur An imported Hackney mare in foal to Square Shot. Also Ayrshire bull and heifer calves. Write for prices or come and see

QUEEN.
D. & O. SORBY,
GUELPH, ONT.

ARTHUR JOHNSTON
Greenwood P. O. and Telegraph Office,



OFFERS FOR SALE
15 SHORTHORN BULLS
FIT FOR SERVICE; 3 IMPORTED.
25 COWS AND HEIFERS
Including 9 recently imported heifers. Prices right. Catalogues on application.
Claremont Station, C. P. R.
Pickering Station, G. T. R.
"NO BUSINESS, NO HARM."

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Imported Blue Ribbon = 17095 = and the famous Money-fuffel L. A. D. = 20521 =. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply

T. E. ROBSON, Ilderton, Ont.

Scotch Shorthorns For Sale:
90 HEAD TO SELECT FROM.

We are offering a number of cows and heifers (including some show heifers) from such sires as Valkyrie = 21806 =, Young Abbottsburn's Heir = 15947 =, and imp. Mariner = 2720 =, served by imp. Diamond Jubilee (Vol. 15) now at the head of herd. Farm 1 mile north of town.

T. DOUGLAS & SONS,
Strathroy Station and P. O.

SCOTCH SHORTHORN BULLS AND HEIFERS
HERD ESTABLISHED IN 1872.

Such sires as imported Royal George and imported Warfare have put us where we are.

A. & D. BROWN,
ELGIN COUNTY, IONA, ONTARIO.

FITZGERALD BROS., Mt. St. Louis, P.O.

Offer for sale six Short-horn Bulls from 9 to 14 months old. Also 2 year old roan bull, St. Louis = 2418 =, a Morton-bred bull with exceptionally grand pedigree. Also a few females of all ages, bred to imp. bull, British Statesman 057, 29, 20833, now at head of Hillsdale Telegraph Office; Elmvale Station.



NOTICES.

In W. J. Mitchell & Co.'s advertisement the price of Mitchell's Anti-Lump-Jaw Cure is quoted as \$2.50. We are advised by Messrs. W. J. Mitchell & Co. that this should be \$2.00, and make the change in their advertisement this issue.

The American Grass Twine Co. have now their two factories running full capacity. One of those is at Oshkosh, Wis., the other at St. Paul, Minn., and they are about starting a third at West Superior, Wis.

Horticultural Bulletin.—The second annual report published by the Western Horticultural Society has been issued. It contains, besides the report of the year's business and list of officers and members, a full report of the papers read at the annual convention, together with the discussions that followed each. The subjects treated are: "Hedges," S. A. Bedford, Exp. Farm, Brandon; "Apple Growing in Winnipeg," W. G. Fonseca, Winnipeg; "Early Difficulties in Apple Growing in Minnesota," Wyman Elliott, Sec. Minnesota Horticultural Society; "The Brandon Flower Show," P. Middleton, Brandon; "Cultivation of Plums for Manitoba," T. Frankland, Stonewall; "What the Past Year Has Taught Us," P. Stevenson, Nelson; "Fruit Growing in the Territories," A. McKay, Supt. Exp. Farm, Indian Head, Assa.; "Bee Culture," J. J. Gunn, Gonor, Man.; "Forest Conditions and Needs in Manitoba and the Northwest Territories," E. F. Stephenson, Crown Timber Inspector, Winnipeg; "The Pests of the Garden," T. Oldham, Brandon.

Messrs. John McGregor & Co., of Brandon, announce that they have just returned from the round-up at their Dakota ranch. The horses, numbering upwards of four thousand head, are in splendid condition this season. Foals are plentiful, and very little loss of mares. They point out that the term of broncho, as applied to these range horses, is erroneous, as the majority of them are bred from eastern mares, sired by imported Percheron, Cleveland Bay, and Shire stallions. Many of these horses will go from 1,300 to 1,500 lbs. at three years old. They have a very fine bunch at Brandon, and invite their friends to call and inspect them. See their advertisement elsewhere.

W. A. REBURN & CO.'S SALE OF ST. LAMBERT JERSEYS.

When the noted St. Anne's herd of pure St. Lambert Jerseys was sold by auction in 1896, a number of the best were purchased by some of the members of Mr. Reburn's family, and in the summer of 1897 they purchased a farm in Hatley Township, Stanstead Co., Que., and removed the herd to it. Jolie of St. L. 4th, Jolie of St. L. 3rd, Jolie Queen Vic of St. A. 3rd, Pet of St. L. 3rd, Queen Bess of St. Anne's, Dora of St. Anne's, and six or seven other cows that had won honor upon honor at all the leading fairs in Canada, and competed and won every dairy prize that they had entered for, not only winning over cows of every dairy breed that had won similar prizes in previous years, but scoring away above all former scores and breaking all previous records. These cows that made the old St. Anne's herd famous in days gone by were selected and retained by their present owners to start the foundation of the herd that is now advertised to be sold on the 2nd of August next. Jolie of St. Lambert 3rd's Jolie, who for many years carried off first honors, is with her yearling daughter by Lady Fawn of St. Anne's Son, among the lot; also Jolie's Juno, first at Toronto, London, Ottawa and Quebec; her three daughters and two granddaughters, all grand dairy animals and perfect types of the old St. Lamberts. Queen Vic of St. A. 3rd, a fifty per cent. pure Victor Hugo cow, and her yearling son by Lady Fawn's Son, having over forty-eight per cent. Victor Hugo blood, winner of first honors in his class at Sherbrooke last year, and from all appearance will again win a similar prize. Jolie Fawn, a granddaughter of Lady Fawn and Jolie of St. L., winner of first honors at Montreal and Ottawa (beating the Toronto winner), awarded by that expert judge, Mr. F. S. Peer, has just calved, and her immense udder, which is an exact reproduction of her great-granddam's, Lady Fawn, proves that the Judge had done wisely in placing her at the head. Her two daughters, both golden-fawns, show a striking resemblance to their dam. Among the younger cows, an exceptionally fine lot, are Hebe of St. Anne's, a two-year-old daughter of Victor Hugo of St. Anne's, fifty per cent. V. H., and out of a daughter of Romeo of St. Lambert, fifty per cent. Stoke Pogis 3rd, and Jolie of St. L. 2nd, by Stoke Pogis 3rd, and Jolie of St. L. Hebe won first last fall at Quebec, and her full sister, owned by Mr. R. H. Pope, won first at Sherbrooke in 1897 and 1898, and was sweepstakes female same place. Hebe shows great udder development, and is a heavy milker for one so young. Another two-year-old, a daughter of May Pogis of St. Anne's, she by Lorne 52nd and Jolie of St. L. 2nd, shows great milking qualities, and bids fair to follow the footsteps of her triple great-granddam, Jolie of St. L. Two first and second prize daughters of Pearl of St. Anne's, a granddaughter of Cheerful of St. L. (a twenty-pound daughter of Stoke Pogis 3rd), and Hebe of St. Lambert, three daughters of Pet of St. L. 3rd and 4th, all sired by Jolie of St. L. 3rd's Son's Pet of St. A. 2nd, a granddaughter of Pet of St. L. and Romeo of St. L., and her two daughters by Jolie of St. L. 3rd's Son.

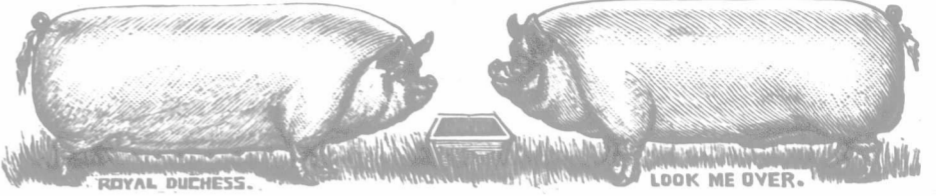
The present stock bull, Sir Wilfred of St. Anne's, a son of Hebe's Victor Hugo 2nd, who for many years won the sweepstakes and first prize at the leading fairs in Canada, has already won five first and second prizes in strong competition. Sixteen of his daughters, with two exceptions, are solid light golden-fawn, and being out of the above lot of grand dairy cows, and prizewinners, ought to sustain the reputation won by their ancestors in the showing and elsewhere.

One of the many great victories won by this herd is that they have always captured the breeders' herd prize, winning the special gold medal offered for this at Ottawa; also special prize at Toronto, London, Montreal (over the Toronto winner that year), and Sherbrooke and Quebec last fall.

Massawippi, the nearest station, about two miles from the farm, is on the Boston & Maine Railway, which connects at Sherbrooke with the Grand Trunk, Canadian Pacific, Quebec, Montreal, and Intercolonial Railways. Intending visitors will have no trouble reaching the farm, as the above railways run their trains in connection with the Boston & Maine Ry.

AT SUMMER HILL IS THE LARGEST HERD OF... IN THE DOMINION.

Imported Yorkshires



Large, Lengthy, English Type. Among them being the first choice of the most important prize-winning English herds. My Canadian-bred herd comprises the choicest individuals, selected from the best herds in the country, and is headed by the undefeated prize-winning boar, Look-Me-Over 2512. I am offering young stock directly imported, imported in lam, or Canadian-bred. We ship to order, prepay express charges, and guarantee stock as represented. Trains met at Hamilton by appointment.

D. C. FLATT, MILLGROVE, ONT.

W. D. FLATT,
HAMILTON P. O. and TELEGRAPH OFFICE,



OFFERS FOR SALE
Twenty-two Shorthorn Bulls
CHOICE
from three to fifteen months old.

Persons requiring show bulls can be supplied from this bunch.

TWENTY COWS AND HEIFERS
served by imported bull, Golden Fame = 26056 =. Farm 6 miles from Hamilton. Catalogue sent on application. Visitors met at G. T. R. or C. P. R. if notified. Prices consistent with quality. Inspection invited.

SPRINGHURST SHORTHORNS

Herd bred for practical usefulness, and produces as large a proportion of top show cattle as any herd in Ontario. Young stock, both sexes, for sale.

Exeter Station, G. T. R., **H. SMITH,**
half mile from farm. **HAY, ONT.**

FOR 60 DAYS MY ADDRESS WILL BE

GEORGE HOTEL, Shrewsbury, Eng.

Orders for high-class **Sheep AND Cattle** will receive careful attention. Sheep imported by me have won more premiums in eight years than all other importations combined.

ROBERT MILLER, Stouffville, Ontario.

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. Baron Blanc 11th at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON,
DENFIELD, ONT.

Maple Lodge Stock Farm

SHORTHORNS.—Imported Knuckle Duster, and the great sire and show bull, Abbottsford, in service. Several choice heifers for sale, and a grand lot of young bulls by **Caithness**, from good milking dams. Some splendid Leicester ewes and rams for sale also.

A. W. SMITH,
MAPLE LODGE P. O., ONT.

JAMES COOPER & SON, KIPPEN, ONT.

IMPORTERS AND BREEDERS OF **Registered Shropshires.**

SHROPSHIRE of the best English blood. Fashionably bred and true to type. Only the best specimens of the breed kept. Selection in breeding our stronghold.

50 ram and ewe **20** yearling rams
lamb for sale also to sell.

A limited number of yearling ewes.

BRAMPTON JERSEY HERD.

Offering high-class A. J. C. C. cows and heifers in calf, and heifer calves; 9 choice young bulls; High-grade cows in calf; and Berkshires.

B. H. Bull & Son,
BRAMPTON.

S. WICKS & SONS

MOUNT DENNIS, ONT.,

Offer two Registered A. J. C. C. Jersey Yearling Bulls. These are grand youngsters; cheap if sold at once. We have also some fine Registered C. K. C. Collie Pups; also some fine young Registered Bitches. Manufacturers of the Skee Hot Water Incubator. Hatches 100 per cent. The best and most scientific incubator in the market.

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SHORTHORNS

I have six young females for sale—three are in calf and three old enough to be bred. These heifers have four or more crosses of the finest Booth sires, on imported Marr and Gordon Castle foundation, a desirable and needed line of breeding.

D. ALEXANDER, Bridgen, Ont.

BONNIE BURN STOCK FARM

Carries Isabella, Strawberry, and other noted Shorthorn strains, on which has been employed such sires as Kinellar Sorri (imp.) and Northern Light (imp.). Shropshires and Berkshires. Farm within sight of station. **D. H. RUSSELL, Stouffville, Ont. om**

Jersey Cattle

THAT WILL PUT

MONEY IN YOUR POCKET.

Mrs. E. M. Jones,

Box 324. **BROCKVILLE, ONT., CAN.**

F. W. STONE ESTATE,

GUELPH, ONTARIO.

The first Hereford herd established in Canada by importations in 1859 of the best prizewinners of England, followed by repeated further importations, including winners of first prize at Royal Agricultural Show. Choice young Hereford Bulls for sale. Also McDougall's Sheep Dip and Cattle Wash, fresh imported, non-poisonous and reliable; thoroughly tested by over forty years' use on farms of above estate. **om**

HOLSTEIN BULLS

that we think you will want when you know their breeding, and the large OFFICIAL milk and butter records of their nearest ancestors. Six of them are sired by a son of our great cow, Korndyke Queen, others by sons of De Kol 2nd, and some by Manor De Kol. Heifers and young cows of equal breeding. It's better to buy the best. We furnish papers to pass them through without duty or detention. There is no quarantine. Write for just what you want.

Henry Stevens & Sons, Lacona, N. Y.

CHOICE AYRSHIRE BULLS

Four calves dropped in August, October, December and March, and sired by Craigieles of Auchenbrain (imp.), first prize bull at om Toronto in 1897 (the only time ever shown).

W. W. BALLANTYNE,

Formerly Thos. Ballantyne & Son, Stratford, Ont. "NEIDPATH FARM" adjoins city, main line G. T. R.

Six-Young Ayrshire Bulls-Six

FOR SALE!

From eight to ten months old; all imported in dam, and all from good herds. Will sell them right. Address

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Manager to W. W. Ogilvie. **LACHINE RAPIDS, QUE.**

MEADOWSIDE FARM,

J. YUILL & SONS, Props., Carleton Place.

Breeders of high-class, deep-milking Ayrshires. Sweepstakes young herd at Ottawa. Shropshire sheep from prizewinning stock. Berkshire pigs and Barred Plymouth Rocks. Young stock for sale. Visitors met at Queen's Hotel. Give us a call.

DUROC-JERSEY SWINE

We have a fine lot

First-Class Stock

of all ages and either sex. Address,

TAPE BROS., Ridgetown, Ont.

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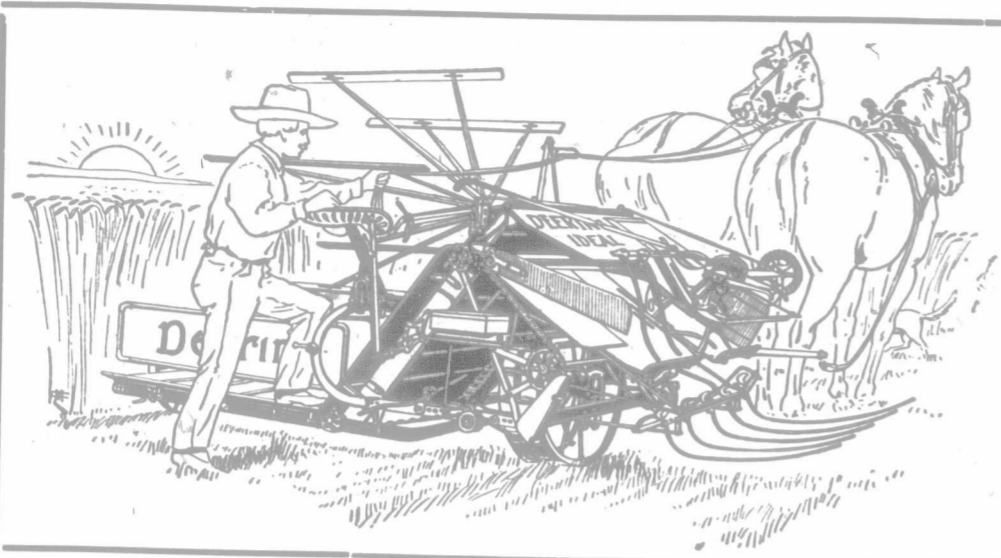
UP-TO-DATE HERD OF CANADA!

TAMWORTHS

CHOICE PIGS SIX TO SEVEN WEEKS OLD.

Send for Illustrated Catalogue. Address, **om**

H. D. SMITH, COMPTON, QUE.



DEERING TWINE

IS JUST WHAT THE TAG SAYS IT IS.

We put up our twine in ordinary shaped, flat sacks (see illustration below), which are useful about the farm when twine is used. These bales stand up nicely, and you can stick a bale under your buggy seat or in some odd corner of your wagon load.

WE use rope in tying our bales—15 feet to each sack. Use this to tie up your cattle or the colts.

There are about 2 lbs. of bagging and ties to each bale, which are counted in weight of twine, and have to be paid for. Why not buy

DEERING

and get value for every cent paid out?

Our twine is even and strong; made under very close inspection. We make more twine than any three other twine concerns in the world. Last year we made 36 per cent. of all twine used in the United States and Canada. We use nothing but the very best Philippine Manilla fiber. There is a range of 4 cents per lb. between lowest and highest grades of Manilla fiber. You will now understand why some concerns offer cheap twine, which you would find dear at any price. The Philippine war has made the price of good twine high this year.



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or call on our nearest agent for catalogue, pocket memorandum book and other DEERING printed matter.

Every farmer who answers this advertisement, mentioning the ADVOCATE, will receive the

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six months FREE.

Deering Harvester Co.,
WINNIPEG, MAN.



Write us, or call at nearest DEERING AGENCY, for our Twine Booklet, telling you all about the different kinds of fiber.

ROYALTY in Europe have found it profitable to use DEERING MACHINES on their estates. We mention Lord Salisbury and Lord Roseberry, and the Estate of Prince Bismarck, of Germany, as examples, and have not space to mention more.

Every Canadian farmer, lord of his own broad acres, should own a DEERING, and save trouble, worry and horseflesh.

DEERING manufactured and sold

The First Harvester,
The First Wire Binder,
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and have to-day in the

"IDEAL" the lightest-running, strongest and most successful BINDER in the world.

That is why we have recently added 23 acres to our large plant. That is why we are manufacturing more machines than any three of our competitors combined. That is why we have run our factory night and day for years. That is why we have opened up here, seeking your patronage and good-will.

AYRSHIRES FOR SALE.

The kind that can speak for themselves. Size, constitution, dairy and show combined. Six young bulls for sale, by Glencairn 3rd (imp.), dam Primrose (imp.). Five from Napoleon of Auchenbrain (imp.). Their dams are all Glencairn heifers. Five of their dams were shown last fall at Toronto, London, and Ottawa. Also a few good cows. No culls sold.

JAMES BODEN, TREDINNOCK FARM,
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PINE GROVE FARM HERD OF LARGE YORKSHIRES.

Imported and Canadian-bred, from the Hasket family, which has taken more prizes at the leading fairs in Canada and the World's Fair at Chicago than any other family of Yorkshires in America. Young boars and sows fit for breeding for sale. Correspondence solicited, which will receive prompt attention.

JOSEPH FEATHERSTON, Streetsville, Ont.

JAS. DORRANCE, SEAFORTH, ONTARIO.

BREEDER OF

Shorthorn Cattle and Berkshire Pigs

Young stock always for sale.

SPRING OFFERING

Yorkshires

AND

Berkshires

A fine lot of boars and sows eight weeks old. Pairs and trios supplied, not akin, of the best breeding and individual merit. A number of Yorkshire boars fit for service, and fine lengthy sows in pig to an imported boar. Berkshires, all ages, quality of the best. Write H. J. DAVIS, BOX 290, WOODSTOCK, ONT.

Breeder of Yorkshires, Berkshires, Shorthorns.

LARGE ENGLISH BERKSHIRES.

Herd headed by four first prize stock boars of large size, strong bone and fine quality. Young Boars and Sows, all ages, for sale. Orders booked for spring pigs.

GEORGE GREEN, - FAIRVIEW P.O., ONT.

Telegraph and Station: Stratford, G. T. R.

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High-class Berkshires of the large English bacon type, bred from the best specimens of the best importations. Young Boars and Sows of breeding age for sale. Two boars farrowed last June. Also choice spring pigs six to eight weeks old. Can supply pairs not akin. Yearling Cotswold Rams and Ewes for sale.

R. P. SNEEL, Snelgrove, Ont.

Large English Berkshires.

HERD headed by two imported boars—Nora B's Duke and Royal Star III., half-brother to Columbia's Duke, which recently sold for \$1,200. Choice pigs, all ages. Write for prices.

H. BENNETT & SON, St. Williams, Ont.

OXFORD HERD OF POLAND-CHINAS

The home winners of the imported boars, Conrad's Model and Klondike, assisted by Bacon Boy and Lennox. Has won 64 out of a possible 69 first prizes. Stock of all ages for sale. Write for prices or come and see

W. & H. JONES, OXFORD CO., MT. ELGIN, ONT.

HENRY ARKELL, ARKELL, ONTARIO.

IMPORTER AND BREEDER OF OXFORD-DOWN SHEEP.

Animals of all ages and both sexes for sale. Have some imp'd RAM LAMBS. Prices reasonable.

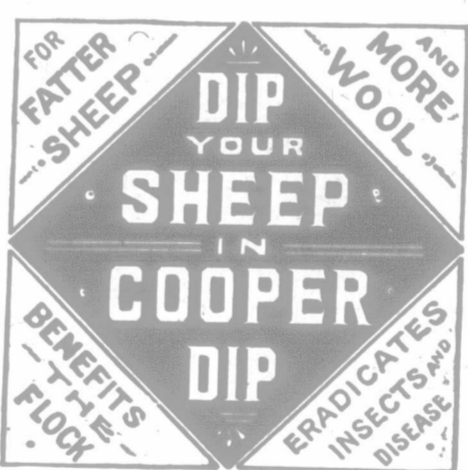
W. W. Chapman,

Secretary of the National Sheep Breeders' Association, Secretary of the Kent or Romney Marsh Sheep Breeders' Association, 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.

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Used and endorsed by Hon. John Dryden, Minister of Agriculture, Toronto, Ont., and leading breeders everywhere.

SUPERIOR TO ALL LIQUID DIPS.

Twenty-five gallon packet, 50c.; one hundred gallon packet, \$2.00. If druggist cannot supply, send \$1.75 for one hundred gallon packet to

EVANS & SONS, MONTREAL OR TORONTO.

Book premiums on application to COOPER DIP, Galveston, Texas.

SCABBY SHEEP. \$50.00 REWARD

To any party who can produce a scabby sheep which the Lincoln Dip will not cure. Write for particulars.

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Barred Plymouth Rocks

(EXCLUSIVELY). 40 good breeding hens for sale at 40c. to \$1 each. Order at once and secure first choice.

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Will do all knitting required in a family, homespun or factory yarn. SIMPLEST KNITTER ON THE MARKET. We guarantee every machine to do good work. Agents wanted. Write for particulars.

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Splendid Prizes!

The most interesting prize system ever offered. Every reader should learn about it. Write for full particulars to the most valuable and entertaining paper of its class in America. Address,

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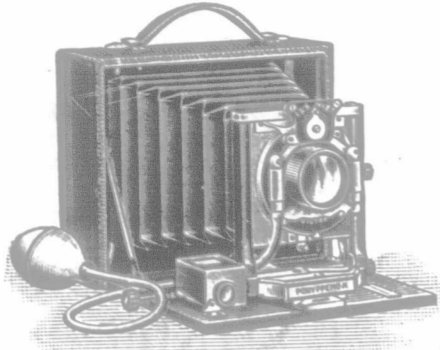
Used by all Live Stock Record Associations. Sheep size, per 100, \$1.50. Hog size, per 100, 1.50. Cattle size, per 100, 2.00. Punch and Pliers for attaching labels to ear, each \$1.00. Name on one side and any numbers wanted on reverse side. F. S. BURCH & CO., 178 Michigan St., CHICAGO, ILL.

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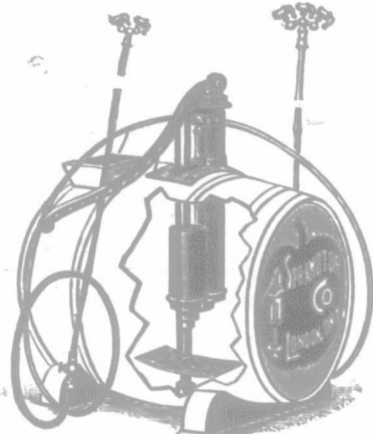
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ROCHESTER OPTICAL CO.,
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ALL SPRAYING, DISINFECTING AND
WHITEWASHING CAN BE
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SPRAMOTOR

It is the result of most careful and exhaustive experiment. Each feature was thoroughly tested before being placed on the market.



If you desire any further information, let us know and we will send you a 72-page copyrighted catalogue and treatise on the diseases affecting fruit trees, vegetables, etc., and their remedies.

SPRAMOTOR CO.,
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Mention this paper. AGENTS WANTED. -om

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NON-POISONOUS
SHEEP DIP
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Disinfectant
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Germicide

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases in Animals.

"Little's Patent Fluid" will destroy the infection of all fever germs, and all contagious and infectious diseases, and prevent contagion from one animal to another, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

NO DANGER!
SAFE, CHEAP, EFFECTIVE.
BEWARE OF IMITATIONS.

Sold in large tins from 25 to 40 gallons of at... strength required. Special terms to breeders, ranchmen, and others requiring large quantities. Sold by all druggists. Send for pamphlet.

ROBERT WIGHTMAN,
DRUGGIST, OWEN SOUND, ONT.
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London Printing & Litho. Company, Ltd.,
LONDON, ONTARIO.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE

GOSSIP.

Mr. D. Alexander, Bridgen, Ont., who advertises a few Shorthorns from his choicely-bred and thick-fleshed herd, writes:—"Our wheat is a failure, and I see no better way of making up the deficiency. I did not intend selling these females, as we are rather lightly stocked. I feel more like keeping them, as they are good and from stock that are mostly gone to the States, and giving much satisfaction."

Mr. Aaron Barber, Aron Springs, N. Y., has sold both his aged and young show herds of Shorthorns to Mr. W. A. Boland, of New York City, who has a large farm at Grass Lake, Mich., and who is ambitious to own one of the best herds of Shorthorns in America. The sale includes fifteen head, among which are the four-year-old bull Sharon Marshal, the yearling bull Deputy Marshal, and the great cow Mary Abbotsburn 1th. It is said to be Mr. Boland's intention to exhibit these cattle at the coming fairs in the West this year.

More sheep are being imported from Great Britain to Canada and the United States this season than for many years past. Among the Canadian breeders who are making importations are A. W. Smith, Maple Lodge; John Campbell, Woodville; Robt. Miller, Stouffville; John Jackson, Abingdon; D. G. Hamner & Sons, Burford; A. J. Watson, Castlederg; J. H. Patrick, Iderton. Several of these gentlemen have commissions to purchase and import for other breeders sheep of various breeds, and we learn that a number of the winners at the Royal show at Maidstone have been secured for Canadian sheep-breeders.

AN IMPORTANT SHIPMENT OF SHORTHORNS.

Last month Mr. William Conley made selections from several prominent Canadian herds of Shorthorns for Mr. Andrew Chrystal, of Marshall, Mich., and carried away one of the best consignments of cattle that has left Canada in recent years. From J. & W. Russell, of Richmond Hill, who worthily won high honors at the World's Fair in Chicago, capturing the sweetstakes for best young herd and championship for best bull of any beef breed under two years old, was purchased three capital heifers, one of which, Queen Mary 3rd, a two-year-old, was sired by Scarlet Velvet, who was from the same imported dam as Aberdeen, winner of first prize at Toronto Industrial Exhibition two years in succession. Her dam, Queen Mary, was one of the first prize herds at Chicago, of four animals under four years old, the got of one sire, and her granddam, imp. Roan Princess, was a first prize winner in Scotland. She was full sister to Lord Stanley, that headed three first-prize herds at Chicago, and won three firsts himself singly. Fair Queen is another two-year-old from the same herd and by the same sire, dam by Prince Royal, who was two years first in his class at Toronto, and headed the first herd in 1882. Gipsy Queen 2nd, by Prince, another young cow from the Russell herd, was got by Prince, who sired a heifer which was sold to Mr. Miller, of Storm Lake, Iowa, for \$800, and another sold for \$400. From the herd of Mr. J. M. Gardhouse, Highfield, Mr. Conley secured the large, thick-fleshed, red two-year-old heifer, Fancy's Pride, sired by the imported Missie bull, Scottish Pride, her grand-sire being the imported Nonpareil bull, Albert, bred at Kinellar, Scotland. This heifer is in calf to the imported Duthie bull, Prime Minister. Snowflake, a roan two-year-old from the same herd, is one of the favorite Crimson Flower tribe, sired by imp. Scottish Pride, who is a son of the renowned bull, Pride of the Morning. She has for grandsire imp. Guardsman, the sire of the great show bull, St. Valentine, and for great-grand sire, imp. Albert, by the Cruickshank bull, Vermont. This heifer is also in calf to imp. Prime Minister. From Mr. Gardhouse was also secured the beautiful imported heifer calf, Mina of Highfield, a smooth, sweet, even heifer of approved type. She was sired by My Lord, a Missie bull bred by Mr. Duthie. Her dam, Mina Gladstone's Rose, bred by the representative of S. Campbell, Kinellar, Scotland, and sired by Emerald, was a prizewinner in Scotland in 1898, and is half-sister to Mr. Flatt's stock bull, Golden Fame. From the Sheriff Hutton herd of Mr. Wm. Linton, Aurora, was chosen the two-year-old heifer, Sowerby's Bride Elect 3rd, of whom her enthusiastic breeder says "she contains in her make-up more of the blood of Royal of England, Highland of Scotland, Philadelphia Centennial, Chicago Columbian, and Toronto Industrial winners than any other heifer on this continent." Sowerby's Red Lilly, from the same herd and by the same sire, Blucher, bred by Messrs. J. & W. Russell, is of another branch of the Sowerby family, is a great big grower, a good feeder, girthed seven feet the day she was two years old, and if properly treated cannot fail to make a prizewinner.

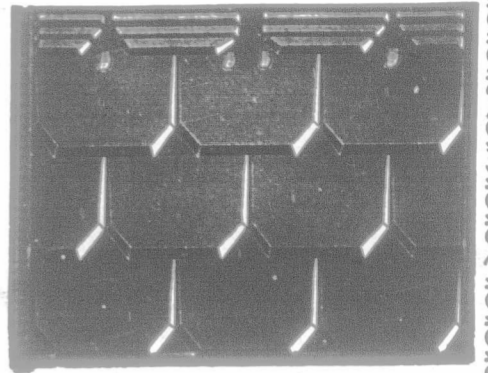
From Mr. W. D. Flatt, Hamilton, was procured three females and the very promising young red bull, Golden Fame's Heir, by imp. Golden Fame, for which Mr. Flatt paid \$720 when he was but thirteen months old. His dam, Violet, a handsome young cow of fine quality, was by imp. Kinellar Sort, by Royal James, granddam by Athelstane, by the imported Cruickshank Victoria bull, Vensgarth, imported by Hon. John Dryden, and used with great success in his herd. Of this young bull Mr. Flatt writes:—"He was pronounced by competent judges the best calf in America. He has plenty of size and is smooth as a dollar, perfect in his general conformation. Before leaving for Great Britain, I instructed that this calf should not be sold, but Mr. Conley must have used some persuasive power to secure him; in fact, the whole farm were very choice things." The roan yearling heifer, Nonpareil 52nd, was sired by Aurora Borealis, who was by the imported Cruickshank bull, Northern Light, and out of Rose of Strathmore, of the favorite Rose of Strathallan family. Her dam, Nonpareil 51st, of the choice Cruickshank family of that name, was by Stanley, a first prize and sweetstakes winner at Toronto, and sire of Lord Stanley, a first prize champion ship winner at the World's Fair. Empress 5th is a smooth, even and well-proportioned red yearling heifer, by Scotsman 2nd, by Scotsman, dam Missie of Neidpath, of the Uppermill Missie family, from which came Marengo, the champion bull of the Royal English show of 1888. Daisy of Strathallan 20th is a very promising red heifer calf by imp. Blue Ribbon, bred by S. Campbell, Kinellar, Scotland, and sired by Royal James, dam Daisy of Strathallan 13th, of the famous Strathallan family, which has probably won more prizes in Canada than any other.

Cover your Barns

WITH

Eastlake Shingles

Galvanized or Painted.



Because

They are quicker laid than any others—fitting perfectly by means of their patent side lock, not found in any other shingle.

They give absolute protection from all kinds of weather, and are fire, rust and lightning proof.

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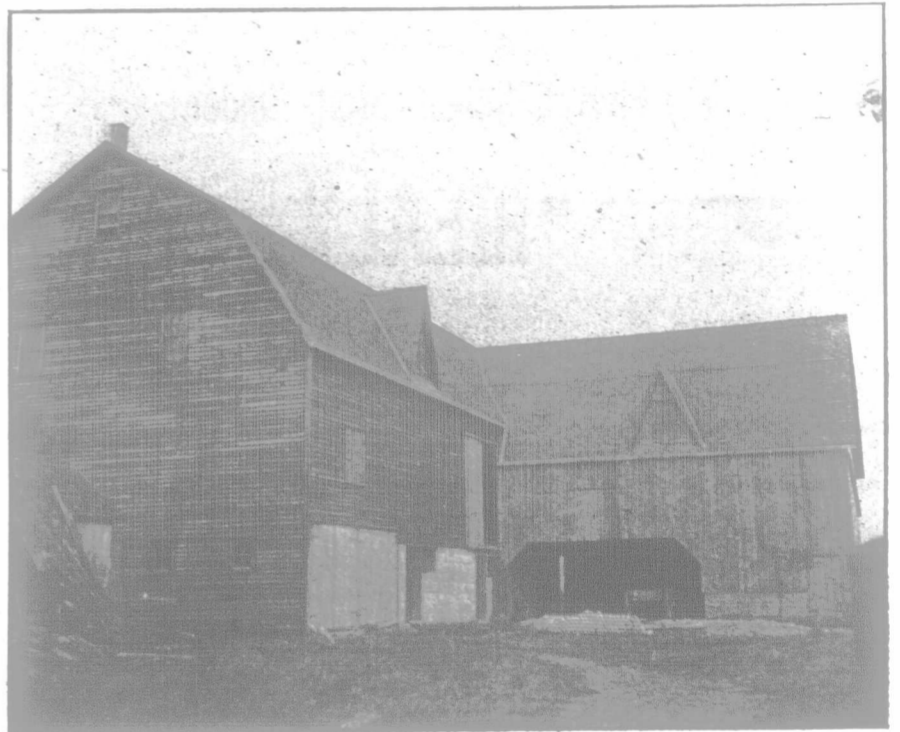
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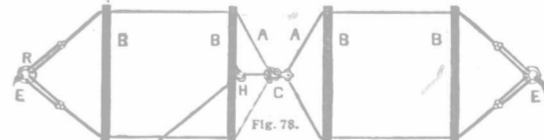
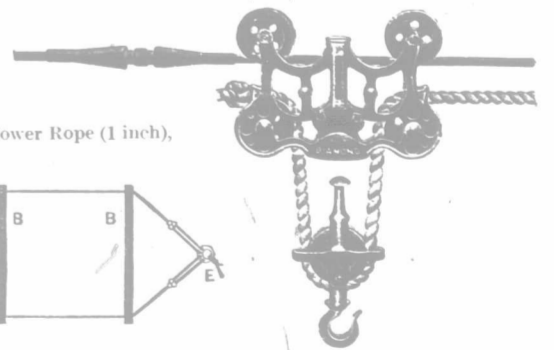
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FOR **STOCK RAISERS.**

LUMP JAW has been transformed from an incurable to an easily curable disease. The entire credit for this wonderful result is due to

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When this remedy was discovered no other real cure was known. No other positive cure is yet known. **FLEMING'S CURE** was first introduced in Saskatchewan, and from there its reputation has spread over the entire continent. It is the only remedy endorsed by leading ranchers, shippers, and stock journals. It is positively guaranteed; money is returned if it fails. One bottle usually cures one to five cases.

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Were awarded to 8 exhibitors at the Industrial Fair, Toronto, and Western Fair, London, 1897, who used **WINDSOR SPECIAL CHEESE SALT** in curing cheese exhibited, and to 9 exhibitors at the same exhibitions who used **WINDSOR SPECIAL BUTTER SALT** in salting butter exhibited.

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Awarded for best exhibits of Creamery and Dairy Butter at both exhibitions were won by exhibitors using **WINDSOR BUTTER SALT.**

NO STIPULATION WAS MADE AS TO THE USE OF WINDSOR SALT.

Cattle, Hog & Sheep LABELS.
Spring ear punches to suit. Pat. grain truck and bagger. Send for circular & prices to **R. W. JAMES, Farm Implement Forwarding Agency, -om Bowmanville, Ont**

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The Ontario Agricultural College will reopen on **SEPTEMBER 26th, 1899.**

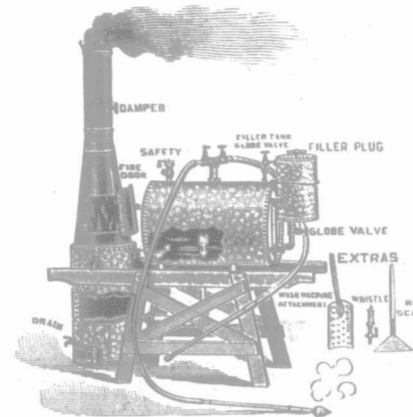
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Tank Heater and Steam Generator



Is built upon honor and sold on its merits, under a positive guarantee to do everything claimed for it. We claim that it is the most durable in construction; the most economical of feed and fuel, requires the least attention, cooks the quickest; is the safest and lasts the longest. All these claims and many others are backed by the experience of those who have used them. Read this one:

Oak Lodge Stock Farm, Burford, Ont., Feb. 4, '99. Messrs. Rippley Hardware Co., Grafton, Ill.

Gentlemen,—I am in receipt of your letter of January 19th. I would have replied earlier, but I wished to thoroughly test the Cooker before making any statements. I have made a pretty thorough test of it, and I am satisfied that it does all you claim for it. My hogs have done much better since I started using your Cooker. I am feeding ground grain, which I scald and feed while warm. I am also using the Cooker as a means of heating my hog pens, by having steam pipes running through the pens. Last week when the thermometer was several degrees below zero, the pens were quite comfortable, and I saved several litters of young pigs that I am sure would have perished with the cold. I take pleasure in recommending your Cooker.

Yours truly, **J. E. BRETHOUR.**

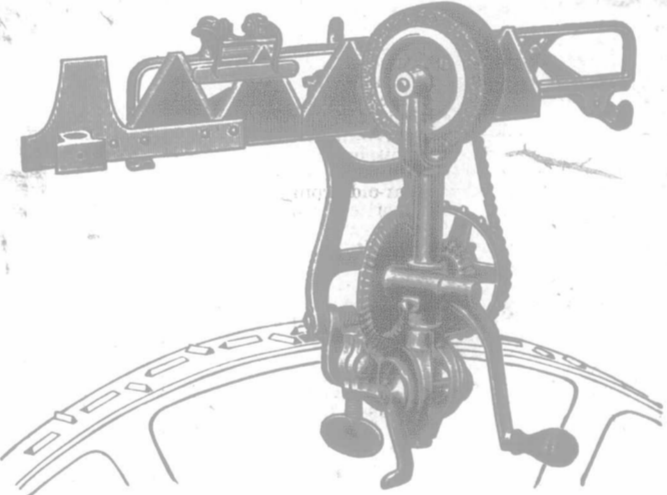
We have hundreds of others equally good, and guarantee all to be genuine, under forfeiture of \$500. **REMEMBER** this was not designed to be a cheap cooker, but to be the **BEST COOKER.** They are built of the best galvanized boiler steel, and made in two convenient sizes.

This Cooker is now in use by some of the best breeders in Canada. Special prices quoted for July and August only. See it exhibited in operation at Toronto Industrial Fair, London Fair, Burford Pat Stock Show, and Brandon Fair, Man. Patent applied for in Canada. Write us for circulars, testimonials, prices, etc.

RIPPLEY HARDWARE COMPANY, Patentees and Mfgs., Grafton, Ill.

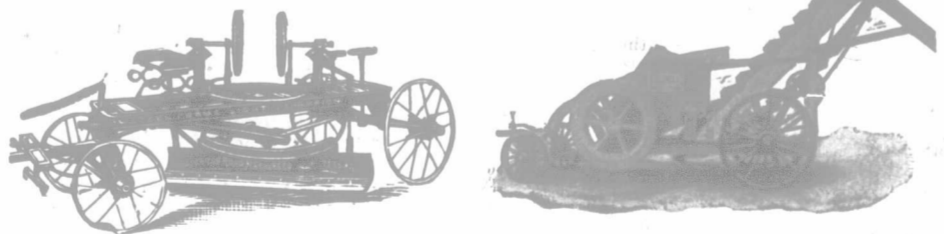
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THE picture shows very cleverly our **HANDY GRINDER** for sharpening machine knives. It is a capital good article and fills a long-felt want. The machine may be clamped to the wheel of a mower or binder, or to any ordinary work bench. The cutter bar with the sections attached is held firmly in the machine and may be twisted, turned or inclined at any angle to the emery wheel. Then the wheel itself can be turned to any direction, or may be moved backwards or forwards and held firmly in any position. When the handle is turned the wheel responds promptly and rapidly. No better machine for its purpose could be devised. The diameter of the wheel is 4 1/2 inches and its width 1 1/2 inches. The drive chain or belt is metal, and cannot wear out. Weight of each machine boxed for shipment is 20 pounds. Price, complete, \$5.00. The edges of the wheel are flat, and thus the machine may be used for other purposes, such as grinding Scissors, Jackknives, Hoes, Butcher Knives, Cutting-box Knives, etc. The Handy Grinder will cost you \$5.00, but you would not take \$25.00 for it if you could not get another. Send \$5.00 in a registered letter for one of these Handy Section Knife Grinders.



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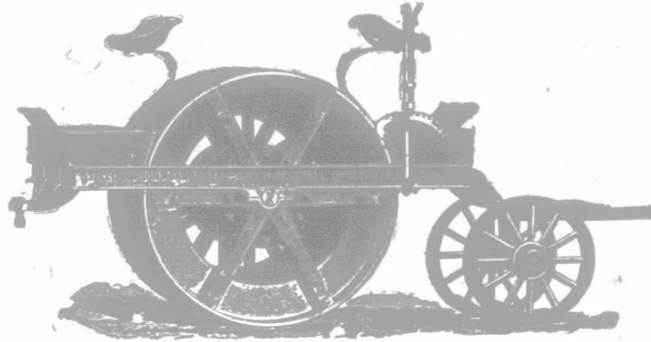
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NOT ONLY WILL IT GIVE YOU

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BUT IT WILL RUN YOUR **Chopper, Feed Cutter, Pulper, Grindstone, Etc., Etc.**

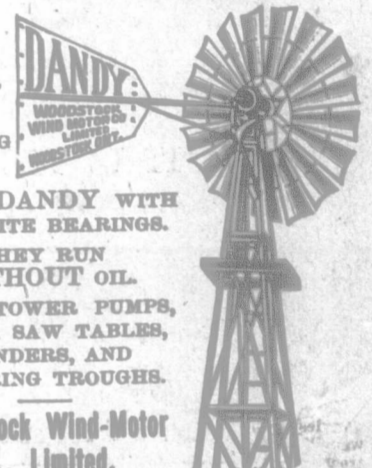
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which is a tar product, is also a cheap and effective

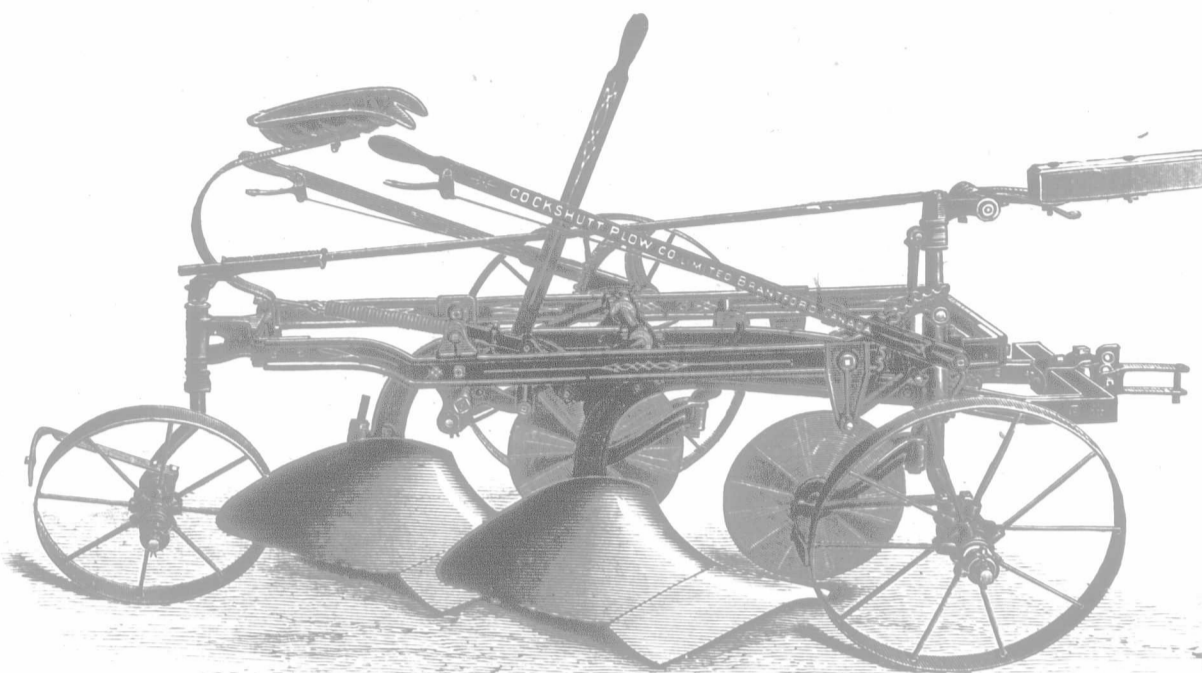
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WE SUPPLY THIS VACCINE IN TWO FORMS:

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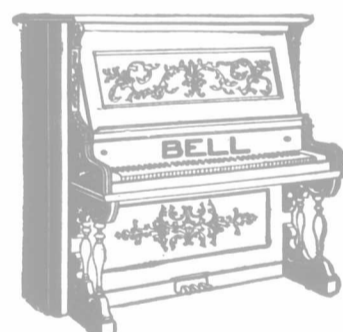


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