

Vol. XXXIV. LONDON, ONTARIO.

NOVEMBER 20, 1899.

WINNIPEG, MANITOBA.

No. 490

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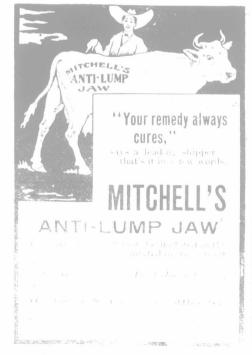
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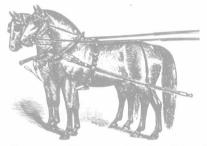
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REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875. LONDON, ONT., AND WINNIPEG, MAN., NOVEMBER 20, 1899.

No. 490

Charles A. Murray has been appointed to the position of Dairy Superintendent, rendered vacant by the dismissal of C. C. McDonald. Mr. Murray is a son of Assistant Superintendent Murray, of the C. P. R., and advises us that his experience extends over a period of nine years in the States, principally in connection with dairy supply firms in the building and equipping of creameries. He has also attended the dairy schools at Madison, Wisconsin; Ames, Iowa; and at Guelph, taking up special work. He expects to open the Dairy School early in January, full particulars of which will be available at an early date. Mr. Murray has a very difficult position to fill, owing to the disjointed condition of the dairy industry in this Province, and we trust he has the qualifications necessary to make a success of his department, though many people were expecting that the position would go to one of our well-known Canadian dairy experts.

Dairy Cows vs. Stockers.

In some of the districts around Winnipeg, where home dairying is carried on most profitably in conjunction with grain farming and stock raising, many farmers are disposing of their young stock at the very favorable prices prevailing and investing the cash received in the improvement of their stables and the purchase of more dairy cows. The introduction of the hand separator so reduces the labor of the home dairy, and the strong demand and good prices for dairy butter during all this season, has given a great impetus to this industry. While there is a good demand, at good prices, for young cattle, there is no less a demand for in-calf cows. While it may be profitable to dispose of young steers and put the money into cows, it is questionalle whether it is wise to sell the heifers. When a man has been breeding from cows that are good dairy cows, and using a bull likely to intensify these desirable qualities, it is very improbable if cows can be bought, without the most skillful selection, that will prove as profitable as would the females bred at home. This is a question worthy of careful consideration before a price is put on the young heifers.

The selection of profitable cows, whose product actually yields a profit over their keep, and the successful feeding of calves on separator milk, are questions of very great import at the present time and worthy of study.

Elevator Commission.

The Elevator Commission has about completed its labors, having taken evidence at a great many of the grain centers in Manitoba and the Territories A great variety of evidence has been presented by farmers whose evidence has been mostly individual opinion, there having been no organized efforts to present their case before the Commission. In some places where the greatest dissatisfaction has existed, little interest was taken, and not much evidence presented to the Commission, probably owing to an impression that no benefit would result from any report that the Commission might present to the Government. The Commission having been appointed to investigate the whole question, in order to place information before the House of Commons, it seems a pity that every possible means should not have been taken to lay before them full and definite information, apart from all personal or political feelings. There is no doubt but that the grain-men will furnish a most complete and carefully prepared statement of their side of the question. However, judging from the reports of meetings to hand, the one point that has been emphasized by nearly every producer appearing before the Commission was the desirability for absolute freedom in the shipping of wheat through healthy will be branded "first-class"; all meat flat warehouses or otherwise, and we believe that the abrogation of the C. P. Railway's special privilege to standard elevators would settle the whole

A New Dairy Superintendent for Manitoba. question. Not that flat warehouses would be built as workable and practicable as the many schemes has time and again been pointed out, the privilege to erect them would serve as a check to abuse of the privileges now held by owners of elevators. We do not believe that any intricate system of Government inspection is required; freedom to ship as one sees fit will pretty well solve the whole question. Of course, those who invested capital in standard elevators, conditional upon the special privileges, may have some claim on the parties who gave them the privileges, and to them they should look for settlement. The question seems to be whether the granting of these privileges was within the legal power of the railway companies, and whether the Government can enforce the doing away with them.

A Hail Insurance Company Under a Cloud.

Hail insurance has been a much-discussed subject for several years, and many proposals have been made for providing cheap and safe protection. No practical solution having been arrived at, the public seemed to be ready to fall in with any busi. nesslike proposition that promised to give satisfactory insurance at reasonable rates.

Last spring a number of business men from Minnesota, who had been connected with hail insurance in that State, came over to Manitoba and concluded that there was a good field for a live hail insurance company. These men had good financial backing, but in order to get a charter from the Local Government to enable them to do business in the Province, it was necessary to have a number of local names among the applicants. This was easily arranged, the charter obtained under the title of the Manitoba Farmers' Mutual Hail Insurance Co., and also a license to do business in the Territories from the Territorial Government. Several expert hail insurance canvassers were brought over from Minnesota, and the company made a big push for business. In all 3,909 policies were issued, representing in amount \$3,339,564.33. At the close of the season an assessment of 5% was made, with a 25% discount offered for prompt payment. This seemed an exorbitant assessment, as there was ittle loss occasioned by hail this past season Representations were made to the Local Government, who appointed a commission to investigate the affairs of the Company. The finding of this commission has been published through the length and breadth of the country, and according to it there have been gross irregularities practiced by the duly appointed agents of the Company, and some unwise (if not illegal) methods of doing business practiced by the Company itself. Presumably policyholders will have to pay their premium notes, except in cases where it can be proven that policies were obtained by fraud. The Company evidently purpose continuing in business, and desire to have confidence restored. At a meeting of the Board of Directors. held recently in Winnipeg, they decided to forego the creation of a reserve fund from the levy of this year, and to refund any amount paid in excess of the amount necessary to pay actual losses and liabilities to those paying, in proportion to the amount paid by each.

Meat Inspection in Winnipeg.

Winnipeg's Health Department proposes to have all meat offered for consumption in the city inspect ed and branded, so that citizens may choose between healthy or diseased meat, or, rather, between the several brands that may appear on the carcass. It is proposed to inspect all live cattle before slaughter, and then inspect the meat after slaughter. Only that which is killed in the city and found brought in dressed will, if found free from disease germs, be branded "second-class." Such a system would imply a deal of guesswork, and seems about

to any extent to compete with elevators, but, as devised by this same department to provide citizens with pure milk, every one of which have, so far, been a conspicuous failure.

Dr. McEachran, Dominion Veterinary, when passing through the city lately, appeared before the City Health Committee. In connection with tuberculosis in cattle, he recommended that the Government be urged to set aside a sum for the compensation of owners of condemned tuberculous dairy cattle, and said he believed \$250,000 would stamp the disease out of Canada. He is further reported to have said: "As a result of the work done in Ontario and Quebec, for eight months the Experimental Station has been trying to secure animals showing symptoms of tuberculosis, but none could be found." He thought an appropriation would be passed at the next session of Parliament. He also took occasion to point out to the Health Committee that "many of the cattle affected with lump jaw were not necessarily unfit for food.' There was no known instance, he said, where disease of the kind mentioned (lump jaw) had been contracted through the consumption of the flesh of the affected cattle.

Winnipeg Industrial Dates for 1900.

The dates upon which the 1900 Winnipeg Industrial Exhibition are to be held have been fixed for July 23rd to 27th, or one week later than in 1899. These dates, while running into the commencement of the having season in Eastern Manitoba, will, in all likelihood, be much more suitable to the majority of people, and will very greatly conduce to a more respectable display of horticultural products. In discussing the question of dates, the present Board recommended to the consideration of the Board of 1900 the advisability of opening the Fair on Monday morning and closing on Friday night. This would mean that all exhibits should be in place on the Friday and Saturday previous to the opening, and that judging in all classes would begin on Monday morning at 10 o'clock, instead of Tuesday as formerly; and by closing the Fair on Friday night exhibitors would be enabled to get back home before Sunday. We feel very sure that such a programme would be very much appreciated by live stock exhibitors particularly, as far too much Sunday work has been necessitated by the arrangements of the past few years. It is, however, doubtful if it would be wise to start the judging of live stock on Monday. as visitors could not be present without coming into the city on Sunday or before, and to many visitors the most interesting and instructive part of the exhibition is to see the live stock while they are parading in the judging arenas. This, in fact, is the only time when an intelligent comparison of the stock can be made. In all other departments, except, perhaps, fresh fruits and vegetables, judging could be started on the Monday; but Tuesday morning would be time enough for the live stock sections

Another point worth emphasizing, if the proposed arrangement be carried out, is the absolute necessity of closing the gates against all visitors and others, as far as possible, on the Sunday, and insisting that all exhibits be in position on Saturday night.

More Bulls for the West.

We understand that in pursuance of some arrangement made between the Government of the Northwest Territories and the C. P. R., the latter are giving free transportation to eight carloads of pure-bred bulls that are to be brought in.

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THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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paper, and for sexeral years past I have had an advertisement in three Canadian agricultural journals, and the advertisement in your columns has usually brought me three times more buyers

Wishing you much success, and if I can be of any service in furnishing information re crops, etc., 1 will be pleased to do so. I mb.

Yours truly. W. F. STEPHEN. "Brook Hill Farm," Quebec. Nov. 6th, 1899.

Draft Horse Breeding.

BY A. G. HOPKINS, V. S., WISCONSIN AGRICULTURAL COLLEGE, MANAGEMENT OF STALLION.

The management of the stallion should always be with a view to foster and increase his procreative In order to do so, good food, good stapowers. bling, and plenty of exercise are essentials. The practice of administering drugs to a stallion, with the view of increasing his sexual powers, cannot be too severely condemned. The groom should be cautioned against their use; he should be active, good-tempered, and a thorough horseman, many good horses being spoiled by incompetent grooms.

The same hygienic rules must be observed with the mare as with the stallion. During pregnancy she should not be worked too severely, and should not be hitched to any machinery on which there is a pole, at the latter end of such pregnancy; backing in a wagon should not be allowed. Food of a nour-ishing and slightly laxative nature should be given her as foaling time approaches; if grass is abundant, so much the better.

FOALING.

As foaling time approaches, evidenced by enlargement of the udder, waxing of the teats, falling in over the hips, enlargement of the vulva, and increased docility and quietness, she should be placed in a roomy, well-aired and lightly-bedded loose box, and placed under the care of a trusty attendant. If present at the foaling, which, if normal, only takes a very few minutes, and if everything is going on favorably, little or no assistance is needed. If, however, after protrusion and rupture of the water bag, if after the interval of one or two hours no further progress is made, skilled veterinary help should be summoned to rectify the probable abnormal presentation. The membranes should be removed from the head of the foal as The membranes soon as it is born, the navel string divided and tied at about one to one and a half inches from its body, and a solution of carbolic acid, 1-25, or bichloride of mercury 1-500, applied to the navel soon afterwards. Daily dressings for three or four days are advisable. If the fœtal membranes (afterbirth) advisable. are retained, they should be removed by a veterinarian or skilled person, and an antiseptic uterine douche given not later than twenty-four hours after foaling. The foal should be got up to suck as soon as possible after birth, so as to ensure its getting the colostrum (the first milk, which contains a purgative principle). Some breeders administer a little teaspoonful) of unsalted butter, and thus prevent that bane of early foalhood-constipation.

THE FOAL.

The foal should be watched carefully, to see that the urinary and fecal passages are patent. If constipation does ensue, rectal injections of tepid water and soap, glycerine or a cone of soap introduced into the rectum, are to be recommended. If necessary to work the mare soon after foaling, she should only be worked for half the usual period and returned to the stable, so as to allow the colt to suck her. Later on the mare may be kept away the full working period, for a half day, but if warmed up when brought to the stable, she should be allowed to cool off, and some of the milk removed from her udder, before allowing the bolt to come to her. By so doing the breeder will tend to avoid intestinal derangements in the foal. The practice of allowing the foal to follow its dam around during the working period cannot be too strongly depre-cated. The mare should be fed bran mashes for a few days, while convalescing from the foaling, and tepid water should be given her to drink, followed in a few days by the addition of oatmeal to the ration, which should be supplemented by good pasture or hay. Care should be taken that milk does not accumulate in her udder (a common occurrence), as the foal, when quite young, is incapable of taking all the milk supplied. A box should be fixed up in the stall, and feed put in it for the foal, who will soon learn to nibble. A mixture of bran and oatmeal, moistened with milk, is very good; by this method it can be taught to drink cow's milk, a very desirable accomplishment as it grows older. At from seven to ten days after birth, a halter should be applied and the little fellow handled for a few minutes each day. This procedure should be kept up until the time of breaking. At six to eight months old the foal is weaned, and as it eats well by this time, little loss should ensue.

THE COLT.

If possible, it should be placed with other weanlings or with an old horse for company. Fromweaning time till put to work, the period of adolescence, is the critical period of the foal's life: neglected during its first two or three years, it will become stunted and spoiled forever. It must not be forgotten that a growing animal, such as the colt is, needs an abundant supply of nitrogenous food in order to furnish material for the proper growth of bone and muscle; on the other hand, the colt must not be pampered and deprived of exercise, or overfed, or the result of going to these extremes will be a soft, flabby-muscled horse, with puffed hocks. The straw-stack boarding-house regime entails misery on the colt, in the form of unthriftiness, worms, and other troubles. If a colt does not appear to be doing well, in spite of good fare, an examination should be med for lice or worms, and the teeth should also be varied. Contrary to the general opinion, colts a two and three years often suffer from teething; a such cases the ver-erinarian is indispensable. The feet of the cost

should have unremitting attention; superfluous horn should be removed at regular intervals; neglect to do so will result in premature lameness or blemishes. Colt foals, unless of A1 quality and registered, should be castrated at one year old. There is no gain by leaving them unaltered until two or three years old; should they die at the latter ege, the loss is more severe. Stabling, shoeing, watering and feeding are subjects of themselves. Suffice it to say that the stabling should be roomy, well lighted, well ventilated, and so arranged that the horses can see one another. Shoeing should be done at regular intervals, say once every six weeks. Watering and feeding will depend a great deal on the owner and attendant, save that regularity of supply is a sine qua non, and also that the quality must be right and the quantity ample. Watering should be done previous to feeding, as a rule.

Stubble Burning.

Apart from the desirability of burning off stubble in order to check the ravages of the Hessian fly, there are many other reasons for getting rid of the stubble in this country. In some of the western wheat districts excellent results have been obtained from taking a second crop of wheat after summerfallowing, without plowing, when the stubble can be burned off clean; and on rich, loose, loamy soils there is no doubt that where there are no biennial or perennial weeds to cause trouble, better results would frequently follow such treatment than when a heavy stubble is plowed in, either fall or spring. It is often impossible to make a good job of plowing under a heavy stubble, and even when well turned under it decays so slowly that there is always a tendency to keep the soil too open and cause it to dry out: whereas, with the stubble burned off, the land plows better and the soil becomes compact and firm, which tends to conserve moisture. Besides this, with the stubble out of the way the surfaceworking implements will do better work. The importance of burning the stubble to destroy the larvæ of the Hessian fly is pointed out by Dr. Jas. Fletcher, Dominion Entomologist, in a letter which appeared in the FARMER'S ADVOCATE of September

The frequent difficulty, even impossibility, of burning stubble is well known to everyone, and if a cheap, simply-operated machine, that would do satisfactory work, were put on the market, it would doubtless become one of the essential implements of every farm.

Mr. E. Caniff, now of Portage la Prairie, the inventor of a stubble-burning machine, upon the perfecting of which he has been working for several years, furnishes the ADVOCATE, in reply to an enquiry, with the following information: His machine can now be sold at from \$35.00 to \$40.00, and requires only loose straw for fuel, and is simply attached behind a wagon load of straw, from which a small quantity of straw is scattered in front of the machine. A test was recently made on a farm near Portage la Prairie, at which such well-known farmers as D. Cowan, Sr., Thos. Sissons, A. Sprin stein, Wm. Connor; also G. C. and Wm. Hall. From several of these parties Mr. Caniff has testimonials certifying that the machine did excellent work, being easy to operate and making a clean burn. Mr. W. N. Hall says: "With the stubble in reasonable condition, with favorable weather I could burn from 50 to 75 acres per day; the cost of operating it being two men and a team.

Beneficial Birds.

BY CHESTER D. JARVIS, B. S. A., ONTARIO AGRICULTURAL

COLLEGE. This is a subject of great importance to the farmer, vet it is one in which but little interest is shown. It certainly seems strange that so little is known of the nature and habits of our common birds by the average agriculturist of to-day. Few indeed are they who stop to think of the injury which would be done by the great army of noxious insects were it not for their friends, the useful birds. Unfortunately, there seems to be a tendency to dwell on the harm they do, rather than on the

When it becomes necessary to destroy any animal, nature is far more competent to do so than ourselves. So long as we refrain from interfering with her regulations she will preserve her own balance, and will allow none of her creatures to increase and multiply beyond their due limits. Furthermore, she will perform the work required at a very low charge, whereas it cannot be carried out by ourselves, save at great, and even excessive cost. The small birds will destroy mischievous insects by hundreds of thousands, and will help themselves with a little of our produce in return for their services. Grain or fruit thus stolen must be looked upon as wages due them for their services, by which we are preserved from losses infinitely greater. We pay our plowmen and our reapers so much a day; the birds require payment too. The difference, however, is that, instead of asking for that payment, they take it out of our produce. In the members of the feathered tribe the farmer meets his truest and most powerful allies. Just as, of all living creatures, insects have been endowed with the greatest power for harm, so birds have been endowed with the greatest power for good.

The points which are chiefly forgotten by the property of small birds are briefly these: 1. That a bird which is certainly injurious at one time is not necessarily so at nother.

2. That the good wrought at one season may possibly outweigh the evil caused at another. 3. That an insect killed by a bird is seldom missed,

while any grain or fruit which it may steal is at once noticed, and brought up in evidence against it. 4. That while produce stolen is a final and definite loss, an insect killed represents a continual and cumulative gain, owing to the co-destruction, if such a term may be employed, of its presumable

descendants. 5. A bird which does not eat insects at all, may yet devour quantities of wild seeds, and so help the farmer, although in another manner.

The last mentioned point is one of great importance, and is one which is usually overlooked. Certain weeds produce an incredible number of seeds. A single plant of one of these species may mature as many as a hundred thousand seeds in a season, and, if unchecked, would produce in the third season ten billion plants. Fortunately, certain agents are at work to check this harvest, and perhaps the most efficient among them are seed-eating birds. Each fall and winter they flock in myriads to agricultural districts, and live upon the ripened seed of weeds. Since they attack weeds in the most critical stage of life, the seed period, it follows that their services must be of enormous practical value. The birds which accomplish most as weed destroyers are the various species of native sparrows that flock to the weed patches in early autumn and spring. Sparrows generally seem to be regarded with favor, but the English sparrow drives away native birds, and does so much damage to grain and fruit that it is con sidered a pest.

THE KINGBIRD. This is a very active bird. We have it with us in the summer, but it spends the winter in more southern climes. It is about eight inches in length. In color it is almost black above, and whitish below. The tail jet black, terminating in a white band. The wing feathers are also edged with white. The male carries an orange-red crest. It has a great antipathy for hawks and crows, and never hesitates to give battle to any of these marauders. It is largely insectivorous, and takes a large part of its food on the wing. One of the complaints alleged against it, is that it preys largely upon the honeybee, but an examination of the stomach of this bird has not proven this to be the case. It seems to be clearly established that about ninety per cent. of its food consists of injurious insects, and that the vege table food consists almost entirely of wild fruits,

which have no very great commercial value. THE NIGHT HAWK.

This is a bird which is under the ban. I have no doubt the unpopularity of the bird arose from the prevalent superstitions, which considered all nocturnal creatures as emissaries of the powers of darkness. The theory was probably strengthened by the peculiarity of the cry. It is often mistaken for the whip-poor-will. The night hawk, however, can easily be distinguished by its harsh, whistling note, instead of the woful cry of the whip-poor-will. The night hawk is about ten inches in length. The head is large and depressed. The structure of the mouth is very remarkable; the gap being exceedingly wide, insects of large size can be accommodated without difficulty. The color of plumage may be described as dark gray, mottled or splashed with a white above, and gray and white, much lighter, below, with waving bars of gray and white. Insects, and principally mischievous insects, constitute the entire food of the night hawk. It is a common summer resident, migrating in early September.

The owls, too, are usually looked upon with suspicion, and are always treated with a certain amount of ridicule and contempt. In the minds of the ignorant and superstitious they are associated with cats and witches. Space will not permit of a detailed description of the many kinds of owls. This, however, is unnecessary, as their habits are quite similar, and there are few indeed who cannot recognize them at first sight. Most owls are night feeders, but the snowy owl and the hawk owl may be found feeding during the day. The great horned owl, or "cat owl," as it is sometimes called, has been accused of stealing chickens, but an examination of many stomachs has proven this to be only rarely the case. The benefit derived from this class of birds lies in the destruction of rats, mice, and other rodents, which, if left unrestrained, would in a few years destroy all vegetation on the face of the earth. These birds are endowed with natural faculties specially adapted for the work they do; the only trouble is that we have too few of them. If the useless destruction of our beneficial hawks and owls was stopped at once, the balance of nature may be restored.

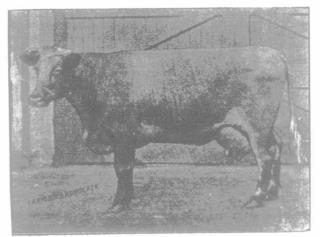
SWALLOWS.

Almost like night hawks, but on a reduced scale, are the various members of the swallow tribe, which take up the task of insect destruction at earliest dawn and carry it on uninterruptedly throughout the day. The food of these birds consists almost exclusively of flying insects, or, perhaps, in some cases, those picked from the tops of tall grass or weeds. They are so plentiful, so ubiquitous, and so strongly attached to the haunts of humanity, that there must be few indeed who are not well acquainted with them. We have at least six common summer residents among the swallow family. They have a few characters in common, the chief of which are as follows: flight strong, skimming, and darting; exceedingly graceful; plumage usually black, with a bluish or

greenish luster, sometimes dull, and generally white below. They have small bills, but very large mouths. Long and pointed wings, generally reaching beyond the tip of the tail.

THE SPARROW HAWK Among the hawks we have a few foes, and a great many friends. Therefore, before we turn the shotgun toward this class of birds, we should be able to distinguish the beneficial species from the injurious forms. The sparrow hawk is by far the most common of the beneficial species, and will receive special mention. It is a common summer resident, about the size of the robin. In color it is bright, reddish brown above. The tail is similar, biased with black and white at the tip; the wings are slate-blue. It is characterized by a short neck, large head, and strong bill. The bird kills, in the course of the year, so many mice, grasshoppers, and other enemies of the farmer, as to more than compensate him for its occasional misdemeanors

it robs him of sixpence and repays him with ashilling.



BELLA.

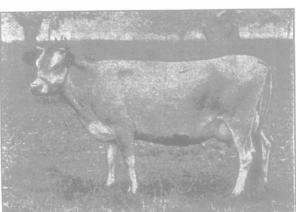
First-prize Shorthorn cow, by inspection, London Dairy Show, '99. EXHIBITED BY MR. G. H. PROCTOR, DURHAM.

THE BLUEBIRD.

This is among the first birds to arrive in the pring, and is welcomed as an indication of the final breaking-up of winter. It is to be found in orchards and gardens. It builds its nest in hollow trees, and often in the nesting boxes frequently seen around farm homes. The bluebird is somewhat larger than the common English sparrow. The upper parts, tail, and wings are bright blue; the throat and breast are buff red, and under parts white. The color of the female is less distinct than that of the male. Although it is usually found in the orchard and garden, it has not been accused of stealing fruit. Its food consists of grasshoppers, beetles, caterpillars and spiders. When caterpillars and grasshoppers are plentiful these almost and grasshoppers are plentiful these almost and and grasshoppers are plentiful, these almost entirely constitute its daily food. So far as vegetable food is concerned, the bluebird is positively harmless.

THE THRUSHES

belong to a family closely related to that of the



MADEIRA 5TH.

First-prize Jersey cow in Butter Test and in Milking Trials, London Dairy Show, 1899. OWNED BY MR. H. H. HOWARD-VYSE.

bluebird, and, as a rule, have similar feeding habits, being particularly fond of white grubs and cutworms. They are medium-sized, stout-built birds. All are fine songsters, and inhabitants of woodlands. They are usually of a grayish or brownish color above, and lighter below.

THE ROBIN

which is a somewhat qualified friend of the farmer, also belongs to the same, family as the bluebird. Unlike the bluebird, it values highly its services, and, consequently, makes frequent visits to our cherry trees. A description of this most familiar bird is unnecessary. Many fruit-growers consider the robin the worst enemy they have among the feathered tribe, while others, by the result of care ful observation, are inclined to think it at least pays for all the fruit it eats. In the early part of the season it feeds itself and its young almost exclusively on cutworms and white grubs, so that during the breeding season alone its services must be of a very valuable character,

WOODPECKERS.

Of the woodpeckers we have at least nine species in Ontario, the most common of which are the redheaded woodpecker, the hairy woodpecker, and the downy woodpecker. They are medium-sized birds, usually with plumage black and white, and always with some red feathers about the head of the males. They are strong-looking birds, with high shoulders and a strong well developed bill suitable. shoulders, and a strong, well-developed bill, suitable for drilling holes in the bark of trees. The tail feathers are very stiff and serve as a prop. woodpeckers we have fresh examples of friends which have been reckoned as foes. Even at the present day the presence of a woodpecker in the garden would be looked upon with great suspicion, and the very sight of the hole which it makes in the tree trunk would be considered as sufficient evidence of its mischievous propensities. Careful observation, however, proves that these birds rarely leave any important mark on a healthy tree, but that when a tree is infested with wood-boring larvæ the insects are accurately located, dislodged, and devoured. Everyone who has examined the trunk and chief branches of a very old tree knows how the rough bark acts as a sheltering place for all kinds of insects, and how hopeless is the task of extir-pating them. This feat, however, is performed by the woodpecker, who scales off the bark, and with its curiously-formed tongue seizes and draws into its mouth the tiny insects which have been lurking beneath in fancied security. An examination of the stomachs of these birds has shown that almost all of their food (excepting what fruit or beechnuts some of them take) consists of insects, chiefly noxious.

RED-WINGED BLACKBIRD.

This bird is noted for its beautiful coloring. It is glossy black throughout, except a small scarlet patch, with a yellow border, on the shoulder. In size it is somewhat smaller than the robin. It arrives in March and flocks to the marshes, where they remain until the young are able to fly. in the swamps their food consists chiefly of aquatic insects. When the young commence to fly, they resort to the grain-fields, where they live chiefly on white grubs, which are so troublesome in our fields; at the same time they eat no small quantity of grain. After having devoured so many grubs they feel justly entitled to a share of the profits.

BALTIMORE ORIOLE. This bird has a beautiful plumage, and a very sweet song. It is about eight or nine inches in length, considerably smaller than the robin. The head and back are glossy black; wings and tail brown or black, with white or yellow markings; all other parts bright orange red in the males, and yellowish in the females. The oriole is a common summer resident, and is to be found foraging among the early bloom of apple trees, where it hunts for caterpillars and moths, which largely constitute its fare. It sometimes eats chick beetles, the larvæ of which are among the most destructive

insects known.

THE MEADOW LARK.

This bird belongs to the same family as the oriole, but is much larger and lacks the richness in color of plumage. The upper parts are brown, with darker brown or chestnut markings; throat and breast yellow, with a large crescent-shaped mark, which is black; under parts are buff, shading to brown. Meadowlarks are very plentiful. The nest is found on the ground, in meadows and grain-fields. It is almost wholly beneficial, living on beetles, bugs, grasshoppers, and caterpillars, with which our mead ows are infested. The greatest danger to which this bird is exposed is that of being shot for the table, its flesh being delicious. We cannot make any return for the good this bird does, but we can at least refrain from destroying its life, and exert ourselves a little to prevent others from doing so.

THE WREN.

The wren family comprises several species, the most common of which is the house wren. It is a small bird, not more than five inches in length. Upper parts are of a light brown, barred with a darker brown; the under parts are grayish or white. Year after year the wren returns to its same resting place, which is usually about the house, under the eave, behind the shutter, or any other sheltered place. From its confiding manner and cheerful song, it is a favorite wherever known, and we find that it feeds largely upon the eggs and young larvæ of many species of insects.

PHEBE

This bird is about seven inches in length, or somewhat larger than the English sparrow. In color of plumage it is dusky brown above, and creamy white below; the bill and feet are black. The phœbe is rapidly becoming domesticated. They usually build their nests around bridges or rocky cliffs, but of late years nests are frequently found in our barns, or even on our piazzas. The phœbe subsists almost exclusively upon insects, most of which are caught on the wing. These belong chiefly to noxious species, and include many clickbeetles and weevils. Grasshoppers in their season are eaten to a considerable extent.

In this paper, where I have made the attempt to combine brevity with a certain amount of detail about the birds spoken of, it has been impossible to mention all the birds which are considered beneficial. What I have tried to do has been to touch on the more salient points in the habits of birds, to briefly describe the birds spoken of, in order that

the observing farmer shall be able to recognize them, and to impress upon the mind of the reader the necessity of protecting these birds from injury. There is an excellent law on our statute book demanding the protection of all birds save hawks, blackbirds, crows, and English sparrows. Let us see that this law is carried out to the letter.

With every bird which exercises an influence upon us, we should draw up a debtor and creditor balance sheet, placing on the one side the loss, if any, which we suffer through its agency; upon the other the benefits which it confers upon us. Birds, of all living beings, are the best friends of the agriculturist, for they, and they alone, can cope with the armies of the insect world.

Stonewall and Rosser Districts.

In a new country undergoing development, localities settle up and improve about in proportion as the pioneer settlements are successful or otherwise. The district lying immediately northwest of Winnipeg, adjacent to Stonewall and Rosser, while comparatively well settled for many years, still contains a vast amount of vacant lands. The early settlers have in nearly all cases been successfully devoting their attention particularly to mixed farming. They have seldom met with reverses, and in consequence have made a steady improvement, enjoying the advantages of the cash markets in Winnipeg for every product of the farm and garden, in addition to the nearness of railway facilities at Stonewall or Rosser on the main line of the C. P. R., and the advent of MacKenzie & Mann's connecting link over the old Hudson's Bay grade will afford another outlet. Prosperity is apparent throughout the whole district, roads are being graded, and a complete system of drainage is being carried out. Buildings are going up, and hundreds of acres of new land are being brought under cultivation, an unprecedented number of new settlers having gone into the district within the last twelve months. The district generally is well supplied with good water, and is convenient to wood suitable for fuel. The town of Stonewall has improved greatly of late years. There is now a large

elevator and gristmill, besides many other local improvements. Scattered throughout the district there is boulder stone in sufficient quantities for use in buildings, and deposits of gravel and sand can be found in the ridges which run through the district. Wheat, oats, and barley form the staple crops. There being an abundant supply of native hay that is easy of access, not much attention has yet been given to cultivated grasses, but here and there some old land has been seeded down to timothy with satisfactory results. Summer-fallowing and fall plowing are the general methods of cultivation followed. A recent trip through the district shows that there is room for great improvement in the quality of

work can be expected to produce good results is more than one can understand. A series of plowing matches held in this district would do a world of good, and we submit the suggestion to the leading men of the district. Generally summer-fallowing gives good results, the one plowing system being mostly followed. Other plans are being tried, and one or two parties report satisfactory results from frequent surface cultivation with duck-foot springtooth cultivator, without plowing at all. This plan has the advantage that the ground is firm and the cultivator cuts out thistles and other perennials, at the same time germinating the seeds of annuals, destroying them and leaving the surface in a good state of cutivation. Everywhere throughout the district where natural bluffs could not be taken advantage of for shelter of building sites, groves of native maples, Russian poplars, and other hardy fast-growing trees are being set out. In some instances handsome groves have been grown, including spruce and many ornamental shrubs.

One of the Newest Swindles.

A new swindling scheme that is being practiced in the States is reported by one of our Minnesota exchanges, as follows:

A stranger approaches a farmer with a proposition to buy his farm. After the usual negotiations and bantering terms of sale are agreed apon, the price to be, say, \$16,000; the stranger pays \$50 down to bind the bargain, and departs to return in a given time and complete the transaction. A tew days later another time and intelligent stranger appears at the farmand asks permission to examine the soil, which is granted, and an appearantly critical examination of portens of the farm inflows, with the result that a proposition is mid-to-the farmer to buy his place. The latter states the farm farming already sold, or bargained for action and magnetic materials.

sell it again. The stranger regrets this, for he finds the soil to be impregnated with a substance that is valuable for certain manufacturing purposes, and is therefore worth much more to his company than to anybody for merely agricultural purposes, and he concludes by asking how much he sold the place for, and to whom. The last question is asked in the hope that he may be able to buy the farm from its new owner, for he would rather pay \$15,000 for it than to fail in securing it. This moves the farmer to say that he does not know the address of the purchaser of his farm, but he hopes that when he returns he can be induced to waive the contract, when he will be at liberty to sell to the gentleman resent. The latter then gives a name and address in full, so that he can be reached readily if he can have the farm, and departs, expressing the hope as he goes that he will soon learn of a satisfactory arrangement with the holder of the option so that he may come into possession of a place so desirable for his purpose. The rest of the story is soon told. The first buyer appears on the scene as agreed, and after much talking and figuring is induced to surrender his right to the farm in consideration of \$600, which the farmer pays by negotiating his short-time note at bank. The second stranger is at once notified of his great good luck, he can have the farm at his own price, \$15,000, but strangely enough he does not show up but rumor has it that enough he does not show up, but rumor has it that both strangers were subsequently seen in a not distant city having a splendid time at a first-class hotel. It is needless to say that both strangers were consummate actors in their line, and well calculated to deceive men who are more familiar with the vain ways and dark tricks of the world than the average farmer, hence the farmer in this case should not be unduly blamed, but his fate should be an effective warning to others who may be similarly approached.

Mr. A. S. McBean's System of Steer Fattening.

DEAR SIR,—In reply to your inquiry as to the



SHORTHORN BULL CALVES, ROYAL JUDGE, JUDGE 2ND, AND DREYFUS.

Royal Judge first prize, Judge 2nd second prize, Winnipeg Industrial Exhibition, 1899. Bred by Hon. Thos. Greenway, Crystal City, Man.; sold to J. S. Robson, Manitou, and J. G. Barron, Carberry. Dreyfus from herd of W. D. Flatt, Hamilton; sold by Mr. Greenway to A. Morrison, Carman, Man.

the plowing, many fields
being turned over so badly that more than half the stubble seemed to be on top, the furrows crooked and badly turned. How such work can be expected to produce good results is work can be expected to produce good results is and the results obtained.

and the whole herd is then sprayed with a coal-oil emulsion. I use a spray pump attached to a barrel, and work the same from outline of the system I have adopted on my farm, and the results obtained.

My farm, about a mile in length, contains 117 The buildings are located about the middle of the farm. The south end of the farm borders on Lake St. Francis, and the north end adjoins the village of Lancaster, through which runs the main line of the Grand Trunk Railway. About 17 acres of the farm are taken up by buildings, lanes, ditches, and lawns, leaving 100 acres under cultivation. Thirty acres are devoted to gardening, the chief roducts of which, consisting of small fruits, vegeables, and nursery stock, are shipped to Montreal. The remaining 70 acres are used for growing coarse fodder, such as hay and turnips, with an occasional field of grain for seeding down. A rotation of crops is so arranged that meadows are cropped only for two years, and the manuring for the turnips is done by top-dressing the meadows. I do not keep any cattle during the summer months, except one or two milch cows. My idea is to grow enough coarse fodder to feed 124 steers, and buy concentrated food for them, and 100 hogs housed with the steers. The feeding of this number of steers and hogs gives me a large quantity of manure for my garden and farm, the product of the former giving me my cash ceturns during the summer and early winter

I have never raised or wintered any stockers, but have benght in the fall, generally on the Toronto ancket. It is a year old steers, averaging in weight from 1,000 to 1,200 lbs., as I prefer animals of this she for latterness. I house my animals during verember a final is an get a better selection on the nice rat hengs some inter and as I find it imposts the too keep the reset of five months. I make a special effort ratio is close for the warm weather sets in. I find that sechalis do a a put on much fat after the weather because years a specially when they are feed loose as a fact of specially when

The selecting of the animals is one of the most important points in successful feeding. My experience convinces me that the best feeders are the roan Shorthorns and good grade Herefords. The animals are all weighed and dehorned on arrival. About 15 average animals are selected, marked, and weighed every two weeks during the feeding period, which process gives an idea of the progress the whole lot is making. The first month the animals are fed only uncut turnips and hay. About 1,800 lbs. of straw per day is used for bedding, and when this is put down fresh, I judge that each animal eats from 3 to 4 lbs. The animals are fed twice a day. The first feed, consisting of 30 lbs. of turnips and from 12 to 15 lbs. of hay for each animal, is placed in the racks from the feeding passage, and racks are lowered to the cattle about 6 a. m., and left down lowered to the cattle about 6 a. m., and left down until 1 p. m., giving the animals plenty of time to eat. The racks are then raised and filled with the same quantity of turnips and hay as given in the morning, and lowered about 4 p. m. About 5.30 p. m. fresh hay is put in the racks without raising, as the tops of the racks are level with the feeding floor. The racks are left down all night. The cattle have water before them all the time in two large troughs furnished from a tank on the second floor. This tank is supplied with water by a windmill. A handful of salt for each animal is thrown on the turnips twice a week. A tablespoonful of sulphur is given in the feed about once every two weeks. I have never used any spices or drugs, so cannot say have never used any spices or drugs, so cannot say anything about them. The second month I begin anything about them. The second month I begin feeding them about 4 lbs. of meal per head per day, with the same quantity of hay and turnips as fed the first month. The third month the meal is increased to about 8 lbs. per animal per day, and the turnips are reduced to about 40 lbs. The fourth month the meal is increased to about 12 lbs. per day, and the turnips reduced to about 30 lbs. The fifth month 15 lbs. of meal is fed and 20 lbs. The fifth month 15 lbs. of meal is fed and 30 lbs. of turnips. The quantity of hay fed during the last three months must be left to the judgment of the feeder, who must never forget that the animals should have abundance of hay, without waste. My average was

about 15 lbs. per day per head for last three months. This combination of rations gives each animal an average of 10 lbs. of meal per day for 120 days. The concentrated food cost me about \$11 per head for the whole feeding period. The increase and decrease of meal and turnips is made gradually, and not abruptly. Regular feeding and nondisturbance of the animals are important factors to successful feeding; therefore I insist upon the observance of these factors, and I have found, when attended to, that the cattle lie down about 9 a. m. and ruminate till about 3 p.m.

When the animals come into the stable they are examined for vermin, and if quiet enough a strip about 6 inches wide is clipped down the backbone with the horse clippers, and the whole herd is then

sprayed with a coal-oil emulsion. I use a spray pump attached to a barrel, and work the same from the feeding passage above, the cattle being driven past underneath until they are all soaked with the solution. For the last number of years it has been found necessary to spray three times during the feeding period. It is important to keep the animals free from vermin, but is not profitable to feed two families when one gives no return. If an animal is sick he is removed from the herd and is tied in a stall set aside for that purpose, where he can be properly treated and looked after.

My experience is that steers fed loose do better than when tied in stalls, for when loose the animal is not under restraint as if tied, and lives much as he did in the open field. He is also at liberty to rub himself against posts, and in this way relieve himself of this great itchiness incident to confinement. He can also lie down and rise with greater ease. The most important reason is the great increase in weight in cattle fed loose over those tied. On fine warm days the cattle are let out in a yard to the south, but, strange to say, they do not seem satisfied and want to get back into the stable.

It is almost impossible to select 124 good feeders in one day, and last year it took from October 29th to November 15th to get the required number. Last year the whole herd when stabled averaged 1,107 lbs. On the 27th March, 1899, I shipped out 38 head averaging 1,410 lbs., leaving 86 head in the stable. Four of these 86 were old animals and poor feeders, one actually weighing less going out than when he went in, the other three not gaining anything. One steer died early in the season; the remaining 85 were shipped out May 3rd, and averaged 1,370 lbs., making the average gain of the 123 head 276 lbs. If the four poor feeders had been taken out the gain would have been considerably more. have no doubt, all conditions being right, but that steers weighing 1,100 lbs. on entering the stable can be increased in 150 days to 1,400 lbs. The profit on these cattle will vary in proportion to the value put on the coarse feed and the cost of the concentrated food. I consider I do well when I sell my farm products to my cattle at a good market value, pay labor of feeding and drawing out manure, interest, insurance, wear and tear, and have the manure to the good, which amounts to about 1,200 to 1,500 tons.

The hogs were allowed to run loose among the cattle. At first the latter seemed to object, but soon they became accustomed to the hogs and paid no attention to them. The hogs were rooting all the time, picking off any grain left on the straw used for bedding, and were on the alert for any meal dropped by the cattle when eating. Occasionally they got a turnip which the animals pushed out of their boxes. The hogs slept and were fed in a separate place, the opening into which was only large enough for them to pass through. They were fed on an average of 2 lbs of meal each per day. They were kept 150 days, and gained in that time

100 lbs. each, the average weight going in being 100 lbs. They cost 4 cents per lb., and sold for 4½ cents, making a profit of about \$2.25 per head.

One man attended to the 124 head of cattle and 100 hogs. The labor may seem small, but if the buildings are properly constructed and convenient, one man can do the work without any trouble.

I have not grown any corn for ensilage for the last two years. I find roots better adapted for fattening cattle. I can grow from 900 to 1,200 bushels of turnips per acre, according to the season, and at a cost of from \$12 to \$15 per acre.

As successful farming and gardening depend in a very large measure upon proper fertilization, in purchasing my concentrated feed I always keep in view not only the fattening elements and value of this feed, but also its manurial value; hence, the feed that produces the most fat, if lacking the manurial elements, does not in the long run turn out to be the best.

A. S. McBean.

Thorn Hill Farm, Glengarry Co., Ont., Nov. 10, '99. [EDITORIAL NOTE.—For a complete description of Mr. McBean's admirable system of stabling and arrangements for feeding, fully illustrated, we would refer the reader to the FARMER'S ADVOCATE of July 5th last, which all would do well to study in connection with the above letter.]

The Great West.

SPECIAL CORRESPONDENCE BY J. M'CAIG.

A good deal has been written and said about the center of equilibrium of the Dominion of Canada being shifted rapidly westward; and not without reason. Ontario has up to the present time been considered the industrial, commercial, political, and intellectual hub of British North America. The country vaguely called "out west" has been regared as a land of semi-exile, where the buffalo was monarch of the waste, and the redskin the only interruption to his sway. White men living in the country—except outcast or broken-hearted Englishmen looking for big game, danger or death in the mountains—were thought to be living a kind of life-in-death on the prairie, alarmed almost at the sight of a fellow creature, and constrained to hibernate like the bears against the fatal and irresistible blizzard.

This conception of the loneliness of the West is being rudely modified. Ontario, though capable of the support of a much larger population than it has at present, has enjoyed a populousness in advance of what it deserves, relative to the opportunities afforded for support in other parts of the Dominion. Previous to the opening of the Canadian Pacific Railway our surplus population found its way across the line. At present it is surging into our own West; and not only that, but many who have been experimenting in United States for some years are returning to find homes in New Canada, and are bringing Americans with them. So great is the increase of population, from near and foreign sources combined, that it seems not beyond reasonable expectation that we shall have a population of

There is good reason why this should come about. The feverish growth of population in the United States from immigration is rapidly approaching completion, and consequently the chances for an easy living from the free use of the forces of natural production, on the other side of the line, are rapidly lessening. The existence of good commercial highways through our own country, the reputation of Manitoba wheat, western cattle, and western gold, are all in our favor. The next decennial census will doubtless be a gratifying surprise to ourselves, as well as to the world. Winnipeg alone, with its fifty thousand souls, and its continuous rapid growth, is a good start. It is supported by solid immediate agricultural interests, as well as by large manufacturing and distributing interests. Its chances for growth are multiplying, its inflation and boom period is over,

and its growth is stable and sure.

SOME EASTERN ILLUSIONS.

There is a lingering idea in eastern minds that though the speculative opportunities of the West are large, the social and intellectual atmosphere is somewhat raw. This arises simply from the idea that the West is far away; from either local prejudice or local patriotism. Though it is true that the West has absorbed a larger proportion of persons of small means than it has of persons of comfortable means, and that the part of eastern population representing the largest degree of culture and intellectual acquirement is, on this account, left

behind, those who have come out represent great energy, susceptibility, and capacity for improve-ment simply by reason of the change from the deadening routine of hopeless competition to surroundings offering the fullest return for energy, ability, and ingenuity. Historically, colonies have shown a capacity for progressing at a rate relatively more rapid than the advance in the mother country With regard to social progress, too, it may be said that the graces of life are not neglected. Artifical class distinctions do not run high; but this is an advantage, rather than a disadvantage, as far as the solidarity of society is concerned. Social sympathy in the West is large and spontaneous, and the energy of social feeling is not dissipated in endless deadening organization. Deprivation in the shape of scarcity of articles of luxury, or of books for recreation and improvement, is not so prevalent as is generally supposed. The confidence that westerners feel in their business enterprises extends to their purchases for the satisfaction of their own wants. If they want a thing they generally get it quick. In dense populations people decide as to a good deal of what they want by what their neigh-Western population is sparse, and, consequently, fashion wants are fewer than in the East, but their satisfaction relatively greater. I feel that in presenting to your readers my impressions of the characteristics, limitations, and capacities of the West, the above general treatment is necessary before dealing with the agricultural and stock interests of the country.

Mrs. Jos. Yuill's Experience in Improving Chickens.

Having had considerable trouble trying to raise chickens from eggs laid by hens which had laid all



MR. ARCHIBALD SMITH.

Newly-appointed Superintendent of the Provincial Dairy School at Strathroy, Ont.

winter, and having had my attention drawn to it occasionally at Farmers' Institute meetings, I came to the conclusion that if a hen laid well all winter, she was so much exhausted that she could not produce fertile eggs in the spring. The chick will form in the shell, but when the time comes for it to hatch out, it has not strength to separate itself from the shell, therefore becomes exhausted with vain endeavors to do so, and dies.

I thought I would try if something could be done to produce live chickens. In the spring of 1897 set more than two hundred eggs (my hens had laid extra well that winter), and only raised about fifty chickens: the remainder all died in the shell, or shortly after being hatched. In October, 1898, I selected twenty of my best pullets, which were hatched in May (I prefer the pullets hatched in May, as the earlier ones would lay before the time of year I would want their eggs for hatching), and put those, with two male birds, in a division of the sheep barn. The temperature was so low as to freeze water, but not low enough to freeze their combs. I allowed them the freedom of the barnyard every day. The henhouse was supplied with dust bath, grit, and a muslin bag of sulphur was hung in the hole through which they went out and in. Their heads touched the bag every time they passed through the hole and shook a small quantity of sulphur on their backs, to prevent vermin. We fed them half backs, to prevent vermin. We fed them half a gallon of oats per day until the first of February, when I gave them a little better food, as I wished to have them laying by the first of March. I then gave them for breakfast 1 lb. of clover cut fine, put in a pot with one pint water, brought to scalding heat, then set off to steam for ten minutes; put 2 lbs. shorts and 1 oz. of ground meat in a pail; pour the clover over and mix thoroughly; just have the

mixture damp, but not wet. For dinner 1 gave them a mangel with a strip of peel off each side, being hung by a wire to the ceiling; also hang up a head of cabbage and a sheaf of oats. When this supply became exhausted, I removed them and put up fresh ones. For supper they got one-half gallon oats. These pullets commenced laying the last week of February, and laid until they began to moult in August. Only one of the twenty pullets became broody during the summer.

I commenced setting their eggs the second week in March, under hens which had laid during the winter and had become broody. In March and April I set fourteen hens, and sold a number of settings of eggs. The poorest returns we had was eleven live chicks, but in most cases every egg brought out a live chick. The reports from those we sold settings to were equally as satisfactory. They were the strongest chickens I ever had. On the evening of the nineteenth day after the eggs were set, they would be chipped, and next morning would all be out ready for their breakfast.

To prove that my conclusions were correct, I set two hens the 15th of June, and the results were not nearly so good. The eggs required twenty-one days to hatch; the chicks with difficulty broke the shells, and in some cases had to be taken out. They were not nearly so strong as the early ones, and at time of writing they still show their delicate constitutions. My March and April male birds weigh from 8 to 9 lbs. each, while my June birds only weigh from 4 to 5 lbs. each.

I am thoroughly convinced that to get good strong, healthy chickens, the eggs must be saved for setting during the early part of the hens' term of laying. Mrs. Jos. Yull, Lanark Co., Ont.

The New Superintendent of the Western Dairy School.

Mr. Archibald Smith, of Beachville, Ont., has been appointed Superintendent of the Western Dairy School, at Strathroy, which will reopen on December 4th next. Mr. Smith received his early training in cheese and butter making from Mr. Jas. F. Williams, of Ingersoll, a former instructor and inspector for the Western Ontario Dairymen's Association. He also took a course at the Guelph Dairy School, taking a very high standing, and afterwards attended the Provincial Dairy School of Quebec, at St. Hyacinthe, securing a first-class diploma as instructor and inspector for cheese factories and creameries for that Province. He was engaged by Mr. D. M. Macpherson, of Lancaster, Ont., as inspector and instructor in his cheese and butter factories, and after working for him two years, accepted the position of instructor of winter creameries in Western Ontario, and for the past season was engaged by the Cheese and Butter Association of Western Ontario as their instructor in both cheese and butter factories. He was appointed instructor in buttermaking at the Guelph Dairy School for the season of 1900, but at the request of the Hon. Minister of Agriculture, resigned that po-sition and accepted the position of Superintendent of the school at Strathroy, for the duties of which he is qualified in such a thoroughly practical way.

Mr. George R. Johnson, the buttermaking instructor on the staff, is acknowledged to be one of the most expert and successful buttermakers in Canada, having had a wide experience in both Ontario and Quebec, and has managed a number of the largest creameries in the country successfully. Mr. C. O. Luton, another member of the staff, is well known in the district, where he has resided for a number of years as a very expert and successful cheesemaker. During the past season he was employed as inspector and instructor in cheese factories by the Cheese and Butter Association of Western Ontario. If there are a sufficient number of applications for the home dairy course, a competent lady instructor will be employed to take charge of that department.

Mr. Stonehouse Appointed Butter Instructor at Guelph Dairy School.

Mr. A. Smith, of Beachville, having assumed the charge of the Strathroy Dairy School, it became necessary to make a new appointment to the position of Butter Instructor in the Guelph School. Mr. Jas. Stonehouse, Port Perry, has been selected for the responsible position. Mr. Stonehouse was formerly Instructor in the Home Dairy Department of the School, which position he resigned to accept the management of the St. Mary's Creamery. Mr. Stonehouse had charge of the arrangements for the buttermaking competitions at the Industrial Fair, Toronto, this year, and is well known as a first-class buttermaker and creamery manager in Ontario. The Guelph Dairy School is to be congratulated on securing the services of so able a man for an Instructor.

Proportion of Butter to Milk.

As in previous years, the milking trials and butter tests brought off in connection with the dairy show held at Agricultural Hall, London, last month, were followed with much interest by a large section of the visitors. The several tests attracted large entries, and in some of them the competition for places was very keen. The butter competitions were divided into three separate sections—one for Jerseys, a second for Shorthorns, and a third for other breeds or crosses than Shorthorns or Jerseys.

In the Jersey section the place of honor went to a seven-year-cid cow, which gave 41 lbs. 8 ozs. of

milk in the day, and produced 2 lbs. 9 ozs. of butter, equal to a pound of butter to every 16 lbs. of milk. This cow scored a total of 53.25 points. The second prize taker, a four-year old cow, gave 26 lbs. 14 ozs. of milk, and 1 lb. 12 ozs. of butter, equal to 1 lb. of butter to every 15 lbs. of milk. Her total number of points was only 40.75.

In the Shorthorn section the prize went to a sixyear-old cow, which yielded 58½ lbs. of milk in the day, and gave 2 lbs. 14½ ozs. of butter, equal to a pound of butter to every 20.15 lbs. (or two gallons) of milk. The second prize taker in this contest gave 53 lbs. of milk and 2 lbs. 8 ozs. of butter, or 1 lb. of

of milk. The second prize taker in this contest gave 53 lbs. of milk and 2 lbs. 8 ozs. of butter, or 1 lb. of butter to every 20.85 lbs of milk.

The top score in the "other breed" section went to a cross-bred cow, which produced the great quantity of milk, 68½ lbs., or over 6¾ gallons of milk in the day. Her milk was rather poor in butter-fat, as she gave only 2 lbs. 11 ozs. of butter, equal to a pound of butter to every 2½ gallons of milk. This cow—a Shorthorn-Jersey cross—gave the lowest percentage of butter of any of the competitors.

In these tests points were allowed for the time of calving, as well as the weight of butter produced, so that the cow yielding the greatest weight did not necessarily obtain the first prize. As a matter of fact, one of the cows in the Jersey section, which gave more milk than the winner, failed to get into the prize money at all.—Farmer's Gazette.

Development and Management of Beef-Bred Bulls.

BY JOHN M'DIARMID, OF MISSOURI.

Some time ago I received a request to write an article on the development and management of bulls from calfhood to old age. This I now do, with the understanding that what I say will be within the circumscribed limits of my own observations and experience, or based on well-authenticated facts. I wish to confine myself for the present to dealing only with that specially valuable class—bulls selected to head herds. In regard to such a bull most breeders of experience are able to estimate, from the make-up and breeding of the bull as a calf, the rank he is likely to occupy and his future usefulness. If, then, a breeder is con-

vinced that a particular calf is worth developing for use in a pure-bred herd, it should, in my opinion, at first receive plenty of good milk; grass in summer is also its natural food and will lay the best foundation for future development and usefulness. If the and usefulness. calf has been dropped in winter, he should have more care than one coming in early summer, when our grasses and climate enable the dam to do more for him than natural surroundingspermit in winter. Hence, a

nicely balanced ration of grains and oil meal, well-cured hay, sheaf oats, oat hay or bright, well-cured corn fodder, will make a fine combination, and the calf should also know where to retreat from a storm and have the comfort of a dry bed, and where to bask in sunshine when the weather is fine. The disposition of the youngster should also be studied. He may be shy, or forward and frolicsome, but, in any case, let him understand that you are his friend and, if need be, his master. Kindness and firmness, with no fooling, will generally get a young bull on his good behavior better than any other method that can be employed. Early tuition in handling and halter-breaking is also good practice. If he be an intelligent youngster (and some bull calves have rare intelligence), he will very soon enjoy being led and exercised, as well as being curried and brushed. When given such treatment, he intuitively recognizes you as his friend, and grows up under the environment of civilization and comfort. If, as sometimes happens, there be a calf whose dam does not give enough milk to do him full justice, he should have a "foster mother" to supplement the deficiency. I also favor allowing milk to bull calves until they are at least nine months old, though, as a rule, after they are six months old they become too rough with their dam while suckling. Hence, I think it is good practice and sound economy to let a "foster mother" give them their milk supply after they have reached six months, and let the herdsman milk their dams. As weaning time approaches, the calf should be so accustomed to feed that the weaning process will have little effect except to make him bawl a little for a day or two. The feed at that time, and for some time afterwards, should be supplemented by an extra allowance of oil meal or pure ground flax seed. From this point the young bull becomes conscious of his own importance, and the restraining portion of his training begins When his services are called for he should be kept under control as far as possible, and he should not He should never be allowed to serve on suppery or short the years of his usefulness are to be. From teristics. The natural tendency of all young buils

is to feel most contented with company. The best company for them in the summer months is in a securely fenced field with cows considered safe in calf. If allowed out at night in such a field, in such company, bulls will get enough exercise. A cool, roomy box stall is a very good place for them during the day. Here a bull can be so protected that flies will give little or no annoyance, but no hard and fast line can be laid down, for bulls differ very much in temperament, disposition and tendencies. Some require more exercise than others, some more grain than others, and some need little or no grain The animal's individual traits ought to be closely studied, and unless the owner or herdsman can intelligently comprehend how this, that or the other bull should be treated, costly mistakes will happen. To know this, and have their confidence, is most important. It is recorded of Mr. Bates that once on his way to a leading fair with his great bull, Duke of Northumberland, while the famous bull was being unloaded at a certain wharf, he slipped and fell on the gangway. His owner quickly perceived danger, which he thought could hardly be averted. Quick as a flash he patted the Duke on the neck, spoke soothingly to him, all the while praising him gently to induce him to lie quiet. A weakness in the gangway was fixed and the bull was unloaded all right. This surely showed great animal intelligence and mutual confidence. Not long ago I had a personal experience with a bull, which I will let speak for itself. The bull is a great favorite of mine. I handled him when he was a calf, and I believe he still knows me when I visit him. On this particular occasion I caught one of his calves in the corner of a field and it bawled loudly. The old bull looked on, while a cow (not the calf's dam) rushed toward us. Then the bull came forward, pushed the cow away and stood looking on as if trying to understand what I was doing to the calf. I let the calf go and patted the old fellow on the neck. He is a bull of rare intelligence, and in disposition is as gentle as a spaniel, though he is rarely contented unless with his harem. His feeding qualities and his tendency to fatten are so pronounced that grain-feeding and confinement or lack of exercise would be ruinous



FIRST-PRIZE HERD OF HOLSTEIN CATTLE AT TORONTO INDUSTRIAL EXHIBITION, 1899.

PROPERTY OF C. J. GILROY & SON, GLEN BUELL ONT.

This leads me to review the traits of character displayed by some noted bulls, and, incidentally, the manner in which they were treated. For instance, until their later years the young bulls, Young Abbotsburn, Cupbearer and Gay Monarch, were victims of our high-pressure methods of prepara-To their credit, be it said, tion for the showyard. all of them stood the test of this severely-trying process well, though all of them suffered from it. They sired good stock in their old age, but their owners had to let up on the high-pressure methods under which they had made their great prize-winning fame. "Breed him a little and show him a great deal," was what the late Col. Moberly once said he would do with Young Abbotsburn. When this great bull changed ownership he was gradually reduced in flesh, became fit for active service, and left behind him stock that will have an enduring fame. Gay Monarch was fortunate in getting into the hands of a firm that knew their business, and though for some years he was kept at high pres sure, he was in every other respect very carefully looked after. Cupbearer's lot was not such a happy It may be said of him that he was almost peddled about, and was given but little opportunity to show the quality of stock he was capable of siring; but his son, Challenge Cup, and his daughter, Gwendoline, have proven beyond question that when he was properly mated he would sire a progeny of Shorthorn character which it would be well to perpetuate. With regard to the temper or disposition of these three really great bulls, it may be said that all of them were all the time on a prolonged probation of good behavior. During all their long showyard career I do not believe any one of them ever showed the slightest bad temper. A judge, or a committee of judges, might slight them, sight-seers might wish to look them over, or they might have to get up when they were entitled o or needed a rest, but they submitted to everything with graceful dignity without ever evincing signs of resentment. As illustrating a different character, as well as the posults which may follow from mean, unkindly treatment, the 31st Duke of Virdrie affords a study which may, perhaps, be profitable. When the has Col Vaile purchased this bull at Woodbarn, Ky, he was warned about the Duke's disposition. When the bull got to his

new home at Independence, Mo., the herdsman was given very specific instructions to treat the bull with the greatest kindness and to be careful that the bull might get no advantage over him. Above all, the herdsman was warned that if he was ever known to whip the bull his term of service would be at an end. Col. Vaile himself kept a close eye on how matters were progressing, and was fast making friendship with the Duke, but one day as the Colonel entered the barn, he saw that his valuable bull was in a towering rage. He called his herdsman and asked what he had been whipping the bull for. The herdsman denied having done so. Col. Vaile pointed to the long marks along the animal's ribs, which were undoubted testimony that a whipping had been administered. The herdsman was told that he could go to his house and get ready to leave. When Col. Vaile was left alone with the bull he began talking to him, but could make no headway in getting near him. Later, he got the currycomb and, by degrees, managed to scratch him a little, patting him all the while and speaking soothingly to him. By degrees the fiery flash of the bull's eyes began to subside and the two were on good terms again. The Colonel then attended in person to the bull until he found another herdsman. This man seemed to understand the bull perfectly, and they became friendly with each other from the start. I might explain that the 31st Duke of Airdrie was a bull of great intelligence and of a high-strung temperament, though quite at his ease when his surroundings suited him.

Another side study of bull character, and how he should be cared for, presents itself in Imp. Anxiety 4th. This bull's disposition was all that could be desired, but somehow or another he managed to get a patent on opening gates, and, like Cupid, he almost defied locks and bars. The moral to be drawn in this instance is that all bull lots or pastures should have strong, secure fences, and a vigilant lookout should be kept for any weakness in them that may occur through wear and tear, for if ever a bull manages to make his way out of a lot or pasture, rest assured that he is not going to be very easily kept in in the future.

In conclusion, I shall, for the present, only mention one other phase of the interesting study of how to care for valuable bulls. Several years ago I

agreed to visit and look over the famous bull, Beau Real. This was possibly two years after he had retired from showyard exhibition, but somehow or other the old herdsman, who had and had had charge of him, could not be induced to let his favorite, who had won fame for both, get down in flesh to a normal condition. After a careful inspection and delicate inquiry, I came to the conclusion that Beau Real required more exercise and less grain or concentrated feed.

In my opinion he needed blue grass pasture badly, and he soon got it. The grain ration was considerably reduced and balanced so as to be of a less heating nature - more to sustain bone and muscle. A few months of this change of treatment brought Beau Real to a normal condition and fit for active service as the chief stock bull in the Maple Hill herd. It was after that period in his career that he sired the great show bulls, Free Lance and Wild Tom, as well as the \$2,500 Beau Real's Maid and many other valuable animals. In touching upon these few varied instances of bull care and characteristics, I must confess that I do not consider that I have much more than touched the fringe of this interesting question. The intelligence of the reader will enable him to draw some inferences from what I have said.—Iowa Homestead.

The Manitoba Dairy School.

The Government Dairy School will open this year with the home dairy course, to begin on the 8th January, and continue until the 3rd February. The second home dairy course will begin on the 5th February, and continue until the 3rd March; and the third home dairy course will begin on the 5th March, and continue until the 31st. Students in the home dairy course for the month of January can take up the professional course in butter and cheese making, which will begin on the 5th of February, and continue until the last of March. The instructors in the Dairy School will endeavor to accommodate all students as they may come in in the home dairy course, and although there are no specified dates for admittance during each monthly course, it is advisable for all students to begin at the beginning, and take the courses as they come.

On the resolution of Mr. John Speir, the directors of the Highland and Agricultural Society have appointed a committee to consider and report on the advisability of undertaking a series of investigations regarding abortion among farm animals.

Hints on House Building.

BY A FARMER'S WIFE.

It is said that no one knows how to build a house until they have built three at least, and as I have helped to build one only, I may not know much about it. But most of us have lived in houses that others have erected, and we have wondered how they got so much inconvenience into a house. If I were having another house built I would have a great many things done differently. The very first thing is to count the cost and complete it as far as it goes. I have noticed that if part of the work is left unfinished, it is very likely to remain so for a long time, and I think it is a mistake to put all or most of the outlay on what may be called the fine appearance, at the neglect of those little plain conveniences which are so helpful to a woman's life on the farm. Now, right here I want to say that the woman who is to live, work and care for the comfort of the family ought to have the larger say in the plan ning of the house. If the good man were building a barn, stable or piggery, it is to be expected that he would know the requirements better than the woman; in just the same way a woman knows more about the arranging of those things which help to make her work easier.

The next important matter is choosing the site. If favorable, build where the ground is high, having a natural drainage. If this cannot be done, it is well to build the foundation well out of the ground and haul stones and earth to fill up. This may seem like a lot of work, but it will pay in the long run, for a wet cellar is the cause of a good deal of sickness. We don't, as a rule, put enough thought and expense on the cellar, where so much of our living is stored away for future use. It is better to have one part for vegetables alone. If the furnace room is on the sunny side, with good windows, it is a fine place to keep those flower plants that you wish kept over, or to start early ones in the spring. When our cellar wall was built, we had an old man around who thought he knew all there was to know about a house, and he said that the windows

should slide into the wall, so it was done; but it was wrong, for it is difficult to open or shut them - the dust and dirt gets in the slides, and there is no way of getting it out. I think they should swing inside. Another thing about the cellar, I think the chimneys ought to be built right from the cellar floor. It would be a safe and cheap way of ventilation. By having openings left in them the foul air would escape, or, in times of severe frost, a stove could be set up.

Let the living rooms, the kitchen and dining-rooms be the pleasantest spots in the house. How often we see a bedroom, and that the guest chamber, in the front and sunniest corner, while the dining-room is behind it. By all means, have one bedroom downstairs, but it ought never to be the guest chamber-said guest may be a nervous woman, having never slept in that house before, and it is pos-itively cruel for all the family to go upstairs and leave her alone downstairs. The man of the house is the one for that room, where he can be on hand in case of emergencies. Don't have many steps at the

many times a day; it will be easier for her without Don't build the house behind the orchard—the place for the orchard is at the back or on one side of the house. Having built the house, see that the surroundings are neat and tastefully laid out—trees, grass and flowers are about the cheapest things in the world. All that is needed is a little time and labor, but the pleasure of seeing them repays for the work, and, as the women and children on the farm have to work hard, it is only fair that the father should help them in making the home attractive and pleasant to dwell in.

MRS. EVERGREEN. Huron Co.

Milking Contests at the Dairy Show.

One of the "novelties" at the Dairy Show in London last month was a milking contest, the first of its kind brought off in connection with the show. There were three competitions, one for men over 18 years of age; one for women over 18; and the third for boys and girls under 18. The contests aroused much interest, and the manner in which the work was performed was most instructive, the way in which the competitors set about their business varying considerably. Some of the visitors questioned the advisability of instituting competitions for women, as they argued that "milking was not woman's work." It must be admitted, however, that it is a very useful accomplishment for a woman to be able to know how to milk when occasion requires it. The laborer's wife, where a cow is kept, finds it most useful, as also farmers' daughters and others at harvest time, when a little help is worth a good deal.

The Weight of Milk.

The specific gravity of milk, water being regarded as 1, is about 1,030; it varies from 1,028 to 1,032. This means that a vessel capable of holding 1,000 lbs. of water will hold 1,030 lbs of milk. Skim milk has, of course, a distinctly higher specific gravity

than whole milk, because the butter-fat which is removed in the process of skimming is the lightest part of the milk. On an average the specific gravity of skim milk varies from 1,036 to 1,040. Roughly speaking, a gallon of milk may be regarded as weighing 10 lbs.

Appetizing Rations.

Whatever makes the feed taste better or makes it more enjoyable to the cow, increases its value for milk production. Early-cut hay is best for the dairy cow, not only because it contains more protein than that cut late, but because its aroma and flavor make it more palatable to the cow. The appetizing effect from the early cutting and careful curing of all forage crops increases their feed value for milk production. Freshly-harvested and freshly-ground grain is the most palatable to the dairy cow, and will give best results. Dairymen who grind feed, should grind often, as grain that has lost its freshness is not the best relished by the cow. Often the dairyman has a large quantity of coarse, rather unpalatable rough fodders, such as

coarse, rather unpalatable rough fodders, such as corn fodder and overripe or slightly damaged hay, which he must feed, and has only a limited quantity of choice roughness to feed with it. In this case best results can be secured by giving the more palatable roughness in the morning, or with the grain night and morning, and feed the poorer roughage as the last feed at night, to be eaten at the cow's pleasure during the night, or else put in racks in the yard for midday meals. Palatable feed in the morning gives a contented cow through the day, and this contentment brings more milk.

When several kinds of feed are given, it is usual to throw them together into the manager and let the cow eat at will. This method does not secure the highest milk yield. You do not want your soup and pie served together on the same plate, and neither does the cow like this method of serving her food. If all the feed stuffs for a meal are thrown together, the more palatable are eaten first. In separating and eating these, the others are

CROSS-BRED GUERNSEY-SHORTHORN COW, NANCY.

Winner of the championship in the Milking Test, London Dairy Show, '98 and '99.

"mussed" over, and when the cow comes to eat them they do not taste good, and she will not eat enough to produce the greatest milk yield. We like to feed our most palatable roughness and give this just be-fore the milkers go to their meal. When the milkers come back from eating, the cows have finished their first feed, and the less palatable roughness can then be given them. It will not then have been slobbered on, and will be better relished and more of it eaten. This method of feeding requires time and care, but it pays.

If the cows are given their rough feed in racks out of doors, it will pay to put feed in their racks often, so that the feed will be clean and appetizing. Mangers, feed troughs and racks should be kept clean and fresh from old, soiled feed, both as a matter of health and because the food in a clean manger smells and tastes better.

The dairyman's rule should be to harvest feed in its most palatable form, and feed in the most appetizing manner.—Bulletin 81, Kansas Experimental Station.

Milking Trials at the London Dairy Show.

The annual show of the British Dairy Farmers' Association, held at Islington, London, is probably the largest exhibition of the kind in the world. It is not confined entirely to milking trials, but embraces several other departments, such as goats, poultry, pigeons, cheese, butter, bacon, hams, bread, honey, eggs, roots, dairy appliances, etc. which accounts for the rather startling number of entries, which this year totalled 7,741. The number of cattle entered was 207, and the entries in milking and butter tests 168. Shorthorns, which came first in the catalogue, made some excellent records in quantity of milk, and a noticeable fact in all the classes was that the cows which won the prizes by inspection were not in the money list in the milking test. The first prize winner, judged by conformation and the indications for dairy work, was Mr. G. H. Proctor's Bella, of Scotch breeding, a bigframed cow, carrying thick flesh and a shapely

udder indicating a capacity of two to three gallons, but in the milking test her average daily yield of milk was 44 lbs. 8 oz., while Lord Rothschild's Lady Somerset Waterloo 2nd, who was not placed by inspection, gave in the trial a daily milk yield of 52 lbs. 4 oz., the period of lactation being the same within two days, both having dropped their last calves in September last. The unregistered Shorthorns did splendidly. Mr. Birdsey's Southcott Bell won 1st prize in the test, with an average of 55 lbs. 7 oz. milk daily, and his Beauty, who got nothing by inspection was second in the milk test. She gave 58 but in the milking test her average daily yield of inspection, was second in the milk test. She gave 58 lbs. 9 oz. milk in one day and an average of 55 lbs. In the Jersey class the first prize cow by inspection was Mrs. Greenall's Mabel 23rd, in her 12th year, but she was not placed in the test, in which Mr. Howard-Vyse's Madeira 6th was first. She gave 41 lbs. 8 oz. per day, and her milk was very rich, yielding 2 lbs. 93 oz. butter, a ratio of milk to butter of 16.09. In the Guernsey class Mr. Plumtree's Lady Ashurst made the best showing, yielding 35 lbs. 12 oz. milk, and 1 lb. 9 oz. butter, a ratio of 22 43. The champion of the show, however, was the cross-bred Guernsey-Shorthorn cow. Nancy, owned by Mr. G. Long. She gave 68 lbs. 8 oz. milk in a day, an average of 63 lbs. 1 oz., and a butter yield of 2 lbs. 113 oz., a ratio of 25.05. This beautiful cow is illustrated in this issue, and is a model dairy cow in form as well as in performance. She won the championship at the same show last year, and repeated the record this year.

Farm Dairying.

[By Miss Christina Stewart, Oxford Co., Onto, winner of 1st prize in Buttermaking Competition, Toronto Industrial Exhibition, 1899.]

A great deal has already been written on this subject, but I will try to describe as briefly as possible my plan of home buttermaking.

The Cow and Cleanliness. - In this, as in all other matters, to deal with our subject intelligently we must begin at the beginning. In this case this means the cow, whose food and drink should be

wholesome and pure. Then in milking, and throughout the entire process of making, cleanliness should be strictly observed, as it is one of the chief essentials to good

Setting the Milk. - As soon as possible after milking I strain the milk into deep cans, and set them in water at a temperature of 40 degrees for 24 hours; then skim off the cream, and while gathering it, stir it whenever fresh is added, keeping this sweet until 24 hours before churning.

Ripening the Cream.—Having obtained sufficient cream for churning, great care should be observed to ripen it properly; and just here I may state that a dairy thermometer is an indispensable article for the production of fine butter. I heat the cream up to 70 degrees, and keep it at that temperature till 24 hours before churning, stirring frequently so as to have all evenly ripened, then cool down to 52 degrees in summer and 58 degrees in winter.

Churning.—I strain the cream through perforated dipper into a well-scalded and cool Daisy churn, in winter putting in coloring to the amount of one drop of liquid coloring to three pounds of cream. The operation of churning takes from 45 to

60 minutes, and when the butter is half the size of a grain of wheat, I let it stand for a few minutes till all the granules rise to the top, then drain off the buttermilk through a perforated dipper.

Washing the Butter.—Strain into the churn as

much water, at a temperature of about 46 degrees. as there was cream at first, turn 12 or 15 times, then drain off all the water. If the butter is for immediate consumption, one washing would suffice, but for package, two washings would be better. Salting.—Then I take the granulated butter out

with a wooden ladle and place in a tub and weigh; remove to the butter worker, and sift through a perforated dipper good dairy salt to the amount of 3 of an ounce per pound of butter, for prints, and of an ounce per pound for package. Then work, of an ounce per pound for package. using a gentle pressure, as it is best to preserve the grain, being careful also not to overwork it, but working by a certain number of revolutions. Then put in pound prints. I wrap them round neatly with good parchment paper that has previously been drawn through cold water.

Marketing.—I sell my butter to private customers, and to A. Beattie & Co., Stratford, and also ship some small packages to a private customer in Montreal, in all cases getting the highest market price. If all these foregoing remarks be carefully followed I feel assured that nothing but the best of butter will be the result of all efforts.

The Color of Milk.

The color of milk is due to the butter-fat which exists in it in a state of suspension. The rest of the solid matter contained in butter-on an average of about 8 per cent.—exists in a state of solution. butter-fat of the milk is present in the form of very small globules, and it has been advanced by such a well-known authority as Fleischmann that if it were possible to remove all the butter-fat globules from milk the remaining liquid would be almost colorless and transparent. This is the reason why very poor milk is so apparently "thin" and watery.

Description of John Campbell's First-prize ter, and the screens in summer keep the cellar sweet and wholesome. The thorough draining al-Farmhouse.

[FROM OUR ONTARIO AND EASTERN EDITION.]

This house is a two-story cottage, built of white brick, and was designed and constructed having especially in view comfort, convenience, ventilation, and economy of labor. My wife gave much thought to the latter aim, and is now very much pleased with the result. The cellar is 7 feet high; groundfloor ceiling nearly 10 feet, and upper-story ceiling 9 feet 6 inches.

The water system in use probably gives as much satisfaction as any other feature. Hard water is carried into it from the farm system, in which there is a 60-barrel tank, elevated 20 feet, and filled

ready mentioned also helps in maintaining purity of air. One of the special conveniences in the cellar s a waste-water sink, well trapped where there is direct connection to the soil pipe

Moving upwards to the ground floor, the pantry is first reached; it is fully shelved on two sides, with doors to close, and numerous drawers. One entrance to it is from the kitchen, and another direct into the breakfast room saves many steps daily. The kitchen, with woodhouse opening directly into it, with cold hard and cold and hot soft water drawn by taps at the sink, and so near to the parts

of the house most used, largely lessens labor. It is scarcely necessary to enter into the details of ground and first floors, as the accompanying plans, I think, make all fairly clear. No pains or

workmanship was performed.

In conclusion, I would say to farmers contemplating building a comfortable home, do not begin without a careful preparation of material beforehand, as there is a strong temptation to use inferior qualities if rushed. JOHN CAMPBELL. Victoria Co., Ont. [Note.—The plan of this house is such that it can be modified in dimensions, one of the rooms on ground floor used as a bedroom if preferred, and much of the extra finish dispensed with, thus considerably reducing the expense.]



RESIDENCE OF MR. JOHN CAMPBELL, FIRST PRIZE IN FARMHOUSE PLAN COMPETITION,

by windmill pump, to furnish the necessary pressure. First, the inch galvanized-iron pipe goes under the foundation into the cellar, where a tap is placed above milk box to water the creamers and furnish water for cellar use. A lead pipe continues upward to the kitchen sink just above, and thence to bath-room, where it furnishes water for flushing tank of closet.

Soft water from roofs is collected into a cistern in cellar under the kitchen. At the bottom of the cistern is placed an iron pipe with plug, which, when unscrewed, empties all water from the cistern into a drainage system placed under the outside cellar walls and cement floors, and carried then to farm system of drains, emptying into a stream. The waste water from milk box is also carried off in the same way by turning a tap.

To get the soft water where wanted, it is first forced by hand pump to a 6 or 7 barrel tank placed outside the bath-room, in back-stairs hall, and up to the ceiling, so as to be entirely out of the way. The water is conveyed to a range boiler in kitchen, which farm shes hot water to kitchen sink, washstand nearby, and to tub and basin in bath-room. Cold soft water is also piped to each point where

the hot water is used. All waste water is conducted by a metal 4-inch soil pipe, top of which goes out through roof to carry off foul air, and at inside cellar wall enters into glazed-pipe drain, which in turn enters into a covered cesspool 100 feet away. An overflow drain from the latter prevents its flooding in wet weather. Special precautions were taken to prevent any gases from cesspool or drain escaping into the house. Just outside the cellar wall the glazed-pipe drain is deeply trapped, and at side of trap, further from the wall, a pipe is carried upwards to over the eave, so that all impure air is conveyed high up, where it is carried away. The heating is done by a No. 4 hot water boiler, and with a radiator of proper size in each room and hall, uniform heat is easily maintained in every part of the house. Five to six tons of hard coal were found quite sufficient to fully warm it during the past most se-

To get so made comfort and convenience required special care in the manner of building,

which I will proceed to escribe. Beginning with the clar, the walls were built with ordinary field stones of good quality; the walls are two feet thick. Floors are made of good cement concrete, 3 inches thick, and finished smoothly with an inch of sharp said and cement mortar. with an inch of sharp said and cemen mortar. Ceilings are all lathed and the cered, and walls are smoothly plastered on the stares. The partition walls are of brick, 9 inches takes. All doors and exposed wood are well painted. Window double; inside sashes are on Linges, and considerables sashes are movable, with performed tops, all the ing up inside sash gives free ventilation in wh

reasonable expense were spared in getting first-class material, and workmen were not stinted in contracts. Brick walls are 14 inches thick, built with an inch air-space the width of a brick from inside. The walls are heavily blind plastered, then strapped with $1\frac{1}{2}$ inch pieces, to which laths are nailed, and the plaster is finished with white lime.

Ground floor was first laid with matched pine flooring, and when the finishing was done, a second floor of maple was laid over the pine. Upper floors are all single maple, matched. Most of rooms are finished with white pine. Dining and breakfast rooms are finished in oak. Office is finished in oak and birch, nicely panelled.

Front hall finish is of birch and walnut, sides every panel molded. Front hall and dining-room have a wide border of inlaid oak and white maple in floors. These, with all the hardwood finishes, are oiled, rubbed, and varnished, bringing out the grain of the different woods in nice contrast, and showing what a pretty effect our Canadian woods

are capable of making. The front veranda is carried up to the roof, making it two-story. A door leading to the upper part is found very useful in giving perfect venti-lation in the warm season to the bedrooms upstairs. Left open, fresh air passes freely along the halls, and finding a vent in the man-hole, situated above the back stairs, opening into the unused garret. Other means of ventilation are by the flues and windows hung on weights. The storm sash are made with perforated tops and the usual slit at bottoms. That, with the raising of lower inner sash und lowering of inner top sash, gives good ventilation in the most extremely cold or stormy

A point of two in favor of the upward extended canda. There are fewer gutters necessary in the roof, and the appearance of the house is much improved. The shade afforded prevents so much of the wall from being heated by the sun, making the upper story a pleasant retreat in the evenings.

As much of the work, such as hauling material, digging cellars, and clearing away rubbish, was done in connection with the farm work, it is not possible to arrive at a very correct estimate of cost. But an approximate figure will be near about \$3,000, but not to exceed that. Of that amount, the plumbing and heating system cost \$600. Considerable could be saved in the plumbing and have probably as useful a job. We got in a porcelsin tub and nickel-plated fittings throughout, marble washstands and closet fixtures to Without being extravagant, the aim at was to get a strong, substantial job in all details. In letting contracts, the first considermin to very case was the getting of first-class

Winter Stock Feeding.

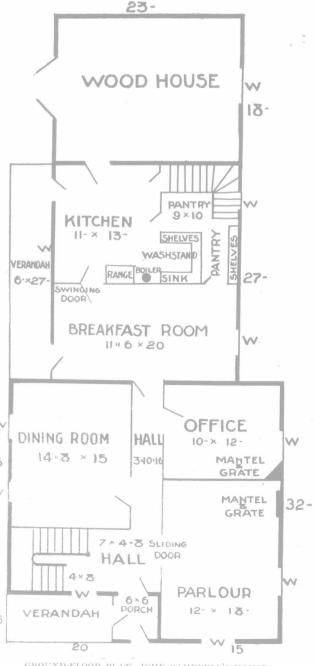
work done, and, with scarcely an exception, the tradesmen were given the prices asked, and in some

instances a gratuity was handed where superior

In the course of the ever-revolving cycles of the seasons, grim winter is again approaching, and though the late autumn months of the present year have been exceptionally favorable to the farmers whose supply of fodder in many sections, owing to protracted summer drought, is none too large, and in many cases had to be drawn upon earlier than usual, the time has fully come when all stock should be fed some nutritious food in addition to what they derive from the grass, which, though possibly still affording a fairly good bite, has not now the same nutritive properties that it possessed earlier in the With a view to economy of feed, the temptation is generally strong to leave the stock to shift for themselves in the fields as long as they can find a living. This is in most cases a false economy, as in addition to the failing quality of the pasturage, the long, cold nights and damp lying will seriously affect the animals, which, while seemingly retaining their outward condition, will suffer a serious loss of internal fat, which it will take considerable time and feed in the stall to replace. This is a most important point, especially to the feeder of beef cattle which it is intended to get ready for the market in the early spring, and is one he cannot afford to overlook, as it entails a loss of time, food, and money. There is a loss of all these while the animals are going back in condition, and again while the condition is being recovered, as a fortnight's full feeding will not suffice to restore the loss sustained by a week of hardship on the pastures.

As a matter of course, on all well-regulated farms

the milking cows have for several weeks been stabled at night and fed a liberal ration in addition to what they have found in the fields during the day. It is now generally understood that milk secretion shrinks rapidly when the cows are left out in cold winds or on frosty nights, and that it is almost, if not quite, impossible to restore the normal flow even by extra and persistent feeding. It is true



GROUND-FLOOR PLAN, JOHN CAMPBELL'S HOUSE.

QUESTIONS AND ANSWERS.

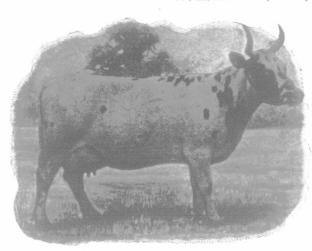
Veterinary.

PARTIAL LUXATION OF PATELLA.

Subscriber, Lewisville, Alberta:—"Have a colt four months old which has a soft lump on its stifles about the size of a hen egg, and when walking can hear them cracking. I just let it follow the mare in the pasture; when driving or working her I leave it in the stable. First noticed them when it was about a month old. Colt is all right every other way?

[There is a relaxed state of the ligaments which keep the patella (knee cap) in position. Apply the following liniment, with smart friction, once daily for three or four days, or until the skin becomes sufficiently irritated; leave off for a week and repeat. The colt should be kept during winter in a

roomy and comfortable box stall.
W. A. DUNBAR, V. S.]



EVA OF BARCHESKIE 2505 (Imported). Second-prize Ayrshire cow at Toronto Industrial, 1899. OWNED BY ALEX. HUME & CO., MENIE, ONT.

STERILE COWS.

SUBSCRIBER, Sandon, B. C .: - "Would you please state, through the columns of the FARMER'S ADVO-CATE, what ails my cows; they do not get in calf. I am running a dairy of about 30 cows; the half of them have failed to get in calf this season, although coming regularly in season?

Sterility in cows and other domesticated animals is due to various causes, both physical and organic. Some of the causes are removable, while organic. Some of the causes are removable, while others produce permanent impotence. Animals in which the sexual organs of both sexes (hermaphrodites) are equally, though only partially, developed; the progeny of different species (hybrids), and animals in which one or more important generative organs are absent or very imperfectly developed. developed, are generally permanently sterile. Bad hygiene, such as filthy, insufficiently lighted, ventilated and drained premises, change of climate, underfeeding or overfeeding (especially the latter),



PIET VAN VORAN, TWO-YEAR-OLD HOLSTEIN BULL,

Winner of first prize and the male championship of the breed at the New Brunswick Provincial Exhibition, 1899. (See "Gossip," page 600.)

PROPERTY OF LOGAN BROS., AMHERST, N. S.

and old age, are conditions which are more or less antagonistic to fecundity. Animals suffering from tuberculosis, or other seriously diseased state of the system, especially when the sexual organs are involved, are very often sterile. Although you did not mention having done so, I take it for granted that when your cows "came in heat" you tried what effect a bull would have on them. Occasionally the fault is in the male animal, and when that is suspected, it is, of course, advisable to make a change. W. A. Dunbar, V. S., Winnipeg.]

SCOUR IN CALVES. DAIRYMAN, Peel Co., Ont .: - "What is the best

remedy for scour in young calves? [Diarrhœa, or scour, is generally the result of indigestion or derangement of the stomach, caused by feeding too much milk at a time, or feeding it cold, in which case the milk does not digest, but curdles in the stomach, and irritates the mucous

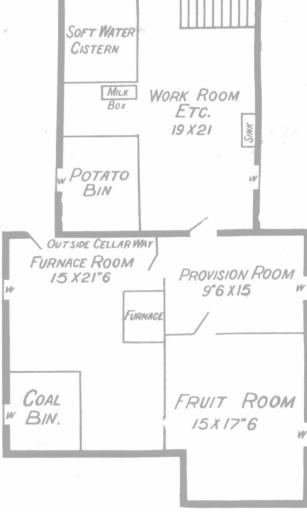
surface of the stomach and intestines, which induces diarrhoea. To prevent, under-feed, rather than over-feed, and always give milk warm. When scours are observed do not delay treatment long, as the more advanced the trouble the more difficult it will be to cure. First, give a dose of castor oil, from one to two ounces, according to age of calf, and if a bad case, a half-teaspoonful to a teaspoonful of laudanum or a tablespoonful of paregoric. After the oil has acted, care must be exercised to feed only a very small quantity of milk at a time for a few days, not more than a pint to a quart three times a day, and half a pint of lime water should be mixed with the milk. Lime water is made by putting a piece of lime in a vessel, pouring a little water on to slack it, and adding more water; stir briskly and allow to settle: the clear liquid on top is lime water. If the calf shows considerable weakness, he should get a teaspoonful of whiskey, in a wineglass of warm water or milk, four times a day until he seems strong enough to warrant a withuntil he seems strong enough to warrant a with-drawal of the stimulant. As a rule, if taken at an early stage of the trouble, the castor oil will, with careful after-feeding, give full relief. A new-laid egg put down the calf's throat, shell and all, is often very helpful in such cases. For calves of two months or older, a gill of raw linseed oil may be given, followed in an hour or two by a tablespoonful of bicarbonate of potash in water.]

IMPOTENT BOAR, SUBSCRIBER, Two Mountains Co., Que .: - "I have a fine Yorkshire boar, now ten months past, and he will not serve a sow, nor pay any attention to one. I was advised to feed cinnamon and eggs, but will wait for an answer through your columns before taking further steps. I was also told to use cantharides, but I am told a toxic dose is required, so restrained from doing so. Is he of any use? Shall

[I would advise you to castrate the boar. While it is possible that age will have a tendency to overcome his weakness, such a result is not probable. The administration of cantharides or other aphrodisiacs is not good practice in any case, and would not be beneficial in this. J. H. Reed.]

INDIGESTION IN CALF. L. E., Cardwell Co., Ont.-"I have a calf which bloats occasionally, and sweats behind the shoulders. He is a very large drinker, and I give him a fair share of exercise, but all is in vain; all kinds of feed have the same effect. He is growing very well,

but keeps poor Please give me a remedy



CELLAR PLAN, JOHN CAMPBELL'S HOUSE.

[You do not state the age of your calf, or whether you are still giving him milk. He is troubled with chronic indigestion. Give him a purgative of Epsom salt, say 6 to 8 oz. dissolved in a pint of warm water. If this should not act sufficiently, repeat the dose in about 36 hours. After giving the drench, do not allow any solid food until the bowels begin to act freely. Give nothing but a little dry bran and water. After purgation ceases, if still giving milk, add to it about a lime water. If not getting milk, give the following: bicarbonate of soda, 8 oz; pulverized sulphate of iron, 2 oz.; pulverized gentian, 2 oz.; pulverized nux vomica, 2 oz. Mix and make into 24 powders. Give a powder 3 times daily, as a drench, mixed with ½ pint of cold water. Repeat the prescription unless a cure be affected. If the calf is less than 6 months old,

economy to take up all young stock and give them shelter at night and on stormy days by the end of November, and to gradually accustom them to winter feed by giving them a little hay and succulent food, such as turnips or ensilage, or a light ration of bran and oats to keep up their condition and prevent shrinkage. The scarcity of roots this year on many farms may be made an excuse for delay in commencing to feed them, but it will be wiser to begin early to feed a few each day, if it be only half of the quantity usually considered liberal feeding, as when animals are put on dry feed alone, they are liable to constipation, impaction and other disorders of the digestive organs, which may lead to serious trouble and loss, which succulent food may prevent by keeping all the organs in regular working order. Where roots and ensilage are not in store, the best substitute is bran and oil cake, a in store, the best substitute is bran and oil cake, a BED ROOM 9-8 X 13-6 BACKSTAIRS HALL CLOSET 5X3-IO CLOSET 3X3 IO CLOSET BEDROOM BATHROOM! 8 X 10-6 8X10-6 BEDROOM BED ROOM

UPSTAIRS PLAN, JOHN CAMPBELL'S HOUSE.

HALL

3X9

11.4X11.9

CLOSET CLOSET

BED ROOM

0"51Xe"11

11X14.9

CLOSET

3-3 X 7-4

BEDCLOTHES

STAIRCASE HALL

VERANDAH 6 X 20

7.4X11

very small portion of which will serve to keep up condition and promote healthfulness.

Working horses which have had regular exercise and full feed while plowing and teaming during the fall, are apt to be left standing in the stable when the frost stops the plows, and often their full rations continued, which is an obvious mistake and is liable to lead to swollen limbs and blood ailments, which may prove a serious loss if not guarded against lowering the grain feed and turning out for a few

hours each day for exercise.

nours each day for exercise.

The sheep are usually the last of the stock housed, being, as a rule, left to find for themselves till snow covers the grass so deeply that they cannot, even by scratching, get a living; but they will pay liberally for protection and more generous treatment by holding their flesh and increasing the growth of wool, and in view of this should have shelter from cold rains and drifting storms. Where shelter is wool, and in view of this should have shelter from cold rains and drifting storms. Where shelter is not practicable, a daily ration of oats and bran, or other concentrated food, given in troughs in the field, will greatly help to maintain flesh and thrift. The thoughtful and provident shepherd will not neglect at this season to examine the sheep for evidences of skip disease or if ticks and lice are dences of skin disease, or if ticks and lice are present, and make timely preparations for combating these insidious enemies of the health of the flock. Experience has taught that it is wise to treat for these troubles at the beginning of winter, whether the indications are present or not, as prevention is better that cure, and the labor and expenses will be repaid a hundred-fold in the thrift of the flock and the weight and quality of fleece produced; while if it is neglected, and scab or vermin find a footing towards lambing time, treatment may be found inconvenient, if not impossible, and weary months of suffering by the sheep and of shame by the shepherd must be endured before relief can come by way of the shears and the dipping tank, with a depreciated and discreditable flock as the inevitable outcome.

Before being killed, fowls should be fasted for at least twelve hours; some go the length of keeping them on empty stomachs for twenty-four hours. In France, where the breeding and killing of poultry for market purposes has been developed to a greater extent perhaps than any other country, some breeders give the birds a drink or two of milk during fasting, as it helps to impart to the flesh that peculiar whiteness which is so highly valued in the better class of table birds.

-Top Prices

1898

1897

Total.

1,209,985 1,313,968

103,283

623,308

19,931

111,045

12,435,858

313,510

5,214,943 5,258,886

750,865

Two weeks

ago.

4 15 5 75

9,539

28,377 39,814

11,337

563,049

1,474,104

18,442

Omaha.

128,755 127,175

1,580

1,462

3,622

697,192

3,556

1,071

FARM GOSSIP.

Favorable Fall.

With the exception of a week or ten days in October, the fall season has been most favorable to farming operations. After a period of wet weather, with snow in the western portion of the Province and Territories, the weather cleared dry and cold, so that what stook threshing remained to be done was got through with in good shape. The ground remained open until late, facilitating fall plowing, of which a large proportion has been done, and the ground was wet and in fine condition for next year, and the mild weather lasted well into November, shortening the winter for the stock and saving quantities of feed.

Chatty Stock Letter from Chicago.

Extreme

.\$5 60 to 6 50 5 25 to 6 50 4 60 to 6 50

3 75 to 4 30 3 90 to 4 25

3 50 to 4 15

2 65 to 4 50 4 00 to 5 75

299.231

49,257

245,476

17,089

1,641,681 1,509,116

2,937,776

474,365

854,394

23,717

132,565

The following were receipts of live stock at principal points for last month and the first ten months of the year:—

Beef cattle.

Cattle receipts in October : Chicago. Kan. Cit

240,438

229,963 10,475

101,871

Sheep receipts in October:

348,864

Cattle receipts in ten months:

26.803

Hog receipts in ten months 9..... 6,678,423 2,463,411

6,831,700

3,051,102

203,277

Sheep receipts in ten months: 9..... 3,050,389 830,677

Hog receipts in October 9..... 670,193 245,4

1500 lbs, up...... 1350 to 1500 lbs... 1200 to 1350 lbs...

1050 to 1200 lbs

900 to 1050 lbs.

Increase

Decrease.

Decrease.

Increase

Decrease.

Increase

Increase

1898.

1899.

1899.

FROM OUR OWN CORRESPONDENT.
Following table shows current and comparative live stock

make the prescription into 36 powders. reasonable quantities of easily-digested food of good quality. See that he has exercise, and do not allow him to drink a large quantity at one time. J. H. REED.]

Miscellaneous.

STANDARD FOR TOULOUSE GEESE.

SUBSCRIBER:—"Please describe, in the columns of your valuable paper, the particular points in judging Toulouse geese. Should they have a black spot on point of beak, or not?"

[Plumage light gray, growing lighter until it becomes white upon belly, the white extending back to and around the tail, and covering all the

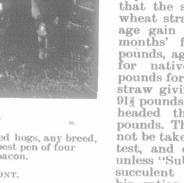
HAY OR STRAW FOR FATTENING CATTLE.

Subscriber, Headingley, Man.:—"I am about to stall-feed some cattle this winter. I have hay worth \$3 a ton, and straw which costs practically nothing. should be much obliged if you would give me information as to which would be most profitable to feed: hay, with grain later on, or straw, with grain all through the winter?"

["Subscriber" does not say whether he has any available foods other than those mentioned, or not; nor does he state what kind of straw or grain he purposes feeding. Unless he has a supply of roots, or other succulent food, to add to his ration, he will not get the best results from either. A test made last winter at the Indian Head Experimental Farm (reported in the ADVOCATE of July 20th, 1899), in which all the steers were given a uniform ration of 24 pounds of ensilage per head per day, and 2

oounds of meal each the first four weeks, with an increase of 2 pounds each four weeks, the balance of the ration being equal weight (12 pounds per day) of oat straw, barley straw, wheat straw, native hay, and Brome hay, showed that the steers getting the wheat straw made an average gain during the four months' feeding of 162½ pounds, against 127½ pounds for native hay and 1261 pounds for oat straw, barley straw giving only a gain of 913 pounds, while Brome hay headed the list with 180 pounds. This, of course, cannot be taken as a conclusive test, and even if it could, unless "Subscriber" has some succulent food to add to his ration it would be of little use as a guide to him.

In any event the cattle will do better if they have some variety and not confined to an exclusive diet of either hay or straw. If the straw is run through a cutter, moistened and piled up till it softens a little, it will be found to give better results. It



would be well to mix cut hay and straw together,



YEARLING TAMWORTH SOW.

First prize at Toronto Exhibition, 1899.

OWNED BY A. C. HALLMAN, NEW DUNDER, ONT.

part of the time at least, giving a light feed of good hay, uncut, once a day. If "Subscriber" will give us fuller information we will be pleased to get all

Secrets of Success in Pig Keeping.

Mr. Sanders Spencer-and he ought to knowlays it down that one of the secrets to success in raising young pigs is to feed them often, and "give them a little at a

mixture of sharps and meal, made into a mash with skim milk. Mr. Spencer is a strong advocate of feeding pigs liberally from the outset, and keeping them improving and putting on flesh from day to day. Bacon curers put a much higher

value upon pigs so fed than on

those which are well fed one week and half starved the next.

time." When about to be wean-

ed, he advises giving them a

Decrease. 713 23,717 1,071 18,442 43,943

The Union Stock Yards & Transit Co., of Chicago, has offered to guarantee \$10,000 to the live stock breeders for a great show and series of sales at Chicago. The big horse pavilion at the Stock Yards, which was destroyed a little while ago by fire, has been rebuilt of brick, and made as nearly fireproof as possible. It is here that live stock shows would be held, and they would be international in character. Canada, no doubt, would make a better showing at Chicago than at any western point. There hasn't been a great show of all kinds of pure-bred cattle since the World's Columbian Exposition, and something of the kind, upon a sound and permanent basis, at Chicago, would attract people here from two continents.

How the Stock Business Has Groun.—Forty-two years ago, on Monday, November 9th, 1857, Chicago received the magnificent total of 338 cattle, 1,755 hogs, with no mention made of sheep. For the week ended that date cattle receipts were 1,398 head, and hogs 7,694 head. Last month the four leading western markets received 718,000 cattle, the largest received any month since October, 1894, when 766,000 arrived. Last June only 381,000 were received at the four markets. Last month's receipts at the four markets were 253,000 above the average for the first nine months of 1899. Exporters bought 2,389 cattle the past week as follows: Brauer, 1,000; H. A. Allen, 61; Epstein, 164; Shamberg, 651; Allerton, 133; Swift, 361; Hathaway, 16. Last week 945 were tagged, and a year ago 823.

At Casper, Wyoming, a few days ago, Major Ormsby, one of the large sheep-men of Central Wyoming, was offered \$4 per head for the top of his ewe lambs. This is the highest price offered for range lambs during the past twenty years. The Colorado lamb feeders have been unwilling to pay the prices asked for lambs in New Mexico, and some of them will feed

PURE-BRED YORKSHIRE, BUTTERCUP 10th. Prizewinner at Toronto Exhibition, 1898 and 1899; and second-prize boar under six months at the Western Fair, London, 1899. OWNED BY H. J. DAVIS, WOODSTOCK, ONT.

their alfalfa hay to cattle. The price of New Mexican lambs has eased off considerably within the last two weeks since the snows have come to make thoughts of winter more formidable. At Las Vegas, and other places on the Sante Fe, some lots of very fair lambs have been bought at \$1.50 which is lower than such goods have sold for three years.

British Cattle Market.

London, Eng., Nov. 13.—The market for American cattle is short of supplies; trade is sharp. United States cattle 6d. to 6\(\frac{1}{2}\)d., Canadian 5\(\frac{1}{2}\)d.; no sheep. After the 15th no Canadian cattle will be admitted in Belgium.

posterior or fluffy parts; from a front view but

PEN OF PURE-BRED YORKSHIRE HOGS.

Winners of first prize at Toronto Exhibition, 1899, as best pen pure-bred hogs, any breed, most suitable for export bacon. Also winners of sweepstakes for best pen of four hogs, any/breed, grade or cross, most suitable for export bacon.

BRED AND EXHIBITED BY J. E. BRETHOUR, BURFORD, ONT.

little of the white is visible. Shanks, deep reddish orange. Bill, flesh orange; a black or grayish bean on end of beak generally, but the presence or absence of this mark is not a disqualification.

FARMERS ADVOCATE

HEAVIEST HORSES.

G. E. L., Newdale:-"Can you inform me, through the ADVOCATE, what is the largest breed of horses in existence. Some say the Clyde is the largest, and others the Shire. Could you give weights of some of the heaviest specimens of the breeds. Are the Percherons not as heavy?

Weight alone is not the most desirable characteristic of any breed of horses, and we do not know that any one breed would outweigh any other breed, but it is generally concelled that the Shire horse has something the advantage of the Clyde in avoirdupois. The Percheron is not generally as heavy as either Clyde or Shire. We have no record of the heaviest horses of either breed.]

WIREWORM AND PREDACEOUS LARVA.

Hog Ranch, Golden, B. C.:-"I herewith enclose specimen of grub found in my potato patch, which appears to be blighted by them. Kindly advise me of the name, the extent of damage they are likely to do, and of the best means of getting rid of them.

[The two specimens forwarded to you by Mr. Fitzpatrick, of Golden, B. C., were of two very different insects; one was a wireworm, the other the predaceous larva of a fly. 1. Wireworms are the grubs of the click beetles, and are very injurious to the information for him possible. crops when they occur in large numbers, as is trequently the case. Unfortunately there are very few remedies which can be used successfully against these pests. Extensive experiments have been tried to discover a practical method of preventing loss, but the only result of value was the proving the uselessness of many so-called remedies which have been from time to time recommended in newspapers and other publications, and upon which considerable trouble and outlay were sometimes expended by farmers. Amongst these methods which have been found to be quite useless are the application of salt to land, the poisoning of seed before sowing, rolling, etc., etc. The only agricultural method which has given any degree of success is the plowing of land at the time the insects are in the pupa or chrysalis condition. A difficulty here, however, is that there are many different species of these wireworms, and this time would vary with each species. Plowing in August and late in autumn have given the best results. It has been found that when land is badly infested with wireworms and hardly any crop can be grown on account of their attacks, good crops of barley and tye can be grown, and there is considerable evidence that these two crops are much less

2. The very active, slender, white larva, about an inch long, tapering to each end, is predaceous, and therefore is a friend. When the box arrived the wireworm was dead and dry, having been killed in all probability by the white larva. There is a very similar larva sometimes found beneath carpets in houses, where it is thought to feed upon caterpillars of clothes moths. Certainly in confinement it will feed upon these caterpillars, and it requires large numbers to feed it to maturity. This is the larva of a small blackish fly belonging to the genus Scenopinues.

J. FLETCHER, Entomologist. Experimental Farm, Ottawa.

Canadian Farm Exports.

ding exports to Great Britian in ten months, ending Catalitic expects to Great Britian in ten months, ending October 31st, show a slight decrease in the number of cattle exported: Cattle, 11.210, valued at £192.633; sheep, 10.710, valued at £6.246; whent, 558,300 cwt., valued at £193.634; flour, 255,300 cwt., valued at £193.634; sheep, 10.210 great at £55,332; baccon, 52.614 cwt., valued at £91.850; hams, 10.156 cwt., valued at £21,250; butter, 17.29; cwt., valued at £219.057; cheese, 211.527 cwt., valued at £528.092; eggs, 197.650 hundreds, valued at £68,982; horses, 628, valued at £17.357. The total value of imports from Canada is £2.125.736.

LUJI WICKO DATEL

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A Siege Baby.

BY THE AUTHOR OF "BOOTLE'S BABY," ETC., ETC.

In the merry month of May, 1857, three bright-faced girls were sitting very close together in the morning-room of an English country house. They were very busy, stitching as if for dear life, for their work was destined to begin a long journey before another week had gone by, a journey to the shining East, whither another daughter of the house had gone as a bride a little more than a year previously.

ney before another week had gone by, a journey to the shining East, whither another daughter of the house had gone as a bride a little more than a year previously.

It was very fine and dainty work with which they were occupied; Maud was putting the finishing touches to a gown made of flimsy cambric and delicate lace, tucked and embroidered until my brain aches to think of it, a gown with a very long skirt and a very small body; while on the other side of the window Grace was just finishing a little shirt, which in size was a match for the body of the gown; and Kate was putting a beautiful patch of silk embroidery on the corner of an article, which, I am told, is called a head-flannel.

Up-stairs, a large box was already packed and awaiting these and some few other additions to its contents ere it set off on its travels—and over in Muttrapore, the object of all this affectionate forethought was just beginning to eat her dinner. She was quite a girl, and very pretty, with fair hair hanging in soft curls on either side of her round young cheeks and very blue serene eyes. She was wearing a muslin gown of a pale pink color, with white lace about the slightly opened throat and within the wide sleeves.

She atcher soup in silence, which was not broken by her husband on the other side of the round table. Twice she looked at him in wonder, as if it was an unusual thing for him to be so quiet.

"Is anything the matter. Charlie?" she asked at last.

quiet.
"Is anything the matter, Charlie?" she asked at last.

"Is anything the matter, Charlie?" she asked at last.

He looked up with a start.

"Oh! No, my darling; what made you ask?"

"Nothing, only that you have been so long without saying anything," she answered.

"I'm tired, that's all," he said. But he said it with an effort, which did not escape a pair of glittering black eyes which were watching his every movement and expression. "What have you been doing to-day?"

"Lady Marinry came over just after you went this

watching his every movement and expression. "What have you been doing to-day?"

"Lady Marjory came over just after you went this morning—and brought the baby. Such a dear little thing, and takes notice already, Charlie. Yes, it does indeed, for it opened its eyes and fairly laughed at me."

"You don't say so," he said, with a very fair show of interest. "And how is Lady Marjory?"

"Oh! wonderfully well. And, Charlie, she declares that there is no such blessing in India as to have a baby—it gives one such an occupation. I"—with a blush and a downward look—"shall be very glad when September comes."

"And I," said he heartily.

"And I," said he heartily.

"And I had letters from the girls, too. The box is to start about the middle of this month. And it will contain everything I can possibly need for—for September."

"That's awfully good of them."

"Yes, isn't it? And poor Maud says it is so hard not to have the baby there. You know I told them I should send a portrait home as soon as possible, but Maud says what's the good of a piece of giass, with a sort of ghost on it that won't 'walk' unless you look at it sideways." She paused, expecting he would laugh at the little joke, but no, he was as silent as the grave and as grave as a judge.

"Charlie, I'm sure something's the matter," she declared positively.

He looked up quickly and answered promptly enough

He looked up quickly and answered promptly enough, "Nothing, my dearest, you are very fanciful to-night. I am tired and hungry, that is all. Don't mind me at all, but tell

Nothing the matter! Perhaps not—and yet an hour later he asked her to play a game of draughts with him, and then, keeping his eyes fixed upon the closed door, he took her hand and said in a very low voice, "Eva, can you hear some news in silence?"

with a startled air vet

"News! with a startled air, yet in a whisper, just as he had spoken.
"Yes, in silence and without a sound?"
"I think I can," she said confidently.
He held her hand yet tighter within his. "Call up the heart of your ancestors," he said with a sad smile, then leant forward and whispered in her ear, "It is come at last—they have view at Mecrut." have risen at Meerut.

Mrs. Mordaunt half rose from her chair, then remembered herself and sat down again; she looked up into her husband's face with eyes full of fright and put her disengaged trembling hand into his.
"Risen," she repeated. "Oh! Charlie, what will it mean

"My darling, I cannot say, only—I wish I had died before I brought you out here, I wish I had died first."

"Oh! no—no—I don't. I daresay we shall be safe enough. As Lady Marjory says, it's not as if we were in a Native regiment. We might be uneasy then," reassuringly.

"Did she say that?"

Mrs. Mordaunt nodded in reply.

Mrs. Mordaunt nodded in reply.

Mrs. Mordaunt nodded in reply.

"When?" he asked.

"This morning."

"What, aloud?" anxiously.

"Oh! yes. I couldn't get her to stop. She paraded about the room and laughed the whole idea of a rising to scorn—said she should believe it when it had come and not before. 'It's common sense, 'she cried,' that such a thing couldn't be. Why common sense, she cried, 'that such a thing couldn't be. Why should anybody want to mutiny, or at least to massacre us? If—but it's absurd, 'she said; 'what man on earth could want to harm two poor inoffensive little women like you and me? It's absurd on the very face of it."

"Little fool!" said Mordaunt, contemptuously.

There was a slight noise at the door and instantly their hands parted, and moved back to the position for playing the game in which they were supposed to be interested.

"Your move," said Mordaunt.

So she moved a piece—at random, and her husband followed her; and so they played on in silence until the servant who had brought in coffee left them alone again.

"I wish you were at home, Eva," he burst out in a whisper of agony. common sense,' she cried, 'that such a thing couldn't be.

of agony.
"So do I—with you," she whispered back. "With or without me—if only you were safe. If only I could get you away into peace and safety. It will come to us before long, and even if you are safe. I am afraid for the effects of excitement upon you just now. Oh! if I could only take you

of excitement apony so the source of the sou

THE FARMER'S ADVOCATE

will do all the rest That was the secret of her pluck-"God will do all the

They were heavy and anxious days which followed the arrival at Muttrapore of the news of the outbreak at Meerut. And they were days of silence—silence so carefully observed that men conveyed meaning by looks, and made the center of the deserted barrack-square their place for discussing the times when discussion was absolutely necessary; that the wives kept away from each other's houses lest they should betray their anxiety-and fear; that morning rides and evening band were the only entertainments which kept up a semblance that all was well.

the only entertainments which kept up a semblance that all was well.

In the entire station there were but two Europeans who were not impressed by the gravity of the dangers which surrounded them and which each hour drew nearer and nearer to them. These two were Jack Farquhar, of the Black Horse, and his lovely little wife, Lady Marjory.

But their careless indifference to danger did not last long. For a week or two they went on as gaily and as unconcernedly as if they were spending a winter in Cannes, or a season in town; openly laughing at the fanatical hatred of the natives for the rule of the Feringhee as if it was a joke; acting like a pair of fools, as every one said, because she, poor little soul, was so proud of his stalwart size and strong arm and he so proud of his little wife's pluck and courage.

And then—ah me! it makes the bright spring day seem dark as I write about it—there came an awful night, when the smoldering fires of hatred and discontent, needing but a breath to fan them into flames whose lurid glare would light the whole world with horror, burst out into life and fury, so that the very gates of hell seemed to be flung open upon the handful of British soldiers and residents: and the first to fall before that/cruel wave of murder was the one who had feared it least—Lady Marjory Farquhar.

Her death was the first outrage, but alas, it was not the

of pricial soldiers and residents: and the first to fall before that/cruel wave of murder was the one who had feared it least—Lady Marjory Farquhar.

Her death was the first outrage, but alas, it was not the last. Oh! they were fearful times—times when men stood shoulder to shoulder, hand to hand, foot to foot, ready and anxious to dare all for the sweet wives they had brought into a land of exile and for the tender babes who were their nearest and dearest upon all the earth.

The garrison was very weak, for part of the regiment—not at that time up to its full strength, owing to sickness among both officers and men—had been sent off to succor a still more weak and defenceless station nearer to Meerut by ten or twelve miles, and at which there seemed every probability of a rising earlier than at Mutrapore. Still, the men were desperate and the women were brave, and they held their own and fought for their lives with an obstinate, passionate strength which any Eastern enemy would have found irresistible had it not been for the aid and help of another foe (more silent than English caution, more insidious than the work of an Eastern mine-layer, more powerful in its relentless selection than he who won for himself a reputation stained crimson with the blood of helpless women and innocent babies, whose name will be uttered with accents of everytion and leathing and leathing a leave eacher. women and innocent babies, whose name will be uttered with accents of execration and loathing as long as the English language lasts and is spoken—Nana Sahib, Rajah of Bithoor), the silent, insidious, relentless enemy which we call "Pestilence."

It thinned the ranks of that devoted band-taking a strong ann here, a brave nurse there, or a little child unable to fight against these sudden hardships and privations—until they stood no longer shoulder to shoulder, no nor yet even within touch of one another, and yet they fought on, on until "stormed at by shot and shell," they could hold their shattered and blazing defences no longer and found themselves with no course open to them save to make a dash for the open and try to reach the rest of their comrades at the station ten miles in the discontinuous. the rest of their comrades at the station ten miles in the direction of Meerut.

Up to this point Mordaunt's courage had not forsaken him, nor yet his hopes. His wife had borne the horrors, terrors, and privations of a close siege better than might reasonably have been expected, all things being considered; but when it came to an attempt to get ten miles across such a country through the very heart of the rebel army—why he just sat down and hid his face in his hands and wished to God that he had died before ever he was born.

ever he was born.
Still, even such a wish as that did not help him—or her—in Still, even such a wish as that du not help him—or her—in the least; there was no other course for them to take, the attempt had to be made and they must make it with the rest. But oh! how the man dreaded it, dreaded it, it would be hard to say—and it was in vain that his wife roused all her scanty stock of failing courage, and bade him cheer up and hope for the heat

"Don't worry so, Charlie," she said, a few hours before the tart was made. "I think it will be all right, I think we shall get there. After all, it's only ten miles; and after all, what is en miles? A mere nothing—I've walked twenty many a ima." start was made.

But not now," he said in a tone of anguish; "and never in

"But not now," he said in a tone of anguish; "and never in an Indian jungle."

"Perhaps it won't be all jungle, Charlie," she suggested.

"No—," he was going to kay "Perhaps some of it will be swamp," but he broke the words off just in time. "If I could only carry you all the way there, my darling," he cried.

"We'll see what you can do if I get rery tired, Charlie," she said gently, with which he was compelled for the time to be content.

About an hour after this, while he with all his comrades About an hour after this, while he with all his comrades were watching anxiously for the thick darkness which would permit their flight from behind their defences, he felt a light touch upon his arm, and turning quickly, saw the dark face and gleaming eyes of his bearer, by name Majid. "What is it?" he asked, his thoughts flying to his wife at once. "Is anything wrong? Does the Mem-Sahib wish for me?"
"No, Sahib," the man answered; "the Mem-Sahib is sleeping peacefully—but I wanted a word with you. Sahib."

ing peacefully-but I wanted a word with you, Sahib.

"I have been arranging a way of resting the Mem-Sahib, if she grows very tired," he explained, and then displayed a light hammock secured at the ends by stout ropes, one of which he passed over his shoulders, handing the other to his master. "If I take one rope and you the other, Sahib, it will make it much easier for the Mem-Sahib."

"But—" exclaimed Mordaunt in astonishment, "do you prefer to go with us?"

"Yes Sahib I am going to see my lady into sefe hands."

Yes, Sahib, I am going to see my lady into safe hands."

"Yes, Sahib, I am going to see my lady into safe hands," said the man quietly.

A flash of memory came back to Mordaunt's mind of the times—many of them—that he had chaffed his young wife for her extreme politeness to the principal servants of the establishment. And then he remembed how once Majid had cut his arm rather badly, and that she had insisted on his going to the doctor and had inquired kindly after the hurt each day until it swas healed and well; now he realized the value of her kindness. "Thank you, Majid," he said gratefully and with a rush of feeling which, manlike, he was most careful to hide.

And about an hour and a half later a forlorn and well-nigh hopeless band filed out of the sheltered defences, and creeping between two rebel pickets, got without accident or alarm into the open country.

between two rebel pickets, got without accident or alarm into the open country.

"Never thought I should live to turn tail in this way," growled one soldier to another as they passed out.

But the man to whom he spoke did not reply, only folded his arms closer about the little tired child which lay sleeping ipon his breast: if he had spoken he probably would not have called the better part of valor "turning tail."

Of necessity their progress was very slow and wearisome—they had no horses, or even so much as a "tat" among them, all the animals being stolen or dead long ago. Bravely the women-folk bore up, several plodding steadily on in silence, nerved up to fulfil the task they had set for themselves—that of saving the dear wee tots they carried in their arms—while the older children struggled on beside them, each carrying a basket or bag of such provisions as they had to bring. But before they had covered half a mile poor Mrs. Mordaunt's strength gave out and she was fain to admit that she could go no further.

"Don't mind me, Char , you go on with the others," she

"Your darling loves you," she said, very softiy, "and God "Don't mind me, Char , you go on with the others," she begged faintly.

But Mordaunt had managed to bring a flask of brandy with him, the last of a precious store which had done good service during the long siege. He put a little to her lips and beckoned to Majid to bring his hammock, and then they went on once more, contriving somehow to get slowly on, though it was exhausting and very weary work stumbling through the long grass and jungle four or five feet in height, soaked through to the skin by the heavy dews, taking each step in fear of the enemy and a yet greater dread of snakes and other vermin of the jungle; and by some means, perhaps because of the black darkness of the night, perhaps because of the delay in getting the lady into the hammock, they missed the track taken by their party and found themselves—a little group of three-in the very midst of what was to the Europeans an unknown country swarming with rebels, one and all anxious for the life's blood of any Ferringhee who might happen to fall in their way.

blood of any Ferringnee who might happen to fail in their way.

They could not get into any village before daybreak, which found them close to a grove of mango trees having a hollow in its midst. Here they hid themselves and rested all the day, only coming out at nightfall to push on once more.

"We are not far from a village," Majid said, as they prepared the hammock for the lady. "I think we shall reach it without much trouble, Sahib."

But alas! before they had gone a quarter of a mile, Mordaunt slipped and fell, wrenching and bruising his knee badly. "Can you get on at all!" asked his wife anxiously, "because I am not the least tired, Charlie, I can walk quite easily. I can, I assure you."

cause I am not the least tired, Charlie, I can waik quite easily. I can, I assure you."

"Do you think you can? Then keep tight hold of Majid by the hand, for a fall might be a very serious matter for you," he answered, "and I will hobble after you as well as I can with a stick."

the hand, for a fall might be a very serious matter for you," he answered, "and I will hobble after you as well as I can with a stick."

So they started once more. With swift sure footsteps Majid passed on, telling her in whispers where to tread and what parts to avoid, while Mordaunt struggled painfully after them, each step on the uneven ground giving his knee a fresh wrench which made him quiv r with agony. Once or twice she insisted on stopping to ask how his knee was, if it was very painful and so on, but Mordaunt always resolutely and dauntlessly waved her on, never admitting that he was suffering much, and begging her not to utter a word more than was absolutely necessary; so they went on until they came within sight of the village towards which Majid was pressing.

"Will the Mem-Sahib look over yonder? That is the village!" he said to her in a whisper.

With a look of joy she turned back to tell the news to her husband—but her husband was not within sight. They went back, but he was not to be found; they went to right and left, she utterly heedless of her weariness and prostration and remembering only that her husband was disabled and alone.

"Call!" she said to her guide.

So Majid called, as had been agreed between them before starting, with the note of a bird; but there was no reply—no reply save the ordinary voices of an Indian jungle after nightfall.

Mrs. Mordaunt caught hold of the Bengalee's hand, her

fall.

Mrs. Mordaunt caught hold of the Bengalee's hand, her eyes staring piteously and her teeth chattering with fear.

"What has happened to him?" she wailed.

"Will the Mem-Sahib keep still?" the man entreated. "I cannot hear."

But he could hear nothing, not even though she braced herself to absolute silence, because there was nothing to hear.

"Majid, he is dead," she whispered.

But the Bengalee shook his head. "The Mem-Sahib must not think of that until we know more. Listen; if she gets to the village, Majid will put her into safe keeping and come back to find the Sahib."

"Must I stop there alone?" she asked, her natural fear gaining the uppermost hand for a moment. "Cannot I go with you?"

gaining the uppermost hand for a moment. "Cannot I go with you?"

"Better not. I may have to go back a mile or more. But the Mem-Sahib will be quite safe, for I know the village well."

So she consented to go back in the direction they had first taken, and in time they reached the village, where Majid was evidently known and very welcome. The villagers were one and all very kind to her, making her lie down and have her feet bathed, giving her native bread and rice, with milk to drink. And here Majid left her that he might go back and search for Mordaunt, whom he believed had slipped or stumbled in the long rank grass of the jungle and to be lying helpless and probably insensible.

But not a trace of him was to be found; and, not a little crestfallen, the Bengalee turned back and carried the bad news to the Mem-Sahib, who, poor soul, was awaiting him in the direst suspense, and in agonies of fright lest she should be murdered by one or other of the dusky beauties who thronged round her as if she were a fat lady in a show at an English fair.

"The Sahib is not dead, or I should have found him." Majid

fair.
"The Sahib is not dead, or I should have found him," Majid assured her. "The Mem-Sahib must keep up heart, and when night comes we must make for Budwra, where perhaps we shall find him." here is Budwra. Majid ?" she asked

"Where is Budwra, Majid?" she asked.

"Another village about three miles from here and off the main road," he told her. "Perhaps one of my people has found the Sahib and has taken him on there."

"I wish it was night," said she, with a tired sigh, and set herself to watch for the fading of the day.

However, anxiety and fatigue notwithstanding, after a few minutes Mrs. Mordaunt fell asleep and slept with the sound and heavy slumber of one thoroughly worn out, fanned by a young native girl to whom Majid gave a handful of pice for performing the office. Majid too cast himself down and slept soundly; and so the two lay there neither moving nor stirring until nearly sundown, when the old women of the house, who had been gossiping at her door about the pretty Feringhee Mem-Sahib, suddenly rushed in and shook Majid into a sense of understanding without ceremony or hesitation.

"Up, quick, quick!" she cried. "They are coming! Get the Mem-Sahib into that tope of mango trees. Quick, quick! It was but the work of a moment for Majid to drag the terrified Englishwoman into the grove of mango trees indicated by the old woman, happill succeeding without succeeding without being sees and

there is not a moment to lose! Save yourselves!"

It was but the work of a moment for Majid to drag the terrified Englishwoman into the grove of mango trees indicated by the old woman, happily succeeding without being seen; and there they hid themselves, cowering down and crouching low upon the ground amongst the rank grass and undergrowtly listening to the flendish yells and shouts of the Sepoys, who were searching the little yillage for the Feringhee lady whom they heard had escaped in that direction.

But the dusk drew on, the last light of day faded away quickly—as it does in the East—and the Sepoys were obliged to give up the chase. Majid began to think of beginning the iourney to Budwra, so bade Mrs. Mordaunt remain in the tope of mango trees while he went back to the village for food and milk.

But you won't leave me, Majid?" she implored piteously;

"But you won't leave me, Majid?" she implored piteously;
"you'll come back?"

"Majid will never leave the Mem-Sahib until he leaves her
in safety," he said solemnly—he always addressed her thus.
So a very weary half-hour went by, during which she suffered a very martyrdom of suspense and dread. For she was
wearing a dress which had once been of white cambric and
which even now, although it had been torn and stained and
soiled by the adventures of the previous night and the hardships of nearly a week of the siege, showed very conspicuously
against the dark background of the mango trees. As well as
she could she hid herself among the grass, holding her skirts
and breath with equal care, starting and shrinking at every
sound, fancying that the rustling of the leaves, the creaking of
the bending branches overhead, the thousand and one sounds
which one hears in a grove of trees after dusk, were the approaching footsteps of her murderers. And then, poor soul,
when at length Majid returned, she mistook him altogether,
and hiding her face upon her knees as she crouched there, gave
herself up for lost and made a feeble effort to say her prayers.

[TO BE CONTINUED.]

THE QUIET HOUR.

A Christmas Revolution.

"God, who registers the cup
Of mere cold water, for His sake
To a disciple rendered up,
Disdains not His own thirst to slake
At the poorest love was ever offered;
And because my heart I proffered,
With true love trembling at the brim,
He suffers me to follow Him
Forever!"

"There is more selfish unselfishness in the month before Christmas than in all the rest of the year together!" Johnnie jerked her long limbs up from the hearth-rug, and flashed round on us, with a fiery spot in each cheek. We started nervously, then settled quietly to work again. It was only Johnnie, and she often fired unexpected artillery off in our midst. Yet we all knew it was Johnnie who looked most fearlessly on the under side of things, and weighed questions with scales that were

uncomfortably accurate.
"I think it is an awful shame, the selfishness we sew into our Christmas gifts!"

Johnnie's cheeks grew redder, and we laid down our work to listen. Our Don Quixote often charged harmless windmills, but now she seemed to be tilt-

ing with a veritable giant.

"I've been looking it squarely in the face, as I lay here blinking at the coals, and the shame at my heart grew bigger and bigger. There's that cape I've been crocheting for Mamma, do you know how much selfishness has been worked into that? Three long weeks of it. My whole mind has been intent on finishing it before Christmas, and I have jealously hoarded every spare minute. I never dreamed of the selfishness I was crocheting into it, but this evening I have been counting up. I have put off visiting little Lena Swartz, whom our King's Daughters visit since she was hurt. I have put off my weekly letter to Grandmother, and to day a letter reached me saying she was hurt at my long silence. I have refused Alfie, evening after evening, when he has wanted me to play chess, and to-day, when I offered, he said he didn't want me. Last night I was pettish with Papa, when he asked me to help him with his accounts; and, to crown all, I have been cross with Mamma herself, when she has called me for odd jobs, and I have had to put down my work-a present for her! It is such a horrid farce, this making everybody uncomfortable in order to make them presents!"

Johnnie's cheeks were hot, and her eyes suspiciously bright; but I did not think of her; I was looking into my own heart, with startled eyes, from which the curtain had been drawn away.

In my hands was an invalid sack I was making for Auntie; a dainty thing, with trimmings of lace and ribbon. It would just match her blue eyes; but I was thinking of those eyes, and of how wistfully they had looked into mine after I had tucked her into bed the night before. She would not sleep for hours, I knew from that feverish glow on her cheeks, and I knew she longed for me to sit beside her, and read in low, soothing tones from her little "Imitation of Christ." But she had not spoken the wish, and I had kissed her, and hurried guiltily away, to work for long hours on a present for her. Which would she rather have had, the gift or the restful readings? Dare I look at the question honestly? There was the muffler I was knitting for Alfie, a harsh speech to little Helen was knitted into that, when she teased me to take her walking. There was Edith's work-bag. I raised my shamed eyes to Edith's face, as she sat across from me.

Her cheeks, too, were consciously flushed, as she looked down at the half-worked slippers in her lap. For these slippers, evening after evening, father had had to do without the bedtime music he so

The three of us looked at each other with shamed faces. Johnnie lifted her head with a little faltering laugh. "Is it not shameful? It is the love that is worked into a gift that makes it precious, after all, and when we are actually cross and selfish to our loved ones, in order to sit down and make them presents—oh, what a farce it is!"

Thus was begun Johnnie's revolution. It was not announced with gun shots and long declarations, but was wrought all silently, by three conscience stricken girls.

"I wonder how cousin Lilla is?" Mamma said, anxiously, at supper. "I wish but you girls are all too busy, I know, to call and see," she ended rather wistfully.

"I can go, Mamma," Johnnie answered, promptly, "and I can match your Saxony for you on the

"Are you sure you have time, dear?" Mosty asked, eagerly. "You girls are so busy with your Christmas work."

"Oh, the Christmas work can wait," Johnnic answered, lightly, as she shot a glance across the table at her confederates.

"What will you have to-night, Papa? 'Carnival of 'Venice,' or 'Thalberg, or 'Monastery Bells'?" Edith looked up brightly from the music table, with the loose shorts of the old-fashioned music he so loved in her hand.

"Why, the content spare the time, child?"

Father asked, product so ther says you are all so hurried with a second work."

But Edith slipped to remarkrough his, and drew him to his big chair, where he lay back happily, with closed eyes, as three sees a rins of Thaber, a "Home, Sweet Home" state through the reserve After I had tucked Auntie into bed, and her tired eyes had looked their wistful good-night, I drew the shaded lamp close, and, sitting beside her, with her thin, nervous hand in mine, opened her beloved Thomas à Kempis. Her eyes shone with wistfulness, even as she protested. "But you have not time, dear; it would rest me, but I know how eager you are to finish your Christmas presents." As I bent to silence the sensitive lips with a kiss, my own were tremulous. "The presents are almost finished now, Auntie, and there is plenty of time." And she nestled contentedly back on her pillows.

Much simpler gifts than usual were exchanged in our home that year. When the larger gifts, some in an unfinished condition, were exhibited, and our revolution explained, there was a merry laugh at our expense. But there were tears in Mother's eyes; for she knew what self-denial was needed to refrain from such "selfish unselfishness"; and Father, looking contentedly at his worn old slippers, said, softly, "I think you have found the key to true Christmas giving."

"I ask Thee for a thoughtful love,
Through constant watching wise,
To meet the glad with joyful smiles,
And wipe the weeping eyes,
And a heart at leisure from itself,
To soothe and sympathize."

MINNIE MAY'S DEPARTMENT

MY DEAR NIECES,-

Probably nine tenths of my young friends have a fancy for collecting curiosities in some shape or other, and possibly you will be interested in hearing about the collections of other girls. These collections vary in importance and usefulness—some are curious, others are instructive, while not a few are perhaps frivolous; but all are at least interesting. Everyone knows the little schoolgirls, with their precious strings of buttons, picked up here and there, and the boys with their equally valuable (to them) stamp albums. Who has forgotten the old-fashioned birthday book, which every girl possessed, and in which everybody was asked to write his or her name? This fad for collecting is not confined to children; everyone possesses it more or less. Monograms, crests, and autographs are about the commonest collections, except, perhaps, stamps. Considerable taste is sometimes displayed in the arrangement of these. They are cut out and placed on fans, photograph frames, etc., in various designs. A pretty and useful way of using autographs is to put them on tea-cloths. One niece has what she calls an Egyptian tea-cloth, on which are inscribed the names of people whom she met while in Egypt. Another has a sofa pillow with the name of each member of her graduating class upon it. Sometimes these autographs are written first in pencil, and then sewn in silk for permanency. Another sofa pillow is made of colored cigar-ribbons, collected om one's smoker friends.

Here is a description of a whip collection: An ordinary English hunting crop; a whip from Bermuda, black and glossy, made of seaweed; a long wooden-handled whip from Jamaica, made from the "lace-bark" tree; a Cingalese whip, of red and yellow fiber, for driving cattle; a cowboy's cuerto, with a short wooden handle and nine leather thongs; a long black-snake whip, used by the old-time Southern overseer, has lash and handle of braided raw-

Among the latest fads is that of collecting baggage and hotel labels. One young lady has specimens from persons who have travelled in China, Japan, India, New Zealand, and Samoa. Her collection is really interesting and varied.

Another lady has a number of dolls—do not laugh, my dear girls, you all had dolls too, once upon a time. This niece has a splendid purpose in her collection. Each doll comes from a particular country and is dressed in the costume of that country. Quite a lesson in "National Dress," is it not, besides giving hints for fancy dress parties, if necessary?

Another has a number of valuable specimens of hand-made lace. These are fastened on velvet, making long wall panels for her sitting-room. Underneath each specimen is a photograph of a woman peasant of the country where each piece was made. There are pictures and laces from France, Spain, Italy, Armenia, Ireland, Persia, etc. It is a most interesting collection.

One young girl has a very whimsical fad; she has secured buttons worn by distinguished men, such as Sampson and Schley, Washington, Bismarck, Dickens, Scott, and many more. She intends to have a set of musical buttons—that is, buttons betonging to musicians; literary buttons; artistic actions, and actors' buttons!

Stiff another collection is one of butterflies, and another is of beetles. These are very instructive that it are sting as well, and repay one for one's realist are sting as well, and repay one for one's realist are sting. Who has not at one time had a holder are stanged and foreign coins?

A very lessionian has an odd collection of pitchers. Several show the arms of different cities and countries a England: some bear a legend or a couplet. One dainty little flagon of silver filigree came from Marging while a few grotesque ones came from harden. There is a green one with two faces. Standing normally, the face is very jolly, and has the words "full ing" over the head. When turned upside down the face is drawn and woe-begone, and the words are "empty jug." This collection consists of over 300 jugs and jars, the largest one being only five inches high.

Another collector has a taste for teapots—costly and cheap, common and beautiful. She has an expensive teapot of Sèvres ware, a penny pot from a Japanese bazaar, a puzzle teapot—birds, animals, faces, and so on. There are delicate egg-shell china things, both artistic and grotesque; one bears a Japanese mask. One is the little blue and white right-angled pot of the coolie of Japan. Many are decorated with monkeys, cats, dwarfs, etc.: in each case the mouth of the creature is the spout. One charming little teapot is shaped like a duck with bill open and having a handle on its back.

A young lady who has returned from a course of study and travel in Europe has a wonderful collection of bells. In size they range from the ordinary cow-bell to a tiny one which she wears on her bracelet. She has sleigh bells from Russia, goat bells from Switzerland, blue delf dinner bells, church bells, temple bells, pagoda bells, and tiny ribbon-strung wind-bells, which give out sounds with the moving of the breeze—all telling a musical tale.

Still another girl has a collection of fans from Japan, revealing much of the ancient history of that country. "In olden times there were fans for men, for women, for young ladies, for children, fans for outdoor use, and for indoor use, fans for the married, fans for the single, fans of awful portent which came from the Mikado and which told the receiver to prepare for death. There were fans for winnowing grain, and for blowing smoldering charcoal embers into flame; and, finally, a small fan such as is laid in the coffin of every dead Japanese woman."

Just one more description. One young girl in the

United States has begun a collection which in time will be valuable. It is composed of patriotic emblems of the late war. She has pins, brooches, belts displaying the American and Cuban flags; others showing the Union Jack and Stars and Stripes floating merrily in the breeze. Uncle Sam's sleeve links, shirt studs, hat pins, army and navy buttons, form a goodly part of this collection.

Truly the name of selections is legion. One may make a hobby of almost anything; but I should advise my dear nieces in their collections to aim not so much at what will be unique or simply useless, as at what will prove educative and instructive.

Your loving old Auntie,
MINNIE MAY.

Recipes.

COOKING WITH HONEY.

There seem to be but few cooks that ever use honey other than in its natural state, or strained. There are many ways in which it can be used other than as above.

Baked Apples with Honey.—Wash as many apples as desired, cut them in half and remove the core. Into the hollow made by removing the core, put a little butter and a teaspoonful of honey. Pour a little water in the pan, and when done put a little more honey into this juice, and cook until thick. Pour over the apples.

Honey Muffins.—Sift together 1½ pints flour, 2 teaspoons of baking powder and a teaspoon of salt. Rub into the flour 2 tablespoons of butter; add 3 well-beaten eggs, 1 cup strained honey and ½ pint of milk. Beat well until thoroughly mixed, and bake in gem pans in a hot oven.

Honey Cake.—Mix 1 cup each of honey and granulated sugar, ½ cup soft butter, and 2 well-beaten eggs. Sift together 1 pint of flour with a heaping teaspoon of baking powder and a little salt, and stir into the above. Bake in a moderate oven a half hour or more.

Honey Ginger Snaps.—One pint honey, \$\frac{3}{4}\$ lb. of butter, 2 teaspoons ginger; boil together three or four minutes, and when nearly cold add a well-beaten egg and flour to make stiff enough to roll. Into the flour put a teaspoon of baking powder.

A YANKEE BOILED DINNER.

Put the kettle on the stove with two and a half pints of water in it. Get a medium-sized cabbage head, wash and cut in two. Take out the heart (or stalk), lay the halves together and put them in a kettle. Prepare as much pork as you want for dinner and put in your cabbage. Next get a good-sized, white, sweet beet (red will do, but it is not quite so nice); wash, peel and cut lengthwise in four pieces. If desired, put in turnips with the beet, cut crosswise. Boil slowly for two hours, and then put in your potatoes and slices of squash. If the pork is not salt enough, season with a pinch of salt. A red pepper pod is an improvement also. Boil till the potatoes are done.

CRACKLING BREAD.

This is something like the corn meal suet cake of New Englanders. Into the plain corn-bread dough is stirred the scraps left from frying lard or "cracklings," and baked in a hot oven. This bread is very rough in its outward appearance, but is like some people, much better than it looks.

CHEESE PIE—AN OHIO DISH.

A cup of curd (obtained from sour milk by draining off its whey) is beaten with two eggs, a little sweet milk, and sugar to taste. Flavor with cinnamon and bake in a crust in a deep pie plate.

Chance for a Rest.

Collector—"This account must be settled, Mr. Shorts. It has been running a long time."
"Well, let it stand awhile."—Truth.

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The Dragon Tamers.

There was once an old, old castle. It was so old that its walls had crumbled to ruins, and there were only two little rooms left. It was here that John, the blacksmith, had set up his forge. He was too poor to live in a proper house, and no one asked any rent for the rooms in the ruin, because all the lords of the castle were dead and gone this many a year. The two rooms were warm, but not very large; so the blacksmith got into the way of keeping his old iron, and his fagots, and his coal in the great dungeon under the castle. It was a very fine dungeon, with big iron rings, whose staples were built into the wall for tying captives to, and at one end was a broken flight of steps leading down no one knew

John, the blacksmith, had a wife and a little by. When his wife was not doing the housework she used to nurse the baby and cry, remembering the happy days when she lived with her father, who kept seventeen cows and lived in the country. As for the baby, it cried a good deal at odd times; but at night, when its mother had settled down to sleep. it would always begin to cry, quite as a matter of course, so that she hardly got any rest at all. The baby could make up for its bad nights during the day, if it liked, but the poor mother couldn't. One evening the blacksmith was busy with his forge. Presently over the noise he was making there came another sound. The blacksmith looked at his wife.

"I heard nothing," said he.
"Neither did I," said she.

"But through the hammering the noise came louder and louder, and the more they tried not to hear it, the more they had to. It was like the noise of some great creature purring, purring, purring, and the reason they did not want to believe they really heard it was that it came from the great dungeon down below.

"It can't be anything in the dungeon," said the blacksmith, wiping his face. "Why, I shall have to go down there after more coals in a minute.

"There isn't anything there, of course. How could there be?" said his wife. And they tried so hard to believe that there could be nothing there that they very nearly did believe it.

Then the blacksmith took his shovel in one hand and his hammer in the other, and hung the old stable lantern on his little finger, and went down to get the coals. Half the dungeon was empty as asual, except for the old iron and odds and ends. But the other side was not empty. It was quite full, and what it was full of was Dragon.

It must have come up those nasty broken steps from goodness knows where," said the blacksmith to himself, as he tried to creep back up the winding stairs. But the dragon was too quick for him. It put out a great claw and caught him by the leg, and as it moved it rattled like a great bunch of keys, or like the sheet iron they make thunder out of in the pantomime.

"No you don't," said the dragon. "Deary, deary me," said poor John, "here's a

nice end for a respectable blacksmith!' The dragon seemed very much struck by the re-

"Do you mind saying that again?" said he, quite politely.

John said it again.

"I didn't know," said the dragon. "Fancy now! You're the very man I wanted. I should like you to do a job for me. One of my wings has got some rivets out of it just above the joint. Could you put that to rights?

"I might, sir," said John, politely; for you must always be polite to a possible customer, even if he be a dragon.

"You can see in a minute what's wrong," the dragon went on. "Just come round here and feel one of my plates, will you?

John timidly went round when the dragon took his claw away; and, sure enough, the dragon's off wing was hanging loose, and several of the plates near the joint certainly wanted riveting.

The dragon seemed to be made almost entirely of iron armor, and under it he seemed to be covered with something furry

"You could certainly do with a rivet or two, sir," said John: "In fact, you want a good many."
"Well, get to work then," said the dragon.
"You mend my wing, and then I'll go out and eat

the whole town; and if you make a really smart job of it, I'll eat you last. There!"

"I don't want to be eaten last, sir," said John.
"Well then, I'll eat you first," said the dragon.
"I don't want that, sir, either," said John.
"Go on with you, you silly man," said the dragon: "You don't know your own silly mind. Come.

"I don't like the job, sir." said John, "and that's the truth. Now, if you'd just let me fasten you

"It's all very well," said the dragon, "but how do I know you'd untie me again when you'd riveted me? Give me something in pledge. What do you value most?

At this moment the baby in the room above began to scream. "Whatever's that?" said the dragon, starting

so that every plate on its body rattled.
"It's only the baby," said John.
"What's that?" asked the dragon—"something

vou value?

"Well, yes, rather," said the blacksmith.
"Then bring it here," said the dragon, "and I'll take care of it till you've done riveting me, and you

may tie me up. "All right, sir," said John, "but I ought to tell you that babies are poison to dragons. "It's all right to touch, but don't you go putting it into your mouth. I shouldn't like to see any harm come to a

nice-looking gentleman like you. The dragon purred at this compliment, and said: "All right, I'll be careful. Now go and fetch the thing, whatever it is.

So John got the baby—his wife was asleep—and ook it down and put it between the dragon's front paws. "You just purr to it, sir," he said, "and it'll be as good as gold.

So the dragon purred, and his purring pleased the baby so much that it left off cry ng. John rummaged among the heap of old iron and found some heavy chains with which he fastened the dragon safely. Then he set to work to find out how many rivets would be needed. "Six, eight, ten, twenty, forty," said he. "I haven't half enough rivets in the shop. If you'll excuse me, sir, I'll step round to another forge and get a few dozen."

And off he went, leaving the baby between the

dragon's fore paws, laughing and crowing with pleasure at the very large purr of it.

[TO BE CONTINUED]

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 anwers-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,

1-BEHEADMENT AND CURTAILMENT.

I—BEHEADMENT AND CURTAILMENT.

I clasped his hand and pressed his blood-hot palm.
A wave of passion beat from heart to heart;
Our parting was, to outward seeming, calm;
We hid emotion with dramatic art,
And stifled deep the yearning cry of love.
No womanish ONE should shame the parting scene,
When men are severed to asunder rove.
Though heart-strings snap, the moment's weakness screen!
One long, close hand clasp, eloquent beyond
The grace of speech, emotion-prompted. One
Deep-searching tender glance, that told how fond
And true our hearts remained for each alone.
Then like an iron-hearted demon dread,
The steamer's warning whistle shrilly blew.
"Good-bye; God bless us both," he softly said.
My choking voice could only murmur "TWO."
Amid the rush and bustle, noise and haste,
We fell apart, to each a different lot;
He, borne into the ocean's boundless waste,
I, where the working world the pain forgot.

He, borne into the ocean's boundless waste,
I, where the working world the pain forgot.
In Kaffir lands, where sullen burghers throng,
With instruments of death; where smiling plains
Become the scenes of carnage, that belong
To barbarous times, and heathen Norse Kings' reigns;
Where men, with murderous lust and hate intense,
Defy their God, for sake of selfish gain,
He with his fellows stands in stern defence
Of rights it pleased his Empire to maintain.
And when I, nightly, gazing up, immerse
My soul in love, my Father's lights I see;
I pray to Him who rules the Universe
To keep and safely bring him back to THREE.

"Esse

2-HIDDEN MUSICIANS.

The ash and elm are two of Canada's lofty trees. Clara Zent is going to Holland some day. When I was going, luck always favored me. Cape Verd is on the western coast of Africa. Hal, Louisa and I went to the ball. Is mythology a science? The Yule-log burnt gayly on the hearth. McGill is a famous college. Oh! do lessen the debt!

Oh! do lessen the debt! I saw him and his brother.

3-Practical Problem.

A certain miller takes for himself one-ninth of the grist. How many bushels must be ground so that the farmer (after the miller's toll has been deducted) may have nine bushels left?

4-Double Acrostic.

(1) A mean poet; (2) to blame; (3) lying close; (4) to dissect; (5) a French weight; (6) to compose; (7) sprinkling with a liquid substance; (8) nutrition. ostance; (8) nutrition.

Primals and finals name a body of men we are all proud of.

"'Arry 'Awkins."

5-Half-Square.

(1) Told; (2) a medicine; (3) a fruit; (4) above; (5) to sheet over with metal; (6) temple (phon.); (7) a letter. "ARRY 'AWKINS."

6 - Linkade.

(Example: curt, tail; curtail.)

ONE 1 Here's a medley, an allowance to eat, And also soldiers who at table meet.

TW() Wise men are these, Also small trees.

WHOLE

By wind, by wire, by steed, by steam;
By whirling wheel, by steady stream;
Swift or slow,
On we go,
Some joy or woe
To let you know.

F. L. S.

7-REBUS. Mr. Dale was sorry to receive the other day a note to this effect:

F. L. S. 8-SQUARE.

-A repeat.
-To thicken.

The first word of a well-known motto.

Name of a noted general. 9-CROSS-WORD ENIGMA. My first is in lost, but not in found.

" second " " jump, " " " bound.

" third " " pigmy, " " " small.

" fourth " " reception, " " " ball.

" fifth " ask, " " " tell.

" sixth " call, " " yell.

" seventh " high-tide, " " " swell.

My whole is a rather green veretable. small. ball. tell.

"WILLIWIN."

My whole is a rather green vegetable. 10--Cross-word. In "medals" of gold, In "rocks" that are cold, In "smocks" that are old In "girls" that are bold,

In "horses" so sleek, In "kittens" so meek, In "candy" so sweet, In "invalids" so weak, Who better health seek.

If you read me down You'll find a battlefield near a town. "ROLLY."

Answers to Oct. 20th Puzzles.

1-Neophyte (knee-o-fight).

2-(1) New Westminster; (2) Winnipeg; (3) Halifax; (4) Fredericton; (5) Hamilton; (6) Belleville; (7) Windsor. 3-Frigate, dipper, lark, loon, rook, quail, wheat-ear, black bird, crane, dragon, secretary.

4-Round, rice, duck, pigeon, lonely, slave, reindeer, bear, 5-Wilfred Laurier.

6—(1) It may strike. (2) Killing two human beings. (3) One does fancy-work, and the other does not fancy work. (1) Because it can be all seen on a postage stamp. (5) When she is a bachelor (Bachelor of Arts).

Innocents Abroad, by Mark Twain. -Baseball, lacrosse, and puzzling.

10-aerates 11-Cab-man. eme tic coal-man. reson swords-man. a tom pen-man. t i n brakes-man. police-man. whale-man lands-man. 12-I d i o T NazametH D a n c E U n b o W SeminatE T a p i S R i g h T fire-man. show-man boat-man. fisher-man. milk-man. Industrial Fair. The Western Fair. d e a r

13-Farmers' Institutes

SOLVERS TO OCT. 20TH PUZZLES. "Diana," "Williwin," Mrs. James Owens, "Connie," "Kit, Sila Jackson, "Jack & Jill," M. R. G., J. McLean.

ADDITIONAL SOLVERS TO OCT. 5TH PUZZLES.

"'Arry 'Awkins," "Essex," "Kruger," Sila Jackson, "Kit," "Connie," Mrs. James Owens, Alex. Brimner, J. McLean, Den-

COUSINLY CHAT.

"Williwin."—Your second puzzle was incomplete, as you did not give the third word, and, in giving the answer, you gave only "centrals" instead of the complete words. In the anagram referred to, it is the thing itself and not the author that is called for. There is no certain rule for this puzzle—one must only use one's thinking-cap till the right answer is found. "Connie."—You have made a good beginning for the new quarter, and I hope you may continue to do well. We have a lot of new cousins now, have we not!

Sila J.—You have "enterprise" and will eventually win if you always adhere to the motto you quote.

"Kit."—Your return is very welcome; some of our late winners will have to look to their laurels now that our "Kit." has come back.

winners will have to look to their laurels now that our "Kit" has come back.

"Diana."—You are somewhat of a politician, I believe, but you are also a good solver. Poor Dreyfus, how he has suffered!

"Kruger."—Excellent work comes from this new solver, to whom we extend a hearty welcome.

"Arry 'Awkins."—Glad to hear of the wanderer's safe return. Will write and give the desired information as soon as possible. I will give you credit for the unsigned puzzles—I knew they were yours. Every puzzler should sign his name to each puzzle sent in, thus avoiding the liability of mistakes.

Is it I!

A preacher in a certain village church once gave an easy lesson in Christian ethics from the letters of the alphabet. It was to this effect: "You say, A lies, B steals, ('swears, D drinks, F brags, G goes into a passion, H gets into debt. The letter 'I' is the only one of which you have nothing to say.'

Lady—I want a small-sized pig. Butcher—Just a minute. I'm a little busy now; I'll call my son.—Adams Freeman.

Do you need

of any UR any kind

Our new, big, illustrated catalogue will be sent you free. School Desks always on hand...

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IMPORTER AND BREEDER,

CLYDESDALES -Stallions & Mares, all ages SHORTHORNS Bulls, Cows and Heifers. HEREFORDS-Bulls and Heifers.

All animals registered in their respective herd books. Everything for sale except the stock bulls, Lord Stanley 2nd and Golden Measure. If notified, visitors will be met at the station. Come and see the stock. Satisfaction guaranteed. Write or wire J. H. SMITTE.

Smithfield Ave., BRANDON.

Clydesdales, Shires, Hackneys.

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



SHROPSHIRE SHEEP

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

Apply: Box 483, Brandon, Manitoba.

YOUNG BULLS

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

W. S. LISTER,

MIDDLECHURCH, MAN. Marchmont Stock Farm, near Winnipeg, Man.



PIONEER HERD OF SHORTHORNS

trumerous prizes with here, and I

WALTER LANCH Westmarne, Man.

GOSSIP.

A CHOICE HERD OF ACADIAN HOLSTEINS. A CHOICE HERD OF ACADIAN HOLSTEINS.

The elegant 2-year-old Holstein-Friesian bull, Piet Van Voran, illustrated on another page in this issue, stands at the head of the excellent herd of registered Holsteins owned by Messrs. Logan Bros., Amherst, N. S., and was winner of first prize in his class, and the male championship of the breed, at the St. John, N. B., Provincial Exhibition in 1899, and has won three other sweenstakes prizes. championship of the breed, at the St. John, N. B., Provincial Exhibition in 1899, and has won three other sweepstakes prizes. He is a typical representative of the best of the breed, and is an ideal dairy bull in conformation and quality, having a handsome head, a full, bright eye, long, yet muscular, neck, smooth shoulders, thin withers, deep ribs, long, level quarters, a richly-colored skin, and the best of handling quality. His dam was the imported cow, Orne 8811, H.H.B. Besides winning a large share of the best prizes in the different sections of the class at the Provincial Fairs at Halifax and St. John, Messrs. Logan were successful in winning the first prize for the best young herd under two years old, one bull and four females, at these shows.

The foundation of the herd is the imported cow, Mina Rooker 9893, H. H. B., with a record of 52 lbs. milk daily, at two years old, in the herd of Smith, Powell & Lamb, Syracuse, N. Y. She has been immensely successful as a matron in the herd here wrogany height.

of 52 lbs. milk daily, at two years old, in the herd of Smith, Powell & Lamb, Syracuse, N. Y. She has been immensely successful as a matron in the herd, her progeny being uniformly deep milkers, of which there are three at present in the herd giving from 50 to 60 lbs. of milk daily, testing from 3.66% to 4.12% butterfat on ordinary feed. The balance of the females in the herd belong principally of the Netherland, Clothilde, and Carlotta families. Two of them, viz., Jacoba Emily and Netherland Jacobi, daughters of Jacoba H., imported, and sired by Carlotta's Netherland, a son of the noted Netherland Prince and Carlotta, and thus inherit in large measure the blood of some of the richest testing cows in the history of the breed. This firm have shown commendable enterprise and superior judgment in the founding, breeding, and management of their herd of Holsteins, and have reaped their reward in a successful showyard career and an active demand for their stock, their sales having been numerous and at satisfactory prices. Their success is well deserved, as they show fairly, wear their honors modestly when won, accept reverses manfully when met, and never say die. won, accept reverses manfully when met, and never say die.

A CHOICE AYRSHIRE COW.

The beautiful imported Ayrshire cow illustrated on another page of this issue, Eva of Barcheskie (8568) =2505=, owned by Alex. Hume & Co., Menie, Ont., was bred by W. P. Gilmour, Balmangan, Kirkcudbright, Scotland, and is descended from a long list of noted prizewinners. Sired by Craigs of Kyle (1793), dam Eva3rd of Orchardton(4479), by Bradlaugh of Poniel, grandam by Black Prince of Lessnessock (252), to which all Ayrshire men like to trace their stock. She has won many prizes since imported. She was twice second in Toronto as Ayrshire cow, in '96 and '99, the only times she has been fresh and in show form. She has dropped five calves in the herd, two bulls and three heifers, and every one, with one excepdropped five calves in the herd, two bulls and three heifers, and every one, with one exception (that got accidentally hurt and died, and it was considered the best of her calves by some Ayrshire men), have been prizewinners in Toronto and elsewhere. Her yearling heifer was very much admired in the showring this year, and it is difficult to retain her stock from would be purphasers. would-be purchasers



win sen the fine young dark red Shorthorn Bull, Sharkey = 30615=; calved March 15th, 1899; got by Mina's Prince = 24970 = ; dam Maggie Bell = 30991 =; bred by John Trestain, Strathburn, Ontario.

IMP. LARGE YORKSHIRES FOR SALE.

JAMES BRAY, LONGBURN, MAN.

SKATES, SLEIGHS. HOCKEY GOODS, SNOWSHOES, BOXING GLOVES, PUNCH BAGS, FOOTBALLS.

Our Winter Catalogue

gives illustrations and prices of every-thing in the way of winter sports. The quality is good, and the prices low. Get it; it will interest you.

The Hingston Smith Arms Co'y,

WINNIPEG.

THE BEST TEAS.

We carry one of the best selected and largest stocks of teas to be found anywhere, and if after buying tea from us you don't feel that you have saved from 15c. to 20c. a pound, you are invited to return it to us. at our expense, and get your money back.

This seems about as fair as an offer can be.

We have just unloaded a carload of Japan tea, containing 435 chests and caddies, and we have a carload of Empress tea due to arrive in

We buy our teas direct from the growers, and sell to consumers at prices just as low as other grocers pay when they buy.

Our Empress Pure Indian tea, if it could be got by other dealers, would be considered by them good value to sell at 60c per pound.

When you buy it from us at 35c. per pound, you are getting value that cannot be got anywhere else.

The Japan tea that we sell you at 35c. per pound would cost 50c, in other stores. When you buy 25c. Japan or Black tea from us, you get tea that would

cost you 40c. elsewhere. If you buy a full chest or 50 pounds of tea at a time, we will allow you

2c per pound off, except on Empress tea and Japan siftings. For \$4 cash with order, we will deliver (express prepaid) 10 pounds of Empress tea, or 10 pounds of 35c. Japan, at any railway station in Manitoba; for \$4.25 we will deliver at any railway station in Assiniboia or Saskatchewan, or for \$4.50 we will deliver it at any railway station in Alberta or in British Columbia as far west as Revelstoke.

The amount you can save by buying your winter's supply of tea from us is worth considering.

Send your name and address for our fall grocery catalogue.

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Brandon, Man.



Best Cookers, Strongest Heaters, Last Longest. Use Least Fuel. Made only by The BURROW, STEWART & MILNE CO., Limited,

FOR SALE IN ALL THE PRINCIPAL TOWNS

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New Hardware Store, 666 MAIN STREET

SEE OUR

Three Heaters at the Price of One.

The fire has to travel 7 ft, 6 in, Horizontal Flues

HAMILTON, ONTARIObefore reaching pipe. Flues easily cleaned.

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LEASE receive it as a personal call, bearing a most cordial invitation to visit our store to see the large stock of

FALL AND Clothing

which must necessarily be good to be comfortable. You can go poorly clad in summer, but about this time of the year you want to be thinking of the best there is in comfortable clothing—both cheap and good. Some clothing is made to sell-some to wear. Some clothing is made for both—THAT'S OUR KIND.

WE want you to see our assortment.

The suits themselves can tell you more in five minutes than we can do in one hour.

We await your coming.

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STOCK FOR SALE. WRITE OR CALL ON J. H. KINNEAR, Souris, Man.

D. FRASER & SONS, EMERSON, MAN.,

Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Purebred Poland-China Pigs a specialty. Young stock for sale.

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.

THORNDALE STOCK FARM, MANITOU. JOHN S. ROBSON, PROP.

30 Shorthorn Bulls and 30 Heifers FOR SALE. Write for particulars.

Shorthorn Cows and Heifers for Sale Of good breeding. Prices right. GEORGE RANKIN, HAMIOTA, MAN. "Melrose Stock Farm."



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STOCK OF ALL AGES FOR SALE.

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HEREFORDS I keep only the best. For stock of all ages

Write or call. WM. SHARMAN, "Ridgewood Stock Farm," SOURIS, MAN.

TWO JERSEY BULLS FOR SALE

Write William Murray, Dugald, Man.

HOPE FARM, ST. JEAN BAPTISTE, MAN. Headquarters for

to___ I. M. CAMPBELL, Manager

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



6 young bulls, by Maniand Robbie O'Day, out of some of our best cows. 9 Berkshire sows of choice

guality and breeding, from 5 months to 3 years. The standard of our Yorkshire herd is steadily improving. Our stock boars, the sweepstakes at last Industrial, the other recently imported from England, are grand specimens of the breed. A choice lot of sows ready for breeding. About 50 B. P. Rock Cockerels, strong, healthy birds, of great size and good markings. All at reasonable prices. ANDREW GRAHAM, Forest Home Farm, Pomeroy, Man. Roland, N. P. R.; Carman, C. P. R.

STEAMSHIP

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. 2-2y-m

GOSSIP.

In the advertisement of Messrs. Ling & Co., proprietors of the Ft. Rouge Poultry Yards, Winnipeg, they announce that in order to make room for winter stock a large number of birds of standard breeds are to be sold at greatly reduced prices. Anyone in need of fowls of the breeds kept by the advertiser would do well to correspond with him without delay.

Wm. King, who recently moved from Carnduff to Fort River, in the Dauphin country, reports that his Shorthorn cows have all dropped heifer calves this year, and being desirous of retaining all females to build up his herd, he has nothing to offer for sale this season except his 6-year-old Shorthorn bull, which he is now ready to dispose of. He is quiet and a sure stock-getter, and thoroughly broken to harness.

Mr. J. Van Veen of File Hills, Fort On'Ap.

Mr. J. Van Veen, of File Hills, Fort Qu'Ap-Mr. J. Van Veen, of File Hills, Fort Qu'Appelle, reports under recent date the following sales of pure-bred stock:—To Messrs. Brendley and Hais, Beaver Hills, 1 yearling Hereford bull; to Mr. Witteveen, Beaver Hill, one 3-year-old Galloway bull; to F. S. Mitchell, Edmonton, one yearling Galloway bull; to J. A. S. MacDonald, Fort Qu'Appelle, one 4-year-old Hereford bull, one yearling Hereford bull, two Gallowy bull calves, and eight. Shropshire rams.

LEICESTERS!

40 Ram Lambs, 8 Shearlings, 50 Breeding Ewes, for sale.

A. D. GAMLEY, m Box 193. BRANDON, MANITOBA.

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

THE GOLD STANDARD HERD



Of LARGE ENGLISH BERKSHIRES are still leading. Some fine young sows of spring litters for sale One nice January sow, due to farrow in October. A grand litter farrowed July 19th off Rosamond, and sired by Fitz Lee. Several litters of August and September pigs at nominal prives; also some fine large B. P. Rock Cockerels. Send me an order. I will treat you right.

J. A. McGILL, Neepawa, Man.



PLACE FOR THE FARMER'S SON TO SPEND THE WINTER MONTHS IS AT THE

Winnipeg Business College,

WRITE FOR HANDSOME CATALOGUE (FREE). G. W. DONALD, SECRETARY.



The Good Enough Sulky Plow

CAN NOT BE BEAT. The Price will please you and its work will surprise you! Write for illustrated circular. It will pay

MINNESOTA MOLINE PLOW CO. -m H. F. Anderson, Agent, Winnipeg, Man.

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BLACK MINORCAS.

Young stock for sale — some beauties. Satisfaction guaranteed, $\,$

m. A. M. ROBERTSON, KEEWATIN, ONT. PLEASE MENTION FARMER'S ADVOCATE.

T is but six months since the Canadian Dairy Supply Co. took hold of the DE LAVAL SEPARATOR BUSINESS in Manitoba and the N.-W. T. Notwithstanding working against great odds and coming into competition with machines sold at almost any prices, the superiority of the



is acknowledged and established, as testified to by its many users.

The Canadian Dairy Supply Co., 236 King St., Winnipeg: Gentlemen,-A year ago, after investigating and trying other makes of separators, I finally concluded to buy a No. 2

De Laval Baby machine. I have run it every day since, skimming the milk from 14 cows. I take pleasure in saying that it does perfect work, whether the milk is just from the cow or of lower temperature; that it is perfect in construction, easily turned, quickly cleaned, and accomplishes everything you claim for it. Yours truly.

Springfield, Man., June 3rd, 1899.

THOM. MCMILLEN.

The Best Made. If you are looking for a paying investment, you cannot find anything better than one of our Cream Separators.



Dundurn, Assa., September 25th, 1899.

R. A. Lister & Co., Ltd., Winnipeg:

Dear Sirs,—The No. 1 Melotte Cream Separator I received from you this summer is giving me perfect satisfaction. I consider it the King of Separators. For clean skimming, ease of turning, and capacity, I am sure it has no equal. I would rather separate the milk of 30 cows with it than I would separate the milk of 20 cows of the same milk yield with any other hand separator I have seen. I am using cream separators six years, and in that time I had three separators, and none of them gave me satisfaction, and I have the so called "best in the world," that cost me \$125.00 and \$7.00 freight, and I have the Hydrolactic, made at Portage la Prairie, and that is a perfect fraud.

Any party requiring a Cream Separator that will doclean, good work, and do it quick, with little labor, I strongly recommend the Melotte, for a child ten years old can turn it, and if there is a trial for superiority between the Melotte and any other cream separator in Canada, I will wager \$100 (one hundred dollars) the Melotte gets the red ticket.

Yours respectfully.

Geo Mussoy, Dundurn, Assa.

Yours respectfully, Gro. Wilson, Dundurn, Assa.

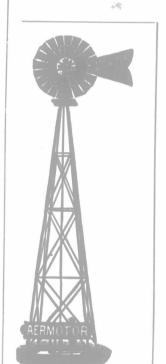
For further particulars, address

R. A. LISTER & CO., Ltd., 232 King St., WINNIPEG, MAN.

Dealers in all kinds DAIRY SUPPLIES and PRODUCE, GASOLINE ENGINES, TREAD POWERS, Etc.

Agents wanted in every district where we are not already represented.

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WE CARRY AN EXCELLENT LINE OF

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MANUFACTURED AT JOLIETTE, QUE., WITH CAPACITIES RANGING FROM 10 TO 150 BUSHELS PER HOUR; GRINDERS THAT GRIND, AND THAT GIVE EVERY SATISFACTION.

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THE CHICAGO AERMOTOR HAS ESTABLISHED AN ENVIABLE REPUTATION FOR EFFICIENCY AND DURABILITY,

OUR FULL-SWEEP, ALL-STEEL

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ARE LEADERS IN THEIR KIND.

Ask us for prices, or interview the Massey-Harris Agent in your locality.

Joseph Maw in Co.,

Market Square,

WINNIPEG, MAN.

Norwood Bridge Poultry Yards, WINNIPEG, MAN.

Breeder of high-class T. C. B. Minorcas, Houdans, and White Wyandottes; also Bronze turkeys, Pekin Bantams, Pekin ducks. Young stock for sale of all varieties. Write or call.

PLYMOUTH ROCKS HIGH-CLASS STOCK.

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FORT ROUGE POULTRY YARDS. High-class Golden Wyandottes, Langshans, White Wyandottes, Plymouth Rocks, Indian Games, Light Brahmas, Pekin Ducks, Pearl Guineas, and Bronze Turkeys. A few choice birds for sale; also Belgian Hares and Fancy Pigeons. Write for circular. m S. LING & CO., WINNIPEG, MAN.

IMPORTANT

90 HEAD of registered stock, at Maple Cl'ff Farm, Hintonburg, within one mile of the City of Ottawa (electric cars to farm), Tuesday, Nov. 28th, 1899, at 10 o'clock, consisting of 10 Ayrshire bulls, 20 Tamworths, 20 Improved Yorkshires, 10 Large English Berkshires, 10 Chester Whites, 12 Iuroc-Jerseys, 8 Poland-Chinas, No reserve. Write to the proprietors for caralogue.

R. REID & CO., Maple Cliff Farm, HIN-TONBURG; J. G. CLARK, Woodroffe Farm, OTTAWA. T. W. McDERMOTT,
Prov. Auctioneer



Last importation just arrived Aug.
5. Imported more stock in 1898-99
to this country than all other importers together; and I also handle no second-hand horses from the United States, but buy direct from the Old Country, and nothing but the best the market can afford. I have them on hand from 3 to 5 years old, weighing 1,800 upwards. These horses must be sold, and at reasonable prices and terms, in order to make room for more. Write for description. Address:

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HACKNEY HORSES, Carriage type, Connaught blood.

SCOTCH SHORTHORNS, Beef and milk. Scotch Hero (bred by W. Duthie) heads the herd.

Shropshire, Dorset Horn, and Hampshire Down Sheep.

M. H. COCHRANE.

om Hillhurst Station, Compton Co., P. Q.



We have on hand several Hackney Stallions, both imported and Canadian-bred; all of the best strains and all-prizewinners at our best shows. The right time to buy stallions is during the fall and not when spring comes along. At the latter time all entire horses have their routes laid out, and owners cannot afford to disappoint their patrons. Apply now and get reasonable quotations. Send for catalogue and particulars to HORACE N. CROSSLEY, Rossenu MO., Dist. Parry Sound, Out.

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Largest Importers in Canada.



A large importation of and mares just tackneys and St

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EXTRA HEAVY CAMEL-BACK RUNNERS with side plate from draw-rod to rave clip. OSCILLATING KNEE, making easy draught on rough or smooth roads. TRUSSED RAVE, secured to runners by steel clips, relieving the strain and allowing free movement. IRON GUARDS, to prevent bolster from catching on pins or raves. BEST SPRING STEEL SHOES. MADE OF THE VERY BEST MATERIAL, BY EXPERT CANADIAN MECHANICS.

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Maplehurst Berkshires. Owing to my leaving Canada, we offer for quick sale our herd, consisting of over forty head of Bacontype Berkshires of various ages. Prices will be found right. Address, J. J. FERGUSON,

Box 373, Smith's Falls, Ont.,
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The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages,

"LYON MACGREGOR."



Stallions, Mares, Colts and Fillies Of all ages, from the best blood in Scotland and Canada.

Now is the time to purchase a young colt and raise him yourself.
We have on hand weanlings, year-olds, 2-year-olds and 3-year-olds, colts and fillies weighing over 800 lbs, Ayrshire bulls and heifers from imported stock.

Best milking strains, with good teats.

A visit to Thorncliffe will well repay you.

ROBT. DAVIES, -om Thorncliffe Stock Farm, TORONTO.

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 = 24418=, a Morton-bred bull with exceptionally grand pedigree. Also a few females of all ages, bred to imp. bull, British Statesman (63729) = 20833=



Scotch Shorthorns FOR SALE.

grand young bulls by Valkyrie = 21805 =, and cows and heifers of all ages, of the most approved breeding, served by (imp.) Diamond Jubilee = 28801 =, now at the head of our herd.

T. DOUGLAS & SONS, Strathroy Station and P. O. Farm I mile north of the town.

SCOTCH SHORTHORN BULLS AND HEIFERS

HERD ESTABLISHED IN 1872. Such sires as imported Royal George and imported Warfaire have put us where we are. Imported Blue Ribbon now heads herd

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

JAS. DORRANCE. SEAFORTH, ONTARIO,

Shorthorn Cattle and Berkshire Pigs

JUDGE = 23419 = AND IMP. JUBILEE = 28858 = .

SHORTHORN



BERKSHIRE

SHROPSHIRE SHEEP.

A carload of Bulls suitable for Northwest Territories for sale. Orders booked for spring pigs. Berkshires, by the great boar, King Clere, and out of such sows as Harmony and Gold Drop. Yorkshires, by the sweepstakes boar, Yorkshire Bill, and out of such sows as Stamina, Jubilee Queen, and Markham Maid. JAS. YULE, Manager, Crystal City. THOS. GREENWAY, Proprietor.

Having decided to establish an Annual Sale of Shorthorn Cattle, I will sell at public auction, in the

City of Hamilton, Ont., on

WEDNESDAY, DECEMBER 20th,

Commencing at 12 o'clock noon:

60 HEAD OF SCOTCH SHORTHORNS, 43 of which were imported during the present year, including my entire importation of 37 animals now in quarantine, making 35 IMPORTED COWS AND HEIFERS AND 8 IMPORTED BULLS, Also 9 females and 8 bulls, Canadian-bred, all of which are good individuals of choice breeding. This lot of cattle will be offered in good breeding condition, and will be found to be individually of a high order of merit, and their breeding such as to make them a worthy acquisition to any herd in America.

Catalogues will be mailed on application to:

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Hamilton. Ontario, Can.

IMPORTED HEIFERS.

ALL SCOTCH.



IMPORTED ALL SCOTCH.

Heifers all in calf to imported bulls. Also a number of first-class home-bred animals of either sex. The oldest home-bred bull we have was calved in April last. 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.

2 BULLS, 1 and 2 YEARS OLD; 14 HEIFERS, 2 YEARS OLD; 4 YEARLING HEIFERS.

This importation came out of quarantine on the 12th July, and representatives of many of the leading scotch families are amongst them, including Minas, Brawith Buds, Secrets, Mysies, Beauties, Lady Mays, Lustres, etc. The home-bred herd contains Indian Statesman =23004=, and 15 young bulls from 6 to 18 months old, and 50 cows and heifers of all ages and ewes, ram lambs from imp. Flashlight. Any of the above will be sold at reasonable prices. Correspondence or a personal visit solicited. Catalogues on application.

Burlington Junction Station and Telegraph W. G. PETTIT & SON, Office, G. T. R., within half a mile of farm. FREEMAN, ONT.

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f either sex ersonal visit -om ONT. CURED WITHOUT ENIFE OR PLASTER. FULL PARTICU LARS FREE.

F. STOTT & JURY, Bowmanville, Ont.

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, Brigden, Ont.

25-Shorthorn Bulls-25

From 6 to 18 months. Also a limited number of females, among which are grand, thick-fleshed and choicely-bred animals, mostly solid red colors. Speak quick, for they will not lest long. not last long. G. A. BRODIE, STOUFFVILLE STATION, BETHESDA, ONT.

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. The Baron 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-gruines res. blood as the 1000-guinea ram.

J. T. GIBSON,

DENFIELD, ONT.

SPRINGBANK FARM. Shorthorn Cattle, Oxford Sheep, and Bronze Tur-keys. Young bulls for sale.

om JAS. TOLTON, WALKERTON, ONT.

SPRINGHURST SHORTHORNS

The famous sire, Abbotsford =19446=, and the crack young show bull, (imp.) Knuckle Duster (72793), head the herd, which is largely of Cruickshank blood. Twelve good young bulls (some toppers), and a choice selection of females for sale. Address,

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

John Miller & Sons,

BROUGHAM P. O. and TELEGRAPH OFFICE,

OFFER FOR SALE....

4 Imported Clydesdale Stallions.
10 Scotch-bred Shorthorn Bulls.
10 Yearling Shropshire Rams, 3 of them imp.
20 First-class Ram Lambs.

.... PRICES REASONABLE

Glaremont Stn., C.P.R.

Pickering Stn., G.T.R.

Correspondence Invited.

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 Moneyfuffel Lad = 20521 = High-class Shorthorns of all ares for sale. Also

High-class Shortary Also all ages for sale. Also prizewinning Lincolns. T. E. ROBSON, Ilderton, Ont.

Greenwood P. O. and Telegraph Office,



OFFERS FOR SALE, AT MODERATE PRICES. 13 IMPORTED AND SHORTHORN BULLS 17 imported COWS and HEIFERS

22 home-bred COWS and HEIFERS Many of them from imported cows, and by imported bulls. Catalogues on application. Claremont Station, C. P. R.,

or Pickering Station, G. T. R.

GOSSIP.

Mr. James Yule, farm manager for Premier Greenway, of Manitoba, has been in Ontario recently, looking for a carload of thoroughbred stock. He has purchased from Boden & McDonald, of Exeter, the grand imported Clydesdale stallion, Royal Reward 10003, which came out from Scotland this year, and is said to be one of the best imported in recent years. He is royally bred, being sired by Dexter 6677, and his dam, Maggie of Bardraing, by Top Gallant, the best son of the noted Darnley. His weight is said to be close to a ton, and his feet and limbs faultless. He ought to make his mark on the horse stock of the Prairie Province-Mr. Yule has also bought a number of Shorthorns, among which is Capt. Robson's fine roan yearling bull, Grand Quality, by Indian Statesman, a son of imported Indian Chief. This young bull won third prize at Toronto Exhibition this year, in a very strong class. From Harry Smith, of Hay, he has purchased the beautiful roan heifer, Village Princess, winner of third prize at the late Toronto Show as under a year, in an exceptionally strong class. Mr. Yule expects to make further puras under a year, in an exceptionally strong class. Mr. Yule expects to make further purchases of cattle and sheep to fill up the car, and he is pretty sure to take only good ones.

and he is pretty sure to take only good ones.
G. A. BRODIE'S SHORTHORNS AT BETHENDA, ONT.
Mostly every section in Ontario has its own
peculiar advantages, but to none can be given
greater credit as a live stock section than the
one in which Mr. G. A. Brodie lives, near Bethesda, Ont. When we ran in upon Mr. Brodie,
at his comfortable home, a short time ago, we
found that gentleman upon the very pinnacle
of enthusiasm regarding the outlook for Shorthorn cattle in this country. Aided by equipments, complete in detail, for their development, and a large stock of fresh young animals
in the pink of health and vigor, he may be considered to be in a very enviable position. In
looking over the farm and herds, we found
things in excellent form, our attention being
more especially directed to the bunch of twentyfive young bulls running together in luxuriant
clover pastures. Upon looking oyertheir pedigrees, we found that many of the leading noted
Scotch-bred sires had played an important part
in the founding and building up of the herd.
We saw pedigrees in which such sires as Athelstane, Gay Lad by Abbotsburn, Kinellar Sort
(imp.), Northern Light (imp.), Roan Stamp (a
son of Sittydon Stamp), Sussex (imp.) (Cruickshank), Indian Chief and Strathallan's Canadian Duchess of Gloster and her descendants
figured conspicuously.

Among the matron list we saw descendants G. A. BRODIE'S SHORTHORNS AT BETHKSDA, ONT

son of Sittydon Stamp), Sussex (imp.) (Cruickshank), Indian Chief and Strathalian's Canadian Duchess of Gloster and her descendants figured conspicuously.

Among the matron list we saw descendants of May by Vensgarth, Strawberry, Isabella (imp.), and Duchess (of high-price fame in bygone years), all of which have proven themselves matrons of high order. Among the bunch sold to Mr. W. D. Flatt, during last year, was a daughter of May, which yielded her purchaser a handsome return upon his investment. Among the young bulls were many fine young animals, and as space will not allow us to enter into detail in each case, we feel it our duty to give a passing notice of at least a few. The 17-months roan bull, Roan Stamp 30311, by Bright Stamp, a son of Sittyton Stamp, and out of Gay Lass 30161, is one of those showy, thick-fleshed fellows, with lots of size and quality, having a grand back and loin, and a beautiful color, and promising to make a big, good one. Royal Standard 30838, by Northern Light (imp.) 11111, and out of Rosy Nell 9th 30251, is a beautiful, even red, whose quality and breeding would recommend him upon sight, with splendid back and underpinning. Wood Hill 30080, by Charles 4th 25543, and out of young Duchess of Wood Hill 2nd 25429, is an eight-months roan fellow, with enough Duchess in his pedigree to make him desirable, apart from his own individual merit. The 5-months red bull calf, Isabella's Allan, by Allan 18431 ta grandson of the noted Indian Chief, through the Mina and Lavender families), and out of Isabella 17th, by Sussex (imp.), is a promising youngster, with a splendid back and a great wealth of natural flesh. Coming as he does through the Isabella and Rose of Strathallan families, with such imported sires, early in his pedigree, as Sussex (imp.) (Cruickshank), Barmpton, and Royal Duke of Gloster, qualifies of the Isabellas and Strathallans are considered Mr. Brodie has a gem in this fellow the well-known beefing and productive qualities of the Isabellas and Strathallans are considered, Mr. Brodie has a gem in this fellow, and he informs us that his dam is again safely in calf to a son of imported Prime Minister. Many other young bulls are highly worthy of notice, but space will not permit at present. Among the young females we saw some splendid straight and promising daughters of Kinellar Sort (inp.) and Sittyton Stamp's sons. Watch Mr. Brodie's offerings.

NOTICES.

Messrs. A. E. McKenzie & Co., seed merchants, of Brandon, Man., who for several years past have been carrying on a successful business supplying farmers with seed grain and field seeds, in large or small quantities, intend going into garden seeds extensively, and are making preparations to carry a large stock of well-assorted garden seeds the coming season. They mean also to supply carefully selected seed grain and field seeds as heretofore.

season. They mean also to supply carefully selected seed grain and field seeds as here-tofore.

Blackleg Vaccine.—Owing to the success with which the original Blackleg Vaccine had been used in Europe during the previous ten years, it was a foregone conclusion that the same article would meet with the same success when introduced into the United States and Canada in 1895 by the Pasteur Vaccine Company. Since that time the company claim it has been successfully used upon over one million head of cattle in the United States and Canada, and its value as a preventive remedy proved beyond question. It is important when ordering to specify "Pasteur Vaccine," and see to it that the original and genuine preparation is secured. For blackleg it is supplied in the form of a powder, to be administered at one application or at two applications, as desired, The Pasteur Company's remedy is also furnished in the form of a cord, ready for use. The Cord Vaccine is, for distinction, called "Blacklegine," and is applied with a needle, which is the only instrument required. For full particulars, with official endorsements and testimonials from the largest and most prominent stock-raisers who have been using Pasteur Vaccine with success during the last four years, write to the Pasteur Vaccine Company, at their headquarters in Chicago, or to the general agents, W. J. Mitchell & Co., Winnipeg.

"BY VIRTUE and BY WORD."

We would like everybody who has a range or ever expects to have one, to be in possession of a little booklet entitled "It Has Never Failed." It tells you what just 159 people have to say in

The ABERDEEN

(FOR COAL AND WOOD),

The VICTORIAN

(FOR WOOD ONLY).

It emphasizes the strong points in an honest and concise way—the unsolicited te-timony of people unsolicited te-timony of people who have tested the merits of these exorllent ranges. Drop a card for

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BRANCHES: TORONTO AND WINNIPEG

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IMPORTERS AND BREEDERS Laurentian Stock and Dairy Farm,

NORTH NATION MILLS, P. Q.

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 Fawn's Son 2nd of St. Anne's heads the Jerseys. The young stock are all from time-tried dams.

A. E. SCHRYER, Manager.

Scotch Shorthorns and Shropshires.

The imported Missie bulls, Marquis of Zenda and 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.

ROCKLAND, ONTARIO.

JOS. W. BARNETT, 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. 7-1-y-om

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS. We are offering 5 young bulls for sale, of first-class quality, and A1 bree ling. -om

Wm. Grainger & Son. - Londeshoro, Ont. FIVE SHORTHORN BULLS

Will be sold to make room. Good quality and breed ing. Also Mammoth Bronze turkeys. Inspection invited om H. C. GRAHAM, Allsa Craig.

BONKIE BURN STOCK FARM

Forty rods north of Stouffville Station, has for sale three excellent young Shorthorn Bulls, yearling and two-year-old Heifers in calf. Shropshire Lambs, both sexes; also Berkshires. At very moderate prices. D. H. RUSNELL, Stouffville. Ont.

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS.—A grand lot of young bulls, got by the great Caithness and Abbottsford. Choice heifers in calf to imp. Knuckle Duster and Abbottsford—milking strains. ELEICESTERS.—A splendid lot of ram lambs, ewes and ewe lambs for sale. Our flock has won first prize for pen—1895, '96, '97, '98, '99—at Toronto and London. Write us for prices.

ALEX. W. SMITH,

MAPLE LODGE P. O., ONT.

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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.

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First prize herd and medals for best bull and best female, Toronto, London, Ottawa. Send for prices and illustrated catalogue.

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One boar six months old, and choice sows two months to a year old.

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

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Oh, Yes! We sell Holstein Bulls. Sold 7 in May. Have 12 now on hand; oldest months old; bred right and are right. Write for particulars, Male or female. State what you want. A. & G. RICE, Currie's Crossing. Ont., Oxford County.

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Holstein of rich breeding. Blood Best.

Some are prize. Prices Reasonable winners; others bred to buls of rich merit; ranging in age from one to eight years old. Also a bull one year past, and a couple of Sylvia DeKol August bull calves. C. J. Gilroy & Son, Glen Buell, Ont. Brockville, on C. P. R. or G. T. R.

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A few choice dairy bulls for sale, or will exchange for first-class fresh milch cows, if taken at once. N. DYMENT, Clappison's Corners, Ont. Hamilton Station

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 heiters. 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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Summer Hill Herd

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The largest herd of pedigreed Yorkshires of the large English type in Canada. Purity of breed, size, and general excellence is my motto. One hundred awards with one hundred and five exhibits at 7 shows in 1899. A choice selection of young boars and sows of all ages for sale; also boars fit for service, and pregnant sows. Fifty breeding sows, of which 25 (twenty-five) are imported; also three imported stock boars bred by such noted breeders as Sanders Spencer and Philo L. Mills. Am also using two Canadian-bred stock boars, first prize at Toronto in 1898-99. Express charges prepaid. All stock carefully shipped and guaranteed as described. Telephone, Millgrove, Ont. Telegraph 254 Bay St. S. Hamilton, Ont. D. C. FLATT, MILLGROVE, ONT.

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1 Three-year-old Ayrshire Bull; 4 Ayrshire Bulls, one year old; 3 Ayrshire Bulls, 8 months old; Bulls and Heifers under two months, and Cows of all ages and Heifers under two months, and Cows of all ages; 8 Shropshire Ram Lambs, also Ewes; 1 Berkshire Boar, 1 year old; 2 Boars under one year, also Sows, pairs not akin. Plymouth Rock Hens and Chickens; a few fine Cockerels left.

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

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YET on hand, and more to come within the next month, from some of our best imported cows. Will sell at reasonable prices. Address:

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Three calves, 5, 8 and 12 months old, also one 1 month old, from that fine cow, Daisy 1st of Auchenbrain (imp.), and all sired by Craigielea of Auchenbrain (imp.).

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Secretary of the National Sheep Breeders' Association,
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Southdown Sale **Hor** Sheep-

Huntlywood Farm, BEACONSFIELD. Ewes and rams from this flock imported and home Ewes and rams from this flock imported and home-bred animals from the celebrated flocks of His Royal Highness the Prince of Wales, Sandringham, Eng-land; His Grace the Duke of Richmond and Gordon, Goodwood, England; J. J. Coleman, of Norwich, Eng. Apply at the farm, Beaconsfield, near Montreal, Province of Quebec,, or by letter to Box 2292, Montreal, P. Q., Canada.

Shropshire Rams and Ewes

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

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WHAT I OFFER NOW IS:

15 SHROPSHIRE EWES To be delivered after service by imp. rams

30 Young YORKSHIRE PIGS First - Class Stock 5 JERSEY FEMALES,

1 SHORTHORN BULL 18 months old.

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ROPSHIRES SEVENTEEN SHEARLING RAMS.

Also our two shear stock ram, from John Miller & Son's flock, with twelve ram lambs. Have for sale two Shorthorn Bulls, one fourteen months and Prices moderate, PUGH BROS., Whitevale P.O.

Oxford Down Sheep

Flock Established in 1881. Have for sale 126 register of run lambs, and 50 cwas of different ages. Singly or in car

HENRY ARKELL. om ARKELL P. O., ONT. Guelph: Telegraph and Telephone.

CHOICE REG. LEICESTER RAMS

Strong, even, well-covéred sheep, cially selected from flock of 1898. ram and ewe lambs. Wanted, a Farm Hand (single) to take care of stock, etc. E. GAUNT & SON,

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BERKSHIRES AND COTSWOLDS.

We can supply singly, in pairs, or trios, not akin, or in larger numbers, registered
Berkshire pigs and Cotswold sheep of the highest
class. Young boars fit for
service, sows old enough
to breed. Young pigs 6 to 8 we ks old. Ram lambs
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LARGE ENGLISH BERKSHIRES



Herd headed by five first prize boars of large size and fine quality. Twenty-five young sows and ten boars for sale, bred from prizewinners. Pairs ipplied not akin.

GEORGE GREEN, - FAIRVIEW P.O., ONT. om Telegraph and Station: Stratford, G. T. R.

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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. Correspond-ence solicited, which will receive prompt attention. JOSEPH FEATHERSTON, Streetsville, Ont.

OXFORD HERD OF POLAND-CHINAS

The home winners of the Headed by the imported boars, Conrad's Model and Klondike, assisted by Bacon Boy and Len-nox. Has won 64 out



ossible 69 first prizes. Stock of all ages for Write for prices or come and see W. & H. JONES OXFORD CO. -om MT. ELGIN, ONT.

DUROC-JERSEY

We have a fine lot





GOSSIP.

D. Allison, of Roland, recently shipped the bull calf, Daisy's Pride, by Hillary, out of Daisy of Strathallen 12th, to E. Henderson, of Swan

River.

Mr. J. A: S. Macmillan has his three fine stallions, the Clydesdale, Burnbrae; the Shire, Nailstone Morning Star, and the Hackney, Prince Danegelt, in comfortable quarters in Brandon, where they may be seen by visitors at any time. These stallions have done a splendid season. The Shropshire flock is being well maintained in quality. Several important sales have been made during the season, the latest being a draft of 40 ewe lambs to Sir Arthur Stepney, Sycamoose, B. C.

William Chalmers of Hayfield, has made a

Stepney, Sycamoose, B. C.

William Chalmers, of Hayfield, has made a sale recently of several Shorthorns to J. A. S. Masmillan, of Brandon. There were five head, including Minnie Mine, a roan heifer by Aberdeen 2nd, out of Maggie Barmpton. This heifer in 1898 was one of the prizewinners at the Winnipeg Industrial in class for bull and two of his get. Miss Aberdeen 2nd, a red heifer by Aberdeen 2nd, out of Rose Lea; Carroll of Hayfield, also by Aberdeen 2nd, and 1st at Brandon in the Manitoba-bred yearling heifer class; Bessie of Hayfield, a roan, also by Aberdeen 2nd, out of Marjorie; Queen Esther, out of Annie Laurie; two brothers of this heifer won first prize in the one and two-year-old classes at the Brandon Fair in 1898.

S. J. Thompson, Provincial Veterinarian, has

classes at the Brandon Fair in 1898.
S. J. Thompson, Provincial Veterinarian, has disposed of his farm at Carberry to Mr. F. Tilk, and purchased another farm at Silver Heights, near Winnipeg. Official work necessitates Dr. Thompson's frequent presence in Winnipeg, so that he has had to be much away from home since occupying his present position. Dr. Thompson has taken a leading part in all patters portaining to the advancement of agri-Dr. Thompson has taken a leading part in all matters pertaining to the advancement of agriculture on the big plains, and has won Provincial honors more than once in the showring with Red Fife wheat, Yorkshire swine, Ayrshire cattle, and Wyandotte fowls. Carberry's loss will be a distinct gain to the Winnipeg district, and doubtless the Doctor and his sons will continue to produce on the rich black loam of the Red River valley, wheat, swine and poultry that will compare with the best.

loam of the fed filver valley, wheat, swine and poultry that will compare with the best.

A recent visit to the home farm of John E. Smith, at Brandon, revealed the fact that his large herd of Shorthorns were going into winter quarters in first-rate shape. A fine crop of calves by the Stanley bull were being weaned and put on winter rations. The newly imported Golden Measure, a bull of the popular Missic family, imported by John Isaacs last year and now three years old, that Mr. Smith at a big price secured to head his herd, is certainly one of the very best he has ever owned, and should, from his breeding and individuality, prove a most useful sire. Most of the heifers are now safe in calf to this bull. In Clydesdales several very promising young stallions are in the boxes, and will be held for spring sales. Mr. Smith has made many good sales within the past few months of Shorthorns, and with the splendid stabling he has now for the accommodation of his stock and the abundance of fodder and coarse grains, he will be able to have a lot of good stuff in excellent shape for the spring season. will be able to have a lot of good stuff in excel-lent shape for the spring season.

will be able to have a lot or good stuff in excellent shape for the spring season.

Walter James, of Rosser, Man., has for years been building up a herd of Shorthorn cattle, his original purchases being from the herds of John E. Smith, of Brandon, and Greig Bros., Otterburne. The families represented are principally Scotch-topped Bates pedigrees, and in nearly every individual there are strong indications of dairy qualities. A ready market has been found in the mixed farming district to the north for all the young bulls Mr. James has to dispose of, and as nearly all the farmers throughout the locality are engaged in home dairying, no better stock for this purpose could be found. A few Berkshires are kept, and a specialty is made of Plymouth Rock fowls, among the flock being a large number of wellmarked, handsome cockerels. From year to year Mr. James has extended his wheat-growing operations, of which he has a large acreage particularly well adapted; but, while successfully growing wheat, he is never unmindful of the best interests of his stock.

W. G. Styles, Secretary-Treasurer of the

W. G. Styles, Secretary-Treasurer of the nunicipality of Rosser, as mentioned some little W. G. Styles, Secretary-Treasurer of the municipality of Rosser, as mentioned some little time ago in these columns, purchased the entire Shorthorn herd of Andrew Wright, Pigeon Bluff, Man., consisting of some 25 head, all of good old Canadian families. A number of the cows are of excellent type, strong constitution, deep bodied, smooth and well fleshed. The calves are mostly sired by Knight Templar, a bull bred by J. G. Washington, Ninga, by Red Knight 2nd, out of an Indian Chief dam. Mr. Styles has an excellent location for stock-raising, the buildings being situated right in the center of a number of large poplar bluffs, which afford splendid protection. For pasture he has a section of land well fenced, in which the pasture is varied and of the best quality. His stock are all in excellent condition, and are certain to prove a profitable investment. Mr. Style also breeds Yorkshire and Tamworth swine, his foundation stock of the former purchased from J. E. Brethour, Burford, Ont.; S.

of all ages and
either sex. Address,
om TAPE BROS., Ridgetown, Ont.

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In Want of the following firstclass registered stock, viz.:

Chester White boars fit for service, Shropshire ram
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I am offering for the
month of October
a grand lot of Imp.
Y OR K S ILLE B BOARS
ready for service.
Sows ready to breed, and fall pigs not akin.

Also LARGE EXCLISH BERK
SHIRE BOARS
ready for service, Shopplying the quota of exhibits of grains, grasses and fruits for the exhibit to be made by the Dominion Experimental Farms at the Paris Expesition. The preparation of these exhibits entails an immense amount of labor in hand-picking, sorting, and designing, as well as packing, but will, no doubt, be of grains, grasses was being threshed, the yield was heavy, and an excellent sample of seed. A large distribution of rhubarb roots had been made from the farm this fall to all parts of the Province.

Horse Owners! Use GOMBAULT'S



The Safest, Best Bl. ISTER 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. Bold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CQ. TORONTO. CAN

OAK LODGE HERD or Large Yorkshires.



The oldest established and largest in America. Look up the record of this herd at the larger exhibitions—more prizes won than all others combined, sweep—stakes over all breeds in class for bacon hogs two years in succession; winner of championship and gold medal at the Royal; also several prizewinning boars and sows personally selected from noted English herds. Oak Lodge Conqueror and Oak Lodge Challenge, two of the best boars in Canada, are in the herd. Stock from these boars are winners. Improve the quality of your pigs by securing some of the Oak Lodge blood.

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

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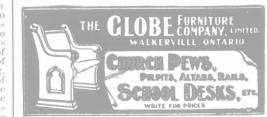
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Sufficient in each to make targe tins at... Summers to each to make from 25 to 40 gallons of at... wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.

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Galvanized or Painted.

It is very low in price, and very easy to apply; gives a remarkably handsome appearance, and is thoroughly durable,

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as well as fire and damp proof.
You can afford the cost, and will be delighted with the effect.
Write us-our experience in all metal building materials is

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Windsor Salt gives to butter that delicious sweetness and freshness which brings the high price. Perfectly pure; natural crystals.

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THE WINDSOR SALT CO., Limited.

WINDSOR, ONT.

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The E. B. EDDY CO.

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METAL EAR LABELS 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 attach ng 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.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE

Improved Method or Watering Stock



Secured by adopting The Woodward Water Basins

YOU NEED NOT Turn out your Stock, and endanger their lives or waste your time and labor.

Water at the Stalls always and sure. Ontario Wind Engine and Pump Co. (Ltd.), TORONTO, ONTARIO. om

T is now KNOWN that the udder is the seat of milk fever. Schmidt's udder injections CURED 90 per cent. of the first 412 cases treated.

TREATMENT for 1 severe or 2 mild cases, with instrument (specially designed for the purpose) and full printed instructions by mail, \$3.00. Extrabottle for 1 severe or 2 mild cases, \$1. Extremely simple.

om JOHN SPENCER, v.s. Bowmanville, Ont.

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95 Per Cent. Hatches are often reported by those who use these Incubators. One reason for this record is absolute uniformity of temperature in egg chamber; correct instructions for operating; has fireproof lamp. A great mistake it would be to purchase an Incubator or Brooder without first getting a copy of our 148-page catalogue. Send 3 cents for illustrated catalogue of Incubator, Brooder, Poultry and Poultry Supplies.

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FAMILY KNITTER! Will do all knitting required in a family, homespun or factory yarn. SIMPLEST KNITTER ON THE MARKET.

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PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

CHAMPION COW AT THE LONDON DAIRY SHOW. In the milking test at this show, Mr. Long's half-bred Guernsey and Shorthorn cow, Nancy, illustrated in this issue, outstripped everything. This very fine cow, large and well built, and in her appearance giving evidence of both crosses of which she is composed, has a good udder, from which she gave an average of 62 lbs, 11 oz. of rich milk, which secured for her first prize in her class, and also the Barham Challenge Cup for the cow scoring the greatest number of points in the show, her total being 135.7, as against 129.8 points made by the Ayrshire. It is very interesting to recall the career of this cow. Three years ago she began by obtaining the third prize; last year she succeeded in getting to the top, a position she has maintained both in the inspection and milking classes. The other winners were Mr. Wimlett's Shorthorn and Ayrshire, with an average of 56 lbs. 13 oz., and Mr. Merry's with 50 lbs. 13 oz. In the milking test at this show, Mr. Long's

THE MAPLE GLEN HOLSTEINS.

THE MAPLE GLEN HOLSTEINS.

Messrs. C. J. Gilroy & Son, of Maple Glen Stock Farm, Glen Buell, Ont., whose first-prize herd is illustrated on another page in this issue, write: "Intending purchasers will do well to inspect our famous herd of Holsteins when in want of a bull to head their herd, or a few females either. Our herd won the first herd prize at Toronto this fall and second breeder's herd prize also. Our herd is headed by a son of Carmen Sylvia, the great dairy-test winner, and a cow that has produced daughters capable of doing the trick also. We just recently purchased 8 head from Mr. Folger, of Kingston, one a daughter of old Trixie L., a great show cow, with a record of 80 lbs. per day; two others belong to a Hengerveld family, one a Lutske, and others equally as well bred, some of which are half-sisters to our great old show bull, Inka Kathleen's Son, who was the sire of Inka Sylvia, a 3-year-old without an equal in official butter tests." See their change of advertisement, and when in want of fresh stock to take prominence in the herd, correspond with these gentlemen, making mention of their ad. in Farmer's Advocate.

A GREAT SALE OF SHORTHORNS IN SIGHT.

A GREAT SALE OF SHORTHORNS IN SIGHT.

Mr. W. D. Flatt, of Hamilton, Ont., makes the interesting announcement in our advertising columns that on December 20th he will hold the first of a contemplated series of annual sales of Shorthorn cattle from his widely-known Trout Creek herd, at which he will offer the best half of the present herd, which numbers 120 head. In this offering will be comprised 43 animals which have been selected by acknowledged expert judges from leading herds in Great Britain, and imported within the present year, including the entire importation of 37 head now in quarantine. These are said to be a uniformly excellent collection of Scotch-bred Shorthorns, and are deeply bred in the blood of many of the best herds in the North Country, and of noted sires which have made their mark in the evolution of a class of beef cattle which has won its way to general favor by sheer force of usefuluess the world over.

The Scotch Shorthorn, the product of men of A GREAT SALE OF SHORTHORNS IN SIGHT.

class of beef cattle which has won its way to general favor by sheer force of usefuluess the world over.

The Scotch Shorthorn, the product of men of superior judgment and of genius, has solved the problem of early maturity and of materializing the greatest amount of good meat in suitable superfices, at a minimum of cost, and has set the standard to which breeders of beef cattle in all the continents are now working, with the realization of profitable results. Mr. Flatt, though a comparatively young breeder, has caught the spirit of the times, and of the leaders in this grand crusade for the elevation of the standard of the cattle stock of this great country, which can only continue to be great and advance to higher ground in the competition for the best prices in the best markets by a forward movement to improve the character of its live stock products, and he has shown commendable courage in risking his money and his reputation in the enterprise of importing the kind of cattle that are needed for this purpose. In this venture he has not depended entirely upon his own judgment, but has had the co-operation of some of the best-known judges in Canada and Britain, and if depended entirely upon his own judgment, but has had the co-operation of some of the best-known judges in Canada and Britain, and if the animals are not equal to the expectations of the most sanguine, it may be set down to the fact, acknowledged by all who have gone over the ground, that in the face of the very keen competition of buyers, home and foreign, it is extremely difficult for the most experienced importers to secure the most desirable sort. This, and not the want of will, or of heart to pay the best prices that the prospects warrant, has, we are persuaded, alone limited Mr. Flatt in his enterprise; and, therefore, it is safe to say that the cattle going into this sale are among the very best that could be bought in Britain, within reasonable limits as to price. The animals will be sold at a disadvantage to the seller in regard to their condition, coming straight from a 90-days quarantine after an ocean voyage; but, having been in the care of competent herdsmen, will be in good, thrifty condition. has had the co-operation of some of the best

condition.

Every breeder of Shorthorns in Canada is interested in the success of this sale, and should use his influence to make it a pronounced success, as it will largely set the pace of prices for the future. The number of animals catalogued for this dispersion is but a drop in the ocean of American stock-breeding territory, and there are hundreds of herds in Canada that would be all the better for an infusion of fresh blood from the fountain-head, and though Canadians may not secure all the Canada that would be all the better for an infusion of fresh blood from the fountain-head, and though Canadians may not secure all the best of the consignment, they will, doubtless, see that such are not sacrificed on the altar of mean money. The Hereford breeders of America at the late Kansas City sales showed the spirit that should prevail where a community of interests is recognized, where petty personal ambitions are put down, and all work well together for the common good. Let there be a representative gathering of Shorthorn breeders at the Hamilton sale, and an enthusiasm engendered that shall rekindle the old-time fire and be in harmony with the encouraging outlook for trade in a line that is bound to grow broader as population increases and the prairies are brought under the plow, as the hope of the older Provinces is in pure-bred stock, and in time mixed farming must prevail in the newer Territories as well. Send for a catylogue of the sale, study its contents, and prepare to participate in what promises to be the most interesting event of its kind in Canada in the last two decades. Canada in the last two decades.



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ALL YOUR Christmas BUYING can be done in the United
States, and more satisfactorily,
quicker and cheaper than at home.
We can land goods at your station, freight and duty added,
cheaper and better than they could
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Bookcases, Bicycles, Brass Goods,
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Chairs, Fancy Tables, Fountain
Pens, Gold Pencils, Groceries,
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Mufflers, Musical Instruments,
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Pocket Knives, Rockers, Rugs,
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other articles, including many
useful things in Ladies' and
Gentlemen's Wearing Apparel.

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Our Lithographed Catalogue shows Carpets, Rugs, Art Squares, Portieres and Lace Curtains in their real colors. Carpets sewed free; Lining furnished free and freight prepaid.

Our Made-to-order Clothing Catalogue, with samples of cloth attached, offers Suits and Overcoats from \$5.95 to \$20.00. Expressage paid on clothing everywhere. We also issue a Special Catalogue of Pianos, Organs, Sewing Machines and Bicycles. We are prompt. All inquiries answered the same day as received. We will make your Christmas buying more satisfactory than it has ever been before. Can we serve your Which Catalogue do you want? Address this way: DEPT.

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Dressing Table, \$3.95.

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A NON-POISONOUS LIQUID "DIP."

Kills Ticks. Kills Red Lice. Heals Wounds.

Greatly Improves quality of WOOL.

For Horses, Cattle, and Pigs.

Removes all insects. Thoroughly cleanses the skin.

Leading "STOCKMEN" endorse it as the CHEAPEST and most EFFECTIVE "Dip" on the market.

sold by all 50 cents PER QT. CAN. Special rates in larger quantities.

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The Pickhardt Renfrew Co. LIMITED, STOUFFVILLE, ONT.



OUICKLY CURED.

A case of lump jaw in your herd means immediate loss; it may mean the infection of the rest of your herd; it may result in the distribution of the germs all over your pastures. All loss and danger can be positively averted by prompt use of

Fleming's **Lump Jaw Gure**

The only radical cure known. Is endorsed by the most prominent ranchers and shippers of the continent. Easy to use. Is applied externally. One to three applications cure. Leaves jaw sound and smooth. Cannot harm in any way. One bottle usually cures two or three ordinary or one severe case. Price \$2.00. Sold by druggists. Can be sent anywhere by mail.

Money cheerfully refunded if the remedy ever fails.

FREE:—Some important reports and an illustrated treatise on Lump Jaw.
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STRATFORD, ONTARIO, For our new Catalogue if you want "the best" business education. Enter now. W. J. ELLIOTT, Principal.



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CHOPPING, YOUR GRINDING, PULPING, PUMPING,

WILL DO THAT FOR YOU.

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Grinders of all kinds. Pumps, Tanks, Basins etc.

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FOR POWER AND PUMPING

GET A DANDY WITH GRAPHITE BEARINGS. THEY RUN
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TWO SIZES FOR ANY POWER

No. 1 has 10inch reversible

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harited), CCATE.

GOSSIP.

In writing to advertisers, mention the "Farmer's

Wm. H. Caldwell, secretary, writes:—"The annual meeting of the American Guernsey Cattle Club will be held on Wednesday, December 13th, at the Fifth Avenue Hotel, New York, at 10.30 a. m. The committee chosen to formulate a new scale of points will submit a report which will bring before the meeting 'a standard of excellence' for the breed that will merit careful consideration. Other matters will be considered, including a change in the constitution whereby the annual meeting will be held at a more favorable time of the year. The club has enjoyed the most prosperous year of its existence, and it is hoped there will te a large attendance at this meeting. The results of the past year's competitive home butter tests will be announced at the meeting, and should create much interest, as some exceedingly fine and well-authenticated butter records have been made."

\$6,000 FOR AN IRISH-BRED SHORTHORN.

English and Scottish bred bulls are not having it all their own way in the Argentine, where the animals bought in Great Britain during the past season have recently been selling at such remarkable prices. Bulls sent out from Ireland have also done well, and to one of them belongs the distinction of having made not only the top price of the season in South America, but one of the best prices paid for a Shorthorn for a considerable time. The bull in question, Farrier by name, was bred by the Earl of Caledon, at Caledon, in the County Tyrone, and was got by the famous Sign of Riches. He was calved in 1896, and was sold at the exhibition held at Palermo at the remarkable price of 15,700 dollars in Argentine currency, equal to £1,234 in English currency, or \$6,000 in Canadian money. Some other good prices were also obtained for animals shown at the same exhibition. One of these, Count Beauty, bred by Mr. W. Duthie, made £760, and another, Pride of Fame, realized £597. Another bull of Lord Caledon's breeding, Irish Bard, was subsequently sold at over £200. \$6,000 FOR AN IRISH-BRED SHORTHORN.

THE GREAT HEREFORD SHOW AND SALE-A GIGANTIC SUCCESS.

THE GREAT HEREFORD SHOW AND SALE—A GIGANTIC SUCCESS.

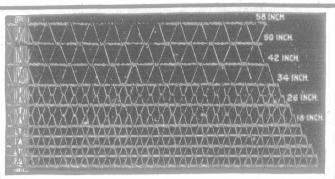
The great Hereford Association show and sale held at Kansas City, Mo., last month, was successful beyond the expectations of the most sanguine. The sale of 289 head of cattle, at an average of \$317 each, is a remarkable record, one probably unparalleled in the annals of such events in America, and which speaks volumes for the faith of western breeders and feeders in the merits of this breed of cattle as grazers and beef producers, at a minimum of cost of production. The sale was remarkable not so much for the realization of sensational prices for individual animals as for the general uniform excellence of the entries, and the steady good prices made all the way through the list, which is a healthy indication and augurs well for future trade.

The official catalogue of the show contained entries of 541 animals, 300 of which were in both show and sale, the remainder being for show only. The highest price in the sale, \$2,500, was paid by Mr. John Sparks, Reno, Nev., for the yearling heifer, Armour Rose 75086, entered by Mr. K. B. Armour, Kansas City, President of the American Hereford Association. The highest price for a bull, \$1,950, and the second highest price in the sale, was paid by Col. C. C. Slaughter, Fort Worth, Texas, for the 1-year-old bull, Aaron, Vol. 21, entered by W. S. Van Natta & Son; \$1,650 was the next highest figure, at which Frank Rockafeller, of Ohio, took Babe of Alamo, a 3-year-old cow owned by John Sparks. Peerless Wilton, a yearling bull from the herd of Thomas Clark, sold for \$1,400 to H. J. Fluck, Goodenow, Ill. Four other animals sold at \$1,000 to \$1,200 each, and only one sold as low as \$105.

In the awarding of the premiums, adipose tissue seems to have been at a premium, as in many of what were supposed to be breeding classes the best prizes were given to animals abnormally fat. The herd of Mr. F. A. Nave, Attica, Ind., was fortunate in capturing the bulk of the highest honors, his 3-year-old bull, Dale, winning, besides first in

Artica. Har, was fortunate in capturing the bulk of the highest honors, his 3-year-old bull, Dale, winning, besides first in his class, the senior male championship of the show; his cow, Dolly 5th, the senior female championship; and his yearling heifer, Carnation, the junior female championship, although under another set of judges she had taken second place at the same show in class competition. Mr. Nave also won the first prize for herd of one bull and four females, headed by Dale; Mr. F. F. B. Sotham winning second prize, his herd being headed by Thickset, Mr. Sotham had the second prize 2-year-old heifer in Benison, the first going to Mr. Tom Clark's Everest. First in senior heifer calves was Nave's Theressa by Dale. Mr. Sotham won the \$150 special for best ten animals, either sex, bred and owned by exhibitor.

The junior male championship went to W. S. Van Natta & Son's Aaron, the bull calf which sold for \$1,950, the highest price for a bull in the sale, and which had only won third prize in his class, first having gone to Nave's Perfection by Dale, and second to Sotham's Checkmate. The tirst prize 2-year-old bull was Van Natta's Lincoln 2nd, and the second prize went to Tom Clark's Leroy. The first prize winning yearling bull was Mr. C. C. Stannard's Matchless Theodore, bred by the late C. S. Cross, and sired by Wild Tom. Next to Dolly 5th, in the aged cow class, was Stannard's Lady Matchless 2nd; third going to Wan Natta's Clodia, and fourth to Sotham's Lady Charming. Queen of Fairview 4th, shown by Nave, was given first place in the yearling heifer class, over her stable mate, Carnation, which was second, and, as stated, was afterwards given the junior stable mate. Carnation, which was second, and, as stated, was afterwards given the junior sweepstakes over all heifers under two years old, by another set of judges.



are the Standard Woven Wire Fences of the World. Standard in quality of spring steel wire, standard in heavy galvanizing, standard in efficiency, durability and economy. Standard for every fencing purpose, for horses, cattle, hogs, pigs, sheep, poultry and rabbits. STANDARD OF ECONOMY—More of our fences sold and put up in 1899 than of all other woven wire fences combined. Sold by our agents everywhere. If no agent in your

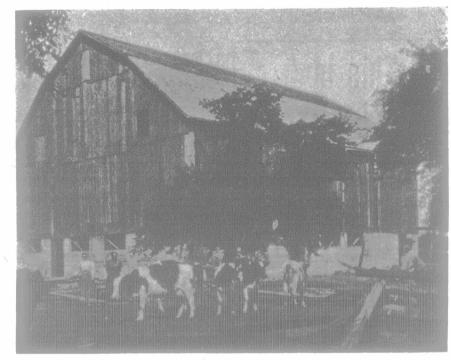
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BARN OF THOMAS HARTLEY, NEAR NORWICH, ONT. Size of Basement Walls, 50 feet x 681 feet x 91 feet high.

WHAT MR. HARTLEY HAS TO SAY ABOUT THOROLD CEMENT: NORWICH, ONT., October 24, 1899.

ESTATE OF JOHN BATTLE, MFRS. OF THOROLD CEMENT, THOROLD, ONT.:

DEAR SIRS,—I used this year 135 barrels of your justly celebrated Thorold Cement in building my barn walls and floors, also a silo foundation and milk cellar.

I wish to give you my testimony to the good quality of the Thorold Cement, and will strongly recommend its use to my brother farmers.

My work was done under the superintendence of your traveller, M. A. Ware, whom I consider a capable man in his work, as he thoroughly understands the use of Cement in all kinds of structures.

Respectfully yours,

THOMAS HARTLEY,

Dealer in Thoroughlyad Holstein Cattle Dealer in Thoroughbred Holstein Cattle.

Mr. Thomas Hartley is a prosperous farmer in Oxford County, about two miles from Norwich. He is also one of the largest breeders of Holstein cattle in the County of Oxford

In the construction of the walls of his fine large barn, size 50 ft. by 68½ ft. x 9½ ft. high, also of Cement floors all through the same, 135 barrels of Battle's Thorold Cement were used, with 84 cubic yards of gravel, and a quantity of small stone. Mr. Hartley also had built a large silo foundation 16 ft. x 17 ft., also a milk cellar/6 ft. x 10 ft.

This room is divided from the stables with an 8-inch concrete wall. He has stabling room for twenty-eight head of cattle and five head of horses, arranged with single stalls and two box stalls.

For free Pamphlet with full particulars, address ESTATE OF JOHN BATTLE, Thorold, Ontario.

THE LOSS OF AN EYE —terrible calamity. The tip of a norm often does it in tying up cattle. Cut off the horns quickly and keystone DEHORNING KnHe sides, no four humanely with the Keystone DEHORNING KnHe sides, no crushing or tearing. Illghest Award World's Fair. FULLY GUARANTEED. Write at once for descriptive circulars, prices, etc. KEYSTONE DEHORNING CO., PICTON, ONT.

Beautiful 8-day Clock, strikes the hour and half-hour, only \$2.50 ALARM CLOCKS, fully guaranteed, only 75 cents each. COBBLER'S OUTFITS at 75 cents, \$1.00, and \$1.50 each, We have an extra fine outfit, which includes a harness outfit, for \$2.







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GOVERNMENT ANALYSIS

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99 99 TO 100 per cent. of pure Cane Sugar, with no impurities whatever."

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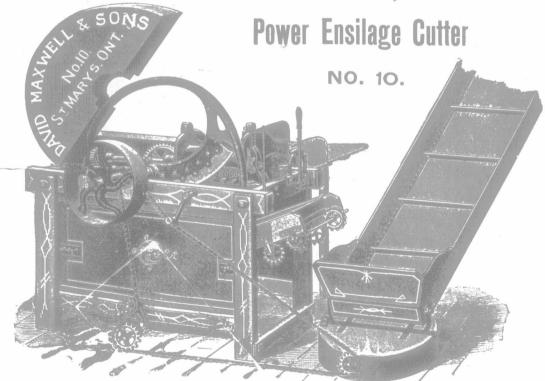
JOHN BAKER EDWARDS, Ph. D., D.C.L., Prof. of Chemistry and Public Analyst, Montreal.

"THE RAZOR THAT HAS

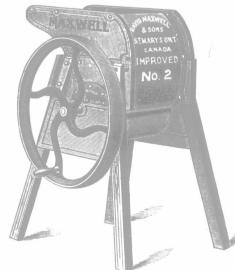


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Improved Roller Bearings. Power or Hand Machines. Pulping or Slicing Cylinders.

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The Jones Umbrella "Roof" Put on in Fits any One minute. Frame. No Sewing for a new TWILSILK COVER YOUR OWN UMBRELLA Don't throw away your old one — make it new for \$1.00. Re-covering only takes one minute. No sewing. A clumsy man can do it as well as a Adjustable Roof

TEN DAYS' FREE TRIAL Send us \$1 and we will mail you, prepaid, a Union Twilled Silk, 26-inch "A dj us table Roof" (28-inch, \$1.25; 30-inch, \$1.50). If the "Roof" is not all you expected or hoped for, return AT OUR EXPENSE and get your money back by return mail - no questions asked.

WHAT TO DO.—Take the measure (in inches) of your old umbrella; count the number of outside ribs; state if the center rod is of steel or wood. Full instructions for putting on the cover will be sent with all orders. Our special price list of different sizes and qualities mailed on request. Send for our FREE book, "Umbrella Economy," anyway. Your umbrella will wear out some day, and you will be all that you know a hour. will be glad that you know about

THE JONES-MULLEN CO., 396-398 BROADWAY, NEW YORK.

The Razor Steel, Secret Temper, Cross-Cut Saw



WE take pleasure in offering to the public a Saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A Saw to cut fast "must hold a keen cutting edge."

This secret process of temper is known and used only by ourselves.

These Saws are elliptic ground thin back, requiring less set than any Saws now made, perfect taper from tooth to back.

Now, we ask you, when you go to buy a Saw, to

Now, we ask you, when you go to buy a Saw, to ask for the Maple Leaf, Razor Steel, Secret, Temper Saw, and I f vou are told that some other Saw is as good ask your merchant to let you take them both ome, and try them and keep the one you like best. Silver steel is no longer a guarantee of quality, as ome of the poorest steel made is now branded silver teel. We have the sole right for the "Razor Steel"

It does not pay to buy a Saw for one dollar less, and lere 25 cts, per day in labor. Your saw must hold a keen edge to do a large day's work.

Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws.

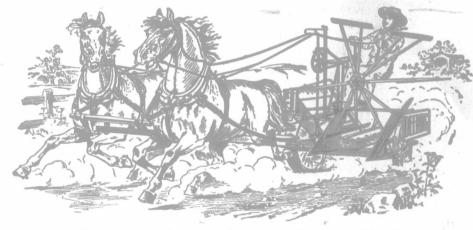
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Call on our nearest local agent and examine the many superior points, and be convinced.

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Is made easy on application to

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Good housekeepers say that Blue Aibbon beylon Dea besides being the best is by far the most economical. Try it.



'NATIONAL'' NO. 1 HAND POWER.

whose exhibit at the Toronto Industrial show this year, including the "National" Separator, took first prize. For further particulars

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THE CREAMERY

SUPPLY CO.,

Capacity, 330 to 350 lbs. per hour The Raymond Manufacturing Company of Guelph, Limited, Guelph, Ont.

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Conducted in all parts of the country. Pedigree stock a specialty. Write for terms. References: J. C. Snell, Edmonton; John I. Hobson, Guelph; Hon. M. H. Cochrane, Compton, P. Q.; or this office. JOHN SMITH, BRAMPTON

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And there is no better to be had

THE orchestral attachment renders possible the effect of sixteen different stringed instruments. It is used only in the "BELL." Send for free booklet, No. 40, it tells all about it.



The BELL ORGAN & PIANO CO., Limited, GUELPH, ONTARIO. Or J. L. MEIKLE & CO., Agents, WINNIPEG, MAN.



"Money Saved is Money Earned."

WHY NOT SAVE THE PRICE OF HEATING YOUR HOUSE

This Furnace has been on the market for the past fifteen years, and has given the very best results. DURABILITY is attained by a proportionate arrangement of weights; EFFICIENCY by means of the immense radiating surface, and EASE OF MANAGEMENT by provision for easy cleaning. Send us a rough sketch of your house, and we will send you estimates and advice.

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Easy to Manipulate

Where the mowing has to be done on rough or stony land one wants a Mower that can be easily handled. The Levers and Foot Lift on the

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are so convenient to the driver's seat that any range of adjustment can be readily obtained with but slight pres-

A boy can drive and handle these machines, the Levers are so easily manipulated.

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