

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE SUCCEED

\* AGRICULTURE; STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE \*

Vol. XXXIV. LONDON, ONTARIO. NOVEMBER 15, 1899. WINNIPEG, MANITOBA. No. 490

## Cheese & Butter

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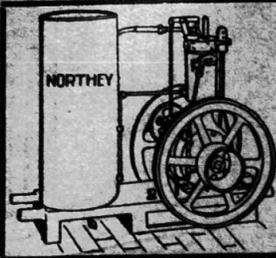
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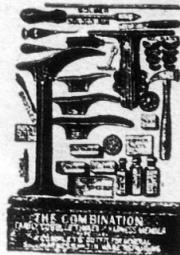
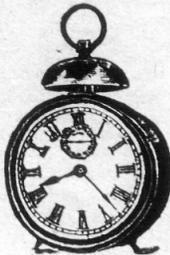
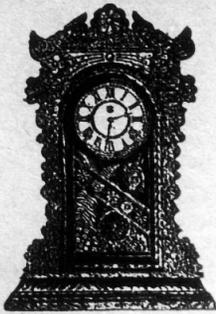
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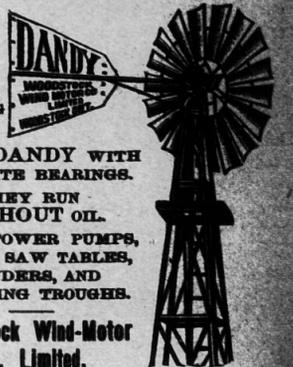
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# FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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VOL. XXXIV.

LONDON, ONT., AND WINNIPEG, MAN., NOVEMBER 15, 1899.

No. 490

## EDITORIAL.

### House Plan Competition.

#### AWARDS.

First prize, John Campbell, Victoria Co., Ont.

Second prize, Wellington F. Justin, Halton Co., Ont.

Third prize, Wilbert W. Revington, Middlesex Co., Ont.

In the July 1st and subsequent issues of the FARMER'S ADVOCATE, three prizes were offered for plans, photos or drawings and written descriptions of farmhouses, at a cost ranging from \$1,500 to \$3,000. Twenty-nine competitors entered in the competition. The points taken into consideration in making the above awards were: the "lay out" of the house, or the general merit and completeness of the plans as such; provision for domestic convenience and comfort, arrangements for heating, sanitation, etc., with as attractive an appearance as practicable within the limits of cost suggested; the completeness of the written description and the clearness of photo or drawing of exterior from which an engraving could be made, as required in our published announcement of conditions. The competition was open during the months of July, August and September. We publish in this issue engravings and description of the house of Mr. John Campbell, accorded first place, the two others to appear subsequently. We also publish two other articles upon this important subject, all of which, we trust, may be of service to our readers. Our thanks are due to the many who took part in the competition, thus bringing before our attention many excellent and carefully-prepared plans.

### Winter Stock Feeding.

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 season. 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 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 succu-

lent 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 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 by lowering the grain feed and turning out for a few hours 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 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 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 than 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.

### The Winter Fat Stock Shows.

"The Smithfield of Canada" and the Ontario Provincial Fat Stock, Dairy and Dressed Poultry Show, the greatest institutions of their kind in the Dominion, will be held next month, the former under the auspices of the Guelph Fat Stock Club and Poultry Association, in the City of Guelph, December 6th to 8th, and the latter under the auspices of the Dominion Cattle, Sheep and Swine Breeders' Association and the Western Fair Association, in the City of London, December 11th to 15th, and all indications point to their being even more interesting than any of the list of signally successful shows under the same auspices, which have preceded them.

These winter shows are the only purely agricultural exhibitions of prominence held in the Dominion, and being controlled and directed by practical farmers, stock-breeders and dairymen, are calculated in their design and purpose for furnishing a liberal education in the science and art of breeding and feeding farm stock, which few farmers can afford to miss.

The earlier exhibitions serve a good purpose in stimulating a healthy rivalry, by offering prizes for breeding stock of all classes, and the season selected for holding them is the most suitable for the

accommodation of the crowds of people principally on pleasure bent, who thus avail themselves of the opportunity for a harvest-home holiday, but the throng is not conducive to a careful inspection and study of types, and the numerous counter-attractions distract attention from the practical features of the show, and consequently the lessons learned of a helpful kind are proportionately limited.

The winter show is a special function of interest to every farmer, in that it is designed to encourage the raising of the class of animals best calculated to furnish the kind of meat and milk products which our best markets demand. There has been a distinct advance along this line in the last decade. The fat stock show of former days provided an exhibition largely of low-priced lard and tallow in living packages of unwieldy size and grotesque form—moving mountains of stale fat stock fed far past the period of profitable production, which figured for prizes in successive shows, finding a meager market as butcher-shop holiday prodigies, and for the most part an ignoble finale in the rendering tank.

All this has been changed. The old and over-fed ox, the plethoric pig, and the shuffling fat sheep, is seen no more in the modern fat stock show, but instead the handy-sized baby beef bullock, the firm-fleshed yearling mutton sheep, and the ideal bacon hog, whose average life is limited to about half a year, and whose well-nourished, lean flesh tempts the appetite of the epicure, and is found on the breakfast table of nobility. And all these, ready for the end of their being, have been brought to this point of perfection within the period of time when weight is gained at the most rapid rate, at the least cost, and of the best quality, when intelligent methods of feeding with well-balanced rations are adopted. To our mind there is no other place where the results of good breeding and good feeding can be so readily seen and so satisfactorily studied as at these fat stock shows, where comparisons may be made and conclusions drawn which can hardly fail to be helpful to all who are willing to learn.

The block test and the exhibition of the dressed carcasses is a logical accompaniment of the fat stock show, and we are pleased to note that this feature, which has formerly been limited to the class for bacon hogs, has this year been extended at the Provincial Show to include sheep, and we trust it will not be long before cattle are brought under the same category. One of the most intensely interesting incidents of the show at Brantford, Ont., last year was the display of dressed carcasses on the platform at the joint meeting of breeders, and the explanations of the expert judges who made the awards, and the discussion by breeders and feeders present which followed.

The milking test of dairy cows is a department of the show which is growing in favor, and which, we believe, will be more extensive and interesting this year than on any previous occasion. The judging of cows by conformation and the other theoretical indications for milk and butter production at the fall fairs is very well in its place as a factor in fixing approved types, but the scales and the butter-fat test, under equitable rules, constitute the only absolutely reliable and trustworthy tribunal for settling the question of individual superiority.

The dressed poultry department will, for the first time in this connection, be given the prominence which, as one of the most profitable branches of farming, it deserves. Expert poultrymen will at the latter show explain the different appliances on exhibition and the best methods of preparing poultry for the export as well as for the home trade.

Not the least important feature of the programme for the week at London is the meeting arranged for the discussion of subjects of interest, at which able and competent men will deliver addresses sure to be full of food for reflection, while the interchange of thought and suggestion cannot fail to be mutually beneficial. Lower railway fares render it practicable for many to avail themselves of the benefit of this outing, and we hope to see a larger attendance this year than at former gatherings of this kind.

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN  
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13. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the Advocata, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
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### Brings Three Times the Buyers.

Editors FARMER'S ADVOCATE:  
GENTLEMEN,—I enclose herewith cheque to cover amount of account for advertising, and as soon as I have more stock to dispose of, I will not forget your advertising columns. While I do not wish to flatter, the advertisement of my sale in the FARMER'S ADVOCATE brought more buyers than any other paper, and for several 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 than any others.

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

Yours truly,

W. F. STEPHEN.

"Brook Hill Farm," Quebec,  
Nov. 6th, 1899.

### 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 regarded 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

TEN MILLIONS TEN YEARS HENCE.

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 improvement 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. Artificial 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 neighbors have. 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.

### The Farmer's House.

A writer in the New York *Weekly Tribune* asks the question: "What sort of a house should a farmer have?" He intimates that farmers all over the land are building better houses, indicating a return of prosperity, but still he thinks that farmhouses are not improving as they should, because they are too often designed by men who do not understand the real needs of the farmer or the de-

mands of the farm. It is certainly not wise to embark in extravagance by presuming upon "better times" or to try to imitate upon the farm the flashy city or town residence, though the dwelling house of the farmer and his family should be a good and a comfortable one and reasonably attractive, for no one deserves it better. The writer in question points out that a farmhouse, in the first place, demands a great deal of roominess. It requires, above all things else, an abundance of storage room. I include in the term house a good deal that some farmers would associate with the idea of barn. The farmer has it at his option to associate much of his storage room with the dwelling house or the barn; but somewhere he must have it, and somewhere he very seldom does have it.

The one thing notable about our farmhouses, as they are now built, is this lack of room. There are parlors and other appurtenances of the sort, but there are no fruit rooms, and even the cellars are rarely much more than dugouts. There should be in all cases a toolroom in rear, where the house repairs can be carried on, and there should be something very much like the old kitchen where weaving and spinning were performed. The modern farm kitchen is a meager affair, modelled after village homes. In the second place, the farmhouse needs a good deal of what we might call outdooriness. People who live in the country need verandas and balconies, so that they can enjoy the air and the landscape without restriction. These should command every possible outlook that is attractive and restful. No house in the world requires less of the indoor comforts and more of the outdoor comforts in proportion. Yet I do not know a half dozen farmhouses where the verandas are anything more than a meager attachment, intended more for show than use. Build your house with broad, capacious outdoor rooms, and let these be well supplied in summer with hammocks and reclining chairs.

The third thing that a farmer's house particularly demands is plenty of water. This is the last thing, unfortunately, that is attended to. You will find a single well, as shallow as possible to secure water at all. It is sure to be dry during a protracted drought. Yet a very large proportion of our farmhouses can be easily and cheaply supplied with an abundance of water, carried inside to nearly every room in the house. The cost is not great, and should be attended to above all other requirements. There should be a bath-room in every farmer's house, for no man's work requires the refreshment and purification of a bath more than that of the land tiller. In many cases running water is easily secured, to be carried by pipe at no great expense, or it can be elevated and conveyed considerable distance by windmill power. Heating by furnace or hot water is preferable to an array of stoves.

The fourth point, all-important for the farmer's house, is good drainage. To neglect this is either pure shiftlessness or it is recklessness. Nearly all the disease associated with our farmers' homes comes from imperfect drainage. Filth in one direction breeds filth in another. Having occasion recently to drive through the back yard of a farmhouse, I found the well twenty feet below the out-house, on a slope, and near by stood open milk-cans with the bedding of the household flung on top to be aired. The whole business of sanitation and purification needs attention, but it does not need a large amount of expert knowledge. The farmer rarely needs to introduce the Waring system, or any other system, to carry away impurities from his house and place them where they can be utilized. His house should be, if possible, on a rise of ground; his supply of water obtained from above, and his cesspools and privies always on the lower ground. But why should any farmhouse have its outhouses for the family out of doors? Now that the fact is noticeable that much finer houses are being erected, let us have attention paid to the few points I have noted.

When about to build, ask the question: What is it I particularly want? What sort of a spot have I to build on? What do I want a house for? If you study neighbors' houses, do so to get hints and broaden your views; not to imitate. No two farmhouses should be alike, as no two farms or farmers are. In general, a house ought to grow out of two things: the personality of the owners and the peculiarities of the position. So it follows, you have not got a fine house because you have modelled it after what is fine somewhere else.

### The Development of Canadian Pork Packing.

Pork packing in Canada dates back over forty years, the Wm. Davies Company being the pioneers in Toronto, and Mr. F. W. Fearman in Hamilton, Ont., the latter establishing his first factory in 1854. In Toronto it is estimated that there is now invested in this business between \$300,000 and \$400,000, giving work to over 600 persons; the yearly output of bacon and products being put at about \$3,000,000. Besides the Davies establishment, there is also the Park-Blackwell Company and the Wm. Ryan Company in Toronto, the Lawry establishment in Hamilton, the great Ingersoll Packing Company, the Canadian Packing Company at London, the new Palmerston packing establishment, the Brantford concern, together with a new one projected at Stouffville, Ont., the R. Y. Griffin establishment in Winnipeg, and those in the Maritime Provinces, besides numbers of smaller concerns throughout the country. The growth of the industry has been phenomenal.

STOCK.

Draft Horse Breeding.

BY A. G. HOPKINS, V. S., WISCONSIN AGRICULTURAL COLLEGE. LAWS OF HEREDITY.

The science of breeding, as related to its laws, "What's bred in the bone, etc.," and the adage, "Like produces like," is a theory so well borne out in practice as to be the cardinal feature in horse breeding, as the ignoring of it is the rock on which many a breeder, with high hopes, will founder. The average farmer of the present day admits the stupidity of using the scrub male bovine as a sire, and yet forgets that in the breeding of an animal higher in the scale of evolution, the same principles must be observed. The utility of the horse depends on his contour, speed, intelligence, weight, soundness, docility, *et al.*, the absence of any of these desiderata impairing his value greatly; not so in the bovine, at least in a lesser degree. Yet, by many the scrub stallion, on account of his small fee, is used, a case of penny wise, etc., policy, with results disastrous to the breeder, his locality, and his country. Still, one does not wonder at such ignoring of the laws of breeding, because as we go higher in the scale—Man—we find a total disregard of such laws, with its resultants of disease, deformity, imbecility, and crime. In Holy Writ we are given the theory of heredity in a few words, "The sins of the father, etc.," and a close study of history gives us testimony that it is irrefutable. Atavism and variation are dependent to a great extent on the preceding law, and also on the methods followed. Breed to type and for type! In-and-in breeding is not the menace to the horse breeder that it is to the cattleman, owing to different conditions; yet, the indulgence to excess in such methods will bring harm to the horse breeder. In-and-in breeding tends to conserve the type, and for this purpose may be used judiciously. Again, one must remember that in fixing a type, unsoundnesses are just as firmly fixed as good qualities. The general farmer-breeder will either follow line breeding or cross breeding. It must not be forgotten that in cross breeding the chances of variation from the desired type are greater than in the other method. In breeding, we have the *funding of individual differences in a common offspring, while complexity of the inheritance gives instability to the embryo, and thus the liability to variation in the offspring.*

SELECTION OF SIRE.

As we leave the theoretical for the practical, we are confronted with the duty of the selection of the sire. As the sire has the property of giving at least half the inheritance, and sometimes more, depending on his prepotency, it behooves one to use every care in his selection. Virility, not necessarily coarseness, must be evident; stamina and good constitution, evidenced by deep, wide chest, clean throat, deep, well-rounded barrel, tightly ribbed up, muscles well-defined; size and shape—16.3 to 17 hands tall, 10-12 inches of bone below the knee, broad, long, deep, square joints; weight, 1,800-2,000 lbs.; short, strong neck, blending well with shoulders, which should be fairly upright; short, strong back, wide, strong loin; strong dock, well buttoned-up (the anus being closed); feet, strong, large, round, and flinty; bone, flat and compact. Activity and intelligence shown by the broad forehead, bright, large eye, head free from meanness (meaty-headed horses are often *dummies*, a pathological condition resulting from previous brain trouble); active ears. Action strong, free, and elastic, perfect flexion of hocks and knees when trotted, picking the feet well off the ground; the generative organs large, tense (evidencing tone), and normal. The size should be the greatest possible commensurate with the type. Color:—It has been said a good horse is never a poor color; still, the solid colors are to be preferred, especially as the markets show that preference. The sire should be a good walker, although short-limbed.

THE DAM.

The dam should be of good size, low down to the ground, and, as in the sire, free from hereditary unsoundness; the general description as used for the sire will apply to the dam, only she should be wide in the hips, with a large barrel, so as to allow plenty of room for the generative organs during gestation. More quality or sweetness is allowed in the dam than in the sire, such quality not being incompatible with females. As the period of oestrus occurs about every twenty or twenty-one days, the time of mating will necessarily depend on its appearance, as a rule. The matron, already foaled, should be tried nine days after foaling, and can usually be again put in foal at that time.

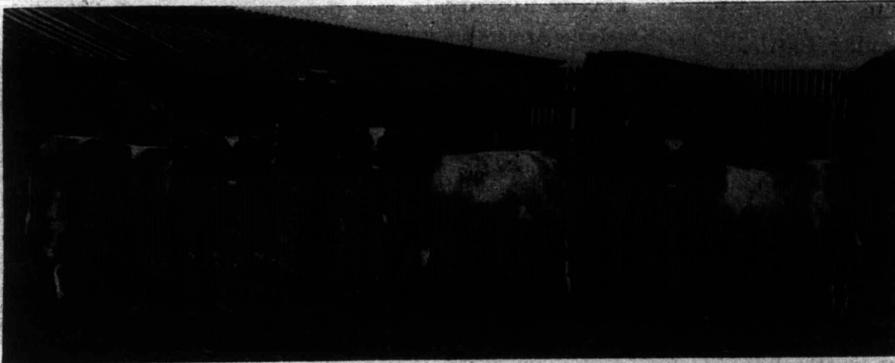
MATING.

The process of mating should only be entrusted to capable, strong grooms, and the mare if at all irritable should be hopped, either one or both hind legs. The stallion should be so trained that a proper

service is given, or damage, sometimes irreparable, will result to both. If the stallion has a heavy season the teasing can be done by an inferior entire horse. A two-year-old stallion should not have more than twenty mares in a season, while aged horses have been known to serve over one hundred during the same time. Mares should be returned to the stallion once every two weeks, and can then be tried. The stallion should be limited to four services a day, and at least one hour between services. His food should be of the most nutritious character, as the tax on his system is severe; for this purpose whole oats cannot be surpassed, and if he will drink milk, so much the better. If the stallion has been recently imported, he may prove unfertile until acclimated, and if put to too many mares the same result will occur. In purchasing a stallion it is always advisable to find out as to his power of procreation. Examination of the semen microscopically might also be of some assistance. Unless in very valuable horses, for whose services there is a great demand, artificial impregnation will not be needed. The procedure is very simple, consisting as it does in one mare being served by the horse, and the semen being dipped up in gelatine capsules, the mouths of which are closed by the finger, the several capsules being introduced immediately into the wombs of the several mares which it is desired to impregnate. Some breeders practice blood-letting immediately before a service, and with good results. These breeders hold that conception is rendered more sure by such methods. Mating is usually done in the spring or fall, according to the facilities of the breeder for raising spring or fall foals. If a breeder possesses good barns with ample boxes, the practice of having the foals come in the late fall is to be recommended, especially so if the breeder wishes to work the mares heavily in the spring, and if he has plenty of good, succulent food.

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. Platt, Hamilton; sold by Mr. Greenway to A. Morrison, Carman, Man.

manner in which I house and feed steers for the export market, I will endeavor to give you a general outline of the system I have adopted on my farm, and the results obtained.

My farm, about a mile in length, contains 117 acres. 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 products of which, consisting of small fruits, vegetables, 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 returns during the summer and early winter months.

I have never raised or wintered any stockers, but have bought in the fall, generally on the Toronto market, 3- to 4-year-old steers, averaging in weight from 1,100 to 1,200 lbs., as I prefer animals of this size for fattening. I house my animals during November. I find I can get a better selection on the market during November, and as I find it unprofitable to keep them over five months, I make a special effort to have them fat and ready for shipment about April 1st, just before the warm weather sets in. I find that animals do not put on much fat after the weather becomes warm, especially when they are fed loose, as I now feed.

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 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 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 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 an 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 non-disturbance 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 278 lbs. If the four poor feeders had been taken out the gain would have been considerably more. I 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 concen-

trated 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 121 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 1st last, which all would do well to study in connection with the above letter.]

#### Stall Feeding of Fattening Cattle.

To the Editor FARMER'S ADVOCATE:

SIR,—I fear that the giving of my little experience as to fattening cattle may not prove of much benefit to your many readers, for we have only finished two or three bunches of cattle in our stables, our line being more in feeding stockers and finishing them on grass. We aim to feed them in the stable, so as to give them a good "send-off" to finish early on the grass, in order to be away or well advanced in flesh before the usual midsummer drought or fly season, and then filling the late grass with stockers ready for the following winter and summer. As to the best way of attaining all this, we can only express our opinion, acknowledging that perhaps we do not practice all we preach. As to the feed, we never have roots. Our succulent food is corn ensilage. This, with cut straw, timothy hay and meal, is all the food we use. We try to have good silage. The cut feed is made when we thresh, being done all in one operation, as fully described in a former article. We aim to stable the cattle before they fail in flesh in the fall. With what little experience we have of stabling cattle loose, we would much prefer tying them up, being a saving of food as well as bedding, which means food in most cases.

As soon as possible after stabling the cattle, give them a good application of some insecticide. Kerosine emulsion is preferred, as it clears the skin of scurf as well. The emulsion is easily applied with a corn scrub brush on the end of a 6-foot handle. Two or three applications during the winter is all that is necessary generally. Two-year-old steers of about 1,050 or 1,100 lbs. weight, and of a growthy, well-built kind, are the best stockers. More matured steers, weighing about 1,200 or 1,300, are good to fatten. They, instead of growing so much, lay on flesh, which is all-important. We feed about 40 lbs. silage, 10 lbs. cut feed, and 6 or 8 lbs. meal to each stocker per day, dividing into two feeds, having always a feed mixed ahead so as to all taste alike. To fatten cattle we feed 45 or 50 lbs. silage, 10 or 12 lbs. cut feed, and from 10 to 14 lbs. meal, giving all the cattle one feed of hay in the day, as much as they will eat. For stockers we prefer corn meal and oatmeal (or bran), 2 to 1; and to fatten we prefer peas and oats (or bran) 2 to 1. The prices of the different kinds of grain rule us somewhat. It is best to commence mealing cattle as soon as they are put in, so as to not let them lose any on the start, being careful to not overdose them with that or silage. As cattle are not all built constitutionally alike, you must be ruled by judgment a great deal as to what each steer requires or can stand. We like to put about half the meal in the silage mixture and give the other half in the manger. By hydraulic rams water is forced to the stables, and having water troughs in front of the cattle, they are never turned out to water, which is indeed a pleasure, especially on a stormy day.

We have given sulphur to cattle. A teaspoonful a week in their salt is about enough. It keeps the blood in good order, and aids to keep them clear of lice. Our programme for the day in a stable of 50 head of cattle is as follows: At daybreak feed the silage mixture, and while they are standing forward is a good time to clean out the stables. When you

are through, perhaps some of the hearty eaters need a little more ensilage. We have the water taps open while we are going over them. Meal them, and get out of the stable, so as not to disturb them, letting them lie down quietly. Some winters we practice feeding hay at noon, but find they do as well by not being disturbed till 4 o'clock in the afternoon. We feed them their ensilage again, filling water trough as well, and then, after mixing the feed for the next day, we give them plenty of hay, which they will eat at off and on through the night. We never use a lantern unless to see that they are all right at bed-time. Every farmer has his own way of feeding, and, of course, likes it. This is our way, and we like it.

Middlesex Co., Ont.

#### Cattle Feeding.

BY J. W. M'KENZIE, MIDDLESEX COUNTY, ONT.

Feeding cattle is an important part of the winter's work, which must be attended to at intervals every day regularly in order to attain best results. To this end the farmer must take an interest and pride in the work.

As a rule, feeding begins in November and con-



EVA OF BARCHESKIE 2505 (Imported).

Second-prize Ayrshire cow at Toronto Industrial, 1899.

OWNED BY ALEX. HUME & CO., MENIE, ONT.

tinues till in May. Seeing, therefore, it requires a large share of the six winter months for this work, it is important that we consider which is the best mode of performing it.

In the first place repair the stables, making them warm and comfortable; the floor even and close; fit in stalls, mangers, feed-boxes, ties, etc., doors to swing freely, and windows to light and ventilate.

Some prefer the following plan: To inclose the sheds, have the feed overhead, and place racks at the sides where the feed is thrown down; dehorn the cattle and bunch them together like so many sheep, where they shall feed and quietly rest. We prefer the stall-feeding plan, although it involves more work; still, each animal receives the share allotted more satisfactorily.

We begin the feeding season as follows: Feed ensilage, or straw and turnips, in the morning;



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 641).

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

towards noon turn them out (the weather being fine) in the yard for three or four hours to water, and to the straw-stack or straw in cribs. Then prepare the stables; straw in mangers, and a quart or less chop grain, according to age, size, etc., in feed-boxes. To this they rush in speedily; tie and leave till six o'clock, when they are fed again and bedded for the night.

For two or three months during the severe weather we discontinue turnip feeding and increase the quantity of chop, and feed some hay. About the first of March we return to the turnip feeding, and feed moderately for the first ten days, increasing the quantity according to time and bulk to be fed.

We feed hay, chop, or both, more liberally as we near spring. Allow free access to salt or feed it once or twice a week. We think turnips the best

feed by all odds to keep cattle thrifty and healthy, and to fit them for the change to grass in spring.

To provide for cases of emergency, it is wise to keep a bottle of turpentine in the stable, as it often affords ready relief of ailments among stock.

We would be pleased to see this subject taken up by others of your readers—giving their experience and suggesting any new methods.

[NOTE.—The feeding described by Mr. McKenzie is evidently intended for cattle that are to be finished on grass in spring, in which case it is not necessary to feed heavily during the winter months. Cattle intended for early spring shipment would require heavier rations of more fattening foods.—Ed.]

#### The Cruickshank Shorthorn.

The remarkable sales of Shorthorns held in Aberdeenshire during the past month plainly set forth an object lesson, so that he who runs may read. It must be tolerably patent to one and all that the barrier of prejudice cannot be permitted to bar the way in Shorthorn breeding. There was a time when supporters of other types of the Shorthorn made light of the "little red Cruickshank bulls," but that spirit of persiflage is fast becoming as extinct as the dodo. Let any intelligent breeder, approaching the matter without prejudice, compare the composition of the leading Shorthorn herds in England to-day with ten or fifteen years ago. We find the Cruickshank Shorthorn at home in places it would have been heresy, years ago, to have regarded as their ultimate destination. This steady onward march has been accomplished chiefly by the foreigner's appreciation of the merits of the modern beef-making type of Shorthorn. It was to foreign appreciation, first of all, that Amos Cruickshank owed the popularity of the type he evolved. It was on behalf of the foreigner that the flower of his herd was sold, to be rescued by the enterprise of two or three of our leading breeders.

But what is really at the bottom of this perpetual strife for Aberdeenshire Shorthorns? They cannot compare with the English types for beauty or majesty of character, and on this score serious fault has been found with them. After all, however desirable it is to have beauty wedded to utility, it is not a point upon which the practical breeder will be inclined to haggle. The perfect type of Shorthorn has yet to be evolved, and although what is regarded as the Scotch type is frequently weak in character, it has something which is infinitely more preferable—it satisfies the butcher. That is pre-eminently the function of the Scotch Shorthorn, but it has been subjected to rather unwarranted criticism over its presumed inability to fill the pail. It was very far from Cruickshank's idea to produce a Shorthorn that did not maintain the cosmopolitan character of the breed, and Aberdeenshire breeders are still convinced that the cry of pedigreeing the milk away has no foundation in fact, so far as their type of cattle is concerned, although they claim pre-eminently to have satisfied aspirations with what must first be regarded as a butcher's beast.

It is clear that even those from whom we might almost expect the bitterest opposition are gradually seeing the fallacy of refusing to unite with their milking Bates cows the Scotch sires. In the end it is a matter of £ s. d. vs. either prejudice or policy. It is the most popular cross nowadays, and reflects advantageously upon both parents. It is essential, of course, that the milking capacity of the Shorthorn be maintained, and too much attention can scarcely be given to that function of the breed. But it is a mistake to suppose that flesh-bearing cows are necessarily devoid of pail-filling ability.—Farmer and Stock-breeder.

#### The Ideal Ayrshire.

Only those who have been on the spot, and who have had an opportunity of actually seeing it, can form any idea of the care and attention devoted by Ayrshire cattle breeders to the "cultivation" of the various fancy points sought for in this breed. The characteristic turn of the horn, the fineness of the shoulder points, the shape and placement of the udder, and a number of other points are all bred for with a care that is really remarkable. Though (as in the case of most other breeds) different judges favor somewhat different types, the general characteristics of the breed are well defined, and are now as well established as in any other breed. One of the most graphic descriptions of the ideal Ayrshire penned for some time was given by Mr. MacNeilage, of Glasgow, in the course of a paper which he read at a recent meeting of one of the Scottish Agricultural Discussion Societies. Taking as his type a five-year-old cow, at the time just freshly calved, in one of the leading herds of the breed in Scotland, Mr. MacNeilage thus went on to describe her:

This cow, a fortnight after calving, weighs 10 cwt. She measures round the chest, behind the shoulder-blades, 6 feet 1½ inch; and across the chest, from point of shoulder-blade to point of shoulder-blade, 22 inches. She yields an average of from 30-31 lbs. milk in the morning, and 26-28 lbs. milk in the evening. She stands on moderately short legs, widely set, and fine in the bone, with a clean neck and shoulder, wedge shaped at top—that is, with no superfluous beef and muscle; well arched in the ribs, and plenty of room in the chest. A flat-ribbed animal is never a good feeder, and consequently, never a good milker. The cow should have a straight back, wide at the loins, with strong

deep thighs and deep flanks; a small, thin, long tail, rather than a coarse tail, as cows with the latter caudal appendage are seldom good milkers. A thin-skinned animal, with a yellow tinge in the color and mellow and loose to the touch, is almost invariably profitable in a dairy, yielding a large supply of milk showing a good percentage of butterfat. The head of the dairy cow should be carefully studied—blocky, wide between the eyes, and not too long between the eyes and the nostrils, and wide also between the nostrils. A long, narrow face is a common accompaniment of the narrow chest and flat ribs. The horns should be widely set, with an upward tendency; and the eye should be bright and clear. The peculiar facial expression and bright eye common to the good nurse of all species is easily recognized in the Ayrshire, and is an unerring index to her milking properties. These points will be generally conceded as eminently desirable in the Ayrshire cow. Unfortunately, some of them can be simulated, and the manufacture of fashionable horns is one of the fine arts in the Ayrshire world. The milk vessel should be capacious and well-shaped; carried tight to the belly, wide below, and carried well forward. A good fore vessel is an almost unerring index of a cow that will pay all along the line, but a cow which carries a shapely vessel when dry is seldom a good milker. A thick, fleshy vessel is always to be suspected.—*Farmers' 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 convinced 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 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 surroundings permit 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 be expected to attempt almost impossible tasks. He should never be allowed to serve on slippery ground, either in summer or winter, however long or short the years of his usefulness are to be. From about this time he will begin to exhibit his characteristics. The natural tendency of all young bulls

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 feed. 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 to him.

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 show-yard exhibition, but somehow or other the old herdsman, who 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.*

**Dogs vs. Sheep -- Poultry Trouble.**

To the Editor FARMER'S ADVOCATE:

SIR,—We have read, with a great deal of interest, the FARMER'S ADVOCATE, and all the boys look for it as for a friend. The article in November 1st issue, page 611, from Wentworth, by A. B. C., on "Sheep and Dogs," is just right. My neighbor has a large pasture farm, and tried keeping sheep on it several times, but was forced to give it up because of dogs destroying his flock each time. However, dogs are few in numbers here compared with twenty-five years ago.

Last year we lost a lot of fowl, apparently in the same way as W. H. B. is this year, but have heard from two neighbors, reliable and successful poultry raisers, that they have treated scores in the following manner, and seldom lost one: As the crop is always full and hard, cut a hole in it, use a common hairpin to empty it; then wash out with warm milk and water, using a rag on the hairpin, and sew up hole with needle and thread.

Simcoe Co., Ont.

R. A.

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.



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 preparation for the showyard. To their credit, be it said, 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 pressure, he was in every other respect very carefully looked after. Cupbearer's lot was not such a happy one. 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 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 results which may follow from mean, unkindly treatment, the 31st Duke of Airdrie affords a study which may, perhaps, be profitable. When the late Col. Vaile purchased this bull at Woodburn, Ky., he was warned about the Duke's disposition. When the bull got to his

## FARM.

## Description of John Campbell's First-prize Farmhouse.

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; ground-floor 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

ter, and the screens in summer keep the cellar sweet and wholesome. The thorough draining already mentioned also helps in maintaining purity of air. One of the special conveniences in the cellar is 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

work done, and, with scarcely an exception, the tradesmen were given the prices asked, and in some instances a gratuity was handed where superior 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.]

## 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 planning 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



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 furnishes 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 severe winter.

To get so much comfort and convenience required special care in the manner of building, which I will proceed to describe.

Beginning with the cellar, 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 sand and cement mortar. Ceilings are all lathed and plastered, and walls are smoothly plastered on the stones. The partition walls are of brick, 9 inches thick. All doors and exposed wood are well painted. Windows are double; inside sashes are on hinges, and outside sashes are movable, with perforated tops. Hooking up inside sash gives free ventilation in win-

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 1½ 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.

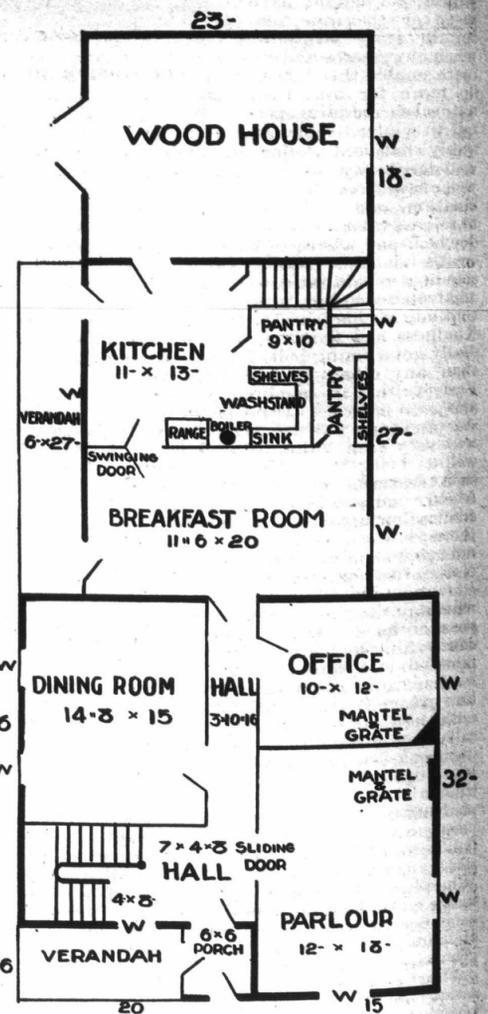
Front hall finish is of birch and walnut, sides and ceiling throughout being neatly panelled, and every panel moulded. Front hall and dining-room have a wide border of inlaid oak and white maple in floors. These, with all the hardwood finishes, are oiled, rubbed, and varnished, bringing out the grain 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 ventilation 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 and lowering of inner top sash, gives good ventilation in the most extremely cold or stormy weather.

A point or two in favor of the upward extended veranda. 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.

## COST.

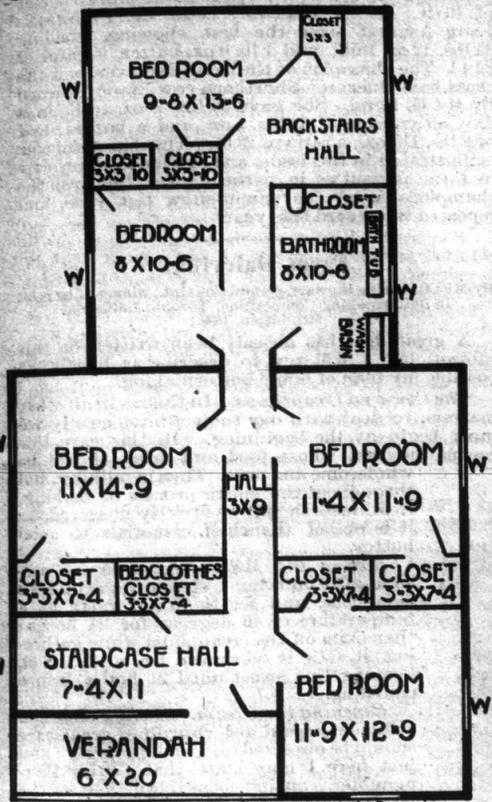
As much of the work, such as hauling material, digging cellars, and clearing away rubbish, was done in connection with the farm work, it is not possible to arrive at a very correct estimate of cost. But an approximate figure will be near about \$3,000, but not to exceed that. Of that amount, the plumbing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



GROUND-FLOOR PLAN, JOHN CAMPBELL'S HOUSE.

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



UPSTAIRS PLAN, JOHN CAMPBELL'S HOUSE.

woman, having never slept in that house before, and it is positively 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 back door; a woman goes in and out many times a day; it will be easier for her without the steps. 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.

Huron Co. MRS. EVERGREEN.

**A Portable Forge.**

To the Editor FARMER'S ADVOCATE: SIR,—I am thinking of building a portable forge, for use in sharpening plow shares, etc. As our land is stony, we often have to sharpen them every day, which takes a lot of time if you are two or three miles from a blacksmith.

I would like if you or some of your subscribers would give me a description of a fan for the purpose, giving size and speed of fan, also manner of conducting the blast to the fire. Also any other hints which would be of use in constructing same.

Your paper is exceedingly well liked in this section, where it has a large circulation.

Oxford Co., Ont. W. C. S.

[We shall be glad to hear from any of our subscribers who can give information on this subject.—Ed.]

**Secrets of Success in Pig Keeping.**

Mr. Saunders Spencer—and he ought to know—lays 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 time." When about to be weaned, he advises giving them 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.

**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 upon, the price to be, say, \$10,000; the stranger pays \$50 down to bind the bargain, and departs to return in a given time and complete the transaction. A few days later another fine and intelligent stranger appears at the farm and asks permission to examine the soil, which is granted, and an apparently critical examination of portions of the farm follows, with the result that a proposition is made to the farmer to buy his place. The latter states that the farm is already sold, or bargained for, and he cannot 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 present. 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 \$300, 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 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.

**Horse Breeding for Profit.**

Mr. Robert E. Turnbull, in the *English Live Stock Journal*, gives the following article on "Horse Breeding for Farmers, and What it Pays to Breed":

"In the United Kingdom there are at present about 2,450,000 horses kept for business purposes and for recreation, and about 610,000 unbroken horses, or 3,060,000 horses. About four-fifths of the whole number are horses that have been broken to work on the land and for farm carting, and 1,415,000 for riding and driving, and for trade purposes; having regard to the large number of horses employed by railway companies, brewers, and in other businesses for heavy traffic, and the number of horses required for land work and for heavy traffic, and 715,000 for riding and driving and for light traffic.

"More heavy draft horses are required in this country than any other description; that being the case, farmers who give their attention to this class of horses, and who breed first-rate animals, can always find buyers who are prepared to pay a remunerative price for high-class horses suitable for railway and heavy town traffic. Young draft horses of the best type, that have been carefully reared and judiciously fed, can, without any disadvantage, be broken in and put to light work on the land when they are two years old. From that age till they are five years old, when they are ready for sale, they amply repay the cost of their food by their labor. If a young draft horse has the misfortune to meet with an accident that unfits it for town work, it may still be usefully employed on the land, whereas, if a young hunter become unfit for the purpose for which he is bred, his services cannot repay the cost of keep. All experienced farmers are agreed that, taking into account the value of the labor performed by young draft horses, they can be kept to a relatively lower cost than other breeds. It is true that a considerably higher price can be obtained for a well-bred weight-carrying hunter, or for a high-class carriage horse, than for a good draft horse; but for one man who has the necessary qualifications to ensure success in breeding carriage horses of the best class, there are ten who are capable of breeding good draft horses, and except, perhaps, in Yorkshire and in some parts of Ireland, for one farmer who can breed a first-class weight-carrying hunter, there are fifty who can breed good draft horses. In the long run, capital invested in well-bred Shire or Clydesdale mares that are intelligently managed, gives, as a rule, a more certain return than capital employed in breeding either riding or driving horses. But if a man is a good judge of hunters, Hackneys or carriage horses, and is a born breeder, naturally endowed with the qualities that are necessary for success, chiefest among which

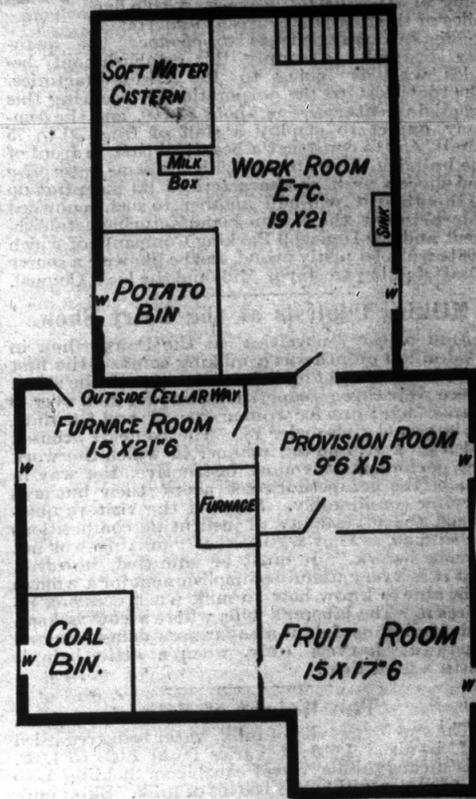
are sound judgment, patience, and the finest powers of discrimination, he may safely breed the kind of horse in which he takes the keenest interest, provided he has suitable land and buildings. There is no depression in the market for high-class hunters. The demand for high-class carriage horses exceeds the supply, and good Hackneys can be readily sold at remunerative prices. At the agricultural show at Trentham lately, the Duke of Sutherland stated that, according to figures he had received, 100,000 horses, in value \$7,000,000, are annually employed in connection with fox hunting. The love of sport shows no sign of diminishing. In the last few years wealth has rapidly accumulated in this country. In the great business centers the number of well-to-do people has lately largely increased. Under the circumstances, good carriage horses are likely for some time to come to be more in demand than ever.

"It does not pay to breed cab horses or omnibus horses. These can be more cheaply bred abroad. It does pay to break high-class horses for riding and driving, and for agricultural purposes and heavy traffic. In this field home-bred horses of the best type are unrivalled."

**Vitality of Draft Stallions.**

The importance of breeding horses from strains which are known to be sound, healthy, and long-lived, cannot be too much insisted on. There is a tendency in these days to sacrifice a good many things for showyard honors, and among them not infrequently the constitution of a valuable stud horse. The law of heredity works with great force in the equine race, and, therefore, defects and weaknesses, either of conformation or constitution, which appear in the sire or dam, are pretty certain to be reproduced in the offspring. A sound mare bred from sound parents and grandparents mated with a stallion bred likewise will, in the ordinary course of things, produce a sound horse, and sound horses are always salable; if not for the showing, at least for the shafts.

In horse stock it is curious to notice the certainty with which little peculiarities of sire or dam appear in their progeny. For instance, a rat-tailed parent will almost invariably breed stock which are thin-tailed, and the writer knew a mare whose stock could be identified by a peculiar shape of the points of the ears. The strain imposed on the fashionable sires of to-day is very great, and especially so if they are exhibited to any extent. The feeding-up process, railway travelling, and showyard drafts, all tend to have an injurious effect on the health and life of the strongest horse; and yet there have been, and are still, sires which have stood this for years, and proved themselves capable of producing sound and valuable stock. The most notable instance of a long-lived Shire stallion is unquestionably that of Lincolnshire Lad II. 1365 (he was a son of the late Mr. Drew's Lincolnshire Lad 1196 or K.). This grand stock horse was, I think, twenty-four years old when he died, and was a success at the stud up to the very end. It is hardly necessary to say that his descendants literally "hold the stage" for prizewinning, for real worth, and, I think, for vitality. Through his son Harold, strength of constitution and vigor have unquestionably descended on the stallion Markeaton Royal Harold and the great mare Gloomington. Surely if ever any mare had a strong natural



CELLAR PLAN, JOHN CAMPBELL'S HOUSE.

constitution, Gloaming has, or she would never have stood the taxes imposed on her. Another Shire stallion—i. e., Bury Victor Chief—must also be possessed of sound interior and any amount of vitality. It will be remembered that he came up to Islington year after year, looking fit and well, and won every time, and now at ten years old he is a sire with a great and growing reputation.

These instances prove that there are horses which can stand the stress and strain of modern life, but on the other hand there are many—very many—which break down under it, and breeders should have an eye to these things when the mating season comes around.

The law of the "survival of the fittest" seems to hold good in this matter, so it remains for horse-owners to patronize the horses which survive, the strains which are remarkable for robustness and longevity, which have sufficient strength and stamina to throw off and overcome the baneful effects of the artificial life under which they are too frequently kept.—J. A. F., in *English Live Stock Journal*.

## DAIRY.

### Milk-Condensing Enterprise at Ingersoll, Ontario.

The dairy products of Oxford County, in the Province of Ontario, have long enjoyed an enviable reputation in quality as well as quantity. This section of Western Ontario was practically the birthplace of co-operative Canadian dairying when the older men of to-day were striplings. Twenty years or more ago some of the grandest dairy conventions ever held in Canada took place in Woodstock and Ingersoll in the days when the Hon. Harris Lewis, X. A. Willard, and Prof. L. B. Arnold were in their prime; he latter as a pioneer investigator of dairy problems and travelling instructor, an idea so successfully developed in later years. A few seasons ago Oxford County figured conspicuously in the inception of Prof. Robertson's winter buttermaking movement, and it was here that an Oxford County boy, Mr. J. A. Ruddick, now New Zealand's Dairy Commissioner, compounded the big 22,000-lb. World's Fair cheese. FARMER'S ADVOCATE readers will therefore be naturally interested in the springing up of a great condensed-milk enterprise in the town of Ingersoll. The building, now in course of erection, to be completed by January 1st and ready to begin operations on January 15th next, is a two-story white brick, 190x90 feet, on a site covering 10 acres, one half of which was given by the town, along with free water supplied from a special reservoir, and exemption from taxation. The promoters are Chicago parties, called the St. Charles Condensed Milk Factory Company, of St. Charles, Ill., where they have had experience in carrying on a large concern of a similar nature. The building, including machinery of the most improved sort for the process, will cost about \$100,000, with a capacity for handling 30,000 lbs. of milk daily, the contract price to farmers being \$1.00 per 100 lbs. Farmers within five miles of this town have already undertaken to make arrangements to produce the quantity of milk to supply this establishment, besides what is going to the cheese factories. The total cost to the corporation of securing this promising enterprise is about \$4,500, and the company expect to employ a staff of from 50 to 75 hands, and to construct a beautiful park in front of the building. If conducted with the same enterprise and success as have characterized its inception up to this time, it will add another to such renowned enterprises as the Noxon manufacturing establishment and the Ingersoll Packing Company, of which the town is so justly proud, and be likewise a source of satisfaction to Mayor Mills and the local Council.

### 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 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 manger 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 GUERNEY-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 before 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 31, 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 163. 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 big-framed 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 41 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 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. 9½ 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. 11½ 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., Ont., 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 butter.

**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 a 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 ½ of an ounce per pound of butter, for prints, and ⅓ of an ounce per pound for package. Then work, 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. The 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.

**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 position 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.

**How Long Should the Milking Term Extend.**

To the Editor FARMER'S ADVOCATE:

SIR,—With regard to the question as to how long a cow should milk in a year, I would say not more than ten months.

A good cow that has milked well for her owner for that length of time is justly entitled to a rest; any longer than that will only enfeeble her offspring, and impair her usefulness for another season.

All dairymen have noticed how a good cow, that has had from six weeks to two months' rest, will milk as compared with another season when she has milked almost up to calving, or practically not been dry.

A machine cannot run continuously without stopping for repairs, and the cow is a machine composed of flesh and blood for manufacturing her food into dairy products.

Now, as regards continuous housing during the winter, I am strongly opposed to it, as I can see nothing in it but a gradual lowering of the cow's physical vigor.

Give them exercise every day, except on very cold or stormy days. When I say turn them out, I do not mean from two to three hours at a time, but, instead, from five minutes to half an hour, depending on the day. Leave the stable door open after turning them out, and let them come in of their own sweet will, and, besides, let the stable-men keep a watch on them, and never allow them to stand still and get cold while out, nor to remain out longer than they seem to enjoy themselves.

To do this, the stable should be kept at a temperature of 50° to 55°.

It is the exercise during the summer that enables the cow to, in a measure, fortify her system to withstand six months' confinement.

If close confinement is good for cows, why not for human beings. Take, for instance, a factory fitted out with the most perfect system of heating, ventilation, and light, and then the employees work, eat, and sleep in the building, with no exercise in the open air. Would it be tried anywhere for one month? I think not.

But cows are often treated in this fashion for six or seven months, and I understand in some stables in large cities, cows are tied in as long as they are milking, and never let out for exercise.

R. R. ELLIOTT, Herdsman.  
Central Experimental Farm.

**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-old 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 six-year-old cow, which yielded 53½ lbs. of milk in the day, and gave 2 lbs. 14 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 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 6½ 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 per centage 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



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

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.*

**POULTRY.**

**Poultry Department of the Fat Stock Show to be a Big Thing.**

Farmers will have a grand opportunity of making themselves acquainted with the truths of the poultry industry in December next. There is no opposition to the statement that there is money in poultry; in fact, those few farmers who have kept an account readily acknowledge that, properly managed, it is the best paying department on the farm.

The Fat Stock Show at London, December 11th to 15th next, will attract the principal stock-breeders of the country, and such arrangements have been made by the management of the show that the exhibition of dressed poultry will be the best ever attempted in Canada. It will be an education for many who have long desired to investigate the subject, and the opportunity should not be missed.

Breeding poultry is a profitable undertaking, but it is clear that the farmers of Canada yearly lose thousands of dollars through reduced profits by a want of knowledge how best to feed, the requirements of different breeds, the advantages of fattening, and the marketing at a season when prices are high. All these points will be discussed by experts, lectures being given each day at the show. Professor Robertson will be up from Ottawa, and none

better than he can give the requirements of the British market. Experts, under his direction, will kill, pluck and dress poultry, prior to which will be illustrated the method of craming adopted in Europe.

The poultry committee consists of four of the best-known poultrymen in Canada, viz.: Messrs. Bogue and McNeil, of London; Meyer, of Kossuth, and Essex, of Toronto, who will be on the spot to give such information as may be required.

The prize list is made up of all varieties of dressed fowl, so that the uninitiated may judge for himself what breed makes the best table fowl. The prize money exceeds anything ever offered in Canada, and will doubtless attract farmers from all over the country, especially as the entrance fee is only 25 cents. For a farmer or farmer's wife, interested in poultry, it will be the chance of a lifetime, and the means of a considerable addition to the income from this important branch of farm life.

Prize lists can be obtained from the Secretary, Mr. F. W. Hodson, Parliament Buildings, Toronto.

**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 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 I 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 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 I 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.

Many honest breeders are blamed for tampering with their hatching eggs before sending them out to customers, because the results were poor, while the reason was that the hens had laid too long and had expended their vitality. Mrs. Jos. YUILL.  
Lanark Co., Ont.

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.

## GARDEN AND ORCHARD.

## Ontario Fruit Growers' Meeting.

The annual meeting of the Ontario Fruit Growers' Association will be held in Whitby on the 5th and 6th of December. A good programme is being arranged for.

## Intensive Cultivation in Horticulture.

BY JOHN B. PETTIT, FRUITLAND, ONT.

One of the most prevalent errors into which the horticulturists of the present day fall is the occupying of too great an acreage; so much that, in many instances, a great deal of the land receives but little attention and cultivation, and the work that is done is not done in a thorough manner. On passing through the country there is nothing that one can more easily detect than the consequences arising from such practice. On every hand one sees an enormous loss of space, and, as a natural result, farmers and fruit-growers are paying a heavy tax upon land that is bringing them in little or no returns.

That the horticulturist of the future may be successful, it is evident that great changes must take place. To make this industry a profitable one, those engaged therein must understand how to get the greatest amount of fruit of an excellent quality from the smallest area. The using of as much land as one can spread himself over does not tend to high cultivation, neither does it show good management; but the practice is too common. Quite often we see men who will make more money from a ten-acre lot than will his next neighbor, engaged in the same industry, from fifty acres. This is the consequence of every inch of space being *thoroughly cultivated*, and not the result of "luck," as many a fifty-acre man would say.

The past summer has been of a nature to show the good results of thorough and constant cultivation. During the hot, dry summer months those orchardists who kept the soil thoroughly worked had the satisfaction of seeing their fruits come to proper maturity, while those who had so much land under cultivation that they could not get the required work done lost heavily from the different fruits dropping in their early stages. In the small fruits, such as raspberries and strawberries, frequent cultivation at ripening time is extremely beneficial, often preventing the drying-up of a very large percentage of the crop.

One of the greatest drawbacks that the growers of large acreage have to contend with is the securing of sufficient and proper fertilizers. This is a question that is puzzling the minds of all up-to-date orchardists, and far better have ten acres well fed than a hundred of starved land. The FARMER'S ADVOCATE and other agricultural and horticultural journals have long taught the principles of high cultivation, and unless that lesson is learned the orchardists of the future cannot hope to be successful.

## QUESTIONS AND ANSWERS.

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

## Veterinary.

## PERIODIC OPHTHALMIA.

Essex Co., Ont.:—"I have a mare that gets a scum over her eye for a while, then gets better for about five weeks, and then it comes again. What can be done for her, and will she get better? Please tell in your next issue."

[Your mare is suffering from periodic ophthalmia, sometimes described as moon blindness, as it recurs every twenty-eight days. This is a constitutional disease that is hereditary, and usually terminates in cataract or opacity of the crystalline lens, with permanent blindness. The attack usually comes on suddenly, without apparent cause, and invariably in the night. The eye presents signs of weakness, the upper lid droops, the tears flow over the lids and scald the face. The wrinkled appearance of the eyebrow after the acute symptoms have passed away is characteristic of this disease. The disease is incurable, having baffled the efforts of all who have endeavored to combat it. The local pain may be soothed with warm fomentation, but no irritating materials should be made use of. A cooling anodyne lotion is all that can be recommended: Goulard's extract, 2 ounces; tincture of opium, 2 drams; tincture of belladonna, 1 dram; distilled water, 1 pint. Bathe the eyes night and morning with a painful of the lotion applied directly to the eye. DR. W. MOLE.]

## COLD ABSCESS AND SWELLED LEGS.

READER:—"I have a young mare coming 4 years old. She had an abscess about two months ago. It came on that soft place a little back of the bag. It came to a head and broke, and it ran quite a lot of matter, and I thought she would be better, as she had not been doing well before. It seems to heal up all right, but I notice when she stands in the stable it swells up quite large where she had the abscess. Please give me a remedy that will keep the swelling down. When she has exercise the swelling nearly all goes down, but comes again when she stands. 2. Please advise me of a remedy

to keep horses' legs from swelling when they stand in stable."

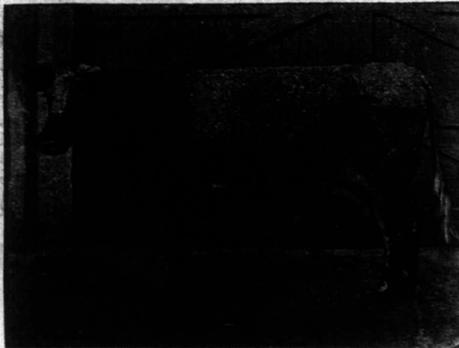
[There is no doubt that you have what is known as a cold abscess to deal with. Obtain the service of a veterinary surgeon, and suggest to him the advisability of inserting a seton through the skin. This, with warm fomentation, will no doubt speedily bring about recovery.

2. Swelling of the hind legs of horses when standing in the stable is due to constitutional causes. A course of alterative medicine is indicated. If able to give a ball or bolus, which is not difficult after one or two trials, the following will be found an excellent remedy: Barbadoes aloes, powdered, 1½ ounces; nitrate of potash, 2 ounces; gentian, 2 ounces; quinine, 1 ounce; ginger, 1 ounce; capsicum, 1 dram; treacle, sufficient to form a mass. Divide into 1 dozen balls; give one every day.]

## SCOUR IN CALVES.

DAIRYMAN, Peel Co., Ont.:—"What is the best remedy for scour in young calves?"

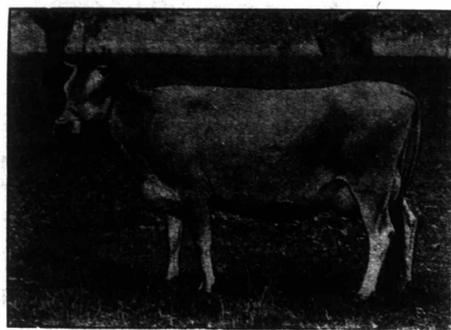
[Diarrhoea, or scour, is generally the result of indigestion or derangement of the stomach, caused



BELLA.

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

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



MADEIRA 5TH.

First-prize Jersey cow in Butter Test and in Milking Trials, London Dairy Show, 1899.

OWNED BY MR. H. H. HOWARD-VYSE.

wineglass of warm water or milk, four times a day until he seems strong enough to warrant a withdrawal 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.]

## 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."

[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 ¼ 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 effected. If the calf is less than 6 months old, make the prescription into 36 powders. Feed 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.]

## IMPOTENT BOAR.

SUBSCRIBER, Two Mountains Co., Que.:—"I have a fine Yorkshire sow, now ten months past, and he will not serve a boar, 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 castrate him?"

[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.]

## Miscellaneous

## STANDARD FOR TOULOUSE GEES.

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 posterior or fluffy parts; from a front view but 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.]

## WALNUTS FOR PLANTING.

ENQUIRER:—"Would you kindly let me know where I can obtain walnuts for planting this fall, and what is the price per barrel?"

[We have had difficulty in obtaining an answer to the above question. "Enquirer" will do well to drop a card to J. A. Bruce & Co., Hamilton; Wm. Rennie & Co., Toronto, and Thos. Beall, of Lindsay, or the postmasters at Ancaster and Glanford, Ont. Will some reader who has the information asked for, write us?]

## MARKETS.

## FARM GOSSIP.

## Crops in the Eastern Provinces.

The labors of both farmers and fruit-growers in the Eastern Provinces have been rewarded this year with abundant returns. In 1898, rust affected all the grain crops very seriously in the Maritime Provinces, and the yields were light. During 1899 the season was more favorable, and the returns have been bountiful. Some particulars regarding the gratifying results of the year have been obtained from Dr. Wm. Saunders, Director of the Experimental Farms, who recently returned from a visit to the East made in connection with the exhibits of agricultural and horticultural products being prepared for the Paris Exposition.

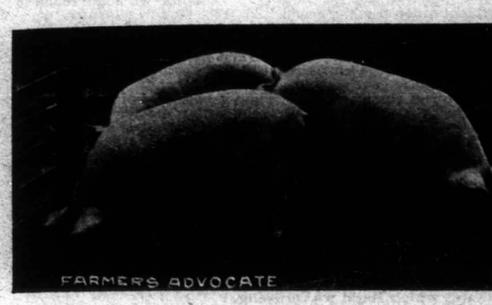
**New Brunswick.**—In the Province of New Brunswick the crops of 1899 have been very encouraging, and the yield of both hay and grain are very satisfactory. Dairying is also making considerable advancement throughout this Province. Fruit-growing is becoming more general, especially in many parts of the valley of the St. John River. Through the efforts of the officers of the Department of Agriculture, an excellent representative collection of very fine apples of this Province has been made, and is being placed in cold storage, to be forwarded to Paris in the spring. A fine display of samples of grain in the straw, and of cereals threshed and cleaned, has also been secured from many different counties, such as will be a credit to the Province.

**Nova Scotia.**—In Nova Scotia similar work is in progress. The Secretary of Agriculture is bringing together a very fine collection of agricultural products to illustrate the results of farming in that Province. A good collection of native grasses is also being made. Through the energetic efforts of the fruit-growers in the Annapolis valley, a large and representative display of excellent fruits has been obtained. A fine collection has been made of fruits in antiseptic fluids. The latter comprises about one hundred bottles, and includes many of the more perishable sorts, which could not be shown in a fresh condition. A large collection has been brought together, including many choice varieties of fresh fruit, especially apples, for display at the opening of the exhibition.

**Experimental Farm, Nappan, N. S.**—The Experimental Farm at Nappan is also doing good work in providing material to illustrate the products of Eastern Canada at Paris. A fine collection of fruits has been made, chiefly of the early varieties, and a good representative collection of the agricultural products of the farm has been got together. As illustrating the favorable character of the season, it is worthy of remark that while the yields of wheat on the farm last year ranged from 25 bushels 20 lbs. down to 12 bushels 40 lbs. per acre, this year the crops of this grain ranged from 48 bushels 40 lbs. to 27 bushels 20 lbs.; thus the smallest yielding varieties in 1899 have given more than the most productive sorts in 1898. Oats, in like manner, have ranged this year from 104 bushels 21 lbs. per

acre to 63 bushels 12 lbs.; while in 1898 the highest yield was 50 bushels, and the lowest 22 bushels 12 lbs.

Prince Edward Island.—Under the direction of the Premier of Prince Edward Island, a very fine collection of the cereals grown on the island is being brought together for the Paris Exposition.



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.

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

from this factory was 3,900 cheeses up to the date referred to, and it was expected that before the cheese season closed the output would reach 4,100.

Quebec.—Farm crops in Quebec have, on the whole, been very satisfactory. Dairying, for which this large Province is so well adapted, is in a promising condition and the industry steadily increasing.

Huron County, Ont.

"The melancholy days have come, the saddest of the year." The snow and rain is making us feel that it is about time our roots were up and plowing done.

Canadian Farm Exports.

Canadian exports to Great Britain in ten months, ending October 31st, show a slight decrease in the number of cattle exported: Cattle, 11,310, valued at £192,633; sheep, 10,710, valued at £16,246; wheat, 538,300 cwt., valued at £193,634; flour, 265,300 cwt., valued at £122,428; peas, 166,900 cwt., valued at £55,532; bacon, 52,614 cwt., valued at £91,850; hams, 10,156 cwt., valued at £21,200; butter, 47,201 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.

British Cattle Market.

London, Eng., Nov. 13.—The market for American cattle is short of supplies; trade is sharp. United States cattle 6d. to 9d., Canadian 5d. to 5 1/2d.; no sheep. After the 15th no Canadian cattle will be admitted in Belgium.

Toronto Markets.

The volume of trade at the cattle market is thought to be less than last week. The business was fairly brisk, buyers anxious to obtain supplies for the current demand.

Export Cattle.—There were not many export cattle on offer, only two or three choice loads. These were quickly bought up at prices ranging from 4c. to 4 1/2c. per lb.

Butchers' Cattle.—Choice picked lots of butchers' cattle, weighing 1,000 to 1,100 lb. average, sold at \$4.25 to \$4.40 per cwt.

Feeders.—High-grade steers, in good condition, 1,100 to 1,200 lbs. each, in good demand by farmers for feeding purposes.

Stockers.—Half the cattle on offer to-day were feeders and stockers. Yearling steers, 600 lbs. average, were easy, at prices ranging from \$2.50 to \$2.75 per cwt.

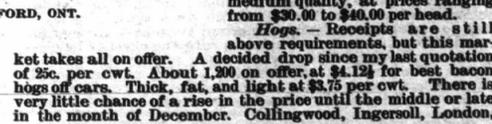
Sheep.—Prices a shade easier, at \$3.00 to \$3.40 per cwt. for ewes. Bucks at \$2.50 to \$2.85. Butchers' sheep at \$2.75 to \$3.00 per head.

Lamb.—Prices are quoted at \$3.25 to \$3.75 per cwt., with a few choice ewes at \$4.00 per cwt.

Milk Cows.—Still very scarce. Choice dairy cows in demand. A few choice cows sold at \$40.00 to \$50.00 each.

Hogs.—Receipts are still above requirements, but this market takes all on offer. A decided drop since my last quotation.

Yearling Tamworth Sow.—First prize at Toronto Exhibition, 1899. Owned by A. C. Hallman, New Dundee, Ont.



YEARLING TAMWORTH SOW.

First prize at Toronto Exhibition, 1899.

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

and Ottawa are only taking a very limited number; the consequence is that they are all forced onto the market. Unculled car lots at \$4.00 per cwt. For next week we anticipate a drop in all classes of hogs to \$4.00 for singlers.

Dressed Hogs.—A large number of dressed hogs in farmers' wagons, bought by Mr. Wm. Harris at \$5.00 to \$5.40 for bright stock.

Wheat.—Easier; 550 bushels of red sold at 7 1/2c.; 400 bushels of goose sold at 7c. per bushel.

Barley.—Barley is steady, 1,500 bushels selling at 4c. to 4 1/2c. per bushel for choice.

Oats.—Prices firmer, at 3c. to 3 1/2c. per bushel. About 600 bushels on offer.

Peas.—Steady; good quality scarce, at 6 1/2c. per bushel.

Hay.—25 loads on offer; prices up and down, at from \$12.00 to \$13.00 and \$14.00 per ton.

Straw.—Firm, at from \$8.00 to \$10.00 per ton.

Flaxseed.—There is an enquiry for flaxseed on this market. A Montreal firm is prepared to take any quantity for the Dominion Oilcloth Company.

Poultry.—The quality of poultry is not very good; deliveries large. Chickens, per pair, 40c. to 75c.; turkeys, per lb., 9c. to 11c.; ducks, per pair, 50c. to 90c.; geese, per lb., 6c. to 8c.

Butter.—The demand good and supply above the average; in dairy lots, 20c. to 25c. per lb.

London, Eng., Nov. 13.—The market for American cattle is short of supplies; trade is sharp. United States cattle 6d. to 9d., Canadian 5d. to 5 1/2d.; no sheep. After the 15th no Canadian cattle will be admitted in Belgium.

on October 3rd. Yesterday market was even better; Danish, 116 shillings to 122 shillings per cwt. of 112 lbs.; Finnish, 108 shillings to 112 shillings; Canadian, 108 shillings to 112 shillings per cwt., and demand unsatisfied; an advance of 4 shillings in two weeks.

Cheese.—The demand for cheese is not active, and it is quoted at 11c. per lb., with concessions offered. There is no hope of much improvement in local trade, as the majority of dealers are overstocked.

Hides.—The market is a shade stronger and competition a little keener. No. 1 green, 9c. to 9 1/2c. per lb.; No. 1 green, steers, 9 1/2c. to 9c. per lb.; No. 2 green, steers, 8 1/2c. to 8c. per lb.; calf skins, 9c. per lb.; lamb skins, each, 70c. to 80c.; pelts, fresh, 70c. to 80c. Wool, 14c. to 15c. per lb.; wool, pulled super, 15c. to 15 1/2c. per lb.

Mr. Ironsides has returned from Winnipeg and reports business booming. Mr. George Armstrong, of Brampton, was on the market. This is his first appearance since he was wrecked on the SS. Scotsman, Belle Isle, a few weeks ago.

Chatty Stock Letter from Chicago.

Following table shows current and comparative live stock prices:

Table with columns for Beef cattle, Hogs, Sheep, and various weight categories, showing prices for current and previous periods.

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

Table showing receipts of live stock at principal points for Chicago, Kan. City, Omaha, St. Louis, and Total, broken down by month and ten-month periods for 1899 and 1898.

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.

How the Stock Business Has Grown.—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.

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.



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.

the first nine months of 1899. Exporters bought 2,380 cattle the past week as follows: Brauer, 1,000; H. A. Allen, 61; Epstein, 164; Shamberg, 654; Allerton, 133; Swift, 361; Hathaway, 16.

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.

Colorado lamb feeders have been unwilling to pay the prices asked for lambs in New Mexico, and some of them will feed 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.



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 tilting 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 muffer 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-worn slippers in her lap. For those slippers, evening after evening, father had had to do without the bedtime music he so loved.

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 way."

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

"Oh, the Christmas work can wait," Johnnie 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 sheets of the old-fashioned music he so loved in her hand.

"Why, can you really spare the time, child?" Father asked, quickly. "Mother says you are all so hurried with your Christmas work."

But Edith slipped her arm through his, and drew him to his big chair, where he lay back happily, with closed eyes, as the first strains of Thalberg's "Home, Sweet Home" stole through the room.

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." HATTIE JOOR.

"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 from 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 rawhide.

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 belonging to musicians; literary buttons; artistic buttons, and actors' buttons!

Still another collection is one of butterflies, and another is of beetles. These are very instructive and interesting as well, and repay one for one's trouble. One of my friends has a lovely collection of Canadian ferns. Who has not at one time had a hobby for collecting old and foreign coins?

A young Bostonian has an odd collection of pitchers. Several show the arms of different cities and counties in England; some bear a legend or a couplet. One dainty little flagon of silver fligree came from Madeira, while a few grotesque ones came from London. There is a green one with two faces. Standing normally, the face is very jolly, and has the words "full jug" 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 Sevres 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, ½ 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.*

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.

1-BEHOLDMENT 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;

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.

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.

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.

6-LINKADE. (Example: curt, tail; curtail.) ONE Here's a medley, an allowance to eat, And also soldiers who at table meet.

7-REBUS. Mr. Dale was sorry to receive the other day a note to this effect: YOUR S I | S | 50 ES S

8-SQUARE. 1-A repeat. 2-To thicken. 3-The first word of a well-known motto. 4-Name of a noted general.

9-CROSS-WORD ENIGMA. My first is in lost, but not in found. "second" "jump," " " "bound.

10-CROSS-WORD. In "medals" of gold, In "rocks" that are cold, In "smocks" that are old, In "gris" that are bold,

Answers to Oct. 16th Puzzles. 1-Neophyte (knee-o-fight). 2-(1) New Westminster; (2) Winnipeg; (3) Halifax; (4) Fredericton; (5) Hamilton; (6) Belleville; (7) Windsor.

7-Innocents Abroad, by Mark Twain. 8-Borderau. 9-Baseball, lacrosse, and puzzling.

10-aerates 11-Cab-man. e m e t i c coal-man. r e s o n swords-man. a t o m pen-man. t i n brakes-man. e c police-man. s whale-man.

12-I d i o t T a x a r e t H D a n o E U n b o W S e m i n a t E T a p i S R i g h T I d l e A l d e R L e a r N F a l o f A I r a s t A R i v e R Industrial Fair. The Western Fair.

13-Farmers' Institutes. SOLVERS TO OCT. 16TH PUZZLES.

"Diana," "Williwil," Mrs. James Owens, "Connie," "Kit, Sila Jackson, "Jack & Jill," M. R. G., J. McLean.

ADDITIONAL SOLVERS TO OCT. 2ND PUZZLES. "Arty" Awkins, "Essex," "Kruger," Sila Jackson, "Kit," "Connie," Mrs. James Owens, Alex. Brimmer, J. McLean, Dennis.

COUSINLY CHAT. "Williwil."—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.

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, C 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."

IMPORTANT AUCTION SALE OF Imported Scotch Shorthorns 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:

DISPERSION SALE OF Scotch-bred Shorthorns ON Wednesday, Nov. 22, AT MY FARM, 4 MILES FROM FERGUS ONTARIO, ON G. T. R. AND C. P. R. I will sell at auction my entire herd of Scotch-bred and Scotch-topped Shorthorns, consisting of 10 BULLS and 25 FEMALES.

GOSSIP. Mr. Andrew Knox, South Dummer P. O., Ont., near Norwood station, C. P. R., places an advertisement of Shorthorn cattle in this issue, which should receive the attention of parties looking for that class of stock.

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

SWINDLERS ABROAD. The polished tramp professing to be a stock breeder and buyer, whose cheek was exposed some months ago in the FARMER'S ADVOCATE, is still, we are informed, getting his board and bed free by imposing on stockmen who have not read of his meanness, and it appears he is not alone in the practice of his profession, as the following despatch from a prominent firm of American breeders attests: "A smooth swindler is operating among live-stock owners. His plan of operation is to represent himself as a heavy buyer. He stays long enough to make his intended victims feel that they are acquainted with him. He pretends to buy a number of animals, and then endeavors to get the seller to identify him at some bank, so that he may cash worthless checks and drafts. The one who identifies him becomes responsible for him. Beware of him."

IMPORTANT COMBINED AUCTION SALE

90 HEAD of registered stock, at Maple Cliff Farm, Hintonburg, within one mile of the City of Ottawa (electric car t. farm), Tuesday, Nov. 28th, 1890, at 10 o'clock, consisting of 10 Ayrshire bulls, 20 Tamworths, 20 Improved Yorkshires, 10 Large English Berkshires, 10 Chester Whites, 12 Duroc-Jerseys, 8 Poland-Chinas. No reserve. Write to the proprietors for catalogue.

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

Herdsmen Wanted. Single, steady and willing. Engagement by the year with board.

Also MARRIED MAN to assist in stables in winter, and care for garden and lawn in summer. Both must be well recommended. Apply by letter or personally to JAMES BODEN, St. Anne de Bellevue, Que.

DISPERSION SALE OF Maplehurst Berkshires.

Owing to my leaving Canada, we offer for quick sale our herd, consisting of over forty head of Bacon-type Berkshires of various ages. Prices will be found right. Address, J. J. FERGUSON, Box 375, Smith's Falls, Ont., Or Agr. College, Mich., U. S.

English Shire and Clydesdale Stallions.

Last importation just arrived Aug. 5. Imported more stock in 1888-89 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: EDWARD R. HOGATE CO., 10 Maitland Street, TORONTO, ONT. Bams: College and Dufferin Streets.

ESTABLISHED 1864.

HILLHURST FARM HACKNEY HORSES.

Carriage type, Connought 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, Hillhurst Station, Compton Co., P. Q.

HACKNEYS



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, Roseau P. O., Dist. Parry Sound, Ont.

CLYDESDALES



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

GOSSIP.

Messrs. James Rainie & Son, of Wellman's Corners, Ont., have recently made an important purchase of eight high-class Shorthorns, of milking strains, from Mr. Arthur Johnston, of Greenwood. The bunch includes the beautiful cow, Clan Rose, of the well and favorably known Atha family, and her very promising red heifer calf, sired by the \$550 imported Prince Oleric, of the famous Marr Princess Royal tribe. It also includes the fine young cow, Jessie of Marshhill, of the grand old Syme family, and her beautiful red heifer calf by the same imported sire. These two cows look like entering a milk and butter competition any day. Another very important member of the lot is Clementina Bud, of the grand old Kinellas Clementina tribe. She is a big, wealthy 2-year-old heifer, of fine shape and quality, and carrying a calf by the Duchess of Gloster bull, Darnley. Not less important is the very fine 2-year-old heifer, Merry Maid, and her very pretty red heifer calf, of the famous old Kinellas tribe of Cecilians—a tribe equally famous as milkers and for showyard and beefing qualities. They are descended from the same grand old foundation as Mr. A. Cruickshank's well-known Orange Blossom tribe, and, indeed, Mr. Campbell purchased the tribe from the late Mr. A. Cruickshank. Last, but not by any means least, is the fine young bull, Lord Robert, of the grand old Syme family, and sired by Aberdale—2330—, a son of the Toronto first prize imported bull, Aberdeen, a grandson of imported Indian Chief, and a great-grandson of the Toronto sweepstakes bull, imported Vice Consul. Lord Robert has in his veins the blood of the well-known Cruickshank bull, imported Vensgarth, and the Provincial sweepstakes bull, 2nd Prince of Springwood, as well as the Golden Drop imported bull, Prince Arthur. With these animals as a foundation, Messrs. Rainie & Son should produce something of very high-class merit.

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 Eva 3rd of Orchardton (4479), by Bradlaugh of Poniel, granddam by Black Prince of Lossesock (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 '86 and '88, 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 exception (that got accidentally hurt and died), and it was considered the best of her cash by some Ayrshire men, have been prizewinners in Toronto and elsewhere. Her yearling heifer was very much admired in the showing this year, and it is difficult to retain her stock from would-be purchasers.

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 Tom 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 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 1889, 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, Orme 3811, 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, Miss Kicker 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, 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 3.6% to 4.1% butter-fat 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.

10 Imported Shorthorn Bulls

ALL SCOTCH. 21 IMPORTED HEIFERS. ALL SCOTCH. 21 IMPORTED HEIFERS. 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.

20 - Imported Scotch Shorthorns - 20

3 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, Mysias, 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. Registered Shropshires, yearling rams 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 Office, G. T. R., within half a mile of farm. W. G. PETTIT & SON, FREEMAN, ONT.

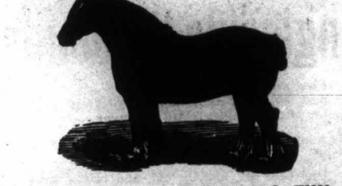
DALGETY BROS., GLENCOE, ONT., "Largest Importers in Canada."

A large importation of CLYDESDALE stallions and mares just arrived, also Hackneys and Shires, including several prizewinners in Scotland. Ages ranging from 2 yrs. to 6; weighing up to 2,400 lbs. No exorbitant prices asked. Small profits and quick returns.



THORNCLIFFE Stock Farm

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 tests. Terms reasonable. A visit to Thorncliffe will well repay you.

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO.

A Few Choice Durham Heifers In Calf.

Two bulls; two bull calves; all of choice breeding. Berkshire boars; brood sows and sow pigs. Prices right.

A. J. C. SHAW & SONS, THAMESVILLE, ONT.

FITZGERALD BROS., Mt. St. Louis, P. O., Offer for sale six Shorthorn Bulls from 9 to 14 months old; also 2-year-old roan bull, St. Louis—2413—, a Morton-bred bull with exceptionally grand pedigree. Also a few females of all ages, bred to imp. bull, British Statesman (63729)—20833—, now at head of our herd. Hillsdale Telegraph Office; Elmvalle Station, G. T. R.



Scotch Shorthorns FOR SALE.

100 head to select from; 33 grand young bulls by Valkyrie—21806—, and cows and heifers of all ages, of the most approved breeding, served by (imp.) Diamond Jubilee—23581—, now at the head of our herd. T. DOUGLAS & SONS, Strathroy Station and P. O. Farm 1 mile north of the town.

SCOTCH SHORTHORN BULLS AND HEIFERS

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

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

JAS. DORRANCE, SEAFORTH, ONTARIO.

BREEDER OF Shorthorn Cattle and Berkshire Pigs Young stock always for sale.

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 Cattie foundation, a desirable and needed line of breeding.

D. ALEXANDER, Bridgen, Ont.

Shorthorns.

Six bulls from 3 to 12 months old; one choice 4-year-old stock bull; eight 2-year-old and yearling heifers and heifer calves of choice quality and breeding.

R. MITCHELL & SON, Burlington Jct. Station, Nelson P. O.

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 last long.

G. A. BRODIE, BETHESDA, ONT.

SHORTHORN CATTLE AND LINCOLN SHEEP.

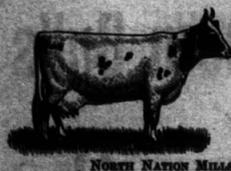
Imp. The Baron at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON, DENFIELD, ONT.

Shorthorns and Leicesters.

Herd Established 1855. A number of young bulls, cows and heifers for sale. Herd headed by imported Christopher 23859, and Duncan Stanley—16364—. Grand milking cows in herd. Also a number of Leicesters of both sexes from imported foundation.

JAMES DOUGLAS, CALEDONIA, ONT.



### W. C. Edwards AND COMPANY.

IMPORTERS AND BREEDERS

Laurentian Stock and Dairy Farm, NORTH NATION MILLS, P. Q.



Pine Grove Stock Farm, ROCKLAND, ONTARIO.

### Ayrshires, Jerseys, Shropshires, Berkshires.

Our excellent aged herd of Ayrshires is headed by our noted imported bull Cyclone. Tam Glen heads the young herd, and Fawn's Son 2nd of St. Anne's heads the Jerseys. The young stock are all from time-tried dams.

### 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.

SHORTHORNS FOR SALE—Three well-bred young bulls and a few heifers. ANDREW KNOX, Norwood Sta., C.P.R. South Dummer, Ont.

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

SPRINGHURST SHORTHORNS. The famous sire, Abbotford—19146—, 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. 30 First-class Ram Lambs.

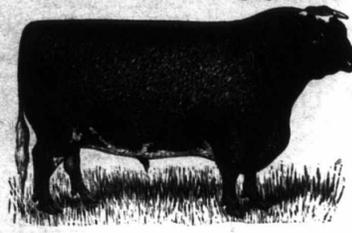
PRICES REASONABLE. Claremont Stn., Pickering Stn., C.P.R. G.T.R. -om Correspondence Invited.

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 Money-tuffel Lad—20621—.

T. E. ROBSON, Ilderton, Ont. I am prepared to offer at reasonable prices, for a short time, a few very choice young registered Shorthorn Bulls and Heifers in good health and fine growing condition.

FOR SALE. Six very choice Shorthorn bulls, from 9 to 15 mos. old. A number of Southdown and Leicester Rams, and Berkshire Pigs. E. Jeffs & Sons, Bond Head, Ont.

### ARTHUR JOHNSTON Greenwood P. O. and Telegraph Office,



OFFERS FOR SALE, AT MODERATE PRICES, 13 IMPORTED AND SHORTHORN BULLS HOME-BRED 17 imported COWS and HEIFERS 22 home-bred COWS and HEIFERS

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS. We are offering 5 young bulls for sale, of first-class quality, and AI breeding. -om Wm. Grainger & Son, - Londonboro, Ont.

FIVE SHORTHORN BULLS Will be sold to make room. Good quality and breeding. Also Mammoth Bronze turkeys. Inspection invited om H. C. GRAHAM, Alisa Craig.

SHORTHORNS. 2 Yearling Bulls, 1 Bull Calf, and my Stock Bull, Kinellar of York—2504—, by Imp. Kinellar Sort. -o F. MARTINDALE, York P. O., Ont.

BONNIE 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. -om D. H. RUSSELL, Stouffville, Ont.

Maple Lodge Stock Farm ESTABLISHED 1854. SHORTHORNS.—A grand lot of young bulls, got by the great Gaithness and Abbotford. Choice heifers in calf to Imp. Knuckle Duster and Abbotford—milk strains. LEICESTERS.—A splendid lot of ram lambs, ewes and ewe lambs for sale.

ALEX. W. SMITH, -om MAPLE LODGE P. O., ONT.

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

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

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

H. D. SMITH, -om COMPTON, QUE.

### GUERNSEYS.

This is the dairy breed for ordinary farmers. Large, vigorous, and hardy, giving plenty of rich milk. Several fine young bulls for sale at very reasonable prices. A few heifers can be spared. Address— SYDNEY FISHER, 17-y-o ALVA FARM, KNOWLTON, P. Q.

ST. LAMBERT OF ARCFOST 36943 whose sire was 100 Per Cent.; dam, St. Lambert's Diana 69451. Official test, 18 lbs. 6 ozs. in seven days. A few choice young bulls and heifers rich in his blood, from deep and rich milking dams, for sale at moderate prices. Tuberculin tested. H. E. WILLIAMS, Sunnyside Farm, -o Knowlton, P. Q.

PINE RIDGE JERSEY HERD. Has descendants of Canada's John Bull 5th, One Hundred Per Cent and Two Hundred Per Cent, with a grandson of the great Adelaide at the head. Two choice young bulls for sale and a few females. WM. WILLIS & SONS, -o Newmarket, Ont.

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

### Jersey Cattle

THAT WILL PUT MONEY IN YOUR POCKET. Mrs. E. M. Jones, Box 324. -om BROCKVILLE, ONT., CAN.

BRAMPTON JERSEY HERD. Offering high-class A. J. C. C. cows and heifers in calf, and heifer calves; 9 choice young bulls. High-grade cows in calf; and Berkshires. E. H. Bull & Son, -om BRAMPTON.

DON JERSEY HERD. Offering choice young Bulls and Heifers by Costa Rica's Son. DAVID DUNCAN, DON, ONTARIO. Nine miles from Toronto Market. -o

Deschenes Jersey Herd. HEADED BY IDA'S BROTHER OF ST. LAMBERT 47570. 4 young bulls fit for service—registered. Also Tamworth swine from diploma herd, Canada Central Fair, Ottawa, 1898. -o R. & W. CONROY, DESCHENES MILLS, QUEBEC.

Oh, Yes! We sell Holstein Bulls. Sold 7 in May. Have 12 now on hand; oldest 9 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. -om

MAPLE HILL.. HOLSTEIN-FRIESIANS. The Gold Medal Herd of '97 and '98. A few choice cows and heifers now for sale, mostly bred to the butter bull, De Kol 2nd's Paul De Kol Duke. See my herd at the big fairs. -o G. W. CLEMONS, ST. GEORGE, ONT.

The Big 4 at Brookside. THEIR HOLSTEINS: Netherland Hengerveld..... Official test, 26.66 lbs. DeKol 2nd..... " " 26.57 " Belle Kornlyke..... " " 25.77 " Helena Burke..... " " 25.45 "

Maple Glen Stock Farm. Special. For immediate sale, Quality Tops... 10 choice females Blood Best... Holstein of rich breeding. Blood Best... Offer... winners... Prices Reasonable

Galloways and Shropshires. 2 BULL CALVES by the sweepstake bull of '98 at Toronto. In Shropshires we have about 30 ewes and 20 ram lambs for sale. T. LLOYD-JONES & SONS, -o BURFORD, ONT.

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

FOR SALE. 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; 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.

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 Auchinbrain (imp.). Their dams are all Glencairn heifers. Five of their dams were shown last fall at Toronto, London, and Ottawa. Also a few good cows. No culls sold. JAMES BODEN, TREDINNOCK FARM, -om STE. ANNE DE BELLEVUE, QUE. PLEASE MENTION FARMER'S ADVOCATE.

### Ayrshire Bull Calves of 1899

3 YET on hand, and more to come within the next month, from some of our best imported cows. Will sell at reasonable prices. Address: ROBT. HUNTER, Manager to W. W. Ogilvie. LACHINE RAPIDS, QUE.

### CHOICE AYRSHIRE BULLS

Three calves, 5, 8 and 12 months old, also one 1 month old, from that fine cow, Daisy 1st of Auchinbrain (imp.), and all sired by Craigelea of Auchinbrain (imp.). -om W. W. BALLANTYNE, Formerly Thos. Ballantyne & Son. Stratford, Ont. "NEIDPATH FARM" adjoins city, main line G.T.R.

### AYRSHIRE CATTLE.

KAINS BROS., Byron, Ont. (R. R. London), are offering a number of grand young bulls, prizewinners; also a few choice females. Prices right. -o Estate James Johnston, Importer and breeder of AYRSHIRE CATTLE, "Robertland Farm," Como, Que. For sale: Males and females of all ages. All tested and found free from tuberculous. Prices low for quick sale. Write for prices, etc. All information address: ADAM ROBERTSON, Manager for estate of Jas. Johnston, Robertland Farm. -o COMO, QUE.

EUROPEAN ADVERTISEMENTS. W. W. Chapman, Secretary of the National Sheep Breeders' Association, Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society. Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered. Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables—Sheepcote, London. -om

FAMOUS ALL OVER THE WORLD. ALFRED MANSELL & CO., LIVE STOCK AGENTS AND EXPORTERS, SHREWSBURY. BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Secretaries of the Shropshire Sheep-Breeders' Association, Shrewsbury, England. -o

J. E. CASSWELL, Laughton, Fellingham, Lincolnshire, breeder of Lincoln Long-wooled Sheep, Flock No. 48. The flock was in the possession of the present owner's great-grandfather in 1785, and has descended direct from father to son without a single dispersion sale. J. E. Casswell made the highest average for 20 rams, at the "Annual Lincoln Ram Sale," 1895 and 1897. The 1896 rams were all sold for exportation. Ram and ewe hogs and shearings for sale, also Shire horses, Shorthorns, and Dark Dorking fowls. Telegrams: "Casswell, Fellingham, Eng." Station: Billingboro, G. N. R. -o

The Danesfield Pedigree Stock. IMPORTERS desirous of securing selections of either Shire horses, Aberdeen-Angus cattle or Hampshire Down sheep should inspect the stud, herd and flock, property of Mr. R. W. Hudson, which are kept in the highest degree of purity that care and selection can produce at Danesfield, Marlow, Bucks, England. Specimens of horses, cattle and sheep have been largely exhibited at the principal English shows during 1899 with very prominent success. For full information, etc., apply: MR. COLIN CAMPBELL, ESTATE OFFICE, DANESFIELD, MARLOW, BUCKS, who will be happy to make arrangements for inspection, or to quote prices.

Southdown For Sale. Huntlywood Farm, BEACONSFIELD. Ewes and rams from this flock imported and home-bred animals from the celebrated flocks of His Royal Highness the Prince of Wales, Sandringham, England; 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. -om

Shropshires, Tamworths, AND American Bronze Turkeys. We keep on hand a full line of each to supply our numerous customers. Correspondence solicited. W. S. Hawkshaw & Son, -o Glanworth, Ont. Shropshire Rams and Ewes. Newly imported from the greatest English breeders. Home-bred rams and ewes of best quality. Scotch Shorthorns and Clydesdale horses for sale at moderate prices, and in large numbers, by ROBERT MILLER, -om STOUFFVILLE, ONT.

CANCER CURED WITHOUT KNIFE OR PLASTER. FULL PARTICULARS FREE.

F. STOTT & JURY, Bowmanville, Ont.

WHAT I OFFER NOW IS: 15 SHROPSHIRE EWES, 30 Young YORKSHIRE PIGS, 5 JERSEY FEMALES, 1 SHORTHORN BULL

RICHARD GIBSON, DELAWARE, ONT.

SHROPSHIRE 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 one five months. Prices moderate.

FUGH BROS., Whitevale P. O.

Shropshires...

I offer for sale SHEARLING EWES, sired by Imported Newton Stamp 99631, prizewinner at Toronto, 1897; also RAM and EWE LAMBS, by Standard, a son of Newton Lord.

GEORGE HINDMARSH, ALSA CRAIG, ONT.

Shropshires. One shearing ram, and a few ram lambs. One Shorthorn bull calf eleven months old. Write for prices.

HALDIMAND CO. H. GEE & SONS, Fisherville.

SMITH EVANS, GOUROCK, ONT.

Breeder and importer of registered Oxford Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited.



Oxfords Galore...

WE have 300 to select from this fall, of all ages; bred up from the best English flocks. We employed the 1st and 2nd prize imported rams last fall.

PETER ARKELL & SONS, TEESWATER, ONT.

Oxford Down Sheep

Flock Established in 1851. Have for sale 120 registered ram lambs, and 50 ewes of different ages. Singly or in car lots. Prices reasonable.

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

BRANT STOCK FARM Oxford Downs.

Two imported rams (first and second prize winners at Toronto, 1898) at head of flock of selected breeding ewes. Choice young stock for sale. Come and see our stock.

J. H. JULL & SONS, BREEDERS AND IMPORTERS, Burford Station. Mt. Vernon P. O., Ont.

6 CHOICE REG. LEICESTER RAMS 6

Strong, even, well-covered sheep, especially selected from flock of 1898. Also ram and ewe lambs. Wanted, a Farm Hand (single) to take care of stock, etc.

E. GAUNT & SON, LUCKNOW, ONT.

LEICESTERS.

Breeding stock for sale, of different ages.

C. & E. WOOD, FREEMAN, ONT.

SHORTHORNS AND BERKSHIRES.

One bull calf, 8 months old, \$60.00; Berkshire pigs, either sex, two months old, \$5.00. Write for particulars.

MAC. CAMPBELL, NORTHWOOD, ONT.



Provincial Fat Stock Show.

At the sixteenth annual Provincial Fat Stock, Dairy and Dressed Poultry Show, to be held on the Western Fair Grounds, London, Ont., December 12th to 15th, over \$5,300 is offered in the cattle, sheep, swine, dairy, and poultry departments, which ought to attract the largest and best exhibition of fat animals ever brought together at a fat stock show on this continent.

Block Tests.—Sheep and swine entered in the block tests will be killed the first or second days of the show; if possible, this work will be completed by noon of the second day.

Swine.—From 2 p. m. to 4 p. m., on the 14th, the judges of the bacon classes will deliver addresses, making use of the carcasses as illustrations, explaining the requirements of the markets, and pointing out desirable and undesirable carcasses.

Sheep.—From 10 a. m. to 12 noon, on the 15th, the judges of the sheep carcasses will deliver addresses, also making use of the carcasses as illustrations re home and foreign markets.

Poultry.—During the time of the exhibition, J. E. Meyer, Kossuth, and W. R. Graham, O. A. C., Guelph, will be in charge of the poultry exhibit. From 2 p. m. to 5 p. m. on the 12th, and from 10 a. m. to 12 noon on the 15th, these gentlemen, or other experts, will address the audience, dealing with the home and foreign poultry markets, the class of birds required, how prepared, how killed, dressed, and packed. An expert from Prof. Robertson's department will be present and have on exhibition a coop of birds being fattened by the most approved method; also a cranning machine, described last year in the FARMER'S ADVOCATE.

This gentleman will also address the audience at the hours named. At 9 a. m. and 5 p. m., on the 12th, 13th and 14th, he will show how and what birds are fed; and at 9 a. m. on the 15th, the birds will be slaughtered and packed. Prof. Robertson will also have on exhibition one case of chickens, one of turkeys, one of geese, and one of ducks, dressed and packed as they should be for shipment. Incubators, brooders, feeding pens, bone crushers, and other utensils will be on exhibition.

Dairy.—In the dairy department the competing cows will be in their stalls by 2 p. m. on the 11th. A cream separator will be run by a gasoline engine, and milk separated at 9 a. m., December 12th, 13th, 14th, and 15th. The persons in charge of the various judging rings and block tests, are as follows: Cattle—John I. Hobson, H. Wade, and Charles Treblelock. Sheep—Jas. Tolton and John Jackson. Swine—G. B. Hood, J. E. Brethour, and Hardy Shore. Dairy—G. W. Clemons and John S. Pearce. Block Tests: Sheep—Prof. J. B. Reynolds, Guelph; D. Drummond, Myrtle. Swine—Jas. Leach, Toronto; Mr. Britton, Ingersoll.

Meetings.—During the time the exhibition is being held the following associations will hold their annual meetings in the Farmers' Pavilion on the grounds:—The Dominion Cattle Breeders' Association, Monday, December 11th, at 7.30 p. m. Addresses and reports of officers; reports of committees; nomination of expert judges; election of delegates to fair boards; election of officers; an illustrated address, entitled, "An Ideal Dairy Cow," by J. S. Woodward, Lockport, N. Y.; addresses by judges in the cattle department.

The Dominion Swine Breeders' Association, Wednesday, December 13th, at 7.30 p. m. Routine, elections, etc.; Prof. G. E. Day will deliver an address dealing with the requirements of the home and foreign markets for pork and pork products; addresses by judges in bacon classes. The judges will be expected to give reasons for awards made by them. Any person wishing to ask a question of a judge may do so by presenting same to the secretary, in writing, some time before 5 o'clock on the 13th.

The Dominion Sheep Breeders' Association, Thursday, December 14th, at 7.30 p. m. Routine, elections, etc.; an illustrated address, entitled, "An Ideal Mutton Sheep," by Prof. John A. Craig, Ames, Iowa; addresses by judges of block tests in sheep department. The judges will be expected to give reasons for awards made by them. Any person wishing to ask a question of a judge may do so by presenting same to the secretary, in writing, some time before 5 o'clock on the 14th.

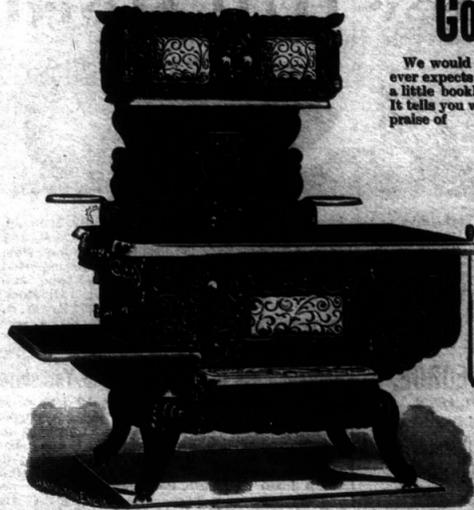
A joint public meeting will be held in the City Hall on December 12th, 1899, at 7.30 p. m. The chair will be occupied by the Hon. Sir John Carling, who will give an address of welcome, to be replied to by Hon. John Dryden, Toronto, followed by addresses by Hon. Sydney Fisher and Prof. J. W. Robertson, Ottawa; Dr. Jas. Mills, Guelph, and J. S. Woodward, Lockport, N. Y. The musical programme will be conducted by Capt. T. E. Robson, of Hilderton.

Good Roads and Institute Speakers.—Mr. A. W. Campbell, C. E., Provincial Instructor in Roadmaking, will address the delegates to Farmers' Institutes at 1.30 p. m., December 15th, in the City Hall. He will give special instruction and information to be used by all the speakers during the coming Farmers' Institute season, all of whom are expected to be present to attend the various addresses delivered, their expenses to and from the show being paid by the department.

Single-fare passenger and freight rates from any part of Ontario to London and return, good from Dec. 7 to 15, inclusive, are arranged for, and may be obtained in the usual way.

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 every thing. 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 128.5 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. Wislett's Shorthorn and Ayrshire, with an average of 56 lbs. 13 oz., and Mr. Merry's with 50 lbs. 13 oz.

"BY VIRTUE and BY WORD."



Ashton Frontview Cotswolds Galore. Stock Farm.

We have upwards of 500 head of all ages, the majority of which are ram lambs, and are prepared to supply car lots.

A. J. WATSON, Castlederg, Ont.

IN COTSWOLDS WE HAVE TO OFFER

100 RAM LAMBS

AND

50 EWE LAMBS,

Selected from Snell and Miller bred ewes, and by Snell-bred sires, from imported foundation.

YOUNG BROS., Binkham, Ont. Erin Station, C. P. R.

COTSWOLDS.

Females of all ages; also this season's crop of ram lambs; all from imported stock; extra well covered.

John I. Balsdon, BALSAM, ONT.

SNELGROVE 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 weeks old. Ram lambs and ewe lambs. Write for prices and particulars.

SNELL & LYONS, Snelgrove, Ont.

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 supplied not akin.

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

Large English Berkshires.

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

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

YORKSHIRES AND BERKSHIRES.

Yorkshire boars fit for service and sows ready to breed; extra quality. Berkshire boars fit for service and sows ready to breed; boars and sows 3 months old, large size, extra quality. Satisfaction guaranteed. Write for prices.

JAS. A. RUSSELL, Precious Corners, Ont.

PINE GROVE FARM HERD OF LARGE YORKSHIRES.

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

JOSEPH FEATHERSTON, Streetsville, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

Good Words

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 praise of

The ABERDEEN

(FOR COAL AND WOOD).

The VICTORIAN

(FOR WOOD ONLY).

It emphasizes the strong points in an honest and concise way—the unsolicited testimony of people who have tested the merits of these excellent ranges. Drop a card for a copy.

The

Copp Bros. Co., Ltd.

HAMILTON.

BRANCHES: TORONTO AND WINDSOR.

OAK LODGE HERD OF 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, sweepstakes 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 Computer 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.

J. E. BRETHOUR, BURFORD, ONT.

W. R. BOWMAN, MT. FOREST, ONT.

YORKSHIRE BOARS, 200 Lbs., \$15.00. YORKSHIRE SOWS, IN FARROW, 12.00. SIX-WEEKS PIGS, 5.00.

These are all of the most approved strains, being good growers and easy feeders.

SHEEP AND SUFFOLK shearing rams and ram lambs, \$10 to \$15. One JERSEY COW, one YEARLING HEIFER and HEIFER CALF for \$100. Registered in the A. J. C. C.

I am offering for the month of October a grand lot of Imp. YORKSHIRE BOARS ready for service. Sows ready to breed, and fall pigs not akin.

Also LARGE ENGLISH BERKSHIRES and five choice SHORTHORN BULLS of the best breeding.

Write for prices. H. J. DAVIS, BOX 290, WOODSTOCK, ONT.

Improved Large White Yorkshires.

Good ones at a reasonable price. Also some splendid B. P. Rock Cockerels, well-bred, large and vigorous.

THOMAS BAIRD & SON, Chesterfield, Ont.

OXFORD HERD OF POLAND-CHINAS

The home of the winners

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

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

DUROC-JERSEY SWINE.

We have a fine lot

First-Class Stock

of all ages and either sex. Address, on

TAFE BROS., Ridgetown, Ont.

If You Are

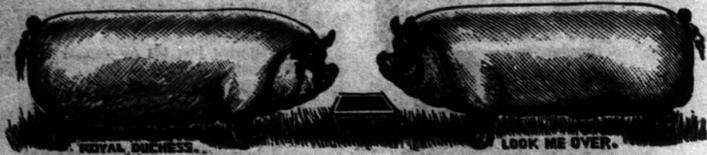
In Want of the following first-class registered stock, viz.:

Chester White boars fit for service, Shropshire ram or ewe lamb, or Dorset sheep, either sex, write for prices, etc., to

R. H. HARDING, Mapleview Farm, THORNDALE, ONT.

## Summer Hill Herd

HEADQUARTERS FOR THE IDEAL BACON HOG.



The largest herd of pedigreed Yorkshires of the large English type in Canada. Purity of breed size, and general excellence is my motto. One hundred awards with one hundred and five exhibits at 7 shows in 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. on **D. C. FLATT, MILLGROVE, ONT.**

### E. D. GEORGE,

PITNAM, ONT.

Importer and Breeder of

#### Ohio Improved Chester White Swine.

The largest and oldest established registered herd in Canada. I make this breed a speciality, and furnish a good pig at a fair price. Write for prices.

#### OHIO IMP. CHESTER WHITE PIGS

Boars and sows 5 to 7 months old. All from imported sires. Prices right. **T. E. BOWMAN, Berlin, Ont.**

#### IF YOU WANT Chester Whites

Write me for particulars. The imported sires, Willis 1293, and Nonsuch 910, at head of herd. **JOS. CAIRNS, Lambton County. CAMLACHIE P. O.**

#### BORNHOLM HERD IMP. CHESTER WHITES.

Stock for sale at all times, all ages. Nothing but first-class stock shipped. Inspection invited. Correspondence answered. **Daniel DeCourcy, Bornholm P. O., Ont.**

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Carries the blood of the most prolific, early-maturing families. I have bred to-day have animals in my breeding pens that should have been shown this fall. Young stock always on hand. Write me to-day. **HENRY HERRON, AVON, ONT.**

#### STRATFORD BROS., BRANTFORD.

Tamworth boars, Dorset rams, Shetland ponies, Light Brahmas, Houdans, Cornish Indian Game, Black Langshans, White Langshans, White Plymouth Rock, Buff Plymouth Rock, Barred Plymouth Rock. Prices right.

#### Spring Brook Herd of Tamworths.

Great opportunity for choice stock. A number of choice young pigs sired by British King, first prize Toronto Industrial, 1899, and also by Royal winner, Whiteacre Crystal. Pairs and trios not akin. Now is your time. Send for catalogue. Stock of all ages for sale. **A. O. HALLMAN, NEW DUNDEE, ONT.**

#### Chatham HERD OF Tamworths

2 two-year-old boars, 3 six-months-old boars, 10 six-months-old sows, 9 four-months-old boars, 11 four-months-old sows, 6 three-months-old sows. Four litters fit to wean October 1. Orders booked. Write for prices. **J. H. SIMONTON, Box 304, Chatham.**

#### Are You

Going to invest some money in TAMWORTH HOGS at present. If so, kindly write at once. Also mention my new Catalogue. **CHRIS. FAHNER, CREDITON, ONTARIO.**

#### Bargain Days in Tamworths and Yorkshires

For next 30 days we are going to sell our surplus stock of Tamworths and Yorkshires at very low prices to make room for young litters. They include half a dozen Tamworth Boars from 5 to 12 months old, most all prizewinners. Some grand sows. Also half a dozen Yorkshire Boars and Sows; all of excellent quality and breeding. Write us for prices and particulars at once. **COLWILL BROS., Newcastle, Ont.**

#### TAMWORTH BOARS

Fit for service. Young sows ready to breed. Fall pigs, in pairs not akin. Prices low, to reduce stock. **John Fulton, Jr., Brownsville, Ont.**

#### 25 Tamworth Boars and Sows.

Two months old, at \$6.00 each, with registered pedigrees, from exhibition stock; and Bronze turkeys. **D. J. GIBSON, Bowmanville, Ont.**

#### Mammoth Bronze Turkeys.

Also Shropshire Sheep and Chester White Swine. **W. E. WRIGHT, GLANWORTH, ONT.**

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It pays to get the best. We have them in L. and D. Brahmas, B. and W. Rocks, W. Wyandottes, Black Minorcas, and Indian Game, at \$1.25 per setting. **JACOB B. SNIDER, German Mills.**

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Offers great bargains in pigs and poultry this month. 20 breeding sows - right good ones. Poultry - Rocks, Wyandottes, Hamburgs, Pekin Ducks, Toulouse Geese and M. B. Turkeys. Write and get prices. **D. A. GRAHAM, PARKHILL, ONT.**

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NEURALGIA, GOUT, LUMBAGO,  
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Sole agent for the Dominion.

### GOSSIP.

**JAMES A. RUSSELL'S BERKSHIRES AND YORKSHIRES.**

While at the Bowmanville Fair, a member of the FARMER'S ADVOCATE staff fell in with that enterprising stock-breeder, Mr. Jas. A. Russell, whose farm lies north of Cobourg, at Precious Corners; and in looking over his exhibit we concluded Mr. R. had not been idle. In Berkshires, he informed us that he had some 20-odd animals on hand. The three brood sows are a combination of Snell, Green, and Tessdale breeding, and each trace their origin, sooner or later, direct to English breeding. Sally 15th 6763, by Prince Albert 5330, and out of Sally 5th, was farrowed September, '98. She is a smooth, good sow, with lots of length and quality, and due the middle of October to one of Geo. Green's show boars, Lady Oxford traces to Baron Lee 4th, through Hale and Gypsy, and is the kind you would expect from such a combination of blood. She was 3rd at Toronto in '98. Topsy traces through College-bred stock to imported Star One, and is also a good, young individual. We found an extra good stock boar in Mr. Russell's King Victor, by Prince Albert, and he should mate very satisfactorily with the present list of matrons. Two young boars by King Victor, and out of Topsy, and half a dozen out of Oxford Maid are ready for disposal.

Twenty-five head of Yorkshires, of the Haskett and Cinderella strains, compose the list, and those more familiar with Yorkshire pedigrees will recognize at once the value of Mr. Russell's foundation stock, especially when we state that he has lately added a sire from the pens of Mr. Philo L. Mills, the noted English breeder, and out of an English show sow. The first-named families have been largely responsible for placing the Large Whites in the prominence they now hold. Mr. Russell has won at six exhibitions this fall on his pigs, 18 first prizes, 8 seconds, and 6 thirds; also diploma for best herd of Yorkshires and best herd of Berkshires at Cobourg Central Exhibition.

### NOTICES.

The Beer War.—Biggar, Samuel & Co., of Toronto and Montreal, have issued a handy pamphlet giving a very complete account of the causes of the present Transvaal war, and its interest to Canadians, with a useful glossary of Cape Dutch and Kafir terms frequently used nowadays in the newspapers. It may be obtained for ten cents per copy.

Cheese and Butter Prices.—At the Western Ontario Cheese and Butter Makers' convention, to be held at Ingersoll, Ont., on January 31st and February 1st next, prizes are offered for exhibits of cheese and butter to the amount of \$150 in cash, besides several useful specialties. For particulars and entry forms write Mr. John Brodie, Mapleton, Ont.

Western Dairy School.—The attention of our readers is called to the announcement of the Western Dairy School at Strathroy, Ont., under the supervision of Mr. Arch. Smith, assisted by the following staff of instructors: C. O. Luton (cheese inspector and instructor for the Western Dairy Association), cheesemaking; Geo. R. Johnson, buttermaking and cream separators; with special lectures on bacteriology by Prof. Harrison, of the Ontario Agricultural College, and on agriculture in relation to dairying by Prof. G. E. Day, of the O. A. C. A. competent lady instructor in the home dairy department is yet to be named. The school will reopen on December 4th, and no effort will be spared to make it a success. All desirous of taking a good practical course in dairying and improving their methods either in cheese or butter making should write the superintendent at once for particulars.

New York Millionaires.—Only a few people reading advertisements of bankers and brokers, saying that money could be made through speculation, realize that the richest men in America have commenced life in a humble way and have made their fortune through stock-exchange speculations.

Men like Jay Gould, who worked as a dry goods clerk in a small town at \$10.00 a week up to his twentieth year, and commenced to operate with his small saving of \$200.00 in Wall Street, left at his death 70 millions of dollars; Russell Sage, who worked as a grocery boy at \$4.00 per week, and whose present wealth is estimated at 100 millions of dollars, is still operating the market, although 80 years of age; and so are thousands of others, who are enjoying all the luxuries life can offer, which is due to their success in speculations.

To the shrewd speculator the same opportunities are open to-day as to others in the past. The smallest lot which can be bought and sold is ten shares on 3% margin, making 30 dollars.  
Anybody interested as to how speculations are conducted, can get information and market letter free of charge upon application by letter to **GEORGE SKALLER & CO., Bankers & Brokers, Consolidated Stock Exchange Building, 60 Broadway, New York.**

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**BARN OF THOMAS HARTLEY, NEAR NORWICH, ONT.**  
 Size of Basement Walls, 50 feet x 68 feet x 9 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 SIR,—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 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 68 ft. x 9 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.**



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**NATIONAL**  
 Cream Separator  
 FOR USE IN FARM DAIRIES

THIS cut shows the "National" No. 1 Hand Power Cream Separator, manufactured by The Raymond Manufacturing Company (Limited), Guelph, Ont. Since the introduction of this machine, it has taken so well that we have not been able to supply the steadily increasing demand. It has proved a decided success from the start. We have consequently been obliged to increase our manufacturing capacity, and have put in a number of the most improved machines obtainable, by which we are now in a position to more than double our former output. No expense is spared to make the "National" a perfect machine, and we believe we have succeeded so far as to claim that it has no equal for:  
 1st. Glossiness of Skimming, and smooth, even condition in which it leaves the cream under all circumstances.  
 2nd. Easy Cleaning. It takes only about half the time that other Separators require, on account of the few pieces there are to handle.  
 3rd. Ease of Running. Its simplicity of construction, having so few bearings, and those being anti-friction ball bearings, makes it such an easy-running machine that a boy or girl from ten to twelve years of age can operate it.  
 A trial of the "National" is all that we ask in order to ensure a sale to an intending purchaser. The sale of this machine for the Province of Ontario is in the hands of

**THE CREAMERY  
 SUPPLY CO.,  
 GUELPH, ONT.**

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

**The Raymond Manufacturing Company of Guelph, Limited, Guelph, Ont.**

**PLEASE MENTION FARMER'S ADVOCATE.**

**GOSSIP.**

**SHROPSHIRE SHEEP FOR CANADA.**

On Monday last, Messrs. Alfred Mansell & Co. shipped per the SS. Montezuma, from Avonmouth, on account of Mr. W. S. Hawkshaw, 40 Shropshire ewes in lamb, and 2 Shropshire shearing rams, selected from the flocks of Mr. Alfred Tanner, Mr. Wm. Thomas, Mr. Cordes, and others. The ewes were all in lamb to sires of the highest breeding, including, amongst others, sheep which had taken high honors at some of the leading English shows.

**IMPORTANT SHIPMENT OF SCOTCH SHORTHORNS FOR CANADA.**

Messrs. Alfred Mansell & Co., live stock exporters, Shrewsbury, shipped by the SS. Kastalia, from Glasgow, on Saturday, the 21st October, 22 highly-bred Scotch Shorthorns, consisting of 3 young bulls and 19 young cows and heifers. Sixteen of these were shipped to Mr. W. C. Edwards, M. P., Hockland, Ont., and the remaining 6, which comprised some very beautiful Shorthorn heifers from Mr. Marr, were to strengthen the herd of Mr. John Miller, of Brougham, Ont. These cattle, we understand, are now in quarantine at Quebec.

**\$5,000 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 Kiches. He was calved in 1898, and was sold at the exhibition held at Palermo at the remarkable price of 15,700 dollars in Argentine currency, equal to \$21,234 in English currency, or \$8,000 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 \$700, and another, Pride of Fame, realized \$597. Another bull of Lord Caledon's breeding, Irish Bard, was subsequently sold at over \$200.

**G. A. BRODIE'S SHORTHORNS AT BETHESDA, ONTARIO.**

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 equipment, 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 twenty-five young bulls running together in luxuriant clover pastures. Upon looking over their 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 Sittyton 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 of May by Vengarth, Strawberry, Isabella (imp.), and Duchess (of high-price fame in by-gone years), all of which have proven themselves matrons of high order. Among the bunch sold to Mr. W. J. Flax, 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 30698, 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 18434 (a 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 him for any pure-bred herd on earth. When the well-known breeding and productive qualities of the Isabella 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 (imp.) and Sittyton Stamp's sons. Watch Mr. Brodie's offerings.

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**Western Dairy School,**  
STRATHROY, ONT.  
School will reopen for Factory Courses, Jan. 4th to March 31st. Special Creamery Course, Dec. 4th to 22nd. Instructors: Chas. O. Luton, cheesemaking; G. R. Johnson, separators and buttermaking; Arch. Smith, milk-testing and home dairy. The best of attention will be given to makers and others who want instruction. Send at once for circular and forms of application to  
**ARCH'D SMITH,**  
Superintendent Dairy School,  
Strathroy, Ont.

**GOSSIP.**

The catalogue has been received of the offering of registered Ayrshire bulls, and Tamworth, Yorkshire, Berkshire, Chester White, Duroc-Jersey, and Poland-China hogs, all bred in all, property of R. Reid & Co., and J. G. Clark, to be sold by auction at Maple Cliff Farm, Hintonburg, a suburb of the City of Ottawa, on Tuesday, November 28th, as per advertisement in this paper. The pedigrees of the stock catalogued are good, and from a personal inspection we can say that the animals are as good as their pedigrees. As the farms are overstocked, the sale will be unserved, and as all will be sold to the highest bidder, this should be a good opportunity to secure pure-bred stock at your own price.

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 be 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."

**SAMUEL DUNLOP'S SHORTHORNS, NEAR COLDWATER.**  
Among the new advertisements of Shorthorn cattle may be noticed that of Mr. Samuel Dunlop, at Eady, Ontario, near Coldwater. Mr. Dunlop has been breeding Shorthorns for a number of years, and selected as his foundation the fine roan cow, Beaverton Daisy, from the herd of Mr. John Kennedy, and from her raised a lot of useful, good-doing animals, with a lot of quality and extreme uniformity. Mr. Dunlop has given much attention to the selection of his sires, and at present is employing War Eagle, a son of Warfare, and out of Zorra 21st, a beautiful, even, thick-fleshed roan, selected from the herd of E. Jeffs & Sons, Bondhead, and from his individual quality and strength of pedigree, he can scarcely fail to make a favorable impression bred to the daughters and granddaughters of Greenmount Tom and Westmoreland, which he follows, the former having a strong dash of Strathallan blood in his veins. Mr. Dunlop is offering a few fresh young females and bulls, which are desirable property, and parties in search of such will do well to watch his offerings.

**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 1908, owned by Mr. K. B. Ayres, 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 Rockateller, of Ohio, took Babe of Alamo, a 3-year-old cow owned by John Sparks, Fort Worth, Texas, a yearling bull from the herd of Thomas Clark, sold for \$1,400 to H. J. Fluck, Goodnow, 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 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 Theresa, 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 first 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 Van 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 sweetstake over all heifers under two years old, by another set of judges.

**THE ELWOOD FENCES**

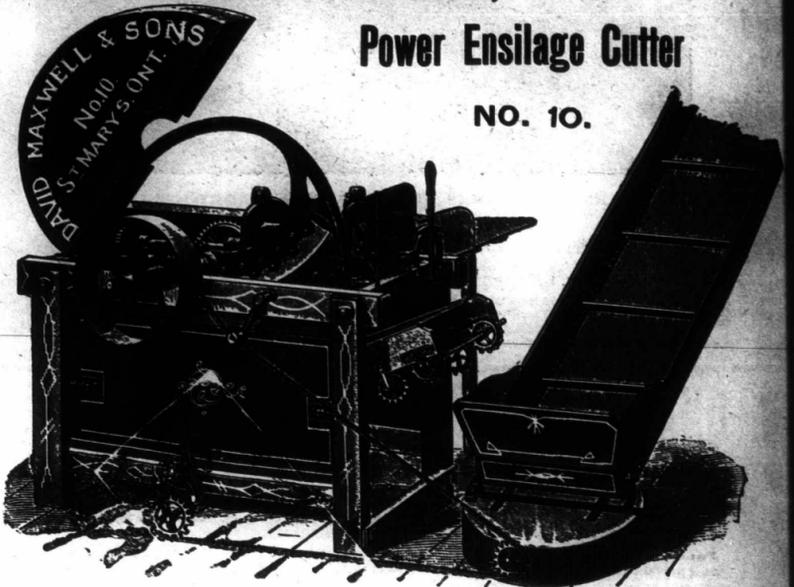
are the Standard Woven Wire Fences of the World. Standard in quality of spring steel wire, standard in heavy galvanizing, standard in efficiency, durability and economy. Standard for every fencing purpose, for horses, cattle, hogs, pigs, sheep, poultry and rabbits. **STANDARD OF ECONOMY**—More of our 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 town write to

**AMERICAN STEEL & WIRE CO., Chicago or New York.**

**DAVID MAXWELL & SONS, ST. MARY'S, ONTARIO.**

**Power Ensilage Cutter**

NO. 10.



The most modern—from new and improved patterns. Durable, Powerful, and Efficient. Send for Catalogue with full description.



**Root Pulpers Slicers.**

4 DIFFERENT STYLES. Improved Roller Bearings. Power or Hand Machines. Pulping or Slicing Cylinders. ALL MODERN IMPROVEMENTS WILL BE FOUND ON THE

**Maxwell Machines.**

SEND FOR CATALOGUE WITH FULL DESCRIPTIONS.

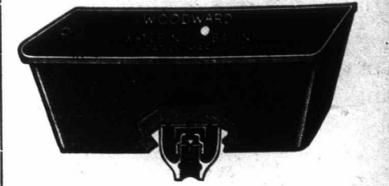
**EPPS'S COCOA**

GRATEFUL COMFORTING Distinguished everywhere for Delicacy of Flavour Superior Quality, and Highly Nutritive Properties. Specially grateful and comforting to the nervous and dyspeptic. Sold only in 1-lb. tins, labelled **JAMES EPPS & CO., Ltd.** Homoeopathic Chemists, London, England.

**EPPS'S COCOA**

IT PAYS TO ADVERTISE IN THE **FARMER'S ADVOCATE**

**Improved Method of 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.

# COCKSHUTT makes . . . Pulpers and Slicers

That have no equal. Side wheel or cylinder.  
Write for particulars, and ask your dealer for  
Cockshutt-made Goods. They are the best.

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Limited,  
Brantford, Canada.

**The Jones Umbrella "Roof"**

Put on in  
One minute.  
No Sewing

Fits any  
Frame.



\$1.00  
for a new  
UNION  
TWILLED  
SILK  
Adjustable Roof

**COVER YOUR OWN UMBRELLA**

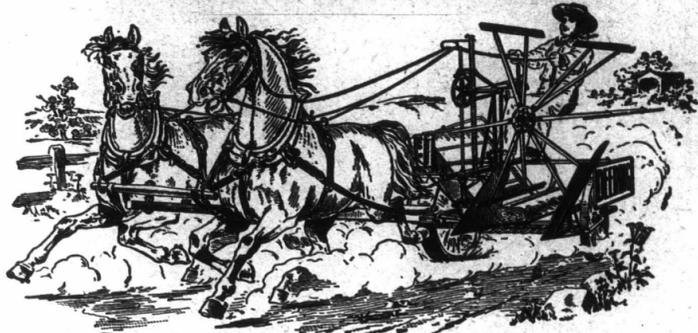
Don't throw away your old one—make it new for \$1.00. Re-covering only takes one minute. No sewing. A clumsy man can do it as well as a clever woman.

**TEN DAYS' FREE TRIAL.** Send us \$1 and we will mail you, prepaid, a Union Twilled Silk, 26-inch "Adjustable 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 glad that you know about

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**MACHINES**  
That Made America FAMOUS.



The DEERING IDEAL BINDER is the Binder that all competitors try to imitate. There is none just like it, nor any as good as the DEERING IDEAL.  
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PERMANENT BRANCH HOUSES:  
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Pat'd Sept. 6, 1894.

- Points of Merit:**
1. To change from pulping to slicing is but the work of a moment.
  2. There are two separate wheels, one for pulping and the other for slicing.
  3. The united force of both wheels is always used in doing the work in either capacity.
  4. The hopper is between the wheels, and does not choke.

The only Double Root Cutter Manufactured.

Fitted with ROLLER BEARINGS, STEEL SHAFTING and all that is latest and best in principle, material and construction.

**TOLTON BROS., - GUELPH.**

## GOVERNMENT ANALYSIS

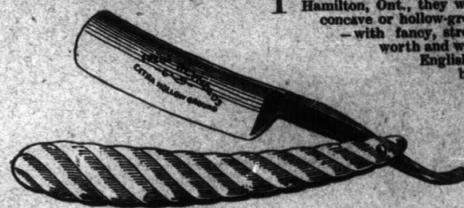
LABORATORY OF INLAND REVENUE,  
OFFICE OF OFFICIAL ANALYST,  
Montreal, April 8, 1896.

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

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

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

## "THE RAZOR THAT HAS MADE US FAMOUS"



IF YOU SEND ONE DOLLAR (\$1) to Stanley Mills & Co., of Hamilton, Ont., they will at once mail you a first-quality concave or hollow-ground RAZOR—a magnificent Razor—with fancy, strong celluloid handle; a Razor that is worth and was made to sell for \$3.00. It is an English-made Razor, ground in Germany by the finest cutters in the world. No better Razor can be made. Our price is only \$1.00 each, prepaid to any Canadian address. When ordering, say if you want round point or square point.

Letter Order Department,  
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## 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 ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good ask your merchant to let you take them both home, and try them and keep the one you like best.

Silver steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the "Razor Steel" brand.

It does not pay to buy a Saw for one dollar less, and lose 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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**SHURLY & DIETRICH,  
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**THE LOSS OF AN EYE**—terrible calamity. The tip of a horn often does it in tying up cattle. Cut off humanely with the **Keystone DEHORNING Knife** sides, no crushing or tearing. Highest Award World's Fair. FULLY GUARANTEED. Write at once for descriptive circulars, prices, etc.  
**KEYSTONE DEHORNING CO., PICTON, ONT.**

**FAMILY KNITTER!**  
Will do all knitting required in a family, homespun or factory yarn. **SIMPLEST KNITTER ON THE MARKET.**  
We guarantee every machine to do good work. Agents wanted. Write for particulars.  
PRICE, \$5.00.  
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The undersigned is prepared to conduct pure-bred auction sales. 20 years' experience. References: John I. Hobson and Alfred Stone, Guelph; Jas. Hunter, Alma, and Mosson Boyd, Bobcaygeon. Theo. Ingram, Care Mercury Office, Guelph, Ont.

**ROGERS' "PEERLESS" MACHINE**



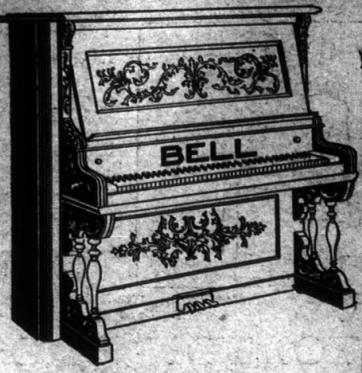
Is a genuine good article. Ontario farmers have used it 20 years, and it has won 12 gold medals, and it bears a reputation gained by patient care in having it right. It lightens the engine's load. Hardware stores all sell it. Made only by the  
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# Bell Piano

And there is no better to be had.

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## Hilborn Wood Furnaces

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

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