

J. G. Rutherford, V.S.  
in Dec. 20, 01

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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Vol. XXXVI.      WINNIPEG.      JUNE 5, 1901.      MANITOBA.      No. 527

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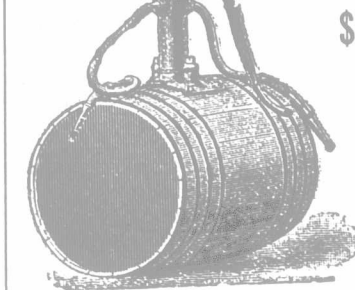
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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

PERSEVERE AND SUCCEED  
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Vol. XXXVI.

WINNIPEG, MANITOBA, JUNE 5, 1901.

No. 527

## The Summer-fallow.

The summer-fallow occupies an important place in our system of cultivation, and under existing conditions, where large areas are worked with a minimum of manual labor, there is probably no other system that can as readily be utilized on a large scale for ridding the land of foul weeds and conserving soil moisture. There are many, however, who annually summer-fallow a portion of their land, but who do so in such a way that only a small proportion of the possible advantages are obtained. In fact, one frequently sees what was intended for a fallow producing more weeds and in worse condition generally than if it had been under crop.

No set rules regarding summer-fallowing are applicable to all soils and districts, except that there should never be more undertaken than can be thoroughly worked. On heavy soils where the land is level there is the danger of rains coming just when the weeds are ready for the harrow, and it then frequently happens that before the land is dry enough to work, the weeds have made such headway that nothing but the plow will have any effect upon them, and on light soils there is the opposite danger that continued dry weather, with heavy winds, may cause serious drifting if the land is cultivated after plowing. In undertaking a summer-fallow, one should have more in mind than merely increasing the crop area. The two most important objects will be the conservation of soil moisture and the eradication of weeds. These go together, and treatment for the one assists in the other. Weed seeds will not germinate without moisture, and in cultivating for the conservation of moisture, germination is encouraged, and then the weeds are killed when they are most easily destroyed. These objects can be obtained by using certain crops, as well as by the bare fallow, but, of course, more labor is necessary, and in order to utilize the crops, stock of some kind must be kept.

In some districts, where the rainfall is fairly liberal and the soil strong, much better results are obtained from growing barley as a cleaning crop than from bare fallow. Barley can be sown late, thus allowing for the destruction of several crops of weeds before seeding, and as it matures quickly or can be cut for green feed, it can be harvested before most weeds can ripen seed. Seeding the fallow in July, with a half bushel of oats or wheat per acre, serves to furnish a good succulent bite for stock during the fall months when prairie pastures are dried up, and the stock in pasturing off the crop firm it down and leave the land in fine shape for wheat. Some objection may be taken to oats for above purpose, for there is danger of some not germinating till the following spring, when they become mixed with the wheat. None of the above crops, however, quite serve the purpose of the fallow, and would not suit every kind of land. Another plan adopted by some with satisfaction is to sow rape or corn along in July, sowing two pounds of the former and half bushel of the latter per acre, in rows about thirty inches apart, with the shoe drill. This land can be cultivated frequently with the weeder until the rape or corn is a foot or so high, and thus weeds are eradicated and moisture conserved, and such crops make excellent succulent fall pasture. The rape would probably be least spoiled by frost and would contain more nutriment. Rape may be cut and piled and left frozen, to be hauled in and thawed out immediately before feeding.

The summer-fallow should be plowed as soon as seeding is finished or before weeds have advanced far enough to mature seed. One deep, thorough plowing is preferable to two plowings, as the second is apt to leave the ground loose and to bring seeds to the surface too late in the season to get them all germinated and killed. If a hard pan has formed, repeated plowings at the same depth, or if it is desirable to bring up a little subsoil, the summer-

fallow plowing is the time to do it. On light, porous soils, a subsoil packer used immediately after the plow serves to firm the lower portion of the furrow and assist in conserving moisture. If the packer is not required, or the cost of one not warranted, then the harrow should follow the plow without any loss of time, to retain soil moisture. Surface cultivation with harrow, weeder or cultivator should be followed up at frequent intervals as late in the season as necessary to insure that no weeds mature seeds and that biennials and perennials are properly kept in check. Where thistles or deep-rooted perennials are numerous, harrows—even disk harrows—are seldom much good, and the duck-foot cultivator or even the gang plow must be used. Such plants are, through their leaves, enabled to store up food in their roots to produce plants and seeds the following year, and only by keeping leaves from forming are the roots starved and killed.

On light soils, and even on some rich loams, frequent surface cultivation is prohibited on account of liability to drift. The fact that a soil drifts is evidence that it is lacking in root-fiber or humus, to supply which seeding down to grass is the readiest way. Humus (or decaying vegetable matter) may be compared to a sponge, ready to take up moisture and to retain it. Land without humus is in bad mechanical condition and should be treated to a grass rotation or a dressing of manure.

## Farm Siftings.

Too many of the agricultural societies who hold summer fairs have endeavored to keep up with the pace set by the larger fairs in the matter of attractions! Owing to lack of money, the small fry can never hope to go in for the spectacular, but may do just as useful work in a small way as their more opulent brethren. The buttermaking and live-stock judging competitions of Winnipeg and Brandon are worthy of emulation, and should be patronized largely by the young people. The feeling that one has no scope or cannot obtain fame has doubtless had something to do with the exodus from the farm. These competitions are your opportunities, young people of the farm, so don't let them elude your grasp!

When we were younger and studied history, the curfew was brought before us as a sort of despotism. The modern application of the curfew, namely, the getting of the children off the streets of the towns and cities at night, is a good one and might well be more generally adopted. Children who run the streets at night rarely make leading citizens; they are on the street when they should be in bed. Youth is the period of brain development, the time to lay the foundation of character, something impossible to do with the young nightly-frequenter of the boulevard. The young chit of sixteen becomes the lazy, loudly-dressed and immodest woman, while the boy becomes the cigarette fiend, the liar, gambler or worse, from the freedom of the street. We often here the expression "The man in the street," never "The child in the street." The place for the young people in the evening is in the home, so ring the curfew bell and send the children home.

The term, thoroughbred, is often used by stockmen in connection with cattle, sheep, swine, poultry, and dogs. Such use of the term is incorrect. A Thoroughbred is a running horse. Pure-bred is the term to apply to pedigreed stock, whether horses, cattle, sheep, swine, or poultry.

The year-old colt resembles his sire and promises to make a good horse when he matures. Do not save him from the surgeon's castrating knife unless he is both pedigreed and a good one. Careful selection and relentless culling will aid in keeping the stock up to the high-water mark. The same will apply to the ram lamb, the bull calf or the boar pig. Never allow any male animal to procreate his kind unless he is well bred and a good individual. Neglect of these precautions means certain loss.

The season of raspberries and cream, and other small fruits, will soon be here. The investment in a couple of dozen bushes will be a good one. If you have none, plant this summer!

Lay out your garden so that you can cultivate with a horse. *The man with the hoe* is hard to find in the Manitoba farm garden.

Why not name your farm? Surely there is something about your place of abode which makes it different from that of your neighbor. Name the homestead and live up to the name. In the stock-breeding world we hear of Oak Lodge, Belvoir, Maple Hill, and other appropriate and distinctive names. Among the more esthetic agriculturists we hear of The Elms, The Maples, Brookside, and others. Try and stand out from your worldly surroundings. It pays to advertise!

In spite of the rush for the mighty dollar or the bushel of wheat, there are people who believe in making life pleasant by the improvement of one's surroundings. The Reeve of Blanchard is a public-spirited man, and in order to develop a taste for beauty, neatness and cleanliness, has donated money for competition among the schools of his municipality. Carnegie's mammoth donations for free libraries are no more worthy of mention than the above is. The schools of this district will no doubt plant trees, keep their yards clean, and thus render the schoolhouse and its grounds a place of delight to the pupils. The healthy rivalry engendered will spread, and the little homes of learning will be as oases in the desert.

A similar competition for the best-managed farm, taking into consideration the house, buildings, garden, groves, etc., might well be set on foot by one or two of our largest agricultural fairs. The expense need not be very large; the competitors could furnish photos of the homestead, which, together with the report of the inspector, would aid the judging committee in arriving at safe and satisfactory conclusions. INTER PRIMOS.

## The Farm Cellar.

The farmhouse cellar is an important factor in the management of the farm. A poor cellar hastens the deterioration of the farm produce that may be stored in it for preservation during the winter. If any improvements are to be made in it, now is the time when they must be considered, as they should certainly be made during summer time and when the soil water is below the bottom of the cellar. If a cellar is to be valuable, dampness must be eliminated. There is no doubt that a cement floor is a desideratum in most cellars. The exceptions are the cellars where the natural texture and lay of the land are such that the bottom of the cellar is perfectly dry. Such cases are not, however, numerous in the prairie states where the ground is level. Generally the moisture in the ground works sideways enough to get under the cellar and then works upward.

Two results come from this: The cellar gets wet in spots, and in rainy weather even pools form in the low places; the walls have their support softened and settle enough to cause cracks to appear in the ceilings and around the chimneys. The moisture once present, is with difficulty removed, no matter how much the windows and doors are opened. This condition of affairs in the fall causes considerable loss. The fruit and vegetables are put into the cellar, and should be kept cool. To do this the doors and windows should be opened during a part of the night, to let in the cool air, and should be closed during the day, to prevent the cool air being displaced by the warm air. But in the numerous damp or wet cellars this is not possible. The doors and windows must be kept open during the day to assist in drying out the water that has soaked in during the time of the fall rains. This, of course, renders the cellar of very little value during the whole autumnal season. Just when the farm products should be kept cool they are repeatedly exposed to conditions of heat and moisture that start the life principles into activity. Not only so, but in the fruits and vegetables the molds and germs that make rot multiply and begin their destructive work.

It is therefore manifestly to the interest of the farmer to have a dry cellar and one that can be kept cool in the manner indicated. The first principle is to have a cellar that will not have to be kept open to insure freedom from moisture. A small sum of money spent in improving the cellar is sure to be a paying investment, to say nothing of the improvement in the sanitary conditions of the farm home. *Farmers' Review.*

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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TWO DISTINCT PUBLICATIONS—EASTERN AND WESTERN.

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THE WILLIAM WELD COMPANY (LIMITED),  
WINNIPEG, MANITOBA.

### The Breeding of Good Stockers.

At the present time Manitoba stockers, or feeders, as they are named by our American cousins, seem to hold a good position in the estimation of the Western cattleman, for reasons which were mentioned in our last issue. The stocker industry is, we believe, a profitable one for our farmers, and while apparently easy to engage in, it behooves the Manitoba farmer to look well after this industry. Forward is the watchword in every line of work nowadays, to which the cattle business is no exception. Therefore, the methods used by the farmer must be up-to-date if he wishes to make all the money possible for his work. The Western buyer is only just beginning to discriminate between the classes or types of stockers, a movement which is bound to grow, and the only way to be prepared to meet such discrimination is, first, by the use of first-class pure-bred bulls of the beef type, bulls with wide, deep chests, wide backs and loins, well covered with flesh, square-rumped fellows meated to the hocks, with deep twist, and a mellow, loose hide; second, by wintering the calves well; and third, by castrating the calves at as early an age as possible. Cattle-buyers state that they will pay \$5.00 a head less next spring for uncastrated males than they will pay for steers, as the loss from castration at the later date is too heavy.

### Judges for Brandon Fair.

Brandon Fair directors have chosen the following to act as judges in the various classes:  
Horses.—Robt. Beith, Bowmanville, Ont.  
Cattle.—Jas. Snell, Clinton, Ont.  
Sheep and Swine.—Jno. McIvor, Carievale.  
Poultry.—Sharp Butterfield, London, Ont.  
Agriculture.—Henry Pugh, Manitou.  
Agricultural Products.—G. V. Hastings, Winnipeg.  
Ladies' Work.—Miss Maycock, Winnipeg.  
The Dominion exhibit will be housed in a new building, the contract for which has been let.

### Irrigation in South Alberta.

BY J. M'CAIG.

It is undoubtedly the case that the greater part of what constitutes modern civilization is due less to favorable natural conditions than it is to the improvement wrought on natural conditions by the ingenuity and industry of man. The *laissez faire* system is bad for nations and individuals alike. The men who trust to the beneficence of nature to provide for them, and the nations that fail to improve on and skilfully manipulate their resources, will find themselves alike shouldered back into insignificance and obscurity. Rewards fall to the industries and occupations that embody and illustrate the greatest skill and the greatest art; mere subsistence returns are the lot of those who are content to follow commonplace and routine lives.

In connection with the business of agriculture, it is rather remarkable that the pioneer West should show a susceptibility to the need of improving on natural conditions above what is shown in the east. This is manifest with respect to the practice of irrigation of arid or semi-arid lands. It may be pertinently remarked that the conditions are not the same or similar: that a precipitation of twenty-eight or thirty inches in the east, as against ten or eleven inches in the west, puts lands in these opposite ends of the Dominion in two totally different classes. This is, on the whole, true. On the other hand, it is certainly the case that in some seasons a crop may be reduced by drought to one quarter of its value, when relief could occasionally be given by the diversion of a small stream.

A very fortunate conjunction of circumstances has given irrigation a strong impulse in Southern Alberta. In the first place, the surface configuration is such that the irrigating of considerable areas of fine lands is a comparatively easy proposition. Secondly, the tide of immigration that has set in Canadawards with the rapid appropriation of United States free-grant lands has turned into our country a class of settlers from Utah and other States, many of whom are thoroughly conversant with the management of irrigable lands and thoroughly imbued with the idea of the advantages and certainty of a good system of irrigation.

It must be conceded that, apart from the scarcity of rain, Southern Alberta is one of the most favored regions of the Dominion of Canada. There is probably no better ranching country in the world. The soil is a rich alluvial, fertile sandy loam or clay loam, such as might be looked for at the base of the great continental ridge. With only a third of the moisture that the eastern Provinces have, this beautiful prairie region is covered with grasses in such luxuriance and variety as make it a rancher's paradise. With regard to climate, likewise, it is no less fortunate. Contrary to what might be expected of any part of the great interior continental area cut off from the ameliorating influences of the warm, moist Pacific winds by the Rocky Mountains, the climate is not extreme, nor at any time severe in winter. It is swept and warmed by a part of the south-west equatorial wind called the chinook, which blows the ranges clear of any light, dry snowfall that does come, or by its warmth causes the snow to totally disappear, so that grazing is not interrupted at any time. As this wind is almost a constant wind, the climate in winter is kept almost continually balmy. The occasional low dipping of the mercury that sometimes occurs brings little inconvenience, for the climate is always dry and changes are not, consequently, felt. It is slight wonder that homesteading of Government lands has gone on at a phenomenally rapid rate, which means, of course, that the time is fast approaching when each rancher will have more neighbors than are compatible with continued large profits in the future, for a rancher's profit is measured chiefly by the scarcity of his neighbors. The inevitable future for him is to become a farmer instead of a rancher. To do this he has to overcome the natural scarcity of moisture and become his own rainmaker. Irrigation is still young in the West, but it is very rapid, and within the last couple of years a couple of hundred miles of irrigation canals have been dug in Alberta, and an area of between five hundred thousand and a million acres have been thus made available for intensive agriculture, with large possibilities for additional ramification and extension.

The advantages of irrigation, even over the precipitation of moisture in sufficient quantity by rain or snow, are evident, and amount practically to an insurance of the crop. By it one is prevented from both oversupply and undersupply. Even where rainfall is sufficient, it frequently does not come at the right time. A crop of grain may do well for a couple of months at the beginning of the season and afterwards be ruined by three weeks of continuous drought. Again, an extra wet spring may delay planting or sowing, or may cause the rotting of seed in the ground. Where the supply of moisture is under the farmer's control, he can have just what he wants and at such times as he judges it will be best to apply it. In addition to making possible the regulation of the water supply, irrigation provides constant fertilization by means of the alluvial matter carried in suspension in the waters. The vigor of the soil is thus constantly and periodically renewed. This explains the apparently inexhaustible character of lands in Colorado and other irrigation States of the American Union, where wheat crop after wheat crop is taken from the soil without any measures for renewal or rest of the soil being necessary. The alluvial plains of the lower Mississippi and of the Nile Valley illustrate the operation of the same processes. On the whole, irrigation

stands for the certainty of methods approaching scientific and within the control of man, against the uncertain and spasmodic bounty of nature, with respect to an essential in the growing of all crops, viz., moisture. The experience of Manitoba during the past season's drought is an eloquent argument in favor of having the water supply under the control of the agriculturist, as the drought in that Province meant the loss of the greater part of the wheat crop.

The methods by which irrigation is secured are two. One is the flooding method, the other is the furrow method. By the former, water is carried by a lateral or side ditch from the main canal to the highest point of a farm, and is taken from this ditch by other furrows, from which it floods the crops to be benefited by it. The furrow method is employed for roots and vegetables principally, the water being turned into the furrows between the rows and allowed to settle to each side to the roots of the crops. For the successful operation of any system of irrigation, it must be understood that the land to be irrigated presents only slight irregularities or variations of surface, as is the case with the prairie land irrigated in the district of Alberta, and, of course, generally speaking, only the land on one side of the canal can be irrigated, as the canal cannot be carried along the crest of a ridge, but is led along the side of a gradual slope or dip.

The most ambitious and complete irrigation undertaking in the Northwest Territories is, perhaps, the Galt canal. It is named after Mr. E. T. Galt, the president of the Alberta Railway & Coal Co., with headquarters at Lethbridge. Mr. Galt is likewise president of the Canadian Northwest Irrigation Co., whose work is referred to above. The topographical feature of South Alberta on which the canal is constructed is a general fall from the point where the Rockies cross the Montana boundary towards the north-east, in the general direction of the slope of the Nelson or Saskatchewan River system. The fall between the intake and the town of Lethbridge is about one thousand feet. Lethbridge, the present terminus of the system, is about fifty miles north of the United States boundary, but, as the canal crosses the country diagonally, the length of it is nearly seventy miles. Twenty miles south of Lethbridge, near the new town of Magrath, a branch of the system turns easterly to Stirling, a new town on the railway connecting Lethbridge with Great Falls. Both these towns are settled principally by Mormons, who have displayed a commendable thrift and energy in establishing and improving their new homes and farms. Last year beautiful grain and root crops were produced in the neighborhood of both these towns. The water of the canal is drawn from the upper part of the St. Mary's River, a stream abundantly fed by the snows of the Rockies, and entering Canada from Montana. This river flows north-east to join the Belly River, of which it is a tributary, a few miles from Lethbridge. The irrigation canal runs in a direction parallel with the river, and at some distance from the left bank of the river. The water is thus diverted and trained, so to speak, along the upper elevations of the left basin of the river, so that from these elevations the water is utilized to irrigate the lands below the ditch in elevation and between it and the river itself. At Lethbridge the water is returned to the Belly River, dropping into it from the bench country, which is three hundred feet above the bottom of the gorge through which the Belly River runs at this point. The water of the St. Mary's, or part of it, is thus used, in a natural and easy way, to render richly productive for intensive agriculture large tracts lying adjacent to its artificial course. Along this course many natural channels are utilized to carry the water, but in many places flumes are constructed to carry the water across slight depressions. The chief irrigable lands, and the best and most fertile lands, lie about the town of Lethbridge. This town is an important mining center and is growing steadily, and everything indicates that it will become more important. It is a fine market for farm produce, while, on the other hand, the existence of good farming lands (now made productive) in its neighborhood will build it up and stimulate its industries by the cheapening of food products. It short, it possesses the complementary and necessary conditions for substantial and rapid growth by having valuable industries itself and the immediate prospect of cheaper food stuffs to support its industrial population.

The engaging in farm work on the ditch is not regarded as a doubtful experiment. Experienced irrigationists are taking up lands and breaking them with a buoyant confidence. The excellent soil and climate of the district have been waiting only for the water to give the district the highest attractiveness for the agriculturists. Men who have never yet worked on irrigable lands are not absent from the settlers on the ditch, and Ontario has given its contribution in skill and intelligence to the group of settlers rapidly taking up the lands. Houses, sheds and fences are being built, while breaking the virgin soil has been going on with a steadiness and energy this spring that show a strong confidence in the results. The rapid sale of lands lying close to the ditch has led to the extension of the system by the construction of lateral ditches from the main canal that will reach large tracts of land at considerable distance from the main canal. It is quite a popular plan to buy a quarter-section of land below the ditch—i. e., of land that can be for the most part irrigated—while larger tracts are bought on the upper side of the ditch that are cheaper, and that are grazing lands simply. In this

way the area devoted to cropping is cheaply supplemented by grazing land.

The opening up of these irrigated lands in the very heart of what is, perhaps, the finest ranching country in the world is making a fine opportunity for the fancier and breeder of pure-bred cattle and sheep. The principal market for Ontario bulls is the Northwest Territories. These bulls are reared on lands representing a value of from fifty to seventy dollars an acre, in a climate that requires expensive housing in winter time, and they can be sold at a satisfactory profit after paying the Canadian Pacific Railway one hundred and seventy five dollars a car, besides incurring considerable other expense in bringing them out. Range bulls are not satisfactory. It is Ontario bulls, or, at least, bulls of Ontario type, that are required. The North Alberta country is doing a profitable business in producing stock bulls. This country has a considerable fitness for producing such animals, as it gives opportunity for mixed farming, but it still has scarcely the moisture to make possible a high degree of succulent feeding, which is the necessary condition to producing the fastest-growing type of stock animal. Everything considered, there seems to be the highest inducement to the establishment of pure-bred herds for the rearing of good sires in the irrigable-land district. All kinds of roots and cereals with which sappy and rapid-growing animals are built up are a pronounced success. If this can be done on lands that can be had at ten dollars an acre, with no clearing to do, and without a heavy contribution to the railway companies, there should soon be plenty of good herds in our midst.

The same argument applies to sheep. The range sheep grow light with rustling for food over long distances, and with the competition for food that belongs to the grazing of sheep in bands of two or three thousand. This tendency to grow "too many legs," as it is sometimes expressed, has to be constantly counteracted by the use of sappy, meaty, good-sized eastern males. The demand for these is large and is constantly on the increase. If the same sheep can be produced here, he should be as profitable at half the price as he is when grown in the east and transported to this country at a high freight rate. Rams could be produced here that would have a semi-range character. This would give them a hardiness that would counteract the tendency to become reduced in energy and strength that result from putting a highly-nurtured eastern ram on the ranges in late fall, with an unlimited number of ewes to follow. The demand is already here; the conditions are such as to invite the breeder and fancier of the pure-bred stuff to follow his bent on the irrigable lands. Ranching and the breeding of pure-bred males of fine type are complementary phases of the live-stock industry of the country. Each is necessary for the successful pursuit of the other. To the confident and enterprising pioneer will fall the rewards.

The west illustrates a phenomenal development; but what has already been done is not a patch to what the next few years will see. A man does not need the eye of the prophet to foretell a flourishing future for this country. What has been done so far has been elementary and tentative. The rancher has been gathering up undisturbed the unshorn wealth of the boundless prairie. The simplicity of his business is going to be displaced, or, at least, supplemented, by the art and science of the thorough-going agriculturist. The climate, soil and other natural advantages of South Alberta, coupled with the best art of a susceptible and enterprising class of colonists, are going to make a garden of the West that the east dreams not of.

**Bogus Bidding Exposed.**

The *Guardian*, Charlottetown, P. E. I., in its issue of May 10th, reporting the proceedings of the Island Legislature, states that Mr. Mathieson asked the Commissioner of Agriculture if the Shorthorn bull recently purchased by the Government in Ontario was bought at auction. The Commissioner replied: "The animal was not purchased at auction, but was bought at private sale for \$350. He was afterwards offered at auction, to see the real value of the animal, and it was demonstrated beyond doubt that the animal is a valuable one, as the Government were offered \$25 more than was paid for it." Mr. Mathieson "wanted to know why the statement was made in the stock farm report that the bull was purchased at Ottawa at a sale. Why was the animal set up at auction? Was it for an honest purpose? As a matter of fact, there is no record that there was a valid bid."

This is the bull that was officially reported as having been sold at the Government sale at Ottawa on the 6th of March last for \$505. In the printed rules, or terms and conditions, governing the sale was the following: "There shall be no puffing or by-bidding by the owner of the animal or anyone authorized by him. Statutory declaration may be requested from any buyer or seller that any purchase or sale is bona fide, and that there has been no by-bidding or puffing in connection therewith." We presume this was not what the Minister of Agriculture was thinking about when, in his opening speech at the Guelph sale, he remarked that what was needed to make these sales a success was to establish confidence.

Deception never pays. It is sure to be found out sooner or later. Honesty is the best principle as well as the best policy.

**Milk for Cheese Factories.**

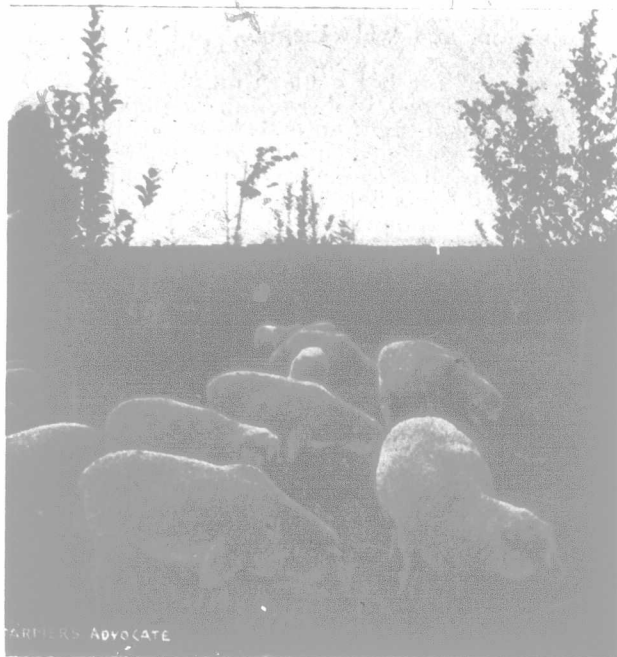
The patrons of a cheese factory have a direct financial interest in supplying only good pure milk, free from taints or bad flavors. The greatest amount of care and skill with which the cheesemaker may do his work will not enable him to make a superior quality of cheese, or to secure the largest yield of it, from milk which is not in good condition.

The above paragraph was taken by Mr. J. A. Ruddick, chief of the Dominion Dairy Division, as a text upon which a recently-issued bulletin was constructed. Mr. Ruddick, after returning from New Zealand, was engaged one cheese-shipping season, at Montreal, inspecting cheese going forward for export. During that period he discovered many defects in Canadian cheese, and, being an experienced cheesemaker, and possessing an investigating mind, he was able to locate the sources of many faults that, when they reach the British market, tend to injure our good name, and thus



"TOO MANY LEGS."

allow other strong competitors to step in and occupy our envied position. The bulletin referred to is written with a view to guide dairymen past some of the dangers in the way of producing good milk, without which it is impossible to make good cheese. First of all, it is pointed out that the factory manager is keenly interested in making first-class cheese, and in making as much of it as possible. He also, therefore, is anxious to receive as much as possible first-class milk, and does not refuse a patron's milk unless it is not in a condition to make good cheese. As a rule, patrons suppose that they do furnish good milk, but the factory manager is daily comparing many samples, and is better qualified than one less experienced to judge as to the suitability of milk for cheesemaking. Among the many sources of taints in milk, Mr. Ruddick refers to unsuitable food, injudicious feeding of the cows, impure water, want of salt, odors, and the infestation of germs that enter the milk during and after milking. Regarding food, it is mentioned that troubles from weed flavor are, as a rule, confined to limited districts, so that our cheese trade is



"THE SAPPY KIND."

not liable to be materially injured from that source. Turnips and rape should never be fed to milking cows, because the taints they impart cannot be eliminated by any process known to the cheesemaker's art. Some foods that might be considered first-class, when fed in excess will derange the digestive system of the cow, and thus cause the milk to be tainted. Such foods as green clover and green rye are examples of foods that give trouble in this way.

An impure water supply is a great source of trouble. When cows are compelled to drink the water of swamps, muddy ponds or sluggish streams and ditches, which may include their own droppings, there is a constant menace to health, and unless cows are in good health they cannot give first-rate milk. Moreover, the mud (often full of foul germs) which collects on the legs, flanks and udders of the cows, and falls into the milk at time of milking, is a direct source of infection which is

extremely serious and often overlooked. When cows have free access to salt at all times they will give more milk, which will have a better flavor and keep sweet longer, than when they do not get any at all or receive it only at intervals. The susceptibility of milk to absorb odors is referred to, and the necessity pointed out for removing it from the stable or milking-yard as soon as possible after milking.

The most treacherous, also the most common, sources of gassy or tainted milk are from germ life, and are associated with filth in some form or other. Stagnant pools, dust from barnyards and milking-yards are alive with bacteria more injurious to milk than much of the visible dirt taken out by the strainer. Improperly-cleaned milk pails, strainers, and cans, also neglected whey tanks, are great sources of infection. The practice of returning whey to the farms in the milk cans is detrimental to successful cheesemaking, but when it cannot be arranged to have the whey disposed of in some other way, the tanks should be emptied and thoroughly cleaned at least once a week.

Even with the greatest possible caution in caring for the herd, and also the milk, it is not possible to exclude from the milk all injurious bacteria, but the effects of these may be overcome by aeration and cooling. Aeration should be performed in a pure atmosphere, while the milk is warm from the cow, by exposing it in a thin film or spray, or by forcing air through it, or by dipping or pouring it from vessel to vessel. This allows the escape of odors, gas, etc., but does not prevent souring, except so far as the process lowers the temperature. In cool weather the cooling may be considerable, but in warm weather it is advisable to supplement the aeration by standing the milk cans in cold water or by the use of combined aerators and coolers. The bulletin recommends paying for milk on the basis of its quality, determined by its fat content, and reminds patrons that the addition of water, the subtraction of cream, or the withholding of strippings, are forbidden by the Dominion Statutes. The bulletin concludes with a summary of important points for the patron:

1. Only milk from cows in good health should be sent to the factory.
2. Milk from a freshly-calved cow should not be sent till after the eighth milking.
3. Pure water should be provided for the cows in unlimited quantities, and cows should be prohibited from drinking stagnant, impure water.
4. A box or trough, containing salt to which the cows have free access, should always be provided.
5. Cows should never be driven fast, and it pays to treat them with invariable kindness.
6. It pays to make cows comfortable under all conditions.
7. All the vessels used in the handling of milk should be thoroughly cleaned immediately after their use. A washing in tepid water to which a little soda has been added, and a subsequent scalding with boiling water, will prepare them for airing, that they may remain perfectly sweet. A brush is preferable to a dishcloth for use in cleaning. They should be protected from dust, which always carries large numbers of the bad forms of bacteria.
8. Cows should be milked with dry hands, and only after the udders have been washed or brushed clean.
9. Tin pails only should be used.
10. All milk should be strained immediately after it is drawn.
11. Milking should be done and milk should be kept only in a place where the surrounding air is pure. Otherwise the presence of the tainting germs and odors will injure the milk.
12. All milk should be aired immediately after it has been strained. That treatment is equally beneficial to the evening and morning messes of milk.
13. In warm weather all milk should be cooled to a temperature of 70 degrees Fahr. or lower.
14. Milk-stands should be constructed to shade the cans or vessels containing milk, as well as to protect them from rain. Swine should not be fed near the milk-stand.

**Army Remounts! Are You Ready?**

The following letter will draw attention to the Imperial Government's intention to purchase remounts in Canada. The dates given below will be sufficient guidance to owners.

To the Editor FARMER'S ADVOCATE:

DEAR SIR, Respecting the forthcoming visit of Lieutenant-Colonel Dent, the agent of the Imperial Government, for the purpose of purchasing remounts in the Territories for the War Office, I beg to state that, as far as can now be learnt, the following will be the approximate dates and places he will visit on his western trip: Winnipeg, about the 10th or 11th of June; Portage la Prairie, 12th; Brandon, 15th; Regina, 18th or 19th; Maple Creek, 21st; Medicine Hat, 22nd; Lethbridge, 24th; Macleod, 26th; Pincher Creek, 27th; High River, 29th; Okotoks, 1st July; Calgary, 2nd or 3rd; and a few points in the Province of British Columbia will then be visited.

Yours truly,  
CHAS. W. PETERSON,  
Secretary Territorial Horse Breeders' Association.

C. CRUIKSHANKS, Red Deer, Alta.:—"The ADVOCATE has become too welcome a visitor to be able to do without it. Wishing you the success you deserve."  
May 23rd, 1901.

**Large Farms and Their Management.**

THE HOPE FARM.

Farming on a large scale has not been a success in the West during the past few years, especially wheat farming, for which a number of causes are accountable. High wages for help, bad seasons, inefficient management and improper methods have all tended to couple the word failure with what used to be known as the *bonanza* farm. A marked exception from the above is to be found in the Hope Farm of Wm. Martin, located a few miles south and west of St. Jean Baptiste. The careful, businesslike supervision of the owner is strengthened by the efficient work of the manager, T. M. Campbell, and as a result matters move smoothly and methods are progressive on this 2,400-acre estate. A herd of first-class Galloways is kept (see Gossip), which has given this farm a name throughout the West. At the time of our visit seeding was in progress, 1,000 acres being seeded to wheat, 200 to oats, 100 acres to barley, and flax, 200 acres. Summer-fallowing will be done on only about 175 acres, a less acreage than usual. In this respect we find the management is strictly up-to-date, and prefers the grass method as being the more satisfactory and permanent way of conserving soil fertility; consequently, we were not surprised to find a half-section in grass (timothy), an additional half-section of native sod being used for pasture. The adoption of regular seeding down to grass leads up to a systematic rotation of crops, which will in future be followed on the Hope Farm. It is the intention to seed down a quarter-section annually, leaving it down for two years. It will then be broken up and cropped for three or four years and again seeded down. Mr. Campbell believes that this method will overcome the tendency of the land to blow away, one of the results of the continual working incidental to summer-fallowing. There is no question but that the filling of the land with roots means more humus, and consequently a lessened tendency to be blown away and a longer drought-resisting power. Other large farms can afford to take their cue from the Hope Farm in this matter. The summer-fallow is plowed twice, if time will allow, deeply about haying, and shallow after harvest. If the weeds get ahead of the plowing, they are mowed and burned and the land harrowed and disked in lieu of the second plowing. Land intended for crop is harrowed twice in the spring, ahead of the seeder and twice afterwards. A light harrow is used as a weed exterminator; a soil packer is also used on the farm. Manure made during the winter is hauled right from the stable and applied as a top-dressing to the grass land; that made in the summer is piled and used when desired. Eight binders are employed to cut the harvest, each drawn by three horses; for other work, eight four-horse teams are employed. The working hours on this farm are reasonable and in line with the most progressive methods. Breakfast is at 6 a. m., the men and teams leaving for the field at 6.30 a. m. Dinner is called at noon, one hour being allowed for the meal and siesta. Supper is at 6 p. m.; in harvest time at 6.30 p. m. A businesslike method is followed in the hiring of the men, more especially with a view to prevent them leaving in harvest and threshing time, when they might be allured by higher wages. Each man signs a contract for the summer period (7 or 8 months) at \$20 per month, \$5 additional per month being paid to those who complete their term of service. During the winter \$25 per month is paid, the men to board themselves. At the time of our visit 10 men were employed, and who boarded at the boarding-house. In addition to the herd of pure-breds, sheep-feeding is practised to a considerable extent during the winter, the screenings from the farm elevator being profitably utilized in this manner, with the addition of hay. Native hay is preferred to timothy for the sheep. Last winter 240 sheep were fed at a profit on the farm, self-feeders being used for the screenings. The esthetic side is not at all forgotten, several large tree plantations being seen on the farm. It is the intention this season to plant 10 acres with 500 birches and some 2,500 elms. Water is abundant on the farm, got from a deep and seemingly inexhaustible well, as also from a convenient coulee. This farm is a valuable object-lesson of the possibilities in the combination of cattle-breeding, grass-growing and wheat-raising.

**Summer Fair Dates.**

Edmonton Summer Fair	July 1 to 3
Calgary	July 10 to 13
Yorkton	July 10 to 11
Wawanest	July 18
Carberry	July 18 and 19
Virde	July 18 and 19
Portage la Prairie	July 23 to 25
Brandon	July 23 to 26
Carman	July 24 and 25
Winnipeg Industrial	July 29 to Aug. 3
Minnedosa	July 30
Oak River	Aug. 6
Neepawa	Aug. 6 and 7
Qu'Appelle	Aug. 7 and 8
Souris	Aug. 7 and 8
Central Assiniboia	Aug. 7 and 8
Moosomin	Aug. 9
Regina	Aug. 13 and 14
Emerson	Sept. 26 and 27
Hartney	Oct. 7

**Anthrax, and Vaccination for Blackleg or Quarter Ill.**

A couple of enquiries received recently, regarding the above diseases, suggest the propriety of some further reference to the subject in the FARMER'S ADVOCATE. Without dealing with the different types mentioned, anthrax and symptomatic anthrax or blackleg—both fatal in their character—it may be noted that they are among the oldest of cattle scourges, being communicated by germs. In discussing blackleg before the last annual meeting of the Kansas State Board of Agriculture, Dr. John R. Mohler, of the U. S. Bureau of Animal Industry, stated that the microbe usually gains entrance into the system through punctured wounds made by briars or stubble, and develops rapidly, causing the familiar dark hemorrhagic swellings, the animal usually dying in about twenty-four hours. The swollen parts contain millions of spores, which, if not destroyed, are scattered by dogs, wolves, buzzards and crows over great areas, becoming permanently located in the soil, where they retain their fatal properties for many years. The virus is most potent when received from a diseased animal still living or only recently dead. In passing, we might mention that a writer in the English *Live Stock Journal* cautioned stockmen against bleeding a beast dying of blackleg, as the fatal bacilli were thus liberated. Great care should be taken to prevent the escape of either blood or mucus upon the land. Dr. Mohler, in the address to which we have referred, recommended as the safest and most satisfactory disposal of the carcass to destroy it by fire, placing it on a few logs with faggots above, pouring over all a quart or so of coal oil, and then setting all ablaze. Owing to the difficulty of eradicating the germs from pasture, he recommends the protection of the animals in affected localities by vaccination, whereby the system is made immune. A minute amount of attenuated or artificially-weakened blackleg virus is injected into the system, usually on the shoulder or neck immediately in front of the shoulder, whereby a mild and clinically unrecognizable case of the disease is produced. The virus is obtained from animals that have died from blackleg, by cutting into strips parts of affected muscles and drying them in the air. When perfectly dry, these are pulverized, mixed with water to form a paste, smeared in a thin layer on flat dishes, placed in an oven and heated for six hours, at a temperature approaching that of boiling water. The paste becomes a hard crust, which is pulverized and sifted, and measured into packets containing from ten to twenty-five doses. This vaccine, as it is called, must be thoroughly tested so as to ensure its being neither too strong nor too weak.

In Kansas alone, some 67,250 head have been vaccinated, and the results have been most gratifying, the annual loss being reduced from ten head out of every hundred to only one head out of every hundred and ninety-four. The immunity from one vaccination usually lasts from one year to eighteen months. In Canada we have had the material furnished in the form of blackleg vaccine, for injection, and "blacklegine," in the form of an impregnated cord.

By way of further caution on the subject, Dr. Jas. Law mentioned, in discussing bacillar anthrax, that eating the flesh of animals killed while suffering has often conveyed the disease, despite cooking. Fifteen thousand of the inhabitants of San Domingo once perished in six weeks from this cause, and a whole family was once poisoned in Aberdeenshire, Scotland. The Tartars perish in great numbers from eating anthrax horses.

Prof. F. C. Harrison, Bacteriological Department of the Ontario Agricultural College, writes us as follows regarding the above subject:

"The two diseases—anthrax, or splenic fever, and symptomatic anthrax, or blackleg—are entirely distinct, being caused by different germs, giving rise to different symptoms and producing different pathological effects. A comparison may be drawn by brief reference to the following table, which summarizes the chief points of each:

	ANTHRAX.	SYMPTOMATIC ANTHRAX.
<i>Various names.</i>	Splenic fever, charbon.	Quarter evil, black quarter, blackleg. Called by the Germans, Rauschbrand, from Rauschen, to crackle.
<i>Causal agent.</i>	Bacillus anthracis.	Bacillus anthracis symptomatici.
	These germs are easily separated from one another, thus:	
	Oxygen necessary for growth.	Grows best in an atmosphere of hydrogen, or in absence of oxygen.
	Forms no gas.	Forms gas, hence the crackling noise under skin of affected animal.
	Non motile.	Actively motile.
<i>Lesions.</i>	Spleen enlarged, dark colored, and soft. Liver often with cloudy swelling. Capillaries filled with the organism.	Emphysematous swelling of muscular and subcutaneous tissues of the leg and quarter, accompanied by the formation of gases with strong odor. On section the muscles and tissue are saturated with bloody serum, and dark, almost black, in color.

"Hence, it will be seen that the two diseases, like the two organisms, are easily separated; in fact, it is much more difficult to separate symptomatic anthrax from malignant oedema than the former from anthrax."

**Some Creamery Problems.**

WHY FARMERS KICK.

So many creameries have not found favor in the eyes of the farmer or his wife that the reasons for such antipathy to an institution which should be one of the farmer's best and most profitable friends are worth finding out. We need not reiterate the advantages, etc., at this time of creamery buttermaking over farm dairying, but are impressed by the fact that the most likely cure for such antipathy is *education*. In the first place, the cows kept on the farm are not all money-makers—one-third may be paying a profit over feed, another third are possibly just meeting the cost of a maintenance ration, while the remainder are kept at a distinct loss. In this respect, the farmer must, to make money at dairying in any form, *breed, weed, and feed*. A bone of contention is the working of the oil-test or Babcock, whichever is used. One farmer gets a high test, his neighbors on either side get a low one, consequently the latter suspect the creameryman of crooked dealing. These suspicions are often groundless, the variations in the tests being due to the differences in the skimming methods, which might mean big differences in the per cent. of cream—e. g., one man may send in 17 per cent. cream the same number of inches as the man who sends in 40 per cent. cream, and wonders why he doesn't get as much butter. When a certain per cent. cream is spoken of, it refers to the percentage of butter-fat in that cream. Every one knows that, to use a common expression, there is thin (poor in butter-fat, comparatively) or thick (rich) cream. (We are speaking of sweet cream.) The difference is due to the fact that in the lower per cent. cream more milk is mixed with it than there is in the high-reading cream.

In many cases, we understand, the separators are set to skim so that the above-mentioned differences appear, thus accounting for the seeming discrepancy. The moral is: *Study your separator and watch the skim milk*. The sampling of the cream by the driver needs to be carefully done. A thorough stirring should be given before the sample is taken, so that the average of the cream is obtained. In any event, so long as farmers send sour cream to the creamery, they will have to depend on the honesty of the gatherer and the maker. The farmer who will take the trouble to send sweet cream and take samples for himself, testing those samples by the Babcock test, will have as good a check on the creamery operator as he has on the weighman of an elevator from the use of the weigh scales at his farm.

**Cheap Sires.**

The *National Stockman* has the following to say on the question of cheap sires, which is worthy of the earnest attention of our readers; in fact, those outside the fold.

"Unfortunately, the desire to get something for nothing is not confined to gamblers and swindlers. It is common to the whole of humanity, and it is costly in the end to a great many. Many would like to have the good and valuable things of this world if they could get them without money and without price, and too many will get them only on these terms. Here is where they lose, not only money, but other things more valuable. But in a business way this disposition to seek something for nothing is often disastrous. Many a man has thought he would like to improve his live stock—but he didn't want to pay much more than beef prices for a bull, or pork prices for a boar, or scrub prices for the service of a good stallion. Result, he drifted along in the old way, and raised stock that cost him every year or two years the sum he considered extravagant for a breeding animal. There are, of course, limits beyond which the man who buys a sire for the purpose of improving grade or common herds and flocks cannot go. But it is not necessary for him to go beyond reasonable price limits for this purpose. He can get the improving kind for their actual value nine times out of ten if he is willing to put up the money. On the other hand, there are limits below which no man can afford to buy stock for the purpose of improvement. The extremely cheap pure-bred sire is the costly one nine times out of ten. He is costly to the buyer, he is costly to the seller, and indirectly costly to all other sellers of pure-bred stock.

"The live stock of this country would average much higher in quality if there were fewer men who wanted low-priced breeding animals and fewer breeders who would sell the kind that is worth only a low price. Better for the buyer to pay a fair value for the better kind, and better far for the breeder if he sells only the kind that is worth a fair price."

J. D. BASKERVILLE, Dominion City, Man.:—"Enclosed please find \$1.00 for renewal to the FARMER'S ADVOCATE. I don't want to miss a number of the paper. Every man who tries to farm should not only take the ADVOCATE, but read it carefully."

**Cull Closely or Lose Money!**

The doctrine of live-stock improvement needs many, many more adherents and followers than it numbers at present, judged from the excerpt below, taken from the *N. B. Agriculturist*:

"The folly of bringing out as entire stock male animals of second-rate merit, even though they be fully pedigreed, is well exemplified by the experience of a West Fifeshire occupying proprietor. At a recent bull sale this gentleman, who is a great

bound to be impure. Disastrous results are bound to follow if the breeder of pedigreed stock lets his culls go forth to perpetuate their kind. Breed from the best, and from them only.

**Our Scottish Letter.**

The show season is on us in full force, and the greatest of the west country events—that at Ayr—is now a thing of the past. Besides, two excellent county shows have been held, at Balloch and Rothesay, for the counties of Dumbarton and Bute, respectively, and we have quite a good time in other directions. A notable sale of Ayrshires has taken place in Dumfriesshire, where no fewer than 118 head from the very old herd of Tower, Sanquhar, owned by the representatives of the late Mr. Hyslop, were brought to the hammer, and the useful average of £11 1s. 7d. was realized. The 38 cows made an average of £15 16s. 5d. The gratifying feature of the show season has been the scale and commercial dairying qualities of the cattle exhibited. We have clearly got away from the miserable period of small-teated, weak-framed cows, into the time of big, good, roomy, commercial cattle, such as anyone might be proud to have in his byre. The champion at Ayr was a great five-year-old cow named Queen of Hillhouse, bred and owned by Mr. John Drennan, Hillhouse, Galston. This magnificent cow was first last year as cow in milk, and only missed the championship. This year there is nothing to touch her, and it is noteworthy at the Dumbarton Show the best animal on the ground was a cow bred by Mr. Drennan, and very much after the same stamp as Queen. The Bute champion cow, Lady Finlay of Ardyne, owned by Mr. John McAlister, Ardyne, Toward, Argyllshire, was second at Ayr in her class to Queen of Hillhouse, and runs her close enough. She is a large-framed, good cow, with tight vessel and commercial teats. Another grand cow of the year is the leading winner in the cow-in-calf class, Mr. Wm. Howie's White Rose II. of Burnhouses, also in Galston parish. She was champion at the Highland last year, and first this year at Kilmarnock, Galston, Ayr, and Glasgow. Up to plenty size, with a splendid outline and great frame, this is the kind of cow the breed wants. The Ayr Derby, in which over 50 three-year-old queys (entered when they are calves) compete, is the great contest of the breed, and the quality of the exhibits seen in it is generally regarded as a good index to the state of the breed as a whole. This year's Derby was regarded as a good average. There have been some better, and there have also been many worse, but amongst the prizewinners this year were several very notable animals. Mr. Wm. Howie won with a white quey named Gipsy III., and Messrs. A. & W. Keir, Old Graitney, Greta, the winners last year with Senorita, were second with Dewdrop I. The favorite, however, outside, was third—Mr. Blackwood's Bright Lady, from Rotterrow, Hurlford. This quey is got by a bull named Prince Alexander, which bred grand stock. He is sire of several prizewinners, and leaves his stock with good tight vessels, commercial teats, and a frame which can carry the vessel. Bright Lady was placed first at Galston, four days after Ayr, with Gipsy III. second. She has been purchased by Mr. James Kilpatrick, Craigie Mains, Craigie, who is determined to have as good Ayrshires as he has Clydesdales. One of the sights of Ayr Show was what is called the Parish competition. Five females are shown in one group out of each parish, and this year Craigie parish won, the group being composed of five three-year-olds. Three of them were owned by Messrs. M. & A. Hunter, Adamton, Craigie, and two by Mr. Blackwood. The Adamton three were by a noted bull, Flora's Chief, whose dam was the invincible cow, Flora of Burnhouses, and the other two were by Prince Alexander. This group of three-year-olds beat Mr. Drennan's five, which included the champion cow, Queen, and were placed third, the intervening group being Mr. Wm. Howie's, from the same parish, Galston. It included White Rose II., Gipsy III., and other three. Mr. Howie bred another great quey, named Mary II. of Burnhouses, which he sold before the shows to Mr. Andrew Mitchell, Barcheskie, for £100. She was first at Castle-Douglas, Kilmarnock, and Glasgow, but was beaten at Ayr, standing fourth in the Derby, and at Galston also standing back. She is uncalded, and has been sold at a profit to Dr. Douglas, M. P. She will be calved in good time for the Royal and the Highland, and will take some beating then. Mr. James Howie, Hillhouse, Galston, is the leading exhibitor this year with bulls, his two-year-old, Not Likely, being the best of his age and not easily turned by animals of any age.

Bute has long been famous for its Ayrshires, and good cattle were on exhibition this year. The chief exhibitors are three brothers: Mr. James McAlister, Meikle-Kilmony; Mr. Robert McAlister, Midascog, and Mr. John McAlister, Ardyne, Toward, across the water from Bute; also other two brothers: Mr. Hugh Duncan, Laugalchorad, and Mr. Charles Duncan, Little-Kilmony. The cattle put into the ring by these gentlemen would take a deal of beating, and no one has exhausted the Ayrshire breeding area who does not visit Bute. The best group at the Dumbartonshire Show was owned by Captain Fergusson-Buchanan, of Auchentorlie, who has just returned from the front. He is an enthusiast in agriculture.

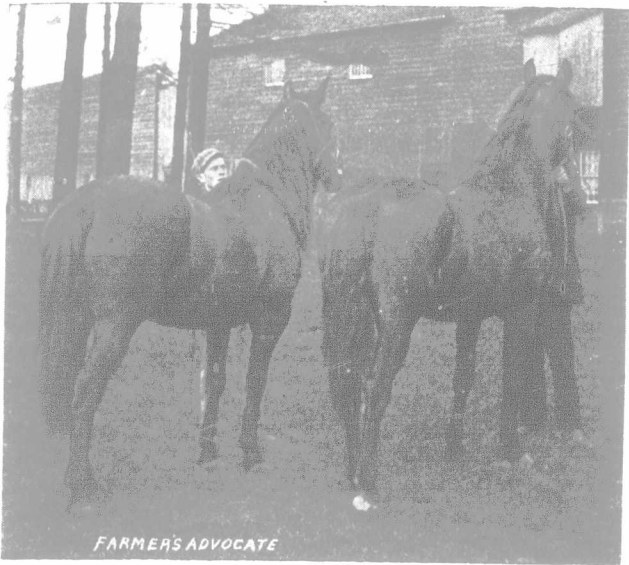
Glasgow has got its great twentieth century exhibition opened, and, judging by the first week, it is going to be a great and notable success. One of the best features in it is the Canadian building, in which are displayed all that is best worthy of imitation in the industry of the Dominion. The Russian building is a first-class affair, and its contents are a revelation. The dream that Russia is a barbarous country, in which nothing modern is to be found, may be safely laid to rest after this display. The building itself is a splendid one, and it and the Canadian quite easily take the lead for equipment and adornment. The Agricultural Hall contains exhibits of much interest to agriculture, especially the models of the great works, in Chili, of the Nitrate Company, the Stassfurt Potash Syndicate in Germany, and the Sulphate of Ammonia Syndicate. The buildings designated the Model Farm are, perhaps, not so much a model farm as a well-laid-out model of what is usually seen in farm buildings and around a steading in this country. The whole show is well worth a visit, and it is understood the Atlantic companies are to offer special inducements to visitors to come across.

This effete old country is making strenuous efforts to keep up with her younger rivals across seas. In the west we have now got a fully-equipped agricultural college, with farm and experiment station. The first session of the new college has just closed, and everything promises fair for the future. The students who have entered for the various diplomas have come well through the trial, and in the east a movement is on foot to start a similar institution. There is plenty room for all such, and soon there will be three great teaching and demonstration centers in agriculture in Scotland. The struggle to obtain this has been long and arduous, and the supineness of our farmers and county authorities has been amusing. Principal Wright, in Glasgow, has not been easily daunted, and he has now had his reward. One of the best schools of this kind in Great Britain is the Agricultural School at Aspatria, in Cumberland. It is a private venture and has no subsidies, yet it turns out some very good work. The present principal is Mr. Smith Hill, and a smart man he proves himself to be. No school did better than Aspatria, under the old regime, in sending forward students who took the diplomas at the Royal Agricultural Society of England and the Highland & Agricultural Society of Scotland. There is now only one national diploma in agriculture, the examinations for which are held at Leeds, under the joint auspices of the two national societies. The examination is a stiff one, and has to be taken in two stages. It has just passed for this year, and the work done by the students was highly creditable. Those who pass are entitled to write N. D. A. after their names.

"SCOTLAND YET."

**Amendments to the Animal Contagious Diseases Act.**

Among the acts passed at the late session of the Dominion Parliament was one amending section 7 of the Animal Contagious Diseases Act, prohibiting the disposal, under a penalty as high as \$200 fine, of the meat, skin, hide, horns, hoof or any part of animals affected with any contagious or infectious



**ARTILLERY HORSES.**

Selected by Lt.-Col. Dent, at London, Ont., for the British Army. Sire, Shire stallion. Dams, roadster mares. Height, about 15.3 hands. Weight, about 1,200 lbs. Price, \$230, the pair.

believer in the weigh bridge as a means of ascertaining the value of cattle, bought two bull stirks, one a Polled Angus and the other a Shorthorn. For the former, the price paid worked out to 24s. 6d. per live cwt., and for the Shorthorn, the price worked out at only 18s. per live cwt. Had the same animals been brought out as steers, they would probably have realized at least 6s. per live cwt. more than they did. They were bought for the purpose of being steered and fed along with Irish stirks which had been bought at 30s. per live cwt. A good many of the other bulls sold at the same sale were picked up by an enterprising West Lothian feeder at prices ranging up to 27s. 6d. per live cwt. These are not isolated cases, for, at the recent Shorthorn bull sale at Perth, quite a number of fully pedigreed yearling bulls were sold at prices under 10 guineas each, and one enterprising feeder, whom the people of Perthshire have delighted to honor, bought a lot of pedigreed yearling bulls at an average of 8 guineas each, as being the cheapest 'stores' he could buy. No breeder who understands his business will use for breeding purposes sires of second- or third-rate merit, and the result is that male animals of that sort have to be sold at less than the price of ordinary stores, their 'lang pedigree' counting for nothing when individual merit is conspicuous by its absence.

As might be expected, if the Old Countryman is such a flagrant offender, what can we expect of the Canadian breeder? If the stockers recently brought into Manitoba from the East, en route for the ranges, are a sample of Ontario live stock, to what a pass have things come in live-stock breeding away down East. Miserable misfits, lath-like and chuckle-headed, of various parentages, in which the dairy bull has evidently had a hand, they are foreordained to be failures as producers of high-quality beef. Canners they may make, but the results from such will barely pay the transportation charges. Dwarfed from birth, imperfectly nourished on whey or skim milk, it is doubtful if the little Eastern runts will show any benefit from the nutritious grass of the Western hills. A few years ago Texas steers were a byword among cattlemen; to-day, owing to the persistent use of bulls of good individuality, procured sometimes at what seemed at the time high prices, the Texas product holds its own with the best. The investor in these dairy-bred runts is certain to lose money on his investment, and it may be the means of putting him permanently out of the business. Trade once had and then lost is hard to regain, so that to our Western brother we say, "Eschew the dairy-bred Eastern stocker as you would the evil one!" The poor stocker can be bought far more cheaply than the good one, but it will not return anything like the profit of the well-bred animal of correct beef type. Manitoba has at the present time a good stocker trade with the West and South, and while the finishing of the product is to be commended and preferred, no effort must be spared to keep up the quality of our stockers, so that "what we have we'll hold." To keep up that quality, only the best bulls must be used by the farmers. Pure-bred bulls of the good beef type can be had at prices ranging from \$100 to \$150, and will undoubtedly prove a good investment. The breeder of pure-breds will need to be relentless in his culling, as he is the fount of live-stock improvement. Once allow the spring to become befouled, the stream is



**CAVALRY HORSES.**

Selected by Lt.-Col. Dent, at London, Ont., for the British Army. Mare on right, Thoroughbred. Height, 15.1 to 15.2 hands. Weight, about 1,000 lbs. each. Price, \$110 each.

disease. The amendment authorizes the Minister to permit by regulation the sale of such portions where he is satisfied that the disease in question cannot be so communicated. A further amendment provides, regarding the meat to be sold for human food, that it must be certified by any lawfully authorized health authority as not affected with such disease.

### "A Horse! A Horse!! My Kingdom for a Horse!!!"

[FROM OUR ONTARIO AND EASTERN EDITION.]

#### CANADIAN HORSES FOR BRITISH REMOUNTS.

Without horses the armies of the King would have waged a losing warfare in South Africa. They are as essential to-day as when on Bosworth's bloody field Richard III. bid his kingdom for a charger, crying out in despair, "Bind up my wounds—Give me another horse." Men may surmise and speculate as to the probable outcome of certain events, but who would have guessed that Canadian agriculture would have greatly benefited for years to come by the sad contest that has raged so long between Britons and Boers? Last year when horses were needed, and less than 4,000 were taken from Canada, besides those going with our own contingents, and over 70,000 from the American Union, the reason for such a discrimination began to be enquired into, for everybody ought to know that Canada is noted for the excellence of all the classes of stock she produces. Now, the facts, as we understand them, are that some years ago a report was made to the motherland regarding Canada's horse stock which gave the impression that we had a very limited number of animals suitable for remount purposes. This information went on record in the British War Office, and when the demand for remounts arose the red-tape records were looked up and showed Canada as not a suitable field for the supply. During the last year, however, our horses, like our men, in comparison with others on the battle-field, gave an excellent account of themselves, which fact led to several vigorous protests such as those from the Premier of Ontario and the Northwest, and an investigation of the actual conditions of our horse supply. The way Canada has forged to the fore in Imperial relations made it good policy for Imperial statesmen to see that if Canada could supply the right stamp of horses, then they should have the preference. Lt.-Col. H. S. Dent, Remount Officer for Canada, besides purchasing 3,785 horses from us last year, learned and reported that we had thousands more suitable for remount purposes. Lord Strathcona also took an earnest interest on our behalf in urging our claims upon the War Office, so that Canada has now begun to receive the attention she deserves in these matters. In fact, the old impression that we have only a frozen country is rapidly changing to a recognition of our grand possibilities in the matters of soil, climate, vegetation and live stock, and judicious breeders for the production of a class of remount horses that cannot be surpassed anywhere in the world. Not only have we all the distinctive characteristics that go to make up a first-rate remount producing country, but our ports, eastern and western, are actually nearer several distant British possessions than those of England or the United States. By actual measurement on a geographical globe, it will be recognized that Halifax, N. S., is nearer Cape Town than is Liverpool or any United States port, and that Vancouver is actually nearer China than is any United States port, so that we may rest assured that Canada will be more and more looked upon as a desirable source of remounts for the British army when war-horses are required in those quarters, not to mention our proximity to England, where even in times of peace a great number of army horses are always needed.

The question of remount stations in Canada has already occupied considerable public attention, but these are commencing to establish themselves through the private enterprise of individual horse dealers in sections where considerable numbers of suitable horses can be picked up. When this subject was first mooted, some months ago, the absurd proposal was made that the Dominion Government should establish depots, and go into the business of selecting and selling horses, but practical men of good judgment saw its needlessness, and its dangers, and that it would be a serious expense to the Government, and of no advantage to the farmer. The results already achieved indicate the correctness of this view. Col. Dent is now making a tour of Canada, stopping upon fixed dates at prominent towns and cities. Before the end of May, he, with Dr. Fraser, his British veterinary associate, had visited London, Paris, Toronto, Belleville, Napanee, Ottawa, Montreal, and several other points where he has been offered horses collected throughout the country from which to make selections. Following these, a visit to the Northwest Territories was arranged. In April they visited London, and chose about 80 per cent. of about 100 offered, and it was from among them the military horses portrayed on this and preceding page of this issue as

#### AN OBJECT LESSON IN ARMY HORSES

were photographed by one of our editorial staff, who on this and a subsequent occasion was accorded every opportunity requisite to become familiar with the principles and plan pursued by Col. Dent, so that the facts in regard to this question might be brought before the attention of Canadian farmers generally. On May 15th and 16th, Col. Dent and party returned to London, and again accepted about 80 per cent., or 200 out of some 250 offered. These horses were purchased from the

country on all sides of London, some coming from as far west as Chatham, Ridgeway, etc. They were chiefly purchased by Mr. Jas. McCartney, of Thamesford, but J. D. O'Neil, V. S., London, also gathered up some 50 or 60 head. The Western Fair horse-barn admirably served the purpose of the remount station, as they offered facility for housing, feeding, watering, and testing the horses. The horses were arriving at this station for a week or more before the remount officer arrived, during which time they were put into selling form, by shoeing when necessary, clipping the legs, trimming out the ears, throat, flanks, etc., so as to give them a smart, breezy appearance. It was difficult to learn the breeding of many of the horses offered, but a large proportion of those selected for the saddle gave evidence of Thoroughbred parentage, while many good ones appeared in conformation and gait to have sprung from Standard-bred trotting sires. In passing through the stables, the horses reminded one of those sometimes seen in a high-class livery barn, but their limbs were free from puffs and blemishes, and none of them gray in color. They were a really good lot of what are recognized as roadsters, and were equally appropriate for the saddle.

#### THE FAVORED TYPE

is short in the back, deep in the chest and quarters, strong in the stifles and arms, and strong below the knee. They ranged from stoutly-built 14.2-hand ponies weighing about 950 pounds to general-purpose farm horses up to 15.3 hands and weighing about 1,200 pounds. A large majority were midway between these extremes, weighing from 1,000 to 1,075 pounds, and classed as mounted-infantry or cavalry horses. The infantry class may range in height from 14.2 to 15.2 hands, the cavalry from 15.1 to 15.2, and the artillery horses or gunners from 15.1 to 15.3 hands high. They ranged in age from five to nine years, but a few well-matured good four-year-olds were accepted. The chief difference between cavalry and infantry horses, apart from height, consists in the former being a stouter, more powerful



PAIR OF CAVALRY HORSES. 222 1

Selected by Lt.-Col. Dent, at London, Ont., for the British Army. Sire, German Coach, Graf Bremer. Dam of one, trotting-bred Highland Boy; dam of other, Black Hawk Morgan. Height, about 15.2 hands. Weight, about 1,000 lbs. each. Price, \$280, the pair.

horse, fitted to carry greater weights in man and accoutrements, etc., than the infantry horse, which is lighter and may be lower-down or of the cob or pony type.

It was interesting to witness the horses being examined, for acceptance or rejection, and may be described as follows: A candidate for inspection is led on to a platform of planks lying flat on the ground. He is then viewed from the side and rear by the remount and veterinary officers. If he shows no marked defects, such as weak knees, knuckled fetlocks, running at the nose, or other weaknesses, the Colonel puts the measure over him, and if he passes thus far, the chances for going through are good, as most of those turned down failed to pass this stage. Tests for soundness were conducted by the veterinary officer, who examined the legs, especially the fore legs below the knees, the eyes, and mouth. They were then jogged a few rods away and back once or more, then suddenly backed up, wheeled round to the right, then to the left, and if satisfactory, sent to the saddle. The next and final test was for their wind, and consisted of about an eighth of a mile dash at the gallop. It was the great exception for a horse to fail here. They were now accepted, and branded on the front hoofs with numbers and letters to indicate to which class they belong.

The prices paid farmers for these horses varied from about \$85 to \$120, many of them ranging from \$90 to \$100, a better figure than such horses have been bringing for some years past. The prices, in turn, paid by the remount officer were a sufficient advance on the foregoing to recoup the dealers for their expenses and leave a fair margin to the good. The dealers had to bear the expenses of collecting,

feeding, and fitting, which meant a large outlay in the locality, and delivering the animals in Montreal, at which point the British War Department assumed charge.

Much regret was expressed that so many good horses of this type, more especially the mares, were being taken from the country, but the practical man says it is all right, as they leave more room for others and good money behind, and, better than that, a stimulus to horse-breeders to wake up to the importance of greater care in the breeding and rearing of horse stock. The selection of remounts has had an educational effect in every locality where it has been carried on. A day or so observing these operations is in many respects equal to the study of a well-conducted horse show, and of more practical value in so far as this particular class of horses is concerned.

#### Death of Donald Alexander.

With deep regret we record the death, from pneumonia, on May 10th, in his 60th year, of Mr. D. Alexander, Bridgen, Ontario, an enthusiastic and successful farmer and breeder of Shorthorn cattle, and an occasional and ever welcome contributor on stock and farming topics to the columns of the FARMER'S ADVOCATE. Born and brought up in Thurso, Caithness Co., Scotland, he came to Canada in 1886, at the age of 25 years, with little capital other than strong and willing hands and a brave heart, and settled on the rough and unimproved farm in Lambton County which from that time till his death was his home, and which, by dint of industry and intelligent management, was transformed into fruitful, smiling fields, with comfortable and convenient buildings. A prizewinning plowman, he took an honest pride in doing all his work thoroughly, and so impressed was he with the importance of good plowing and tillage, that he had prepared for the press a treatise on this subject, which it was his aim to have published, the MS. of which the writer of this tribute to his memory had the privilege of reading and the pleasure of commending. Inspired in his youth with a love for good stock by his association with prominent breeders in his native land, his ambition to own a good herd of Shorthorns led him, as soon as he was in a position to do so, to lay a sound foundation, on which, by good judgment and skillful methods, being a past-master in the art of feeding, he built up a high-class herd, and by upright and honorable business dealing secured and maintained a good reputation, and found a ready market for his surplus stock at good prices.

He was a man of strong convictions, and with the courage to stand by what he deemed right, though he stood alone; and yet, withal, was kindly in manner and warm-hearted and true in all the relations of life, and died as he had lived—a sincere Christian.

Mr. Alexander was married, in 1873, to Miss Jane Brown, who was a native of Lambton County, born of Scotch parents and brought up near her present home, where she proved a true and sympathetic helpmeet to her husband, and a model mother to a fine family of eight children, the eldest of whom is 27 years, and all of whom were living up to the 23rd of April last, when the second son, David, died of pneumonia, in Toronto, at the age of 25, an occurrence which was a hard trial to his parents, and it was at the funeral of the son that the father contracted the cold which settled upon his system, which had been weakened by a similar attack about a year previously, and in less than three weeks he passed away. In this double distress and sorrow, the surviving family will have the sincere sympathy of a large circle of friends.

It is the intention to continue the farm and business on the same lines as heretofore.

#### Pan-American Model Dairy.

From the report of the work of the cows in the test at Buffalo, for the week ending May 14th, we condense the following:

BREED.	Average lbs. milk.	Highest milk yield. Lbs.	Average lbs. est'd butter.	Highest butter yield. Lbs.
Jerseys	251.12	282.9	12.67	14.89
Guernseys	271.13	300.4	14.07	16.08
Holsteins	306.9	385.9	12.42	13.85
Ayrshires	316.11	372.2	13.47	14.46
French-Canadian	229.6	271.11	9.45	10.46
Shorthorns	298.4	330.11	11.62	12.81

The cows giving the most milk and the greatest weight of estimated butter, respectively, as above, are:

	Highest milk yield.	Highest butter yield.
Jerseys	Gipsy of Spruce Grove.	Mossy of Hursley.
Guernseys	Procris of Paxtang.	Mary Marshall.
Holstein	Meg.	Meg.
Ayrshires	Lady Flora of Orchardton.	Kirsty Wallace of Auchinbrain.
French-Canadian	Liena Flory.	Liena Flory.
Shorthorns	Rose 3rd.	Queen Bess.

E. B. PARKER, of Quebec Province, writes that during the past year he has derived so much benefit from reading the FARMER'S ADVOCATE that he will never be able to do without it again. The hints on general farming and stock-raising he found particularly valuable.



**Cool Curing Cheese.**

At all the more important dairy meetings held in Canada for the last two or three years, the necessity for a general improvement in cheese-curing rooms was very strongly emphasized. Patrons especially should urge that curing rooms be put in, on condition that the cheese cured in them will not be overheated. The cheesemaker should also urge this, as no matter how careful the patron may be in feeding his cows, caring for his milk, and delivering it in fine condition, or how accurate the cheesemaker may conduct his work, if the first-class green cheese is put in a poor curing room, that cannot be kept cool, the pains of patrons and makers are gone for nothing, as only a poor mature cheese made in the heated season will be the result.

For three seasons Prof. Dean conducted experiments in curing cheese at different temperatures, viz., 60, 65 and 70 degrees, and found that of these temperatures, 60 gave the best results in both flavor and texture, and the shrinkage was also considerably less. We find that New York Agricultural Experiment Station has also been working on this problem, as poor factories and defective curing rooms are found in New York State as well as in Canada. In all 14 comparisons were made by F. H. Hall and Geo. A. Smith, of Geneva (N. Y.) Station, between cheese cured in high and low temperatures. In every case the cheese cured below 60° scored higher in flavor and texture than those cured at higher temperatures, the deterioration in quality at the high temperatures being very marked in some cases. The average score of the cheese cured at and below 60° in 1899 was almost 5 points higher on flavor and 2.5 points higher on texture than the score of the cheese cured at 65° and above. In 1900, when some cheese were cured at the high temperatures of 75° and 80°, the difference in the scores was still greater: Flavor, 5.1 points; texture, 2.7 points. These are more than 10 per cent. gains, so far as scoring is concerned; but the real advantage of the cold curing is greater than this; for many persons will not touch a poor-flavored, poor-textured cheese at any price, who would consume or handle freely a perfect article. Many of these cheese cured at low temperatures were pronounced nearly perfect in flavor and texture by the scorers. One says, "I have tested the cheese (55°) and can say that it is especially fine"; another, "The cheese all good, the 55° F. very fine"; another, "Nos. 5 (60°) and 6 (55°) are very nearly perfect cheese. Considering that they were made four months ago, we might say that no cheese could be made that would show better at the expiration of that time"; and of another lot the same expert says: "Nos. 1 and 2 (80° and 75°) are about the poorest we have had from you, and Nos. 5 and 6 (60° and 55°) the best, particularly No. 6. This we call a perfect August cheese."

**How a Bunch of 1,700-lb. Cattle were Fed.**

[FROM OUR ONTARIO AND EASTERN EDITION.]

To the Editor FARMER'S ADVOCATE:

In answer to your letter, I give you the following particulars: Eight steers of Shorthorn breeding were purchased by Mr. Isaac Groff, from a gentleman near Ailsa Craig, Ont., for me last fall. They were shipped in on 1st of November, and stabled on arrival. The eight animals were put into one stall arranged for eight head. The animals were three and four years old when purchased. I cannot give any particulars of their earlier history, as the animals were purchased for me according to what my choice of feeding steers should be. I started feeding them upon a mixture of hay, bran and chopped oats three times a day for nearly three weeks, and when the animals were brought into such condition that I felt satisfied that a change of feed was desirable, I fed them from that time on with a mixture prepared as follows: Into a large box I put chaff on bottom, and added pulped turnips with a little salt, and ground flaxseed, alternately in layers, and prepared this a meal ahead, at meal time each animal being fed a scoop-shovel full of this mixture, together with chop. The chop consisted of oats, black barley, and a small quantity of peas, and was fed a graduated ration, the largest allowance being a gallon and a half to each head. The flaxseed I used was pure ground flaxseed, not oil cake, about 200 lbs. being fed in the six months to the eight head. Proper attention was paid to the ventilation and cleanliness of the stable, and all the straw that they possibly could use was given them for bedding. The animals were clipped shortly after being stabled, and every attention was paid to the condition of their skin. They were let out to water twice a day, having to go one-eighth of a mile to reach it, which gave them a half mile of exercise each day. You can understand by what I have mentioned that the ration fed was so graduated from time to time as I considered best for them, giving the allowance herein mentioned as the largest portion given at any time. They were allowed all the hay they could eat (mixed timothy and clover). I fed them six months, within a few days, and the average gain was 331 lbs. The heaviest steer weighed 1,820 lbs. when sold, and gained nearly 100 lbs. more than the others.

Waterloo Co., Ont. GEO. H. BAUMAN.

[NOTE.—The eight cattle above referred to averaged 1,702 lbs. each, and were pronounced by good judges to be the best lot seen on Toronto market for many years.—Ed.]

**The Production of Extracted Honey.**

BY MORLEY PETTIT.

After the initial expense, the cheapest branch and the one most sure of success for beginners in beekeeping and those wishing to devote but little time to the art is the production of extracted honey. On this subject a paper, by Mr. Alex. Dickson, of Lancaster, was read at the last convention of the Ontario Beekeepers' Association. He said:

In the first place, what is extracted honey? It is an article of food gathered by the bees from different plants, which they carry to their home and deposit in combs made by themselves. When filled, they are taken out by the apiarist and placed in the extractor, and the honey is thrown out, after which we call it extracted honey. There are two grades of extracted honey: good and bad. The latter is obtained by taking it from the bees too soon, while it is yet thin and unripe. To secure a good supply of the former, proceed as follows: Previous to the 1st of June see that your colonies are in good shape; supplied with young queens the fall before. June has now arrived. Watch close if the bees are beginning to whiten their combs. If so, put on the upper combs at once, with perforated metal between upper and lower set. Here is the secret of good honey and no loss of time with the bees. [If bees have wintered well, the writer finds that some need a super by May 15th.] The first story being filled, raise it up and put another between the lower and the one you have just raised. While the bees are capping the raised story they are filling the second set. When the first set is capped from one-half to three-quarters, it is ready to take off and to be carried to your extracting room. The above is what we call the tiering system. In the first place, there is no loss of time with the bees in capping; then, you have a better crop of honey, so far as the bees can ripen it; and further, your bees are not overcrowded. You see it is quite evident if you extract your combs before they are capped over you have a grade of honey just as the bees brought it in from the blossoms. If so, you will only sell that grade of honey to your customer once.

Mr. Dickson has a novel honey room for further ripening his honey by raising it to a higher temperature than it reaches in the hive. The roof of this room is partly of glass, and a large window faces southward so the temperature will run up to 120°. The honey is placed in tanks, 16 inches deep, 8 feet long and 4 feet wide, lined with the best of tin plate. Thus, a large surface is exposed to the drying influence of this warm atmosphere. As you extract your honey, have your tank covered over with cheese-cloth, and a strainer set in, made of wire, and cheese-cloth under the wire. For taking off supers, at the end of the season, he uses bee-escapes, putting them on in the evening and taking them off the following evening. They are especially useful to avoid robbing. When your combs are extracted, put eight in a box and place them no nearer than 150 feet from the yard, and have the bees clean them out. Put them out late in the evening, and leave out till next evening. Begin with three or four boxes the first evening, till the bees find their way; afterwards, you may put any number of boxes out. After all are cleaned up, they are ready to be stowed away for the winter. You are now ready to tin and crate your honey. Have your tins thoroughly dusted, and label all honey intended for market. Have the tins put up in attractive crates, and not in rough boxes as many do. Put dressed lumber in the crates; it is very important to have your honey nicely put up.

In the discussion which followed the paper, the principal points criticised were the honey room, the use of bee-escapes, and the manner of having combs cleaned up by the bees. With regard to the honey room, it was decided that 120° is rather an uncomfortable temperature in which to work. It would also seem that in such shallow tanks the honey would lose as much in aroma as it would gain in specific gravity. If the honey were left until from three-quarters to all capped, and extracted on a drying day and canned up immediately, as good if not a better sample would be secured. In using bee-escapes, the honey stands on the hive until it is cold before it is taken to the extracting room, and does not come from the combs nearly so freely as when warm from the bees. The method of having bees clean up the extracting combs before storing for winter is all right, but they need not be carried 150 feet away nor set out a few at a time. Set them all out on the ground, amongst the hives, on a bright morning, and the bees will have them cleaned up and have quieted down before dark. You will be surprised at the stillness in the yard next day.

**Royal Jersey Butter Test.**

Owing to the lateness of the season and the scarcity of hay, only 21 cows competed in the annual butter test at the Royal Jersey Show at St. Helier, May 6th to 9th, for the English Jersey Cattle Society's butter-test medals. The cows were stripped on the evening of May 6th, the milk of the next 21 hours being taken for the test. Separation took place on the evening of the 8th, and churning on the morning of the 9th, the awards being published at noon that day. Seventeen out of the 21 cows tested obtained prizes or certificates of merit. The record of the gold-medal cow is remarkable, in that after being milked 220 days she yielded 2 lbs. 1/2 ozs. butter from 32 lbs. milk; ratio, 1b. milk to 1b. butter, 11.05. The silver-medal cow, 96 days in milk, gave 45 lbs. 10 ozs. milk, and made 2 lbs 10 ozs butter; ratio, 17.03. The average of the 17 prizewinners was 31 lbs. 3 ozs. of milk and 1 lb. 15 ozs. butter; 154 days in milk.

**The Farm Separator and Creamery Buttermaking.**

Just a word or two, Mr. Editor, on the article by "Economist" on the above subject in your May 20 number. I am a creamery owner and operator, and beg to speak from that standpoint. I have been a maker and seller of private (or farm) dairy butter, and am therefore able to speak from that standpoint also. Besides this, I have had opportunities of personally examining into the methods of many hundreds of farmers throughout all Ontario, and can therefore speak as well from that point of vantage.

As to the cost of making butter at a creamery (separator creameries only are spoken of in this article), all interested persons know that three to three and a half cents is usually charged for making and selling. As to relative cost between the farm separator and the creamery separator, let "Economist" chew on the following facts (not merely thoughts or opinions). Four power separators, costing \$1,300, separated the milk of two hundred and fifty farmers during last season. Two hundred and fifty hand separators, costing an average of seventy-five dollars each (a very fair estimate) represents a capital outlay of—wait a minute—\$18,750. Whew! But more: Are these two hundred and fifty persons, mostly untrained, likely to do as thorough work as the trained creamery operator? Are they all likely to look as carefully and well after their machines? Does "Economist" think that these two hundred and fifty farmers will care for this cream as well as the creamery operator? He knows they will not, and could not be made to do so by any means or measures. And, too, if it is now difficult enough for a creamery to turn out an A1 article, how much more difficult when the ripening of the cream is practically taken out of his hands—a process affecting the flavor of the butter more than any other thing.

"The farm separator has come to stay." That is quite true in its right sphere. "No amount of sympathy for the unfortunate factoryman will induce a farmer to lose a large percentage of the product of his dairy for long." This is also true. "And a little thought on the subject will soon convince him that he cannot patronize a milk-gathering creamery without loss." These quotations from "Economist" prove two things: 1st, that he is not, and never was, a creamery manager; and 2nd, that his experience has been with a very poor example of the despised creamery. A very little thought serves to convince some people of the accuracy of their ideas. But facts are more stubborn things to combat than thoughts, and we append a few more of them, to prove our contention that the separator creamery is the proper basic system on which to build up our local and our export butter trade.

Not two weeks ago a local buyer and shipper called me up for a supply of "creamery." The price I quoted was a little high for him, and he added: "But yours is all separator butter"; in other words, there is no cream-gathered product in it. That was not simply his opinion, but a condition of things forced before his notice by the inexorable law of markets. About the same time I met an English importer of creamery, and in talking over the outlook he said in substance, "Keep your product free from cream-gathered material." We could produce letters from the foremost Canadian exporters voicing the same sentiment, and these men are not opinionative merely, but close students of the trade's demands. Does "Economist" know that the output of Western Ontario creameries in general does not hold a high place in the opinions of men buying for export, in comparison with that from Eastern Ontario and Quebec, and that the chief reason given is the prevalence of the cream-gathered article? Nevertheless, such is actually the case, and our export market is the chief thing Canadians have to guard just now. In six years our export of creamery butter has increased one hundredfold, and the opinion of the Englishman regarding this product has also undergone a wonderful change for the better. Who dares to say, Mr. Editor, that the cream-gathered article could ever have brought this about. This advance in quality and quantity has been co-existent with the life of the separator creamery.

I have by no means exhausted the arguments in favor of the stand taken by me on this subject, but enough has been said, perhaps, to throw some light on this matter. I wish to say, in closing, that I do not desire to be understood as throwing any reflection whatever upon cream gathering creameries, which have done an excellent work in this country, but I do object to the idea of turning the separator milk-gathering creamery into the cream-gathering factory.

Middlesex Co. F. J. SLEIGHTHOLM.

Mr. J. W. Mitchell, who for the last few years has been Superintendent of Government Creameries in Assiniboia, has been transferred to the Maritime Provinces, where he will fill the position of Dairy Superintendent on the Dairy Commissioner's staff.

In the journal of the British Dairy Farmers' Association, J. Allsebrook, in a study of the relative values of mangels and swedes as food for dairy cows, reaches the conclusion that from most points of view the mangel is the more valuable crop to the dairy farmer.

### Sheep and Sheep Breeding.

BY A. E. MANSSELL.

I will name six things to keep in view which are essential to a practical and lasting success. They are (1) constitution, (2) form, (3) flesh, (4) wool, (5) character, (6) management. These things may appear simple and easy, but anyone is a marvel of practicability who can always keep these objects in the forefront when breeding pedigree animals. The pedigree-stock breeder is a fastidious man, and in buying sires he will have to give away some points, and there is always a strong temptation to neglect that which is useful and essential, and to place undue importance upon the fads and fashions of the day, especially upon what is most taking in the show-yard. I do not mean to throw cold water upon fashion; on the other hand, I would say, be in the fashion as much as you can, and try to take your part in leading it, but remember that fashion changes; even in the useful attributes of a sheep, therefore, do not be so much a slave to it as to sacrifice any of the essential qualities that in your better judgment will tend to the ultimate good and usefulness of the breed you have taken up.

**Changes of Fashion.**—We all know how much fashion has changed in our animals, especially in character and general appearance, the last thirty to fifty years. As an example I will mention bone as an important instance in this respect. The fine bone which was the ideal of Bakewell was generally favored by the last generation of breeders of sheep and cattle as denoting lightness of offal, but the fashion has gradually but surely changed in this respect. I have not named bone as an essential, but still it has always been thought by practical men to be such an indication of the most practical and useful qualities that it has been in the past, and is at the present time, viewed by a large proportion of breeders as of the utmost importance, the only difference being that the fine bone which was sought after in the past is now regarded as a fault. I have no extreme views about bone; I like to have plenty, and especially the right sort, but I would not always discard an animal for breeding because of small bone. I strongly believe, however, that you must not breed so as to get fine bone all through your flock, or you will lose strength of constitution and lean flesh; and, also, strong bone is required, to stand the forcing treatment of the present day.

Breeders' views in this respect, therefore, have been completely reversed, and this, in conjunction with many other examples that could be named, shows that everything that is not absolutely an essential, but only an indication to an essential, may be open to question. The moral of what I am now saying is, do not treat fashions as if they would never change, and do not consider the accepted indications of even the most useful and essential qualities as infallible, but never depart from what is really, and will always remain, an essential.

**Importance of Small Signs to Breeders.**—I would not, however, underrate the importance of indicators, because even very small signs are important in breeding. Every inch of an animal, from head to tail, and from top to toe, is an indicator of its value, and it is those who, after close inspection, and also at a distance, can read those signs truly that are the best judges. Often quite small marks on animals are greatly prized, as showing a strain of blood going back forty or fifty years. I will now briefly call attention to the six objects I have put before you. Space will not allow me to go into the multitude of points and indications that are bound up with these, and, of course, I am addressing those who are working upon different breeds, and attributes that are valued in some breeds of sheep are not cared for in others. "Constitution": I begin with constitution, because this is the foundation of everything. However perfect in most respects an animal is, all is useless without a robust constitution. All that indicates a good constitution should be sought after. Having this in view, capacity of chest is absolutely requisite. You must either have width or depth of chest, but to secure a robust and hardy animal you should have a combination of the two, with a deep shoulder, big girth, and good under line. You must have these points so as to ensure plenty of room for the heart and lungs, and other internal organs. I will only add at the present time, in connection with constitution, a wide loin and strong scragg.

**What is "Form"?**—The Leicester and other longwools excel in their top form, but the short-wool breeders, although aiming at the same perfection of top form, also require more depth of carcass and under line. The ideal form must always vary to some extent in different breeds, because all have not the same standard of excellence, for this is governed by locality, climate, treatment, and the purpose for which they are principally bred. To give an extreme example, I would say that the wide-chested sheep that are forced to such early

maturity in some districts would not be suitable to take the place of the deeper and narrower, but agile and hardy sheep that are bred on the hills. The first thing to be considered in regard to form is the legs; have a leg at each corner, and put on aright, with the shoulders thrown back into the ribs; if you can satisfy yourself as far as this, you have secured the foundation of a correct form all through. If you have the legs and shoulders as they should be, you can expect to see a straight spine, well-sprung ribs, with good chest, barrel, and under line, sufficient width behind, and a good carriage.

There will always be difference of opinion in regard to form; for example, some are most decided that the neck cannot be too short; others, and I am at one with the latter, think that a moderately long neck is desirable, if it is strong enough. Of course, a long, thin neck is bad and most unsightly, and fatal in the show-yard, whereas a neck which is thin but short will often pass muster, although such a neck indicates weakness of constitution, and a deficiency of lean flesh and muscle, quite as much, if not more, than the long, thin neck. I believe that if you keep on breeding from very short necks you will lose strength in your flock, and lean flesh, and at the same time the prolific breeding qualities of your ewes.

There is also a further difference of opinion in regard to the neck. I have been told that Jonas Webb was partial to the bottle-neck, and no doubt he had good reasons, but I will not enlarge upon this, as it is not the object of this paper to go into the hundred and one points connected with the essentials I have named, and I have only mentioned this one thing in order to show the vastness of the considerations a breeder has to keep in view.

**Flesh and Wool.**—The flesh appeals to most of

plenty of flaws. As with mankind, however, a good pedigree (I do not mean an aristocratic one, but a worthy one of long maintenance) is by far the best guarantee of good character, so in animals you must not expect to have satisfactory character without there has been careful and correct breeding maintained for a long time. To the superficial observer the difference is not much, but such observers will not have the insight to select sires. Nothing is more requisite to success in breeding than this insight.

**Management.**—I could say a great deal upon this subject, but if I could say all I knew it would be very little compared with what I have to learn. It is well to remember that the very best animals can easily be spoiled if badly managed. I would like to say, however, to all arable farmers, give this branch of your business all the care and thought you can, for sheep are the best crop you can produce, and by proper management sheep are the best means of growing all farm crops, and on some land the only way of securing crops. I would also add, give them plenty of attention, put on an extra hand if required, and you will be repaid the expense over and over again. Do not neglect them at harvest, or at any other time, and be most careful to avoid foot-rot. If well attended to and properly managed, you can largely increase the number of your sheep, only remembering that sheep, but especially lambs, will not thrive on stale pastures; the more change they have the better. If you wish to keep them thickly on the ground, and have them healthy and free from injurious parasites, you must grow crops for them, and keep them as much as possible on the arable land.

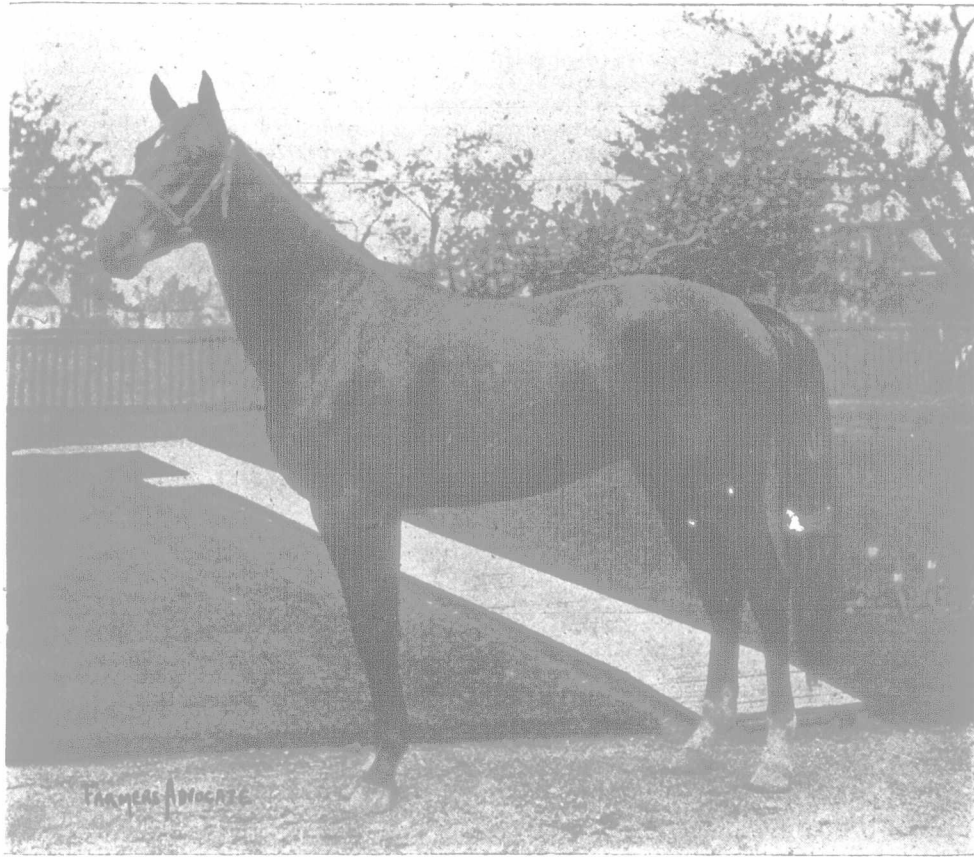
In conclusion, I would say that perhaps young breeders may think I have made the difficulties of breeding appear great, but do not be disheartened;

the greatest pleasure of farming is breeding. Besides, you may make the breeding of valuable pedigree stock a much simpler and safer undertaking, if you are not too fond of experimenting on fresh lines. I quite think that anyone who has the ambition to take a leading part in altering and improving a breed must be bold in his selection of sires; in other words, he must experiment. In order to secure some quality in a marked degree, a sire must be bought that has this quality very pronounced, but to accomplish this you may have to put up with some bad qualities, and, of course, bad points in an impressive sire will cause you future trouble. If definite objects in breeding are to be attained, it is better to put up with a serious fault in a sire than to have one that is free from anything very objectionable, but still only a mediocre animal. It is well, however, for the type of our distinct breeds that the majority of breeders are so careful about the characteristics of the breed they have taken up, and that they work upon lines and principles that have been well proved.

**Purchase of Sires.**—If you wish to avoid the disappointments that follow on too much experimenting, I would advise the buying of sires with as few faults as possible, but especially keep in view all qualities that you think to be essential. Also, if you wish to avoid uncertainty, I would strongly

advise you not to get too much admixture of blood. I would say, select one or two flocks that you consider the best from which to buy, and then always select the best sires you can from these flocks; if you do so you will not be far behind, and you may sometimes be quite as good as the flock from which you select. By doing this you will have as much change of blood as the flocks from which you buy. Remember, there is uncertainty in change of blood; new blood is, in fact, always an experiment. I am quite of opinion that no one can keep on breeding impressive and valuable sires with too much out-cross in breeding. I know a great number of people are very much afraid of breeding-in one family; they think the constitution will be weakened. I quite agree that you must not sacrifice constitution for anything, but this is the test to depend upon; if you are maintaining and improving the constitution of your sheep, you know that you are perfectly safe, but this test has not always been kept in view, and the constitution has often been sacrificed both in sheep and cattle by following fashion in blood regardless of constitution. Breeding-in concentrates and intensifies qualities (and here is the value of sires so bred), and you may keep strength of constitution so persistently in view as to intensify the robustness of your animals. The object of this paper is to put the value of all the points and attributes of a sheep in their true proportion.

I have endeavored to focus the attention of the young breeder to the essential points in breeding, and to impress upon him the absolute necessity of always keeping these points in view. The beauty of your animals is of the utmost importance, and there are reasons for all the fashions, and what may appear the fads and fancies of the day; therefore, you will be out of it if you disregard them, but



CAVALRY HORSE, CREMORNE.

(See Gossip, page 355.)

us very often, and all when they have their feet under the table think they are excellent judges of mutton, but it is the business of the sheep-breeder to form his judgment when the sheep is alive. With practice he will accomplish this by the hand. Speaking very briefly, the flesh must handle firm and springy to denote quality and leanness; it must be laid all over the frame in proper proportion; and here the form of the animal comes in again, for to have the flesh put on evenly you must have symmetry. There should be good development where the joints are most valuable. The leg of mutton is especially important as being the best joint, as well as denoting leanness of flesh all through the carcass, and we all know the unsightly appearance of a dressed carcass when there is the long, thin shank, with no plumpness in the twist.

It is extremely difficult to say anything about wool in a few words, especially when embracing all our British breeds. There is so much variation in what is sought after in this respect. I will chiefly confine myself to urging the great importance in all breeds of this essential. As a shortwool man I like a dense, even fleece, which when opened shows a pink, healthy skin. Such a fleece is always valuable, and also as good a sign as you can have of the right sort of flesh. The skin is valued as an indicator of the wool and the carcass.

**The Importance of Character.**—This is where the seeing eye comes in, and judging this by points is quite impossible, but character can be better discussed by the fanciers of each breed among themselves. How shall I, then, deal with this in a few words, without attempting description? Character gives the pedigree, as it were, without seeing the record. It sums up the whole breeding of the animal as the same word does for mankind, although with a long and good pedigree there are always

do not let fastidiousness turn you from what you judge to be a remarkable and valuable sire. Of course, I am principally addressing the pedigree man; the ordinary breeder is free from the onus of considering the minute characteristics of a breed.

**On What Lines will the Best Shorthorns of the Future be Bred?**

BY S. F. LOCKRIDGE, GREENCASTLE, IND.

What line of procedure the future breeder of Shorthorns may adopt is, of course, very much a matter of speculation, but it is fair to suppose that, while he will readily accept new and approved ideas, he will not be indifferent to the observations and experiences of the best breeders of the past. It is questionable, indeed, if better Shorthorns ever existed than were bred during the first half of the last century. The records are somewhat meager concerning the operations of what may be termed the formative period of the breed as we know it today, yet there is sufficient evidence to show that the early breeders were not hampered by the great variety of fads and crazes that have come to vex the soul of the breeder of the present day. Starting as they did without records or any knowledge of the breeding of their cattle except that derived from private registers and traditional sources, line breeding was, of course, an unknown term for many years, although they did engage in the practice of interbreeding, in some instances from very close affinities. To-day the question of in-and-in breeding is a debatable one, and in all probability will continue to be so for many years to come. There is no question but that valuable results have been derived from that system of breeding, and it is equally apparent that injurious effects have in some cases followed a too close adherence to that practice. The early breeders, as I have said, in some instances bred together animals of the closest relationship. The case of Favorite (252) has often been referred to. It is said that he was bred to his daughters and granddaughters, and on to the fifth generation, and that, too, without any serious results so far as history or tradition give any account.

There are two ways of accounting for this. In the first place, the men of that day who advocated in-and-in breeding were of more than ordinary intelligence, and it is not presumable that they practiced it indiscriminately and in all cases, but that they used the utmost care in the selection of the animals they desired to submit to the experiment, mating only those that possessed the necessary requisites of constitution, vigor, and general conformation. In the second place, the Shorthorns of that time, we are told, were large and coarse, loosely made, inclined to be thin-fleshed, and often poor feeders. Now it is admitted, I believe, that in-and-in breeding has a tendency to reduce the size, to refine the form generally, and to increase the disposition toward early maturity. How long this practice can be followed without impairing the useful qualities in the animal is a question not easily answered.

The Collings and other early breeders of Shorthorns bred from very close connections without apparent injury to their cattle, and Bakewell, with the Longhorns, probably to a greater extent than any other breeder of his day, or since. As intimated, however, the character of the cattle of that early period justified his practice to an extent that would not be permissible at this late day, when Shorthorns have reached the highest degree of refinement, it seems, compatible with a good constitution and general usefulness. In fact, I think most of you will agree with the opinion that in some cases the limit has been exceeded, and that there are Shorthorns to-day that show the effects of too close breeding in an excessive fineness of bone, lack of scale, and indication of delicacy throughout the whole animal. It is evident that animals of this character cannot be depended on to produce a healthy and robust progeny. If this is true, is it not time to call a halt, and as practical, common-sense men, having the best interests of the breed at heart, advise a return to safer methods and a more intelligent and liberal selection of the material for use in the herd? The most successful breeders of the past did not hesitate, when the occasion demanded, to introduce new blood into their herds. Thomas Bates believed he possessed the purest Shorthorns in existence in his Duchess tribe, and yet, after confining himself to the use of their blood through his sires for a number of generations, found the necessity of going outside of his herd for a fresh infusion through the bull, Belvedere.

The question we should ask ourselves to-day is, Are we exercising a proper degree of independence in our operations, or are we allowing the preference for this or that line of family to influence us against our better judgment and common sense? In selecting a sire, should we not choose him because he possesses in a superior degree the qualities that we desire to secure in the progeny, rather than be

influenced altogether by the fact that he is of a particular strain of blood that happens at the time to be of the prevailing fashion, although he may be deficient in individual qualities? In other words, shall we select a sire for no other reason than that his ancestors were famous in the hands of a man who had the genius to make and keep them so while he lived, when, possibly, their descendants in other hands have not maintained the family reputation? For that is the sum and substance of the whole matter. It is unfortunate, I think, that too many breeders continue to worship at the shrine of their early love long after the source of inspiration has lost its power.

It is not that we should refuse to use a sire that is line bred, or even in-and-in bred, if he possesses the qualities that every one is looking for in the head of his herd. On the contrary, such an animal would, in my estimation, be invaluable as a sire, because the fact that his blood is concentrated only the more certainly insures the perpetuation of those good qualities in his offspring. But, on the other hand, if possessed of inferior or indifferent qualities, he will for the same reason be equally as potent in the transmission of those bad qualities; and therein lies the danger and the necessity for the exercise of the greatest care and judgment in selection. There have been many intensely bred animals that were noted as producers of excellent stock, not, I take it, because of the consanguinity of the sires and dams in the make-up of their pedigrees, but because of the superior individual qualities of all, or nearly all, the animals composing the line ancestry.

The successful breeder of the future will, in my humble judgment, be a firm believer in the value of pedigree, but he will insist that it be accompanied by unquestionable proof that the characteristics of the ancestors were such as to insure the perpetu-

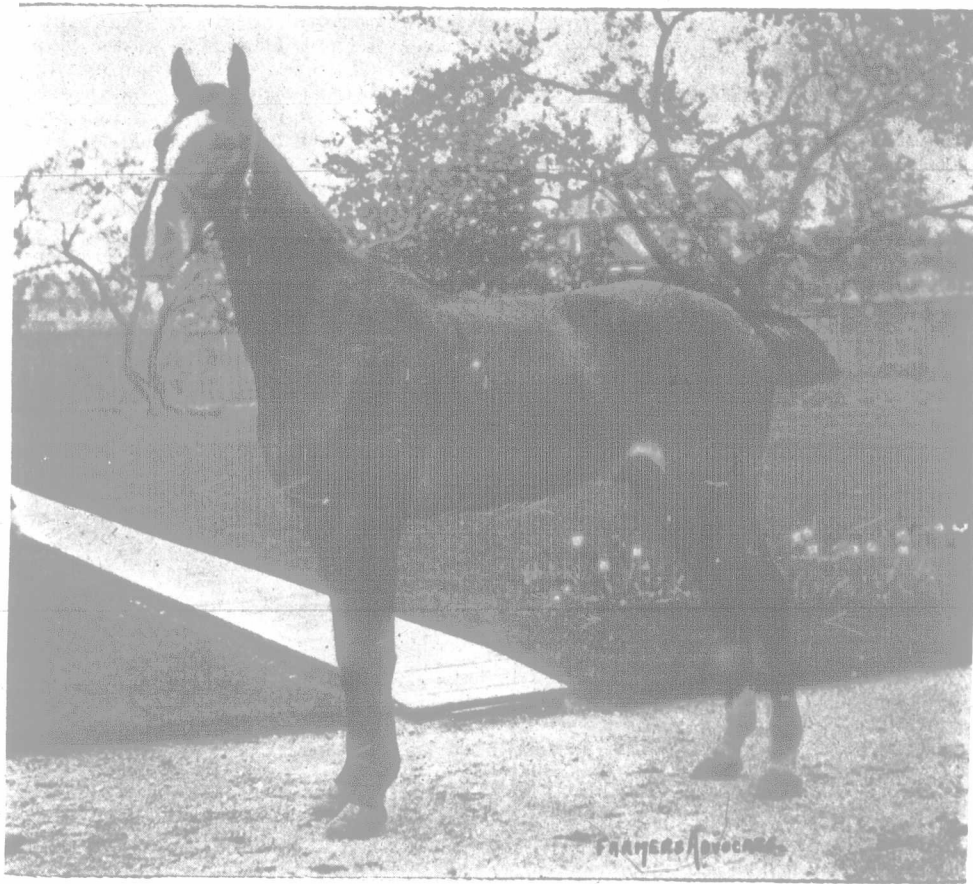
and brain are gone, and some disciple of the departed great one, seeing the necessity for further reinforcement, goes for a change of blood, although the wisdom of the course is seen in better individuality, better vigor and constitution, he is met at once with the charge of treason, and the market value of the offspring is lowered two-thirds.

To my view the future is bright with promise for every breeder of Shorthorns who is at all worthy of his great vocation. Civilization is extending its domain to every nook and corner of the habitable globe, offering new outlets and making new markets for the distribution of our surplus products. Not only in our own yet unoccupied territory and the territories of the republics to the south, but in the islands of the seas just now throwing off the sway of barbarism, are vast fields awaiting the occupancy of the future breeder. And just beyond, on the other side of the Yellow Sea, lies the great empire of China, with its four million square miles of territory and its 400,000,000 people, once a sealed book to all except the followers of Confucius, but soon, if we can read the signs of the times correctly, to receive the impress of a newer and better civilization, with all that the term implies. And when that regenerating process begins, you may be sure the Shorthorn will be found, as always in every situation of a similar nature, foremost in the great work of improvement of his kind, proving himself in all respects worthy of his noble lineage and the best traditions.

**Look Well to the Early Chicks.**

When do chickens require the most care, and when is it the most willingly given? Just after they are hatched, most people will answer. A good start in a chick's life is no doubt a long step in its life, and the brood repays good care. But there is a time that, without absolute negligence, the chicks do not get the same care. They are not the little balls of fluff running around any longer. They are not as nice to look at or so easily managed, yet, in my opinion, this is when they require the most skillful management. If you are fortunate enough to have a nice flock of chicks six or eight weeks old, don't neglect them for a couple lately hatched. March birds are worth a dozen of their younger brethren. I have often seen, as late as May and June, time, labor and ground devoted to hens that had brought off chicks from stolen nests, while the older chicks were almost entirely left to look after themselves. Let the mother run with her family just as long as she is inclined. It is quite time to separate them when she begins to pick at them at feeding and lag behind at roosting time. It is very amusing at evening time to watch how she tries to slip away from the flock and lose them. Extra trouble in providing a dry, clean roosting place for chickens at this age will be well repaid. If you want to have small, stunted chickens, shut them in a close, badly-ventilated house at night. If you want them to grow healthy and large, give a roosting place with all the fresh air you possibly can. The next and very important duty is to keep them well supplied with fresh water. That which is tainted and heated by the sun is very bad for

them. Their water vessels should always be placed in the shade. The feed should be generous. For breakfast I give ground oats, barley and middlings, in equal proportion, mixed with hot water in such a manner that it is in a crumbly, not sticky, state; do not feed it warm. You must stand and watch them eat, and stop feeding just before they have had enough. If your chickens can be moved to different runs every month or so, the change will be good for them. A portable poultry pen that can be taken to the wheat field after the crop is harvested, and the chicks allowed to pick up all the lost grain, is a good idea. Then, when they have cleaned the wheat fields, the pea, oat and barley fields can be cleaned up in the same way, as can also the corn field by the later-hatched broods. But always be sure they have plenty of water. It will pay any farmer to construct such a building for the chickens. It is better to keep the cockerels separate, and as too many do not do well together, it is no more trouble to have the cockerels all by themselves as to divide the flock the usual way, letting pullets and cockerels run together. During the whole of the chick's life they should be kept separate from the adult stock. A few minutes spent watching young chicks make their way through a flock of hens will convince you this is an absolute necessity. If your chicks weigh two pounds, live weight, by the first of July, you will have no trouble to get fifty cents a pair if you are able to put them on a good market. A couple of hundred of these chicks will return one a handsome profit. Those that come on a little later will bring forty cents a pair. The railroad dining-cars make use of a great many of these early chicks. While there is money made in raising chicks any time of the year if you can get them on a good market, none will return more clear profit than the early broiler. R. F.



SADDLE HORSE, FALKIRK.

(See Gossip, page 355.)

ation of the good qualities in the offspring. He will not refuse to introduce into the herd sires bred from close affinities, provided they possess in an unqualified degree the qualities already referred to, but he will resolutely reject all that do not measure up to that standard. On the other hand, I believe that the breeder of the future will not be hampered by the fact that the material that he selects is not line bred, but that he will unhesitatingly make use of miscellaneous bred animals, always conditioned upon the fact, however, that the converging strains are from the herds of men known and acknowledged to have been distinguished and reputable as breeders in their several ways. And in so doing he will but follow the precedents left him by the greatest breeders of the past.

I have used the term "miscellaneous bred" because it is the common way of expressing the mating of animals of different families or strains of blood; but to my mind it is a misnomer, and in its general application has been given too broad an interpretation altogether, conveying the impression of the crossing of distinct breeds, rather than of animals having a common origin and carrying more or less percentage of the same blood, either in the direct or through collateral lines. All our families of Shorthorns were of miscellaneous bred origin, and after they had been subjected to a course of close breeding long enough to establish a type and become known as a distinct family were reinforced and renewed by the infusion of extraneous or new blood, as I have endeavored to show. Not one of the great families, by whomsoever bred, but was subjected to this treatment to a greater or less degree. The fact that the cross of new blood was made by the hand of the master breeder was all that was necessary to make it acceptable to the votaries of fashion. Yet when the supervising hand

**Farm Bookkeeping.**

BY JOHN B. PETTIT.

Many a farmer, and I firmly believe every farmer who is slowly but surely going behind, has little or no idea of the amount of money earned and spent during each season as it goes by. This should not be the case. Every man, no matter what may be his occupation, should, after some style or manner, keep some account of his income and outlay, so that at any time he may be in such a position

Then the next week they will again wait. Until Saturday night, and something will happen to call them away and it will be neglected until the next week. Soon it becomes difficult to remember the different sales and purchases, and the book or books are finally neglected completely and forgotten. They should be settled up every night, or a note made in a memorandum, to be copied when convenient.

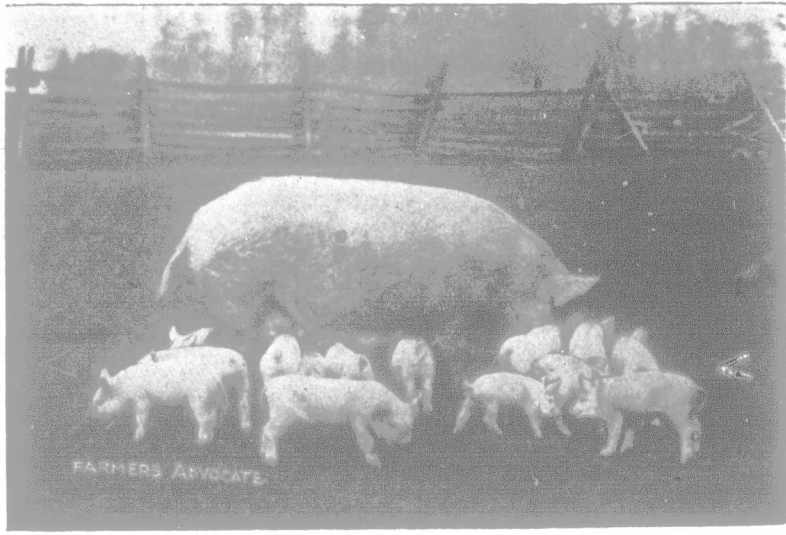
Thus we see that by very little trouble we may, if we desire, so keep account of our affairs that at any moment we can tell just where we are standing and what progress we are making.

plest and safest ports are Liverpool and Manchester, and to the beginner I would certainly advise either until they have had good experience, for, if they cannot make quite as much, they certainly cannot lose as much as with London.

DR. BOULTBEE.

**Good Farmers and Good Farming.**

Good farmers and good farming must go together, for good farming cannot be done by a poor farmer. Good farming alone pays, and the farmer who sows without any assurance of good crops every year might better work for his capable neighbor than for so poor a paymaster as he is sure to prove himself. The steady improvement of the crops proves the good farmer. Many may reap a good crop from a fertile soil at first, but their crops soon become poorer and poorer, until they have to quit farming. The good farmer grows good crops at first and better ones afterwards. He finds that it is far easier to maintain the productive capacity of the farm than to attempt to restore it. It does not pay to exhaust its fertility and then attempt to restore it by commercial fertilizers. Only the least exhaustive products should be sold, and although he may be obliged at first to sell grain and hay, he will soon send off his supply in the form of wool, meat, or butter and cheese, or anything else that restores to the soil nearly all that it has taken from it. A farm which is having its productive capacity steadily diminished is like a bank account daily drawn upon and nothing deposited to its credit, and it will soon reply, "no funds." I know of many farmers who worked hard from daybreak to dark and yet died poor, because they wrought to disadvantage. Every farmer should devote some time each day to reading and reflection, and then there would be less failures in farming. The farmer should raise his children in an attractive home: one in which they delight to spend their evenings, and in which they take an interest in beautifying. If the farmer is successful in farming, he should raise his son or sons so that they can take up the work when he leaves it and prove themselves as capable, or even more so, than he has been. How often we see a young man left a good farm by father, and in a few years he is either in debt or has given up farming, saying that there is nothing to be made at it. Now, if that man's father had allowed him to go forward and do the work while he was yet alive, so that he could advise him and help him, things would have been different, and he, instead of having to quit the farm, might have proven himself a good farmer. There should be in all farmers' homes a small library of suitable books, and these should be carefully studied, and when he wishes to try anything new to him, it should always be on a small scale, and if



PURE-BRED YORKSHIRE SOW AND 14 OF A LITTER OF 20 PIGS.

BRED AND OWNED BY W. S. WELD, PRESIDENT OF THE W.M. WELD CO., LONDON.

as to ascertain for himself or, if need be, anyone else, his correct financial standing.

True, farming is different from any other business, and it may be in some ways a little more complicated and more difficult to keep track of, but that is only one reason why we should try the more to surmount these difficulties. Of course, as a rule, we can tell at the end of a year, by the length of our pocketbooks, whether we have made progress or have gone back, but we cannot tell *where* that advancement or failure has been made. This, with little trouble, could be overcome, and we could find out to a nicety just what part of our business is paying us and what part is not.

Generally, farmers do not care to do a great amount of writing, so the farm accounts should be kept in the fewest number of books possible. In the out- we should take an inventory of his assets and liabilities, and by putting a fair value upon everything he has, estimate just what he is worth financially. Then, in order to find out where he is making his largest profits or his losses, he should keep separate account of every branch of his farming operations. Some will think this an irksome task, but let us investigate.

Draw a careful plan of your farm, and number each plot or field. When you have purchased any seed or fertilizer to apply on a field, charge it up with the same, and when you have spent any time on this field, charge it with the same also. This can be done in a very simple manner, as follows:

FIELD NO. 1—WHEAT, 15 ACRES.			
		DR.	CR.
1901.			
Oct. 1—	To man and team, 10 days, plowing 15 acres	\$20.00	
Oct. 10—	To 5 days, preparing land	10.00	
" 15—	To 20 bushels seed wheat	20.00	
" 15—	To 2 days, drilling	4.00	
1902.			
June 20—	To 3 men and team, 3 days at cutting	10.00	
Aug. 20—	Threshing 250 bushels wheat	20.00	
Sept. 1—	By 200 bushels sold at \$1.00		\$200.00
	Fifty bushels on hand		5.00
		\$84.00	\$250.00
			84.00
	Total profit		\$166.00

Thus we see that it would be a very easy matter to keep an account with each field of our farm.

When this is done, we should open an account with each kind of stock. How many farmers are there that have any idea what each kind of stock is bringing into or taking out of their pockets? How do they know but their method of feeding their swine is causing greater loss through that animal than there is profit on their cornfields? Then, again, how many of us are feeding each one of our hens a couple of dollars' worth of feed per year, besides the time spent in caring for them, and are probably not getting one dollar's worth of eggs in return?

So we see that if all these accounts are properly and correctly kept, it is a very easy matter at the end of the year to ascertain just what crops and what fields are paying us the most, or whether they are bringing any profit at all. Also, we can learn from which kind of stock we are making the greatest gains, and find out if any of it is giving us an annual loss. Thus we can find out the leaks and speedily put an end to them, and bend all our energies toward that which is bringing us gain.

The principal reason for farmers not keeping books is negligence and carelessness. Many declare each new year that they will do so in future. They do begin, but probably the first week they will wait until Saturday night to get accounts entered.

**Markets for Poultry.**

LONDON OR LIVERPOOL OR MANCHESTER, WHICH SHALL THE CANADIAN FARMER SHIP TO? LONDON, THE HIGHEST-PRICED; MANCHESTER OR LIVERPOOL, THE SIMPLEST AND SAFEST.

To the Editor FARMER'S ADVOCATE:

SIR,—The Canadian Produce Company, at considerable expense, have personally investigated the above matter thoroughly, I, myself, as their manager, having visited England this spring in the midst of the frozen-poultry season. No individual farmer should think of shipping to England. Anything under ten tons, or one carload, need never be expected to pay under any circumstances. If, however, a number wish to co-operate and try their luck, good or bad, this is our advice: First, decide where you are going to ship; then, to whom; and then, how. It is the first of these I wish to touch upon—that is, what port? The choice lies practically between London and not London. Now, to begin with London, let me say you will there get the best price for good stuff in good condition; but the consumers and the merchants are a cranky lot, with many silly prejudices and fads about everything, and some little trifling variation in packing in your poultry may turn them all against it and bring you a poor price. Then, again, London is the hardest market in the world to get at. If you ship direct to the port of London—that is, Tilbury or the Royal Albert docks, both of which are many miles from London market—your stuff will be dropped on the wharf, to remain there from one to ten days to take its turn going to London proper, by which time it will be thoroughly thawed and fit for pigs only. This has been the actual experience of thousands of pounds of Australian rabbits this year. Then it goes up to London by train or barge. If by barge, it will be floated up with the tide, again taking some days in transit, in filthy barges, which will finish anything not already spoiled. If by train, it costs \$3.00 per ton, a good slice out of your profit. In fact, if you ship direct to the port of London, you must either have an agent of your own or your buyer to meet it for you and see it rushed through into market. London can also be reached by shipping to Southampton, Liverpool or Manchester, and thence by rail to London. The first of these, Southampton, is probably the best way to reach London; but big American firms early in the year buy up all the space on the steamers to that port, so you will probably not be able to ship that way. The rail rate from Liverpool or Manchester to London is \$6 to \$14 per ton, which is pure robbery. Unfortunately, all the railways also are careless and slow, consequently you run great risk of delays and total loss of shipment, our own experience of a shipment taking four days from Manchester to London, a distance of 225 miles, being an example.

Now, as regards Manchester and Liverpool, the prices are not so good by at least one cent per pound, but neither are so cranky as London. They will take any breed or quality, any size, age or style of plucking or packing, so long as they are wholesome and eatable. Above all, both ports are easy to reach, as excellent lines run to each direct from Canadian ports, and the rates are cheaper than to London.

To sum up, it can be seen that the easiest, sim-

successful, he should increase it gradually. A good farmer has worked himself up gradually, and he still has to study and experiment to keep up, and more so, to keep on growing better. J. R. B.

CHARLES QUINTON, Leavitt, Alta.:—"The FARMER'S ADVOCATE is a paper of inestimable benefit to farmers and stock-raisers." May 16th, 1911.



STARLIGHT = 17441

SHORTHORN BULL, OWNED BY HENRY M. JOHNSTONE, CALDER, ONT.

(See Gossip, page 355.)

**Hints on the Castration of Colts.**

As this is the season at which 90 per cent. of the colts are castrated, a few hints on the care before and after the operation may be useful. As a rule, colts are emasculated at a year old, unless markedly deficient in the development of the fore end, in which case they may be left until two years old. This operation is best performed by the veterinarian, so that in the event of any contingencies otherwise unforeseen arising, the chances of successfully overcoming them will be greater. The up-to-date veterinarian operates with the ecraseur (the chain instrument) or the emasculator (a sort of scissors, with one side of its jaws serrated), the latter instrument being preferable. Other methods have been quite successful in the past, yet the instruments we mention are far in advance of the clams, torsion, forceps or hot iron. All colts should be perfectly healthy at the time of operation; those having had a run at grass will be all the better for it. Do not have the colt thrown on a manure pile for the operation, and see that your veterinarian uses some antiseptic and that his instruments are clean. Lack of cleanliness is the forerunner of blood-poisoning, so be governed accordingly. The introduction of dirty hands into the wound made in the scrotum is positively dangerous. After the operation, see that the wounds are kept open for some days and that the cord does not come down and get attached to the lips (edges) of the wounds. If necessary to introduce the fingers to reopen the cuts, dip them in some antiseptic first: a solution of carbolic—one of the acid to fifty of water—or creolin same strength, will do. Give plenty of exercise the next and following days after the operation. You will thus tend to prevent the great swelling of the sheath, so alarming to some owners. Scirrhus cord, a growth appearing at the end of the cord, which discharges and thus keeps the wound unhealed, is a common sequel to the work of the traveling castrator, so that money will be saved to the owner and the setback to the colt by a second operation avoided if the hints above given are followed out. During cold and wet periods occurring soon after the operation the colts should be housed. It is better to pay \$2 to your local veterinarian than \$1 to the traveling castrator for the operation.

**HORTICULTURE.**

**Horticulture at the Industrial.**

Every one who had the pleasure of attending the Industrial Exhibition last July will agree that there never was a better exhibit in the City of Winnipeg, both as regards utility and entertainment. The display was first class and the competition was keen in every department, with the exception of one, and that was the horticultural, which, curious to say, was almost nil. The exhibits in this department were simply a farce, more especially when it is well known throughout the length and breadth of the Province that very many plants can be grown and bloomed to greater perfection here than in any other part of the known world. Why, the appearance of the Horticultural Hall last year was enough to give our cousins across the border, and every other visitor, the idea that Manitoba soil and atmosphere were only fitted for raising wheat and a few other cereals, and thereby conveying a very wrong impression of the capabilities of our northern country. It is to be hoped that all classes, both in the city and rural districts, will be well represented this year, as they ought to be, and that every lover of the useful and beautiful will at once apply to the manager (Mr. Heubach) for a copy of the prize list, and set to work immediately to prepare their plants so that they may be ready for exhibition by the end of July, and show the strangers and visitors what the people of our Province can actually do in this branch of culture. The prize list has been gone over very carefully and thoroughly this year, and the number of plants reduced both in gardener and amateur classes, while the value of the prizes have not been lessened, thereby making it possible for anyone to enter and compete. The class for nurserymen has been done away with, and in its place two of our nurserymen—viz., Messrs. H. O. Philpott and the Fort Rouge Co.—have agreed to make a first-class exhibit of plants and cut flowers, whereby there will be an attraction for every person attending the exhibition, and it is to be hoped that the gardeners and amateurs will make a good showing and, like in all other departments, the competition in this one will be keen. The date of the exhibition is a week later than that of last year, and will therefore give a better opportunity of having a very much larger variety ready for showing, and in much better condition.

**It Stands the Test.**

P. P. FOWLER, Shefford Co., Que.:—"During the past 28 years that I have been a subscriber to the FARMER'S ADVOCATE, I have learned much from its pages, and with confidence rely on what its pages contain. I admire the way you deal with any matter of a questionable character. Wishing you every success."

**QUESTIONS AND ANSWERS.**

- 1st.—Questions asked by bona-fide subscribers to the Farmer's Advocate are answered in this department free.
- 2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest or which appear to be asked out of mere curiosity.
- 3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.
- 4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

**Veterinary.**

**LEAD POISONING; PLUMBISM.**

Can there be anything done for a cow that has eaten white-lead paint, also tea lead? I have lost three which have eaten tea lead. We gave them raw oil and salts, ginger and soda, but did no good. The raw oil went through her all right, but never jarred the tea lead.

F. K. M.

[Animals eating a sufficient quantity of white lead will suffer from plumbism—lead poisoning. Lead in its metallic state, as it is in tea lead, as a rule does not produce the physiological symptoms, but if tea lead were eaten in small quantities for a considerable length of time it is liable to become oxidized in the system, taken up by the absorbents and produce the same symptoms as the various compounds of lead. Large quantities of tea lead eaten at once would not be likely to act this way, but, being practically insoluble, would act as a foreign body in the stomach and might cause sickness and death by mechanically obstructing the digestive passage. The symptoms of plumbism are, the digestive functions become impaired, the appetite capricious, sometimes entirely gone, at other times voracious. Along the margins of the gums a gray or blue line appears. Constipation and colic sometimes present. Paralysis and wasting of the various muscles, both voluntary and involuntary. The blood contains an excess of water. Nutrition generally is impaired, and epilepsy, convulsions or coma usually appears towards the latter stages. There is usually a rough, staring coat, and a tucked-up appearance of the abdomen. Cases of cows poisoned by eating tea lead are reported in which the symptoms were as follows: Failure of milk and appetite, grinding of the teeth, and dullness, the head rested against any convenient object, the eyes nearly closed and little sensitive to the light or touch, gait weak and tottering; whilst for an hour or two at a time, the cows, although persistently standing on their hind limbs, went down on their knees, propping themselves against the wall. The cases survived four or five days. Treatment in acute cases is not often successful. In cattle no good results from emetics, and the stomach pump is little better. The most convenient chemical antidote is sulphuric acid, about 2 ozs., well diluted with water, about every 6 hours for 4 or 5 doses; or a soluble sulphate, as Epsom salts, about 2 lbs., dissolved in 2 qts. warm water; this acts on the bowels and converts the unabsorbed lead into the insoluble white sulphate. Iodide of potassium also acts well; it produces an insoluble salt and hastens the elimination of the absorbed poison by the kidneys; it should be given in 2-dr. doses, every 5 or 6 hours for 4 or 5 doses. Any of these antidotes acts better if diluted with milk, muilage or eggs, which form insoluble albuminates with lead salts. If much pain be exhibited, opium in 2-dr. doses, repeated every 4 hours if necessary, should be given.]

**REPEATED ATTACKS OF GARGET.**

I have a fine Durham cow twelve years old—a first-class stock cow, in calf. About two months ago she became swollen very suddenly in one quarter of her udder. I gave her salts, and used camphor oil on udder. She was all right in a week, and until two weeks ago, when she became just the same in one other quarter. I treated as before. Could get very little milk from affected part. Quite large, stringy, matter substance came from that teat. She was all right again in a few days, but now is affected in other quarters. She was all right last night, but this morning part is swollen very badly. Seems stiff in hind quarters, and does not feed well. Her udder seems very sore. She is on pasture now, with meal ration. When she was stall-fed her feed was ensilage and oat chop night and morning, with oat straw three times a day. Can you tell me, through your valuable paper, the cause and the cure? Is it any complaint that would affect other cows in same herd? I read Questions and Answers in ADVOCATE, and get a great deal of information from it. I could not farm, it seems to me, without your valuable journal.

G. N. G.

[The inflamed condition of the cow's udder, known as garget, is caused by exposure to cold, over-secretion, injuries, etc. It is probable the cold and damp condition of the ground had something to do with this last attack. The treatment given in the former case proved good, and, therefore, should be repeated in this case. In addition to the salts and camphor ointment, the udder should be repeatedly bathed with warm water, in which the hand can be borne. She should be milked out frequently, and kept in a well-bedded, dry stall, except for a few hours each day, until she has recovered and the ground becomes warm. She should have no grain food, except bran mash along with grass. The trouble is not in any sense contagious or infectious, so that there is no danger of it attacking the other cows because of this case.]

**MALADDRESS AND UDDER TROUBLE.**

1. I have a 3-year-old heifer which came in season about seven weeks ago, and I turned the bachelor in the yard with her, and since that period she has gone down and can hardly walk. For about three weeks after she went to the bull she was straining very bad and was trying to put out her rectum. She still strained and passed some blood. For the last three weeks she seems not to be able to make her urine right, and has her back humped up. She seems as if she cannot eat hay at meals this last few days, and she will eat nothing but grass.

2. I have a cow that gives thick, clotted milk; has done it at times all winter. What is the cause, and what can be done to stop it?

3. I have another cow, and she has little lumps in her teats. She is a good cow, and I would like to know what would take the lumps out and do the cow no harm?

JOSEPH PEARN.

[1. The symptoms your heifer present are caused by maladdress by the bull, and it is probable death will be the result. Accidents of this kind cannot be avoided. Address may have taken place in the rectum, or the neck of the bladder may have become injured. If she still will eat grass, allow her all she will take. Give 4-dram doses hyposulphite of soda three times daily, shaken up with half a pint of cold water. Allow cold water to drink. Inject into the vagina, three times daily, about 4 ozs. of the following: One part laudanum and eight parts water. If she will not eat anything, she must be drenched with linseed or oatmeal gruel. If she should get better, do not give her another introduction to the "bachelor" for six or eight months.

2. This condition of the milk is due to inflammation of the udder, to which your cow appears predisposed. Give purgative of 2 lbs. of Epsom salts, bathe the affected quarter long and often with warm water, and milk it four or five times daily.

3. If the lumps mentioned do not prevent the milk from escaping, leave them alone. If you cannot get the milk from the teats, an operation by an expert with an instrument made especially for the purpose will probably effect a cure, unless the lumps are quite high up in the teats, in which case an operation would probably cause inflammation and do harm.]

**CHRONIC MAMMITS IN COW.**

I bought a cow last fall which had a calf sucking her during the summer. Calf was taken away from her; then she was neglected. Her udder was somewhat caked when we got her, but not as bad as I have seen them. We milked her pretty regular during the fall and fore part of winter, and apparently her udder got pretty well cleared of clotted milk. She is due to calve on 12th July. Now she has been on grass for a few weeks her udder seems to be filling up again. In one teat there was a small quantity of thick milk; what is not thick seems to be all right. Do you think her milk will be fit for use at calving time, and what would you advise us to do? I might say her milk has not dried up altogether all winter.

GEORGE DAWSON.

[From symptoms given, I should say your cow has chronic inflammation of the udder, and it is probable you will have more or less trouble with her after she calves. The milk from quarters that give thick or curdled milk will not be fit for use; that from the other quarters will be all right. After calving, bathe the affected quarters well and often with warm water, and apply camphorated oil made as follows: To a pint of sweet oil add one-half ounce camphor, and place in a pot or pan of warm water (not boiling) until the camphor dissolves. Milk the affected quarters several times daily, and feed lightly, in order to not force the secretion of milk until the udder recovers its normal condition. If the pasture be good, it would be good practice to keep her in the stable and feed dry food, in order to check milk secretion, both before and after calving.]

**UNTHRIFTY JERSEY BULL.**

1. We have a year-old pure-bred Jersey bull that sucked a cow for five months. He looked fine for a while after, but soon after weaning he got in the habit of chewing the manger boards and all the wood around him, and he ate very little food, so we gave him a dose of salts and 1 cupful of blackstrap. He got somewhat better, but he keeps chewing wood yet. What does he want? We feed him ensilage, cut straw, oat chop and roots. Do you think it right for a calf to suck a cow five or six months?

2. What kind of a tonic would you recommend to give fat cattle a good appetite all the time?

3. What is the best veterinary book to help a stockman?

J. W. F.

[1. The cause of your bull eating wood, etc., is probably due to a want of phosphates. Give him all the salt he will take, and a little pulverized bone in his food will benefit him. Change his diet for a while; feed on grass or good clean hay, and a little chop composed of 1 part oats to 1 part peas. In changing the food, do not make a sudden change, or you may cause digestive trouble. It is all right for the calf to allow it to suck the cow until 5 or 6 months old.

2. Fat cattle, when healthy, do not require tonics to give them appetites; in fact, they are much better without, as they will eat all their digestive organs will assimilate.

3. It is hard to advise you as to the best work on veterinary science for a stockman. Probably the best is a work by Arthur G. Hopkins, D. V. M., entitled "Veterinary Elements," which can be procured through the editor of this journal.]

## INVERSION OF UTERUS IN COW.

I have a cow which carried her calf over time. During the last two weeks she strained at intervals, increasing in severity as time passed. The neck of the womb remained tight until the twenty-fourth day over time, when she gave birth all right. Half an hour later the calf-bed came away. We replaced it and put slings under her to keep her on her feet, as she continued to strain as long as she was lying. She took a warm gruel feed and chewed her cud. I raised her hind quarters and put on a rope truss as described in your issue of Feb. 5th. Twenty-four hours later she threw herself on the slings and showed every symptom of being in pain. I let her down into easy position and washed out the parts (which were still much swollen) with warm water and carbolic acid. Since then she lies most of her time, but eats and milks well. Did we give proper treatment, and is danger past? Two of my neighbors have lost cows from the same cause this spring.

B. L. W.

[It is very exceptional for a cow to carry her calf twenty-four days longer than the normal period of gestation, but it occasionally occurs. The proper treatment for inversion of the uterus is to thoroughly cleanse the womb, remove all particles of the after-birth and wash the organ with a good antiseptic, say carbolic acid one part, water one hundred parts, then carefully return it by inserting your hand and arm; get it into as nearly a natural position as possible. Then means must be taken to prevent its reinversion, but she should not be placed in slings, as when she rests in the slings her whole weight comes on the abdomen, and this tends to a recurrence of the accident. It is good practice to put a couple of sutures of soft strong suture silk through the lips of the vulva and then apply a truss. Tie her in a narrow stall; build with straw or other material, so that her hind parts, whether she be standing or lying, will be considerably higher than fore end. Leave the truss on until straining ceases, and leave the stitches in a few days longer. I am unable to say whether all danger is past with your cow. Danger is not past until the uterus contracts and straining ceases. If still straining, inject into the parts one part laudanum, forty parts water.]

## LAME HORSE.

Please give me a cure for a bad sprain in hip joint of horse, which happened about a week ago? It is now running a watery matter at the rump. He can hardly put foot to the ground.

W. MURPHY.

[It is very hard to say just what is the matter with your horse. A sprain of the hip joint is very rarely seen, and when present does not cause an escape of watery matter as you state. I am inclined to the opinion that your horse has received a severe bruise, or else has been penetrated by some foreign substance, as a prong of a fork, a stick, or something of that sort. If the escape of matter mentioned be from an opening in the skin, the hole should be carefully probed, in order to see if any foreign substance is in it, and if so, it should be removed and the opening flushed out with warm water, and a solution of carbolic acid, one part to fifty of water, injected three times daily. If no foreign substance be found, treat as above. If the matter mentioned is an effusion from the skin, without any opening, bathe well with warm water, and apply the carbolic solution to the surface. If it should be as you suspect, a sprain, all you can do is to apply heat, as the joint is so deep-seated liniments have little action. Feed on bran and grass, and if he has difficulty in getting up, place him in slings. Keep as quiet as possible.]

## BLACK-QUARTER AND ANTHRAX.

To the Editor FARMER'S ADVOCATE:

SIR,—On page 314, May 20th issue of the FARMER'S ADVOCATE, I notice "Subscriber's" enquiry about black-quarter in cattle. I think the reply somewhat incomplete. The fact is, black-quarter and anthrax are two separate diseases, though both are highly infectious and resemble each other very much in their general character. There is no anthrax in this State, yet every part has an abundance of black-quarter, on the mountain pastures, which is being successfully prevented by vaccination. This office sends out from 10,000 to 15,000 doses annually of vaccine, and the demand is increasing. I believe there is considerable anthrax in Delaware, brought there in skins imported from the South for special manufacture. Blackleg is confined to cattle and sheep, but the latter are scarcely ever attacked, while anthrax attacks all animals, even man. The flesh of affected animals is unfit for food, and should be burned, in the case of each disease. Both diseases are fatal.

JOHN SPENCER, V. S.

Virginia Agricultural Experiment Station.

## Miscellaneous.

## FEEDING CHOP TO HORSES.

Will any reader of the ADVOCATE tell me if feeding chopped grain to horses is good for them when working hard? I am working mine on tread power every day, and intend feeding chop.

JAS. T. WILSON.

[Except for roading, chopped oats are preferred to whole ones for working horses by most farmers who study economy in feeding. The chopped or crushed grain seems to go farther, because it is all digested instead of being passed unbroken. Whether whole or crushed, it is well to mix a horse's grain with cut feed or chaff, which induces mastication and therefore more thorough digestion.]

## SATURATED LIMEWATER FOR THE PRESERVATION OF EGGS.

Now that the eggs are cheap, I would like to preserve some, so as to be able to keep them till the price is higher. If you know any recipe for that purpose, would you kindly give it through the ADVOCATE, and oblige.

A SUBSCRIBER.

[The solubility of lime in water, at ordinary temperatures, is one part in 700 parts of water. Such a solution would be termed saturated limewater. Translated into pounds and gallons, this means 1 pound of lime is sufficient to saturate 70 gallons of water. However, owing to impurities in commercial lime, it is well to use more than is called for in this statement. It may not, however, be necessary, if good, freshly-burnt quicklime can be obtained, to employ as much as was at first recommended, namely, 2 to 3 pounds to 5 gallons of water. With such lime as is here referred to, one could rest assured that 1 pound to 5 gallons (50 pounds) would be ample, and that the resulting limewater would be thoroughly saturated. The method of preparation is simply to slake the lime with a small quantity of water, and then stir the milk of lime so formed into the 5 gallons of water. After the mixture has been kept well stirred for a few hours, it is allowed to settle. The supernatant liquid, which is now "saturated" limewater, is drawn off and poured over the eggs previously placed in a crock or water-tight barrel. As exposure to the air tends to precipitate the lime (as carbonate), and thus to weaken the solution, the vessel containing the eggs should be kept covered. The air may be excluded by a covering of sweet oil or by sacking upon which a paste of lime is spread. If after a time there is any noticeable precipitation of the lime, the limewater should be drawn or siphoned off and replaced with a further quantity newly prepared. It is essential that attention be paid to the following points:

1.—That perfectly fresh eggs only be used.

2.—That the eggs should, throughout the whole period of preservation, be completely immersed.

Although not necessary to the preservation of the eggs in a sound condition, a temperature of 40° F. to 45° F. will no doubt materially assist towards retaining good flavor, or, rather, in arresting that stale flavor so characteristic of packed eggs. Respecting the addition of salt, it must be stated that our experiments, conducted now throughout three seasons, do not show any benefit to be derived therefrom; indeed, salt appears to impart a limy flavor to the egg, probably by inducing an interchange of the fluids within and without the egg. Water glass (sodium silicate) has been extensively experimented with, using solutions varying from 2% to 10%. Although, in the main, the results have been fairly satisfactory, we are of the opinion that limewater is fully its equal, if not its superior, as a preservative, and that this latter preservative is both cheaper and pleasanter to use there can be no doubt.

FRANK T. SHUTT, M. A., Chemist.

Dominion Experimental Farms.]

## COLT IN LOW CONDITION.

1. I have a pure-bred Clyde stallion one year old which I intend keeping for breeding purposes. Last October he took the strangles very badly, before weaning, and got very poor. In December he took very bad with lice, his hair falling off parts of his body. I destroyed the lice, and he has been doing well since. Will this low condition affect his growth?

2. What would be the proper kind of feed for such a colt?

3. Would you recommend letting him out at night on good pasture and bringing him in during the day and feeding oat chop and hay?

R. S.

[1. The setback that the colt has had will no doubt show its effects for a couple of years, but if he is from a vigorous parentage and thrives well from now on, he should overcome the stunt he has experienced, and mature into almost, if not quite, as large a horse as though he had always done well.

2. Grass, oats and cows' milk should build him up rapidly.

3. We would allow him the run of a good pasture both day and night until the heat and flies become troublesome, and then house him during the day. He should have a manger in his pasture and receive a liberal feed of oat chop mixed with a little bran twice a day. When the pasture becomes dry he should have boiled oats once daily. If he can be induced to take cows' milk, a pailful every morning will send him forward rapidly. Whole milk would make the best showing, sweet skim milk will help, while half a pail of each would probably pay best. A colt can usually be taught to drink milk when housed by withholding water for half a day or more.]

## MARE WILL NOT BREED.

My 2-year-old mare has been bred two seasons before this present one, and I cannot get her with foal. The first year I bred her she was fat, the second she was thinner, and now she is poor. I bred her this year, late in April, to a young horse. If she fails to conceive, would you advise me to bleed her?

J. A. C.

[We would not advise bleeding the mare nor further reducing her flesh. As a rule, a mare is most liable to conceive when in a thrifty condition, evidenced by a soft condition of the skin and good feeling. We would recommend that the mare be allowed a couple of weeks' run on good pasture, and receive in addition 3 quarts of oats twice daily. If her uterine organs are in healthy, normal condition, and she is bred to a sure horse, she should get in foal without difficulty.]

## SOFT PIGS—SOWS EATING PIGS.

Our sows are commencing to farrow. The pigs come soft and without much hair on them. Two young sows commenced to eat their pigs as soon as dropped. They have been fed roots, chopped barley, and water, and have had plenty of exercise.

1. What is the cause for pigs coming in that condition?

2. What will stop a sow from eating her young?

NEW SUBSCRIBER.

[These questions have been asked in former years, and are difficult to answer with any certainty or satisfaction. There is no reference to the first trouble in any of the books we have read on the management and diseases of swine, but we know from experience that it occurs occasionally in spring litters. We have never known a case of it in summer or fall litters, and the opinion is generally held that it is owing to lack of exercise of the sows in winter, and to their being too well fed or having too sloppy food. The fact that it does not occur in summer litters, when the sows have ample exercise and access to grass and grit, would seem to confirm that opinion; but, apart from this, the theory of the sows being too fat does not hold good, when we know that excessively fat show sows not infrequently bring strong, healthy litters, as we have sometimes witnessed on the fair grounds. The only difference is that these have had more or less access to the ground and to grass. On the other hand, it is well known that, as a rule, spring litters come all right where sows have been liberally fed, as well as when kept thin, and the only inference is that the winter conditions should be made as nearly like those of summer as the circumstances will permit. This would lead to giving attention to providing for outdoor exercise, access to sand or gravel, or to wood ashes or charcoal as a substitute. If sloppy food is thought to have anything to do in producing the trouble, the feeding may be varied by scattering a few peas or a little corn on the ground where exercise will be compelled in the search for it.

The want of grit may account for the tendency in the sow to eat her young, and, if so, this may be obviated by supplying ashes, gravel, etc., during the term of pregnancy. This may also prevent the morbid appetite which induces a sow to eat her pigs. We have frequently noticed that when the pigs come soft and short of hair, the sow has gone several days past the limited period of gestation, and that the side teeth of the pigs have grown long and sharp, and if they have strength enough to attempt to suck, these sharp teeth prick the inflamed udder and cause such pain to the sow that she springs up and in desperation seizes a pigling with her mouth, and, tasting blood, is led to devour her young, and thus acquires the habit. This may be avoided by breaking off the overgrown teeth of the pigs with a small pair of pincers. Indeed, it is well to examine every litter when born, and, if necessary, perform this operation. In some instances these teeth will have become discolored to an extent which has led to the common saying that "pigs born with black teeth never do well." The food of the sow previous to farrowing should be of a laxative nature, keeping the bowels active, as otherwise constipation may have the effect of producing the abnormal appetite which prompts her to eat her young. We have heard it suggested that giving the sow some salt fat pork may satisfy her craving and put a stop to her cannibalism.]

## BUTTER FROM SCALDED CREAM.

During the past winter I have been making "Devonshire" butter. Not having enough milk for creamers, I have made butter in the following manner: Let the milk stand twelve or eighteen hours to let the cream rise without allowing the milk to become sour, then place the pans on the stove till the milk is scalded. Set them in a cool place till the cream is cold and can be taken off the milk. Then stir the cream for a few minutes and the butter comes with very little work. I find this manner of making butter is very much easier than churning the cream as I have always done. Will butter made in this way keep through winter if packed for winter use? I always put down butter in June and September for winter use.

M. G. S.

[The scalding of cream for buttermaking materially improves the keeping quality of the butter, because the heating destroys ferment germs. One of the most important conditions in the making of this butter is that the cream be effectively cooled immediately after the scalding, to a temperature below 50 degrees Fahr. The butter should be washed free of all curdy matter after being churned at a low temperature; it should then be firm and keep well.]

## Chicago Market.

Chicago, May 30.—Cattle.—Receipts, 8,500; good to prime steers, \$5.30 to \$6.05; poor to medium, \$4.15 to \$5.35; stockers and feeders, \$3 to \$3.10; cows, \$2.90 to \$3.90; heifers, \$3 to \$5; canners, \$2.25 to \$2.95; bulls, \$3 to \$4.10; calves, \$4.15 to \$6.25; Texas fed steers, \$4.25 to \$5.40; Texas bulls, \$2.75 to \$3.90.

Hogs.—Receipts, 25,000; top, \$6.05; butchers', \$5.70 to \$5.97; good to choice heavy, \$5.75 to \$6.05; rough heavy, \$5.60 to \$5.70; light, \$5.55 to \$5.90; bulk of sales, \$5.85 to \$5.95.

Sheep.—Receipts, 13,000; good to choice wethers, \$4.40 to \$4.55; fair to choice mixed, \$4.15 to \$4.40; western sheep, \$4.40 to \$4.55; Texas sheep, \$4.50 to \$4.85; native lambs, \$4 to \$5.85; western lambs, \$3 to \$5.45.

## British Cattle Markets.

London, May 27.—The live-stock trade continues slow. United States cattle, 6d.; Canadian, 5d. to 6d. United States sheep, 6d., nominal.

Liverpool, May 27.—Canadian cattle, 5d. to 6d. Trade slow.



THE QUIET HOUR.

Joyful Service.

O the rare, sweet sense of living, when one's Heart leaps to his labor, And the very joy of doing is life's richest, Noblest dower!

Our last talk was about bondage—the condition of slaves, degraded and degrading. To-day let us consider a subject as different from slavery as light from darkness—although, to outsiders, it may seem very much the same thing—I mean hearty and willing service.

Those who serve the world are slaves—afraid to do anything or wear anything that is not quite "the thing"; spending time and strength and money in the vain attempt to please a fickle master who cares nothing for them; rising early, and late taking rest, living in a constant state of anxiety and worry; yet ready at last to echo the dying lament of the learned and industrious Grotius: "Alas! I have squandered away my life laborously in doing nothing."

To be the servant of self is at least as great a slavery, and, if possible, even more degrading. It is surely true that "he who lives for himself alone, lives for the meanest man in creation. His nature is no bigger than a coffin." If a man can't control his appetites and passions, he is surely a weak, miserable slave. An American had decided that chewing tobacco was a filthy habit, and that he would give it up. For a long time he failed to keep his resolution. One day he took a bit of tobacco, and, holding it up, said: "You are a thing, and I am a man; it shall no longer be said that a man is mastered by a thing, so, though I love you, here goes!"

The service of Satan is, we all know, a terrible state of slavery. His wages of misery, despair and death will most certainly be paid to the last farthing, unless we escape from his clutches. As I said, we must serve some master; from the highest in the land to the lowest, our life is a life of service. Our late Queen gladly spent her long life in serving her God and her people. The Prime Minister is, even in name, the chief servant of the nation. Our Lord laid down this rule, "Whosoever will be chief among you, let him be your servant." He carried it out Himself, proving His right to be the Master because he came not to be ministered unto, but to minister. Let us serve Him willingly, and so enjoy the only service that is perfect freedom; then we shall be ready to say,

"I love, I love my Master, I will not go out free."

It is a great mistake to think that we can work for ourselves all the week, and for God on Sunday. Even though our work will bring in a certain return in dollars and cents, and the pay is a matter of great importance, still the work may be done for God. There is a good deal of truth in the remark: "If your work is first with you and your fee second, work is your master and the Lord of work, who is God. But if your fee is first, fee is your master and the lord of fee, who is the devil." It is only right that a minister should be paid for his services, but what kind of sermons would he preach if he were continually thinking of the money he would receive? A musician may be paid for his music and a painter for his pictures, and they may work with the intention of earning money too, but if they don't love the work, and forget the reward to some extent in the pleasure of doing it, their work will be of a very poor quality indeed. It is the same with farm work or housework. "People who take pains never to do any more than they get paid for, never get paid for anything more than they do." Nobody wants to hire anyone who is always afraid of being imposed on, and is never willing to do a hand's turn more than he has been engaged for. As Adam Bede says: "I can't abide to see men throw away their tools the minute the clock begins to strike: as if they took no pleasure in their work, and was afraid of doing a stroke too much."

I hate to see a man's arms drop down as if he was shot, before the clock's fairly struck, just as if he'd never a bit of pride and delight in his work. The very grindstone

'ull go on turning a bit after you loose it." He is not the only employer who "wouldn't give a penny for a man as 'ud drive a nail in slack because he didn't get extra pay for it."

"No; the two kinds of people on earth I mean Are the people who lift and the people who lean. Wherever you go you will find the world's masses Are always divided into just these two classes. And, oddly enough, you will find, too, I ween, There is only one lifter to twenty who lean. In which class are you? Are you easing the load Of overtaxed lifters who toll down the road? Or are you a leaneer, who lets others bear, Your portion of labor and worry and care."

If we are serving God, thinking only of the promised reward, will He be pleased with our service? Think of the willing service of David's three captains: breaking through the Philistine host, at the risk of their lives, just to get him a drink of water from the well of Bethlehem. Think of the precious ointment poured out so lavishly on the head and feet of the Master. It was graciously accepted because it was the gift of love. There was no thought of any return that might be made. The giving was a joy in itself, and God loveth a cheerful giver.

"I do my Master's work, as He has taught: And work of love with gold was never bought. He knoweth all of which my life hath need. His servants reap as they have sown the seed. With all my heart I bind my Master's grain, And love makes sweet my labor and my pain."

HOPE.

Ingle Nook Chats.

GREETING TO ALL THE GUESTS, NEW AND OLD!

Now that the balmy June days are here, with their prodigal glory of sunshine, do not for a moment suppose that the Ingle is no longer a fitting place for our pleasant meetings. True, we have no longer the cheery light of the glowing embers, but we shall fill their place with feathery ferns, which shall charm by their beauty, and bring us, in fancy at least, to the cool, shady woodland.

My dear "Chrysolite," it is very kind of you to comment so favorably upon our efforts; if we are able, even in a small measure, to contribute to the pleasure of our readers, we shall have accomplished our aim. "Chrysolite" sends greetings to all her fellow guests. "Moache"—I really will as soon as possible, but a hostess has so many other duties, especially at this season—you understand. No, I have not done any trimming of raspberry canes, but I set out a few this season. Mattie A. S.—The fact of your sending an answer to this or any of our contests constitutes you a member of our club, which now numbers 216. This answer applies to several other inquirers.

We have two new guests from Uncle Sam's domain, both of whom are very welcome. "Morag"—I am not aware of the existence of a "chapter" of the D. of B. E. in any of the towns near here. What is the aim of the society, the requisites for admission, etc.? We have had some ideal weather, but to-day it is cold and wet. What of it!

"Into all lives some rain must fall, Some days must be dark and dreary."

I presume the most interesting subject for a chat at present is the

RESULT OF CONTEST IX.

To this contest there were 108 contributors, only three of whom were successful in guessing every number correctly, viz.: Miss Ethel Blaikie, Denbrae Fruit Farm, St. Catharines; Miss S. Elsie Richardson, Bethany, Ont., and James F. McCallum, Brewer's Mills, Ont., to whom the prizes are therefore awarded.

The following 30 answered all but one: A. L. McDiarmid, A. W. Graham, Mary Hunter, Lily Rogers, Olive Hewison, Achone Magee, "Maggie," Douglas E. MacVannel, H. F. Elsc, Gwendolyn Langford, Ethel Jose, J. W. Chisholm, Laura B. Shaver, R. Deachman, "Minnie May," Evelyn Stott, Emily Ewald, A. M. McColl, Jessie L. Fawcett, "Zara," Mabel F. Longley, W. McArthur, C. M. Blyth, H. S. Stayner, Emma MacLae, A. G. Nixon, and Mattie A. Simpson. Contributions of varying merit (the majority lacking but two or three numbers) were received from Nettie M. Ryckman, E. B. Buckbee, Annie Hartley, M. L. Betts, F. G. Semple, Ethel H. Taggart, Mary K. Clarke, Alice McClary, Jessie D. Hyde, Lottie Middleton, W. T. Ferguson, Maggie Roy, F. L. Sawyer, G. C. McInnis, Mary S. Williams, Maggie Douglas, "Helen," Viola Atwell, H. S. Shirreffs, Eva Gallagher, Jas. Golan, Marion Travers, Grace Kirkland, Pearl Shepherd, Annie E. Bartleman, Ethel M. Lewis, "Jewess," C. Malcolm, C. S. Edwards, Ellen O. Malcolm, M. W. Bertram, Maggie Tennant, "Margaret," Geo. Jamieson, E. Lucretia Burt, "Chrysolite," Oliver L. Tuckey, Minnie Curwen, Edna Dennis, Emily R. Staley, Jennie E. Golan, "Nancie," A. B. Loughheed, S. E. Silvester, Effie Thomson, M. J. Silvester, "Verlie," W. Teasdale, Margaret E. Pascoe, "Madge," Lizzie Hood, Geo. Ferguson, "Marion," Laura M. Archibald, R. Duff, N. A. McEachern, "Eugenie," H. Parkinson, E. A. C. Mabel Price, "Old Maid," Mrs. A. Rodd, "Ike Leicle," Mabel Inmerson, Ethel Ironside, Katie McNab, Dan McDiarmid, S. J. Thomson, "McGinty," R. B. Forsythe, Allie Lyons, Mrs. H. Connell Bennett, Fred Tuckey, David A. Ashworth.

The correct answer to contest IX. is:

- 1. Abraham Lincoln. 11. David Livingstone. 2. Robert Lewis Stevenson. 12. Mark Twain. 3. Wm. Shakespeare. 13. Louisa M. Alcott. 4. Wm. Makepeace Thackeray. 14. Sir John Thompson. 5. Edgar Allan Poe. 15. Ralph Waldo Emerson. 6. Louis Agassiz. 16. Thomas Carlyle. 7. Harriet Beecher Stowe. 17. Charles Reade. 8. Henry W. Longfellow. 18. Henry M. Stanley. 9. Christopher Columbus. 19. Wm. Ewart Gladstone. 10. Oliver W. Holmes. 20. Noah Webster.

I trust that No. XI., which is of a somewhat similar nature, may meet with a generous response—it will benefit young and old to play a game of authors. Contest X., which I supposed would draw out some excellent papers, is not meeting with the success the subject deserves. In order that the tardy ones may yet get in their work, I shall extend the time to June 20th, instead of June 3th. Come, boys, girls, and children of a larger growth, tell us all you know of "Canadians who have become famous" by acts of heroism, devotion to country, or otherwise. Surely there are many such among Canadian men and women of the past and present.

"Jewess," Teresa McCrea, and Mary Calhoun (Alvinston) have acknowledged receipt of prizes in conundrum contest. "Mossie," I am not sure the subject you suggest would be of general interest. Why not try the one already announced? Ingle Nook Chats, Pakenham, Ont. THE HOSTESS.

THE CHILDREN'S CORNER.

PRIZE ESSAY IV.

"How Queen Victoria Won the Love of Her People."

Princess Victoria was awakened early on the morning of June 20th, 1837, to receive the news that she was Queen of England. She was only eighteen years of age, but she had been well trained and educated, and proved an excellent ruler, winning the love of her people as no other sovereign had ever done before.

Queen Victoria was a true good woman, who loved God and believed in prayer. Her first words to the Archbishop of Canterbury, after he told her of her accession to the throne, were, "I ask your prayer on my behalf." This showed her trust in God, which led her to be such a good woman, and thus win the love of her people. Another of her noble characteristics was her love for peace. She always used her influence toward that line, and thus kept the country prosperous in both wealth and population, which very much pleased the people. Queen Victoria also loved her people—rich and poor alike. Her heart went out in loving sympathy to her humblest subjects, and her purse was always open in generous aid. Victoria the Good was a very sympathizing Queen in times of national sorrow, especially to the wives and children of the slain or wounded.

When the news sailed forth that the beloved Queen had passed from earth to her eternal rest, the whole nation was moved with sorrow, and many bitter tears were shed, but her loving memory will remain forever in the hearts of her people. EDNA SHAVER (aged 15), Ancaster, Ont.

Between Ourselves.

Well, children, I suppose you are enjoying yourselves immensely this sunshiny weather, especially with the summer holidays so near. You country-bred chicks, though, don't really know what a good time you are having. I read the other day of a little girl who lived in a room where the sun never shone, except for a few hours in June. The whole family lived, cooked and slept in the same room—had lived there six years. There are thousands of children growing up, like pale and sickly plants, in rooms where the sun never gets a chance to shine. In the summer they die for want of a little fresh air—it is almost too hot to breathe—and yet the health-giving sunshine can't get in to make the air pure and kill the germs of disease. Those city children don't get the chance to roll on the grass, climb trees in the orchard, eat harvest apples, plums and cherries in alarming quantities, tumble about in the hay, go fishing in the creek, or have jolly little picnics in the woods. The policeman won't let them play on the streets, and many of them have no other playground. One little chap, who had strayed away from what he called his home, stayed all night at the police station. He was so excited when he found that he had a real bed to sleep in, instead of a heap of dirty straw, and a whole egg and a glass of milk for breakfast, besides plenty of bread and butter, that he said he had got to a "bully place," and he wanted to stay there altogether. When his home was found, nobody seemed pleased, himself least of all, for he knew he would scarcely ever get anything better than a crust of dry bread to eat; and all the care he ever had was a large supply of kicks and abuse. Children like that would go wild with delight if they had half the fun you have. And yet, I dare say you think yourselves badly used sometimes when you can't have everything your own way. In such a case suppose you try this plan:

"There was a little school-ma'am Who had this curious way Of drilling in subtraction On every stormy day. 'Let's all subtract unpleasant things, Like doleful dumps and pain, And then,' said she, 'you'll gladly see That pleasant things remain.'"

I hope you all intend to do a little gardening this summer. When I was a youngster I scorned a flower-garden, and put nothing but vegetables into my little bit of ground. My potatoes never needed Paris green, for I picked off every beetle most carefully. Don't try to copy Timothy Trim, though, for his gardening was not very satisfactory.

"Timothy Trim was a gardener gay, And his notions were quite sublime; He planted a watch in his garden one day When he wanted to raise some thyme."

"He buried a chest in a bed of mould, And thought it would come up *hoar*, And sunk some sticks in the earth, I'm told, And fancied they'd grow to *stocks*."

"He had a son, and a daughter too, Who didn't think much of his crops, For the *caudly-tuft* of his planting grew Into nothing like lollipops."

"I think I can see him with painful feet, And a look that is quite forlorn, As he murmured, 'I fear that I mustn't sow *wheat*, For I'm never without some corn.'"

"His fancies had turned his brain, I fear, But little of pity he got, For, when his memory failed, I hear, He planted *forget-me-not*."

But I must stop talking nonsense, or you will lose all your respect for my gray hairs. Always respect gray-haired old ladies, my dears, even if they do talk nonsense occasionally, like your old friend— COUSIN DOROTHY.

The secret of the art of pleasing other people is showing an interest in what you are told, particularly when what you are told is what you have been told before; to be considerate to the inconsiderate, and never to talk of yourself. The instruction is valuable, for in the art of pleasing is the whole art of good manners. Analyze it and you will find that it consists of two elements—unselfishness and simplicity. Whoso possesses these qualities needs no lessons in how to behave.

## Scenery.

Does not our illustration suggest quiet and rest and coolness and peace, such as we can so well enjoy after a busy day? The lake, so peaceful and still, and the young moon faintly illuminating the landscape, present a picture calculated to bring out our best and purest and holiest feelings as we contemplate it. But such scenes are reserved for the few who live in the country and whose homes lie near one of our inland lakes. We will picture a comfortable farmhouse behind the trees—a home in fact—for too many of our farmers' houses are not deserving the name of home. It need not be luxuriously furnished. One of the most homelike houses I ever saw was innocent of every extravagance in the way of carpets and furniture. The floors can be stained and varnished to save scrubbing; the chairs can be wood or cane, with plenty of rockers for easy-chairs; the walls neatly papered, with a few pretty pictures, and the girls can add numerous pretty trifles with their needle, and a cozy, homelike room is the result. All the staining, painting and papering can be done by the members of the family, and will cost next to nothing. And as there is no home without food for the mind as well as the body, some books must be had, and as they can be had at such low prices, no farmer's home should be without them. Reading should be cultivated in every household, and the appetite increases with the indulgence. During the long evenings in winter, when the family are gathered about the fireside, one can read while the rest work. Let no evening pass without some reading. Often it is because there are no books in the house that none are read. The distance from the city often prevents a farmer from taking a daily paper, but there is always a weekly one to be had, and a post office within reach. When business calls you to the city, purchase a few cheap books. Not cheap literature, but the works of the best authors may be obtained in cheap bindings or stitched, and if your boys and girls have the right sort of taste in them, they would rather have them than anything else. When there is something to read, much worrying and fretting is banished, and books will fill the place, to a great extent, of companionship, and often doubtful companionship at that.

## Have You a Delicate Skin?

I am not going to give you a series of recipes for beautifying the skin, as I wish to warn my fair readers against the too frequent and injudicious use of the so-called beautifiers. It is true that, to many skins, outward applications are most beneficial if used with discretion. But, as complexion is so much a matter of digestion, it is always as well to put off the use of the cosmetics as long as possible.

On the other hand, there are many women whose skins are so delicate that the bitter winds of winter and early spring make it absolutely necessary for them to make an almost constant use of emollients.

Cold cream is a very useful remedy for a roughened skin; and as it is always more satisfactory to know exactly what the cream is made of, and that it is quite pure, it is a good plan to make it at home, and the following recipe may be recommended for trial. Mutton tallow is a good basis for cold cream, and this you can get at the butcher's, telling him what you require it for, so that he will select some very fine white tallow.

Cut the tallow into bits, and put it into a saucepan without any water. Set the saucepan into a jar of boiling water, and let all remain until the fat is thoroughly "tried" out of the tallow.

Strain through a fine sieve, and, while it is still warm, stir in a teaspoonful of essence of camphor to every cup of tallow.

Next, a teaspoonful of your favorite perfume, and stir until all is a sweet-smelling liquid. Before it has had time to cool, pour into a little jar, and stand in a cold place to set.

## Humorous.

A venerable and dignified bishop was recently having his portrait painted by an eminent artist. After sitting steadily for about an hour in silence, his lordship thought he would like to break the monotony with a remark. Accordingly, he said to the artist: "How are you getting on?"

To the astonishment of his siter, the knight of the palette, absorbed in his work, thus replied: "Move your head a little that way, and shut your mouth!"

Not being accustomed to be spoken to in this fashion, the bishop said: "May I ask why you address me in this manner?"

Artist (still absorbed): "I want to take off a little of your cheek."

Collapse of the bishop.

"What particular incident in the life of George Washington marked his undaunted courage?" asked the teacher.

"He married a widow, ma'am," replied Benny Bloomer.

## Christian Service.

The more heart one puts into the Christian life the easier it is to live it. Most of our difficulties in connection with it arise from a half-hearted practice and enjoyment of it. He who can sing when a burden is imposed upon him, or can rise on faith's pinions when things seem dark, or can find content when duties run against nature, is sure to have a cheery, hopeful and blessed experience of the Lord's favor and service.—*Presbyterian.*

## Before it is Too Late.

If you've a gray-haired mother  
In the old home far away,  
Sit down and write the letter  
You put off day by day,  
Don't wait until her weary steps  
Reach Heaven's pearly gate,  
But show her that you think of her  
Before it is too late.

If you've a tender message  
Or a loving word to say,  
Don't wait till you forget it,  
But whisper it to-day,  
Who knows what bitter memories  
May haunt you if you wait?  
So make your loved one happy  
Before it is too late.

The tender words unspoken,  
The letters never sent,  
The long-forgotten messages,  
The wealth of love unspent—  
For these some hearts are breaking,  
For these some loved ones wait,  
So show them that you care for them  
Before it is too late.



SCENERY.

## How Little it Costs.

How little it costs, if we give it a thought,  
To make happy some heart each day!  
Just one kind word or a tender smile,

As we go on our daily way;  
Perchance a look will suffice to clear  
The cloud from a neighbor's face,  
And the press of a hand in sympathy  
A sorrowful tear efface.

One walks in sunlight; another goes  
All weary in the shade;  
One treads a path that is fair and smooth,  
Another must pray for aid,  
It costs so little! I wonder why  
We give it so little thought;  
A smile—kind words—a glance—a touch!  
What magic with them is wrought.

Open Window.

## Grandmother's Maxim.

I never could tell what my grandmother meant,  
Though she has the wisest of brains;  
"I have noticed," she said, "in the course of my life,  
That lazy folks take the most pains."

I hated to mend that short rip in the skirt  
Of my dress, where the pocket-hole strains;  
And grandmother saw it and laughed as she said,  
"Yes, lazy folks take the most pains."

And that same little rip, when I went out to ride,  
Was caught in my bicycle chain;  
O! then I remembered what grandmother said,  
"That lazy folks take the most pains."

For instead of an inch I must sew up a yard,  
And it's just as her maxim explains;  
I shall always believe what my grandmother said,  
"That lazy folks take the most pains."

## The Soft Answer That Turneth Away Wrath.

How many homes and friendships are broken because the "soft answer" is not spoken and wrath has full course! How many homes do you know where the "soft answer" is never heard, but "grievous words" follow "grievous words" and "stir up anger"?

Did you ever visit in a home where there is a great deal of what is commonly called "bickering"? If you are not accustomed to it and dislike contention, your visit will be spoiled. How thankful you feel if one of the members of the family or you, by a pleasant joke or turn of a speech, set them all to laughing, and so end the discussion.

These people will tell you that nothing is meant by it; that they all understand each other and know "how to take" the speeches. That may be true; but what is the influence of such a home? The members become so accustomed to contradicting each other and saying sharp, biting words, that when they go into other families or set up homes of their own, they do the selfsame thing, and often the results are unpleasant, to say the least.

"But I know I am right," says one. Yes, but cannot someone else be right, also? Very often it has been proven that both are right, and if an exchange of opinion is made, each gains new knowledge. During such a discussion, even if you are right, can't you find some part of your friend's argument to which you can respond heartily—"that's right," or words to that effect? Try it a few times and see if it does not lead to a better understanding.

Another expression we often hear is, "If I 'give in' once, she (or he) will think I must 'give in' all the time." By this I don't mean yielding a principle; but very seldom do the discussions referred to in this article involve a principle. After they are over, we can see that they were wordy battles about nothing. Consider carefully, and when something is said with which you do not agree, think to yourself, "Will anything be gained by a discussion? Will good result to anyone from my expressing my views?" If you decide that it is best for you to speak, you can do so in a quiet way instead of going into the discussion "hammer-and-tongs" style. Afterwards, if you feel that any blame whatever is attached to you, say so. Your dignity will not be lowered, but you will have a clear conscience, and need give no further thought to the matter.

A few days ago a woman, in whose family there is constant quarreling, told me that during the first two years of their married life they had lived very happily. A little later, when speaking of yielding a point, she said that at first she was always the one to "give in," until she finally decided she would show her husband that "she had a mind of her own." I confess I was too cowardly to ask her if she was any happier since she had convinced him of the fact; but I am sure she is not.

Now, husbands, wives, brothers, sisters, friends, neighbors, just be ready to speak the "soft word," and see if the result does not repay the effort. ALICE MARLAND.

## A Nerve Tonic.

I have received the following letter from "Once a Sufferer," who writes me from Glasgow. I print it with all reserve. Perhaps some medical reader can say if the tonic is likely to prove universally successful. My own experience of such "cures" is that while they may answer in some cases they utterly fail in others:

"For many years I have suffered from neuralgia and nervous headaches, and have spent a small fortune in much-advertised remedies, none of which did me any good. Some three months ago a friend advised me to try a 'tonic,' made in the following fashion, and it has completely cured me. I send it to you, hoping that many of your Household readers may derive equal benefit from it: Well, beat an egg in a basin, with a pinch of salt and a very small pinch of carbonate of soda; boil a quarter of a pint of milk, with two or three lumps of sugar; and when it is on the very point of boiling over, pour it on to the egg, stirring quickly all the time with a fork to prevent the egg from 'lumping.' This mixture has all the reviving effect of a stimulant, without its after-reaction, and is at the same time nourishing and soothing to the nerves. The salt and soda, the taste of which is imperceptible, prevent the milk from being indigestible or causing biliousness. Those whose tastes incline to savouries rather than sweets should substitute an extra pinch of salt and a dust of red pepper for the sugar."

## How to Avoid Wrinkles.

Women are always on the lookout for a cure or preventive for wrinkles, which are usually regarded as one of the first signs of advancing age. They buy cosmetics, powders, lotions, and those who can afford it indulge in the luxury of massage—all to chase away the unwelcome intruders. But, after all, the remedy for wrinkles lies very much in our own hands. They are not always a sign of age; on the contrary, one often sees quite young girls with lined and furrowed brows. This can often be traced to the bad habits of raising the brows and frowning, which latter exercise soon produces little horizontal lines between the eyebrows. A great deal may be done to keep a youthful look by living a simple and natural life. Late hours, too much reading at night, and want of fresh air, are mainly responsible for wrinkled faces. But the best recipe that can be given for their prevention is summed up in the two words—"Don't worry." Keep this in mind, meet your troubles bravely, but do not anticipate them, and wear when you can a bright and cheerful expression. A happy and youthful heart will show itself in a placid and unlined face.



Seed Time.

The other day I popped in upon a friend of mine, a dear old lady, with white hair and a face so gentle one would at once feel how justly would she criticise mankind were she to attempt it, and how charity would smooth over many a rough spot. "I've been reading in the ADVOCATE, dearie," she said to me. "I have so many friends there, do you know, I often catch myself off sight-seeing in England with Mollie and Fan, and it's only when I am laughing at something Mollie has said that I come back to Canada and remember my chickens haven't had a mouthful since morning." There she sat, weaving yards and yards of laurel for "H. A. B." and for "Hope," saying how earnestly they wrote; and I am going to tell "Hope" the sweet tribute my friend paid her. She said how well the name suited such a character. She was indeed "white-handed Hope, the hovering angel," and her "Quiet Hour" had been many a sermon to her. But there was one new writing who called herself "One of the Girls." She couldn't make her out one bit. Such a strange mixture of a butterfly and I've forgotten what other thing. She did hope this girl knew nothing about skinning eels or shoeing horses, for if she did, of course she would write about them all in one breath. Oh, she was "queer as a bundle of sticks." Now, it's not mine to question the fact that a bundle of sticks is queer, since the wisdom of our ancestors is in the simile, but if my friend had likened me unto a sea lion, I should certainly have declared her a "wise and upright judge." I remember watching the sea lions at the Zoo in Cincinnati for hours one day, and thought them the worst things to flounder I ever saw: first walking on their fins, then on their tails, and going down completely when hunting their feet. When my charitable old friend called me a "queer mixture," I feel sure others would place me more on the order of this sea animal; but I shall try and not flounder any more, and if I am a bit of a butterfly this time it will merely be to dip into a few of the June blossoms, for they too soon must die. We all have noticed how the bird notes change as the summer months go by. The bright, joyous, light-hearted songs of May are not the songs of August. We do not believe they have forgotten how to sing, so we conclude the cares of a family and the heat of the midsummer sun has taken all the song out of their hearts. This, then, alone—the bird-songs of spring—is surely typical of childhood. In this world of change there are at least two stable things: childhood and nature. Evolution has never touched baby sweetness, the progress of the centuries has never caused the apricot blossom to sleep until her leaf-buds have expanded, nor the cowslip and daffodil to bloom with the summer rose. No matter how busy or what changes pass over the earth, the south wind but calls, and the flowers obey, each in its own order. We should be thankful for this—thankful for the seed-time as well. As for the harvest, by the time harvest comes we shall have forgotten all about the luxuriant clover meadows, the wonderful growth in the vegetable garden. The birds and flowers too will be forgotten, and if the wheat crop is poor and the prices down, we shall see nothing in the world to be thankful for; but just now there is everything prosperous and growing, and we should be so grateful, we the tillers of the soil, for it always seems to me that promise was sent especially to us: that "seed-time and harvest shall not fail"; and what Spencer wrote in his "Ministering Angels" so many years ago is a very good thought for us to bear in mind:

"And is it all for love and no reward? Oh, why should Heavenly God to man have such regard?" Stop! you "queer mixture," or you won't be allowed to be— ONE OF THE GIRLS.

Helpful Lives.

When we have given our money to help the poor and spoken our most encouraging words to help the weak, we have not yet exhausted all our resources. A true christian may help others as much by his life as by his words and gifts. Nay, the principal contribution which anyone can make to the life of the world is not his word or deed, but himself. It is a vain thing to try to set a good example without a good heart. A life which is merely acted is not genuine, and the counterfeit will soon be detected. Artificial lives are like the artificial flowers which one sees in the market. They are beautiful to the eye, but shed no fragrance on the air. The bees never hover about them. A good life proceeding from the heart creates a spiritual atmosphere, which greatly affects everyone who comes within its range.

Humorous.

Near the entrance to the Paris Exhibition a beggar, covered with rags, solicits alms from the passers-by in broken French, with a decidedly Spanish accent. A gentleman gave him two sous, and then added another twenty, saying: "You can earn this trifle, my friend, if you will take this letter." "What do you mean, sir?" was the Spaniard's haughty rejoinder. "A Hidalgo may beg, but he doesn't work." Eli Perkins got off the following at a lecture in Minneapolis: "A Fond du Lac preacher, worn out with trying to get a decent living, sent in his resignation. Said he: 'Brothers and sisters, I come to say good-by. I don't think God loves this church very much, because none of you ever die. I don't think you love each other, because none of you ever get married. I don't think you love me, because you never pay my salary, and your donations are mouldy fruits and wormy apples, and by their fruits ye shall know them. Brothers, I am going away from you to a better place. I have been called to be chaplain of the Stillwater penitentiary. Where I go ye cannot come, but I go to prepare a place for you. Good-by.'"

THE VALUE OF POETRY.

Blessings be with them and eternal praise Who gave us nobler loves and nobler cares— The Poets.

—Wordsworth.

This is a commercial and prosaic age—an age of hurry and turmoil. The keenness of the world's competition is such that every man has a hard struggle to keep abreast with the stream. There is no room for the weak or the idle, and inevitably they go to the wall. It is not altogether a bad thing, this fierce and never-slacking competition. The manhood of our race can only be kept up by contest. Peace of any kind is productive of languor, and languor is the forerunner of decadence. One of the greatest attributes of men of British race is their love of fighting and hard work. They are always engaged in a rivalry of arms or of trade, and as long as this spirit lasts the British Empire will retain its supremacy.

But this enthusiasm for work has its disadvantages also. It is apt to stamp out the latent poetry in the souls of men. It narrows men's sympathies, and often gives them Mammon for an ideal rather than the spirit of Beauty and Nobility. I do not wish to lay an unjust accusation against business men as a class, but it is not in human nature to be always busy in the pursuit of wealth, or even in the hard struggle for one's daily bread, without having a tendency to become somewhat sordid in character, with no high ideals to cheer one along the rough path of life. "Early and late, getting and spending, we lay waste our time," wrote Wordsworth, in that most lovely sonnet in which he rebukes the mercenary spirit of the age.

Therefore I most earnestly desire to encourage my friends to read good poetry, as far as it does not interfere with those commercial subjects which are necessary for their welfare in life. The great collection of British poetry is the noblest and the greatest in the world's literature, and to neglect its treasures is like turning one's back upon a princely heritage.

There are a hundred reasons why the study of poetry is most valuable. First, because it contains the choicest wisdom of all ages, set down in words that stir the heart like the chords of a glorious melody. From the infancy of the world, men of great hearts and mighty intellect have found vent for their joys and sorrows, for the wonderings of their spirit at the mystery of the universe, for their gladness at the glories of Nature offered to them by the lavish hand of the Creator in harmonious song, that came from their hearts to touch responsive chords in their fellow-men. The wisdom that men have learnt by bitter experience, or infinite wrestling with thought, has been set down in burning words for the sake of all who care to listen. And the voices of Nature herself, the song of birds, the babbling of brooks, the rustling of the wind through the forest, the waving of the flowers in the grass, the hum of myriad insects on a summer's day, have been translated into words of beauty by men and women to whom Nature has whispered secrets unheard by vulgar ears.

Those who do not read poetry lose the acquaintance of a good counsellor, who will comfort them in time of trouble, who will cheer them when they are discouraged, who will point out the straight path when they have lost their way in a tangled forest, who will sympathize with their sorrow, and be glad in their gladness, who will enlighten them with bright thoughts when they are dull, and lead them into the company of the immortals when all around seems commonplace and humdrum.

Those who read poetry have a golden store of good things to help them along the road. In every doubtful moment of their life a few lovely lines of wisdom come ringing upon their ears like the sound of bells upon the night, which tell the lost traveller where to direct his steps. When a man stands at the parting of the ways of duty and self-indulgence, Tennyson's noble lines may guide him to the true path—

"Not once or twice in our rough island-story, The path of duty was the way to glory. He that walks it, only thirsting For the right, and learns to deaden Love of self, before his journey closes, He shall find the stubborn thistle bursting Into glossy purples, which out-redden All voluptuous garden-roses. Not once or twice in our fair island-story, The path of duty was the way to glory. He, that ever following her commands, On with toil of heart and knees and hands, Through the long gorge to the far light has won His path upward, and prevail'd, Shall find the topling crags of duty sealed Are close upon the shining table-lands, To which our God Himself is moon and sun."

To those of us whose hearts bear the dull, aching pain inflicted by the loss of one most dear to us—a wife, mother, sweetheart, or friend, who having gone from us seem to have left the world wholly dark, those other lines of Tennyson come to us like a soothing balm:

"I hold it was true, whate'er befell, I feel it when I sorrow most: 'Tis better to have loved and lost Than never to have loved at all."

A man or woman who sometimes sighs for wealth and luxury denied, for a fame that they have striven after but never reached, for intellectual gifts that have been withheld, may take courage in that simple and lovely poem of Sir Henry Wotton, which has cheered the hearts of quiet folk for three centuries and more:

"How happy is he born or taught, Who serveth not another's will, Whose armour is his honest thought, And simple truth his highest skill."

"This man is free from servile bonds Of hope to rise or fear to fall; Lord of himself, though not of lands, And, having nothing, yet hath all."

Four lines by a poet who, if he had written nothing else than these, would have been worthy of immortal fame, teach us that life is not to be measured by years, but by our thoughts and deeds:

"We live in deeds, not years—in thoughts, not breaths— In feelings, not in figures on a dial; We should count time by heart-throbs, He most lives Who thinks most, feels the noblest, acts the best."

As an antidote to one of the commonest failings of the day, the habit of criticising our neighbors, laughing at their foibles, imputing the worst motives to their actions, and regarding their outward form and fashion rather than their real characters, Adelaide Proctor's beautiful poem, "Judge Not," may well be committed to memory:

"Judge not; the workings of his brain And of his heart thou canst not see; What looks to thy dim eyes a stain, In God's pure light may only be A scar, brought from some well-won field, Where thou wouldst only faint and yield."

"The look, the air, that frets thy sight, May be a token that below The soul has closed in deadly fight With some infernal fiery foe, Whose glance would scorch thy smiling grace, And cast thee shuddering on thy face!"

Poetry, besides giving one great ideals, fine thoughts, a broad sympathy and infinite consolation, helps one also to cultivate a noble style of writing, and any of my readers who are ambitious to gain a success in literature must first make

friends with the poets. The lingering melody of a lovely line rings in one's ears for years, and by reading much poetry one's ears are attuned to delicate combinations of sound to the perfect cadence of metre, and to beauty of expression which can never be learnt by rule, or by the deepest study of grammar.

"She never told her love, But let concealment, like a worm i' th' bud, Feed on her damask cheek."

There Shakespeare gives us an example of a lovely thought expressed in most perfect language.

"Now came still evening on, and twilight gray Had in her sober livery all things clad; Silence accompanied; for beast and bird, They to their grassy couch, these to their nests Were slunk, all but the wakened nightingale, She all night long her amorous descant sung, Silence was pleased. Now glowed the firmament With living sapphires; Hesperus, that led The starry host, rode brightest; till the moon, Rising in clouded majesty, at length, Apparent queen, unveiled her peerless light, And o'er the dark her silver mantle threw."

Thus Milton describes evening in Paradise, in language that is like the voice of Nature herself, in lines full of a sweet melody. In Shakespeare's words—

"It had a dying fall, Oh, it came o'er my ear like the sweet south That breathes upon a bank of violets, Stealing and giving odor."

The Click o' the Latch.

Oh, the click o' the latch! how pleasant its sound When at evening my father returns From his work on the farm, and he smiles to see The fire as it brightly burns, And he sees the table for supper spread, Prepared by his daughter's hand; There is not another such housewife as she, He says, "in the whole broad land."

"Click! click! goes the latch with a merry sound, As my brothers return one by one, Each honest face glowing with smiles at the thought Of the work of the day well done. As my mother smiles welcome to each as he comes, A glad woman is she, I ween; And as each stoops o'er to kiss her dear face, She looks up as proud as a queen."

Oh, the click o' the latch! as cheery its sound As the chirp of the cricket at eve; Though the folks are all home, yet I listen for it, As I muse and sweet fancies weave. I fancy I see in the twilight a youth Coming up by the blackberry patch, And I list for the sound of his footsteps, and dream That I hear the click o' the latch.

Oh, the sweetest music that ever I heard Is the sound of his manly voice, And the truest heart in the whole wide world Is the heart of the lad of my choice. Ah, that merry whistle, I know it well, It comes from the blackberry patch— Here he comes at last! That step—it is he! I hear the click o' the latch.

Women's Headaches.

No doubt the headaches of women have many different causes. One of them is the fact that their lives are far more indoors than that of men, and in an air less pure. Another cause of headache is the frequent attack of acute indigestion. The effect is about the same as in the other case; the poisons generated in the digestive tract are absorbed into the blood and affect the nerve centers, causing headache. When a headache comes on, the thing to be done is to get the poison out of the system as quickly as possible. A copious enema of quite warm water will wash away some of it from the lower bowels, and this will make way for matter above to pass on. Copious hot-water drinking or a vomit will help to cleanse the stomach. It remains next to cleanse the blood. This is best done by breathing fresh air in as great abundance as possible. If not able to go out of doors, lie gently in bed in a cool room well ventilated and breathe all you can. Sometimes the effect of deep breathing temporarily increases the pain. Then make less effort, but breathe all you can. The habit of taking medicine of any sort for headache is vicious and in the end harmful. While medicines sometimes give temporary relief, they do not remove the causes. They are a broken reed instead of a true support.

Defied the Baron.

Important officials sometimes forget that there are persons who can afford to disregard their importance. A purse-proud old nobleman was traveling through the rural districts of Sweden. One day he stopped his carriage at a country tavern, and called out in an imperious tone: "Horses, landlord! Horses at once!" "I am very much pained to inform you that you will have to wait over an hour before fresh horses can be brought up," replied the landlord, calmly. "How!" violently exclaimed the nobleman. "This to me! My man, I demand horses immediately!" Then, observing the fresh, sleek-looking ones which were being led up to another carriage, he continued: "For whom are those horses?" "They were ordered for this gentleman," replied the landlord, pointing to a tall, slim individual a few paces distant. "I say, my man!" called out the nobleman. "Will you let me have those horses if I pay you a liberal bonus?" "No," answered the slim man. "I intend to use them myself." "Perhaps you are not aware who I am!" roared the now thoroughly agitated and irate nobleman. "I am, sir, Field Marshal Baron George Sparre, the last and the only one of my race." "I am very glad to hear that," said the slim man, stepping into his carriage. "It would be a terrible thing to think that there might be more of you coming. I am inclined to think that your race will be a foot-race." The slim man was the King of Sweden.

"Will you trust me, Fannie?" he cried, passionately grasping her hand. "With all my heart, Augustus—with all my soul, with all myself," she whispered, nestling on his manly bosom. "Would to heaven you were my tailor," he murmured sotto voce, and tenderly he took her in his arms.

# Valuable Premiums!

These very liberal premiums are given our subscribers for sending us  
**NEW SUBSCRIBERS,**  
accompanied with the cash.

No subscription must be taken at a less rate than  
**\$1.00 PER YEAR.**

EVERY farmer who reads the FARMER'S ADVOCATE is benefited many times the subscription price. No better time than now to get new names.

## "Post" Fountain Pen

SOMETHING THAT EVERY MAN, WOMAN, BOY AND GIRL NEEDS.

It is a wonderful tribute

to the greatest invention in fountain-pen construction of the age.

THE PRICE OF **\$3.00** IT CANNOT BE PURCHASED UNDER THIS PRICE ANYWHERE.

The patentee has a hard-and-fast agreement with the trade and agents that \$3 shall be the lowest retail price. By a special agreement we are in a position to make

**A Great Offer:**

We will send one of these pens to anyone who sends us three new subscribers, accompanied by \$3.00 in cash.

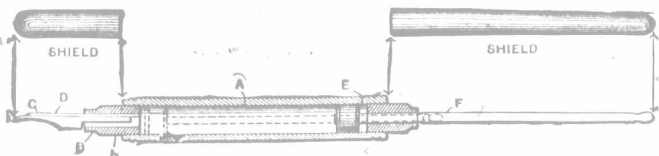


General Lew Wallace, the author of the greatest book of the age, "Ben Hur," also "Prince of India," "Commodus," etc., says in a letter in his own handwriting:  
"The fountain pen, Post, was received, and I have taken the liberty of trying it thoroughly. Please accept the excuse for failure to acknowledge sooner.  
"I have tried every pen of the kind on the market, and now unhesitatingly give the preference to the Post. It not only feeds itself with less care, but has the immeasurable advantage of re-supply without inking the fingers. I do all my work with it."

*Lew Wallace*

To show our confidence in this pen, we will send you one on trial for a week upon receipt of \$1.00, which, if not entirely satisfactory, you can return to us and we will refund you the \$1.00 paid us. If satisfactory, you must send us the names and addresses of the three new subscribers and \$2.00 additional cash.

THE only self-filling and self-cleaning pen manufactured in the world. To fill the pen, put the nib in ink and draw the piston rod up. To clean, put the nib in water and draw the piston rod backwards and forwards a few times.



A, Barrel; B, Nozzle; C, Pen; D, Feed; E, Plunger; F, Rod.



The world's greatest singing evangelist, who has thrilled thousands and tens of thousands, now raises his voice in praise of the Post Fountain Pen.

Mr. Sankey sends the following characteristic letter:  
"I have used the Post pen for some time, and have had great satisfaction with its use. It never fails or gets cranky. One can at least have clean hands by using the Post, whatever the heart may be."

*Frank Sankey*

ADDRESS—

The **Wm. Weld Co., Ltd.,** Winnipeg.

# Want a Good Watch?

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

### Gents' Watches.

No.	Description	New Subscribers.
No. 1.	Yankee Nickel Watch	2
No. 2.	Trump Nickel Watch	4
No. 3.	Trump Gun Metal Watch	5
No. 4.	No. 14 Silver Watch	8
No. 5.	7 Jeweled Gent's Elgin in 3 oz. Nickel Case	10
No. 6.	7 Jeweled Gent's Elgin in Gun Metal Case	11
No. 7.	7 Jeweled Gent's Elgin in Sterling Silver Case	14
No. 8.	7 Jeweled Gent's Elgin in 20-year Filled Case	18
No. 9.	7 Jeweled Gent's Elgin in 25-year Filled Case	21
No. 10.	15 Jeweled Gent's Elgin in 3 oz. Nickel Case	15
No. 11.	15 Jeweled Gent's Elgin in Gun Metal Case	15
No. 12.	15 Jeweled Gent's Elgin in Sterling Silver Case	18
No. 13.	15 Jeweled Gent's Elgin in 20-year Filled Case	21
No. 14.	15 Jeweled Gent's Elgin in 25-year Filled Case	25

### Ladies' Watches.

No.	Description	New Subscribers.
No. 15.	Gun Metal Swiss Chatelaine	4
No. 16.	Sterling Silver Swiss Chatelaine	5
No. 17.	Nickel American O. F., large size	5
No. 18.	Gun Metal American O. F., large size	5
No. 19.	Nickel, small size	9
No. 20.	Gun Metal, small size	10
No. 21.	Sterling Silver, small size	10
No. 22.	7 Jeweled Elgin in 20-year Filled Hunting Case	20
No. 23.	7 Jeweled Elgin in 25-year Filled Hunting Case	22
No. 24.	15 Jeweled Elgin in 20-year Filled Hunting Case	23
No. 25.	15 Jeweled Elgin in 25-year Filled Hunting Case	25

### Description of Watches.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

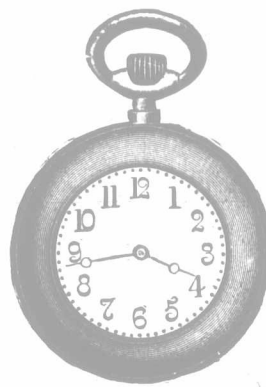
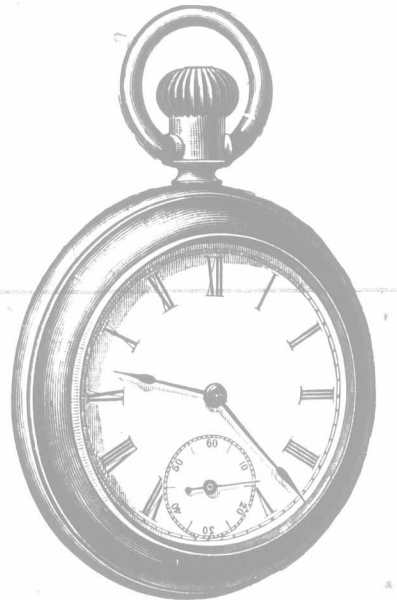
**Nos. 19, 20 and 21** are small sized; in fact, are the exact size of cut. These are American Watches, O. F. stem wind, and push-in stem and turn to set hands, and are first-class timekeepers. Will give perfect satisfaction.

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

**Nos. 22, 23, 24 and 25** are similar to the accompanying cut. These are regular Ladies' Hunting Watches. Nos. 22 and 24 are fitted in 20-year guaranteed Gold Filled cases, nicely ornamented, or to be had in plain or plain engine turned, and the same applies to Nos. 23 and 25, excepting that they are fitted in 25-year guaranteed Gold Filled cases, and 14k Gold Filled; 22 and 23 are fitted with 7-Jeweled Nickel, first-quality Elgin movements. Nos. 24 and 25 are fitted with 15-Jeweled Nickel, first-quality Elgin movements.

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

THE WILLIAM WELD CO., LTD., WINNIPEG, MAN.



HILL GROVE SWINE HERD



Of pure-bred Ohio Imported Chester Swine. Young stock for sale. Pairs and trios not akin. Call on or address: A. E. THOMPSON, Prop., Hannah, N. D.

GOSSIP.

Killarney holds a plowing match June 11th. "Let the good work go on!"

Old Charming Charlie is still doing stud duties, under the management of S. MacLean, Neepawa.

Brandon Agricultural Society has put out a good hanger calling attention to their fair. "If you miss it, you'll regret it!"

Joe Laidler, one of the Berkshire experts of the Beautiful Plains district, has sold all his available stock, and reports the demand A 1 for good hogs.

A new exchange, bright and newsy, is the Somerset Century. It is to be hoped that the editor will range himself on the side of agricultural progress.

Killarney plowing match, the secretary informs us, will be held June 27th. The annual show under the auspices of the agricultural society will be held October 9th and 10th.

The Hartney Agricultural Society are negotiating with the C. P. R. Land Department for a permanent site for their fair. This Society holds one of the best local fairs in the Province.

J. A. McGill's Berkshires are being called for in numbers, the stud boars receiving a good patronage also. Mr. McGill is breeding his trotting-bred driving mare to the Hackney stallion, Confident Squire.

Neepawa creamery is running under the supervision of J. H. Stanton, an ex-O. A. C. (Guelph) man. The creamery is not yet running at its capacity, but will doubtless meet with the larger patronage that such a project deserves.

Mr. D. G. Ganton, of Elmville, Ont., is one of the rising breeders of Canada, and one who is bound to make his mark. For some years Mr. Ganton has given a great deal of attention to the breeding of Shropshire sheep, and by starting right, having founded on the noted Monarch strain, and used nothing but the best possible sires, he has to-day a flock of which he is justly proud, and which contains some very extra specimens of the Shropshire breed. This year's crop of lambs, some fifty odd, are a credit, not only to Mr. Ganton's judgment in the selection of a sire, but to the sire as well. The stock ram at present employed is Mansell's 4th, imp., 717, sired by Fortification 9498; dam Fair Star 5177. Mansell's 4th was bred by A. E. Mansell, Harrington Hall, England, and imported by Mr. Robert Miller, Stouffville. Mr. Ganton is also breeding some extra nice Yorkshires. His present stock boar is Oak Lodge King David 5693, sired by Oak Lodge Royal King, imp., 3044; dam Oak Lodge Clara 12th 3136. Oak Lodge King David is a model of the long, deep, bacon type, and coupled with such breeding sows as are to be seen on the farm, very happy results can be expected. Mr. Ganton is also making a showing of some very nice Shorthorn cattle, which will be making it interesting at the fall fairs. On this farm can also be seen some extra Scotch collie dogs, also B. Plymouth Rock chickens.

WESTBOURNE DISTRICT.

On the C. P. R., Minnedosa section, twenty-two miles north-west of Portage la Prairie, is the above country, which is splendidly adapted to grain and stock growing. A short visit was paid to this district recently by one of our staff, and both hay and grain crops were in a very healthy condition and gave good promise of a productive season. Cattle and horses were thriving well on the new pasture, while in Westbourne a number of the old residents of the district were visited, including Mr. Walter Lynch, Pioneer Stock Farm, the well-known breeder of Shorthorns, whose herd numbers some seventy head. In this herd are some very fine, sleek-coated, strong, lusty females, descendants of Village Hero, the massive stock bull that won distinction when shown at the Winnipeg Fair a few years ago. The quality of the young stock is of such high order as to at once convince the visitor that it is Mr. Lynch's ambition to keep representatives of this breed of such merit that those purchasing will be well satisfied with their purchase. The herd is now headed by a right good young bull, in Scottish-Canadian, a rich Marr-bred roan, imported in dam. Some exceedingly good young 2-year-old yearling and heifer calves can be seen in this herd.

Mr. Donald Stewart's farm (also a pioneer of the district) was visited. Mr. Stewart keeps a herd of dairy Shorthorns, and has a smooth, well-proportioned young bull at the head of his herd, in Gold Dust, by Knuckle Duster, recently purchased from Mr. James Bray, a large farmer and breeder in the Longburn district. Mr. Stewart's three sons, Messrs. Alex, Duncan, and Angus, besides cultivating the old homestead, have a large rented farm under cultivation, and they each have a large acreage under crop on their own homesteads. With a favorable year, they will be rewarded with a large return in grain crop.

Mr. D. Morrison, who, with Messrs. Lynch and Stewart, was one of the first settlers in the district, goes in for grain-growing extensively, and owns a large, well-cultivated farm, on which is a very comfortable residence and farm buildings.

Mr. E. D. Lynch, a nephew of Mr. Walter Lynch, also an extensive farmer, has a large farm. A look around the comfortable home and stabling is all that is necessary to satisfy one that on this farm a success is made of farming. By kindness of Mr. E. D. Lynch, we enjoyed a splendid drive to Lake Manitoba, a large lake in the district, in which are fish in abundance, and a noted hunting resort in season. Bordering on this lake is a large expanse of the best of pasture and hay land.

Erskine Lad, the noted Clydesdale of Beattie & Colquhoun, Brandon, died suddenly at the opening of the season. A Percheron was secured from A. Galbraith, Janesville, Wis., to fill the vacancy.

Jas. Yule has a contract to furnish the Indian reserves with some good, useful bulls. The Indians' cattle stock will doubtless show considerable improvement in the course of a year or so from the use of the stock selected.

While in the Neepawa district recently, we noticed a large number of plum trees in blossom in the garden of Harry Tindall. These trees were procured from Minnesota. The Transcendant crab is also doing well with him.

J. G. Washington, Ninga, has sold Sittlyton Hero, the last year's Winnipeg champion, to Mr. Mead, Pincher Creek, Alta., for the handsome sum of \$1,000. It will be remembered that this bull was shown by Mr. Yule last year in the yearling class.

J. W. Drysdale, Neepawa, has some pure-bred Clydesdale horses, got from D. McBeth, Oak Lake. He believes that the best are none too good, and is a staunch supporter of the project looking to the instituting of an agricultural college at an early date.

The premium list of the 42nd annual fair of the Minnesota State Agricultural Society is to hand. It is well gotten up, on lines similar to the Winnipeg prize list. This fair is noted as being one of the most progressive on the continent. The date of the fair is September 2 to 7.

Stock-raising is not incompatible with wheat-growing, if we can judge from the performance of J. G. Barron, of Topsman fame. Four hundred and twenty acres in wheat and 250 acres in barley and oats is not a bad record for the owner of one of our crack Short-horn herds.

The following will show what can be done by some of our farmers: Joe Donaldson, Brandon, bought two 2-year-old steers weighing over 1,500 pounds; J. Burchill bought from Thomas Patterson two big 3-year-olds weighing over 3,200 pounds, netting their feeder over \$70 apiece.

Iowa Agricultural College holds a special school in stock judging at Ames, Iowa, Jan. 6th to Jan. 20, 1902. The attendance this year was over 300. Accommodations are being provided for 500 would-be judges. What opportunities are denied our young and old Manitoba farmers!

Yorkton directors announce change of fair dates from fall to midsummer. Breeders from a distance are invited to go after the money hung up in the various classes. As Yorkton is a ranching center, opportunities for selling stock should be numerous. Wm. Simpson is the secretary and E. A. Healy the president of the agricultural society.

We have to hand Jno. Grant's Argentine Commercial Guide, edited by Ernesto Danvers, Buenos Aires. As the prospect for trade between Canada and the Argentine in pure-bred cattle is just starting, this guide will be of considerable value to our breeders. It may be consulted at the office of the FARMER'S ADVOCATE, fourth floor, McIntyre Block, Winnipeg.

The U. S. Department of Agriculture, Washington, D. C., will shortly issue a farmers' bulletin on the principal insect enemies of growing wheat. Mention is made of several insects, which are listed in the order of their destructiveness, viz: chinch bugs, Hessian fly, wheat midge, grain-plant lice; then follow the wheat-straw worms, the wheat-bulb worms, army worms, cutworms, and sawflies.

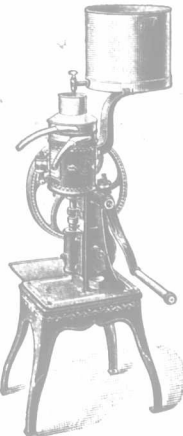
A. Scott has the Morris creamery in running order, and will be assisted by A. Gibson, of this year's dairy school graduates. Mr. Scott is a graduate of some years ago, the Morris creamery is well arranged, provision having been made so as to avoid all unnecessary labor. A feature of this creamery is the separate churn in which to make up tainted cream, and thus prevent the spoiling of a whole day's churning. The Disbrow combined churn and worker is used in this creamery, and is considered very useful by Mr. Scott, especially in poorly-ventilated factories.

A recent grasshopper scare caused Hugh McKellar, Deputy of the Minister of Agriculture; F. T. Griffin, C. P. R. Land Commissioner; and Editor G. H. Greig, of the FARMER'S ADVOCATE, to journey to Stockton, on the South-western branch, to investigate. The youth of the hoppers at the time prevented their thorough identification. At present they were found to be on the stubble land, and as the farmers are busy plowing them under, it is not expected that any great damage will be done. A careful watch will be kept on their movements, and the strategical resources of the Department will be used to circumvent their ravages.

Included in Mr. Greenway's recent importation of horses and cattle was that good Shire horse, Robin Hood, obtained from Berry & Geiger, Hensall, Ont. Jos. Yule reports the stock all safely landed at Prairie Home; the stallions, King of the Clydes, the Toronto champion, and Robin Hood, going right into the hands of the new owners. A recent purchase, which will be brought out in the next shipment, end of June, is Lady Belle 4th (imp.), with a bull calf at foot by Prince of Archers, got from Arthur Johnston, Greenwood, Ont. We understand she is a good one, and will be seen when the bell rings at the Industrial for the Shorthorn classes.

With that virility that characterizes West-erners, the Agriculture and Arts Association of Brandon are laying plans to make their annual fair a hummer. An elaborate prize list has been issued, in which provision is made for the exhibition of all classes of farm products. Among the new things on the Brandon bill of fare is the judging competition for farmers and farmers' sons under 30 years of age. Such a step is a very commendable one on the part of the fair board, evidencing that they are determined to keep in view the educational features of the agricultural show. It is to be hoped that the entries in these competitions will be large. The manager, Capt. Clark, and the Board of Directors are hustlers and will spare no efforts to make the fair a greater success than any preceding one.

20TH CENTURY De Laval "Alpha" CREAMERY SEPARATORS.



THE word De Laval has always been synonymous with progressive development. Every year has marked some new improvement or step of advancement, bringing the "Alpha" De Laval machines still nearer to literal perfection. By the adoption to the "Alpha" disc system the new Split Wing Tubular Shaft invention, the milk is more evenly and thoroughly distributed in the separating bowl than heretofore. This improvement effects generally every feature of separator practicability, affording considerably greater capacity, with still more exhaustive thoroughness of separation, particularly under the harder conditions of heavy cream and low temperature.

The New Capacities, dating from June 1st, 1901, are as follows:

"BABY" OR DAIRY STYLES.

Table listing various De Laval separator models and their prices, such as 'Alpha' Crank Humming Bird, 'Alpha' Iron Stool, 'Alpha' High Frame, etc.

Great as has been the previous superiority of the "Alpha" De Laval machines to other separators, the 20th Century "Alpha" developments place them above the possibilities of attempted competition from anything else in the shape of a cream separator. 30 to 35 per cent. increase in capacities. No increase in price.

The De Laval Separator Co.

Western Canadian Offices, Stores and Shops: 248 McDermott Ave., - Winnipeg, Manitoba. CHICAGO. NEW YORK. MONTREAL.

Under a heading, "More Schools Needed," the Carberry Express comes out with an article strongly favoring an agricultural college.

Dr. A. G. Hopkins, of the FARMER'S ADVOCATE, has been appointed director in charge of the judging competition for farmers and farmers' sons at the Brandon Fair.—Western Star.

The Commissioner of Immigration at Winnipeg is assisting in the bringing out of Scotch farm laborers. Advance \$25 for the fare, and you get an experienced farm hand right from "home."

Galloways are not kept in large numbers in this Province, which is to be regretted, as their hardiness, absence of horns, solid color, good feeding qualities and their furry hides make them peculiarly fitted for this western country. Be that as it may, if they are not here in numbers, quality is present, as is typified in the Hope Farm herd of Mr. Wm. Martin, at St. Jean Baptiste, advertised in this paper. A neat catalogue has been printed, giving the scale of points and characteristics of the breed, which can be had on application. Several good ones, recently imported, are now in quarantine. Among the lot is a Highland winner in the bull classes. The present head of the herd is Mogul of Wavertree, third prize as a yearling at the Chicago Show, 1900, a bull with a good back, loin and crops, well-filled twist, smooth and straight in his lines. An eleven-months-old calf is Sweeper of Wavertree, a well-bred youngster, level in his top and bottom lines, deep through; in fact, one of the kind that will get the right sort of calves. The matrons of the herd are strong individually, among whom we noticed Black Beauty, by Halton 8893, a cow with lots of quality and Galloway character; Lady Derby, a very thick one, with the right sort of covering; and the hand-some two-year-old Ethel of Wavertree, by Speculator 19355. The show herd will probably be seen at the big Canadian fairs this year, and will doubtless secure a good share of the prizes. Sales of bulls to the ranges have been numerous this spring, among them being Waterloo 7538, imp., winner as a yearling at Winnipeg, and the header of the silver-medal herd. He goes to the Lethbridge ranch of W. H. McIntyre, Salt Lake City. An idea of this bull's development may be gained by the fact that he weighed 1,790 lbs. as a two-year-old. Mackenzie of Lochkil, the new imported bull, was bred by Thos. Biggar & Sons, who had reserved him for their stud Galloway male. His breeding is A1, being by Contender 1th of Tarbrooch. Son and sire have both been winners on their native heath.

Birtle Agricultural Society lost its hall by fire recently. Partially insured.

The Glenwood Agricultural Society holds a summer show at Souris, August 7th and 8th. New features are prizes for a mixed-farming exhibit, to consist of a span of horses, two cows, two pigs, half dozen fowl, two bushels wheat, two bushels oats, one bushel potatoes. In 1902, prizes will be awarded for the best-kept farm in Glenwood, the best garden in Souris, and the best lawn in Souris. Glenwood is up-to-date!

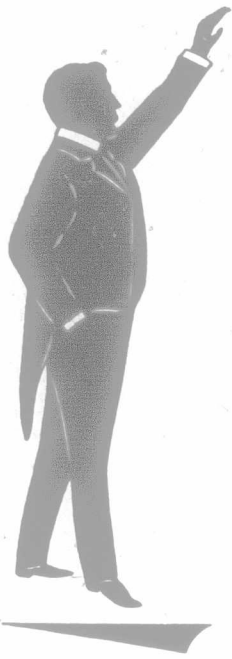
Ever on the alert for something new, the Winnipeg Industrial Association has issued a prize list which is convenience itself, minus the usual bulkiness. It can be carried around in the coat pocket without inconvenience. The cover is a work of art. A perusal of the list shows that lots of good money is hung up in the live-stock, grain, dairy and other farm classes. An interesting feature will be the butter-making competitions. Manager Heubach has secured some splendid attractions, many of which will be of an educational character, notably the performing elephants and the siege of Tien-Tsia.

George C. Cary's sale of Shorthorn stock, held at Hopkins Brothers' farm, at Fort Fairfield, Maine, May 11th, was well attended and made a good average. The right sort of cattle were there, and the men were there that would pay good prices for cattle. Sixteen head sold for \$2,460.00. The stock bred by W. E. Alton, Nelson, Ontario, topped the sale. Cary's herd bull, Nelson, D. S. H. B. =25509, sold to Hopkins Bros. for \$600.00. Gladys sold to Hopkins Bros. for \$175.00. Estella sold to W. H. Fisher for \$175.00. Cherry Pie 10th sold to H. Sharp for \$165.00. Bell Duess 8th sold to I. Ward for \$150.00. Heifer calf Cherry Pie 4th sold to Hopkins Bros. for \$65.00; total, \$1,230.00. The five heifers named above are all the got of Nelson =25509, and bred by W. E. Alton, of Nelson, Ontario.

A meeting of the Board of Directors of the Canadian Jersey Cattle Club was held recently in the Walker House, Toronto. There were present: Capt. Wm. Rolph, President; R. Reid, Secretary; W. E. H. Massey, George Davies, David Duncan, D. O. Bull, H. G. Clark, and W. P. Bull, Solicitor. After some discussion, it was decided not to officially recognize the "Dairy Test" at the Pan-American Exhibition, especially the representation of Canadian Jerseys. The revision of the constitution was then taken up, and, after several material changes, adopted. Steps were also taken for the incorporation of the club. It was decided to hold the annual meeting this year on June 15th. Through the kind invitation of Mr. Massey, the meeting will be held at "Dentonia Park." All owners of Jerseys are cordially invited to spend the day at "Dentonia."

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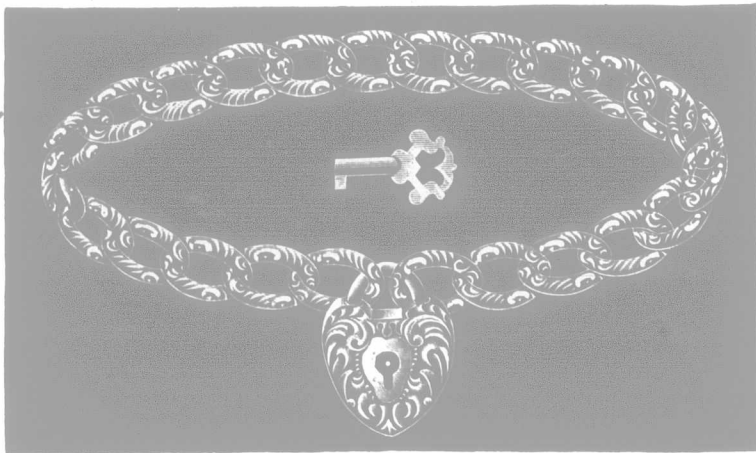
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Containing the Old and New Testaments, according to the authorized version, together with new and revised helps to Bible study—a new Concordance and an indexed Bible Atlas, with SIXTEEN FULL-PAGE ILLUSTRATIONS, PRINTED IN GOLD AND COLOR.

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Would retail at from \$3 to \$4. We will send (carefully packed, post-paid) this Bible to anyone sending us the names of TWO NEW SUBSCRIBERS to the FARMER'S ADVOCATE at \$1.00 each.

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Write for a sample copy of the Farmer's Advocate, and begin to work for these premiums right away. In every case cash must accompany the new names.

The William Weld Co., Ltd., Winnipeg.

Our

## Farmer's Library

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

### SOIL AND CROP.

THE FERTILITY OF THE LAND.—Roberts. 372 pages. \$1.25.  
A BOOK ON SILAGE.—Woll. 185 pages. \$1.00.  
SOILS AND CROPS.—Morrow & Hunt. \$1.00.  
FORAGE CROPS.—Thos. Shaw. \$1.00.  
SOILING, ENSILAGE, AND BARN CONSTRUCTION.—F. S. Peer. 247 pages. \$1.00

### LIVE STOCK.

VETERINARY ELEMENTS.—A. G. Hopkins, B. Agr., D. V. M. \$1.50. A practical book for stockmen and agricultural students.  
THE STUDY OF BREEDS (CATTLE, SHEEP, AND SWINE).—Prof. Shaw. 400 pages; 60 engravings. \$1.50.  
HORSE BREEDING.—Sanders. 422 pages. \$1.50.  
LIGHT HORSES—BREEDS AND MANAGEMENT. 226 pages. \$1.00.  
HEAVY HORSES—BREEDS AND MANAGEMENT. 219 pages. \$1.00. } Vinton Series.  
CATTLE—BREEDS AND MANAGEMENT. 270 pages. \$1.00.  
SHEEP—BREEDS AND MANAGEMENT. 232 pages. \$1.00.  
CATTLE BREEDING.—Warfield. 386 pages. \$2.00.  
THE DOMESTIC SHEEP.—Stewart. 371 pages. \$1.75.  
THE SHEEP.—Rushworth. 496 pages. \$1.50.  
PIGS—BREEDS AND MANAGEMENT.—Sanders Spencer. 175 pages. \$1.00.  
FEEDS AND FEEDING.—Henry. 600 pages. \$2.00.  
PONIES—PAST AND PRESENT. 50 cents.

### GENERAL AGRICULTURE.

AGRICULTURE.—C. C. James. 200 pages. 30 cents.  
FIRST PRINCIPLES OF AGRICULTURE.—Voorhees. 207 pages. \$1.00.  
AGRICULTURE.—Storer. 1,875 pages, in three volumes. \$6.00.  
CHEMISTRY OF THE FARM.—Warrington. 183 pages. 90 cents.  
FARMYARD MANURE.—Aikman. 65 pages. 50 cents.  
IRRIGATION AND DRAINAGE.—King. 502 pages. \$1.50.  
IRRIGATION FOR THE FARM GARDEN AND ORCHARD.—Henry Stewart. \$1.00.  
SUCCESSFUL FARMING.—Rennie. 300 pages. \$1.50, postpaid.

### DAIRYING.

AMERICAN DAIRYING.—H. B. Gurler. 252 pages. \$1.00.  
THE BOOK OF THE DAIRY.—Fleischmann. 330 pages. \$2.75.  
MILK AND ITS PRODUCTS.—Wing. 230 pages. \$1.00.  
TESTING MILK AND ITS PRODUCTS.—Farrington & Woll. 255 pages. \$1.00.  
DAIRYING FOR PROFIT.—Mrs. E. M. Jones. 50 cents.

### POULTRY.

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

### APIARY.

THE HONEYBEE.—Langstroth. 521 pages. \$1.50.

### FRUIT, FLOWERS, AND VEGETABLES.

VEGETABLE GARDENING.—Green. 224 pages. \$1.25.  
FLOWERS AND HOW TO GROW THEM.—Rexford. 175 pages. 50 cents.  
THE PRINCIPLES OF FRUIT-GROWING.—Bailey. 514 pages. \$1.25.  
BUSH FRUITS.—Card. 537 pages. \$1.50.  
HORTICULTURIST'S RULE BOOK.—Bailey. 312 pages. 75 cents.  
SPRAYING OF PLANTS.—Lodeman. 399 pages. \$1.00.  
THE NURSERY BOOK.—Bailey. 365 pages; 152 illustrations. \$1.00.  
AMATEUR FRUIT-GROWING.—Samuel B. Green. 5x7 inches; 134 pages, with numerous fly leaves for notes; bound in cloth, and illustrated. 50 cents.

### PLANT AND ANIMAL LIFE.

THE STORY OF THE PLANTS.—Grant Allen. 213 pages. 40 cents.  
THE STUDY OF ANIMAL LIFE.—J. A. Thomson. 375 pages. \$1.75.  
INSECTS INJURIOUS TO FRUITS.—Saunders. 136 pages. \$2.00.

## HOW TO OBTAIN THESE BOOKS:

We will furnish present subscribers any of the above books for cash or as premiums for obtaining new yearly subscribers to the FARMER'S ADVOCATE at \$1.00 each, according to the following scale:

Books valued at from \$0.30 to \$0.65,	for 1 new subscriber.
" " " " 90 to 1.25,	for 2 " "
" " " " 1.50 to 1.75,	for 3 " "
" " " " 2.00 to 2.50,	for 4 " "
" " " " 2.75	for 5 " "
" " " " 6.00	for 12 " "

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

Cash to accompany names in every case. Subscriptions credited a year in advance from date received.

The WILLIAM WELD CO., Ltd., WINNIPEG, MAN.

**GOSSIP.**

Blyth plowing match will be held on Tully Elder's farm, June 21st.

Some of the creameries are utilizing the by-products by feeding pigs. Pork is a good price now, and the venture should return good dividends.

There were some good collies in evidence at the recent dog show in Winnipeg. Mrs. A. Jardine taking the bulk of the prizes with this noted breed of dogs.

In the Dublin police court a dairyman was fined \$5 for overstocking a cow. This was done by sealing up the ends of the teats with colodion for the purpose of deceiving a probable customer. One moral is—try the teats before you buy the cow! Old Country authorities are well known for their antipathy to all attempts at fraud.

A recent bulletin by Dr. McEachran, Dept. of Agriculture, Ottawa, on maladie du coit, is to hand. The information is of the kind that informs (b), namely, that this disease resembles syphilis. We always understood maladie du coit to be malignant. The bulletin is badly proof-read, and altogether is not creditable as a scientific or useful production.

An institution well and favorably known to many of our farmers is the Brandon College. This institution will soon have commodious and substantial quarters in the new brick and stone building now in course of construction. The attendance last winter numbered 110, many of whom went up for matriculation. At the present time classes are being held in which instruction in commercial work, bookkeeping, stenography, etc., is given.

A call was made recently at the establishment of D. A. Reesor, Brandon, whose stock of high-class jewelry it would be hard to surpass in our largest cities. Sterling might be said of all the articles on view and for sale, quality with good value being the mainspring of the business. The new store (Mr. Reesor was burned out last January) is elegantly fitted up. The show cases being of oak, with plate-glass fronts. A specialty of this establishment is watch-repairing, satisfaction being guaranteed. Wedding presents, engagement or wedding rings and marriage licenses can be procured from Mr. Reesor, so that no good reason exists on this score why any man should remain in the abominable state of bachelorhood.

The Steele Bros. Ayrshires have been before the Western public for years, and are known to be of high-class character. There is possibly a tendency to overlook this useful breed in these days of stockers and ranches. Such, however, is a great mistake, as people will eat and drink, and therefore must have good milk and butter, which can be profitably got from Ayrshires. At the head of the Glenboro herd we find Surprise of Fairfield, a dairy bull, light in color and with a skin as soft as a glove. His strong constitution, activity and quality, together with his dairy conformation, endow him with the attributes of a sire of dairy stock. Cockabendie, a darker-colored 2-year-old, goes to A. J. Loveridge, of Grenfell, in a short time, where his depth and capacity of lung and digestive organs should show markedly in his calves. Nancy, a 2-year-old, is just springing. She is by What-Care-I, and shows good promise of nice udder development. The 1-year-old Bessie has been seen by numbers of our readers at the shows, where she invariably distinguished herself. This cow has the necessary large barrel and well-balanced udder of the typical dairy animal. Spunky is a 3-year-old heifer of the right type, showing considerable Ayrshire character and well-developed milk veins. One of the old type of Ayrshire is a solid red cow with remarkable udder development and strong constitution. One of the most noted and best-bred cows is the Steacy cow, whose dam, Lady Diana (imp.), was one of the cracks in Scotland when in her prime. Some stockers are raised, and the demand for females is always good, so we were told by a member of the firm. The farming done is up-to-date. About 200 acres are in wheat, and a large area is kept under grass. Two crops of wheat are usually taken off; one of oats, followed by summer-fallow or seeding down. Rye and Brome grasses are both grown, the former being rather the favorite. Where such high-class dairy stock is kept, one naturally expects some special provision has been made to handle the milk. Such is the case, a De Laval separator and H. P. gasoline engine doing the needed work. Four horses are worked together on the seeder and gang plow; three on the harrows and binders.

**A LOSS TO AGRICULTURE.**

Prof. Otto Luggger, of the Agricultural College, S. Anthony's Park, Minn., died recently at his home in St. Paul. Prof. Luggger's work in entomology was well known. Manitoba had a visit from the distinguished entomologist last year, in connection with the grasshopper visitation.

**PILES Cured Easy.**

Archie Birkett, Ionia, Mich.: "I had to quit work on account of piles. I suffered terribly all the time. Two applications from a 50 cent box of Pyramid Pile Cure cured me completely. All druggists sell it. Book on Piles, causes and cures mailed free, Pyramid Drug Co., Marshall, Mich."

**THE WESTERN FARMER'S LIVE STOCK INSURANCE CO.**

HEAD OFFICE: 251 GRAIN EXCHANGE WINNIPEG.

D. PRITCHARD, PRESIDENT. H. S. PATERSON, SECRETARY, P. O. Box 1382.

The best insurance is when risk is greatest. Claims paid for six months ending June 1st, 1901, \$3,000.00.

Write for particulars. LOCAL AGENTS WANTED.

**Chicago Sheep Shearing Machine**



1901 Model Stewart's Pat. Price \$15. Guaranteed to shear any kind of wool that grows. All gears cut from the solid metal and hardened.

BOOK ON SHEARING just published. Finely illustrated, with valuable hints for fast and easy shearing by R. M. Marquis, champion of the world, will be sent free to any sheep owner on application. Address: CHICAGO FLEXIBLE SHAFT CO. 158-160 Huron Street, Chicago, Ill.

H. G. Pickering, Minnedosa, and E. Stout, Rapid City, were the owners of prizewinning hounds at the recent show.

A half-section (320 acres) of unbroken prairie, 5 1/2 miles north of Carberry, was sold last week for \$9,000.

M. E. Jones & Co., Williamsville, Ill., and S. E. Prather & Son, Springfield, Ill., held a sale of Shorthorns at the latter place, May 1st and 2nd, at which Jones & Co.'s 4-year-old imp. cow, Stella, by Star of Morning, and her heifer calf, brought \$2,200; Mr. E. W. Bowen, Delphi, Ind., being the buyer. Imp. Sybella, by the same sire, brought \$1,025. The imported 11-months bull, Scottish Signet, by Scotland's Crown, sold for \$1,315. Messrs. Jones' 15 females averaged \$306, and 11 bulls \$115. The 78 head sold in the two days made an average of \$290.

A recent visit to the Smithfield Stock Farm, Brandon, found the proprietor or actively engaged in tree planting, mainly cottonwood cuttings. The pastures of Brome grass were looking well, one supporting some 17 young Shorthorn bulls at the present time. Mr. Smith believes in sowing Brome grass with oats, the latter cut for green fodder. He sows with the drill, using 10 pounds of Brome seed and half a bushel of oats to the acre. A couple of young heifers were seen, who will make their presence felt in the summer show-rings.

One is impressed with the magnitude of the cattle business when train load after train load is seen departing, freighted with immature heaves, which on return will be meat to the King's taste. The prices paid vary from \$14 to \$18 for yearlings, and from \$20 to \$25 for 2-year-olds. Some large shipments have been made recently, notably those by G. B. Murphy, Carberry, of 6,000 head; R. J. Nelson, Wawanesa, who has shipped 2,000 head of stockers. Messrs. Hall, Fenwick and Philip, of Brandon, shipped 700 head onto their ranch in the Milk River dist.

The firm of Somerville & Co., Brandon, are well known throughout the West for the tastiness of design and general excellence of their work in marble. The embellishment of the graves of the departed with monuments is the especial province of this firm, and the satisfaction they give in this respect may be guessed at when one finds that this firm have orders from Winnipeg, as far east as Toronto, and as far west as Revelstoke, B. C. Only the best material is used, Vermont marble being imported in considerable quantities. In conversation with the firm, it was elicited that few of the cemeteries in the country receive the attention that they should, and that there is abundant opportunity to make the resting places of the dead beautiful with trees, shrubs and evergreens.

In this issue will be noticed the advertisement of the Western Farmers' Live Stock Insurance Company, with headquarters in Winnipeg. While rather of a novelty, the insurance is evidently popular with the people for whom it is intended—the farmers. The first policy was written August 10, 1900, and there are now over 1,700 members. The business extends from the eastern boundary of the Province, as far west as the Rockies. Local agents only are employed. Cattle and horses, including entire, are insured, horses outnumbering the other stock. Up to date, 65 losses have been paid, and in many of the cases have helped the farmer to supply himself with draft stock for the seeding. The scarcity of feed, and poor quality, has had its effect in increasing the mortality among live stock. Policies are written for five years, but any member may withdraw at the end of one year, if 30 days' notice is given and all assessments met. Particulars can be obtained by writing the Secretary, H. S. Paterson, Grain Exchange, Winnipeg. Local agents are wanted to canvass for business.

The Clydesdale stud of J. A. S. Macmillan, Brandon, is well known throughout the West as being composed of animals of high-class breeding and conformation. Mr. Macmillan has recently imported from the South several Clydesdales that will be on parade in the principal show-rings this summer. The aged horse, Sir Christopher, will be a formidable competitor in the aged stallion classes, on account of his action, quality of limbs and feet. This brown 5-year-old is an especially good-bodied horse, and is very strong in his loin, with a muscular development. He was a winner at the Highland and Chicago shows, and will only be used to the stud matrons. A youngster of aristocratic Clydesdale lineage is Baron Hendry, by Baron's Pride, the latter known as the world's champion Clydesdale sire. A half-brother (Earl of Bombie) to this colt was awarded the championship over all ages at the last Chicago show. Baron Hendry has good feet and pasterns, and will make a big horse. He is a strong-boned, active colt, with plenty of muscular development. The other horses of the importation are by Macgregor. The mares are good individuals, one being a prizewinner at Chicago. They will doubtless secure some of the honors at the forthcoming shows.



**For Prize List and other Information**

F. W. THOMPSON, President.

F. W. HEUBACH, General Manager.

WINNIPEG,

MANITOBA.

**GOSSIP.**

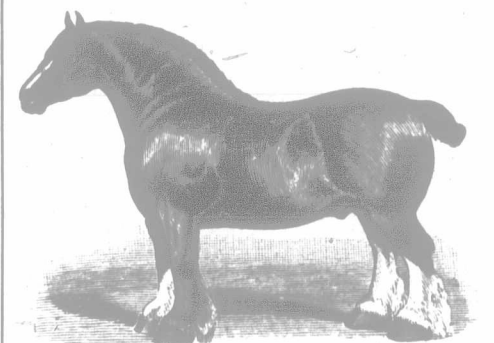
Edmonton creamery reopened May 20th. Crystal City Creamery will be managed this summer by R. McLennan.

The Forestry Association, of Crystal City, is an aggressive organization. The members have arranged to import trees, mainly evergreens, which they will sell to the farmers at cost.

Some time ago we referred to the poultry of Thomas H. Chambers, Brandon. The stock is of the best, representatives from his poultry yards being winners at Brandon and Winnipeg. Barred Rocks are the specialty, although other breeds are kept. At the Manitoba Poultry Show he took into camp the specials for best breeding pen and best display, 1st and 2nd on cocks, and 1st and 2nd on breeding pens. Bear in mind the name, Thos. H. Chambers. He gives you a chance to improve your feathered stock.

In this issue appears the advertisement of A. E. Thompson, proprietor of the Hill Grove swine herd, Hannah, N. D., in which he offers for sale O. Improved Chester Whites. This breed is noted for its rapid growth and early-maturing qualities and the faculty of making a good profit over cost of feed consumed. Their color renders them very acceptable to the consumer for food purposes. The foundation stock was got from L. B. Silver Co. importations, being the progeny of Silver Dick 2285 and Jessie 2287. The sow was a winner at Winnipeg Industrial, 1900; the boar being a large, lengthy, masculine fellow. Another of the matrons is Linden Queen, a large, smooth sow with that development of ham so much desired; deep in her sides also. Two daughters of Major 2286 (an Industrial winner, 1900) are Hill Grove Beauty and Hill Grove Maid, both due to pig shortly. A recent importation is the boar, Hill Grove Conqueror 3439, from the herd of Judge L. L. Frost, Mirabile, Mo. This boar has plenty of bone, length and depth, and has already proven a sire of high-class stock. Write for prices, and secure some of Thompson's money-makers.

**J. E. SMITH**



SIR ARTHUR.

Offers for sale three Clydesdale stallions all prize-winners, and fit to head any stud. Two of them imported from Scotland. Three to six years of age. These stallions all of good form. Ample weight, good colors, and choice quality. Were personally selected, and the best that money could buy. In order to make quick sales, will be sold on a very small margin. Intending purchasers of a good useful stallion would consult their own interests to inspect these stallions before buying. Also for sale, fillies and mares all ages. Shorthorn bulls, cows and heifers all ages; sired by Lord Stanley 2nd and Golden Measure (imp.). A useful lot of breeding Shorthorns can be seen at Smithfield. All are kept in breeding trim. Buyers in search of moderate-priced cattle should not fail to see them. Come and see the stock. You will find it just as represented, and prices right.

J. E. SMITH, Telephone 4. Smithfield Ave., P. O. Box 274. BRANDON.

**FOR SALE:**

Registered "Klondyke" Guernsey Bull . . . .

Three years old. Two first prizes in succession at Winnipeg Exhibition. For particulars and price:

P. D. MCARTHUR, 324 PORTAGE AVE., WINNIPEG, MAN.

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**Clydesdales and Shorthorns.**

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





I HAVE FOR SALE  
**SHORTHORNS**

My herd bull, King Christopher (22964), 1 young bulls (reds and roans), and a few females. Write for prices.

Wm. McDonald, Pilot Mound, Man.

**D. FRASER & SONS,**  
EMERSON, MAN.

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

**SHORTHORNS, YORKSHIRES AND TAMWORTHS.** Stock of all ages and both sexes, at prices according to quality. Write  
**W. G. STYLES, ROSSER P. O.,**  
SEC. 12-13-1, WEST. C. P. R.

**FOREST HOME FARM.**

**SHORTHORNS, YORKSHIRES AND B. P. ROCKS**  
at reasonable prices. A few choice young cows, heifers and heifer calves, Yorkshire pigs, both sexes, sired by Imp. Summer Hill Premier, and out of the choicest sows. Two young sows in pig for sale.

**ANDREW GRAHAM,**  
CARMAN, C. P. R. POMEROY P. O.  
ROLAND, N. P. R. MANITOBA.

**POPLAR GROVE**  
**HEREFORDS.**  
Champion herd of Western Canada.  
Best beef cattle in the world. Sturdy young bulls for sale. Also cows and heifers. Nearly 100 head to select from.  
**J. E. MARPLES,**  
Deleau, Manitoba.

**LAKE VIEW RANCH**  
**Herefords and Galloways**  
Young bulls for sale. For prices write  
**J. P. D. Van Veen,** FILE HILLS P. O., N.-W. T.

**Canadian Pacific Railway**  
Are prepared, with the  
**Opening of Navigation**  
**MAY 5th,**  
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"ALBERTA,"  
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**WM. STITT,** C. E. McPHERSON,  
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WINNIPEG.

**HEREFORDS.**

The range favorites. Good rustlers and feeders. Prizewinners, either male or female, for sale.

**JOHN WALLACE, CARTWRIGHT, MAN.**

**Roxey Stock Farm,**  
BRANDON, MAN.  
**J. A. S. MACMILLAN,**  
IMPORTER AND BREEDER OF PURE-BRED  
**Clydesdales, Shires, Hackneys.**  
STALLIONS AND MARES.

**Shorthorn Cattle**  
**Shropshire Sheep**  
INSPECTION INVITED.  
CORRESPONDENCE SOLICITED. **Prices Right.**  
TERMS EASY.  
FULL PARTICULARS ON APPLICATION.  
APPLY **P. O. BOX 403.**

**The Veterinary Association of Manitoba.**

Under the authority of Secs. 18, 19, 20, 22 and 26 of the Veterinary Association Act, 1890 (53 Vic., Chap. 60), the following persons only are entitled to practice as Veterinary Surgeons in the Province of Manitoba, or to collect fees for the service rendered as such:

- Baker, G. P. .... Russell.
- Brocken, G. E. .... Clan William.
- Coxe, S. A. .... Brandon.
- Cruikshank, J. G. .... Deloraine.
- Dunn, J. W. A. .... Winnipeg.
- Dunbar, W. A. .... Brandon.
- Elliott, H. James .... Brandon.
- Fisher, J. F. .... Brandon.
- Freel, B. E. .... Ninga.
- Golley, J. .... Treherne.
- Harrison, W. .... Glenboro.
- Henderson, W. S. .... Carberry.
- Hilliard, W. A. .... Minnedosa.
- Hilton, G. A. .... Portage la Prairie.
- Hinman, W. J. .... Winnipeg.
- Hopkins, A. G. .... Neepawa.
- Hurt, W. R. J. .... Belmont.
- Irwin, J. J. .... Stonewall.
- Lake, W. H. .... Miami.
- Lawson, R. .... Shoal Lake.
- Lipsett, J. H. .... Holland.
- Little, C. .... Winnipeg.
- Little, W. .... Pilot Mound.
- Little, W. A. .... Boissevain.
- McFadden, D. H. .... Emerson.
- McGillivray, J. .... Manitou.
- McGillivray, C. D. .... Binserath.
- McKay, D. H. .... Brandon.
- McLoughry, R. A. .... Moosomin.
- Martin, W. E. .... Winnipeg.
- Monteth, R. A. .... Killarney.
- Marshall, R. G. .... Grieswood.
- Murray, G. P. .... Winnipeg.
- Nagle, J. W. .... Morden.
- Robinson, P. E. .... Emerson.
- Rowcroft, S. V. .... Birnie.
- Rutherford, J. G. .... Portage la Prairie.
- Rutledge, J. W. .... Killarney.
- Shoule, W. A. .... Gladstone.
- Smith, W. H. .... Carman.
- Snider, J. H. .... Emerson.
- Stevenson, C. A. .... Weston.
- Stevenson, J. A. .... Carman.
- Swenerton, W. .... Carberry.
- Taylor, W. R. .... Portage la Prairie.
- Torrance, F. .... Winnipeg.
- Waldon, T. .... Killarney.
- Walker, J. St. C. .... Minto.
- Welch, J. .... Brandon.
- Whaley, H. F. .... Glenboro.
- Young, J. M. .... Rapid City.

The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable for prosecution.  
**F. TORRANCE, REGISTRAR.**

FOR  
**Seeds 1901**  
SEND TO **KEITH & CO.,**  
WINNIPEG, MAN.  
Catalogues mailed on application. P. O. Box 456.

**DR. BARNARDO'S HOME.**

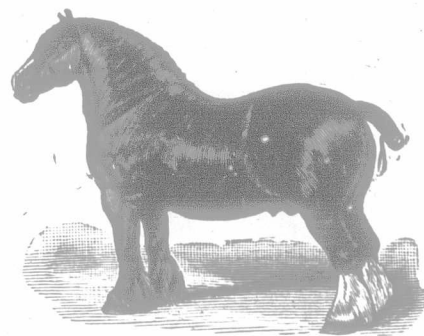
The managers of these institutions invite applications from farmers and others for boys and youths, who are being sent out periodically, after careful training in English homes. The older boys remain for a period of one year at the Farm Home at Russell, during which time they receive practical instruction in general farm work before being placed in situations. Boys from eleven to thirteen are placed from the distributing home in Winnipeg. Applications for younger boys should be addressed to the Resident Superintendent, 115 Pacific Avenue, Winnipeg, or P. O. Box 970; and for older boys, possessing experience in farm work, to Manager, Dr. Barnardo's Farm Home, Barnardo, Man.

**Pure-bred Plymouth Rock Eggs**  
FOR SALE: 50 CENTS A SETTING. APPLY TO  
**George Herrington,** Morden, Man.

**Chambers' Barred Rocks** are winners. The shows record. Has also Blk. Minorcas, Hamburgs, S. C. B. Leghorns, and S. L. Wyandottes. Eggs, \$2 a setting. See my exhibit at the next Brandon show. Stock bred by me is fit to head any yard. Write for particulars. **THOS. H. CHAMBERS, Brandon.**

**EGGS** From Andalusians, Black Minorcas, Cochins, Partridge-back and white.  
\$2.00 A SETTING. STOCK FOR SALE.  
**WM. ANDERSON, BRANDON.**

**CLYDESDALE STALLIONS ALL SOLD.**



Our importations are always

**WELL-BRED BIG GOOD ONES.**

The winner for two years at the Canadian Horse Show, Toronto, was imported by us. Early in July we will sail for Great Britain for a new lot, and will earnestly endeavor to make satisfactory selections of mares and stallions for persons who will inform us just what they want.

**DALGETY BROS.,**  
London, Ontario.

**MAW'S POULTRY FARM**

**WINNIPEG, MANITOBA.**  
I keep acclimatized utility breeds only of the very best, and can supply you eggs guaranteed to arrive in good order. Mammoth Bronze turkeys, Toulouse geese, \$2.00 per setting. Very large, deep-keeled Pekin ducks and English Rouen ducks, \$1.00. English White Leghorns, \$1.00. Large pure White Wyandottes and Leed, great winter layers, great table fowl (they pay to keep), \$2.00. Plymouth Rocks, straight "Hero" strain. They are the ideal fowl. Cockerels, last season, weighed nine pounds. Great egg strain. Great winter layers. Eggs, \$2.00 for 15; \$3.00 for 30. Large illustrated catalogue mailed free. You want to keep poultry for profit? The varieties mentioned in this ad. will suit you. **M. MAW, Manager.**

**EGGS FOR HATCHING**

From Light Brahmas, Langshans, Golden Wyandottes, Indian Games, Barred Plymouth Rocks, White Wyandottes, \$2.00 for 20 eggs. From Pekin ducks, \$1.00 for 13.  
**FOR SALE:** Two pairs of Belgian hares, and about 25 pairs of fancy pigeons, including Homers, Tumblers, Trumpeters, Blue Rocks, etc. One imported Pekin drake and 3 ducks for sale cheap, to make room. Write—  
**S. LING & COMPANY, WINNIPEG, MAN.**

**BARRED PLYMOUTH ROCK EGGS**

From three of the best pens in the country. I am satisfied there is more good, light-colored pullets in this yard than can be found in any one lot. Eggs for setting, \$1.25 for 13.  
**J. SULLIVAN,**  
Emerson, Manitoba.

**NORWOOD BRIDGE POULTRY YARDS.**

**EGGS FOR HATCHING.**  
Of White Wyandottes, White Rocks, Houdans—eggs, \$2.00 for 13; Mammoth Bronze Turkeys—eggs, \$2.00 for 10; and Pekin Ducks—eggs, \$1.50 for 11. Eggs guaranteed to be fertile. See report of shows for prizes won. Sole agent for Manitoba for the Smith's Seal Leg Band—guaranteed to stay on. Write:  
**Joseph Wilding, Prop., Winnipeg, Man.**

"LAP-SEAL" IMPROVED  
**Asbestos Roofing**

Is Reliable, Durable, and Economical.  
"GIANT" ASBESTOS ROOFING, 3-ply, price per square, complete, \$3.50  
We furnish with this roofing the same Red Asbestos Coating as with our "Lap-Seal" roofing, which adds greatly to its wearing qualities. It is put up in rolls of 108 square feet, 32 inches wide, enough to cover one square 10 x 10 feet. Each square includes 1 lb. of nails and 1 1/2 lbs. tin caps.  
"BLACK JACK" ROOFING, 3-ply, \$3.00  
price per square, complete  
LIBERAL DISCOUNTS TO LARGE BUYERS.  
**ROBT. BLACK, 131 BANNATYNE ST., WINNIPEG.**

**TWIN GROVE FARM.**

Young Yorkshire pigs, stock born two years old, and year old sow. Prices still lower. Also Buff P. Rock cockerels. Write  
**J. S. LITTLE, Proprietor, Oak Lake, Man.**

**Boundary Herd of Poland-Chinas and Model Tamworths.**

**FOR SALE:** Three sows due to farrow in April and first week in May. Also looking orders for spring pigs sired by Klondike, Gold Dust, and Hayfield Pride, and out of such noted dams as Lady Sanders, Copper Queen, Roxy's Star, and Carry Nation; at prices that will sell them.  
**W. L. TRANN, CRYSTAL CITY, MAN.**

**Yorkshires.**

Two choice fall litters ready to ship—one from the 1st prize yearling sow at Winnipeg and Brandon Fairs in 1900. Also a few choice boars fit for service, and a few ready to breed. Address  
**King Bros., Wawanesa, Man.**

**KEMP'S**

**INSTANTANEOUS Sheep Dipping Fluid** kills ticks, lice and all parasites or insect life on sheep, hogs, horses and cattle; destroys mange on dogs.  
Immediate in action and permanent in effect. It is also a thorough disinfectant for barns, closets, cellars, etc.  
One gallon makes one hundred gallons of wash. Sold in half-gallon Imperial tins, at 75c.  
The cheapest and most effective dip on the market.  
If your druggist does not keep it, we will express a tin (prepaid) to any address in the Dominion for \$1.  
**W. W. STEPHEN & CO.,**  
MEAFORD,  
AGENTS FOR THE DOMINION.

**British Columbia.**

Anyone thinking of farming in British Columbia should write for descriptive pamphlet of farms for sale in the Lower Fraser Valley—the garden spot of the Province.  
We have compiled the largest and most complete list of farms, orchards, cattle-grazing and garden lands, and fishermen's attentions, in the Province. It has been very carefully selected, and we have a personal knowledge of every property described. Prices range from \$3.00 per acre to \$250.00 per acre, and in extent from 1 acre to 1,000 acres.  
In the Lower Fraser Valley, and on the coast lands around Vancouver, we rarely have more than a month of frost and snow at outside, and the thermometer has only sunk to zero twice in ten years.  
WRITE

**HOPE, GRAVELEY & CO.,**  
536 Hastings St. VANCOUVER, B. C.

**Northern Pacific Ry.**

TO ALL POINTS  
**SOUTH, EAST AND WEST.**  
Minneapolis, St. Paul, Duluth, Chicago, Etc.

Excursion rates to all Californian, Mexican and Southern Winter resorts.  
The only line running through Tourist Cars to California points. Car leaves every Wednesday.  
Through Tickets sold to all points; also Ocean Tickets to

**GREAT BRITAIN, EUROPE, AUSTRALIA, AFRICA, ETC.**

For information call on your nearest Northern Pacific Ticket Agent, or write.

Condensed Time Table from Winnipeg.

**MAIN LINE.**  
Morris, Emerson, St. Paul, Chicago, Toronto, Montreal, Spokane, Tacoma, Victoria, San Francisco  
Lv. Daily..... 1.45 p.m.  
Ar. Daily..... 1.30 p.m.  
**PORTAGE BRANCH.**  
Portage la Prairie and intermediate points.  
Lv. Daily, ex. Sunday..... 4.30 p.m.  
Ar. Mon., Wed., Fri..... 10.35 a.m.  
Ar. Tues., Thurs., Sat..... 11.59 a.m.  
**MORRIS-BRANDON BRANCH.**  
Morris, Roland, Miami, Balduf, Belmont, Wawanesa, Brandon. Also Souris River Branch, Belmont to Elgin.  
Lv. Mon., Wed. & Fri..... 10.45 a.m.  
Ar. Tues., Thurs. & Sat..... 4.30 p.m.  
H. SWINFORD, Gen. Agent, Winnipeg.  
J. T. MCKENNEY, City Passenger Agent, Winnipeg.  
CHAS. S. FEE, G. P. & T. A., St. Paul.  
**PLEASE MENTION FARMER'S ADVOCATE.**

GOSSIP.

At the Oxford County Show at Thame, England, May 15th and 16th, the championship for best Shorthorn bull was won by Mr. Deane Willis' aged red-roan, regulerator, by Twinkling Star, dam Twinkling Star, by British Leader. He was bred by Mr. McGillivray, Fettes, N. B. The female champion Shorthorn was the first-prize aged cow, Welsh Gem, shown by Col. Makins. Mr. Dudding's first-prize two-year-old heifer, Floradora, was the reserve number.

The address of Dr. J. G. Rutherford, V. S., who has been appointed Canadian Veterinary in the United Kingdom, is care of the Canadian Government agent, 32 St. Enoch Square, Glasgow, or care of the High Commissioner for Canada, 17 Victoria St., London, S. W. All expenses in connection with the testing of cattle for export from the United Kingdom will be borne by the Dominion Department of Agriculture. The U. S. also has an official veterinarian there (Dr. T. A. Geddes), and the certificates issued by either officer is accepted by either Government.

Volume 23 of the Clydesdale Studbook of Great Britain and Ireland has been received from the Secretary, Mr. Archd. MacNeillage, Glasgow, Scotland. The frontispiece which adorns the volume is a portrait of Prince Thomas (1922), winner of the President's medal as best Clydesdale stallion at the Highland and Agricultural Show, Stirling, July, 1900. It contains the pedigrees of mares 1124 to 1461, and stallions 1051 to 1124, and is uniform in style and excellence with previous issues. Referring to the brisk foreign demand for 1900, the preface states that out of 173 exported, Canada took 87, the United States 38, Argentine Republic 22, Russia 11, Germany 9, Australia 5, New Zealand 2, and South Africa 1.

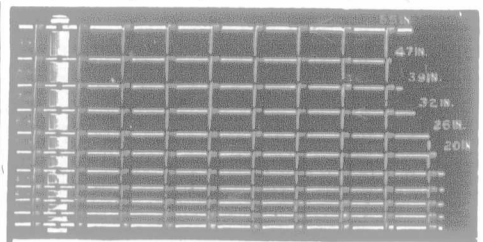
THE USHER DISPERSAL SALE OF SHORTHORNS.

June 19th is the date announced for the dispersion by auction of the entire Queenston Heights herd of Shorthorns belonging to Messrs. Isaac Usher & Son, Queenston, Ont., about 70 head all told, some 50 of which are of breeding age, while the balance are young things, quite a number being calves, which will be sold with their dams, and in not a few cases the cows nursing their calves have been bred again and are in calf to high-class bulls, thus affording opportunities to buy lots in which the buyer may have two or three strings to his bow, and in every case at his own price, as we are assured that all will be sold absolutely without reserve. The pedigrees, as a glance over the catalogue shows, represent a wide variety of useful families, many of which are known to be deep-milking sorts, as well as good feeders and fleshers, a goodly number being of good Scotch-bred tribes, while nearly all are topped by crosses rich in the blood of noted Scotch-bred bulls, which have left their impress in the uniformly level and smoothly turned conformation of the animals constituting the herd as a whole.

The principal stock bull in the herd at present, and which will be sold, is the excellent rich roan, Lord Gloster - 26905 -, of the favorite Cruickshank Duchess of Gloster family, being sired by the sweepstakes prize-winning Abbotsford, of Mr. Cruickshank's noted Village family, which produced Young Abbotsburn, the champion bull over all beef breeds at the World's Fair, Chicago, who was from the same dam as Abbotsford. The dam of Lord Gloster (Gaiety) was by Prince Albert, a high-class son of the famous sweepstakes winner and sire of champions, Barmpton Hero, whose dam was by Champion of England, as was also the imported cow, 12th Duchess of Gloster, from whom Lord Gloster is descended, giving him the benefit of the blood of that great sire on both sire and dam's side. Lord Gloster has proven a superior sire, a son of his, Roan Cloud - 31317 -, being one of the stock bulls in the herd of Messrs. J. & W. B. Watt, Salem. Kinella of York - 21501 - is a smooth, red bull, bred by John Miller, Markham, has also been in service, and is included in the sale. He is of the good old Scotch-bred Syme family, which has produced a long line of prize-winners at Provincial fairs, and was sired by imp. Kinella Scott, of the Kinella Mint tribe, and his dam by the Cruickshank Victoria bull, imp. Vice Consul, a champion at the Toronto Exhibition. Of the four young bulls in the catalogue, two are sons of Royal Standard, a second-prize winner at Toronto, and first at Ottawa the same year, beating his half-brother - the Toronto first. He was one of the best sons of Judge - 23419 - (by imp. Royal Sailor), who was a first-prize Toronto winner and Winnipeg champion, and sire of the Toronto champion of last year, and of Royal Banner, first at Toronto, and sold at Mr. Platt's Chicago sale last August for \$1,565.

Among the calves to be sold are three heifers and one bull got by imp. Guardsman, sire of the American champion, St. Valentine, who is sire of two of the championship winners at the International Live Stock Show at Chicago last December. Among the females in the sale is the excellent breeding Scotch-bred cow, Rose Hill, dam of Ribbon's Choice, second-prize bull calf at Toronto, 1900, lately sold for a long price to go into the herd of Hon. Thos. Greenway, at Crystal City, Manitoba. She is a big, sappy, breedily-looking cow, sired by imp. Goldfinder's Heir, dam imp. Rose of Kinallie, by Vermont, a fifty-ton Victoria bull that proved a noted sire. Gold Leaf Lady, a smooth, red 4-year-old cow, was sired by Strathclyde, a Strathallan bull, and her pedigree shows in the next crosses such noted imported Scotch bulls as Traveller, Victor Royal, and Royal Barmpton, the sire of Barmpton Hero. Fanny, a roan 3-year-old of great substance and good quality, is of the excellent Syme family, and sired by Crimson Chief, of the Kinella Crimson Flower tribe, and got by the noted Cruickshank Victoria bull, imp. Indian Chief. These are but specimen numbers of the breeding and character of the fifty or sixty females in the sale, whose pedigrees all show the impress of notable blood lines.

The date of the sale should be favorable for buyers, as pastures are in full flush, and no stabling is needed. The place is easy access, and of historic interest. Brock's monument standing on the corner of the farm. A 15-minute service of electric cars from Niagara Falls station lands you on the farm, and five steamers daily from Toronto call at Queenston, close by the farm, which is only 25 miles from Buffalo by electric road, so that visitors can, if they wish, take in the Pan-American Exhibition in the same trip. Capt. T. E. Robson, M. P., auctioneer, will conduct the sale, and it is hoped that a large attendance of farmers and breeders will attend. See the half-page advertisement, and send for the catalogue.



AMERICAN FIELD AND HOG FENCE FULLY GUARANTEED. Best steel wires heavily galvanized. Strong, economical, efficient, durable. Local agents everywhere. If no agent in your town write to the makers. American Steel & Wire Co., Chicago or New York.

Stephen Benson, Neepawa, has purchased the Standard-bred Damo. Mr. Benson has the nucleus of a stud of Standard-breds.

H. Hodgkinson, Neepawa, is launching into the poultry business, making Barred Rocks his specialty. The excellence of his stock has caused a big demand and a consequent lessening of the flock in numbers.

Capt. M. H. Hayes, the author of "Points of the Horse" (illustrated), "Horse Breaking," "The Pathology of Domestic Animals," "Stable Management and Exercise," and other standard works on horse-breeding, will be in Canada and the United States next year on a scientific horse-breaking and lecturing tour. Capt. Hayes is now actively engaged supervising the shipping of army remounts to South Africa, and is well qualified, from a vast experience on the subject, to lecture on the breeding of such stock. Such a man would be a valuable acquisition for the next winter's Farmers' Institute series.

Close to the town limits of Glenboro is the farm of Jas. Duncan, Massey-Harris agent and postmaster of this thriving burgh. Unfortunately few farms are to be found which show such attention to tree-growing. A regular arboretum is that in which the site for a new house is laid out, and there are to be found spruce and tamarack, lilac and caragana, flowering currant and cut-leaved birch. A novelty is the cedar, several of which are doing well. On this farm, attention to trees is given only in leisure or spare hours, and the owner is confident that the outlay of a few days yearly on every farm would result in nice groves of trees if the effort were only made. The routine of farm work is kept up, young stock being fed for the market. The Yorkshires are used in conjunction with the Berks to make good bacon hogs. The land is summer-fallowed regularly, and is given only one plowing; cultivated two or three times. An illustration of the benefits of cultivation may be seen here in the growth of the trees; those well cultivated have the larger growth. Manure is drawn right out and put on land or that intended for summer-fallow. Seeding down is done with the second crop of wheat. Two crops of wheat are followed by barley or oats. About 20 acres being down to hay. Mr. Duncan believes in manure, as he states it hastens the ripening of wheat. A piece of low-lying land is made ornamental and useful by being planted with cottonwoods, maples and elms.

The cows in the Pan-American dairy test at Buffalo, though not yet fully acclimated, are said to be settling down to work and improving. The quantity of milk given is not yet as high as could reasonably be expected, but will probably be increased when the cows get used to their new environment. The quality test, up to date, is not more satisfactory than that for quantity. The following is the report given of the best of a day's milking in the second week:

Table with columns: A DAY'S HIGHEST MILK RECORD, PER CENT. BUTTER-FAT, HIGHEST, LOWEST. Lists various breeds like Jersey, Primrose, Park's Pride, etc., with their respective milk and butter-fat records.

Following is a statement of a week's work of the best cow of such breed in the utility test, the skim milk and manure offsetting the work, the feed being charged up to the cow and credit given for her butter product: Ayrshires. Cost, \$1.31 per cow; butter, at 26c. per lb., \$3.16 to \$3.05 - Kirsty Wallace leading, with \$2.12 net earning. Jerseys. Cost, \$1.07 to \$1.14; butter, \$3.27 to \$3 - Primrose leading, with \$2.18 net earning. Holsteins. Cost, \$1.02 to \$1.24; butter, \$3.28 to \$3.01 - Beauty of Norval leading, with \$2.20 net earning. Shorthorns. Cost, \$1.28 to \$1.29; butter, \$3.19 to \$2.49 - Miss Molly leading, with \$1.91 net earning. French-Canadian. Cost, \$1.50; butter, \$2.29 to \$1.63 - Denise Championne leading, with \$1.1 net earning.

NOTICES.

Complete Stock Doctor. - The World Publishing Company, of Guelph, Ontario, have, at great expense, brought out a new stock book. It is stated to be completely up to date, and as a veterinary book far in advance of any other. The Professors of the Ontario Agricultural College at Guelph have contributed largely to the work in various departments and assisted to revise and adapt the work thoroughly for the Canadian farmer. An advertisement of the work, including testimonials, will be found on page 357 of this issue of the FARMER'S ADVOCATE.

Newton's Horse Remedies. - The old idea that "heaves" in horses is incurable is shown to be incorrect by a pamphlet issued by the Newton Horse Remedy Co., Toledo, Ohio, giving many testimonials of notable horsemen who have cured permanently many established cases of heaves. Many of these horsemen also cured cases of chronic cough and distemper. It is also highly spoken of as an indigestion cure, as well as a worm expellant and horse conditioner. Many veterinary surgeons use it in their practice. The pamphlet is useful to all horsemen, as are also Newton's remedies.

Growing Plant. - The Ontario Wind Engine & Pump Co. of Toronto, have recently added a substantial building, 40x100, to their already large factory. The basement and first floor are to be used for the manufacture and construction of the woodworking department. The second floor will be fitted up for offices and storerooms. They have also just completed the construction and fitting up of a building for galvanizing purposes, which is considered to be one of the best plants of the kind in Canada. Great improvements have also been made in the foundry equipment, and among other things they have put in an excellent cupola. The output from this factory has increased rapidly year after year.

GOSSIP.

Geo. Isaac & Bros., Bomanton, Ont., importers and breeders of Shorthorns, write: "Our herd of imported Shorthorns have done exceedingly well during the winter. They arrived from quarantine in January, and are an exceptionally good lot. They have been in great demand by breeders, and we have made the following sales: To Hector Cowan, Jr., Pauline, Iowa, 17 head, consisting of two 2-year-old heifers, of Cruickshank's Broadhooks families; one by Scotland's Fame (73585), dam Sweet Cicely, by First Consul (67072), and the other by Silver Star 73627, dam Bride's Maiden, by Merry Archer 67477; a roan 2-year-old heifer, bred by A. Innes, Cushnie, Aberdeenshire, Scotland, sire Prince Charlie 73263, dam Floss, by Nairn 63035; a roan 2-year-old heifer, bred by Alex. McDonald, Dunballoch, Aberdeen, sired by Jubilee Star 72448, dam Stella, by Merry Archer 67477; a red and a roan, 2-year-olds, bred by Mr. Jas. Hay, Little Ythsis, sired by Statesman 71687, dam Lady Laura 10th, by Beaumont 65138; a roan, sired by Prince Charles 75255, dam Flora, by Plantagenet 67868; one yearling heifer, bred by Alex. Campbell, Deystone; a roan Nonpareil, sired by Count Amaranth 74289, dam Nonpareil 32nd, by Clan Alpine 60495; two roan yearling heifers, bred by Sylvester Campbell, Kinellar, one of Maid of Promise family, sired by Count Amaranth 74289, dam Maid of Promise 11th, by Emancipator 65447, and the other of Queen family, by Count Amaranth 74289, dam Fairy Queen 14th, by Stanley 71675; a roan yearling, bred by George Walker, Tilly Greig, sire K. C. B. 72755, dam Rosewood 54th, by Cap-a-Pie 58591; three bred by Francis Simmers, Whitesides; two sired by Count St. Clair 74300, dams by Cash Box 66791, red yearling, sired by Count St. Clair, dam Mary Ann of Lancaster, by Cash Box 66791; a red bull calf, bred by T. A. Anderson, Ballachragan, Aberdeenshire, Scotland, sired by Challenger 74199, dam Ruth 8th (imp.), sired by Silver Star 73627. This is a calf of rare quality, and promises to make an excellent bull. These were all imported last September, and were carefully selected from some of the best herds in Scotland. Also one Canadian-bred cow, six years old, one heifer two years old, and one yearling of the Ury family. This lot is considered by expert judges to be one of the finest lots, both as to

HORSEMEN! - THE ONLY GENUINE IS GOMBAULT'S CAUSTIC BALSAM.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle, SUPERSEDES ALL CAUTERY or FIRING. Impossible to produce scar or blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars. THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

quality and superior breeding, that has been imported by breeders of the United States for many years. Mr. Cowan is to be congratulated in being successful in securing such a prime herd of Shorthorns.

THE SUMMER HILL YORKSHIRES.

A representative of the FARMER'S ADVOCATE recently had the pleasure of looking over the noted Yorkshire herd of D. C. Flatt & Son, Millgrove, Ont., and found the stock in fine healthy growing and breeding condition. Over fifty breeding sows, of which over thirty are imported, are doing good work in producing large litters of the true bacon type, the get of the high-class imported boars in service, prominent of which is the noted Bottesford Wonder, pronounced by many experienced breeders and expert judges the best of the breed ever imported to Canada. In his everyday working condition he shows superior quality and conformation, and stands well on the best of bone and feet, while his stock is coming of the same stamp. Several other first-class imported boars are in use in the herd, namely: Ludington Lad 3rd, St. Peter, Forest Ranger, Holywell Diamond, also the Canadian-bred boar, Look Me Over, first prize at Toronto, 1898, and Summer Hill Ruler, first prize at Toronto and London, 1900.

Respecting their 1901 importation, Messrs. Flatt write, under date May 23rd: - We received, on May 9th, by S. S. Tutonia, a very choice lot of young sows, principally drawn from the herd of the Earl of Rosebery, Dalmeny Park. We have no hesitancy in saying this is the best lot we ever imported. They are all young and most of them in pig to the Earl of Rosebery's best stock boars. We desire to make particular mention of the sow, Dalmeny Duchess XVII., farrowed Sept. 15th, 1899. She measures from root of tail to nose, 6 ft. 10 inches, and stands 38 inches high on short legs. Mr. Sinclair, who is manager for the Earl of Rosebery, claims this to be the best sow they ever bred, and has refused many tempting offers for her from the most noted breeders in England.

Parties desiring new blood could not do better than to secure some of the offspring from some of our imported sows. It has been our object to bring out only the best. We do not ask the public to believe all they see in print, but give all an invitation who are interested in the production of the ideal bacon hog to give us a call and inspect our herd.

We intend to exhibit at the leading fairs, including the Pan-American at Buffalo. Our herd never was in better shape, and we think we are much stronger than ever before. Our boars, Summer Hill Ruler and S. Hill R. G., that won first and third at Toronto last year and under-year class, have gone on extra well, and at twenty months old weighed 700 lbs. and 687 lbs., respectively, still maintaining their bloom and quality.

Trade has been good with us, selling double the amount of stock we did a year ago this time. It has been our contention for some time that there was a great opening for Yorkshires in the United States, and to-day one third of our product is going over the lines, and in a great many instances to parties starting herds.

A Farm Furnace

The "Sunshine" is just the furnace for a farm home. It burns either coal or wood, and has double feed-doors which will admit large blocks of wood.

With a "Sunshine" furnace a farmer can burn up his rough wood in fall and spring, and can use coal in the severe winter months when a steady heat is necessary.

Made in three sizes.

Descriptive pamphlets sent free to any address.

Please mention this paper when writing.

The McClary Manuf'g Co'y.

London, Toronto, Montreal, Winnipeg, Vancouver; St. John, N. B.



# SHORTHORNS

SCOTCH IMPORTED.

Young imported cows with calves at foot for sale. A number of the calves are imported in dam.

Some of the families represented in the herd are as follows:

160  
Head

AUGUSTAS  
CLARAS  
NECTARS  
GOLDIES  
JENNY LINDS  
VICTORIAS  
MATILDAS  
BESSIES  
CROCUSES

ROSEBUDS  
BRAWITH BUDS  
LANCASTERS  
MAYFLOWERS  
AMARANTHS  
BUTTERFLYS  
CLIPPERS  
EMMAS  
BROADHOOKS

MEDORAS  
MINAS  
VILLAGE MAIDS  
BEAUTYS  
MISS RAMSDENS  
FLORAS  
RAGLANS  
LUSTRES  
GEMS OF THE VALE

160  
Head

Herd headed by the Imported Bulls, **GOLDEN DROP VICTOR** and **PRINCE BOSQUET**.

IF INTERESTED, COME AND SEE US, OR WRITE

## H. CARGILL & SON,

CATALOGUE FREE.

CARGILL, ONTARIO, CANADA.

### DISPERSION SALE

OF THE

# QUEENSTON SHORTHORN HERD.

Owing to the dissolution of the firm of **ISAAC USHER & SON**, the entire herd of **70 head** of **registered Shorthorns** will be sold by auction, on

## JUNE 19, 1901.

AT 1 O'CLOCK.

The herd comprises selections from some of the best herds in Canada, and is headed by the high-class Cruickshank bull, **Lord Gloster 26995**, who is also included in the sale. Many of the females are in calf to him, or have calves at foot by him or by other first-class bulls.

Farm 3 miles north of Niagara Falls. Electric service from Falls to farm. Five steamers from Toronto daily call at **QUEENSTON.**

FOR CATALOGUES, APPLY TO

**CAPT. T. E. ROBSON,**  
AUCTIONEER.

**HUDSON USHER,**  
QUEENSTON, ONT.

**GOSSIP.**

**WESTERN SHORTHORN SALES.**

On May 14th a combination sale of Shorthorns from ten Wisconsin herds was held at the Agricultural College farm, at Madison, at which 56 head sold for an average of \$247. The consignment of Geo. Harding & Son, Waukesha, 12 head, made an average of \$339, and that of C. E. Blodgett, 10 females, an average of \$361. The roan yearling heifer, Bonnie Lassie, bred by Mr. Wm. Linton, and shown by Capt. Robson at Toronto and London last year, sold for \$680.

The Ohio sales of Messrs. C. L. Gerlaugh and W. I. Wood were very successful, the former realizing an average for 35 head of \$463.30, and the latter for 46 head an average of \$244.35. The highest price, \$2,200, was paid by Mr. W. D. Flatt, Hamilton, Ont., for Mr. Gerlaugh's imported roan two-year-old heifer, Missie 165th (imp.), winner of 1st prize as over a year and under 18 months, and reserve for junior championship, at Chicago in Dec., 1900.

**NOTICES.**

**Central Business College, Toronto.**—This excellent school, with a regular staff of ten experienced teachers and its fine equipment, will continue its practical work throughout the spring and summer months. To spend these months in Toronto is a great treat, and when they can be used to so great an advantage, it is not surprising that this school, with its enviable reputation, is well patronized, not only by Canadians, but by many from the Southern States, who regularly spend the summer months in Toronto. See advt. in this issue.

**Alfalfa Culture.**—Mr. F. D. Coburn, the indefatigable Secretary of the Kansas State Department of Agriculture, has written probably the most complete and up-to-date treatise published by the Orange, Judd & Co. on the nature, growth and use of alfalfa that has yet made its appearance. How highly this plant is appreciated as a stock food would appear from Kansas itself, where the area grown has increased from 34,384 acres in 1891 to 276,008 in 1900, or over 803 per cent. The printing, binding and illustrating of Mr. Coburn's volume are equally well done, and it is a treasury of facts in concise form (161 pages) on the subject. Price, 50 cents.

**Chicago Now a Seaport.**—Chicago has long been the leading metropolis of the West, and now the great inland city bids fair to become the London of America, the great entrepot of the world's commercial activities. On April 22nd, the steamship "Northwestern," carrying a cargo of McCormick machines, cleared from the port of Chicago, bound for Liverpool, Eng. This vessel is the first to go from the great manufacturing center of the West direct to Europe. Following the steamer "Northwestern," the "Northman," also carrying a cargo of McCormick machines, cleared from the McCormick docks April 24th, bound for Hamburg, Germany. The cargoes of the two vessels comprised more than 144 carloads of McCormick machines, mostly self-binders and mowers. In making this initial shipment by an all-water route direct to Europe, the McCormick Harvesting Machine Company has made Chicago a seaport, and established a line of freighters that during six months of the year will ply regularly between the Lake City and European ports. Thus the great McCormick Company has set a new pace in the matter of harvesting-machine shipments, the far-reaching importance of which can only be known when the history of the twentieth century shall have been written.

**NEWTON'S TEMPER, COUGH, DIS-CURE**

**Guaranteed** A veterinary specific for WIND, THROAT & STOMACH TROUBLES. Strongly recommends. **Death to Heaves.** Dealers or direct. **Newton Horse Remedy Co. (D), Toledo, O.** Trade supplied by Lyman Bros. & Co., Toronto.

**SHROPSHIRE**

**LAMBS FOR SALE.** WM. PIERCE, om BRINSLEY P. O., ONT.

**Clydesdales and Ayrshires**

Imported and home-bred. Also Dorset Horned sheep, and the leading varieties of poultry. om **ROBERT NESS & SONS, Howick, Que.**

**4 Imp. Clydesdale Stallions**

From such well-known sires as Sir Everard (5353), Prince Roberts 7135, Prince Alexander 8899.

**2 Imp. Shorthorn Bulls,** 4 Bulls Imp. in Dams.

**2 Canadian bred Bulls,** 7 Canadian-bred Cows and Heifers.

**21 Imp. Cows and Heifers.** om **GEO. ISAAC & BROS., BOMANTON, ONT.** COBURG STATION, G. T. R.

**90 HEAD**

High quality, Early-maturing

**Herefords**

Prizewinners, Young bulls, cows, heifers.

The blood of "Corrector," "Eureka," "Ancient Briton," and "Rupert," on an "Anxiety" foundation. Send for illustrated catalogue.

**H. D. SMITH, COMPTON, QUE.**

IN WRITING PLEASE MENTION FARMER'S ADVOCATE.

Two hundred bushels of potatoes remove eighty pounds of "actual" Potash from the soil. Unless this quantity is returned to the soil, the following crop will materially decrease.

We have books telling about composition, use and value of fertilizers for various crops. They are sent free. **GERMAN KALI WORKS,** 93 Nassau St., New York.



**Standard Sheep Dip**  
(OIL OF TAR.)

Non-poisonous, cheap and effective. Destroys Scab, Lice, Ticks, Foot Rot, etc.

Write for Testimonials and Circulars.

Manufacturers: **The West Chemical Company,** TORONTO, ONT.

For Contagious Abortion use West's Fluid. Agt. for Manitoba: **W. R. ROWAN,** 132 Princess St., Winnipeg.

**FOR SALE.**

**CLYDESDALE** stallions, mares and fillies, representing the best blood in Scotland—Prince of Wales, Darnly, Macgregor and Lord Lyon—including the great sweepstakes winner, The Marquis (1132), a grandson of Prince of Wales and Macgregor; also the first-prize 3-year-old at Ottawa this season.

**THOS. GOOD,** Richmond P. O., Ont. R. R. Station, Stittsville, C.P.R.

**BONNIE BURN STOCK FARM**

40 rods north of Stouffville Station, Ont., offers two strong, lusty **SHORTHORN BULLS**, fit for service. Also two year-old heifers with calf. Shropshire sheep all ages and kind. om **D. H. RUSSELL, Stouffville, Ont.**

**ARTHUR JOHNSTON**  
Greenwood, Ontario, Canada.

**HIGH-CLASS SCOTCH SHORTHORNS**  
(First Importation Made in 1874.)

(My recent importation of 30 head has just arrived home from quarantine. Herd now numbers over 120 head.)

**OFFERS FOR SALE**

- 40 Imported Cows and Heifers,
- 40 Home-bred Cows and Heifers,
- 11 Imported Bulls and Bull Calves,
- 13 Home-bred Bulls and Bull Calves.

Railway stations—Pickering, on main line of Grand Trunk Railway, 22 miles east of Toronto, and Claremont, 23 miles east of Toronto, on the C. P. Railway. Catalogues on application. om

**I WILL IMPORT**

Shorthorns and sheep. Orders sent to me in care of Alfred Mansell & Co., College Hill, Shrewsbury, Eng., until July 1st, will receive careful attention. om **ROBERT MILLER, Stouffville, Ontario.**

For Sale: 3 Shorthorn bulls of first-class breeding, sired by such noted bulls as Scotland's Fame (imp.) and Bold Britain, bred by John Isaac, Markham. Also some choice cows and heifers. **F. A. GARDNER, Britannia, Ont.** PEEL COUNTY.

**Shorthorns FOR SALE:**

8 Yearling and two-year-old Shorthorn heifers, in calf to imp. bull.

om **G. A. BRODIE,** Bethesda, Ont.

**MAPLEWOOD HACKNEY STUD.**  
PROPERTY OF FREDERICK C. STEVENS, ATTICA, NEW YORK.  
**Champions of two continents.**  
The magnificent **LANGTON PERFORMER**, the peerless **CLIFTON 2nd**, and the sensational **FANDANGO**, all in service for the coming season.  
**Magnificent young Stallions and Mares for Foundation Stock,** sired by the above champions, and out of mares equally famous, now offered for sale. MAPLEWOOD is truly "THE HOME OF THE CHAMPIONS."  
FOR FURTHER PARTICULARS, ADDRESS:  
**E. T. Gay, Manager, Attica, N. Y.**

LATELY IMPORTED A FRESH LOT OF  
**Glydesdale Stallions,**  
Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the times demand. Inspection invited.  
Prices consistent with quality. om  
**ROBERT GRAHAM,** Ringwood P. O., Ont. Stouffville Station, G. T. R., and telegraph office.

We beg to call your attention to a new and indispensable article in  
**Barclay's Patent Attachment**  
FOR THE CURB OF  
**BALKING AND KICKING HORSES.**  
Will control any vice known to a horse. Invaluable for breaking-in colts. Can be adjusted in two minutes, and used with any harness, vehicle or implement. Sent, charges paid, to any part of Canada, with full directions for use, on receipt of price, \$5. Reliable representatives wanted. For further information, address  
**THE BARCLAY MFG. CO., Brougham, Ont.**

**W. G. Pettit & Son,** FREEMAN, ONT.  
Importers and Breeders of  
**Scotch Shorthorns and Shropshire Sheep.**  
OFFER FOR SALE:  
12 Imported bulls, 12 mos. to 2 yrs. old.  
5 " " 9 to 12 mos. old.  
20 " cows, 3 to 6 yrs. old.  
15 " heifers, 2 yrs. old.  
5 " " 1 yr. old.  
6 Home-bred bulls, 9 to 18 mos. old.  
20 " heifers, 1, 2, and 3 yrs.  
Our imported bulls are now getting in good shape. All our heifers of suitable age are bred to Pure Gold (Imp.), by Cyprus, and Scotland's Pride (Imp.), a Cruickshank Clipper, by Star of Morning.  
Catalogues on application. All our imp. cattle were registered in the American Herd Book before the \$100.00 fee for recording was put on.  
Burlington Junction Station, Telegraph and Telephone Offices, within half a mile of farm. om

**J. & W. B. Watt, SALEM, ONT.,** BREEDERS OF  
(Post and Telegraph Office.)  
Clydesdale horses, Scotch Shorthorn cattle, Leicester and Oxford sheep, Berkshire pigs.  
Our **SHORTHORN** herd was founded over 30 years ago, and contains such tribes as the Village Buds, Matchless, Missles, Mildreds, Stamfords and English Lady, upon which we have employed such bulls as *Barnpton Hero* 324, *Young Abbotsburn* 6236, *Challenge* 2933, *Perfection* 9100, *Lord Lansdowne* (imp.) 2712, *Clan Stuart* 14381, *Canada* 19536, *Sittytton Chief* 17069, *Royal Sailor* (imp.) 18959, *Royal George* 28513, *Clipper King* 16293 and *Judge* 23419, all of which have been first-prize winners wherever shown. *Royal Victor* 34681 and *Royal Wonder* 34682, by *Royal Sailor* (imp.), and out of English Lady and Mildred dams, now head the herd, assisted by *Roan Cloud* 31317, by *Lord Gloster* 26995, and out of *Melody* 21992, a descendant of the Buckingham family. We are now offering young bulls, cows and heifers for sale, of Scotch type.

Farm 2 miles from Elora Station, G. T. R. and C. P. R., 15 miles north of Guelph.

**HILLHURST SHORTHORNS**

THREE COLLYNIE-BRED BULLS IN SERVICE:

**Scottish Hero,** Joy of Morning, **Scottish Beau,**  
By **Scottish Archer.** By **Pride of Morning.** By **Silver Plate.**

The herd comprises straight Scotch, Cumberland, Gloucestershire, and Canadian strains; bred to produce the best and most economical **MEAT and MILK MAKERS.**

**Shropshire and Hampshire Down Sheep.**

**M. H. COCHRANE, COMPTON CO., P. Q.,** G.T.R., 117 MILES EAST OF MONTREAL. om **HILLHURST STATION.**

Please Mention the Farmer's Advocate.

**GOSSIP.**

At a combination sale of Aberdeen-Angus cattle, held at Kansas City, April 29th and 30th, 163 head sold for an average of \$293. A cow sold for \$700, and a bull for \$640.

The Shorthorn herd of Mr. Alex. Moir, Waterton, Elton, Scotland, was dispersed by auction, May 7th, when 43 head realized an average of £30 1s. 6d. Mr. Duthie secured the highest-priced animal of the day in Fancy 11th, at 95 guineas. Mr. Marr, Uppermill, and Mr. Geo. Campbell, Harthill, were also buyers.

Mr. H. J. Davis, Woodstock, Ont., writes: Business in Yorkshire hogs and Shorthorn cattle was never brisker than the past month. Have sold all my fall pigs, but have a very fine lot of young boars, from two to four months old, fit for show purposes. I am personally making an importation of Yorkshires and Shorthorns, and after the 1st of June my address will be, Greystones, Leek, Staffordshire, England.

Mr. Wm. Pierce, of Brinsley P. O., Ont., is just now offering for sale, as per advertisement, some extra nice yearling Shropshires bred from importations of Mansell foundation. Among this lot will be found something to please the eye of the most severe Shropshire critic. Mr. Pierce's flock is looking remarkably well. Some 56 young-sters may be seen frisking around the pastures, lending life and animation to the scene. Brinsley is near Clondeboye Station on the London & Wingham branch of the G. T. R., and only three miles from Lucan Crossing on the main line.

The Shorthorn bull, Starlight, =1741-, illustrated in this issue, property of Mr. Henry M. Johnstone, Alder, Ont., a dark roan, calved Nov. 27th, 1892, was bred by Wm. Redmond, Millbrook, Ont., and is richly bred, his sire, Baron Fenelon =1339-, being a son of Imp. Baron =2670-, bred by Sylvester Campbell, Kinellar, Aberdeenshire, and imported by Arthur Johnstone, Greenwood. His dam was got by the noted sire, Challenge =2933-, who was perhaps the best son of the famous champion prizewinner, Barmpton Hero, while his maternal grandsire was Ontario's Champion =893-, a full brother to Barmpton Hero, being sired by Imp. Royal Barmpton, and out of Imp. Mimulus, by Champion of England, both bred by Amos Cruickshank, and imported by Hon. John Dryden. On his dam's side Starlight traces to Imp. Lady Eden, a family from which Mr. Dryden bred many of his best show animals. There are few bulls living that can boast of so much of the blood of Barmpton Hero, which scarcely ever failed to produce superior quality and character in its offspring.

**TWO TYPICAL SADDLE HORSES.**

On pages 338 and 339 appear illustrations of the cavalry horse, Cremorne, and the saddle horse, Falkirk, both now owned by Mr. Adam Beck, London, Ont. Cremorne is a four-year-old bay gelding, standing 15 hands 2 1/2 inches high, sired by the Thoroughbred, Ranelagh. He was owned by Mr. Llewellyn Meredith, London, Ont., and shown by him at the Military Tournament and Horse Show, Toronto, 1901, winning the Governor-General's prize for best Canadian-bred cavalry horse sired by a Thoroughbred stallion. He was then purchased by Mr. Beck, who won 1st with him at Montreal Horse Show in the cavalry class.

Falkirk, sired by the Thoroughbred, Philosophy, is a bay gelding 15 hands 3 1/2 inches high, and is five years old. He is a more handsome and breezy horse than his portrait shows him to be; he is a model saddle horse and a good jumper. He won 2nd at the Military Tournament and Horse Show, Toronto, 1901, and the following week in Montreal won 1st and championship for saddle horse up to carrying 160 pounds, 1st and championship for light weight hunter, and 1st for lady's saddle horse.

**THE SHORTHORN SALE AT CHICAGO ON JUNE 5TH.**

The prospect for the combination sale of sixty head of high-class Shorthorns at Chicago on June 5th, selected from the noted Canadian herds of Messrs. Platt, Edwards, Cargill, and Cochrane, is decidedly bright. The recent Shorthorn sales in Iowa, Ohio, Kansas, and other Western States, have been very successful, averaging very satisfactorily, though no sensational prizes have been realized. Taking into consideration the quality, character and breeding of the consignments slated for disposal on June 5th, there is every probability that good, fair prices will prevail, and that at the same time good bargains will be made. It is very rarely indeed that so many useful young bulls, cows and heifers of such excellent breeding are offered at one sale. So many of the females have good thrifty calves at foot, and so many have been bred to exceptionally meritorious bulls, individually and in breeding, that an unusually favorable opportunity is presented for securing foundation stock for a herd or replenishing material whereby to introduce fresh blood in the best lines.

The breeders contributing to the sale are first-class men in every respect, and have the best wishes of all for the success of their enterprise in building up the interests of the breed on sound lines. We understand that a goodly number of Canadian breeders will attend the sale, and whether they secure any of the stock or not, the extended acquaintance they will make with Western men will, no doubt, many times repay them for the expense of the trip in the business that will come their way as the result of meeting so many live business men.

**For Sale** Two choicely-bred SHORTHORN BULLS, 12 and 18 months; also cows and heifers with calves at foot and bred again to imported Red Duke =3984 (7585). 51 head to select from. **DAVID MILNE & SON,** Ethel, Ont.

**SHORTHORNS:** We are offering for sale 8 bulls, from 8 months to 2 1/2 years, bred by Munro 2nd of Scottish Bard. Also a few cows bred to Baron's Heir.

**ROBT. GLEN,** Owen Sound, Ontario.

**R. Mitchell & Son,** Burlington Jct. Station, Nelson, Ontario.

Large herd of Scotch and Scotch-topped Shorthorns of the most popular Aberdeenshire tribes, including 4 imp. bulls, 12 imp. cows and heifers. Also a number of home-bred yearling and two-year-old heifers, and 7 good, thrifty home-bred bulls, from twelve to fifteen months old. Write for catalogue.

**Prevention of Disease.**

**Keep the Stomach Right.**

It is surprising what a safeguard a healthy stomach is against disease. And, again, it is not so surprising when it is remembered that the only way we get pure blood, strong nerves and firm flesh is from wholesome food, well digested. It is the half-digested food that causes the mischief. When the stomach is weak, slow, inactive, the food lies in the stomach for hours, fermenting, forming gases which poison the blood and the whole system, causing headache, pains in the back, shoulder blades and chest, loss of appetite, palpitation, biliousness.

The safest cure for indigestion is Stuart's Dyspepsia Tablets, composed of vegetable essences, trit salts, pure pepsin and golden seal. Dissolve one or two of these tablets in the mouth after each meal. They are pleasant tasting, and mingling with the food so assist the weak stomach that the food is perfectly digested before it has time to ferment.

Stuart's Dyspepsia Tablets cure indigestion and increase flesh, because they digest flesh-forming foods like meat, eggs, etc. Sold by druggists at 50 cents per package. Absolutely safe and harmless.—Advt.

**SHORTHORN BULLS AND HEIFERS**

**FOR SALE.** Choice quality and best Scotch breeding. Imported and home bred. Imported Knuckle Duster (72793) and imp. Royal Prince head the herd, which has furnished the Provincial Fat Stock Show champion three out of the last five years. Catalogues on application.

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

**YOUNG SHORTHORNS FOR SALE**

Our present offering includes several choice young bulls fit for service, sired by "Scotland Yet," and out of Warfare (imp.) dams; also bull calves, from Blue Ribbon (imp.), and out of Royal George cows. Inspection and correspondence solicited.

**A. & D. BROWN,** M. O. RAILWAY, IONA, ONTARIO.

**WOODSLEE STOCK FARM.**

**FOR SALE:** 3 Shorthorn bulls, 15 months old, two reds and one roan. Well developed, healthy, and thick fleshed.

**S. G. LITTLE, Hagerman, Ont.** W. PATTON, Manager. Unionville Station, G. T. R.

**6 Shorthorn Bulls 6**

Also cows in calf and yearling heifers. All of straight Scotch breeding.

**SHORE BROS., WHITE OAK, ONT.**

**SHORTHORNS.**

**FOR SALE:** Bulls: Two 1 year old and one 8 months. A few heifers of choice breeding and superior quality. **AMOS SMITH, Trowbridge P. O., Listowel Str.**

**RIG. CASTRATION.** DR. J. WILSON, V. S., WINGHAM, ONT., Specialist in the castration of ridgelings. Terms and testimonials on application.

**J. R. McCallum, Iona Station, Ont.** Offers young SHORTHORN BULLS and HEIFERS, of choice breeding, at reasonable prices. Iona Sta. on M.C.R., half a mile from farm.

**SHORTHORN CATTLE AND LINCOLN SHEEP.**

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

**J. T. GIBSON,** DENFIELD, ONT.

**Maple Lodge Stock Farm**

ESTABLISHED 1854.

**SHORTHORNS**—Grand young bulls and heifers for sale. We have the first-prize milking strains. Imported Knuckle Duster and Imported Sir Wilfred in service.

**LEICESTERS**—First prize flock of Canada for past six years. Imported and home-bred for sale.

**ALEX. W. SMITH,** MAPLE LODGE P. O., ONT.

**T. DOUGLAS & SONS, STRATHROY, ONT.,** BREEDERS OF

**SCOTCH SHORTHORNS.**

100 HEAD TO SELECT FROM.

Offer for sale 8 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee =28861-, at head of herd. Farm one mile north of town.

**JOHN DRYDEN,** BROOKLIN, ONTARIO.

OFFERS SIX YOUNG SHORTHORN BULLS, ready for service, at reasonable prices. Strong, active, masculine.

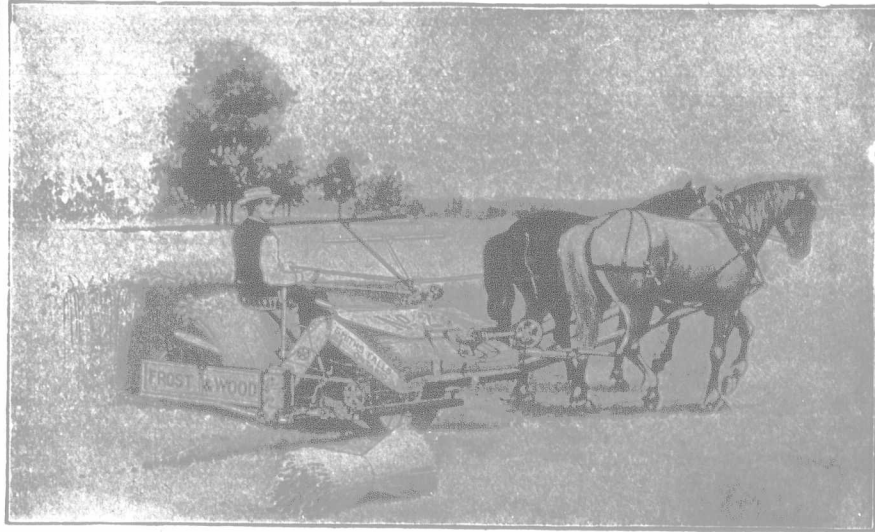
GOOD QUALITY AND CHOICE BREEDING.

Does Quality Count With You? If so, We Can Interest You . . .

**THREE LEADERS FOR 1901:**

**F. & W. "WINDSOR" DISC HARROW**  
**F. & W. No. 8 MOWER**  
**F. & W. No 2 BINDER**

These Machines will Save You TIME and MONEY.



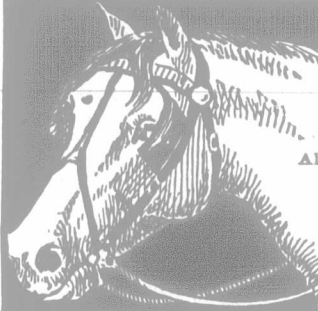
THE LITTLE MACHINE THAT CUTS THE BIG STUFF. NO BINDER WAS EVER MADE THAT WILL DO BETTER WORK OR MORE OF IT

Don't forget that we also manufacture a full line of Light Single Reapers, Steel Plows, Horse Rakes, Corn Cultivators, Spring-tooth Harrows, Potato Scufflers. A post card, with your name and address, to any of our branches will bring you one of our new 1901 illustrated catalogues, now ready. It will pay you to get one.



Head Office and Works: Smith's Falls, Ontario. BRANCH OFFICES: Toronto, London, Winnipeg, Montreal, Quebec; St. John, N. B.; Truro, N. S.

**Easy Harness**

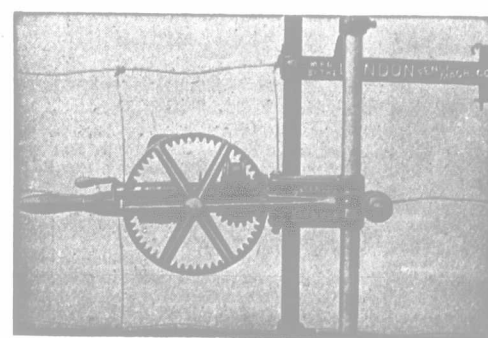


All harness, old or new, is made pliable and easy—will look better and wear longer—by the use of

**Eureka Harness Oil**

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

**LONDON FENCE MACHINES ARE UP-TO-DATE.**



WHEN GETTING, GET THE BEST.

COTTAM, MAY 25TH, 1901. DEAR SIRS,—Having purchased one of your LONDON FENCE MACHINES this spring, I have used it to build about 250 rods of wire fence, and consider it the best machine I have ever used or seen used for weaving wire fence. I think that any ordinary man, with 2 hours' experience, could weave from 40 to 50 rods a day easily, and I have no hesitation in recommending it to farmers who are putting up wire fence. Yours truly, JAS. W. SHEPPARD.

Coiled Spring Wire, Steel Gates, Wire Stretchers, Reels, Pliers, Staples, etc.

THE LONDON FENCE MACHINE COMPANY, LONDON, CANADA.

**Rapids Farm Ayrshires.**

REINFORCED BY A RECENT IMPORTATION of 20 cows, 2 bulls, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitions at—

Toronto, London, and Ottawa, in 1900.

Come and see or write for prices.

Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

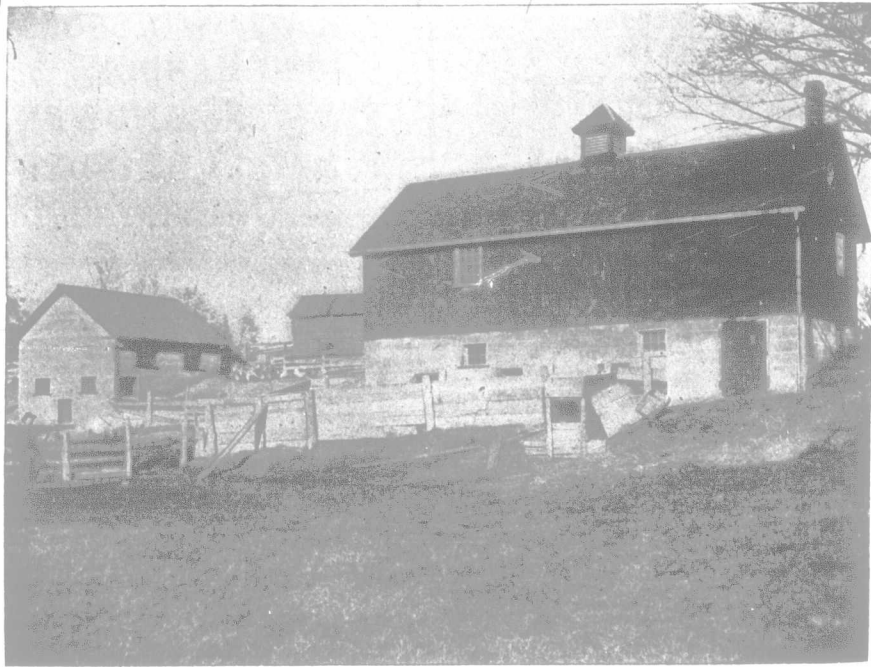
**Robert Hunter, Manager**

for W. W. Ogilvie Co., Lachine Rapids, Quebec.

**Please Mention Farmer's Advocate.**

Concrete Piggery and Henhouse  
OF MR. FRANK LOCKWOOD, DELAWARE, BUILT WITH

## Thorold Cement.



THE HENHOUSE.  
Wall, from foundation to peak, built with THOROLD CEMENT.

THE PIGGERY.  
Basement walls built with THOROLD CEMENT.

Read what Mr. Lockwood says:

DELAWARE, ONT., May 16, 1900.

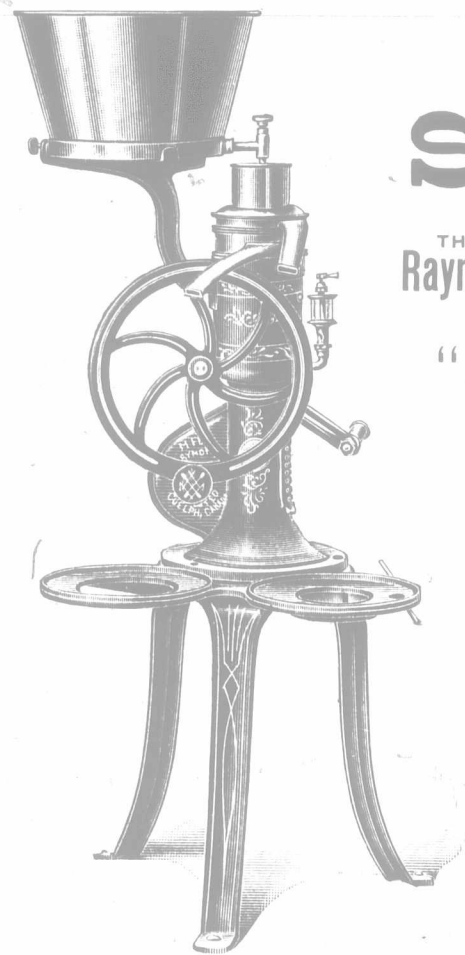
ESTATE OF JOHN BATTLE, Manufacturers of Thorold Cement, THOROLD, ONT.:

DEAR SIRS—I used your **THOROLD CEMENT** in my building. It gave the best of satisfaction, and I recommend it to all who intend building. Both buildings are piggeries. The largest one is 20 x 40, 8 ft. high, 12 in. wall next the bank, and 10-in. on other side and both ends. I do not know just how much material I used—have forgotten—but I used 5 to 1 of cement. Could not say just the time I was building it. Had five men, and six part of the time. The small building is 16 x 20, cement walls 11 ft. high at the eaves and extend to gables, walls 9 in. thick. The top story is a henery. Took five men about 5 days to build this one. There are cement floors in both, and cement troughs also. The top story of the largest building is a granary for 20 feet, and machinery the other half. I did not keep count of how much gravel I used, as the buildings are built right on the side of the gravel hill. I supply the township with gravel.

Yours respectfully,  
FRANK LOCKWOOD.

ESTATE OF JOHN BATTLE, THOROLD, ONT.  
MANUFACTURERS OF THOROLD CEMENT.

## The National Cream Separator,



"NATIONAL" NO. 1 HAND POWER.  
Capacity, 330 to 350 lbs. per hour.

**Cream Separator,**  
MANUFACTURED BY  
**THE Raymond Mfg. Co. of Guelph, Can.**

ALSO MAKERS OF THE CELEBRATED  
"Raymond Sewing Machine."

REPORT FROM WATERLOO COUNTY.  
TO THE RAYMOND MFG. CO., GUELPH, ONT.:

GENTLEMEN,—I wish to make a statement that should be of some encouragement to your firm just at this time when your Company is investing a large amount of capital in shops and machinery for the purpose of manufacturing the "National" Cream Separators. I bought a "National" in December, 1898, and received some practical instructions at the O. A. College, Guelph, in the way of making good butter and putting it in neat form for market. The first year I had nine cows and sold \$15.00 worth of butter from each cow, besides keeping the house in butter and having the skim milk fresh, sweet and warm for the calves. In 1900 I received higher prices for the butter, and made \$52.00 per cow from 12 cows, or a total of \$624.73. I market my butter in Toronto and Woodstock, and can find ready sale for more than I can make. Although I am a farmer, I have sold 93 "National" Cream Separators since I got my own, two years ago. The "National" is profitable to a farmer, whether he makes the butter at home or sends the cream to the creamery. I use a Babcock tester, and find the "National" cannot be beat at close skimming. Wishing you success, and hoping you will be able to supply your agents with machines as fast as we need them, I am,

Respectfully yours,  
Tavistock, March 20, 1901. CHAS. I. ZEHR.

**Joseph A. Merrick,**

BOX 518, WINNIPEG, MANITOBA, Gen. Agt. for Manitoba, N.-W. T., and B. C.

**HAWTHORN HERD**  
OF DEEP-MILKING SHORTHORNS.

We are offering 8 young bulls for sale, of first-class quality, and A1 breeding.  
Wm. Graluger & Son, - Lonsdale, Ont.

**SHORTHORNS (imported)**

3 BULLS—1 two-year-old, 2 one-year-olds. A few cows and heifers.  
THOS. RUSSELL, EXETER P. O.

### GOSSIP.

The Chicago International Live Stock Show for 1901 will be held from Nov. 30th to Dec. 7th. The Eden Grove herd of Shorthorns, at Redlands Bank, Penrith, was dispersed by auction, April 17th. The average for 49 females was \$150, and for bulls, \$105. The highest price, \$255, was paid for the roan yearling heifer, Laurestina 89th, by Royal Bounty.

Dalgely Bros., London, Ont., announce in their advertisement that they will sail for Great Britain early in July, and will carefully execute commissions to select and import mares or stallions for those who entrust them with orders and inform them just what they desire. These gentlemen know the horse business thoroughly and are widely and well acquainted with the Old Country breeders.

The Aldsworth herd of the late Mr. Robert Garne, of Aldsworth, Gloucestershire, was sold May 2nd, when the 80 head made an average of \$215; the highest, 110 guineas (\$377), being paid by Mr. Foljambe for the red-roan yearling bull, Provider, by Now or Never, a Cruickshank Nonpareil, by Scottish Archer, dam by Wrestler, a Wimple bull, by William of Orange. Seventy-four guineas was the highest for a female.

### HACKNEYS CHANGE HANDS.

Horace N. Crossley, Sandy Bay Farm, Rosseau, Ont., writes: You will be pleased to learn that at the recent Canadian Horse Show and since I sold the following Hackneys: Rosseau Royal Oak '78, C. H. S. B., 3-year-old stallion; sire, Royal Standard; dam, Lady Cocking. (11) C. H. S. B. Countess Josephine, 2 years; sire, Fireworks; dam, Althorpe Countess. (5510) Imp. Lady Bird, 12 years; sire, Superior; dam, Jessie, by Confidence. (78) C. H. S. B. Miss Roberta, 1 year; sire, Rosseau Performer; dam, Lady Bird. The above all went to the United States, and I also purchased for the same party Mr. Beith's 2-year-old Hackney filly, (102) Helena. (79) C. H. S. B. Jewel was sold to go to Orillia. I have also recently sold one yearling colt, one 2-year-old and one 3-year-old Hackney gelding—all by Rosseau Performer.

### OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS, FROM MAY 1 TO MAY 16, 1901.

During this period thirty-two have been received. Fourteen full-age cows averaged:—Age 7 years 1 month 18 days, 17 days after calving: Milk 436.5 lbs., butter-fat 14.34 lbs., equivalent butter 80 per cent. fat 17 lbs. 14.8 ozs., equivalent 85.7 per cent. fat 16 lbs. 11.7 ozs. Five four-year-olds averaged: Age 4 years 3 months 16 days, 27 days after calving: Milk 365.5 lbs., butter-fat 11.732 lbs., equivalent butter 80 per cent. fat 14 lbs. 10.6 ozs., equivalent 85.7 per cent. fat 13 lbs. 11 ozs. Two three-year-olds averaged:—Age 3 years 1 month 12 days, 21 days after calving: Milk 351.3 lbs., butter-fat 10.443 lbs., equivalent butter 80 per cent. fat 13 lbs. 0.9 ozs., equivalent 85.7 per cent. fat 12 lbs. 2.9 ozs. Eleven classed as two-year-olds averaged:—Age 2 years 9 months 4 days, 27 days after calving: Milk 309.1 lbs., butter-fat 10.885 lbs., equivalent butter 80 per cent. fat 13 lbs. 9.7 ozs., equivalent 85.7 per cent. fat 12 lbs. 11.2 ozs. Three full-age cows exceeded twenty pounds butter 80 per cent. fat, and four two-year-olds exceeded fourteen pounds each.

### Good Butter

Windsor Salt makes good butter because it dissolves easily and quickly; and, too, because the butter receives the full goodness of each flake of the Salt and the delicate flavor of pure Salt.

### Windsor Salt.

Best Grocers Sell It.

### THE COMMON SENSE BOLSTER SPRING.



FOR TRANSFORMING COMMON WAGONS INTO FIRST-CLASS SPRING VEHICLES, THE BEST FARM-WAGON SPRING IN THE WORLD.

To carry 1,000 pounds, per set.....	\$ 5 00
" 1,500 " " " " " " " " " " " "	6 00
" 2,000 " " " " " " " " " " " "	7 00
" 3,000 " " " " " " " " " " " "	8 00
" 4,000 " " " " " " " " " " " "	9 00
" 5,000 " " " " " " " " " " " "	10 00
" 6,000 " " " " " " " " " " " "	11 00
" 7,000 " " " " " " " " " " " "	12 00

The only truly graduated bolster spring in the market. They always afford a spring for light and heavy use. Every set of springs guaranteed to give entire satisfaction. If your dealer does not handle them, write us direct.  
Windsor Bolster Spring Co., Windsor, Ont.

### GOSSIP.

Ayrshires and Yorkshires form a good combination, and that is what Alex. Hume & Co., Montic, Ont., make a specialty of. His Ayrshires are business cattle of high-class form, and his Yorkshires are economical feeders of the Baron currier's type. See his advertisement in this issue.

### A FEW FACTS

#### About the New Catarrh Cure.

The new Catarrh Cure is a new departure in so-called catarrh cures, because it actually cures, and is not simply a temporary relief.

The new Catarrh Cure is not a salve, ointment, powder nor liquid, but a pleasant-tasting tablet, containing the best specifics for catarrh, in a concentrated, convenient form.

The old style of catarrh salves and ointments are greasy, dirty and inconvenient at the best; the new preparation, being in tablet form, is always clean and convenient.

The new Catarrh Cure is superior to catarrh powders because it is a notorious fact that many catarrh powders contain cocaine.

The new Catarrh Cure is called Stuart's Catarrh Tablets, a wholesome combination of bloodroot, beechwood tar, guaiacol, and other antiseptics, and cures by its action upon the blood and mucous membrane, the only rational treatment for catarrh trouble.

You do not have to draw upon your imagination to discover whether you are getting benefit from Stuart's Catarrh Tablets; improvements and relief are apparent from the first tablet taken.

All druggists sell and recommend them. They cost but 50 cents for full-sized packages, and any catarrh sufferer who has wasted time and money on sprays, salves and powders will appreciate to the full the merit of Stuart's Catarrh Tablets.—Advt. cm.

### SPRING GROVE STOCK FARM

Shorthorn cattle and Lincoln sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by the Marr Missie bull, Imp. Wanderer's Last, last of the get of the great sire, Wanderer of the Cruickshank Brawith Bud tribe. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply om

T. E. ROBSON, ILBERTON, ONT.

### High-class Shorthorns and Yorkshire Pigs.

Just now three 10-month bulls, got by Imp. Sirius 15281, great big massive fellows with lots of flesh and quality—away above the average. Also a few superior young cows in calf, and 5 or 6 heifers. We are looking orders now for the spring trade. Can ship some in six weeks.

JAS. MCARTHUR, GOBLE'S, ONT.  
Goble's Station, G. T. R., 10 miles east of Woodstock, 2 miles from farm. Visitors met. -om

### SHORTHORNS FOR SALE

Cows and heifers, also a few young bulls. I have employed sons of Lord Lovel, Royal Member, Perfection, Indian Chief, and Clan Campbell, on Lord Lovel and Abbotsburn females.

om WM. HAY, TARA, ONT.

### SHORTHORNS, COTSWOLDS, BERKSHIRES AND BARRED PLYMOUTH ROCK FOWLS

FOR SALE.—One yearling bull and 5 bull calves, a few cows and heifers, 7 shearing rams. Barred Rock eggs at 75c. per 13, \$2 for 50, \$3.50 per hundred. No other variety of fowls kept.

F. BONNYCASTLE & SONS,  
Campbellford P. O., Ont.

### FOR SALE:

#### SHORTHORN BULLS AND HEIFERS

from such sires as Mariner (Imp.), Royal Judd 17499, Sultan Selam (Imp.), Grenadier 26251, and Rosville Abott 30874, on a Victoria foundation. Also one extra Kinellar Stamp 10-mos. red bull. Come or write.

HURON COUNTY, THOS. CUDMORE & SON,  
EXETER STATION Hurondale,  
and Telegraph Office. om Ontario.

### HOLWELL MANOR STOCK FARM.

SHORTHORN CATTLE, SHROPSHIRE SWEEP, YORKSHIRE SWINE, SCOTCH COLLIE DOGS, BARRED PLYMOUTH ROCKS.

Young stock of both sexes for sale, imported and home-bred. Eggs for sale. om

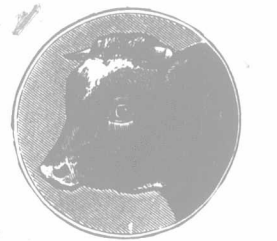
D. G. GANTON, ELMVALE, ONT.

### SPRINGFIELD FARM

HERD OF  
Shorthorns, Oxfords,  
and Berkshires.

Young bulls and heifers on hand. Also a few choice Berkshires.

CHAS. RANKIN,  
Wyebridge, Ont.  
SIMCOE CO. -om



### Aberdeen - Angus Cattle.

Several thoroughbred bulls for sale. Apply to the MANAGER, Grape Grange Farm, or to

om C. W. HARTMAN, Clarksburg, Ont.

### Maple Glen Stock Farm.

The home of officially tested, Advanced Registry, dairy test and showing-win HOLSTEINS. A grand sireling herd of Sylva HOLSTEINS, of Carmen Sylva now for sale. Price is in keeping with breeding and performance.

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

# AGENTS WANTED FOR

## THE NEW PICTORIAL CYCLOPEDIA OF LIVE STOCK,

— EMBRACING —  
**Horses, Cattle, Swine, Sheep and Poultry,**

INCLUDING DEPARTMENTS ON

**DOGS AND BEES;**

— BEING ALSO A —

## COMPLETE STOCK DOCTOR,

COMBINING THE EFFECTIVE METHOD OF  
OBJECT TEACHING WITH WRITTEN INSTRUCTION.

GIVING ALL THE FACTS CONCERNING THE VARIOUS BREEDS; CHARACTERISTICS  
AND EXCELLENCE OF EACH. BEST METHODS OF BREEDING, TRAIN-  
ING, SHELTERING, STABLE MANAGEMENT AND GENERAL  
CARE, WITH SPECIFIC DIRECTIONS.

**HOW TO BUY AND HOW TO SELL,**

INCLUDING CAREFUL AND ILLUSTRATED ANALYSES OF THE  
**POINTS OF DOMESTIC ANIMALS.**

WITH ALL THE DISEASES TO WHICH THEY ARE SUBJECT, HOW TO KNOW THEM, THE  
CAUSES, PREVENTION AND CURE—GIVEN IN PLAIN, SIMPLE LANGUAGE, FREE FROM  
TECHNICALITIES, BUT SCIENTIFICALLY CORRECT, AND PRESCRIBING  
REMEDIES READILY OBTAINED AND EASILY APPLIED.

DESIGNED FOR THE SUCCESSFUL AND PROFITABLE USE OF THE

**CANADIAN FARMER AND STOCK OWNER,**

— BY —

**HON. JONATHAN PERIAM,**

Editor "American Encyclopedia of Agriculture;" editor "Prairie Farmer;" former editor "Western Rural;"  
Member Illinois Department of Agriculture; First Superintendent of Agriculture Illinois  
Industrial University; Life-Member American Pomological Society; Author  
"History Farmers' Movement," "Lesson for Life," &c., &c.,

AND

**A. H. BAKER, V. S.,**

Veterinary Editor "American Field;" Veterinary Surgeon Illinois Humane Society; Medalist of the Montreal  
Veterinary College; Member of the Montreal Veterinary Medical Association, &c., &c.

With important articles and contributions from the following Professors of the Ontario Agricultural College  
of Guelph, Ontario, Canada:

**G. E. DAY, B. S. A.,**  
Professor of Agriculture and Farm Superintendent.

**J. HUGO REED, B. S. A.,**  
Professor of Veterinary Science.

**H. H. DEAN, B. S. A.,**  
Professor of Dairy Husbandry.

**W. R. GRAHAM, B. S. A.,**  
Manager and Lecturer Poultry Department

OVER 800 APPROPRIATE ENGRAVINGS.

PUBLISHED BY THE  
**WORLD PUBLISHING COMPANY, GUELPH, ONTARIO.**  
1901.

The above is the title page of our "Stock Doctor," showing its exact size.

An interesting feature of this book is the many full-page half-tones (photographic illustrations) of the best horses shown at the Horse Show in Toronto in 1901; the best stock at the Ontario Agricultural College, Guelph; the best animals of the Dentonia Herd (Massey Herd), Toronto, Jerseys and Ayrshires, and many other fine specimens of Canadian stock (sweepstakes and prizewinners). And of still greater interest is the vast number of such illustrations of the celebrated prizewinners in England and the United States, showing the finest specimens in the world in horses, cattle, sheep, swine and poultry. The Veterinary and Breeding Departments are simply perfect; the buying and selling thoroughly discussed. The charts for telling the ages of horses and cattle the best ever published. It is a book that no farmer can afford to be without.

We require agents for this, the best of all Stock Books, in all parts of Canada. It is the cheapest book for its size, and the best all-round stock and farmers' book that has ever been published. Hundreds of testimonials have been received; we only have space for a few. Complete illustrated circular mailed free.

Send for fully illustrated circulars, including practical tests, giving numerous cases of farmers having saved valuable animals by the use of this book. All diseases and accidents are illustrated and explained so as to be readily known, with full and complete instructions what to do. As a veterinary book it is far superior to any other. Hundreds of farmers say they would not take \$50 for the book if they could not get another. It is also the cheapest book ever published in Canada, and the only book completely and thoroughly up to date. Illustrated circulars free. Apply

**THE WORLD PUBLISHING CO., GUELPH, ONT.**

### Read the Following Testimonials and Agents' Letters:

GUELPH, ONT., April, 22, 1901.

Gentlemen,—You are at liberty to take photographs of our stock to assist you to illustrate your new, large and very complete "Stock Doctor and Live Stock Encyclopedia."  
JAMES MILLS,  
President Ontario School of Agriculture, Guelph, Ont.

Gentlemen,—I have much pleasure in congratulating you on the great success of your undertaking. The agriculturist, for whom it is mainly intended, will find it a most useful book of reference—one that will save him many times its worth.  
D. McEACHRAN, F. R. C. V. S.,  
Principal Montreal Veterinary College, and Chief Dominion Stock Inspector.

GUELPH, ONT., May 1, 1901.

World Publishing Co., GUELPH, ONT.:  
Gentlemen,—I consider your "New Pictorial Encyclopedia of Live Stock" an extremely useful book for the stockman and the general farmer. The additions which have been made in each department make it a completely up-to-date book. The photographs of the leading animals of the various breeds constitute an education in themselves for the young man interested in live stock. I am contributing to the Swine Department.  
G. E. DAY, Prof. of Agriculture  
and Farm Supt. Ontario Agricultural College, Guelph.

World Publishing Co., GUELPH, ONT.:  
Gentlemen,—I have carefully examined your "Pictorial Encyclopedia of Live Stock," and find a great amount of useful information contained therein, and consider it a valuable work for farmers and stockmen.  
J. HUGO REED, Professor  
Veterinary Science, Ontario Agricultural College, Guelph.

GUELPH, May 1, 1901.

World Publishing Co., GUELPH, ONT.:  
Gentlemen,—I take much pleasure in saying that I consider your "New Pictorial Encyclopedia of Live Stock" an excellent work for farmers. The illustrations are a prominent feature of the work. As a general farm and veterinary stock book it will be found most useful.  
H. H. DEAN, Professor  
Dairy Husbandry, Ontario Agricultural College, Guelph.  
[Prof. Dean is too modest to recommend specially that portion of the work referring to the Dairy Husbandry, as he is writing that portion himself.]

GUELPH, May 1, 1901.

World Publishing Co., GUELPH, ONT.:  
Gentlemen,—I have carefully examined your "New Pictorial Encyclopedia of Live Stock," and find it very complete in all departments. It is a book that should be of great value to all farmers. As to the part of the work devoted to Poultry, the fact that I myself contribute to that portion shows that I approve of the same fully.  
W. R. GRAHAM, Mgr. Poultry Dept.,  
Ontario Agricultural College, Guelph.

Gentlemen,—The book is one that should be in the hands of every stock owner. I can heartily recommend it as the best work of the kind that I have ever seen.  
PROF. M. C. BAKER, V. S., Montreal.

Dominion Cattle Breeders' Association.

GUELPH, May 4th, 1901.

World Publishing Co., GUELPH, ONT.:  
Gentlemen,—Having examined your "New Pictorial Encyclopedia of Live Stock," I consider it the most up-to-date work of the kind I have seen. It should prove invaluable to all farmers and others engaged or interested in the care and treatment of live stock and its improvement.  
Yours truly,  
ALFRED STONE, Director.

World Publishing Co., GUELPH, ONT.:  
The "New Pictorial Encyclopedia of Live Stock" published by you contains a large amount of information valuable to farmers and stock breeders.  
D. McCRAE, Director, Cattle Breeders' Association.

### What Our Canvassing Agents Say.

The following are extracts from a few of our agents' letters. We give their names correctly, but for obvious reasons we do not give their addresses:

"I arrived here and commenced work Tuesday noon, and at 5 p. m., Friday, 1 1/2 days, had 15 good subscriptions—13 of them for leather style."  
J. A. ALEXANDER.

"In one day I sold 9 Stock Books, besides 5 of your other works, and am encouraged to believe that I can put in many such days."  
S. W. HALL.

"I took 52 good subscriptions last week, 41 of which were for leather."  
JOHN A. DAVENPORT.

"I worked 5 1/2 days this week and sold 34 Stock Books—18 leather and 16 cloth. My list now numbers 213, and it still grows."  
JOS. T. SYKES.

"I canvassed two days this week—saw 16 men and took 16 orders."  
W. ARMSTRONG.

"I am doing well in the canvass. There is much sickness among the stock in my neighborhood. Many have died, but not one has died that we have doctored according to directions given in this book. This is helping me in the canvass."  
J. J. HURLEY.

"The Stock Doctor is a success—what every farmer needs and wants. I have sold 3 copies to veterinary surgeons, and all pronounce it the most complete work they have ever seen—safe in treatment and easy of comprehension."  
REV. J. B. RIFE.

"A work on live stock, somewhat similar to yours, was closely canvassed in my township just before I began. The agent sold 8 copies in the entire township. I have sold 51 of yours in the same field, and am not near through the township yet."  
W. E. GAMBLE.

"I have sold 39 of your Stock Books in 11 days, besides 40 of your other books. Have sold 5 Stock Books to men who have just received the other book."  
L. C. GALER.

"In three days I have sold 17 Stock Books—11 cloth and 3 leather, and now have 64 good subscriptions."  
REV. W. J. CRANK.

"My orders now number 297 for your Stock Book, sold in only a portion of this county."  
W. P. DEWALT.

"This county is flooded with Stock Books, including those of McClure, Stewart, Hines, and Manning, but I shall wipe them all out. I average six subscriptions per day."  
R. GRIFFITH, SR.

BOOK REVIEWS.

Any book reviewed in this department may be ordered through this office, at the price stated.

**A Sugar Beet Manual.**—Sugar-beet cultivation is a live subject at the present time with Canadian farmers, particularly those of Ontario. For several months past the FARMER'S ADVOCATE has devoted a good share of its space in describing from actual experience successful methods in beet-growing. We have, therefore, examined with special interest and pleasure a volume, entitled "The Beet Growers' Manual and Text-book for the Investor in Beet Sugar Enterprises," written by C. W. Hamburger, of Chicago, a copy of which we have received from the *Beet Sugar Gazette*. The first section of the work contains an excellent account of the history of the enterprise in Europe, and its rise and progress in America; next deals carefully with the practical question of beet-growing, which specially concerns our readers. The author has avoided scientific technicalities, and yet gives us a work of value to the experienced beet-grower as well as the amateur. Intending beet-growers will find its perusal of very great advantage. Part three contains a description of the process of beet-sugar refining, with hints how to secure, build and equip a factory, with much information of value to investors in beet-sugar enterprises. It is a well-printed volume of 130 pages, plentifully illustrated with engravings of beets, machinery for cultivating, harvesting and manufacturing, and may be ordered through this office, at 50 cents in paper cover, or 75 cents in cloth binding.

**Rhubarb Culture.**—Messrs. J. E. Morse and G. Burnap are the authors, and the Orange, Judd Co., New York, the publishers of an excellent 50-cent cloth-bound volume on the above subject, of special interest to market gardeners. Forcing vegetables under glass during the winter months has taken great strides within the past decade and grown to be a business of large proportions. One of the latest vegetables to receive attention in this line is the common pie-plant, or rhubarb. Unlike most of the vegetables used for winter forcing, no expensive structures are required. The facilities for growing this vegetable are already found on every farm. Cheap board structures are put up, and heated with an ordinary stove. In these, rhubarb roots are closely packed and then forced into growth. The resulting product is very handsome in appearance, quality, and flavor. For home use, rhubarb can also be satisfactorily forced in an ordinary house cellar, using a kerosene lamp or lantern to supply the necessary heat. The best product is said to be grown in absolute darkness. Mr. Morse, who is an expert gardener, gives in detail the commercial method of forcing, together with the actual cost, yield, and prices which have ruled for several seasons. In part second Mr. Fiske treats of other methods of forcing, as well as systems of outdoor cultivation.

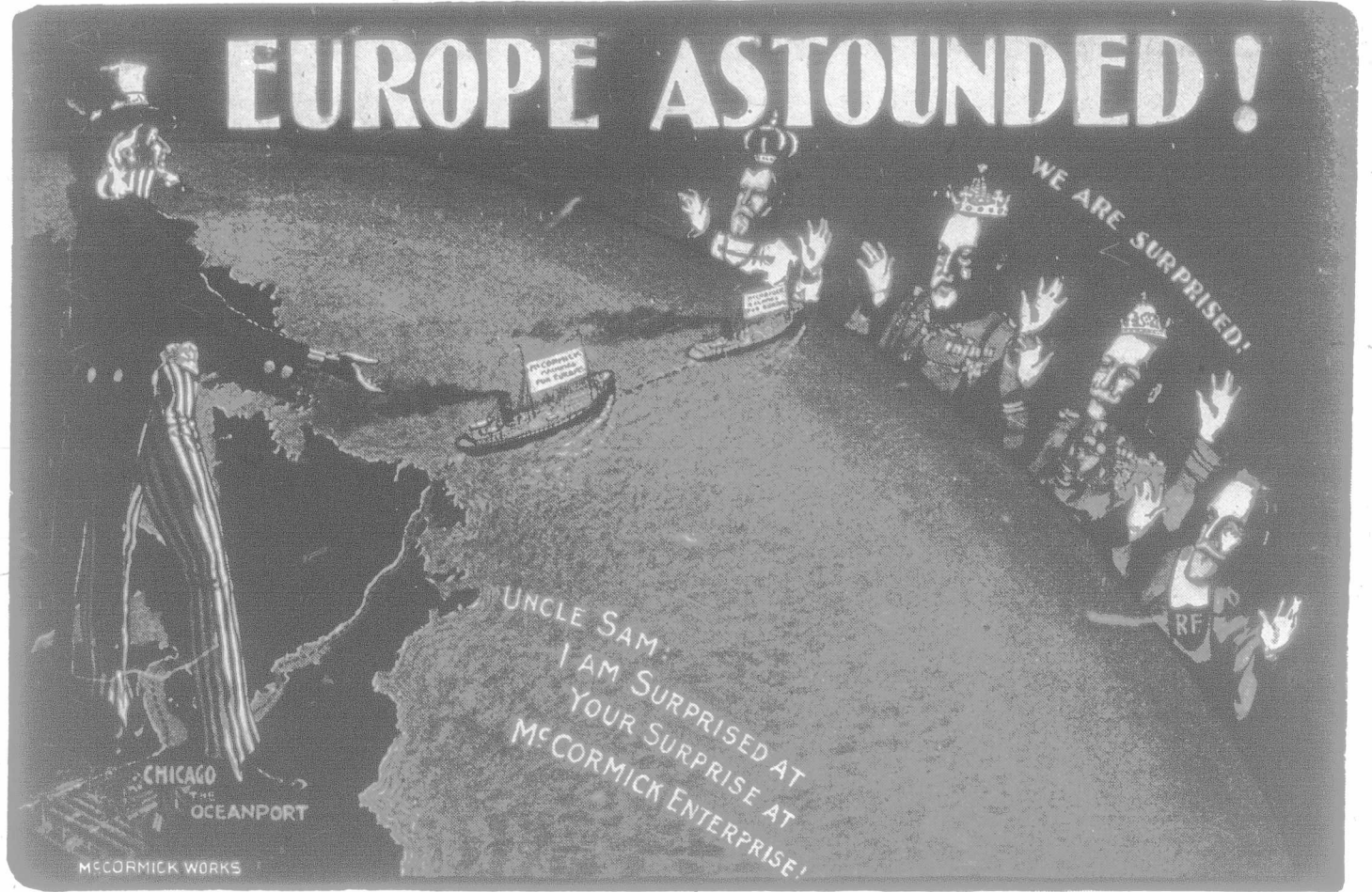
GOSSIP.

We are pleased to acknowledge receipt from Messrs. John Thornton & Co., 7 Princess St., Hanover Square, London, Eng., of a handsomely-illustrated and well-printed catalogue, prepared by Messrs. Thornton & Co., of the extensive Shorthorn herd of Mr. H. Ludding, Riby Grove, Great Grimsby, Lincolnshire, and of the grand flock of Longwooled Lincoln sheep maintained on the same great farm, consisting of nearly 3,000 acres. The catalogue contains pedigrees of animals composing a herd of about 250 animals, representing a large number of excellent families, a number of the stock bulls being of choice Scotch breeding, which are the sires of most of the young stock in the herd. The flock of Lincolns numbers about 3,000 head. The annual sale of Shorthorns and Lincolns will be held on August 7th.

J. M. Gardhouse, Highfield, Ont., writes that Mr. Jas. Yule, manager for Hon. Thos. Greenway, Crystal City, Man., came and purchased the prizewinning stallion, King of the Clydes. In King of the Clydes, Mr. Greenway has got a first-prize winner three times in succession at Toronto shows, a record equalled by few stallions of his age. He is four years old, and his weight with quality, and that is what is required at the present time. King of the Clydes' foals are coming good, and promise to be above the average. Mr. A. J. McArthur purchased the imp. Shire stallion, Bahallion Vulcan, sired by the old renowned Vulcan. Bahallion Vulcan, no doubt, will prove a good horse for the West, as his colts are very promising. Mr. McArthur also took along two choice 12-bred Shorthorn bulls, by Imp. Prime Minister, one a pure Scotch, of the Clementina family, the other of a pure Booth family (grandam imported). Mr. Adams, of Indiana, secured a Diamond heifer, by Royal Member; grandam by Ranton Robin. Our Leicesters, numbering about 100, are looking after themselves in the fields, but never were in better form. Our crop of lambs is the best lot we have ever had, but most of them are young. We can supply intending purchasers with either show or field sheep. I have still two imp. stallions, and trade is very brisk with people breeding.

The old stalwart Shorthorn breeder, Mr. Wm. Grainger, of Lonsdale, is still to be reckoned with when typical Shorthorns meet in the show-ring competing for the much-coveted red ribbon. At our late visit to Mr. Grainger's farm, we found, as usual, the cattle in prime condition. Evidently Mr. Grainger's barns were full to overflowing the past winter. *Golden Eagle* 30843, the present head of the herd, a rich roan, is one of those bulls that are truly a pleasure to look upon: deep, long, compact, no waste timber, well developed, set on short, nicely formed legs—an ideal Shorthorn. He was sired by the Scotch-bred *Golden Measure* 30942; dam, *Isabella* 146, 1344, of the favorite Miss Ransford family. Mr. Grainger's cows are founded on the noted *Fairmaid of Athol* and 382, which was sired by *Fraud Duke* 291. *Fairmaid of Athol*, imported by the late Wm. Miller, of Pickering, was a noted milk producer, and her progeny have all inherited that much to be desired quality, and by a careful selection of deep, fleshy sires, Mr. Grainger has to-day a herd of ideal Shorthorns, being heavy milkers and with massive beefy bodies—a combination now greatly in demand—the kind that can take their place in the dairy, if need be, and at the same time produce the highest class of beef makers.

PLEASE MENTION FARMER'S ADVOCATE.



MCCORMICK MAKES CHICAGO A SEAPORT.

THE first cargo of Chicago-made agricultural machinery to go by all-water route from Chicago direct to Europe was shipped by the McCormick Harvesting Machine Company on April 22nd, when the steamship "Northwestern," carrying a large cargo of McCormick machines, cleared from the port of Chicago, bound for Liverpool, England. Following the steamer "Northwestern," the "Northman," also carrying a cargo of McCormick machines, cleared from the McCormick docks April 24th, bound for Hamburg, Germany. More than 144 carloads of McCormick machines were shipped on the two vessels. To the McCormick Harvesting Machine Company belongs the honor of opening Chicago as a seaport, and in making the initial shipments by steamers direct from the great manufacturing center of the West to European ports the McCormick Company has inaugurated a new epoch in the commercial world. Both in boldness and magnitude, as well as in far-reaching importance, this intrepid enterprise has no equal in the annals of American commerce, and is a splendid exemplification of the leadership of the McCormick Company, the largest harvesting machine manufacturers in the world.

All Early Vegetables

should be forced forward as rapidly as possible in order to get them quickly to market. The profits of the crop frequently depend on a gain of ten days in marketing. This can be accomplished by the judicious and liberal use of **Nitrate of Soda**, applied in proper proportions with phosphates and potash salts. Every gardener should use it. Pamphlets and full information free on application to **John A. Myers, 12 R John Street, New York City. List of dealers in Nitrate of Soda** will also be furnished.

WHERE ARE THE BEST HOLSTEINS?

Have you read of Lillith Pauline DeKol's wonderful record? Her sire was bred here. Have you read of Susie DeKol's record? She was sired by a son of our great cow, DeKol 2nd. We can give our customers more of the blood of the greatest producers than can be found in any other herd. Look over official reports and see where the sires of the great producers were bred. We have over 30 young bulls for sale, and a large number of females. Animals shipped to Canada are accompanied by certificate of health, and are subject to no duties or quarantine. If you want the best, write or visit—  
**BROOKSIDE HERD, ON**  
**H. Stevens & Sons, Lacona, Oswego Co., N.Y.**

Maple Hill Holstein-Friesians

SPECIAL OFFERING:

Three very fine bull calves, 2 to 11 months old. Also several extra good young cows and heifers. Prices moderate. Visitors welcome.

HARRISBURG STN., G.T.R. **G. W. CLEMONS,**  
GALT STN., C.P.R. **ST. GEORGE P.O., ONT.**

HOLSTEINS

FOR SALE.

I am now offering Holstein calves of both sexes, out of such cows as Panarista Pauline, Inka Darkness 3rd's Jessie DeKol, DeDicker's DeKol, Belle Burke Mechtild, Pietertje Hartog DeKol, and others, all closely related to DeKol 2nd and Netherland Heingersveld, the greatest of Holstein cows.

**J. A. CASKEY,**  
Madoc, Ont.

BRAMPTON JERSEY HERD.

For sale: 2 yearling bulls; 8 bull calves, sired by Brampton's Monarch (imp.), and out of first-class cows. A number of cows and heifers in calf. Also some unregistered cows and heifers, fresh-calved and springers—grand family cows.

**B. H. BULL & SON, BRAMPTON, ONT.**

**Live Stock Labels**  
Send for circular and price list.  
R. W. James, Rowmanville, Ont.

GOSSIP.

Last month a Leicester ewe in East Lothian, Scotland, gave birth to five lambs. A cross-bred Leicester and Shropshire ewe in England has gone one better, producing six lambs at a birth, three of which are living.

At a combination sale of Aberdeen-Angus cattle, at Omaha, May 8th and 9th, 110 head sold for an average of \$23.65. One cow brought \$1,025 and another \$1,055. The highest price for a bull was \$550.

Some idea of the growth of the export trade in Canadian poultry may be gathered from the fact that one produce company alone is buying 1,000 tons of chickens and ducks for shipment to England this season.

The date of the annual sale of Shorthorn cattle and Lincoln sheep from the famous Riby Grove herd and flock of Mr. Henry Dudding, Grimsby, Lincoln, England, has been fixed for August 7th, and the annual sale of Lincoln rams at Lincoln will take place August 9th.

An importation of 13 yearling Lincoln rams and the same number of yearling ewes from the noted flock of S. E. Dean & Sons, Dowsby Hall, Bourne, Lincolnshire, England, has recently been made by J. G. Massey, Fort Logan, Col., U. S.

A unique feature of a recent market at Newbury, England, was the offer of three three-year-old Shorthorn heifers which were triplets. They were of good size and had each bred a calf, and were so alike in color and general markings that it was considered next to impossible to tell one from the other. They were all bought by one buyer, at an average of \$68 each. It is rarely that bovine triplets all live to grow up and produce offspring.

Mr. Jas. A. Cochrane, Hillhurst, P. Q., under date of May 11th, writes of the sheep flock at Hillhurst stock farm: Shearing was finished on the 4th, and the man who clipped our 235 head says he did not find a dozen ticks on the whole lot, thanks to regular dipping with McDougall's Sheep Dip. Thirty-four imported Hampshire Down ewes with 41 big lusty lambs were the last turned out, so as not to suffer a check on short pasture. They are going on satisfactorily, and will be fit to wean by the first of June and take advantage of the rich growth of clover which, with a little grain and cake, will fit the vigorous, hardy ram lambs for their important mission at from six to eight months old, saving one year's keep, a point of some importance in these days of early-maturing live stock.

Mr. Amos Smith, of Trowbridge, Ont., is one of the young men that is rapidly coming to the front as a Shorthorn breeder. In looking over Mr. Smith's beautiful farm and buildings, we found an ideal Shorthorn home, tenanted by some extra nice specimens of that favorite breed. The present head of the herd, *Royal Ury* 23630, of Messrs. Cargill & Son's breeding, is all that can be desired in a sire, possessing size, substance and quality in high degree. He was sired by the great imported bull, *Royal Member*, Dam, Ury of Cargill, of the favorite Kinellar Ury family, by imp. Albert Victor. Mr. Smith's previous sire was *Scottish Chief* (26261), by *Scottish Pride* (imp.) (20839), and his dam, Crescent, of the Kinellar Clementina tribe. The females of the herd are descended from the *Collynie Countess* and *Vain Maid* families, the latter tracing to imp. Vain Maid by the Royal winner, Edgar. At present, Mr. Smith is offering some choice young things of both sexes, from the above sires, and their breeding will commend them to the favor of the most exacting and careful of breeders.

Choice Jerseys

FOR SALE.

Finest Butter Stock yet Offered.

The first bull calf to be dropped this month is already sold, and I have sometimes been obliged to **RETURN CHEQUES**, as others had been sent in quicker. Recent sales from Manitoba to Maryland, from Atlantic seacoast to Western Canada.

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

GLEN ROUGE JERSEYS.

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

Maple Cliff Dairy and Stock Farm.

BREEDERS OF **AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TAMWORTH PIGS.**

FOR SALE: 5 bull calves, a few heifers; young pigs, pairs not akin; 2 boars, 4 months old; young pigs. Farm adjoins Central Experimental Farm, Ottawa.

**R. REID & CO., Hintonburg, Ont.**

TREDINNOCK AYRSHIRES

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchenbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars, address **JAMES BODEN, Mgr., St. Anne de Bellevue, Quebec.**

Farm close to St. Anne Station, Quebec.  
G.T.R. & C.P.R., 20 miles west of Montreal, om-

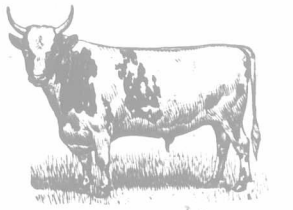
Choice Ayrshires,

AND BARRED ROCK EGGS.

3 BULLS, from 7 to 17 months old; also a few

**COWS AND HEIFERS.**

Eggs for hatching, from choice matings, at \$2.00 per 15. Incubator eggs \$4.00 per 100.



**JAS. McCORMACK & SON,**

om- **ROCKTON, QNTARIO.**

CHOICE AYRSHIRE BULLS.

I OFFER: Five bull calves, one dropped in each of the months of August, November, December, January, and April. Good individuals, and from deep-milking strains.

**W. W. BALLANTYNE,**  
om- **STRATFORD, ONT.**  
"Neidpath Farm" adjoins city, on main line G. T. R.

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This book is 6 1/2 by 9 1/4 and contains 182 LARGE COLORED ENGRAVINGS that cost us over \$3000.00. It gives a history and description of each breed of Horses, Cattle, Sheep, Hogs and Poultry. It contains a valuable and very finely illustrated Veterinary Department. **MAILED FREE** if you answer 3 questions: 1st—Did you ever use "International Stock Book" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs? 2nd—How many head of stock do you own? 3rd—Name this paper.

**INTERNATIONAL FOOD CO.,**  
MINNEAPOLIS, MINN., U. S. A.

**SWISS Cow Bells**

Patented Design. Made from Finest Quality Swiss Bell Metal.

We sell exclusively to the jobbing trade, but to introduce these delightfully musical toned Swiss Cow Bells more generally, offer them in sets of three, tuned to accord. Sizes 4, 5 and 6 in. in diameter, with extra fine and substantial straps, or singly with or without straps. Send for circular of Cow, Sheep and Turkey Bells, etc. We are oldest Bell makers in America.

**BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.**

**Ayrshire Bulls:** Write to **J. YULL & SONS,** Carleton Place, for special prices on Ayrshire bulls from 1 1/2 years to 6 months. Four over 15 months, fit for service, from special milking stock. Sired by prize bull, Jock of Burnside—1884—, also females of all ages. Shropshire sheep of all ages; a number of fine ram lambs. Berkshire pigs of either sex, of the best bacon type. B. P. Rocks.

**FOR SALE: HIGH-CLASS AYRSHIRES**

One choicely bred (Nov., '99) bull. Several bull calves, sired by our imported bull. A few heifer calves, sired by White Cockade. Young females of various ages. All bred for milk and show-yard. Orders filled for young Yorkshire pigs.

om **ALEX. HUME & CO., Menie, Ont.**

**"Farnham Farm" Oxford Downs.**

FLOCK ESTABLISHED 20 YEARS.

Forty superior yearling and two-year rams. Two extra fine imported rams. Sixty yearling ranch rams. Forty yearling ewes. One hundred ram lambs. Stock good and prices reasonable.

om **HENRY ARKELL,** Guelph, Ont., G. T. R. Arkell, Ont., C.P.R.

**SHEEP BREEDERS' ASSOCIATIONS**

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

**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—Sheepote, London.

**BROAD LEA OXFORDS.**

We have at present a number of good ewe and ram lambs. Also some choice young ewes dropping lambs in April for sale. Correspondence solicited. Visitors welcome.

om **Henry Arkell & Son,** Teeswater, Ont.

**Shropshires.** Choice yearling rams and ewes for sale now. A grand crop of lambs coming on will be for sale when weaned. All bred straight from first-class importations. For prices write:

om **WM. PIERCE, BRINSLEY, ONT.**

**50 - SHROPSHIRE FOR SALE - 50**

Including 12 shearing rams, 2 two-shear rams, and this year's crop of lambs. Will be ready for the fall trade. Lambs and shearings are sired by the noted stock ram Miller's 3402, 111875, bred by John Miller & Sons, and used with good results on the flock of C. Lawrence, Collingwood. Foundation stock were imported from Mansell's, Shrewsbury, England. Fine quality, good fleece, well-covered heads and legs, and skins right. Write for prices, **ROWAT BROS.,** Box 132, Hillsdale, Simcoe Co.; Pheasant Station, G. T. R.

**Fairfield Lincolns.**

The partnership heretofore existing between J. H. Patrick and Eugene Patrick, of Ilderton, Ontario, as to the management of Fairfield Stock Farm, has been dissolved. J. H. Patrick again resumes full management at Fairfield, and Eugene Patrick taking charge at Liffoln Grove, Tecumseh, Idaho.

om **J. H. & E. PATRICK, Ilderton, Ont.**

**FRESH BERKSHIRE BLOOD.**

Have secured the first choice of the champion gold medal herd of America (which won over 400 prizes, cups and medals), including the \$400 show sow, Elphick's Matchless (never beaten), and other sweepstakes sows in the United States. Also 15 April, May and June boars and 15 sows of the same age, and 3 fall litters, selected to meet the best Canadian demand, being long, low, and extra good through the heart.

Farm within 10 minutes' walk of electric R. R. terminus on Kingston road.

om **DURHAM & CAVAN, East Toronto, Ont.**

**BERKSHIRES**

A specialty. Can supply pairs and trios not akin. Various ages.

om **MAC. CAMPBELL, NORTHWOOD, ONT.**

**OAK LODGE YORKSHIRES**

ARE THE CORRECT TYPE TO BRING THE GREATEST PROFIT.




We breed our winners, and we win more prizes than all other herds combined at Toronto, London, and other large shows. Sweepstakes in bacon classes over all other breeds in dressed carcass competition, also on foot, for two years in succession. Championship carcass in bacon class at Chicago, 1900. First-prize herd at Toronto Industrial for nine years. Write for prices.

om **Brethour & Saunders, Burford, Ont., Can.**

**Yorkshires for Sale.**

Boars fit for service. Young sows being bred for July and August farrow. Orders booked for March, April and May pigs of both sexes. Write for prices.

om **WILLIAM HOWE,** NORTH BRUCE.



Paint without Oil or Brush.

Paint your buildings at one-tenth the former cost.

The **Spramator Cold Water Paint** requires only the addition of cold water to make a fluid paint. It is put on your buildings by the "Spramator" with painting attachments. Will paint house or barn, shingles and all, white-wash or tint the interior. Color will not rub off.

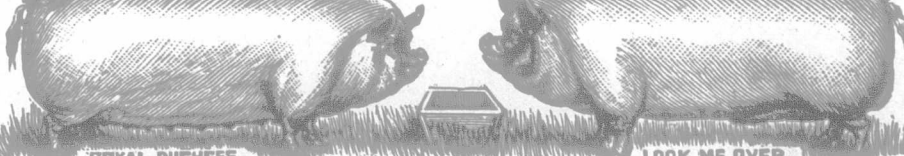
Tell us what you want to paint and let us quote you.

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Manufacturers of Spramator Spraying and painting machines, Cold water paint, etc.

**Summer Hill Herd**

HEADQUARTERS FOR THE IDEAL BACON HOG AND EASY FEEDERS.



**ROYAL DUCHESS**      **LOOK ME OVER**

The largest herd of imported and Canadian-bred Yorkshires in America. Out of 121 exhibits at the leading shows in '99 and 1900, including Toronto and London, we gained 116 awards. Expert judges both at London and Toronto were unanimous in pronouncing our herd far superior to that of our strongest competitors. Won most of the best prizes offered, including first prize for best pen of pure-bred bacon hogs, also grand sweepstakes over all breeds in a class of 13 entries. The foundation of our herd was laid by personally selecting the choicest stock from the most noted breeders in England and Scotland. We have the ideal bacon type—size without coarseness, and easy feeders. Pigs of all ages for sale at moderate prices. Write us for particulars. Telephone, Millgrove, Ont. Telegraph 254 Bay St. S., Hamilton, Ont.

om **D. C. Flatt & Son, Millgrove, Ont.**

**David Maxwell & Sons,** ST. MARY'S, ONT.

PATENTED

**STEEL ROLLER BEARINGS, IMPROVED DETACHABLE LINK, IMPROVED STEEL FRAME, COMBINED LEVER AND FOOT DRIVE.**



Improvements you will not find on other churns. Do you want the best? Then don't purchase until you see it. Sold by the leading wholesale houses in the Dominion.

No.	CAPACITY.	Churns from
0	6 gl.	to 3 gl. cream.
1	10	to 5 "
2	15	to 7 "
3	20	to 9 "
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5	30	to 14 "
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SOLD BY ALL LEADING WHOLESALE HOUSES AND DEALERS.

**Canada's Winners.**

EGGS FOR HATCHING.

Silver Gray and colored Dorkings, Indian Games, Houdans, Minorcas, Hamburgs, Leghorns, Poland, Ducks and turkeys. Our birds win at Boston, New York, Toronto, London, Kingston, Ottawa, Montreal. Also Ayrshires (bulls and females). For full particulars, write **WM. STEWART & SON,** Menie P. O., Ont.

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Has no effect on the Frost fence. The coiled spring allows for contraction and expansion. With the heavy hard uprights used, Frost fence has no equal. Agents wanted.

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"Making Fast Time"

We are making a great record. No other fence can compete successfully with the "Page." We now make our own wire and so get just the peculiar quality we need. Hence, we now furnish a still better fence than ever. Prices lower this year. Better look into it. Not room here for prices. We also manufacture lawn fences and gates. High in quality and low in price.

**The PAGE WIRE FENCE CO. (Ltd.)** WALKERVILLE, ONT.

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**BULL-STRONG!**

...PIG-TIGHT...

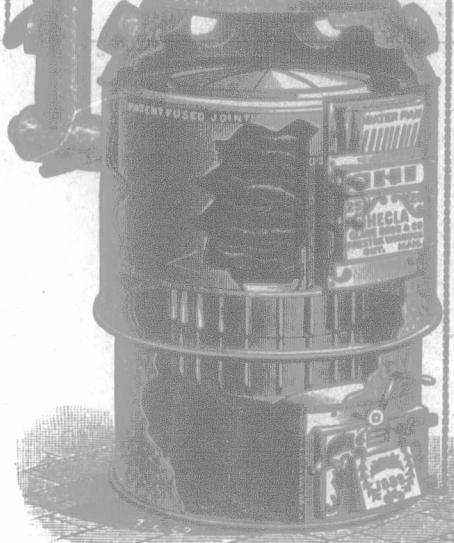
An Illinois farmer said that after harvest he had fully 200 bushels of loose oats on the ground that he could not secure any benefit from, because the fence around the field would not turn hogs. Figure the loss for yourself. He also said, all this would have been saved if he had used the Kitzelman Woven Wire Coiled Spring Fence, and the value would have gone a long way towards paying cost of the fence.

With the **Duplex Machine** any farmer can make it himself at the actual cost of the wire. Catalogue free for the asking. **C. G. DAVIS & CO.,** Box C-116, Freeman, Ont.

**Gem Fence Machine**

beats them all: 120 rods 10-bar fence in 10 hrs. Coiled Spring and other fence wire for sale at lowest prices.

WRITE—**McGregor, Banwell & CO.,** om WINDSOR, - ONT.



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AS USED IN OUR

**HECLA FURNACE**

is the most valuable improvement in furnace construction in recent years. By means of this patented method we fuse the steel and iron which go to make up the dome and radiator into **ONE SOLID CASTING.** There is no danger of cement falling out, to let the dust, smoke and gas escape into the house. Another feature of the Hecla is that it will burn

**EVERY KIND OF FUEL**

COAL, WOOD OR PEAT.

Send us a sketch of your house, and let us give you an estimate.

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**IF YOU MISS IT  
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The Finest Grounds and Buildings in the West.  
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FOR PRIZE LISTS, ATTRACTION AND RACING PROGRAMMES, ETC., WRITE—

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## The Modern Way to Destroy Sheep Ticks is By the Use of INSTANT LOUSE KILLER



WHEN you shear your sheep, dust the lambs with INSTANT LOUSE KILLER. It's a powder which the sun cannot readily evaporate. That's why one application is all that is necessary. It sticks in the wool and kills the ticks that hatch after the first application.

For these reasons it is better and cheaper than a dip; besides, there is no slop, no muss, no danger.

POUND CAN, PERFORATED TOP, 35 CENTS.

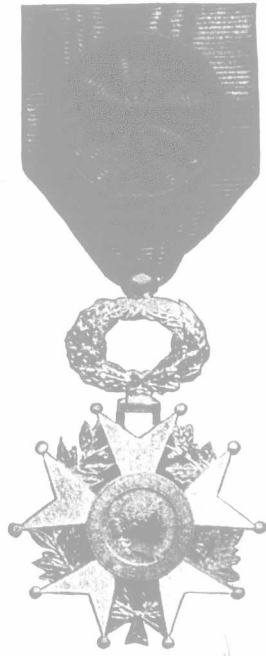
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**THE GREIG MANFG. CO'Y,**  
W. R. ROWAN, MGR. P. O. BOX 603. WINNIPEG, MAN.

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MORE AND GREATER HONORS THAN WERE EVER ACCORDED AN EXHIBITOR AT ANY INTERNATIONAL EXPOSITION.

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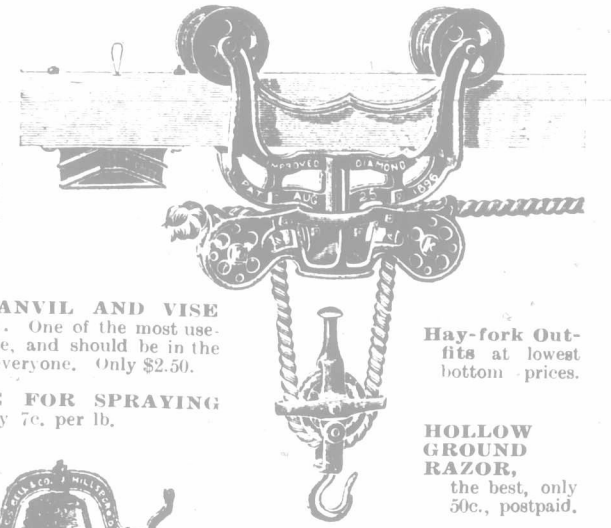
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Brass Bucket Spray Pump, only \$3.50 each.

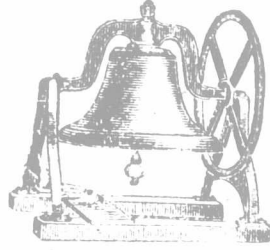
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BLUESTONE FOR SPRAYING TREES, only 7c. per lb.



Hay-fork Outfits at lowest bottom prices.

HOLLOW GROUND RAZOR, the best, only 50c., postpaid.



Farm and Church Bells, at lowest wholesale prices.

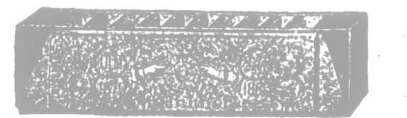


WRENCHES, the best 10-in., 50c.; 12-in., 60c. each.

FENCE WIRE-CUTTING PLIERS, 10-in., 50c.; 12-in., 60c. Pliers can be sent postpaid for 25c. per pair extra.

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Mouth Organs, 25c. We sell a beautiful celluloid one for 50c., postpaid.

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A New Binder Twine Enterprise.—Canadian farmers in all grain-growing districts will read with pleasure the announcement of the Walkerton (Ont.) Binder Twine Company, elsewhere in this issue. It is a genuine co-operative enterprise, owned and controlled by 325 of the most progressive farmers of the Province. The plant is one of the best in existence, and three superb brands of twine are turned out at very favorable terms.

## Family Knitter



Cheapest, Simplest, Best.  
Price, \$8.00.

Write for circular.

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