

J.H. Grisdale 21 Feb 20, 1901  
Exp Farmy, Ottawa

MANITOBA AND WESTERN EDITION

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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Vol. XXXV. LONDON, ONTARIO. JUNE 20, 1900. WINNIPEG, MANITOBA. No. 504

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HEAD OFFICE:  
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Reserve, \$1,000,000;  
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Assets . . . . .	\$280,191,286.80	Disbursements, 1899 . . . . .	\$ 34,882,925.99
Liabilities . . . . .	219,073,809.03	Total Insurance in force . . . . .	1,054,116,422.00
Surplus . . . . .	61,117,477.77	New Insurance issued 1899 . . . . .	203,301,832.00
Income, 1899 . . . . .	53,878,200.86	Insurance Declined . . . . .	31,054,778.00

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	1894.	1899.	Increase.
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Net income . . . . .	296,468	383,332	97 per cent.
Assurance in force, 9,553,300	14,394,478		50 per cent.


1899.

"Death claims paid" . . . . . \$ 109,573.50  
Surplus for security of policy-holders . . . . . 665,648.01  
Assets . . . . . 1,810,155.17  
Business in force . . . . . 14,394,478.00

**J. F. JUNKIN,**  
MANAGING DIRECTOR.

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H. H. BECK, Vice-Pres. and Man. Director.

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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

VOL. XXXV.

LONDON, ONT., AND WINNIPEG, MAN., JUNE 20, 1900.

No. 504

## The Manitoba Grain Act.

The agitation that has for years been waged against what was commonly known as the "Elevator Monopoly" resulted in the appointment by the Federal Government of a commission to investigate the whole situation respecting the grain trade of the West, and now as an outcome of the report of this Royal Commission, a Bill entitled the "Manitoba Grain Act" has been passed at Ottawa. The Act is a lengthy one, providing a great lot of machinery for the regulating of the grain trade, introducing many commendable features, but lacking in simplicity and directness the remedy so urgently desired by the producers, viz., absolute freedom to handle grain through elevator, flat warehouse, or direct from vehicle. Just whether the provisions of this Act will afford the desired relief from the restrictions which have gathered around the trade through the privileges granted to standard elevator owners by the railway companies time only can tell. The majority of the members at Ottawa cannot possibly have any very clear conception of the detail conditions that govern the grain trade of the West, and several amendments suggested by Western members, who should understand the conditions thoroughly, were voted down by overwhelming majorities in what appeared to be a desire to protect the interests of the railway companies rather than the producers. However, there is now upon the statutes an elaborate Act, that can be amended from time to time if it proves inadequate to give the producer a fair chance.

The elevator system is generally conceded to be the best possible system for handling grain, and the grain dealer is not grudging his legitimate profit on wisely-invested capital, but this country will not submit to unfair protection being given to any class or section of the people.

The Act in question provides for the appointment by the Government of a warehouse commissioner, whose duties are defined as follows:

- (a) To require all elevators, warehouses and mills to take out an annual license;
- (b) To fix the amount of bonds to be given by the different owners and operators of elevators, mills and flat warehouses;
- (c) To require the persons so licensed to keep books in forms approved of by the commissioner or by the Governor in Council;
- (d) To supervise the handling and storage of grain in and out of elevators, warehouses and cars;
- (e) To receive and investigate all complaints made in writing under oath, of undue dockage, improper weights or grading, refusal or neglect to furnish cars within a reasonable time, all complaints of fraud or oppression by any person, firm or corporation owning or operating any elevator, warehouse, mill or railroad, and to apply such remedy as may be in his power;
- (f) To enforce rules and regulations made under this Act, and to report to the Minister of Inland Revenue such changes therein as he deems advisable;
- (g) To institute prosecutions at the Government expense whenever he considers a case proper therefor.

For the appointment of a chief weighmaster and such assistants as are necessary, and defines the duties incumbent upon this office; defines and provides for the regulation of terminal elevators, country elevators, flat warehouses and loading platforms; licensing operators of same, etc., and much other detail, of which lack of space forbids mention.

Flat warehouses may be erected upon the request of 10 farmers living within 20 miles of the shipping point and on approval of the commissioner. The warehouse must contain bins of 1,000-bushel capacity, and these must be allotted to farmers in order of application, five days only being allowed for filling and loading on car, at the expiration of which time, providing a car is placed for loading,

whatever grain is in the bin must be shipped, whether a full car has been accumulated or not. The intention of this clause is evidently to prevent the bins being occupied by any persons to the exclusion of others. Clause 8 of the sub-section relating to flat warehouses reads: "No owner or operator of any such warehouse shall be allowed to store in or ship through grain purchased by or for himself."

Loading platforms are to be provided by the railway companies upon application of 10 farmers. Twenty-four hours is the time limit for loading cars from vehicles or flat warehouses.

The wire cloth used in testing sieves "shall have 10 meshes to the inch each way, and be of No. 28 standard gauge, hard-turned steel wire."

"Persons interested in the weighing of grain at country elevators or warehouses shall have free access to the scales while such grain is being weighed."

Regular forms for cash tickets, showing the gross weight, dockage, net weight, price per bushel and total cash payable, are also provided, as are forms for storage receipts, showing number of bushels and grade of grain taken in, charges for receiving, cleaning, insuring and stowing, the maximum charge to be fixed by statute, and providing that "Upon return of this receipt and tender or payment of above-named charges accruing up to the time of said return of this receipt, the above quantity, grade and kind of grain will be delivered within the time prescribed by law to the person above named or his order, either from this elevator or warehouse, or if either party desire, in quantities of not less than carload lots at any terminal elevator in the Manitoba Inspection District on same line of railway or any railway connecting therewith, subject to freight, weighing and inspection charges at such terminal point, the grade and weight of such grain to be delivered to be such as will conform to the grade and weight first above mentioned on Government inspection and weighing thereof at such terminal point"; also a form for storage receipt for special binned grain, with somewhat similar provisions to above.

## Systems of Insurance.

In many of the great agricultural States, the insurance business has been pushed to its farthest limit, every imaginable kind of fake scheme to catch the almighty dollar from the unwary has had its innings. As population increases on our own broad prairies, the possibilities improve for carrying on profitable insurance business, and in order to avoid being caught by fraudulent or questionable schemes, a knowledge of the principals of insurance in general will be helpful. From the *Wallace Farmer*, published in Iowa, where great opportunities have been afforded for studying the effects of the various plans of insurance, we reproduce the following article:

"There has been in recent years, in the Middle West, a very broad and general application of the principle of mutuality in many directions, in insurance in its various forms of farmers' county mutuals insuring against fire and lightning, insurance against hail, tornadoes and windstorms, insurance of live stock against death or accident, and various forms of life or a combination life insurance with endowments or investments. The principle of mutuality has also been extended to merchandise in the various forms of human endeavor. In its broadest sense it is applied Christianity, and yet there are limitations to its application, and greater or less dangers connected therewith.

"We have long been a firm believer and advocate of farmers' mutuals covering the county and occasionally two counties or parts of two, where farmers generally know each other, know the officers, can attend the annual meetings, and keep an eye on the neighbors in a casual way, and see that the contract of insurance is complied with. This is the cheapest and best form of insurance for scattered risks uniform in character, and where the moral risk, or the risk of intentional fires, is reduced to the minimum.

"There are certain forms of mutual insurance which are practical only over large areas; for example, hail insurance, tornado, and windstorms. The destructive element here takes a narrow path, the loss is generally total, and it is not safe for insurance companies covering a small territory to engage in that kind of insurance. They should be State wide.

"We have always been very doubtful as to the wisdom of applying mutual principles to life insurance. The conditions here are widely different from any other form of insurance mentioned. In the cases previously mentioned, the insurance is against a contingency, a possibility, a "may happen," but in life it is against a dead certainty. It is proposed to indemnify against a loss that is absolutely certain, the time only being contingent and in doubt. Hence, the amount of premium must be sufficient, when, less expenses, it is put at interest, to fulfill the obligations of the company when death occurs. The time of death of one man is always a matter of great uncertainty, but the rate of death per thousand of men of any age can be calculated to a mere fraction. It is always uncertain when one man will die, but the ratio of deaths per thousand per annum is a mere matter of mathematical calculation.

"The mutual principle can be applied to life insurance, provided the rate charged is large enough, and provided the members take an active part in the management of the association. Otherwise it is very safe to let mutual life insurance companies alone.

"During the last week we have had an opportunity of examining into the inside workings of mutual associations. We were requested by some of our readers to attend the meeting of a mutual insurance company that had been in existence for about twenty years. This association had been practically left to the management of its officers all these years. The members, in their blind faith, had given proxies without limit, with the result that the expenses of officers had been increased from year to year, and the last two years practically doubled. For the policy holders took an active part and were amazed to discover that the president was getting a salary of \$700 per month, when \$250 would have been amply sufficient for a man of his ability. They discovered, furthermore, that there was a plan to sell out a large and apparently prosperous business to a small company of the same character and directed by the same officers, in another State, rather than comply with the laws enacted by the Iowa Legislature at its last meeting, for the protection of the policy holders. Whether it can comply or not is a question which can be determined only after a thorough examination has been made and the amount of funds which have, under one form or another, passed into the pockets of the officers, has been determined. Had the policy holders begun ten years ago as they have now to attend meetings, the association would have been in excellent shape to-day.

"Mutual associations are supposed to be governed by the members. As a rule, however, they are controlled by the officers who, by securing proxies, which policy holders foolishly give, and usually at the time the policy is taken, place the whole power in the hands of the officers, who use it, not for the benefit of the association, but for their own.

"We have reasons to believe that a good many mutual associations are in precisely this shape, and unless policy holders, whether the insurance be life, hail, or tornado, take measures to be present at annual meetings, appoint the directors, and look after the management of the association, there will be grief in the future. The proper way to do is for the policy holders in any town or country to meet once a year and appoint a representative, give him their proxies, and thus take an active part in the management of the association. This is the safe way, and the only safe way. If it is not followed, the officers will absorb an increasing amount every year in salaries, the assets of the association will in time become impaired, and the auditors of the department and the attorney-general will be compelled to make arrangements for a funeral. Unless the policy holders control a mutual insurance of any kind, there will be, first, absorption of the assets of the association by salaries and expenses, and, second, the insolvency of the association. No set of men are good enough to do business for other people without the other people watching them. This is human nature."

[EDITORIAL NOTE.—With the foregoing article we agree in the general positions taken. The writer, referring to life insurance, wisely says: "The amount of premiums must be sufficient, when,



**THE FARMER'S ADVOCATE**  
AND HOME MAGAZINE.  
THE LEADING AGRICULTURAL JOURNAL IN  
THE DOMINION.

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Strand, London, W. C., England.

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

less expenses, it is put at interest, to fulfil the obligations of the company when death occurs." But he does not discriminate between mutual assessment, or society insurance, and mutual old-line or level-premium insurance. Of the first class, whose premiums or calls are not adequate to pay all claims when they accrue, too much caution cannot be taken, for history points to the failures of hundreds of such concerns. On the other hand, mutual old-line or level-premium companies have been and are among the greatest successes in the realm of finance. The oldest life insurance company in the world, founded 1686, and the largest, having funds exceeding three hundred millions of dollars, are purely mutual companies. Throughout the British Empire there has not been a failure. These companies charge premiums sufficiently high to provide for every contingency which may arise. They set aside under Government supervision a portion of each premium to meet the amounts of the policies when they become due, and whatever is saved from death losses, expenses and interest is paid to or held for policy holders as surplus or dividends.

#### Soil Drifting.

There have been many strong advocates during recent years of the necessity of seeding down our older wheat lands to grass, and the preaching of this grass gospel has borne fruit to a really wonderful extent, and yet it required, perhaps, just such a spring as the past to convince a good many, and surely after seeing the object lessons that are to be found in every locality of the efficacy of grass roots in preventing soil drifting, there will be no more doubting Thomases. The demand for grass seed, especially *Bromus inermis*, has been unprecedented, some seedsmen raising the price during the latter part of the season, so great was the demand. *Bromus*, wherever we have seen it this spring, has proved wonderfully vigorous in spite of the drought, and while not promising a very heavy hay crop under excessively dry conditions, certainly of a capital quality. On moist soils, sown mixed with Western red grass, *Trifolium*

*rum tenerum*), it makes an ideal hay crop, clean and easy to cure and of fine feeding quality, as well as making unequalled pasture. But apart from these qualities, the binding effect of the root fiber on the soil in preventing drifting is most important. On the Brandon Experimental Farm an exposed knoll of lightish soil that has been in cultivation ever since the farm was first broken, and that for years drifted badly—so badly that it was difficult to crop it—was seeded to *Bromus* and broken up again several years ago, and yet this year the soil did not drift. But no doubt equally good object lessons are everywhere to be seen, and argument in favor of seeding down is no longer necessary. Of course, where large areas are under cultivation it is impossible to seed down all the old land as rapidly as it should be, and other methods of soil treatment must be adopted, the object being to firm the soil immediately after plowing and at the same time leave the surface rough enough not to drift. The implement that is accomplishing this work is known as the Subsoil Packer, and is now under trial in many of the principal wheat districts, and is giving great satisfaction. Best results appear to follow the use of the packer when it is used immediately behind the plows, thus thoroughly compacting the soil to within about 2 inches of the surface, which is left about as rough as plowing. The seed drill then follows the packer with as little delay as possible, and where there is much liability to drift, the harrow is not used at all. The packer is especially useful in firming down land in which manure has been plowed under, and, in fact, is used by those that have them on nearly every kind of land, breaking, backsetting, summer-fallowing, spring and fall plowing, and in many soils where the plows fail to clean, owing to the looseness of the soil, the use of the packer firms the subsoil, and plows clean where they never cleaned before. Since the settlement of these prairies such a season has not been known, and yet it simply emphasizes the fact that intelligence and thought are profitable investments on the farm as well as elsewhere. Drive almost anywhere through the country during the early days of June, and one could see on one side of the road a crop blown and whipped almost to death and tons of soil piled up in drifts along the road edge, while on the other side of the road, with exactly similar soil and conditions, the wheat would be vigorous and healthy and about covering the ground, the whole difference being in the cultivation of the soil. Intelligence and brains *vs.* ignorance and brawn.

#### Brandon's Big Summer Fair.

The prize list of the Brandon Summer Fair, to be held under the auspices of the Western Agriculture and Arts Association, on July 31st to August 3rd, is a comprehensive volume of 150 pages, half of which is devoted to advertising matter. The classification is seemingly very complete. In the class for Clydesdales, \$25 is given in special sweepstakes (male and female) prizes by the Clydesdale Breeders' Association. In the cattle classes, separate sections are provided for home-bred Shorthorns, with the same amount of money offered as in the open class. While this classification may put money into the pockets of some breeders whose stock is not good enough to compete in the open classes, its real utility is somewhat questionable. Animals winning in such a class are not expected to be as good as those winning in an open class, and therefore the honor of winning is correspondingly less. The \$25 donated by the Dominion Shorthorn Breeders' Association is divided up equally between both classes.

Full classification is given for all the standard breeds, as well as for grades, of the dairy and beef types. Prizes are offered amounting to \$50, half of which is donated by the Holstein Association, for a milk test under similar conditions to that of last year. In the swine department, classification is made for Berkshires, Yorkshires and Tamworths, and any other pure breed, all on an equal money basis, including specials amounting to \$10, donated by the Dominion Swine Breeders' Association, in prizes of \$10 each for the best sow. A class for bacon hogs, pure-bred and grades, is also provided.

There are full poultry and dog departments. Included also are full classes for grains and grasses, field roots, flowers, vegetables, etc.

Very good prizes are offered in the dairy section, and should certainly draw out as large an exhibit as usual in this department. Additions are being made to the dairy building, the main Hall, and also to the grand stand, which will greatly facilitate handling the crowds. In attractions, an elaborate programme has been arranged, and the public can take the word of the directors that it will be a most gratifying entertainment. The racing events on the Brandon track are always good, and with the large exhibition of live stock which is sure to be attracted by the free transportation, the Brandon Fair can be pronounced an unqualified great success.

#### The Grasshoppers.

In our issue of June 5th we published a very full description of the nature and characteristics of the Rocky Mountain locust, and also gave the remedies ordinarily prescribed. Since that issue went to press, an opportunity for personally investigating a considerable area of the grasshopper-infested districts has been afforded, and while there is no desire to raise any "scare," there is no denying the fact that in some of the light-soil districts the outlook in the early part of June was serious. Throughout the district stretching from about south of McGregor and Carberry westward along the south side of the main line of the C. P. R., through the sand hills that skirt both banks of the Assiniboine River, as far south as Stockton and Treestank, through the district north of Wawanessa, probably extending through the Brandon Hills district, toward Souris and Pipestone to Oak Lake and Virden, there extends ridges of light, almost sandy soil, and it would seem as if the hoppers had selected favorable spots throughout these localities for their egg-laying last season. The result is that the hoppers are to be found here and there throughout all this district. In some places they have done considerable damage to crops. Where the land is nearly all under cultivation, they have been pretty well held in check by the energetic efforts of the settlers. Great credit is certainly due to Mr. McKellar, chief clerk of the Department of Agriculture, for the energetic measures adopted in fighting this plague. Immediately upon receiving word from any district that the grasshopper had put in an appearance, Mr. McKellar arranged for a meeting of farmers, was personally present to address the meeting, giving full information as to their nature and characteristics, and methods of fighting them. Addresses were delivered at Douglas, Aweme, Oak Lake, Brandon, Wawanessa, Stockton, Souris, Deleau and Melita. This, of course, does not represent anything like the work that has been accomplished by the Chief Clerk, as miles of territory were driven over and carefully inspected by him in connection with each meeting. He also drove over the district south of Deloraine and Boissevain, where the grasshoppers were during the past two years, but could find no trace of them throughout the district, largely owing, no doubt, to the work of the Department, assisted by Prof. Fletcher, Dominion Entomologist, during the past two years, and to the thorough manner in which the farmers had acted upon instructions given, completely annihilating the pests that infested this district. The Government has undertaken to supply the pans for the hopper dozers, and the necessary coal oil.

Weed Inspector Braithwaite has been a capital field manager in giving full instructions as to the making of the hopper dozers and starting them to work. At this writing we are unable to find just how many of these are now in the field, but we learn that 500 gallons of coal oil a day is being used in combating the hoppers. One farmer, operating a 16-ft. dozer, stated recently that he had in one day captured a bag and a half of grasshoppers, and when it is remembered that probably five times this number had been killed by coming in contact with the coal oil, the number thus being destroyed must be enormous.

The Government has acted wisely in promptly providing adequate means to fight the grasshopper to a finish, as it is not only this year's crop that is to be considered, but were they allowed to go on unmolested, the damage next year might be ruinous to the whole Province.

#### A Hard Winter on Clovers.

A correspondent, Mr. Crealock, living on the western borders of the Portage plains, writes regarding the condition of grasses and clover under test with him, as follows:

"I am sorry to be obliged to report that the past winter proved totally destructive to lucerne, mammoth clover, and sanfoin, from the want of snow protection. Well-established plants of two years' growth were entirely destroyed. Brome grass alone escaped, and is now the third season in good condition, and will shortly be in blossom. That the want of snow was the cause of destruction of clovers is proved by the fact that a few plants of sanfoin that happened to be covered by a drift that collected over them escaped, and are now (June 2nd) in blossom and nearly ready to cut; but it is evident that such crops, to pass a winter in Manitoba, are far too risky for the ordinary run of farmers; rich men may run the chance, but the ordinary settler could not do so."

Similar testimony comes from many correspondents, and from personal observation, not only have the larger clovers been pretty well killed out, but white Dutch growing along the roadsides and railway grades has also suffered severely. At the Brandon Experimental Farm nearly every one of the legumes have succumbed to the peculiar conditions of the past winter. This fact will not, of course, deter the Experimental Farm from continuing its tests of clovers and alfalfas, and should not discourage anyone, as such a season may not visit us during the next decade.

Mr. Bedford informs us that he has secured a sample of Turkistan alfalfa from the Department of Agriculture, Washington. A full description of this variety, said to be particularly suitable to our conditions, was published in the May 5th issue of the FARMER'S ADVOCATE.



**Experimental Farm Notes.**

At any season of the year valuable lessons may be learned from a visit to the Experimental Farm. Early in June, in spite of the unprecedented dry spring, everything on the farm looked vigorous and healthy. The trees lining the avenues were in full leaf, and nowhere could the attacks of any insect pests be observed. It seems somewhat curious that in many districts, and particularly in the towns (Brandon, only a little over a mile from the farm, being no exception in this regard), the native maples have almost been denuded of their foliage by the little green caterpillars, while on the Experimental Farm the Superintendent states that he has never yet been troubled with any of these insect pests. This is probably due to the fact that the female of this insect (canker worm) is wingless, and therefore cannot move rapidly from place to place, consequently isolated places frequently escape until in some way the female is conveyed into the neighborhood. The spruces, both along the avenues and in the hedges, look particularly fresh and vigorous, the native spruces invariably giving better satisfaction than the Norway. In the arboretum, which is being extended along the sidehill adjoining the Superintendent's residence, are to be found a great variety of useful and ornamental trees and shrubs, lending interest and picturesqueness. A great variety of hedge rows have been set out for the purpose of testing their suitability under our conditions. The most suitable appear to be the native maple (box elder) for an ordinary wind-break hedge; Asiatic maple, caragana, native spruce, and tamarac, the tamarac hedge having set very successfully, and presents a most pleasing appearance. The cottonwood hedge, it might be mentioned, has been entirely killed out, and, by the way, this tree has been very unsatisfactory, as it seems peculiarly subject to rust, which proves fatal.

Some of the small fruits have suffered somewhat from the continued drought. These, however, were on a sidehill where the subsoil was gravel, and this may account for their condition.

A large number of 4- or 5-year-old native seedling plums were full of fruit and giving promise of usefulness. In the apple orchard nearly all the hybrids (crosses of standard apples with the Siberian crab) have come through the winter in good shape, and Dr. Saunders, who was visiting the farm at the time, considered that some very valuable results would be obtained from these tests. In his annual report will appear photo-engravings of some of the fruit of these hybrids, showing the actual size in comparison with the original Siberian crab.

In the fields and test plots were many object lessons of great value to every farmer. The best wheat at the time of our visit was sown on summer-fallow land down near the Assiniboine River, land that is stiff, heavy clay. The growth was strong, vigorous and healthy, and showed no sign of the long drought. Adjoining this plot were a number of others which have received different treatments for the purpose of comparison. Those on stubble, following wheat, were mostly thin and weak, showing, as Mr. Bedford put it, "how not to farm." On other plots, here and there, could be noticed bare spots, the work of the cutworm, and Mr. Bedford pointed out that almost invariably where these spots occurred there had been a little rubbish left on the ground over winter, which had afforded protection and a suitable winter shelter for the grubs.

On the flats near the river, that for years have been used for pasture land, the native grass has been almost completely crowded out with weeds such as the white anemone. This land is now being broken up, and some of it that is not very suitable for cropping will be seeded down again this season with Brome grass for pasture.

The grass plots continue to be a center of interest. Light soil knolls that have been very subject to drift, after having been seeded down to Bromus are proof of the statement that "grass roots will prevent soil drifting." One plot of Bromus, high on a sidehill that had made a vigorous aftermath, was burnt over this spring, but without apparent injury, except, perhaps, that the ground had dried out more than it otherwise would, and the growth was not as strong. Another plot of Bromus had been top-dressed with fresh stable manure, and was responding cheerfully to this treatment, having made about twice the growth of adjoining plots untreated. It appeared, however, as if the top-dressing had been applied a little too thick. The clover plots, as elsewhere stated, have all been killed out, one small plot of alfalfa alone being left.

An immense improvement has been effected by the erection of a Page wire fence enclosing a large area of hillside adjacent to the stock barns, which affords a capital pasture run for the stock. Several acres are also enclosed with Page wire as a hog pasture, and as a result of this change from close quarters, the swine are doing very much better than previously, and several respectable litters are to be seen this spring. For the best results in hog-raising, we believe one thing is yet wanted, and that is a water bath to which the hogs will have free access.

The horned stock have been within recent years somewhat reduced in number. There are but few pure-breds on the farm. Two very choice Shorthorn females, one from the herd of Hon. Thomas Greenway, and the other from that of John E. Smith, are good ones of different types, both having produced calves. The latter, by Mr. Smith's imported bull, Golden Measure, is one of the best backed youngsters to be found anywhere. The

Shorthorn bull is smooth and level, but somewhat undersized. He was purchased from James Bray, Longburn, and bred by A. W. Smith, of Ailsa Craig. There are two or three Ayrshire females and a young bull bred on the farm, sired by Andrew Mutter's bull, which is a very handsome youngster, with excellent dairy points, a little thick and hard in the hide perhaps, but otherwise of good quality. There is also a very handsome Guernsey bull from the herd of Hon. Sidney Fisher, but no females of this breed.

**The Winnipeg Industrial.**

The Prize List of the Winnipeg Industrial was ready for distribution about the first of June, and contains, as usual, a large amount of advertising. The prizes offered have been very materially increased nearly all the way through the list, and will certainly prove an enticing feature, not only to exhibitors, but to the general public. The prizes throughout the horse classes are good, with many tempting specials offered. As last year, brood mares must be shown "with foal at foot." Mares that have not bred, or whose foals have not lived, can in most classes compete for sweepstakes diplomas or in team sections.

In the cattle classes nearly \$400 have been added by the Exhibition Association, the \$500 donated by the Dominion Shorthorn Breeders' Association and the \$228 by the Canadian Pacific Railway Co. bring the Shorthorn list up, and the classification is such as should afford every exhibitor a fairly good chance of securing some of the cash prizes, four prizes being offered in nearly every section. The C. P. R. specials are given for animals bred in the West, all winners in the open class being barred, thus making it a "consolation stake." All the other cattle classes have been increased by the addition of new sections, with third prize added throughout the dairy classes. A milk test will be conducted under the usual conditions, with some slight changes in detail: \$50.00 prize money, half of which is given by the Canadian Holstein Association.

In the sheep classes all are put on the same footing, brought up to the same classification as has in the past been accorded to the Shropshires on account of this breed being most numerous exhibited.

In the swine department, Berkshires, Yorkshires and Tamworths have been placed on an equal footing, with a very creditable prize list throughout. The Dominion Swine Breeders' Association make a special donation in each pure-bred class for male and female sweepstakes of \$7.00 each. A new section is provided for the bacon hogs in pens of three, pure-bred and grade. In the pure-bred section, hogs to be bred and owned by exhibitor, each exhibit to be of the same breed. Hogs to weigh not less than 170 pounds and not more than 200, to be judged from the packer's standpoint. This should prove a most interesting competition. The poultrymen will, as usual, find a full classification, with substantial prizes throughout. A generous increase is also made in the Dairy Department, a new feature being a prize of \$15.00 to the exhibitor taking the highest total score in cheese and farm dairy and in creamery butter. The Canadian Pacific continue their liberal prizes in the grain sections. The Union Bank gives a special of \$100.00 for the best 25 bushels of Red Fyfe wheat.

A feature that will interest the ladies is the special prizes of \$50, \$25, \$15, \$7, and \$3, for the best three loaves of homemade bread made exclusively from Ogilvie's Hungarian Flour, the prizes being offered by the Ogilvie Milling Company.

The classes for plants and flowers both for professionals and amateurs have been carefully revised and as liberal prizes offered as usual. A change, however, has been made this year in cutting out the vegetable and root classes entirely, as it has been decided that it is not practical to make a vegetable exhibit in July, as vegetables and roots shown when only half grown do the county no credit and make a poor display. We regret to find that the inter-provincial prize for collective exhibits of grain and grass seeds has been struck out. This we consider a mistake, as although the exhibit last year was not large, had it been kept on the prize list it would certainly have grown into one of the most important features.

The three horse stables destroyed by fire last fall have been replaced by buildings on much the same plan, but with many minor improvements, including better ventilation, etc. It is expected that a building built entirely of British Columbia lumber for the exhibit of products of the forests, fields, fisheries and mines of B. C. will be completed in time for the fair. An immense new grand stand, in addition to the old stand, has been erected, affording a seating capacity for upwards of 4,000 people, provided with dining-halls and booths, so that the immense throng of people can this year be handled without any crush. A new attraction platform has been erected, and the management have secured a most elaborate programme of special attractions, a line of attractions simply unparalleled by anything ever previously seen in the West. Each evening a magnificent pyrotechnical display, under the management of the celebrated artists, Hand & Teale, representing the battle of Paardeberg and the capture of Cronje by the gallant Royal Canadians. This feature alone will be worth a visit to the great exhibition.

Greatly reduced railway fares are announced over all lines of railway, and exhibits are to be carried practically free to and from the exhibition.

**Pasteurization of Milk in Bulk.**

It is now probably about eighteen months since the inhabitants of Winnipeg were considerably stirred up over the question of tuberculosis. Dairy-men's cows were tested with tuberculin, and many reacted, in some cases in a wholesale manner. The result was, if I am not very much mistaken, that there was a good deal of heartburning and dissatisfaction among those supplying the city with milk. In this country it is universally conceded that compulsory slaughter of tuberculous cows and compensation for them from the public purse is impracticable owing to the enormous expenditure it would involve. My sympathy, I must confess, has always inclined to those who suffered pecuniary loss through the drastic measures employed by veterinary inspectors. On the other hand, it is impossible to ignore the fact that thousands of persons, a very large proportion of them children, are daily exposed to the menace of a terrible disease, and any steps taken to avert this danger should be gladly welcomed, alike by producers and consumers.

Through the kindness of Mr. James Stirling, secretary and manager of the Glasgow Dairy Company, I recently had the privilege of going through the Company's premises, and of witnessing the actual process of pasteurizing the milk supplied to their patrons. After being strained, in order to eliminate any mechanical impurities, the milk is poured into a large elevated receiver, capable of holding 30 gallons. From thence it rapidly passes, by force of gravitation, to a steam jacketed heater, where it is suddenly raised to a temperature of 160 degrees. This heater is cylindrical in form, and is furnished with a rapidly-revolving turbine, to prevent the deposit of milk on its hot inner surface. The milk is then passed into a hundred-gallon vat, where its temperature is maintained at 150 degrees for 20 minutes, which, scientific authorities are unanimous in agreeing, is sufficient to kill any tubercular bacilli. The next step is to cool the milk. This is accomplished with almost incredible rapidity by passing it over a cooler, which consists of a system of pipes through which cold water is continually flowing, and in less than a minute the milk is reduced to a temperature of 50 degrees, and is ready to be delivered to the consumer. The great advantage of this process lies in the fact that the character of the milk is in no way altered, as is the case when boiling is resorted to as a germ-destroying method. Boiled milk may of course be drunk with impunity, but its flavor is often nauseating to many palates. The Glasgow Dairy Company's premises are a model of cleanliness. All vessels and cans of whatever kind for the delivery of milk are thoroughly sterilized by means of superheated steam. The walls of the building are covered with white enamelled tiling, the floors are of cement, and the whole arrangements are such as the most fastidious person could not take exception to. In connection with the dairy a bakery is carried on, in which the surplus milk and cream of any one day is utilized. Thus no leavings are offered to the public on any occasion. In conclusion, I have only to say that the process of pasteurization is so simple and so effective that it is easily within the reach of any community desiring it.

FRANCIS J. B. DOUGLAS,  
(Late Wakopa, Man.) Scotland.

**Technical Education.**

To the Editor FARMER'S ADVOCATE:

Some fifteen years ago "Neepawa's" reply to my article of May 5th would have carried a good deal of weight, but that was before the advent of correspondence schools. I would have mentioned these institutions but for the fact that I was not writing an advertisement, and because I thought everyone knew of them. Any number of these schools can be found in the States. Some of them are reliable, such as that at Scranton, Pa., and a few are not, so one must demand the names of students who have finished their courses. Very few young men would think of studying by themselves after giving correspondence instruction a trial. The text-books are all supplied in their proper order, beginning at the very beginning and covering the complete course. The prices of the different scholarships are not high, and they include examinations, additional information, diploma, etc. As to the need of technical education, your correspondent admits that it is necessary for a man to "rise above his present position." He only presents the difficulties in the way, and I think he will find them fully met by the various correspondence schools. "ROTARY."

**Our Trade with Britain.**

During the month of May the imports from Canada to Great Britain consisted of 6,725 head of cattle, valued at £112,630; 267 sheep and lambs, valued at £534; 482,300 cwt. of wheat, valued at £163,572; 51,800 cwt. of wheat meal and flour, valued at £26,675; £3,400 cwt. of peas, valued at £14,001; 52,314 cwt. of bacon, valued at £106,143; 14,788 cwt. of ham, valued at £32,722; 621 cwt. of butter, valued at £2,710; 26,225 cwt. of cheese, valued at £98,672; and 115 horses, valued at £3,450. The total value of imports amounts to £1,036,212. The exports totalled £377,733. Compared with May of 1898 and 1899, an enormous decrease in the import of butter is shown. There is also a slight decrease in the imports of cheese, but a large increase in bacon.







**Fitting Beef Cattle for Show.**

To produce good feeding animals of fair size and first-class quality of flesh, evenly distributed, the preparation of show animals must really be begun before they are born, by judiciously mating parents of this description, a proportion of the offspring of which may reasonably be expected to prove suitable for show purposes, if well fed, handled and managed from their early calfhood. The calf intended for a show animal should never be allowed to lose its calf flesh, but should be kept growing and improving in size and weight continuously up to maturity. To this end, there is no food equal to whole milk drawn by the calf itself from the udder of its dam while she gives a sufficient supply to keep it improving, and when she fails to give enough milk for that purpose, an additional nurse cow should be provided. If the cow provided is a very heavy milker, the calf should suck three times a day, so that its stomach may not be overloaded at any time. The calves should run loose in roomy box stalls, and have sweet, fresh clover hay in a rack, and a mixture of bran and ground oats, which they will very early learn to eat, and to which, when they are two months old, a little nutted oil cake should be added, and in winter a supply of sliced turnips. Their pen should be frequently cleaned out, and kept well bedded, and more roomy quarters given as they grow larger, so that they may get a fair amount of exercise. They should be kept in well-ventilated buildings constantly during the first summer of their lives, the open windows having screens to keep out flies and being darkened if necessary during the day in hot weather, and a supply of clean drinking water should be kept constantly within their reach, that they may drink at will. It is well to halter them occasionally when not more than a month old, and tie them for an hour or two each day to accustom them to being handled, and as they grow older, a little training once a week will teach them to lead quietly and make them handy before they get strong and hard to break. A mixture of bran, ground oats and peas and oil cake, fed dry, as much as they will eat up clean between feeding-times, should be continued during the whole summer, and a supply of clover, lucerne, vetches and mixed grain in season, cut green, furnished regularly three times a day while they last, after which well-cured clover hay will take the place of these. The calf should suck until eight or nine months old, and, if under eight months old at show time, the nurse cow should be taken to the show with the calf, so that it may not have any setback.

The first winter's feeding will consist of a plentiful supply of roughage, in the form of good clover hay and chaff or cut straw, ensilage and roots, and a moderate ration of meal and bran. The bulls must necessarily be kept up the year round, but should have a roomy yard or grass paddock to run in part of the time. In the spring, the heifers may go out on grass during the day for a month or two, and be kept in at night, receiving a feed of meal morning and evening. When the weather gets hot and the flies troublesome, the animals will do better in the stable during the day, and may be turned out at night until within a couple of months of show time, when it will be better to keep them in airy, darkened stables day and night, except that they should go out for an hour or two in the cool of the evening and early morning for exercise, if they are tied up during the day. From this time the meal rations may be gradually increased till they are taking all they will safely stand. Attention should be given to the condition of the feet of the animals at all times, and especially during the last month previous to the date of the show, to keep them trimmed and rasped into good shape, as an overgrown hoof sadly hurts the appearance of a beast, and is apt to make its legs look crooked, if not to grow so. Training to lead well and to stand in the best position to show to advantage is of no small importance, and frequent washing with castile soap or English soft soap and soft water, together with industrious grooming - not with sharp currycombs, but with the brush and a woolen cloth - and latterly by vigorous hand rubbing and constant blanketing to get the hair soft and oily to the touch, are factors which count for more than many are apt to think when it comes to a case of close competition.

While it is well to avoid making the animals excessively fat by the use of a too heating grain ration, which is liable to make them handle hard and lumpy, and to damage their breeding qualities, there is no getting over the fact that the chances of winning are greatly enhanced by having a good thickness of natural flesh to show, and this may be secured by liberal feeding of mixed grains, as oats, peas and barley, and bran and a moderate mixture of oil cake, fed on cut hay and corn. Some feeders place great value on boiled grain feed, and, if fed fresh, there is no doubt it has a fine effect in putting on flesh and getting the hair in good condition, though we are not sure that it is a necessity or that it pays for the extra labor. Getting the animals thoroughly used to the halter and to handling, so

as to be free from nervousness, has much to do with their settling comfortably in strange quarters at the fair, and feeding well and looking their best.

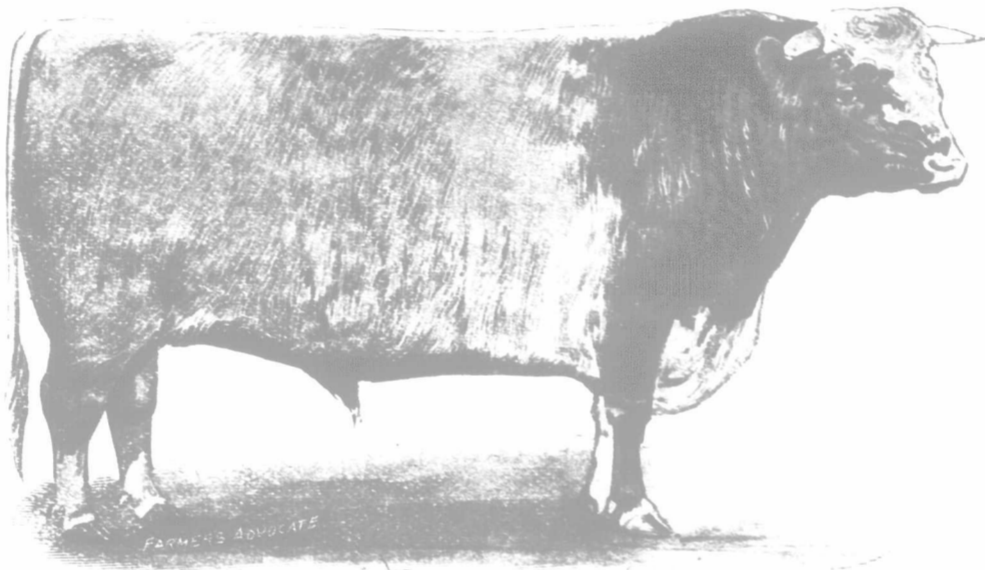
**The Breeding of Military Horses.**

SIR,—I received a letter from you asking me about the breeding, etc., of the two military horses that won at Toronto Horse Show. Well, I am a dealer in horses, and I do not take much interest in the breeding, etc. What I want is the horse, and a great many I handle I do not know what their breeding is, but I have found out the breeding of these two horses, General and Hero, the first-prize cavalry and infantry horses.

General, the cavalry horse, had for his sire Wiley Buckles (Thoroughbred), and his dam was a nice big general purpose mare, which would weigh about 1,400 pounds; did not seem to have much Clyde about her, but looks more like as if she had a cross of Percheron.

Hero, the infantry horse, was sired by Lightning (imported Hackney), and his dam was a half-bred Thoroughbred, a small, breedy mare, with good bone and feet. I find a number of the good kind with that same breeding, and I think there is no better way to breed the good ones. As a rule, breeding like the General produces carriage and saddle horses, while such mating as Hero came from produces cobs and actors. CHAS. HEAD.

[NOTE.—In our report of the Canadian Horse Show it was remarked that the Hackney breed had shown a new field for favor, inasmuch as the registered mare Cassandra, shown by Mr. Robt. Beith, Bowmanville, had won first prize in class for artillery purposes. It now comes to light that the winning infantry horse was also of that breed, being from a Hackney sire. We are not surprised, however, to learn that the blood of the Thoroughbred entered so largely into the make-up of the high-class military horses. A writer, dealing with the breeding of horses in a journal of the distant colony of Australia, points out the difficulty with which the British Government has secured their required number of military horses in that country.



**ROBERT THE BRUCE = 22635 =**  
Five-year-old Shorthorn bull. (See Gossip, page 330.)  
OWNED BY C. A. ARCHIBALD, TRURO, N. S.

Out of about a million horses in Australia, it has been possible to get only five or six thousand of all sorts, and those obtained have cost three or four times as much as they ought to have cost. The most serious cause of failure to produce the right sort is pointed out as being the lack of any continuous effort to establish a type, while another difficulty has been that of using the blood of the racing Thoroughbred. The writer says:

"All our saddle horses are cross-bred, with a very considerable strain of the racing Thoroughbred, and are really mongrels of the worst kind. The racing Thoroughbred may be, and, no doubt, is, an excellent animal to carry a light weight over a short distance in the shortest possible time, but for every other purpose he is absolutely valueless. A gambling machine pure and simple, that has been bred for hundreds of years on the same lines as our greyhounds, and is about as useful. To try and breed serviceable, weight-carrying saddle horses, using even the most carefully selected Thoroughbred sires, is bound to prove a failure, because only a small percentage of the progeny will be of the type required, and the balance will be valueless nondescripts, unfit for racing, and too weedy for any other purpose."

In Canada, however, we have two classes of Thoroughbreds, as is well illustrated at our larger horse exhibitions where classes are set apart for Thoroughbred stallions, also for Thoroughbred stallions qualified to improve the hunter and saddle stock of the country. It is this latter class that is found more in evidence at the stallion stands throughout the country at this season of the year, and from their use there need be no fear of employing, on suitable mares, such types as the late Wiley Buckles, Wyndham, Monotony, horses that stand fully 16 hands high, deep chested, round barreled, and weighing upwards of 1,200 pounds. — Editor.]

**English Shows.**

FROM OUR OWN CORRESPONDENT.

The summer show season opened this year with the Oxford County Show at Oxford, on the 16th and 17th of May.

The *Shire Horse Classes* were very good, Mr. R. W. Hudson, one of your advertisers, being a prominent winner, as were also representatives of the studs of Lord Llangattock, Lord Rothschild, P. A. Muntz, M. P., and F. Crispe. In a small section of *Hackneys*, Mr. H. Livesay with that grand mare, Orange Blossom, took leading honors, and her foal, by McKinley, the champion cup winner for stallions at the last Hackney Show, also secured leading honors in the foal class.

The *Shorthorn Cattle* were very strong, as one would only expect from the fact that in the County and close adjacent thereto are many first-class herds. A useful class of aged bulls, five in number, were headed by Mandarin, from Mr. W. E. Balston's herd; Silver Plate, from Mr. J. Deane Willis', coming in for second honors. Miss Alice de Rothschild led in the two-year-olds with Bashful Youth, a very taking bull of considerable merit; White President, from Mr. L. de Rothschild's, being second. In the yearling class, Mr. Henry Dudding's very extensive and highly-bred herd took precedence with King Alto, a grand calf with splendid hair and typical character, he being also made champion bull, an honor well deserved; Duke Charmingland 3rd, who represented Mr. R. H. Dyke's excellent herd, being a very good second. This is a wonderfully well-bred and symmetrical bull. The old cow class, a useful one, found its leader in Miss Alice de Rothschild's Signet, with Mayflower 3rd, from Mr. L. de Rothschild's, next in order of merit. The last-named exhibitor took similar honors in the succeeding class for 3-year-old heifers, with White Socks; premier honors going to Mr. A. Henderson's Grace Darling. Messrs. Garne, whose herd is a very old and noted one, took first place in the 2-year-old class with Aldsworth Jewel, but her right to this place was very keenly contested by Lady 21st, from Mr. Henry Dudding's herd, a heifer of very high merit. The two winning yearling heifers came from Lord Tredegar's and Mr. C. H. Jolliffe's herds.

In *Herefords*, the Earl of Coventry secured both the cash prizes for bulls, with Grimm and Chaucer, both of which most creditably represented that well-known herd from whence they came.

*Jerseys*.—Lord Rothschild's herd was clearly the leading winner in the Jersey classes, both the champion awards being secured, besides other leading prizes; the Earl of Cadogan, Col. H. McAlmont, M. P., being also well to the fore, as was also the Duke of Marlborough.

*Guernseys* made a small entry, Mr. E. A. Hambro receiving the premium prizes in both classes with really grand specimens of the breed.

*Kerry and Dexter-Kerry*, a breed becoming very popular, made a small but very good entry, Messrs. Robertson & Son and J. Thorley being the more prominent winners.

*Sheep*. The breed of the county, *Oxford Downs*, takes precedence here in the classification, and from its very excellent entry is fully entitled to do so. The yearling ram class was one in which the awards

were contra to the opinion of many of the principal breeders, it being generally considered that the 1st and certainly the 2nd winners, from Mr. G. Roberts, were wrongly placed. Precedence should have been given to Mr. J. T. Hobbs' grand, good-fleshed, deep-bodied ram, whose type and character were first-class, his fleece being free from black wool. Two from Mr. J. C. Eady's well-bred flock received barren honors, and one, as good as any in the class, from Mr. H. W. Stilgoe's flock, was entirely omitted in the award list. This ram is a capital one, and should be looked for by any who desire to secure a ram with type, character and fleece. The ram lamb and ewe lamb classes were very good, and the leading pens in both came from Mr. W. J. P. Reading's, whose success was fully deserved, though it was by no means a run-away one from Mr. W. A. Treweeke's two pens of first-quality lambs, which were second in these classes. Mr. J. C. Eady's success in the yearling ewe class was again complete, for he, as last year, took both first, champion and second awards with a grand lot of ewes, some of which, if not all, will, as in former years, come over to your side, where they certainly will add further luster and fame to that very excellent flock from whence they came.

The *Hampshire Down* breed have never been so strongly represented at this Show before, and the general high merit and quality of the exhibits were such that little, if any, difference divided the leading winners. Mr. J. Flower went to the fore in the yearling ram class, being very closely pressed for this place by a grandly fleshed ram from Mr. R. W. Hudson's Danesfield stud, Lord Rothschild's flock securing the third award. In the yearling ewes, Mr. R. W. Hudson had two grand pens of ewes, which went first and third, being divided by a pen from Mr. James Flower's flock. Ram lambs and ewe lambs were of great merit, and the contest for the two first places in both cases rested between the



flocks of Mr. J. Flower and the Earl of Carnarvon, the former winning in both cases. Mr. J. Flower secured the championship and R. N. for the same.

*The Southdowns*, though about equal numerically with the average entries of previous years, were hardly of that merit we have sometimes seen at this Show. Mr. C. R. W. Adeane was easily first and second and likewise champion with a pair of grandly fleshed rams with good fleeces and skins, one from Sir J. Blyth, Bart., being third. The Earl of Cadogan, with a grand pen of most excellent ewes, took the lead in this class and the female championship also. Sir J. Blyth, Bart., being second. Col. H. McCalmont, M. P., was first with a trio of typical ram lambs; Mr. F. N. Hobgen, with a pen well matched and of nice character, being second.

*The Shropshires* were not at all strongly represented, Messrs. R. P. Cooper, A. Bradburne, and G. L. Foster-Harter being the principal winners; whilst the once highly popular Cotswolds had but a single competitor, Mr. Russell Swanwick, whose entries, which secured premier prizes throughout, were of typical character and good merit.

*In the Swine Section*, the Berkshires made a grand entry, Mr. Russell Swanwick being a very prominent winner, securing both the breed and the yard championships with Sambo; the Earl of Carnarvon, Mr. R. W. Hudson, Mr. A. Henderson, and Mr. E. Hayter were also very successful, the whole of the entries being of high merit and quality.

Messrs. Sanders Spencer and F. Allmand were winners for Large White, the former taking precedence.

### Litters Should Suck Till Eight Weeks Old.

To the Editor FARMER'S ADVOCATE:

SIR,—With reference to feeding young pigs before and after weaning, I would say, start to feed your pigs at about 4 weeks old. Make a low, narrow trough, so the pigs will not have to climb into it to get their feed. Put a little warm sweet milk in the trough, only a very little at first, because if they don't drink it up soon it will get sour, especially if the weather is warm. You will soon find out how much they will drink up quickly, and don't give them any to leave. Feed three times a day. In about a week, add a little shorts to the milk, and a little later add some barley meal. Feed in this way till the pigs are 8 weeks old, and by that time they will be ready to wean, and, if properly attended to, should grow right along. Give same kind of feed for a week or two after being weaned. I don't think it would be any detriment to the sow to let pigs suck 10 weeks.

York Co., Ont.

THOMAS TEASDALE.

### Fodder Crops for Sheep Feeding.

As all who have ever had opportunity of inspecting flocks of the breed are aware, Hampshire sheep are remarkable for the great rapidity with which the lambs grow and put on flesh during the first seven or eight months of their age. No other breed surpasses the Hampshire in this respect—not even the Southdown, which played such a prominent part in the original evolution of the breed. A great feature of the system of farming carried on in that portion of the south of England (Hants and Wilts, etc.) in which the Hampshire has its home, is the extent to which green fodder crops are cultivated for sheep-feeding purposes. Leading flockmasters in that part of the country make special arrangements to have supplies of such green foods coming into use at all seasons of the year, and in this way they are enabled to keep their lambs growing uninterruptedly all through the season. Even in exceptionally dry summers when grasslands get scorched up, and flockmasters in other parts of the country are much inconvenienced in providing food for their sheep, Hampshire breeders are usually more or less independent, because of the admirable provision made by them in having successional crops of green food (rye grass, rape, sainfoin, vetches, etc.) coming in from month to month.

### Expert Evidence on Weaning Pigs.

To the Editor FARMER'S ADVOCATE:

SIR,—I am aware that there is a great difference of opinion in regard to age that young pigs should be allowed to remain with their dam. I have no fixed rule, as I am guided largely by the way in which the young pigs are thriving. I have frequently noticed that the milk of the dam does not agree with the young pigs, causing excessive diarrhoea, and in this case we wean the pigs at six weeks, but as a general rule I have found better results by allowing the pigs to remain with the dam until eight weeks old. A great many young pigs are injured by feeding the sow too liberally upon strong, rich food, and not having much exercise in the open air. I would strongly recommend moderate exercise, with plenty of fresh air, which is quite as essential as pure food. After the young pigs are ten days old the sow should be liberally fed upon bran and finely ground oats, with the addition of a small quantity of ground peas or corn, but great care should be taken that the sow should not receive much grain for about ten days after farrowing. Many young pigs are so seriously injured during this period that they never recover.

Oxford Co., Ont.

J. E. BURTON.

### Exercise for Swine.

At most periods of their lives hogs need exercise, although the tendency of modern breeding is in the direction of early fattening and making the largest gains on the smallest possible amount of feed. The sucking pig needs exercise, or plethora and an attack of thumps may be expected. The time when thumps are most complained of is when, after farrowing time, there is bad weather that keeps the litter and the dam confined to the pen, where the former suck and sleep and have no work to do to keep them healthy. In this case, they should be compelled to move about freely in the pen by use of a switch or some such means. In good weather, with room enough to run about out of doors, the litter always gets exercise enough, and rarely has thumps. Growing pigs need some exercise, too, but they can be relied on to take all they need, if given room enough and the weather is not too unfavorable. Breeding stock should always have plenty of exercise, or they will become shy breeders, and the pigs they have will not be vigorous, and they may even become entirely sterile. When hogs get their growth and are put in the yard for fattening is the time when they need exercise least. For the short time that remains before marketing they can both safely and advantageously be kept as quiet as possible. The time is too brief for them to suffer injury for want of exercise, and the feed will have a quicker effect if they do not run it off. The conclusion, therefore, is that hogs need exercise, but no particular pains need be taken to see that they get it, except in the case of young pigs in bad weather, or in that of breeding stock that has been fattened for the showing. The latter, when they reach home after the shows, need reducing, not by cutting off feed so much as by exercise, and in doing this, driving them around the yard with a buggy whip for a while each day is often resorted to.

### Weaning and Feeding Young Pigs.

To the Editor FARMER'S ADVOCATE:

SIR,—It is time to wean young pigs and best foods to feed them: I usually let them suck the sow until they are eight or nine weeks old, if they continue to do well, unless I am anxious to get the sow bred again; if so, I would wean them a little younger. I have had pigs that the sow's milk did not seem to agree with; in that case, I would wean them at four or five weeks old, and put the little fellows on warm skim milk and middlings, giving them outdoor exercise if possible. Want of earth and exercise, I believe, is the cause of many disappointments in the hog business. There are also a great many little pigs over-fat just after weaning. While sucking the sow, they suck probably a dozen times in 24 hours, but as soon as they are weaned they have to be satisfied with three or four feeds a day. I believe some are advocating feeding only twice a day now. The results are overloaded stomachs, causing indigestion, etc. I have not found any feed for young pigs that suited me better than skim milk and middlings, mixed one meal ahead. I grow a mixture of grain, viz., oats, barley, peas, goose wheat, and flax, that I find a good ration for them as they grow older, having the mixture ground fine. I do not think having the pigs suck until they are ten weeks old is any particular injury to the sow, if she is properly fed, and I think it pays to let them suck just as long as they continue to do well, but I would wean them at any age if they begin to fail.

Middlesex Co., Ont.  
P. S.—I do not think the best quality of bacon can be produced at six months old, as is claimed to be done by some hog-raisers. R. H. H.

### The Scotch Shorthorn.

The foundation of the Scotch Shorthorn of the present day may be said to have been laid by the brothers Amos and Anthony Cruickshank, sons of a small miller residing a little outside Aberdeen. The Cruickshank Brothers had as their ideal the production of what may be described as a paying farmer's beast, and the present popularity of the type of cattle which they founded is the best proof that could be given of the success with which their efforts were attended. Writing of the work done by them, one of their admirers says:

"They did not despise style; but their leading requirements were substance and the power to lay on beef at the right places at the lowest possible cost. Ability to transmit unimpaired to its offspring well-defined structural merit and a sound constitution were, of course, equally aimed at. Low legs, a blocky frame, sound lungs, and sound and vigorous digestion are the conspicuous points of the Cruickshank Shorthorn. Built by practically Scotch farmers on a practical ideal, fed in a Scotch climate on the common produce of the soil, the Scotch Shorthorn is, like his owner, very plain in his tastes, thriving well on any good pasture in summer, and on 'neeps' (turnips) and straw in winter, and robust enough to thrive in any climate where a Scotch man or beast finds it profitable to live. Turnips are highly conducive to healthy and rapid growth; the oat straw from which his master's porridge and cakes have been taken, is also good in its way, and if he gets a good handful or two of good oatmeal or a pound or two of good oil cake along with his 'neeps,' he will, either pure or crossed, hold his own from start to finish with any other breed."

### Death of William Housman.

Very many of the older breeders and students of Shorthorn literature in Canada and the United States, will learn with much regret of the death of Mr. Wm. Housman, on April 9th, at his residence, Prospect House, Distington, Cumberland, England. His father, Mr. R. F. Housman, a man of great literary and artistic attainments, gave his son a fine home schooling. A herd of Shorthorns were kept at Lune Park, and as a lad he was very fond of them, beginning when a mere boy to study and work out their pedigrees, thus laying the foundation of that intimate acquaintance with Shorthorn lore which distinguished him in after years as a writer of books and pamphlets, and for such periodicals as Bell's Weekly Messenger and the English Live Stock Journal, to which he was a regular contributor from 1886 up till the time of his death. He was a man of fine disposition, thoughtful and retiring, very kind and charitable, visiting the poor and the sick up to the last.

### The Foal and its Dam.

Horse breeders who kept right along raising foals a few years ago, when the prices for horses were low, are now reaping their reward in a lively demand for their stock at good paying prices. This advance in values has caused a great many farmers to re-engage in horse breeding, and according to what we have been able to learn, they are after the heavy ones hot foot. While there has been a drain upon the lighter or medium weight class for military purposes, the supply of this sort for sale in the country is many times greater than that of the heavy ones, which includes chunks about 1,000 to 1,300 pounds up to drafters of considerably greater weights. The experience of the present as well as of the past has taught the lesson that the good ones pay greater profits than those of medium quality, notwithstanding the probability that the latter has cost considerably less to rear. To raise a colt cheaply is not true economy, as a cheap colt usually becomes a cheap horse, wanted only for cheap work at a low price. It may be taken as a rule that upon the care bestowed on foals during the early months of their existence will almost entirely depend their immunity from disease and their subsequent vigorous growth and perfect development.

It is acknowledged by those who have had much to do with foal rearing, that very much of its success depends upon the manner in which the mares are treated during pregnancy and immediately before and after parturition. Judicious labor is undoubtedly beneficial, but they must be liberally fed, not only that their own system may be maintained in good condition, but that of the foetus may receive a due amount of nutriment. Grass alone will not suffice, and a certain allowance of oats is necessary. To have thriving progeny the mares themselves should be strong and lively during pregnancy and after parturition.

Many mares are at best poor milkers, and where this is the case the deficiency should be made up in some way. The foods that have been found useful in increasing the flow of milk in the cow will have the same effect upon the milk of the mare. Wheat bran is especially valuable for this purpose if mixed with other and more nutritious foods. Plenty of good fresh grass is one of the very best of aids to healthy and abundant nutrition for both mare and foal.

The chances are many foals this year will be from mares that will be required to do a certain amount of agricultural duty, and it is with these that more than ordinary care is necessary in order to bring the youngster along in a thriving manner. If it can be avoided, a mare should not be placed in harness for at least ten days after foaling, and then given not more than three hours' work during each half day for some time, or at least until the foal has been taught to take some supplemental food. It is a mistake to make up for a fast of several hours by allowing the foal to receive the entire contents of a gorged udder. Such treatment is likely to do more harm than good by deranging the digestive system of the youngster to such an extent as to make him sick. Especially should a full feed be avoided while the mare is overheated. It is safe in any case to draw off a portion of the milk before the foal is permitted to take his meal after a few hours' separation. When a mare must do the labor of half a team the foal should be given special attention. It is needless to say the mare should be fed extra well on nourishing foods, and the foal should be early taught to take cow's milk as well as nutritious solid food. As soon as the foal will nibble it should be offered oatmeal from the hand. On account of the indigestibility of the tough, fibrous hulls, these should be sifted out, or it is better still to feed oatmeal such as is used for domestic purposes. Naturally his very limited capacity should be taken into consideration when offering him the grain, but as a general rule the foal may be allowed all it cares to eat up at once. In addition to this a small proportion of crushed wheat may be added as well as a springling of oil-cake meal or ground flax. Besides the milk his mother gives, from one to four quarts of the same cow's milk daily in two or three feeds will pay well for itself in sending the foal along at a rapid rate.

The foal should be kept housed in a comfortable stall where it cannot injure itself by getting fast or by striving to climb over a door or out of a window



while the dam is at work. At nights, however, both are better turned out on a grass plot. The foal of a working mare can, if taught to eat well and take cow's milk, be weaned at from three and a half to four months old, with advantage to both, and if her double duty tends to interfere with her getting in foal, their permanent separation may materially aid the mare becoming pregnant, provided she is bred to a sure horse.

**Uniformity in Live Stock.**

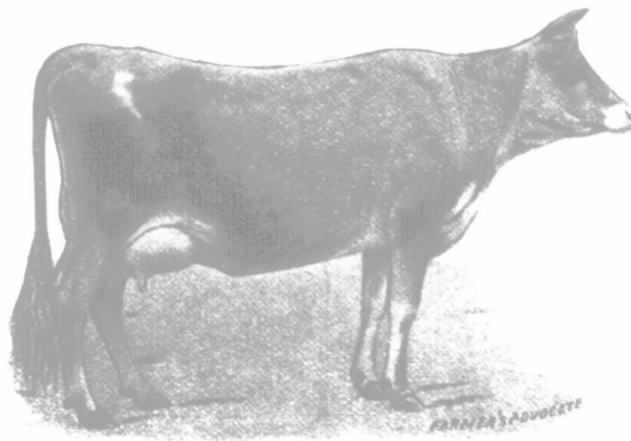
The live stock of the country presents a paradox. It may truly be said to show the highest excellence side by side with the lowest mediocrity. Year by year, strange as it may seem, our farmers (or at least too large a proportion of them) continue to breed inferior, unprofitable animals, though having the best types constantly presented to them, and the best paying types. It cannot be for lack of means, for the male animals from which improvement would come can now be purchased at figures more reasonable than can the inferior ones. This can be proved to a demonstration, and for illustration we will take the case of a Shorthorn bull. At the present time, a yearling pedigree bull can be purchased from a good herd for, say \$100. The purchaser can see the sire and dam, and so convince himself that his future sire is descended from parents good alike in symmetry, in milk, and in fleshing qualities. That bull will work manifest improvement in his own cattle, and tend to grade upwards his future herd; it will command the attention of his neighbors, and probably pay for his keep in extra service fees. When he has been used as long as the ties of kinship will permit, he will be fattened at the minimum of expense, and realize more to the butcher than his original cost, and he will leave behind him in the farmer's hands a class of cattle superior to those he found when he came upon the farm, and each worth, say, from \$5 to \$25 more. Surely this is a grading up which will make a considerable advance in the annual receipts of a farm. On the other hand, a farmer purchases a mongrel bull of which he literally knows nothing, except that he is told that he is by a pedigree sire. He may be, or may not be. He pays about the same price, or possibly buys him for a trifle lower. The neighbors fight shy of him, or only use him from necessity, or from his fee being a nominal one. He brings no improvement to the bulk of the farmer's stock, but he deteriorates the produce of the best of his cows. Either the herd stands still, or its value is lowered by his use. When done with, he requires greater expenditure to get fat, and his quality being poorer, his price to the butcher is lower. Taken all round, he has decreased the cattle receipts of the farm, and the owner becomes annually poorer. In most farmers' herds you find a few good cows of greater merit than the rest, and these are kept at a profit; you find a few of moderate excellence, which possibly pay for their keep and leave a trifle over; and you find a percentage which are kept at a loss, which neither pay for their keep as milkers, nor do they clear their fattening keep when they go to the butcher. And yet these unprofitable cattle are bred from, in alliance with sires as unprofitable as themselves. The result is a general grading downwards. All alike deteriorate, and their selling prices are materially reduced. What is the reason? Here are two courses, and they apply equally to all the other animals of the farm as to cattle—to horses, sheep, pigs, and to poultry. Why should not the upward one be taken when it is so manifestly the best paying one? Possibly the reasons are various: Lack of judgment; indifference; they did for my father, why not for me; all right enough for gentlemen with long purses, but not for me. But if any or all of these reasons are sufficient, whence has come the manifest improvement in the live stock of the country during the present century? If the animals of 1800 were good enough, why should we have the improved ones which 1900 presents? And if this latter argument is good, why should not every farmer of today so grade up his cattle that, in place of having a comparatively few remunerative cows and a greater percentage of non-paying ones, they should be all alike of the higher type? Just as it has been possible to breed these half-dozen good ones, so it is possible to breed all good, if the right materials and the proper steps are taken. Get a male of the right type, bred true to type, and he will get true to his type. Gradually get rid of the unprofitable females in beef, do not rear any of their produce, but let the calves go in veal. Rear only the female calves from your best cows, and year by year you will see your herd approaching the type of what was once your best half-dozen. It does not need capital, only judgment. Note in what respect your dams are deficient, and select a sire good in that defect. Let the dairy be ever to the front, for that brings a daily return, but the animal goes but once to the butcher; the other essentials will come naturally once a start has been made. We knew a man who, when asked if he had done so and so, invariably replied, "No, it just wants starting on." That is the key to the whole question. Once a start is made, it is astonishing how things fall into line. The best farmer's dairy herd in the country has been built up on these lines. Its owner had no capital, only a determination that he would not own a moderate animal, and he has won. The herd today presents a splendid object lesson to all farmers. Where he has led, others can follow. *Agricultural Gazette.*

**J. A. Ruddick Returning to Canada.**

It is a matter for very great congratulation that Hon. Mr. Fisher, the Canadian Minister of Agriculture, has been enabled again to secure, in connection with the work of his department, the services of Mr. J. A. Ruddick. When he went to New Zealand in the latter part of 1888 to assume the dairy commissioner-ship of that enterprising colony, we expressed the regret that so valuable a man should be lost to this Dominion, for we had long regarded him as one of the most valuable men that ever entered the public dairy service of this country. With the added experience and observation he has had in the Antipodes he should be able to render Canadian dairying still better assistance now. Our New Zealand exchanges speak in the very highest terms of the good work he accomplished there, and that without any "blowing," ostentation or friction, and admit that his place will be difficult to fill. "He will take with him," says the *Canterbury Times*, "the best wishes of everyone with whom he has come in contact in New Zealand." This same journal intimates that Mr. Ruddick's reasons for returning to Canada are chiefly domestic, Mrs. Ruddick never having enjoyed good health there. Certain it is that Mr. Ruddick will do credit to any department assigned to his care.

**J. A. KINSELLA PROMOTED.**

It is gratifying to know that another Canadian has been appointed to the position rendered vacant by Mr. Ruddick's resignation in New Zealand. This position having been given to Mr. J. A. Kinsella, formerly of the Kingston, Ont., Dairy School, and late Superintendent of Dairying in Assiniboia under Prof. Robertson, one of the leading papers of the Island, the *New Zealand Mail*, in announcing Mr. Kinsella's appointment, says: "The Agricultural Department, the factory managers of the colony, and all concerned in the dairy industry, are to be congratulated upon the appointment of Mr. J. A. Kinsella to the important and onerous position of



**GOLDEN SULTANNE 146282, IMP.**  
Two year-old Jersey cow sold at T. S. Cooper's sale, at Cooperstown, Pa., May 30th, for \$1,600.

Chief Dairy Commissioner, left vacant by the resignation of Mr. Ruddick. Mr. Kinsella, who is still quite a young man, has been connected with the industry from his very boyhood. About nine months ago he came to New Zealand from Canada, where he had previously occupied an influential position under the Dominion Government. He was engaged by the New Zealand Government as Superintendent of the Government Dairy School, but has been mainly engaged up to the present in giving general instruction to factory managers throughout the Colony, and has won universal esteem by the energy and courtesy with which he has discharged his duties. A pleasing evidence of the good opinion in which he is held by those engaged in the dairy industry was, we understand, to be found recently in the number of telegrams received by Mr. Kinsella from various parts of the Colony, expressing the hope of the senders that he might be appointed to the vacancy. The new Commissioner is thoroughly experienced in the practical manufacture, on the most scientific lines, of both cheese and butter, a dual qualification which is rarely found in dairy experts.

**Use of the Milking Tube.**

The milking tube may be very useful and necessary in some cases, such as an extremely sore or an injured teat or one having an obstruction in it preventing the milk from being drawn by the ordinary means, or it may be used in the case of an extremely hard milker with the object of improving the cow in that regard, but should be used only as a last resource, and then with great caution, as by its careless use many good cows have been ruined. The teats of cows vary in size and length, and it is manifestly unwise to run a three-inch tube the whole length up through a teat two inches long, as the udder may by this means be injured at the base of the teat, causing inflammation which may ruin the quarter, if not the whole udder. Then, great care should be used to clean the tube both before and after using it by dipping it in hot water, as germs may accumulate upon it, which will carry disease to the udder. It should not be used with dirty hands, and should be oiled before using, and introduced into the teat very slowly and carefully. While it remains in the teat, gently rub and squeeze

the quarter to cause the regular flow of milk into the milk cistern, when it will pass out through the tube. But its use should be discontinued just as soon as possible, as there is always more or less risk in using it, and the cow is liable to give less and less milk from the quarter the longer it is used. If used properly and only when really necessary or in cases of emergency, it may be and in many cases has been valuable, and it is well to keep one on hand, but for general use, or when carelessly handled, it is liable to prove worse than useless.

**Butter--From the Stable to the Table.**

BY MISS LAURA ROSE.  
ARTICLE VII.

**THE PACKAGE AND MARKETING OF BUTTER.**

Butter may be well and carefully made, but if there is a lack of neatness in the final finish of it, a serious loss may be sustained. Our eyes first see, and our opinions and judgment are often formed before either the sense of smell or taste has been consulted. It is a good thing to please the eye. If we like the appearance of an article, we are more apt to be prepared to like the taste of it.

For the local market there is no package neater or more convenient than the brick-shape pound prints. They pack into a basket without injury to the form, and they cut into nice squares for the table.

If the print is properly adjusted the weight can be relied upon, although butter at different temperatures, bulk for bulk, will vary. Soft, spongy butter will be lighter than that of a firm, close texture. It is well to occasionally weigh a print. I like the print, when wrapped, to weigh 16½ ounces. The extra one-half ounce allows for evaporation or shrinkage. Fill the print by pressing down on the butter, which has been rolled out to about three inches in thickness on the worker. Always have a nice smooth surface when beginning to fill the print, gathering up the scraps to finish filling.

Scrape off the bottom evenly with the butter spade.

Wrap the prints in the best parchment paper, which has been wet in clear, cold water. I have heard ladies say that grocers objected to the paper. I think it is only the case where inferior paper is used. I have seen paper so poor it appeared like nothing but tissue paper, and could only be removed from the print in strips, bringing with it considerable butter. Good parchment paper should have a sweetish taste, and when wet should be tougher and not so easily torn as when dry. If you are making a large enough quantity of butter, and the quality is No. 1, have your name or that of your farm or dairy printed on your paper. In taking it to a grocer, customers soon get acquainted with the brand, will ask for it and be willing to pay a cent or two more a pound for that particular make, and it is the maker who should receive the additional profit.

If by any accident your butter is not up to the usual high standard, you should not run the risk of injuring your good reputation by wrapping it in your printed paper. Have some plain paper on hand for such occasions, and sell the butter for what it will bring, being honest in the matter with your dealer.

In conversation last week with one of the leading grocers in Guelph, he said that when he found a buttermaker who brought him first-class butter, he supplied that person with his printed paper free of cost. Of course all butter done up in this special paper was guaranteed to be of No. 1 quality, and he impressed that fact on the maker as well as on the purchaser. Where it is possible it is well to have private customers, delivering the butter direct to them, receiving the cash and saving the commission charges.

If you dispose of your butter on the market place, see to it that not only the butter, but the basket and yourself, are as neat and clean as can be. A buyer first looks at the one who has the butter for sale, then at the butter.

Endeavor to get your butter to the consumer as soon after making as possible, although it is well to allow it to stand one day in order to firm up. Butter absorbs odors almost as readily as milk or cream, and should be kept in a clean, well-ventilated place.

Some find it necessary to pack butter for winter use, although it is better if fresh butter can be had all the year round.

The butter needs to be of extra good quality to pack. Any defects are likely to further develop in the butter while being kept.

It is well to give butter for packing two washings in order to free it of all curdy matter, for it is the curd which so soon decomposes and gives the butter the "off" flavor.

Salt slightly heavier for packing 1½ oz. when salting in the churn, and 1 oz. when on the worker. Work the butter twice. Pack into new crocks or butter tubs. The crocks should be thoroughly scalded and a strong brine allowed to stand in them. The tubs or firkins are usually coated with paraffin; if not, they should receive the same treatment as the crocks. It is well to line the tubs with heavy parchment paper which has been soaked for several hours in salt water. Pack the butter very firmly into the tubs or crocks to within half an inch of the top. Cover with parchment paper, then put on a thick layer of salt. Moisten the salt sufficiently to make a paste, tie down with several thicknesses of paper and keep in a cool, clean, dark place.

This week, when in Toronto, I made it a point to call on a number of large grocery and dairy commission men, and had personal talks with them



regarding the buying and selling of butter, especially that received from farm dairies.

Mr. Marshall, of the firm of Rutherford & Marshall, said they could handle large quantities of dairy butter at creamery prices if the quality could always be depended upon. I questioned him with regard to the defects in the butter.

He said the "off" flavors were mainly due, in his opinion, to keeping the milk in badly-ventilated rooms or where it comes in contact with vegetable odors, etc., also that in many cases the cream was allowed to become overripe, giving the butter a cheesy flavor.

In talking with J. J. Fee with regard to the color and salt, he said they did not find much fault with the color, as it was more even of late years, but that still some people persisted in using coarse, inferior salt, there being no excuse for it when good dairy salt is so cheap.

Another large firm told me they paid from one-half to one cent more for butter in pound prints, but in the summer time, unless the butter was shipped in refrigerator boxes, they preferred the crocks or tubs or even the large rolls, as it could be handled better without becoming soft or untidy.

I found the grocers still took in a great deal of poor butter, for which they had to pay a good price. "I could not offend the customer, you know!" I said, "Whatever do you do with all this inferior butter?" "Sell it to the bakers, although the really first-class ones will not use it, and what we cannot dispose of in that way we pack, and it is shipped to the fishermen in the Lower Provinces."

Every man I spoke to said there was always a good market for gilt-edged butter, and that it always brought from two to five cents more than the poor quality.

Let it be the aim of each buttermaker in this Province to produce butter of the very highest grade, and only can this be done by exercising the greatest attention and care in every detail of its progress from the stable to the table.

#### How Do Your Cows Pay?

The above is a question that it will pay dairy farmers to answer; nor do we mean simply the herd generally, but the individual cows composing it. In season and out of season, editorially and through correspondents, and on one occasion by a valuable trophy offered for public competition, the FARMER'S ADVOCATE has sought to teach discrimination against the cow that does not give a good return for the food consumed and to crowd her to the block. The cost of keeping cows is a vital question. We note that Mr. J. H. Grisdale, Agriculturist at the Central Experimental Farm, reports that during the past year twenty-five cows were milked, the number of days in lactation varying from 49 to 365, or an average of 234 days per cow. The total milk sold was 135,346 pounds, which, valued at current factory prices, amounted to \$1,280.47. This makes an average of \$51.22 per cow.

Valuing the feed stuffs as follows: Bran and meal \$15 per ton, ensilage \$2 per ton, roots (mangels) \$2 per ton, clover hay \$5 per ton, chaff \$3 per ton, pasture \$2 per month per cow, dry cows \$2 per month per cow. The cost of maintaining the herd for the year was \$1,030.51, or an average of \$41.22 per cow. This leaves a net average profit of \$10 per cow.

In this connection, dairymen will also be interested in the experiment carried on by Mr. Robt. Robertson, Superintendent of the Experimental Farm at Nappan, N. S., to show whether a fairly good herd would pay for the food consumed and leave a balance on the right side. The trial began Nov. 28, 1888, and continued till Nov. 27th, 1890. The meal feeds fed, most of which were bought, cost: wheat bran \$18 per ton, pea meal \$27 per ton, corn meal \$24 per ton, chop (oats, barley and peas) \$22.50 per ton, the whole averaging, as per proportion fed to cows, 11 cents per pound. Roots were estimated as worth 5 cents per bushel, and corn ensilage at \$1.06 per ton, and hay at \$5 per ton. The daily ration for cows in full milk in winter was: ensilage and roots, 30 pounds, 2½ cents; hay, 20 pounds, 5 cents; bran and meal, 8 pounds, 9 cents, making a total cost of 16½ cents per cow per day. When not milking in winter they were charged \$2 per month. From June 1st to July 15th they were on pasture day and night, and from July 15th to Sept. 15th stabled during the day and on pasture at night, and from Sept. 1st to Nov. 1st stabled at night and on pasture during the day. After June 15th pasture failed, and they were fed green food. When milking in summer they were charged \$1.50 per month, and \$1 per month when dry and running in the bush pasture. Each cow's milk was weighed every day, and tested from time to time with the Babcock test. The milk was sent to the Nappan Dairy Station, where the butter produced was credited at the rate of 20 cents per pound, less 4 cents for making and milk drawing. Skim milk was fed pigs and calves, and was valued at 15 cents per 100 pounds. The milking period varied from 210 to 364 days, and the pounds of milk per cow from 9,373 pounds to 4,114 pounds. The highest credit was earned by a Holstein cow, being \$83.04, the next being an Ayrshire grade, \$82.83; the lowest an Ayrshire grade, \$46.51. The cost of keep per year per cow ranged from \$31.55 to \$38.29. The

highest cost to keep was an Ayrshire grade, \$58.29, and next, the Holstein that topped the list as a producer, but the latter gave the largest net profit for the year, \$27.83, the lowest on the list being a grade Ayrshire, showing a profit of only \$2.68. When we find such a startling difference in a herd of 30 cows, it should awaken dairy farmers to a sense of the importance of knowing what their cows are actually doing, and what profit, if any, they are earning. There is reason to believe that hundreds of cows in every county are actually being kept at a loss to their owners.

#### The Cow End of Dairying.

[FROM OUR ONTARIO AND EASTERN EDITION.]

It is practically certain that no matter how intelligently, carefully and well the product of our dairy herds in milk, butter and cheese is managed, we shall fail to make the best of our opportunities in dairying if slipshod methods are practiced in the care of the cows and in the provision and preparation of their food in order to produce the greatest quantity of milk at a minimum of cost. We are fully persuaded that in the case of the great majority of dairy herds of this country the owners come very far short of realizing the profit they might, firstly, from the lack of care and judgment in the breeding and selection of their cows, and, secondly, from mismanagement in the feeding and care of the cows.

The question of breeds and breeding is an important and interesting subject—one on which there is room for difference of opinion, and which it is not our purpose to discuss in this article; but the matter of testing the cows to learn definitely whether they are paying their way decently or not is now so simple that there is little excuse for going on with our work blindly or with inglorious uncertainty, and if, by testing, we find that there are inferior producers in the herd consuming as much food as the superior producers, it is clearly in order to insist upon their expulsion and the substitution of a more profitable machine as soon as practicable.

The apparent indifference of so large a propor-



GOLDEN LAD'S SOLID GOLD 149162, IMP.  
Three-year-old Jersey cow sold at the Cooper sale for \$1,000.

tion of dairy farmers to the quality of their cows is one of the surprises of the business, and is, no doubt, one secret of the comparatively small returns they receive for the labor and feed expended on them. We know it is easier to moralize in this way and to give gratuitous advice as to getting rid of the unprofitable cows than to do it, but the present high prices for butchers' cattle would seem to make it a specially favorable time for feeding off the worst producers, and if the beef boom has that effect, it may prove a blessing in disguise to dairymen. It is one of the advantages of dairy farming that the idle and incompetent cows can be disposed of in that way, and may not be in the end a total loss.

The matter of keeping up a uniform flow of milk during the year is one of the most important in dairying, and one in which it seems most farmers fail, and that failure is made generally in the summer months. Most dairy farmers feed well in winter, keeping their cattle in comfortable stables, giving them liberal rations of meal and succulent food in the form of roots or ensilage, so that a fairly steady flow of milk is maintained. The fresh pastures in the spring make the cows flush up and milk generously for a while, but in most seasons and in all sections in some seasons there are terms of drought, when the pastures dry up and flies torment the cows, and they fall off rapidly in their milk, if some provision be not made in the form of succulent food or extra food in some form for supplementing what they get in the fields, and it is certain the cows will not, taking the years as they come, do nearly their best work unless provision be made for them in this way. This may be done either by growing green crops, as alfalfa, clover, mixed grains and corn in turn, to be cut and carried to the cows or by putting in a sufficient supply of ensilage to fill this want in the dry time in summer, and it seems to us that the silo presents the simplest and most effectual and satisfactory solution of this problem.

Time is so much an object in the summer that cutting and carrying food for a large herd of cows would seem to be expensive and inconvenient, but

if fairly estimated, would doubtless be found less so than at first sight appears. Corn ensilage, when corn is well matured, gives both grain and succulence, and is probably the cheapest food we can produce, taking into account the cost of seed, the weight of the crop per acre and the increased flow of milk. Having it convenient to the stable, it can be fed so quickly and with so little outlay of time that it seems to be the best and cheapest food, all things considered, even in summer when pastures fail; and for that matter, we believe it has been demonstrated that it will pay to feed the cows both ensilage and a light ration of meal all through the summer. Mr. Tillson, of Tilsonburg, Ontario, last year, by feeding half a winter's ration of ensilage and grain, made his cows average 1,220 lbs. more milk than in the previous year, which, if milk is worth a dollar per 100 lbs., gave him \$12.20 extra per cow for the 150 days of summer feeding. He reckons the extra cost of feeding thus: 20 lbs. ensilage, at 10 cents per 100 lbs., equals 2 cents per day; 5 lbs. grain fed, at 60 cents per 100 lbs., equals 3 cents per day; making the extra cost 5 cents per day, which, for 150 days, would be \$7.50. Deducting this from the value of the extra quantity of milk, he has a net balance of \$4.70 per cow, or on his 55 cows, \$258.50. And the extra manure, he considers, would more than pay for the extra labor in feeding.

By the way, the milk record of this herd, as published in our columns last year, furnishes a striking illustration of the possibility of improving the working capacity of a dairy herd by judicious selection, breeding and feeding. Mr. Tillson reported that the milk product of his 55 cows, mostly grades, in 12 months and 3 days was an average of 11,472 lbs. per cow, which is nearly four times the product of the average of the cows of the country, and shows how lamentably the average dairyman is falling short of his opportunities.

Those who are not provided with a silo will, perhaps, raise the objection that it is expensive to build, but we know from experience that a plain stave silo with a capacity of 70 to 100 tons can be built for \$75 to \$100, and some men have built them for less money. If that is more money than a farmer has to spare, it is just a question whether he would not be justified in borrowing the amount and trusting to the probability of improved returns from his dairy operations to pay off the debt in due time.

The point we have wished to make in these remarks is the paramount importance of keeping up a steady flow of milk throughout the season, for we think all will agree that it is almost, if not quite, impossible to bring a cow up to her best work again after she has been allowed for a month or more to fall off in her milking by reason of an insufficient supply of food and a fight with flies, causing her to run down in condition, and necessarily to expend nearly all her energies in sustaining life.

If the old adage be true, that what is worth doing is worth doing well, then it is worth the effort to keep the cows milking somewhere near their full capability during the whole term of lactation, and we feel safe in saying it will pay to do so.

#### Raising Calves on Whey.

The increasing demand for young cattle, but especially for those possessing a fair proportion of beef blood, is leading many dairy farmers to use beef-bred sires and to raise the male calves for stockers. On farms where the milk goes to a cheese factory, the calves are liable to be slighted and stunted unless some special precaution is taken to supply the needs of the growing animals. While it might in a certain degree return a profit to retain a quantity of whole milk for the calves until they are a few weeks old, yet if almost as good results can be gained by using cheaper product the wise dairyman is apt to resort to that method. The nearest approach to the natural food of a calf obtainable on such a farm is undoubtedly whey, if properly fed and properly supplemented, but some care is necessary to get good results. A thrifty calf may commence to receive whey when four or five weeks old, but this is a critical time and great care must be exercised not to overfeed and sicken the calves by the change. When commencing to feed whey it should compose a part of the milk ration and have mixed with it a small quantity of cooked oil meal and fine shorts. The whey should be increased gradually as well as the oil meal, while the milk is decreased. About two quarts at first, gradually increased to four or five quarts, is better than more. It is better to allow the calves to go a little hungry than to overfeed. A person's judgment must determine when a calf has had a comfortable meal. It is well to have a trough set up about two feet from the ground for a mixture of bran and chopped oats or other grain. Access to a little nicely-cured hay or wilted soiling crop has its advantages even while the calves are on pasture. It is better to keep them in darkened sheds in the day time during the hot months of summer when flies are troublesome, and a supply of salt should always be provided. The aim should be to raise good calves that will sell at a fair price, rather than to save expense by feeding them poorly. The whey should always be fed sweet and warm and the vessels from which they drink should be scalded out daily so as to be kept sweet and fresh.



Farming Understandingly.

There is a vast difference between farming as your neighbors do and your neighbors farming as you do. The man who studies the culture of crops for a number of years gets, one year with another, what is considered a good yield. His neighbor, however, a fairly good farmer, has given crop growing no particular study, but manages his crops as his neighbors do. It may be, his methods are those which his father followed when the country was new, and high cultivation and a systematic rotation was neither necessary nor practicable. His yield in very favorable seasons may be considered fair, but when adverse weather conditions prevail or there is a more than ordinary prevalence of insect pests for which he has not prepared, his chances for a crop that will pay expenses are rather slim. Both men dispose of their crops at the same market and at the same price per bushel of equal quality. In the one case, the cost of production per bushel has been greatly in excess of the cost per bushel to the farmer who has studied his business and farmed on correct principles. This is particularly true with such crops as corn, potatoes, etc., which can be given tillage during the summer season. With these crops, the difference in the cost of production may be largely due to a difference in tillage.

The thoughtful farmer and the other fellow each realize that the crop requires water in order to grow. The one lives in hopes that it will rain, and the other provides a means of conserving not only as much as possible of the rain that falls, but also of the moisture which remained in the land in spring. Cornell Experiment Station has found that in a dry season a bushel of potatoes requires about three tons of water for its production. The intelligent farmer realizes that if he is to get 200 bushels of potatoes per acre, he must somehow manage to provide 600 tons of water for each acre. He has no facilities for irrigation, and his only resource is to make the soil a reservoir. Three hundred tons of water per acre sounds like an immense quantity, but it is estimated that an average farm soil when moist, but not wet, contains fully that quantity in the top eight inches. The moisture is in the form of a film surrounding each particle of soil, and the finer these particles are, the greater quantity of film moisture will the soil hold. It therefore appeals to the understanding farmer that the finer he makes his soil—and this is accomplished largely by tillage—the greater are his chances of maintaining a full supply of moisture, and therefore an abundant crop.

Not only does tillage conserve moisture, but it renders plant food available. It is estimated that an acre of average farm land contains as much plant food as could be bought for \$2,000. Now, the finer the soil, the greater the area will be afforded for root feeding. It is true that only a small portion of plant food in a soil is available for the support of the plants; in fact, it has to pass through many changes before it can be appropriated. The soil is a factory or laboratory in which the work of preparation is carried on. The chief agents employed in this factory are film moisture, air and heat, and if any of these are lacking in the proper extent and condition, the preparation of food, and therefore plant growth, go on in only a sluggish way. Good tillage does much to hasten the activities of this process by allowing free ingress to the soil of film moisture, air and heat.

A Word of Warning: Beware of Red Lice, or Mites!

They were unknown to me until last spring, and I think they are, without exception, the greatest pest poultry can have. I address myself to those who look upon their advent as of no consequence. To those, I say *Beware!* I noticed them first under my sitting hens and on them. I changed the straw frequently, and burnt it, washed the eggs, saturated the nests with coal oil, sprinkled the hens with insect powder or sulphur; still, the mites thrived.

When the hatching was ended, I burnt 2 lbs. of sulphur in the house, thoroughly whitewashed it, and used coal oil plentifully round the roosts and nests—all to no effect. Early in November I determined to make a still greater fight. I took the entire interior of my house to pieces, every nail was drawn and every board carried out and thoroughly scrubbed with hot water and carbolic acid and then scalded. (I used the pig boiler for heating the water.) I disinfected all my fowls with a very strong preparation, and also used the same over the entire house ceiling, walls, and floor. My house is grout and mortar between boards, and, to my horror, since the warm weather came I notice the mites creeping out from between the boards. I have been corresponding with Mr. Gilbert, of the Experimental Farm, and I am now following his advice and spraying with a solution of corrosive sublimate, but as it is a deadly poison, we have to use great caution. The solution is prepared as follows: Corrosive sublimate, 4 ozs.; common salt, 4 ozs. Dissolve in two to four quarts of water. When completely dissolved, dilute to 25 gallons. Sprinkle thoroughly every nook and crevice. I hope this article may benefit others. It will at least show that mites are harder to exterminate than one realizes.

Sheep Breeding and the Price of Mutton.

Mr. John Wrightson, in the London *Live Stock Journal* of recent date, writes: "The high price of mutton is certainly a point in favor of large farming and ordinary arable cultivation on an extended scale. Eggs may be over-produced, but not mutton. After twenty years' keen competition with New Zealand and other countries, we see mutton (astonishing to relate) at over 10d. a pound, wholesale, and in the carcass, on the market. This is a curious result, for so long ago as 1879 we were told that mutton would be sent in in such vast quantities as to ruin sheep-farming in England. Several times during the intervening years have we felt the incubus of foreign competition, but, strange to say, at the present time we seem in as great danger of a mutton famine as in 1883, when mutton made about 1s. a pound. Sheep farmers appear to be in an enviable position just now. The situation is, of course, affected by the low price of grain, for sheep-farming and arable cultivation are in most cases united under one common interest. Arable-land sheep farmers have of late years had to contend, not only with low corn prices, but with shortness of keep. At the present time, the high price of sheep and the improved prospects of keep tend to encourage the hope that the present season may recoup them for past losses.

SHEEP-BREEDING

has always been in itself a profitable pursuit, and long may it so continue. It is not so much that sheep farming on arable land has paid, as that the flock has saved the farmer from loss. The effect of present high prices will probably be greater attention to sheep, and an increase in flocks. We may see ewes dear, as well as rams, and the export trade as well as the home markets enlivened by competition for good animals. Why, in the face of frozen mutton and New Zealand lamb, we have this dearth of fat sheep is not easy to explain; but high wages and prosperity always increase the consumption of meat, and this may account for the want of a sufficient quantity of meat for months.

Whatever the cause, it is for us to supply the want. Increasing the breeding flocks will not immediately tend to lower prices, but rather the contrary.

Those who want sheep will have to pay highly for them, and those who have flocks will benefit until the wheel turns round and we find ourselves once more over supplied. What takes place quickly in the pig trade will act, although more slowly, in the case of sheep. High prices beget low ones, and vice versa. With sheep, however, the effect is slower, and we may therefore look forward with some confidence to a run of high prices.

Potato Growing at the Central Experimental Farm.

The yields at the Central Experimental Farm, Ottawa, from the 143 varieties of potatoes grown for comparison in uniform test-plots last year were very good, the best yielding sort, American Wonder, a late white variety, of good quality, producing at the rate of 640 bushels 12 pounds per acre; while the poorest gave 240 bushels 36 pounds per acre. American Wonder produced 52 bushels 48 pounds per acre of unmarketable tubers. The Horticulturist recommends the following for farmers:—Extra Early: Early Ohio (pink), Earliest of All, Boyce, and Burpee's Extra Early (pink and white). Early: Everett and Rochester Rose (pink), Early Puritan (white). Medium: Carman No. 1 (white), Empire State (white). Late: Late Puritan (white), American Wonder (white), Rural Blush (pink). The average yield per acre from the 143 varieties was 410 bushels 17 pounds, which is 291 bushels 17 pounds more than the Ontario average of 119 bushels. Had these varieties been grown in acre plots, the yields would not have been so large, but considering the fact that the poorest variety of the 143 tested yielded 85 bushels 36 pounds more than the average for Ontario, it seems remarkable that larger crops are not produced throughout the country. The soil in which the potatoes were grown was a sandy loam, and, while in good state of cultivation, it is not what would be called rich, although it was given a good dressing of barnyard manure in the spring of 1898. A crop of tobacco was taken off the same land in 1898. The soil was plowed in the autumn of 1898, and again in the spring of 1899, when it was also disk harrowed and harrowed twice with the smoothing harrow before planting. The drills were made about 6 inches deep and 2 1/2 feet apart, and the sets, which had at least three-eyes, were of good size and were dropped 1 foot apart, each variety occupying one row 66 feet long. The potatoes were covered with the hand hoe to insure the most uniform conditions. The potatoes were cultivated when required throughout the summer, but were not hilled up. They were sprayed with Paris green and Bordeaux mixture to destroy the potato beetle and prevent blight. The potatoes were planted on May 22 and 23, and were dug on October 5, 6 and 7. There was no scab or rot. We notice that in 1898 an experiment was being made by planting potatoes at different dates, begin-

ning when the main crop was put in and continuing at intervals of two weeks until August 23, 1898, and July 23, 1899. An early and a late variety were used in each case: Early Northern (early) and Irish Daisy (late) in 1898, and Early Northern and Rural Rush in 1899. There was a regular decrease in the yield from each planting. For the two seasons the average yield of marketable potatoes per acre for the May 26th planting was 330 bushels 26 pounds; June 9th and 10th, 233 bushels 39 pounds; June 23rd and 21th, 139 bushels 2 pounds.

Some Western Ontario potato-growers report to us getting the best results from June planting, with less trouble from the bugs.

The highest yielding varieties during the past six years were as follows:

- 1891—Burpee's Extra Early, 361 bushels.
1892—American Wonder, 383 bushels.
1893—Late Puritan, 453 bushels.
1897—Holborne's Abundance, 402 bushels.
1898—Holborne's Abundance, 383 bushels.
1899—American Wonder, 640 bushels.

Programme of Farmers' Institutes.

The programme of the June meetings is as published below. This is announced as the final meeting of those Institutes where agricultural societies exist, as, according to the amended Agricultural Societies Act, hereafter it is intended that the societies take up this branch of work. Of course, where there are no agricultural societies, the Institute may go on as heretofore, and will be given a Government grant as usual. In consequence of this change, where Institutes propose to amalgamate with agricultural societies no election of officers will be held, and the funds on hand, if any, may be distributed, according to the Institute Act, or turned over to the agricultural society.

GROUP NO. 1.

Speakers: Rev. Mr. Burman, Soil Moisture, Weeds, Insects; D. Munroe, Dairying, Fodder Crops.

- Deloraine Monday, June 25, 7 p. m.
Boissevain Tuesday, " 26, 2 "
Kilbuck Wednesday, " 27, 2 "
Cartwright Thursday, " 28, 3 "
Crystal City Friday, " 29, 2 "
Pilot Mound " 30, 2 "
Manitou Saturday, " 30, 7 "
Morden Monday, July 2, 7 "
Nelson Tuesday, " 3, 2 "

GROUP NO. 2.

Speakers: J. J. Rooney, Crops, Live Stock; Chas. Braithwaite, Lessons of the Year.

- Melita Monday, June 25, 7 p. m.
Hartney Tuesday, " 26, 2 "
Souris " 27, 2 "
Pipestone Wednesday, " 27, 2 "
Reston " 28, 8 "
Brandon Thursday, " 28, 8 "
Oak Lake Friday, " 29, 2 "
Virdee Saturday, " 30, 8 "
Elkhorn Monday, July 2, 2 "
Arrow River Tuesday, " 2, 2 "
Hamiota " 3, 2 "
Oak River " 3, 2 "
Bradwardine " 8, 8 "
Rapid City Wednesday, " 4, 8 "

GROUP NO. 3.

Speakers: A. P. Stevenson, Small Fruits, Shelter Belts; F. Lutley, Dairying.

- Russell Tuesday, June 26, 8 p. m.
Berth Wednesday, " 27, 2 "
Shoal Lake Thursday, " 28, 2 "
Strathclair " 28, 8 "
Minnedosa Friday, " 29, 2 "
Nee-paw-wah Saturday, " 30, 2 "
Gladstone Monday, July 2, 7 "
Dauphin Tuesday, " 3, 7 "
Glenlyon Wednesday, " 4, 7 "

GROUP NO. 4.

Speakers: S. J. Thompson, P. V. S., Care of Stock, Contagious Diseases; S. Benson, Soil Cultivation, Rotation of Crops.

- Baldur Monday, June 25, 7 p. m.
Swan Lake Tuesday, " 26, 2 "
Belmont Wednesday, " 27, 7 "
Wawanesa Thursday, " 28, 2 "
Ryth Friday, " 29, 2 "
Glenboro Saturday, " 29, 2 "
Cypress River Monday, July 2, 2 "
Holland Tuesday, " 30, 2 "

GROUP NO. 5.

Speaker: C. A. Murray, Dairying, Feeding, Care of Milk.

- Carberry Monday, June 25, 2 p. m.
Portage la Prairie Tuesday, " 26, 7 "
Foster Wednesday, " 27, 8 "
Meadow Lea Thursday, " 28, 2 "
Woodlands " 28, 8 "
St. Francois Xavier Friday, " 29, 2 "
Pocmouche Monday, July 2, 2 "

SPECIALLY ARRANGED.

Speakers: Mrs. Cora Hind, N. J. Kuneman, Steinbach, Wed. day, June 27, 2 p. m.
July, Thursday, " 28, 2 "

Speaker: Hugh McKeller,
McGregor, Saturday, June 30, 2 p. m.

Speakers to be arranged for:
Morris Monday, June 25, 2 p. m.
St. Jean " 26, 7 "
Emerson " 26, 7 "
Beausjour " 28, 1 "
Saskatoon " 28, 7 "
Bird's Hill " 29, 2 "
Kildonan " 29, 2 "
Dugald " 30, 3 "
Stonewall " 3, 2:30 "
Carman " 4, 7 "

The new spur track running from the City of Brandon to the fair grounds will be found of great convenience this year, and the crowds can be easily and rapidly handled. The spur has been built to the ground from the Northern Pacific Station.



### Feeding Young Chicks.

When a child on the farm, it was my duty to mix a large pan full of corn meal into a dough with cold water and feed the chickens. We raised a great many chicks on that food, with the addition of what they picked up in a free range of the farm.

Now I never fed raw corn meal. I think it is much better for them when it is baked into a bread that crumbles easily. To make the bread, mix with buttermilk, using twice as much soda as one would if baking for the table. The bread will be rather yellow if the double portion of soda is used, but this does not matter. For a change, an occasional feed may be baked very hard and soaked in skim milk. The skim milk given them to drink is also good. There is nothing better than table scraps for the chickens, young or old, but in these days we have learned to use the "left overs" in so many ways that the scraps from the table would suffice for a very small flock.

Very small chicks will learn to eat wheat, and it is excellent to alternate with the cornbread. If they have a free range they will pick up all the green food they need; if they are confined in small lots something of the kind must be furnished them. I find that they will eat chopped radish tops greedily. Last spring the alluring catalogue description of a mammoth radish induced me to try it. The tops proved to be mammoth indeed, but the roots were about the size of one's little finger. However, they made such an abundance of green food for my poultry that I thought them worth the room they had in the garden and the cultivation that had been given them.

Feed but little at a time and feed often is a good rule to follow, especially for the first six weeks of the chick's life. Five times daily is not too often, if they are kept in an enclosure. After the weather becomes warm a hen who may roam where she will on a farm will almost raise her brood without regular feeding. S. C.

### Live Stock at Paris.

There is certainly a feeling of considerable disappointment with the small number of British live stock entries made at the Paris Show. In a way, this, of course, is not surprising, when, no matter what they may make, the whole must be sold there, as none return alive to Britain. Though the entries are not numerous, they are more general than their numbers would have led one to anticipate. Judging from the names of the enterers, Shorthorns will be represented by a couple of entries, Red Polls by one or two, and Herefords by one. Sheep entries are rather larger, Southdowns taking pre-eminence with three entries; Shropshires follow with a couple of entries, whilst Lincoln Longwool sheep, Kent or Romney Marsh and Hampshire Downs will be represented by a single entry each. The swine breeders of England appear to be also represented by a single entry, whilst the various breeds of poultry have nine separate entries.

Speaking generally, the cattle entries, which are largely of the continental dairy and general purpose sort, number 2,110 head, sheep 800 "lots," and swine about 300 head.

### Horn Fly Remedies.

Regarding remedies for horn fly, we have never found anything more effective than the mixture of seal oil and crude carbolic acid, in the proportion of a tablespoonful of carbolic acid to a quart of oil. It is a good deal of trouble to apply this remedy, the simplest way being to apply with a brush. To be an effective remedy, it should be applied about twice a week, but it will be found a great help if applied once a week. I do not know of anything which will prove effective against these pests that does not entail a good deal of trouble.

O. A. College. G. E. DAY, Agriculturist.

### QUESTIONS AND ANSWERS.

#### Veterinary.

##### LAME HORSE PSORIASIS (MALLENDERS).

SUBSCRIBER, Carlyle, Assa: "1. Horse, 5 years old, ran finger-bar of maw in hind foot, just above hoof. Washed it with carbolic soap, and it healed in a few days. Shortly afterwards it swelled for about 3 inches each side of sore along hoof. I blistered it, but it seems to have gotten worse. Unable to use hind leg at all. Can it be cured, and what should be done for him?"

"2. Two-year-old filly ran out all winter, and when I got her in I noticed sores on back of both knees, and a couple of days ago I noticed a fresh one bleeding. State cause and treatment."

[You have not mentioned what part of the coronet was wounded, nor how long it is since the injury was received. It is probable that a portion of detached or dead tissue, or some other foreign substance, is acting as an irritant, causing inflammation, which will terminate in suppuration. Ferment and poultice the foot until the pus is drawn near the surface, which will be indicated by a portion becoming elevated and softened at the top. Open with a sharp knife, making opening large enough to allow the pus to escape freely. Keep the parts thoroughly clean, and dress the cordons by syringing with carbolic solution. The following lotion is preferred: Carbolic acid, 1 dram; glycerine, 1 ounce; water, 1 pint. Add sufficient water

to make 1½ pints. Saturate cotton batting with the lotion and apply over the coronet at each dressing. It will be advisable to give the animal a dose of purgative medicine. Such cases are sometimes difficult to treat successfully, and require the personal attention of a skillful veterinary surgeon.

"2. Your colt is affected with a skin disease called psoriasis, better known as "malleanders." Some horses appear to be predisposed to this affection. The existing causes are: Bad care, exposure to wet and cold, impure state of the blood, etc. Prepare the colt for physic by feeding exclusively on bran-mash diet for at least 16 hours, and then administer the following dose: Barbadoes aloes, 4 drams; calomel, 15 grains; powdered ginger, 2 drams; soap sufficient to form a ball. When the physic has ceased to operate, give morning and evening for ten days, Fowler's solution of arsenic, 1 tablespoonful. Apply once daily the following ointment to the sore parts: Oxide of zinc, 1 ounce; creolin, 4 drams; powdered opium, 2 drams; vaseline, 4 ounces. Mix. W. A. DUNBAR, V. S.]

##### ENLARGED JOINTS IN CALF.

A. Langenburg, Assa: "A calf 3 months old was let out of the stable for the first time, and at once ran as fast as it could run for several miles. The result was swollen joints and inability to walk for some time. It can walk and run now, but limbs are somewhat stiff and swelling in joints has remained. What can I do for it? I have applied a liniment, which relieved it of pain, but did not reduce the enlargement of the joints."

[The swelling of the joints will gradually disappear without any special treatment. You may, however, apply three times a week, with smart rubbing, the following liniment: Soap liniment, 2 ounces; spirits of camphor, 3 ounces; tincture of cantharides and tincture of opium, of each 1 ounce. Mix. W. A. DUNBAR, V. S.]

##### GLANDERS.

SUBSCRIBER, Chickney, Assa: "Can you supply me with any information on the following points: 1. I have just had two horses shot for glanders. As soon as I noticed any discharge, I isolated them and sent for veterinary surgeon of the Mounted Police, and have burnt all surroundings where they were isolated. In the stalls where they were before I noticed any discharge, I first washed everything with chloride of lime, then I mixed a box of Gillett's lye in two pails of water and scrubbed everything. The police veterinary advised whitewashing with 1½ gills of crude carbolic in a pail of water and made into whitewash with quicklime. This I have done."

"1. Will it now be safe to put other horses in the stalls?"

"2. How long will the germs be contagious?"

"3. What will prevent the other horses from developing the germs if they should have absorbed them, as they all drank from same water tub before I noticed any discharge?"

"4. Is the test with mallein positive proof of the disease?"

"5. Where diseased horses have fed on prairie, will prairie fire destroy all possibility of contagion?"

[Your manner of cleansing and disinfecting your stable appears to have been sufficiently thorough to insure destruction of all disease germs that may have been lurking therein; but, to make it perfectly safe, it will be well to leave the stable or stalls unoccupied for at least two weeks after the work of disinfection has been performed, at the same time admitting plenty of fresh air.

"2. The virus of glanders, after being separated from the animal, will retain its activity for various periods, according to the nature of the conditions to which it is subjected. A moist atmosphere and a temperature of 68 to 75 Fahr. will preserve the virulence of the germs for a long period of time. The dried nasal discharge from a horse suffering from glanders has been known to convey the disease to a healthy horse sixty-five days after it had been separated from the infected animal. Sunlight or hot and dry atmosphere and good drainage are conditions which are very unfavorable to the longevity of the glanders bacillus.

"3. If sufficient virus has entered the circulation to overcome the contagium-destroying properties of the blood, there is no known treatment, either external or internal, that will prevent the ultimate development of the disease. It is, however, of much importance to endeavor to maintain the healthy condition of your horses by proper feeding, cleaning and regular exercise in the open air. You should also strictly observe the hygienic measures necessary to keep your stable and its immediate surroundings in a sanitary state.

"4. Mallein is not absolutely infallible as a test for glanders, but when properly applied it is generally reliable.

"5. Fire is a wonderful disinfectant and purifier, and in the case you mention it would be most likely to destroy all disease germs with which it came in contact. W. A. DUNBAR, V. S., Winnipeg.]

##### ITCH IN HORSE'S FOOT.

J. C. B. Middlesex Co., Ont.: "Can you give me a remedy for a long standing itch in a horse's foot?"

[Keep the foot clean, and dress the cordons by dead poultice at the opening, and apply a dead poultice to the diseased tissue for a week.]

##### ENLARGEMENT ON CANNON BONE.

HORSEMAN: "I have a colt two years old that got kicked on the cannon bone last year. There is still an enlargement on the spot where it was kicked, although thoroughly healed up. The skin is very thick on that part, and the bone seems to be a little larger than the other leg. Do you think anything can be done?"

[Injuries such as kicks inflicted upon a bone that is not protected by muscles sets up inflammation of the bone and its fibrous covering. An exudate, the result of the inflammation, is thrown out, and becomes organized; the periosteum (the bone covering) becomes thickened, and in many cases there is an increase of size in the bone itself, due to organization of ossific matter. After the inflammation subsides, the enlargement thus formed becomes quite visible and hard, yet not painful. This lump is not reducible to any great extent, but may be reduced slightly by absorption, which can be hastened by friction or irritation, as the application of blisters. If there be a thickening in the skin, as you intimate, it can be reduced by repeated blistering. The preparation used and details for blistering have been given so often in these columns, a repetition is unnecessary. J. H. REED.]

##### ACTINOMYCOSIS.

G. G., Wellington Co., Ont.: "I have a two-year-old heifer. Last winter a lump grew on her jaw size of a hen's egg. Gave iodide of potassium till she ran at the nose, also painted lump with iodine. Lump went away, but now lumps from the size of an egg to size of a bean have come on her hind leg on hock joint, hard but movable. Please advise."

[There is little doubt that your heifer was affected with actinomycosis (lump jaw). In such cases, where the bone is not involved, the administration of potassium iodide in sufficient doses to cause its physiological symptoms (one of which you mention) will often effect a cure. It is impossible to state (without a personal examination) whether the lumps now present have any connection with the former trouble. While it is possible such may be the case, it is rarely seen. If not in the immediate vicinity of the joint, it would be well to carefully dissect them out and treat the wounds until healed with a 3-per-cent. solution of carbolic acid in water. If the joint be involved, the operation must be very carefully performed. If you do not care to operate, they may be considerably reduced, or probably entirely removed, by the repeated application of iodine, or, better still, by the injection into their substance, with a hypodermic syringe, of a solution of iodine, say 1 dr. to 1 oz. alcohol. I think it would be wise to have her examined by a veterinarian. You have a good practitioner in your village. J. H. REED.]

##### CHRONIC COUGH, WITH A TENDENCY TO HEAVES.

A SUBSCRIBER, Stormont Co., Ont.: "Would you please give me a remedy for a horse that has a hacking cough. It coughs more frequently while travelling down hill or if it stands in the stable awhile. It is all right otherwise, is a good traveller while travelling on level road; is eight years old; is not short in the wind."

[A cough presenting such symptoms as you describe is often a forerunner of heaves, especially if the horse be a heavy feeder, as is usually the case. Be very careful about the quality of his food. Feed well-saved timothy hay; avoid clover hay unless well saved. Feed only moderate quantities of hay; do not allow him all he will eat, and dampen it with lime water, which is made by slacking a lump of lime in a pail or other vessel, then adding water and stirring well with a stick. After the undissolved lime settles at the bottom, the clear liquid left is lime water. Dampen his grain with this also, and give every night, in damp food or boiled oats, one of the following powders: Take of pulverized opium, 3 ounces; pulverized liquorice-root, 3 ounces; pulverized digitalis, 12 drams; arsenious acid, 8 drams. Mix, and divide into twenty-four powders. This treatment will probably arrest the disease. J. H. REED.]

##### Miscellaneous.

##### CUTWORMS AND FEED POTATOES.

W. B. H., Shadeland: "Grubs or cutworms have been troublesome in some fields this spring, even on summer-fallows. Please explain how they only work in some fields and not in others, and from what they originate?"

"2. What are considered the best potatoes for food for cows and for boiling for hogs?"

[See article on cutworms in June 5th issue. Whenever they appear on a summer-fallow, it will generally be found to be near where a heap of rubbish has been left on the field over winter; some spots where, perhaps, the harrows had been emptied.

"2. There are several heavy-producing varieties of potatoes suitable for stock food, such as the Delaware, Irish Daisy, Troy Seedling, Clay Rose, Penn. Manor, and Maule's Thoroughbred. But why not grow mangels, sugar beets, turnips, which will yield much larger crops per acre, and are generally conceded to be much more suitable for feeding cows? Potatoes, bushel for bushel, will give better results for hog feeding than the roots mentioned, but their yield is so much less, and the necessity of boiling them places them in quite a secondary place to roots for hogs.]



TURKESTAN ALFALFA.

E. J. Cardston, Alta.: "Having noticed in your issue of May 5th a report from the South Dakota Experiment Station, referring to Turkestan alfalfa as a probably suitable variety for a northern and dry country, I would be pleased if you could advise me where to get a few pounds of the seed, and also the price. Hay is, and will be, one of the most important questions with the farmers throughout this district, and this fodder plant seems to be about what we need."

[We understand that there is no seed of the Turkestan alfalfa in the hands of seed merchants. A quantity was imported by the Department of Agriculture of the United States, and been distributed in small quantities for testing purposes among the various State Experiment Stations. The Superintendent of Brandon Experimental Farm obtained a small quantity, and is giving it a test.]

BLACK NOSES IN SHORTHORNS.

G. E. L., Newdale:—"Kindly inform me through your columns what is your opinion of a black nose on a pedigree Shorthorn bull. Some say that a black nose is a sign that the animal is not pure bred. Do cases of black nose occur among pure-bred Shorthorns? If not, from what herd is it likely to originate?"

[There is a very strong prejudice against black or smudged noses in Shorthorns, and yet they occur occasionally even among high-bred cattle. Would not care to use a bull with a black nose on pure-bred females, as the objection might re-occur too frequently in his get, detracting somewhat from their value as breeding cattle. There could be no reasonable objection to the use of such a bull on grade or common stock. This black nose which so persistently crops out from time to time has been attributed by some as a result of the "alloy" or outcross of Galloway blood introduced during the Colling's time (over 100 years ago) into one or two of the families of their herd; but this seems extremely improbable. The following clipping is from Lewis F. Allen's History of American Cattle, published in 1887:

"It is supposed by many persons that a dark or black nose indicates impurity of blood. This is not always so. A black or even a dark nose is not desirable in a breeding Shorthorn, because they are decidedly unfashionable, and to a breeder of choice animals they are unsalable at almost any price. Yet many of the purely-bred Shorthorns (so admitted) of a century ago, and even less, had some black noses among them. With all modern breeders the dark noses have been sedulously bred out of their herds, their repugnance to them often going so far as to slaughtering them in calfhood. Custom has obtained so far as to rule a black-nosed Shorthorn out of competition with the drab, cream-colored or yellow noses as prize animals. A skin-colored or white nose is also objectionable, though not to the same extent, as indicative of a want of stamina in the animal, while a black or dark nose indicates hardihood and good constitution." Sanders, in his new book on Shorthorn cattle, says "black or clouded noses, although not evidence of impure breeding, are avoided as much as possible by careful breeders. Such a minor point, however, as a clouded nose will not deter a man of good judgment from using an animal that is exceptionally desirable in vital particulars."

CEMENT FLOOR.

F. W. S., Grey Co., Ont.:—"I have just got a stone wall built under a building for a horse stable. It is on a dry site, with a good fall and a drain of small stones under the wall. Will you please inform me through the FARMER'S ADVOCATE if a cement floor will stand by just putting in some gravel on the clay to level it up without small stones under the gravel? How thick should the cement be? Should the sand used be very coarse or not? Do you know anything about the merits of the Owen Sound cement?"

[When preparing a foundation for a cement floor the clay should be moistened and well rammed and then covered with two inches or more of either coarse sand or gravel, or broken stones mixed with either of the above; any of these will make equally satisfactory foundations if well rammed. The coarse concrete should be about three inches thick, well rammed down. This should be covered with a smooth, stronger concrete from a quarter to one inch thick, according to the strength of floor required. See FARMER'S ADVOCATE, June 5th issue, page 290. Gravel or coarse, sharp sand are to be preferred to fine sand. When fine sand is used a greater proportion of cement is necessary in order to secure the same strength of cement. While we have not had personal experience with Owen Sound cement, we believe it to possess all the qualities of a satisfactory cement.]

GRAIN TO COWS ON GRASS.

R. H. L., Middlesex Co., Ont.:—"Would you kindly give me your opinion, through the columns of your paper, what is the best way to feed meal to milk cows on the grass, whether in form of mash or dry, or is it profitable at all when cows are on good pasture?"

[Repeated tests of the utility of feeding grain to cows on pasture have led experimenters to the conclusion that there is no profit in feeding grain in any form while the pastures are good. In the first of a series of trials at Cornell Experiment Station, the meal-fed cows gave less milk, but an equal amount of fat with those getting no grain, on the same pasture. The next season the lot receiving

grain and that without grain did equally well. The third trial was made with a herd of cows owned by a New York farmer. The cows had been rather poorly fed previous to the test. The cows were fed grass, millet, fodder corn, etc., in season, and half the herd received four quarts of mixed chop each per day, in addition. The chop-fed cows gave enough milk extra to pay for the grain they ate. Between feeding chop dry and in slop, there seems to be practically no difference in results obtained. The above information is taken from Prof. Henry's valuable work, "Feeds and Feeding."

FORAGE CROP FOR CATTLE IN BRITISH COLUMBIA.

B. GREENE, Yale Dist., B. C.:—"Would you answer through your columns the following questions? 1. Is there any plant suitable for cattle that can be sown with red clover on irrigated sandy loam to give it stability? Clover grows so rank that half of it is left on ground. I have used timothy, but do not like it for cattle."

[In the place of red clover, alsike may be sown, which would be less liable to waste by lodging. Along with it Western rye grass (*Agropyrum tenerum*) or Brome grass (*Bromus inermis*) should answer the desired purpose well. The sowing of these grasses should to a certain extent be considered an experiment, as they do not answer equally well under all conditions. It might be well to consult the Superintendent of the Experimental Farm at Agassiz, B. C., as to which are the best grasses for that Province.]

QUANTITY OF SKIM MILK FOR PIGS.

SUBSCRIBER, Peel Co., Ont.:—"Can you inform me what is considered the proper quantity of separated milk per day to feed to pigs at from six months of age in order to produce the best results in pork production. Is excessive consumption of milk in proportion to other foods undesirable, and what should the proportion of milk and mixed grains be in a balanced ration?"

[For young pigs just weaned, from four to five pints of skim milk to one pound of wheat middlings will be found very satisfactory.

As the pigs grow larger, the quantity of skim milk may be reduced; and we have had excellent results from feeding about two pints of skim milk to every pound of meal. Of course a somewhat larger quantity of skim milk could be used if available, but I do not think it wise to exceed five pints of skim milk to a pound of meal.

O. A. C., Guelph. G. E. DAY.]

MARE KICKS OVER THE TONGUE.

SUBSCRIBER, York Co., Ont.:—"Could you give me advice how to fix a mare to keep her from kicking over the waggon tongue when hitched double. She is a very quiet beast in the stable."

[We leave this question for our ingenious and generous horsemen to answer. We will be pleased to receive and publish various tried methods of dealing with this and other vices of horses.]

Dr. Saunders' Trip to the West.

The Director of the Experimental Farms has returned from the West, where he has been inspecting the branch Experimental Farms at Brandon, Man.; Indian Head, N.-W. T.; and Agassiz, B. C.

On arrival at Agassiz, Dr. Saunders found the farm in very good condition. The grain crops were well advanced, wheat was 6 to 8 inches high, and barley and oats, which had been sown later, from 3 to 4 inches. Corn and roots were also well up and making thrifty growth. The clover was nearly ready to be cut for hay. The fruit crop was progressing satisfactorily. The early cherries were ripening, and the later ones well advanced. The cherry crop promises to be a good one. Apples and pears had set fairly well and will probably turn out an average crop. Some varieties of plums were heavily laden with fruit, while others were bearing very sparingly. On the whole, it is believed that the plum crop in the coast climate of British Columbia will be about an average one, and far in advance of that of last year. During the time of the Director's visit to Agassiz, the experimental orchards were gone carefully over, and were found to include in all more than 2,000 different sorts of large fruits. Arrangements are being made to shortly publish the list of these fruits, with the notes that have been taken on their quality, which will, no doubt, be of great value to the fruit-growers on the Pacific Coast. On May 24th, during the time of Dr. Saunders' visit, there was a large excursion from Vancouver to the Agassiz Farm, and he thus had the opportunity of meeting many of the residents of the Coast, who expressed their high appreciation of the useful work being done at this Experimental Farm. The ornamental grounds on the farm were in gay attire. The Rhododendrons were in gorgeous bloom, the Laburnums thickly hung with their golden flower clusters, and the Magnolias were very handsome. The Weigelas, Syringas and Deutzias were large in growth and covered with bloom, while the Hollies, Yews, the different species of Cypress and Spruce, and the highly-colored and gracefully cut Japanese maples, all added to the beauty of the scene.

On the return journey, the branch Experimental Farm at Indian Head, Assa., was visited. The grain crops here were found well advanced, but fields in exposed places had suffered considerably from wind storms. The drought also which prevailed all through the Northwest Territories and Manitoba had lessened the growth usually so rapid at this season. Under the influence of genial showers which fell about that time, the grain was fast recovering from the injury sustained, and no permanent damage to the crop was anticipated. The value of the forest shelter belts on this farm for protecting the grain from injury was very marked. It was found in this instance that a belt of trees about 15 feet in height protected the crop for about 750 feet; that is, about 50 feet for each foot in height. Trees and shrubs wintered well, and have made a vigorous growth this spring. At the Experimental Farm at Brandon, Man., the crops looked well. While the drought was rather severe and strong winds had prevailed to some extent, still, very little injury had resulted. The wheat was from 4 to 5 inches high; barley and oats 3 to 4 inches, all of good color and vigorous growth. The forest trees had made excellent progress, and many of the ornamental shrubs were in bloom. Masses of tulips and other perennial flowers made the grounds around the Superintendent's house very attractive.

The crops generally throughout Manitoba and the Northwest Territories are very promising. Central Experimental Farm, Ottawa, June 9th, 1900.

Have you cleaned out the pens and put on a coat of whitewash? How sweet and clean everything smells, and how much better everything looks! The hens appreciate these things, and the eggs will tell the story.

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Following table shows current and comparative live stock prices:

Table with columns: Live Stock, Extreme prices now, Top Prices (Two weeks ago, 1899, 1898). Rows include Beef cattle, Hogs, Sheep, and Spring lambs.

The demand for feeding cattle for the past month has been confined mainly to the best qualities of steers of good breeding. Common and medium are 50c. per hundred lower than two weeks ago. The choice feeding steers sell at \$4.75 to \$5, and common down to \$4.

Fat cattle are selling remarkably well now, due to an excellent export demand. There is such a healthy tone to the trade that heavy receipts have failed to arrest the upward trend. Green grass fed cows are coming more freely as the summer months approach, and buyers have discounted prices about 10c. per hundred, sales being mainly at \$3.45 to \$4.40.

Reports from the West are to the effect that crops are in excellent condition, and stock are all looking fine. Farmers, as a whole, were never so prosperous.

Since warm weather has come there has been a much weaker demand for ewes, which have declined 10c. to 50c. this week.

The season for woolled Colorado lambs is about at an end. Their place is being taken by spring lambs from Kentucky, which are selling at \$7 to \$7.50.

Hog prices are now at a low point, but dealers expect values to go higher, as there is a strong demand for provisions, which have lately advanced.

"Prices of live hogs are getting nearer those of product, and will get still nearer," says a packer. "The cash trade in product is light." Other packers assert that they are having a good demand for product from the south.

Many dealers are advising feeders to hold their cattle for awhile, and not rush them in on the strength of the recent advance in prices. The scarcity of Texas cattle and the demand for good to choice 950 to 1,050 lb. native feeders has forced the prices of light and handy weight beef cattle up so that the spread between 1,000 to 1,100 lb. and 1,100 to 1,200 lb. beef cattle is narrower than usual.

A commission man who lately returned from the cattle grazing country of the Indian Territory says he expects a few cattle from the Territory to come to market during June, and for a general movement to set in early in July. He also expects the Territory to send in the usual number of cattle this year, for the reason that many were held over and wintered there.

Foot and Mouth Disease in Argentine.

The *Revisor of the River Plate* of April 21st, in reference to the outbreak of foot and mouth disease in the Argentine Republic, says: "The passage of another week does not find very much definite news to record in regard to the epidemic which promises to do so immense an injury to the agrarian interests of the Republic. The disease, however, appears to be getting steadily a wider range, and it would be but little matter for surprise were it to spread over the whole of the country, although it is sincerely to be hoped that it may be possible to confine its area. The mildness of the nature of the disease, however, remains still noticeable, and while in foot and in mouth practically all the signs of the disease known by that name are present, it is remarkable that there are few, if any, cases recorded in which symptoms have made their appearance on the udders. It seems hard to believe that a disease which only made its appearance in January should have extended in so short a time over so wide an area, and it seems more probable that it has been lurking in some parts a good while longer, and while, if observed, some measures would doubtless be taken to cure the disease, there are too many instances where the appearance of the disease would not cause any alarm in the minds of either proprietor or major-domo." Regarding the scarcity of milk and the increase in the price of butter which have occurred, our contemporary anticipates that more attention will in future be paid to dairying, and that an attempt will be made in the direction of producing a good "dual purpose" cow.

A Great Market.

Even those who are engaged in shipping to the Union Stock Yards, Chicago, cannot fail to be impressed with the tremendous vitality of the trade there and the gigantic outlet always open. "Too great to be glutted," is a terse comment recently made, which is well backed up by the following official statement: "Monday, May 11th, furnished a good demonstration of this fact when 5,751 cattle, 25,024 hogs, and 26,403 sheep, or a total of over 80,000 animals, arrived in one day, yet prices remain practically almost unchanged. No other live stock market in the world could have withstood such an enormous run in proportion without a disastrous break in prices. Not only were prices not materially changed on that day, but the markets of the following two days were strong and active, showing that Monday's heavy run produced no unfavorable effect on the week's market values. *Drovers' Journal*."

The Future of Cattle.

The improvement in demand for cattle is due to two causes—an increasing population, on the one hand, of beef eaters, and a decreasing meat supply of cattle, hogs and sheep, on the other. There are 20,000,000 more beef eaters in the United States to-day than there were twelve years ago, and as these days are days of prosperity, the per capita of consumption is rapidly increasing. With this indisputable fact staring us in the face, we find the number of beef cattle in the country is smaller by 11,000,000 than it was twelve years ago. Population has increased 20 per cent.; cattle are being marketed at least one year younger than formerly, which in itself cuts down the supply considerably. *From an address by Col. F. M. Woods at the Kansas City Herd Fair.*

The crops in Manitoba and the Northwest, which, though sown under peculiarly favorable conditions, suffered very considerably through the month of May from lack of rain, have not greatly improved in the last two or three weeks. Western Ontario, which felt severely the want of rain through the month of May, has been favored with copious rains, and the crops have made vigorous growth in consequence.





### Arbitrary English Language.

We'll begin with box, and plural is boxes.  
But the plural of ox should be oxen, not oxes.  
The one fowl is a goose, but two are called geese.  
Yet the plural of mouse should never be meese.  
You may find a lone mouse or a whole nest of mice.  
But the plural of house is houses, not hices.  
If the plural of man is always called men,  
Why shouldn't the plural of pan be called pen?  
The cow in the plural may be cows or kine,  
But bow, if repeated, is never called bine.  
And the plural of vow is vows, never vine.  
If I speak of a foot and you show me your feet,  
And I give you a boot, would a pair be called beet?  
If one is a tooth, and a whole set are teeth,  
Why shouldn't the plural of both be called beeth?  
If the singular's this and the plural is these,  
Should the plural of kiss ever be nicknamed keese?  
Then one would be that and three would be those;  
Yet hat in the plural would never be hose.  
And the plural of cat is cats, not cose.  
We speak of a brother, and also of brethren,  
But, though we say mother, we never say methren.  
Then the masculine pronouns are he, his, him,  
But imagine the feminine, she, shis, and shim!  
So the English, I think, you all will agree,  
Is the greatest language you ever did see.

—The Commonwealth.

### Ordered to Africa.

All the doors in the corridor were still closed, all except mother's. She had left hers ajar through the night, in case Bob, waking, had called her name. But Bob had not called; he had slept like a top.

Presently the gray dawn grew pink, and little shafts of light crept through the Venetian blinds, picking out the pictures on the walls, the mirror of the wardrobe, and the gallant figure of Bob himself on the mantelpiece, photographed in full uniform.

Mother's vigil was ended. She rose softly, slipped on her dressing-gown and slippers, and stole along the corridor to Bob's room.

Bob lay, six foot of British manhood, yellow-haired, straight-limbed, deep-chested, sound asleep.

The few dreams that had visited him had been sweet to the heart of a soldier. Not a shadow of fear had disturbed his slumbers. He had been assisting in killing the enemy by shrapnel, rifle and bayonet, in thousands, and now they lay around him like corn after the sickle, and Bob smiled and awoke, and saw mother standing looking down upon him. It was no unusual sight to see her there; yet, to-day something stirred in his breast, and Bob put up his arms and drew her head down to his breast.

"My baby—my boy!" mother murmured. "Oh, my darling!"

Bob bore it with admirable grace, but he did not like it—not a little bit; and as soon as he could he wriggled himself free and asked the time.

There was time and to spare, and mother said, if he did not mind, she would like to read one of the morning Psalms to him; it would comfort her, she said. And Bob consented, like the gentleman he was, and lay still while she read, thinking what pretty hair she had—it fell in a long plait right below her waist. Then she kissed him again, and went; and when he was quite sure he could count on isolation, Bob got up and wandered among the litter of uniform cases and portmanteaus that lay about the floor. Then he looked up his Gleanings, and putting it on, regarded his reflection in the mirror with complacency. And his pride must be excused, for he was a newly-fledged subaltern of twenty years, recalled from leave to rejoin his battalion, which sailed on the morrow for the seat of war.

Having adjusted the cap at every conceivable angle, he replaced it and continued his toilet. His cheeks were perfectly innocent of beard, and twenty minutes saw him fully attired, immaculate in a brand-new suit, and the stiffest and highest of shiny white collars.

Just at this moment a knock came at the door, and his sister, his junior by three years, entered the room. It was easy to see she had been weeping, but Bob expected as much, and in his heart did not resent it. He put his arm round her waist and kissed her.

"Nearly time to be off," he cried, with almost brutal cheerfulness, and turned to strap his portmanteau, whistling a martial ditty.

Nell sat down on the edge of the bed and surveyed the array of baggage with mixed feelings. She was very proud of Bob. He was a dear hero; but if only the war were over and he back again, crowned with glory! Other girls' brothers had gone, and—well, she would not let herself think. She wished she had been kinder to Bob in the days gone by. Now the little unthought-of omissions would be ghosts to haunt her conscience till he was back again. She would like to have told Bob she was sorry, but she knew he would laugh at her for a little goose; and, besides, it would look as if she felt this was indeed good-by; so she choked back the lump in her throat and sat with brave eyes stoically watching Bob, who stood in the window examining his revolver.

But, strive as she would, she could not check the thoughts that the sight brought to her mind. Bob with a revolver in his hand. Yes, but far away in the midst of the din and smoke of battle, surrounded by the foe; daimless, wounded, bloody—dying—dying! With a little cry she rose to her feet.

Bob, who had been taking careful aim at the glass globe, turned at the sound. "Halloo!" he exclaimed. "What's up, Nell? You look as if you had seen a ghost. Then his eyes followed her gaze. "Little coward," he cried, teasingly. "I believe you got funk at the sight of his revolver."

Nell stopped short on her way to the door, then she gave a queer little laugh. "Well, perhaps I did," she said, and went quickly to the room.

Bob went back and finished his packing; then he caught up his portmanteau and helmet case and went downstairs.

In the hall, Perkins, the non-servant, met him, and hurried forward with a scared face. "Oh, sir," he cried, reproachfully, "you shouldn't, really, sir; I wouldn't have had it happen for worlds, sir," he said, pathetically, as he took the case and portmanteau from Bob's hands.

"Oh, it is all right, Perkins," Bob answered, with a shouldered condescension; whereupon one of the housemaids, who was a witness of the scene, hurried off to the kitchen below.

"He's down," she exclaimed, breathlessly, "a camping of his own portmanteau and looking as handsome and cheerful for all the world as if he was a going to be married, instead of off to the war."

"Poor dear!" said cook, as she turned the chapel door, "poor innocent dear!"

Perkins hurried down at this moment. "The pack," he

cried, tragically, "as he's strapped his own traps, and carried down his own portmanteau, and he off to the war! I'd have lost a whole month's wage sooner than this ere should have happened. Supposing he's killed, and I've got to remember that he waited on himself the last morning!"

"Ain't he cheerful?" said Mary, the housemaid. "He don't look as if he meant to be killed."

"Oh! they none of 'em mean to be killed, but that don't make bullets blank cartridges," Perkins answered, grimly.

In the meantime, mother had dressed. She had borne up bravely throughout. Once, though, her lips had trembled; that was when the sound of Bob's gay whistling had reached her ears. But even then, loving pride had flashed into her eyes and choked down sorrow. Her boy was brave, brave and true; and duty, she knew full well, would find him a hero.

She wondered if father, who was in the dressing-room, could hear the sound. She would like to have called to him, only she was just a little hurt at his apparent unconcern at his son's departure. But after all, she thought, he was only a man; he could not know a mother's heart; his breast had not pillowed the little sunny head in the years gone by; he had not cried with joy when the little feet had taken their first unsteady steps across the floor. How well she remembered that day, and how proud she had felt of her son! He was such a fine big baby. She had placed him against a chair, and he had looked up at her with round eyes of wonder; then, when her meaning came to him, he had not hesitated a moment, he had thrown back his little head, and, with a scream of delight, walked bravely forward right into her loving, waiting arms. And now—now—she brushed aside her tears, for she heard father coming.

Father entered the room quickly, but paused on the threshold. To tell the truth, he had thought mother downstairs. He had been trying to remember that day when Bob had ridden the new pony for the first time so pluckily, whether the lad had been breeched or not. He knew the picture was on mother's dressing-table, and he had come in to look at it, and there stood mother with the photograph in her hand.

"Humph!" he exclaimed, "so you have not gone down!" and his voice was not conciliatory, for he felt that everyone that morning, himself included, was wearing his heart on his sleeve, and a sense of lost dignity was irritating him.

Mother's heart swelled at the tone; she put down the photograph and looked up at father with a look in which reproach and sorrow mingled, and then suddenly she turned aside, and her hands busied themselves among the brushes and trays on the dressing-table, for her quick eye had detected that father was wearing odd boots—a but found and a laced-up one. To think of it! He, the soul of precision, to thus betray himself. But there his abstraction stood confessed. And oh, how mother loved him for it! He had been such a stoic, too. Well, there was no accounting for man's ways, but, thank God, he had put on odd boots that morning. She no longer felt lonely in her grief. He cared, too; his heart was aching also for their son's departure. Oh, those blessed old boots!

But she knew his nature, and stood for a moment wondering how best to tell him of his mistake without annoying him. And presently mother, on her way downstairs, tapped at the dressing-room outer door. "One of your lace boots," she said. "I stumbled over it; I have put it down outside." Then she waited until she heard father swearing softly to himself. Then she knew matters would right themselves, and went downstairs.

At breakfast somehow nobody had much to say. Bob wanted to talk, but felt that his one topic, his luck at being sent to the front—would not be exactly congenial to his listeners. So he refrained, and ate a hearty breakfast.

He would carry the memory of his last meal away with him to the far-off land. The tender face of mother, smiling bravely from behind the bubbling, steaming urn; the daintily spread table; the pleasant, luxurious room, with its handsome pictures; the broad bow window, from which he could see the dear old garden where he had played as a child; the loving eyes of Nell beaming upon him across the table. Yes, home was home, although he was the luckiest subaltern in the service.

By and by the trap was at the door, and the servants gathered in the hall to wish him good luck and goodspeed. Bob shook hands with them all and thanked them, and then he stood with mother in the porch alone. He could not see her face distinctly for the mist across his eyes, and the next moment he and father were walking quickly down the drive, along which the dogcart was going slowly forward to await them at the gates beyond. Father remarked that the new gamekeeper was giving satisfaction, and that there was every prospect of the covers yielding better sport the next autumn.

"We shall have you home again before then, my boy," he said.

"Rather, sir!" answered Bob; "we shall not take long to settle this little affair."

At the lodge, the gamekeeper's four boys were standing in a row. They had three-cornered paper hats on their heads, and wooden swords in their hands, and they greeted Bob with sundry salutes and hurrahs. And Bob laughed, and gave them a penny each. "You must keep up your drilling," he said. "We shall be wanting new recruits in the regiment by and by."

And then the gate was opened, and Bob climbed to the back seat of the cart. Far away at the house, something fluttered white from a window, and Bob took out his handkerchief and signalled back again. Then the boys cheered afresh, and the trap turned into the lane, and home was already a thing of the past.

As they drove through the village there was not a doorway that had not someone standing on the threshold to bid him goodspeed.

"Tis the young squire off to the war," they cried one to the other, and the men's eyes flashed and their voices rose; but the women's eyes filled with tears as they saw him drive past. "God keep him," they said, "and comfort his mother's heart!" For they knew that the men gave willingly their lives for their country, but that the gift of the women was something dearer than life.

And all the while Bob's heart was singing to him; he did not know that the song had come down to him from the long-ago time when the Sea Kings had gone forth with their battle songs to be the terror and conquerors of distant lands. He did not know; but so it was, and 'twas a goodly heritage, of which Bob in his joy and impatience reeked little.

So the station was reached and the last good-by spoken; and father grasped Bob's hand. "You will do your duty," father said; "I am sure of it."

And Bob's face flushed. "Thank you, sir," he answered, in a husky voice; "and my love to mother." *Continued Next Issue in The Pall Mall Magazine.*

### Farm Lost, Strayed or Stolen.

The Bangkok Times announces that a large floating island on the Mekong or Cambodia River, in Siam, recently slipped its moorings, and has not been seen or heard of since. There were a number of trees three feet in diameter on the island, and the land was under cultivation. The owner has been hunting diligently for his property, but has not been able to hear any tidings of it. It undoubtedly went down the river with a freshet and has either stranded or gone to pieces.

We beg to acknowledge the receipt of a letter from "A Farmer's Wife," relating to a recent article, "Her Money Makers." Editor, Home

Dept.

### Travelling Notes.

#### AUSTRALIA.

The name of Australia is so closely connected with gold that a few words regarding its mining interests may not be out of place. The "gold diggings," of which one reads, and to which was made (many elderly people may remember) the first mad rush for fabulous wealth, have indeed been a wonderful factor in commerce, and have built up an immense colony, much of which commenced with great privation and untold pluck and ingenuity. Think of the vast difference between working with a steam dredger (costing about ten thousand pounds \$50,000) and the little "cradles" used by the first Australian alluvial miners. To quote from an Australian paper:

"Chemical extraction and the application of steam power to alluvial mining constitute two virtual discoveries which are destined to go on from year to year adding to the gold yield of Australasia for some considerable time to come. There is good reason for the hope that the Northern Territory will benefit very largely by the operations of those capitalists who have undertaken to apply the steam dredger to the work of extracting profits from ground hitherto considered too poor for alluvial mining.

"The amount of gold won in South Australia, including the Northern Territory, during the year 1888 was 31,961 ozs. For the past year the exact figures are not yet to hand, but it is regarded as certain that they will show a decrease amounting to very nearly, if not quite, two thousand ounces, equal to a value of close upon eight thousand pounds. This unfortunate result is undoubtedly due almost entirely to the suspense and uncertainty caused by the purely speculative concessions granted by the Government for the exploitation of immense areas of land in the territory supposed to contain gold. The privileges granted were hawked about in London (England), and large operations in mere scrip-values were conducted from hand to hand. Thus the old story was repeated of 'mining on Change' seriously retarding legitimate mining on the gold fields. More recently, however, not only have arrangements been entered into for the working of alluvial deposits in the extreme north of the Territory, but the returns from the various quartz-mining properties at Arltunga, in the extreme south, have been so encouraging and consistent as to give substantial ground for the belief that a large and permanent industry will be built up."

It is also interesting to read that "There was a time, indeed—namely, in the year 1833—when Victoria alone yielded 3,150,021 ozs., or not far from double the rate at which Western Australia is now producing the precious metal; but that was at a date when the other parts of Australasia were adding but very little to the total yield. Roughly speaking, the addition to the wealth of Australasia owing to the augmented productiveness of its gold mines during 1889 may be set down as three millions sterling.

Queensland has long since passed Victoria as a gold producer, and last year the yield of the northern colony was 917,227 ozs."

There are some towns, at one time prosperous in gold and coal mines, but which are now but sadly reminiscent little places—Newcastle, Bendigo, Ballarat, and Geelong. Bendigo and Ballarat retain some traces of their former wealth, in their beautiful public gardens and edifices. The main street of Ballarat is enormously wide, the finest, it is said, in the Colonies. To quote from an account: "Australian towns have not generally any history. Ballarat is an exception. It was there that the miners, headed by Peter Lalor, sustained a bloody siege against the English troops in 1854. They were beaten, but their rights were acknowledged, and their defeat turned into a victory. Peter Lalor, wounded in the shoulder, took refuge in the Bush. A price was put on his head, but he managed to escape pursuit, and, after the general amnesty, he became successively Member of Parliament, Minister, and President of the Legislative Assembly of Victoria." In spite of this bit of history, Ballarat is very sleepy. Bendigo, they say, is more lively, but not so pretty. Geelong slumbers heavily, but at one time, it seems, they dreamed of making it the capital of Australia, but that honor slipped onto Melbourne.

Now perhaps we've given enough about mining and mining towns out here, but, somehow, we in Canada do not seem to hear so very much about Australia. It is easy enough to keep in touch with the Coast or with the States or Europe, but not so with places so very far distant. Much accruing from this immense distance of Australia from all these other places is noticeable with Australians, many of whom concern themselves very little with news in the Old World. Max O'Rell, in his latest book, "John Bull & Co.," recounts as follows: "I was talking one day to an Englishman who had been established in the Colonies nearly fifty years. We talked about Europe, and I had occasion to mention Bismarck and a few other well-known names. I verily believe he had never heard of any of them before. Presently I said to him, 'Perhaps you do not take much interest in the things that are going on in Europe?'

"My dear sir," he replied, "to tell you the truth, I shall soon have been fifty years in this country, and now I can do without Europe altogether."

Yes, to our minds, all this is due to distance. How often does one come across people in America



even, who have never for years communicated with their homes in England. Formerly, of course, there was expensive postage and slow transit all so different now—but out here in Australia nothing can make the journey really short, and thus it is that you meet many who are, as it were, cut off from their people in the Old Country far more than are we in America, and although, of course, many never lose sight of their home and people, but keep up constant communication, amongst the average class of people, Australia has become not only home, but world to them.

All who have visited Australia seem to agree that never was there a more hospitable country, the people seeming to vie with each other in showering good things upon one. Their lavish generosity, too, when any public call for help is made is characteristic. They have given immense sums towards the war in the Transvaal, although the home calls upon the purse have been most urgent. Within the last few months disastrous bush fires have destroyed hundreds of miles of property, sheep, cattle and crops, and rendering many families homeless and penniless. But all calls seem to be responded to, and, after all, is there any country, at least that one knows anything about, where generous help is not ready? "One touch of nature makes the whole world kin." There lies the keynote—*sympathy* human, God-given sympathy.

**Historical.**

**GREAT WARS FROM LITTLE CAUSES.**

Although war, as moralists teach us, is the last argument nations should resort to in settlement of their disputes, it has frequently been brought about by trifles light as air, little incidents from which have resulted awful sacrifice of life.

"With what streams of blood has the failure of a few drops of ink been avenged." Those were the words of a great writer lamenting the bitter war between Poland and Sweden in the 17th century. The King of Sweden, in reading a despatch from the King of Poland, noticed his own name and titles were followed by two "et ceteras" while three were appended to the name of the King of Poland. He took this in such bad grace that he declared war, and the strife was carried on for six years.

It has frequently been stated that the accidental spilling of a glass of water caused the wars of the Spanish Succession. The circumstances of the occurrence were as follows:

At a great State ball in Paris, Mrs. Masham was holding in her hand a glass of water, which was spilt over the Marquis de Torey, whereat he, thinking this premeditated, took umbrage. Recriminations followed, disaffection set in between the English Ambassador and the French Government, who came to loggerheads. Hence the war.

The loss of a teapot once plunged the Empire of China in civil war which lasted for nearly a hundred years, devastating the land, and causing the destruction of thousands of lives. A great Chinese potentate was travelling in an obscure region of the celestial domain, and he, like the man going down from Jericho, fell among thieves, who robbed him of everything, including his beloved teapot. An appeal to the Chinese Emperor resulted in the speedy return of all the goods except the teapot; but having great influence at Court, the nobleman persuaded the Emperor to send a body of soldiers to recover it. When the soldiers arrived, the inhabitants of the districts which the bandits infested took sides with the latter, and, the faction spreading, the whole country was ablaze.

The fact that the Venetians at one time chose to shave their chins was primarily responsible for a war with Turkey. The Turks swear by the beard of Mahomet, but when the Venetian Ambassador who was to sign the treaty ceding the supreme power over Candia to Turkey was asked to take this oath, he replied that it was not the oath of his countrymen, that in Venice the men wore no beards. "Neither do the baboons," was the astonishing answer. It so stung the Venetian that he refused to sign the treaty, and in the bloody protracted struggle which followed as a consequence, the lives of more than a hundred and fifty thousand people were sacrificed.

**A Gorge in the Rockies.**

At this time of the year a "scenery" picture always seems appropriate, and where can one find more beautiful scenery than amongst the Rockies? This picture gives a graphic view of the grandeur—the awful grandeur (to use a well-worn term) of these districts. During the past few months the "Travelling Notes" in the *ADVOCATE* have described so much of the Rockies "scenery" that we feel sure this picture will be doubly interesting. There is a saying, "What would the world be without books?" and one might easily add, "What would the world be without pictures?" The rugged rocks, the lofty trees, the rushing torrent—all are brought before our eyes in this picture with wonderful vividness and truth.

"Do people ever have corns anywhere except on their feet?" "Why, yes; farmers have corn in the ear."



**There's Room for Two.**

"Trudging along the slippery street,  
Two childish figures, with aching feet  
And hands benumbed by the biting cold,  
Were rudely jostled by young and old.  
Hurrying homeward at close of day  
Over the city's broad highway.

"Come under my coat," said little Nell,  
As tears ran down Joe's cheeks, and fell  
On her own thin fingers, stiff with cold.  
'Tain't very big, but I think 'twill hold  
Both you and me, if I only try  
To stretch it a little. So now don't cry!"

"The garment was small, and tattered, and thin,  
But Joe was lovingly folded in  
Close to the heart of Nell, who knew  
That stretching the coat for the needs of two  
Would double the warmth, and halve the pain  
Of the cutting wind and the icy rain.

"Stretch it a little!" Oh, girls and boys,  
In homes o'erflowing with comforts and joys,  
See how far you can make them reach—  
Your helpful deeds and your loving speech.

notice and reward even such a small kindness as the giving of a cup of cold water, we ought not to forget to say "Thank you" when people are kind and thoughtful to us. Do you think your mother stands for hours working in a hot kitchen because she likes to work? I think it is because she forgets herself altogether in making things comfortable for others. Why does your father get up so early and work hard all day? Is he working for himself, or is he trying to provide you children with clothes and bread and butter? Some people grumble because roses have thorns. Other and more sensible people are very glad to see that thorns have roses. There are plenty of pleasant things to be found in the world, if you are on the lookout for them.

"There are nettles everywhere,  
But smooth green grasses are more common still;  
The blue of heaven is larger than the cloud."

I am not asking you to look for nettles or clouds, but rather for the beautiful flowers of kindness, which bloom everywhere. Keep your eyes open and a scribbler handy, and you will be able to collect enough material in a month to fill a dozen letters.

Don't forget my new address.  
COUSIN DOROTHY.

**A Little Boy's Plan.**

"If I had made the calendar," said Bobbie yesterday,  
"I sort of think I'd have it fixed in somewhat different way.  
I'd not have put the Christmases so very far apart;  
I think that six months 'tween 'em would please any youngster's heart."

"And scattered through the other months I'd have a lot of times  
On which we'd decorate the house and gayly ring the chimes;  
On which we'd have, not Santa, but some other Saint like him,  
Who'd go about and gratify our every little whim.

"Who'd bring us cakes and candy in the middle of July;  
Who'd bring us cars and wagons when the June sun's in the sky;  
Who when September came about would bring us lots of things  
To make us all as happy as a band of Brownie Kings.

"It wouldn't be like Christmas altogether, for, you know,  
July would find the country warm and without any snow,  
The man for June could enter by the coal hole, just as we  
Expect dear Santa Claus to come in by the chimneye.

"In this way we'd have lots of things a-coming all the year,  
And waiting for the Christmas-time would not be long and drear,  
And best of all, we'd not wear out our toys, and I am sure  
The old ones would be newer when we gave 'em to the poor."

**THE QUIET HOUR.**

**The Grand Motive.**

"Strange that we creatures of the petty ways,  
Poor prisoners behind these fleshy bars,  
Can sometimes think us thoughts with God ablaze,  
Touching the fringes of the outer stars,  
And stranger still that, having flown so high,  
And stood unshamed in shining presences,  
We can resume our smallness, nor imply  
In mien or gesture what that memory is."

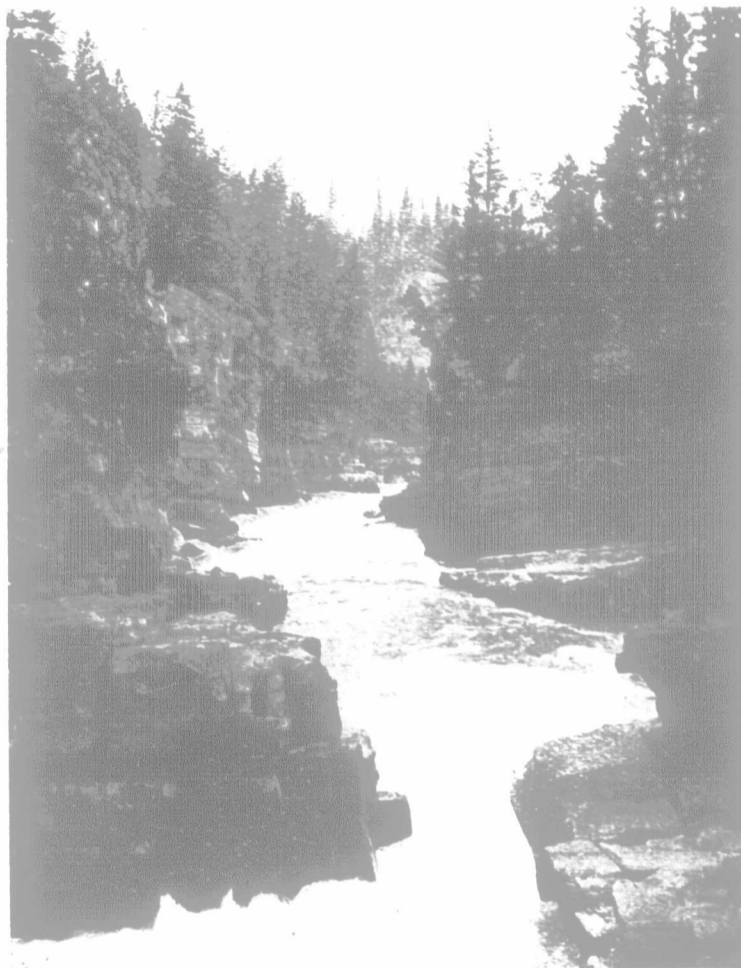
What a constant struggle some lives are, a weary treadmill existence of monotonous duties performed over and over again. To do the same work every day, apparently making no progress, with no particular object in view, with nothing to look forward to, unless it may be the hope that death may put a stop to this drudgery. What a deadening existence for an immortal soul which is made in the image of God!

"It is all very well to talk," you may say, "but what can we do to ennoble and uplift such a life of toilsome work?"

Did you ever hear of the terrible "sweat-shops" where men, women, and even children toil frantically year after year, without pure air, without exercise, without the smallest change of work to rest tired muscles or refresh aching hearts? They are not cheered by the beauty of God's changing world, as you are. They only see the bare ugliness of a cramped world made by man, a world that never varies in its dreary monotony. Even the sunshine can hardly force its way in, to brighten up things a little. Such a life as you can hardly conceive of, you who fly from one task to another, drinking in, all the time, the beauty and fragrance of the country.

Are those lives always utterly joyless and miserable, then? No, thank God! One kind of sunshine can creep in even there and beautify everything. Sometimes the pale face will flush with pleasure, the weary heart will beat faster, the dull existence brighten. Not a single change may have been made in the work or surroundings, and yet the fair blossom of love can bring true joy even there. Love is a great magician, able to change anything to gold. Human nature is the same to-day as it was when "Jacob served seven years for Rachel, and they seemed unto him but a few days, for the love he had to her."

But there is a higher love that can do greater things still. A love which has made men and women rejoice in the midst of sufferings too awful for description. This is not a sentimental fancy, it



A GORGE IN THE ROCKIES.

Your gifts of service and gifts of gold;  
Let them stretch to households manifold."

**A Lookout Regiment.**

Do you remember the story of the Magic Mirror in our last number? Now, to make sure that none of you use any of the glass from that mirror, either as windows or spectacles, I am going to start a new society.

Of course, you are all anxious to be soldiers, in these warlike times. How would you like to enlist in a corps called the Lookout Regiment?

Here are the rules:

1. Each soldier must be on the lookout for a chance of doing a kindness.
2. Each soldier must be on the lookout for good qualities in other people.

There are only two rules, you see, and surely they will not be hard to keep. If you want to enlist, send me your name and address and two one-cent stamps for a ribbon badge, which you can wear.

Any soldier who is under fifteen years of age may compete for a prize. The first prize competition will close on the last day of August. Prizes will be given for the best letters telling about some act or acts of kindness done by some of your acquaintances, not by yourselves. I don't want you to make your own kind actions public. Address your letters, Cousin Dorothy, Box 92, Newcastle, Ont.

I will publish the names as they come in, so you will be able to see how our army is growing. Anyone may join, and I hope you will hunt up recruits among your schoolfellows for our Lookout Regiment. The more the merrier. You will find plenty of kindnesses to write about, if you are on the lookout. I don't want out-of-the-way subjects, just everyday things. If God is not too great to



is an historical fact, which has astonished the world over and over again. But the love of God is not only able to triumph over death, it can also fill the dreariest life with gladness. Do not imagine that you love God if you care nothing for your fellow-creatures. "If a man say, I love God, and hateth his brother, he is a liar; for he that loveth not his brother whom he hath seen, how can he love God, whom he hath not seen?"

Love is a flower that may be cultivated in any climate, and it often seems to flourish best in dark and cloudy weather. In families where selfishness and quarrelsomeness reign supreme while all goes well, sorrow and adversity reveal unexpected depths of tenderness. When pain and death step over the threshold of the home, "brother clasps the hand of brother," and love comes out from his hiding-place. But why should we wait for such a painful awakening? Why not keep our love for each other strong and vigorous all the time? It will not get shabby with use like our Sunday clothes or best parlor carpet. If it is used every day and all day, it only grows brighter and more beautiful. Poor thing, it will get very weak and faded if it lives always in the dark.

"We have careful thoughts for the stranger,  
And smiles for the sometime guest;  
But oft for 'our own'  
The bitter tone,  
Though we love 'our own' the best."

We can be bright and amusing if a visitor be present, but for our own family we keep only fretful tones, sharp words, or a dead silence. We can be neat and even dainty in dress if a stranger is likely to see us, but for the loving eyes of father or mother any kind of untidiness will do. We can brighten the house with flowers, smiles and cheery words, if we only think it worth while. Worth while! What are we put there for? Does God intend us to be drudges and slaves? Are we not His children, and will He be satisfied with a forced, sullen obedience? Would any earthly father?

People are often cynical about men's motives. They may say that the hope of selfish advantage, in this world or the next, is a stronger inducement than any other. Put this theory to the test. If a house is burning down, and to enter it means almost certain death, tell the crowd that thousands of dollars are inside for the taking. Who will attempt to go in? Say that a woman or child or helpless invalid is there, and see how many will be eager to risk their lives in trying to save another who may be an entire stranger. Are they moved by any thought of reward in this life or in the hereafter? Surely not. We may not all dare to risk our lives in trying to save another, but we all feel that we should like to be brave enough. Even those who deny their Maker understand this impulse which has often impelled reckless and hardened men to lay down their lives for others, and "greater love hath no man than this, that a man lay down his life for his friends." Men who profess to think that this life is all, do not hesitate to risk that life loyally and readily when duty calls. If they believed their own theories, would not their action be the height of folly? Yet, who dares to condemn? Do we not all understand the paradox that he that loseth his life so nobly really finds it? This divine impulse to save others at any cost of suffering to themselves is strong in men—although only a few are brave enough to carry it out in action—and it is one proof that they are the children of Him whose name is Love.

You see I am true to my name of "Hope," and believe most strongly in the inherent nobleness of human nature, which is made in the image of God.

"Give, for God to thee hath given;  
Love, for He by love is known;  
Child of God and heir of heaven,  
Let thy parentage be known."

HOPE.

**Recipes.**

**GOOD SPICE CAKE.**

Two eggs, 1 cup molasses, 1 cup sugar (brown), 1 cup cream, 2 teaspoons baking powder, half a nutmeg, 1 teaspoon ground cloves, 1 tablespoon butter, flour to thicken, rather more than layer cake.

**BOILED CUSTARD WITH RHUBARB.**

Beat the yolks of three eggs lightly; stir into them 2 small tablespoons cornstarch dissolved in a little milk, and 1 teacup of sugar. Bring two quarts of milk to a boil, then take off the fire and add the eggs, etc., a little at a time; put all on the stove again until thickened. Stir in the whites, beaten lightly, and flavor.

**RHUBARB AND BANANA JELLY.**

To one pound of red rhubarb (cut in pieces) add one cup of sugar, half a cup of water, and 1 tablespoon of gelatine. Bake or stew the rhubarb, and add the other ingredients. Take a cupful of bananas (sliced), add the juice of half a lemon, half a cup of orange juice, half a cup of sugar, and 1 tablespoon of gelatine. Mix the juices and sugar, and melt the gelatine in a little water. When beginning to set, fold in a cup of whipped cream and put in a mold with the rhubarb in layers.

**LEMON BISCUITS.**

One cup butter or lard, 2 cups sugar, 2 eggs, a pinch of salt, 2 cups sweet milk, 5 cents' oil of lemon, and 5 cents' baking ammonia. Let the ammonia dissolve in the milk all night (or at least a few hours), and mix all with enough flour to thicken and roll out like cookies. Cut with square cutter. Half this quantity is enough to make at once for an ordinary family.

**STRAWBERRY PUDDING.**

To a large teacupful of finely-powdered bread crumbs add the yolks of four eggs and a quart of milk. Stir these together, flavor with vanilla, and bake. When it is done, remove it from the oven and spread on the top a thick layer of strawberries which have been slightly mashed and very well sugared, and over this a meringue of the white of the eggs sweetened and flavored to taste. Return to the oven and brown lightly.

**STRAWBERRY PUFFS.**

With the fingers rub into one pint of sifted flour a generous tablespoonful of butter and add a pinch of salt and one and one-quarter teaspoonfuls of baking powder, and then stir in sweet milk enough to make a soft dough, little more than half a cup. Roll the dough out to about half an inch in thickness and cut into squares. In the center of each piece put four or five berries. Fold the dough over to cover the fruit, and roll lightly between the hands until it is a round ball. Place the ball on an earthen plate and put the plate in a steamer and cook fifteen minutes. Serve as soon as they are taken from the steamer, accompanied with strawberry sauce.

**He was a Hero.**

A country gentleman, going his rounds after his dinner, in the dusk of the evening, saw a great snake coiled up in his garden. With singular bravery and presence of mind, he immediately got an ax, cut the creature into a hundred pieces, returned to the house, told everybody about his exploit, and went to bed. Next morning his gardener came to him in great tribulation.

"Well, George?"  
"A curious thing has happened in the garden, sir."  
"Yes, George."  
"It's cut to pieces, sir. Some villain must have done it."  
"A villain, George! 'Twas I did it, with my own hand, George!"  
"You, sir?"  
"Yes, I, George. I don't suppose there's another man in the country with the pluck to do it but myself."  
"To do what, sir?"  
"To cut to pieces and kill that frightful snake."  
"Lawk, master! 'twasn't a snake—'twas only the garden hose!"

**Waltzing Mice.**

The Japanese have a queer little domestic animal—a black and white mouse, with pink eyes. The peculiarity of this breed of mice is that when other baby mice are just beginning to walk, these are beginning to waltz; and they keep up their waltzing the greater part of their waking hours all their life.

If several mice are put together, they often waltz in couples; sometimes even more than two join in the mad whirls, which are so rapid that it is impossible to tell heads from tails. If the floor of their cage is not smooth, they actually wear out their feet, leaving only stumps to whirl on. These remarkable whirls seem to be as necessary to the waltzing mouse as a midair somersault to the tumbling pigeon.

**Chickens Recognize Whistle.**

A curious spectacle is afforded travellers on the Monon railroad at this town, the junction of the main line and the Indianapolis division, says a correspondent at Monon, Ind. Two of the through trains, carrying dining cars, meet here, and the dining cars are set out. The cooks clean their kitchens, throwing the refuse overboard, and the chickens in the neighborhood come and feed on the scraps. There is not a chicken within a half mile that does not recognize the whistles of the engines pulling the passenger trains, and when they are sounded for the station it is the signal for the chickens to come running, flying over fences and hustling pell-mell to get on the ground for the feast.

**Paper Teeth.**

Paper teeth are made by a dentist in Lubeck, Germany. One of his patrons has a set which has been in use for thirteen years, and gives complete satisfaction.

Hotel Porter. The man in No. 11 says the rain leaked down on his bed last night and soaked him to the skin. Manager. Charge him a shilling on his bill for a bath.

**Puzzles.**

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

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

1—ENIGMA.  
The poor and needy find a "friend" in me,  
The sailor his "direction" when at sea,  
The tired traveller "shelter," "peace," and "rest,"  
And they that mourn find "comfort," and are blest,  
The spendthrift finds a "home" wherein to stay,  
Now, what am I? I'm seen most every day. ROLLY.

2—DIAMOND.  
1, a letter; 2, a kind of Chinese tea rolled up like tobacco; 3, an iron frame to confine type; 4, a beautiful Indian tree with fragrant flowers; 5, a Turkish coin about three-fifths of a British penny in value; 6, that part of the cereal plants which contains the flowers and seed; 7, a letter. ROLLY.

3—CHARADE.

Twelve ounces make a FIRST,  
Said little Julius Caesar,  
I learned that in school to-day  
From Junius, the teacher,  
He SECOND me great sums to do  
In business calculations  
About TOTAL, instalments, weights,  
Liquidation and sequestration. IKE ICICLE.

4—CHARADE.

Old Mrs. Sippi lived in Alabama,  
Close by old Waka-waka's second,  
Of I've seen her feasting on banana,  
Of to her cottage we she beckoned,  
She was very jealous of old Mr. Sippi;  
Many a time she'd told her trials to me,  
How "FIRST" ever spent his evenings flirting  
With that charming young Miss Souri.  
The affair throughout the State was TOTAL,  
And Mrs. Sippi bowed her head in shame  
When the report became far from local.  
She curses ever the day she changed her name. IKE ICICLE.

5—BEHEADINGS.

Behead a flower, and leave a fluid,  
Behead separately, and leave a portion,  
Behead to rave, and leave an insect,  
Behead the conception of a thing in its most perfect state,  
and leave to trade.  
Behead a knavish fellow, and leave a place where troops lodge.  
The beheaded letters will form a noted city. FLO.

6—RIDDLE.

I am good, I am bad, I am high, I am low;  
I travel with you wherever you go;  
I stay with a rat in its hole, or a mouse;  
I dwell with Lord Minto in Government House;  
With kings and with emperors, princes and tsars,  
I sail on the ocean or ride on the cars,  
Wherever they go and whatever they do,  
I'm always along with them, helping them through,  
There's no one so lowly, there's no one so high;  
There's naught that can crawl, there is naught that can fly;  
There's naught that can move on the land in the sea,  
That owes not its very existence to me,  
The beet in the garden, the lily and rose,  
The corn and the clover—whatever man grows;  
The trees in the forest, the shrubs on the hills,  
I am a great secret to all but to Him  
In whose sacred presence the brightest is dim,  
Men of science have sought me, and seek me in vain,  
They do not, and cannot, my secret explain. F. L. S.

7—PALINDROME.

On the sand sea-shore  
Water dashes,  
Over all the lee-shore  
Spouts and splashes,  
When a fort I raised up  
Waves submerged it,  
O'er a flag-staff braced up,  
TxDXSEXEXSDXT. F. L. S.

**Answers to May 21st Puzzles.**

- 1— h a b i t  
s e l a h  
e l b o w  
s e m e n  
s e d g y
- 2— Hit her war
- 3— Tom John,
- 4— r s j w  
w i s e r  
s r w j Each letter is the initial of a bird.  
j w r s j
- 5— A double thread.
- 6— Kidnap.
- 7— Credit, tired, tied, edit, tied, diet, die, Ed, d.
- 8— Procrastination.
- 9— General Cronje.

**SOLVERS TO MAY 21ST PUZZLES.**

M. R. G., "Diana," "Sartor," Lizzie Conner, "Ike Icicle," "McGinty," "Flo," "Dixie," Sila Jackson, Edna McKinnon.

**ADDITIONAL SOLVERS TO MAY 5TH PUZZLES.**

Edna McKinnon, "Dixie," "Ike Icicle," Lizzie Conner.

**COUSINLY CHAT.**

"McGinty" would like some sort of composition contest better than "Memory Gems." What do the other cousins think?  
"Paris." Some one mailed answers from this office bearing no name. Who owns them?  
"Flo." You have followed our rules very well, and we are pleased to number you in our circle. (1) "Delete," (2) "abbr.," and (3) "phon.," mean (when in the puzzles) as follows: (1) that one or more letters are to be taken from the original word, (2) that the form used is an abbreviation only, (3) that the word is simply used according to sound. Your rebus was not quite up to the standard, but try again.  
"Dixie" is very welcome to our Corner, and we hope she will be successful in winning a prize.  
Edna. A tiny girl is also very welcome.  
M. N. What's the matter in your corner of the globe?



## A Great Industry.

### THE MANUFACTURE OF CHAMPION BINDERS, MOWERS AND REAPERS

BY THE WARDER, BUSHNELL & GLESSNER COMPANY.

#### HISTORICAL SKETCH OF THE ENTERPRISE.

As a result of inventive genius and business ability combined in the highest degree, Champion reapers and mowers became the exemplification of their name during the earliest years of the reaper industry, and the subsequent development of the Champion "system" of harvesting machinery has made Springfield one of the largest cities in Ohio and the second city in the world in the manufacture of agricultural implements. The inception and rise of the Champion practically covers the period of development of improved agricultural implements in America, and Springfield enjoys a position by no means the least among the centers of invention and development from which have gone forth

turing this reaper on a large scale and introduced it throughout Ohio and the west; and a few years later, when the New York self-raker was brought out, he took a license under the patents on it. In this way the reaper industry began at Springfield, the New York reaper, or combined reaper and mower, as it was made by Mr. Warder, becoming the nucleus of the Champion system. As the country developed the business grew rapidly and taxed Mr. Warder's resources to the utmost to extend his facilities for manufacturing so as to keep pace with the demand during the years prior to 1860, and later during the Civil war.

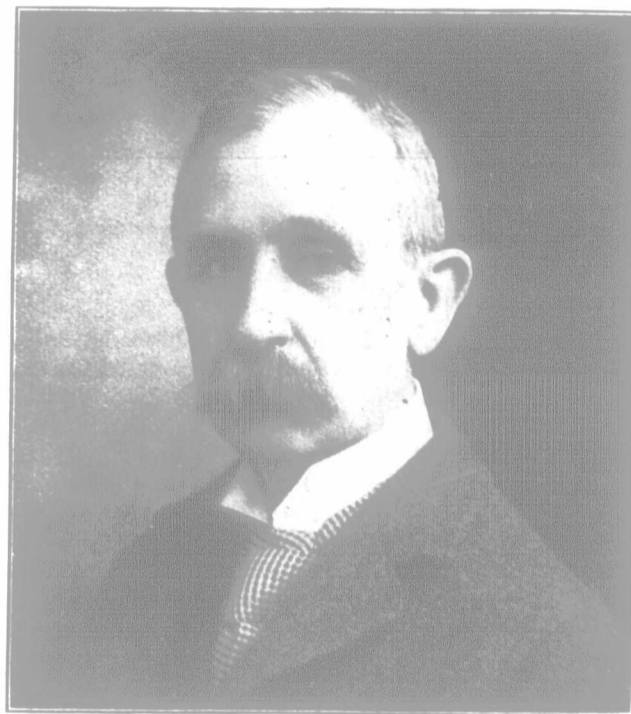
During these years the industry had been gathering recruits. Early in the "fifties" Mr. Warder associated with himself J. C. Child, adopting the firm name of Warder & Child, and continued under this style until January, 1866. In the meantime Mr. Warder had performed a duty that few of the manufacturers in his line undertook; he had gone to the front during the Civil war and served as lieutenant of a company organized among his men. In his absence from Springfield the business interests of his firm were looked after by his partner, Mr. Child, and by Ross Mitchell and J. J. Glessner. While in the service Mr. Warder became intimately acquainted with A. S. Bushnell, who was serving as captain of the next company in their regiment. The friendship thus established grew stronger as the great struggle neared its close and led to Mr. Bushnell becoming actively interested, upon his return home, as a partner in the business. In 1866 Warder & Child dissolved, and a new firm

petition with the older house alongside of which it was working. This competition eventually became keen, and continued until 1867, when overtures were made for a division of territory and a consolidation of their machine interests, so that each house could conduct its business without demoralizing rivalry. Recognizing valuable features in Whitely's machine, the Warder interest readily assented to this proposition, and terms were agreed upon in the fall of 1867. In carrying out the plan the Champion Machine Company was organized to handle territory ceded to it by the two old houses, and Mr. Whitely's brother became prominent in it.

This consolidation of interests was a fortunate step. It gave to Springfield a strength of organization that was possessed by no other pioneer manufacturing center in the entire industry. By its terms Mr. Warder and his associates had the lead in the business management of the Champion interest, Mr. Whitely was placed at the head of experimental work for the three houses, and Mr. Fassler, unexcelled as a mechanic and superintendent, organized their factory methods. The needs of the west for harvesting machinery gave a new impetus to the demand for the Champion, and after eighteen years of pioneer work, Warder, Mitchell & Co. were able to accumulate a surplus beyond the requirements for enlarging their facilities. Hitherto their business had absorbed in its growth all the profits that could be made from the manufacture and sale of their machines. Springfield sent out better machines than ever before, and was able to market them to better advantage. The good points



HON. A. S. BUSHNELL.  
President the Warder, Bushnell & Glessner Company.



J. J. GLESSNER, Chicago.  
Vice-president the Warder, Bushnell & Glessner Company.

the means of increasing five- to tenfold the producing capacity of the American farmer.

The Champion interest was fortunate in having almost from the first an organization that was unquestionably the strongest in the reaper industry, and the result was that the production of Champion reapers and mowers multiplied until in 1878 it had reached 70,000 machines per year, giving Springfield the first position in this class; and in the subsequent evolutions of the trade which have carried down more than half the capital invested in this industry in the United States, the Champion has kept to the front with still greater product, and to-day its organization is, if possible, stronger than before, in the hands of the pioneer house that established the reaper industry in Springfield.

The manufacture of reapers was begun at Springfield in 1849 by Benjamin H. Warder. Mr. Warder had come to Ohio from the east at an early day and settled in Springfield. The water power available there induced him to establish a sawmill, later a grist mill and woolen mill, and a factory for making small agricultural tools which was soon developed into a reaper factory, and still later he established a shop for making wagons, plows and other agricultural implements. The introduction of the hand-rake in New York attracted Mr. Warder's attention in 1850, and he bought an interest in the patents, paying what was then considered an enormous sum for an investment of so uncertain a character, \$30,000. He at once began manufac-

ture of both systems were combined in the new Champion interest, and a series of improvements was begun that far increased their lead in the reaper industry. The use of malleable iron in machine construction was introduced in the trade by the Champion interest, a malleable iron foundry having been established in 1871 by the three houses. A few years later an equally important step was taken in the introduction of steel construction in their reapers. The Champion interest was also noted for the care given to details in the manufacture of their machinery, and for the high grade of materials which they used. Still another influence that has operated in Springfield's favor, and that becomes more striking as the years pass, is that her workmen have "grown up" to the harvesting machine industry, and are familiar with its details from their boyhood. They have been bred to this business, and have a peculiar adaptation to it, and their industrious habits and high character have without doubt imparted, in some degree, at least, a higher character to the machines they make.

was organized under the name of Warder, Mitchell & Co., consisting of B. H. Warder, Ross Mitchell, A. S. Bushnell and J. J. Glessner. This arrangement expired by limitation in 1879, and the firm was then organized as Warder, Bushnell & Glessner, Mr. Mitchell retiring.

The reaper industry had other recruits also in these early days. In 1851 a reaper trial had been held near Springfield, at which all the machines then in competition in the trade were entered. A young farmer's boy who witnessed this trial, William N. Whitely, was destined to become famous in later years as identified with the Champion system, winning in fact the popular title of the "Reaper King." In 1852 he built his first machine, with a view to making a combined reaper and mower. An improved experimental machine was built by him in 1853, and used in 1854, and in 1854-5 he perfected and began in a small way to manufacture the first successful combined self-raking reaper and mower that was put on the market. This was an important step in the development of harvesting machinery, one that was destined to win for its inventor a foremost place and a full share of credit in the development of the Champion system. In 1856 Mr. Whitely entered into partnership with Jerome Fassler and O. S. Kelly, under the name of Whitely, Fassler & Kelly, and they began the manufacture of Whitely's machine, overcoming gradually the difficulties incidental to pioneer work, and becoming firmly established by 1860. From this time on the new firm grew in influence, and came into com-

It was the original intention of the parties to the consolidation of 1867 that the Warder interest should in time (after a certain number of machines had been manufactured) assume control of the business management and the entire trade of the Champion interest, but this agreement was not carried out, and the three divisions of territory and three business organizations were kept distinct until, in 1890, Warder, Bushnell & Glessner purchased the rights of these two houses, and enlarged their facili-

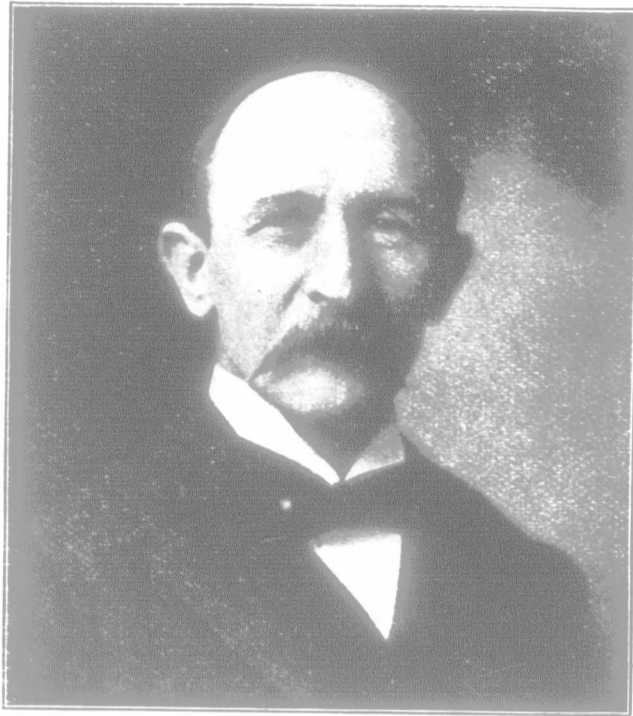


ties to provide for the increased obligations in furnishing Champion machinery for the entire country. The firm incorporated as the Warder, Bushnell & Glessner Company about this time.

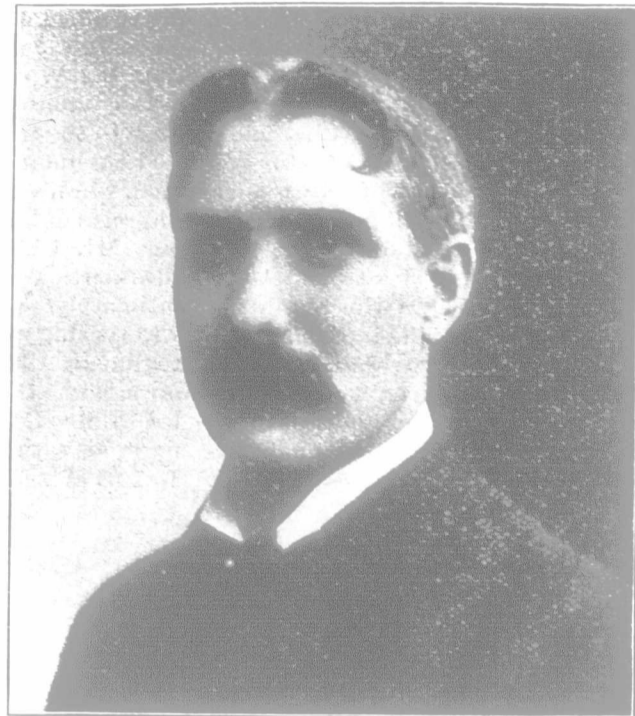
The business of the Warder, Bushnell & Glessner Company has increased steadily from the day it was established by Mr. Warder, in 1849, having had a gradual, conservative growth, without strikes, financial difficulties or other setbacks. For a generation they have operated one of the largest factories in the world, and they have made as many machines during their career as any other harvesting machine house. Their machines have always

cutter bar is pulled directly by the pole, and is not in any way pushed, as are the bars on all other front-cut mowers, thus giving the Champion the greater cutting capacity that has hitherto belonged only to rear-cut mowers, without any of the dangers incident to that style and the means for lining the knife with the pitman. This is unique in its simplicity and result, and gives the Champion an advantage over other mowers in this important part. The most pronounced features of the Champion binder, which distinguish it from all others, are the improved elevator and the eccentric wheel for driving the binder, which equalizes the strain of

ings and equipments are now all modern and of the highest class, with every protection against fire, in substantial brick buildings with automatic sprinkling systems and a special waterworks of their own with every device for making binders and mowers in the most expeditious and practical and substantial way, with complete arrangements for ventilating and heating and cooling and lighting, and for removing the dust and dirt of manufacture: with foundries and machine shops and wood shops and paint shops and storehouses with immense engines and dynamos and electric power and light producers, with natural gas and oil and other fuels,



**GEO. B. GLESSNER, Springfield, O.**  
Secretary and General Manager Eastern Sales Department of the  
Warder, Bushnell & Glessner Company.



**R. C. HASKINS, Chicago.**  
General Manager Western Sales Department of the Warder,  
Bushnell & Glessner Company.

been the best that mechanical ingenuity and skill could make from the best material obtainable, and the company's financial position, as a result of their long and successful career, is second to none, a circumstance that augurs well for the future of the Champion. Their facilities for manufacturing have been enlarged from year to year, a recent step in this direction having been the erection of a mammoth foundry, more than 1,000 feet in length, covering about two acres, and equipped with the latest mechanical devices for facilitating work, including

binding, and gives an increase of power at the time needed for compressing and ejecting the bundles.

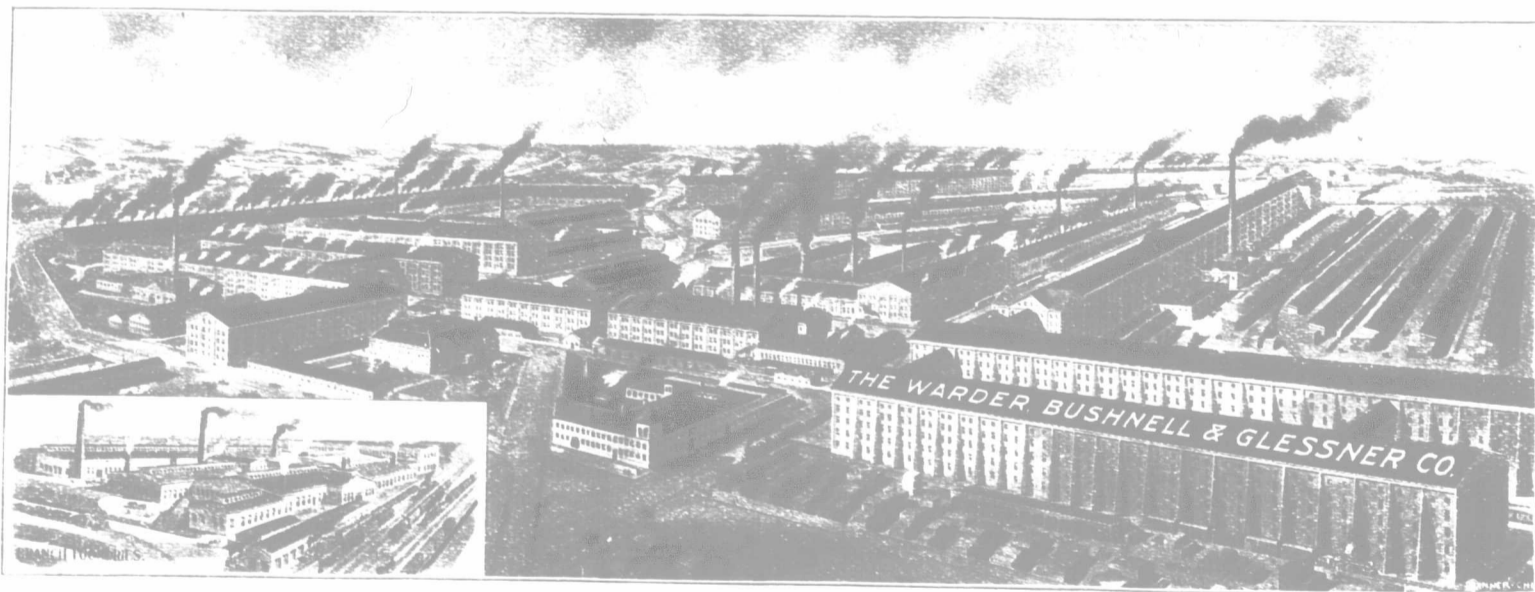
More patents on improvements in binders and mowers have been taken out by this company in the last five years than by any other, or indeed by all others combined, and in every way they are not only keeping up with the procession in their line, but leading it. The great growth of this business shows what energy and perseverance and determination will do, combined with capital and experience.

The Champion factories at Springfield, O., are

each used for what it is best adapted—all these are marvels in their way.

The Chicago offices and warehouse occupy the great five-story and basement brick building at the corner of Adams and Jefferson streets.

The great demand for Champion machines in the United States and in Europe has until recently used up all of the great facilities in the Warder, Bushnell & Glessner Company's plant, but the present product, greatly increased by the facilities added recently, is sufficient to justify still further



THE CHAMPION FACTORIES AT SPRINGFIELD, OHIO.

a system of heating and ventilation that changes the atmosphere once in five minutes and carries away the smoke and gases that have hitherto made foundries so disagreeable. These annual improvements are necessary, because the Champion is constantly increasing its hold upon the machine trade of the world. All of the buildings are of the most substantial character of stone and brick, with slate roofs, and filled with the most improved and efficient machinery for the purpose.

The Champion machines are noted for their distinctive features. For the purpose of this sketch mention need be made of only a few of these. The peculiar plan of the draw cut mower, by which the

largest and most complete of any in the world engaged exclusively in making grain and grass cutting machinery, and are operated to the full extent of their great capacity throughout the year. These works were established in 1849, and are the oldest in date of foundation, except one, now in existence. In the early days they were twice seriously damaged by fire, and some years ago were entirely destroyed. Fortunately in these disasters other buildings were available, and there was no interruption in the business and product of this company, and it has gone on increasing every year of the half century since its foundation. But the fire gave the company a new start, and the build-

extension of trade, and they have recently determined to offer their machines to the farmers of Manitoba and the Northwest Provinces, in the belief that the superior merit of Champion machines would insure for the manufacturers a very large percentage of the trade. They have therefore opened a general office in Winnipeg, which they have stocked up with machines and repairs, and it is the intention of the Company to push the trade and to look as closely after the interests of their customers in Manitoba and the Provinces as they have heretofore looked after the interests of their customers elsewhere. All communications addressed to the Company at Winnipeg will receive prompt and careful attention.



MUSIC.

Britons Remember, best patriotic song, 40 cts. We keep the largest and best assorted stock of sheet music and music teachers' supplies in Western Canada. Our prices are the lowest, and our Musical Instruments are thoroughly reliable. Send for one of our \$7.00 talking machines, the Columbia Graphophone. BARROWCLOUGH & CO., 470 Main Street, Winnipeg, Man. Mention this paper.

Clydesdales and Shorthorns.

Young stallions, bulls, and heifers. Herd headed by Best Yet—14371 and Minthorn—21084—bulls bred by Hon. John Dryden and H. Cargill & Sons. PRICES ON APPLICATION. D. McBeth, Oak Lake, Manitoba

GOSSIP.

Plowing matches will be held on June 27th, at Virden and Hamiota. P. W. Green, of Moose Jaw, has sold to H. McDougall the Clydesdale stallion, Prince Charlie 2257, by Maccombie 4555, by Macgregor 1487; also the Shorthorn bull, Duke of Gloster, to Dr. Turnbull, Yellow Grass.

A. D. Gamley, of Brandon, has for a number of years been building up a flock of Leicester sheep, using rams from John Kelly and other noted Ontario breeders. From the condition and general thrift of his flock, now numbering about 150 head, it is evident that his location on the banks of the Assiniboine River, some eight or nine miles east of Brandon, is admirably suited for sheep-breeding, there being abundant shelter among the bluffs along the river banks, unlimited pasture of fine quality, and always a liberal supply of good hay, straw and chaff. The sheep barn is a frame structure 60 by 30, resting on stone footings, nine feet clear to the loft floor, with a large loft overhead for storing feed. A wood-stock windmill does all the grain crushing and straw cutting, and gives every satisfaction. A lean-to 30 by 60 feet affords stabling for the horses and cattle. Nearly all the straw from the farm is utilized for feed and bedding, and the manure applied to the land. Mr. Gamley finds that by the liberal use of manure his land is steadily improving in quality, and that his wheat crop is surer than before manure was used. The lamb crop has been a satisfactory one, and Mr. Gamley will be able to show some choice specimens at the coming Summer Fairs. A considerable area is devoted each year to potato culture; this year five or six acres are in crop.

Below is a list of the parties who received pure-bred bulls free from the Canadian Pacific Railway:—Joseph Pritchard, Holmfild; S. L. Holden, Deloraine; John Lawrence, Mather; J. Anderson, Poplar Park; J. Dueck, Steinbach; A. Lepky, Niverville; J. Fries, Grinthal; G. Johnke, Clear Springs; Chas. Johnson, Oakhanoek; Geo. Miller, Cook's Creek; J. W. Yeo, Stuartburn; John Rowan, Grand Point; W. Frost, Rathwell; A. Sewe, St. Claude; Geo. Minshull, Pierson; M. J. Bastard, Pierson; David Forsyth, Pipestone; Alex. Wilson, Reston; E. T. E. Hilderbrand, Coteau; Mark Devlin, Weyburn; Wm. Langrish, Oxbow; W. H. Bryce, Percy; J. M. J. Mulvihill, St. Laurent, Man.; S. R. Porteous, Woodlands, Man.; Eli Keeping, Austin, Man.; R. Kellett, Sewell, Man.; F. W. Chapple, Ebor, Man.; J. Dermody, Montgomery, Assa.; R. Bickerton, Elkhorn, Man.; Thomas Douglas, Dongola, Assa.; P. J. Wickberg, Percival, Assa.; John Boyd, Indian Head, Assa.; J. E. Wright, Kenlis, Assa.; Alex. Kendred, Moffat, Assa.; Peter Brandt, Davin, Assa.; R. S. Cook, Prince Albert, Assa.; J. J. Derkson, Hague, Assa.; J. Quilting, Rosthern, Assa.; John McGillivray, Cottonwood, Assa.; P. M. Brett, Edenwald, Assa.; Wm. Huggins, Birtle, Man.; Wm. Hamilton, Solsgrith, Man.; Emerson Bligh, Millwood, Man.; A. W. Fisher, Shellmouth, Man.; Thos. Henry, Oak River, Man.; J. A. Fraser, Dauphin, Man.; John Mahoney, Ste. Rose du Lac, Man.; Wm. Fennell, Tamarisk, Man. In addition to the above, 17 bulls have been distributed among farmers in Northern Alberta.

J. A. S. Macmillan, of Roxy Stock Farm, Brandon, Man., has been doing a considerable business in Clydesdales this season. As previously noted in these columns, he has sold the sweepstakes Clydesdale stallion, Burnbrae, to Mr. Bailey, of Carberry. To replace Burnbrae, Montauk, an Iowa-bred colt, was imported, but was sold shortly after landing to a syndicate at Bradwardine. Mr. Macmillan then returned to Iowa, and brought in the 8-year-old horse, Pilgrim 7020, by McClure 6023, together with a carload of Clydesdale mares, mostly in foal. These, added to the mares imported early in the spring from N. P. Clark, of St. Cloud, make up a very serviceable lot. Fine quality of bone, good feet, and plenty of Clydesdale character characterize the bunch. One filly, 3 years old, has been sold to Mr. Black, of Brandon Hills, and is claimed by Mr. Macmillan as being one of the best mares ever brought into the Province. She will be seen at the leading summer fairs. Another filly, a 2-year-old, still in Mr. Macmillan's possession, is one of the best actioned Clydesdales we have seen. She is a big, clean-cut filly, with beautiful clean bone and good feet, and her action would put many a Hackney to shame. At both knee and hock she moves full and free. Anything that will move with her at the Industrial will have to be a good one. This, by the way, is one of the colts by the stallion, Pilgrim, above mentioned. He is a low-set, thick horse, with clean, hard bone and good feet, has every appearance of being a mover, and looks all through like a stock horse of high quality. His sire, Melburn (imp.), is by Macgregor, out of a mare by Champion of the North.

Donald McBeth has a choice location for a stock and grain farm, among the poplar bluffs north of the Assiniboine River, about 5 miles from Oak Lake station. For many years Mr. McBeth has been breeding Clydesdales and Shorthorns. His present stock horse is Young Keir Darnley (2322), by Keir Darnley (8716), dam Janet of Tuloford (6069). There are 1 Clydesdale brood mares, either with foal at foot or in foal, good, useful, strong brood mares. Two

Our

Agricultural Library Offer.

A RECENT bulletin prepared by Prof. J. B. Reynolds, of the Ontario Agricultural College, Guelph, 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:

SOIL AND CROP.

- THE FERTILITY OF THE LAND.—Roberts. 372 pages. \$1.25.
A BOOK ON SILAGE.—Wall. 185 pages. \$1.00.
SOILS AND CROPS.—Morvov & Hunt. \$1.00.
FORAGE CROPS.—Thos. Shaw. \$1.00.

LIVE STOCK.

- 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.
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.
PIGS—BREEDS AND MANAGEMENT.—Sanders & Spencer. 175 pages. \$1.00.
FEEDS AND FEEDING.—Henry. 600 pages. \$2.00.

GENERAL AGRICULTURE.

- AGRICULTURE.—C. C. James. 200 pages. 30 cents.
FIRST PRINCIPLES OF AGRICULTURE.—Foorhces. 207 pages. \$1.00.
AGRICULTURE.—Storer. 1,875 pages, in three volumes. \$5.00.
CHEMISTRY OF THE FARM.—Warrington. 183 pages. 90 cents.
FARMYARD MANURE.—Aikman. 63 pages. 50 cents.
BARN BUILDING.—Sanders. 280 pages. \$2.00.
IRRIGATION AND DRAINAGE.—King. 502 pages. \$1.50.
IRRIGATION FOR THE FARM GARDEN AND ORCHARD.—Henry Stewart. \$1.00.

DAIRYING.

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

POULTRY.

- ARTIFICIAL INCUBATING AND BROODING.—Cypher. 116 pages. 50 cents.
PRACTICAL POULTRY-KEEPER.—Wright. \$2.00.

APIARY.

- THE HONEYBEE.—Langstroth. 521 pages. \$1.40.

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. 335 pages. \$1.50.
HORTICULTURIST'S RULE BOOK.—Bailey. 312 pages. 75 cents.
THE NURSERY BOOK.—Bailey. 365 pages; 152 illustrations. \$1.00.
AMATEUR FRUIT-GROWING.—Samuel B. Green. 587 inches; 131 pages, with numerous leaves for notes; bound in cloth, and profusely 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 as premiums for obtaining new yearly subscribers to the FARMER'S ADVOCATE, at \$1.00 each, according to the following scale:

Table with 2 columns: Books valued at from \$0.30 to \$0.65, for 1 new subscriber. Values range from .90 to 5.00.

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.

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

young stallions, 2 year-olds, Kruger and Cronie, are promising youngsters; the latter a thick set, chunky little horse; the former a dark bay, up-standing colt, with good clean bone and nice action; both by The Mackinnon (8322), by Lord Erskine (174), dam by King of the Princes. The Shorthorn herd consists of about 20 females, headed by the stock bull, Best Yet—14371—bred by Hon. John Dryden, by the imported bull, Bolderwood, dam by imp. Lord Glamis, grandam by imp. Royal Hampton. This bull, now somewhat up in years, has proved himself a good stock-getter. To take his place, the bull Minthorn—21084—bred by H. Cargill & Sons, by imp. Royal Member, dam by imp. Albert Victor. This is a 4-year-old, red, low, thick-fleshed, deep-bodied bull, of exceedingly good parts, but perhaps somewhat undersized. A couple of young bulls, by Best Yet, and a number of heifers are offered for sale.

Following is a list of the bulls shipped from Manitoba to Territorial points by the Pure-bred Cattle Breeders' Association, under the auspices of the Territorial Government. Purchasers in each case deposited \$5.00 with the Territorial Government, which is expected to cover incidental expenses, the C. P. R. having furnished transportation free to the Northwest Government: Wm. Martin, St. Jean, Galloway bull to Thomas Johnston, Maple Creek; Wm. Martin, St. Jean, Galloway bull to Chas. McCarthy, Maple Creek; A. Graham, Pomeroy, Shorthorn bull to James McNew, Swift Current; J. S. Robson, Manitou, Shorthorn bull to Henry Brier, Medicine Hat; J. Lawrence, Clearwater, Shorthorn bull to A. W. Page LeSeuer, Morley; J. Lawrence, Clearwater, Shorthorn bull to Jas. Murray, Wapella; J. Lawrence, Clearwater, Shorthorn bull to M. A. Jarvis, Wetaskiwin; W. D. Hysop, Killarney, Shorthorn bull to Jas. McNece, Swift Current; W. D. Hysop, Killarney, Shorthorn bull to Wm. Phillips, Red Deer; Wm. Sharnan, Souris, Hereford bull to J. H. C. Willoughby, Saskatoon; Wm. Sharnan, Souris, Hereford bull to S. Fletcher & Son, Olds; Wm. Sharnan, Souris, Hereford heifer to S. Fletcher & Son, Olds; J. H. Kinnear, Souris, Shorthorn bull to A. E. Lunn, Aldina; Walter Lynch, Westbourne, Shorthorn bull to V. Miniszewsky, Medicine Hat; Jas. Bray, Longburn, 3 hogs to Mrs. Shaw, Calgary; J. G. Barron, Carberry, Shorthorn bull to Jas. Robertson, Kinistino; Wm. Chalmers, Hayfield, Shorthorn bull to Theo. P. Newman, Pincher Creek; R. J. McComb, Griswold, Polled Angus bull to Robt. Cruickshank, Rush Lake; K. Melvor, Virden, Shorthorn bull to Jos. Cole, Red Deer; J. W. Van Coon, Elk Hills, Galloway bull to F. S. Mitchell, Edmonton.

WM. CHAMBERS' FARM, OAK LAKE.

The above farm comprises some 1,100 acres, adjoining the town of Oak Lake on the east. A small herd of registered Shorthorns have recently been purchased, a number being from the herd lately owned by W. J. Hellivell. The herd is headed by a young roan bull of fair size and quality, recently imported from the East, from the herd of John Gowenlock, Port Elgin, Ont., a number of the cows having dropped calves recently, and before long there will be a nice sized herd on the place, as the owner intends making further additions to the foundation already laid. A large barn, 50x130 feet, on a 16-foot stone foundation, is being built, the lower story being completed and carefully laid out for the housing of cattle and horses. A number of good, useful horses are kept, mostly of Clydesdale breeding. The racing stallion, Idler, is owned and kept on this farm. Mr. Chambers has recently purchased a number of pure-bred bulls, of Eastern breeders, which he disposed of to the ranchers and breeders of the West.

NOTICE.

A Novel Idea. Mrs. Egerton, an English lady, who did nursing work in Dawson City, carried out an original idea in London, which greatly gratified the C. P. R. people. Mrs. Egerton had been much struck by the scenery along the line of the C. P. R., as well as with the service which the Company rendered across the Continent, and she determined to let the folk in England know something about both. For this purpose she availed herself of a fancy ball at Covent Garden, to appear in a costume which took first prize for originality, and which illustrated Canadian scenery and the C. P. R. in a highly striking manner. The lady's hat was trimmed in a manner to show the C. P. R. trains in motion; her cape set forth Lake Ontario, Lake Superior and the Rocky Mountains, while the front of her dress showed a train rushing at full speed through the wonderful ravines in the far Northwest. In the lady's hand was a banner which contained the coats of arms of the several Provinces constituting the Dominion. The tout ensemble, as the London press remarked at the time, was wonderfully striking and impressive, and gave at a glance an idea of a country of which Londoners, previous to the jubilee, knew very little. Mrs. Egerton, as Mr. Baker, the C. P. R. agent in London, pointed out, did all this 'off her own bat,' and solely with the patriotic view of making Canada known. The lady is coming out again, probably this summer, when she will make an extended tour of the country.

GUERNSEYS.

This is the dairy breed for ordinary farmers. Large, vigorous, and hardy, giving plenty of rich milk. Several fine young bulls for sale at very reasonable prices. A few heifers can be spared.

Address— SYDNEY FISHER, 17-y-o ALVA FARM, KNOWLTON, P. Q.

For Sale:

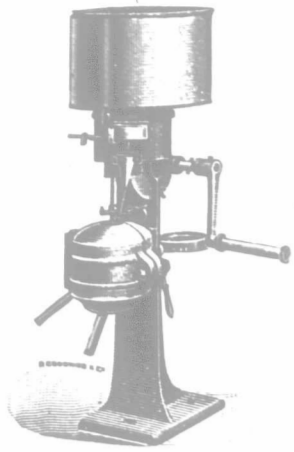
The Holstein bull calf, Keyes Count Pietertje, now 3 months old. Price, \$75. His dam is Maggie Keyes. She has the second largest three-year-old milk record for one year in the world, also a butter record of 262 lbs. in 7 days. Also a bull calf from a daughter of Manor De Kol.

A. D. FOSTER, Halloway, Ont.









**LISTER'S**  
**Alexandra and Melotte**  
**CREAM**  
**SEPARATORS**

Have the largest sale and give the best satisfaction. One of our Separators, by increasing the quantity and improving the quality of your butter, will add one-third to the annual profit from your cows. The man who carries on dairying without a Cream Separator is behind the times, and will go in the hole. Do not buy a Separator until you have studied our lists, etc., which are sent on application to

**R. A. LISTER & CO.,**

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232 KING STREET, WINNIPEG, MANITOBA.

**OGILVIE'S PRIZE**

WINNIPEG EXHIBITION.

BEST Three Loaves Homemade Bread made from

**Ogilvie's Flour**

1st PRIZE, \$25.00. 3rd PRIZE, \$7.00.  
2nd " 15.00. 4th " 3.00.

**GOSSIP.**

W. F. Cochrane, of McLeod, has purchased 10 or 50 Galloway bulls from the Stair ranch of the Canadian Land & Ranch Co.

D. H. Andrews, Manager of the Canadian Land & Ranch Co., and President of the Western Stock Growers' Association, spent two or three days at Medicine Hat this week, looking over the Company's farms at Stair and Dunmore. While returning from spending the winter in England, Mr. Andrews went to St. John, N. B., where he inspected the shipment of thoroughbred cattle now in quarantine there. Mr. Andrews expects these cattle to arrive upon the range about the 1st of July. *Medicine Hat News.*

George Gordon, living about 6 miles south of Oak Lake station, has laid the foundation of a Shorthorn herd by selecting a number of the best females from the herd of W. J. Helliwell, among which are Bertha 3rd, a big, strong roan by Landseer. She has now a bull calf at foot by Thomas Speers' imp. Baron's Pride. Red Floss, Rose of Ralplton, Young Emma, all by Landseer, with calves at foot by Mr. Gordon's herd bull, Chief of Ralplton, whose sire was the Winnipeg sweepstakes bull, Royal Don. A very useful lot of cattle they are, and as Mr. Gordon is an enthusiastic stockman and good feeder, they are certain to do well with him.

A short visit was recently made to Beresford Stock Farm, Brandon, and we are informed by the proprietor, Mr. John E. Smith, that sales have been satisfactory this season so far, both in Shorthorns and Clydesdales. The stock bull, Golden Measure 29957 (7213), an illustration of which appeared in the Christmas number of the FARMER'S ADVOCATE, December 24th, 1899, is giving every satisfaction as a sire, and Mr. Smith is pleased to learn that young bulls from Golden Measure are now being used in the herds of W. D. Platt, Hamilton, Ont., and J. & W. Russell, Richmond Hill, Ont. Prince Charles (imp.), the Clydesdale stallion recently bought from Mr. John Isaac, Markham, Ont., is out at the Beresford farm, where he is being bred to the Clydesdale mares. So far, Mr. Smith has five colts from registered mares sired by the young stallion, McRim (2270), owned by J. R. Rankin, Hamiota, Man. They are all doing well, and are quite up to Mr. Smith's expectations. Among recent sales are the following: Sir Arthur (imp.) (1257) stallion, and a young 2-year-old stallion, Lord Rhodes, from May Flower (imp.) and Press-rang (imp.) to Francis Cosgrove, Whitehead, A. S. The 3-year-old Clydesdale stallion, Sir Dooms Greenway (2361), by Sir Arthur (imp.) and Lady Kennair (imp.), to Mr. Layford, Peterborough. 10 Shorthorn bulls to the Indian Department, to George Rankin, Hamiota, an 18-month-old bull, sired by Lord Stanley, from Lord Layford's cow; 13 Hereford bulls, from a

imported from Ontario, to Messrs. Spencer Bros. & Phipp; Shorthorn bull to Win McKelvey, Roseland; Shorthorn bull to Thomas Clark, Alexander; to Mr. Henderson, of Lyleton, a Shorthorn bull, recently brought in from Ontario; 14 pure-bred cows, all bred to Lord Stanley 2nd; and 7 heifers, sired by Lord Stanley 2nd, and in calf to Golden Measure; also 6 bulls to Messrs. Rutherford & Connors, of Orillia. Mr. Rutherford and his sons own a large cattle ranch in Colorado, and no doubt many of the recent purchases will be sent there. Also sold to the same firm a carload of yearling steers. A young Abbotsburn heifer, sold last winter to the Experimental Farm, Brandon, recently dropped a calf sired by Golden Measure. To James Cox, Beresford, a heifer sired by Lord Stanley, in calf to Golden Measure; to R. A. Cox, Beresford, a Stanley heifer, in calf to Golden Measure; to S. Lyodd, Beresford, a heifer in calf to Golden Measure; to J. W. Henderson, Lyleton, a Windsor 2nd cow and heifer, both in calf to Golden Measure.

Thomas Speers, of Oak Lake, has recently sold his imp. bull, Baron's Pride, to J. H. Kinnear, of Souris; also a heifer calf by Chief of Roseland, out of Rose of Dunmore. To A. K. Strathy, of Hartney, the cow, Snowflake, and a bull calf. This cow was recently imported from the herd of John Gowankock, Port Elgin, Ont. To Duncan McKinnon, of Oak Lake, a heifer, imported from the same breeder, and to Archie Speers, of Griswold, three heifers. Mr. Speers' herd has been pretty well thinned out, but he is contemplating another trip to Ontario for more stock. A couple of nice smooth little Berkshire sows were nursing litters at time of our visit.

E. L. Lang, Spruce Bank Farm, Oak Lake, well known as one of the oldest breeders in the Province, still maintains his herd of Shorthorns and Berkshire pigs, and has his farm and pedigree in better shape than ever for continuing the breeding of pure-bred stock. It was a pleasure to see the old familiar matrons, Laurel Lustre, Gaiety of Spruce Bank, Queen of Beauty, Nellie H., and others, all doing business at the old stand, producing regularly strong, lusty calves, and most of them swinging toddlers that would be no discredit to special purpose dairy cows. One of the choicest young bulls in the stable, a roan grandson of Laurel Lustre, by Sir James (dam by Jubilee Chief, by Royal Don), a very promising 10-month-old youngster. Another bull of about the same age, by Donald McBeth's stock bull, Red Yell, out of Nellie H., and another red by Sir James' out of Queen of Spruce Bank and the old white bull, by the same name. Of the latter sex, the pair, however, only Donald of the latter was nursing a litter of twelve nice youngsters by a Highland cow, Prince Lee, of McKeith's brood.

**THE PROVINCIAL**  
**Mutual Hail Insurance Co.**

Incorporated in 1891 by) **OF MANITOBA.** (Manitoba Government.

PRESIDENT—  
John Kenton, Farmer, Deloraine. VICE-PRESIDENT—  
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**The Original Hail Insurance Co.**

MANAGED BY THE FARMERS THEMSELVES.

During the nine years of its existence, this Company has paid about **ONE HUNDRED AND TWENTY THOUSAND DOLLARS** for losses sustained by farmers by hail storms. The assessments have ranged from 12 1/2 cents to 25 cents per acre, which is the maximum that can be charged. The average amount paid for losses has been \$5.50 per acre for total loss, and at the same rate for partial losses.

**BOARD OF DIRECTORS FOR 1900.**

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JOHN KENTON, Farmer, Deloraine. J. MOLLAND, Farmer, Glendale.  
C. J. THOMSON, Farmer, Virden. H. B. BROWN, Farmer, Morden.

**ROBERT STRANG, Managing Director, WINNIPEG.**

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

No.	CAPACITY.	Churns from
0	6 gl.	1 to 3 gl. cream.
1	10	1 to 5 "
2	15	2 to 7 "
3	20	3 to 9 "
4	25	4 to 12 "
5	30	6 to 14 "
6	40	8 to 20 "



**CANADIAN DAIRY SUPPLY COMPANY,**  
236 KING ST., WINNIPEG, MAN.

Agents Manitoba and the Territories.

**COMPLETE**  
**REORGANIZATION.**

The Manitoba Farmers' Mutual  
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A MUTUAL Hail Insurance Co. of the farmers, for the farmers.

**CROP ACREAGE ONLY INSURED. REMUNERATION \$5.00 PER ACRE**

Limit of assessment reduced to **Four per cent.** (equals 20 cents per acre). **\$2,000,000 Insurance in force.** Good reliable local agents wanted. Correspondence solicited.

Address **W. C. GRAHAM, MANAGER, BOX 672, WINNIPEG.**

**NOTICE.**

Consumers' Cordage Co. Mr. E. Hedde, representing the Consumers' Cordage Co., of Montreal, called at this office recently, and intimated that it was the intention of his company to open a branch office in Winnipeg to facilitate the handling of their western trade.

New Firm of Nurserymen. There is an immense field opening up in this western country for the nurseryman, but none need apply except those who have had actual personal experience in this climate, and that can only be acquired by years of patient toil. To the man with the experience and the necessary capital there is unlimited possibility. Our people, both in town and country, are making home-lands, and to that end must have some variety of trees, shrubs and flowers. The capacity to buy such stocks is only limited by the scarcity of supply. It is with

pleasure that we announce the launching of a new, and we believe a reliable, firm into the nursery business. The following letter speaks for itself:

To the Editor, FARMER'S ADVOCATE:

We have bought the garden and stock of Thomas Bartlett, of Brandon, a very fine situation, and intend to convert it into a nursery. Mr. Robert Harden has had twelve years' experience in some of the best nurseries in England and Scotland. This, coupled with my twelve years as Foreman of the Forestry Department of the Experimental Farm, we think makes us competent to run a nursery with credit to ourselves, as well as to the benefit of our patrons. We will sell nothing but hardy stock that we know will grow.  
H. C. ROMEA, Brandon.

PLEASE MENTION FARMER'S ADVOCATE.



**NEWTON'S**  
Heave, Cough, Distemper and Indigestion Cure



**GUARANTEED.** A SPECIFIC For wind, throat and stomach troubles. Ninth year. Used in veterinary practice prior. \$1 per can. Dealers or direct. Book & references free. **Newton Horse Remedy Co. (D), Toledo, O.** Trade supplied by Lyman Bros. & Co., Toronto.



**300 Horses For Sale.** Clydes and Percherons

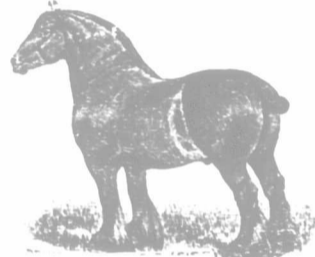
Can be seen in five minutes' walk from station, main line C. P. R.

Write or apply to **T. C. OLLEN,**

Dunmore Jct., N-W T.

**J. E. SMITH**

Has received from Ontario a shipment of twelve **Shorthorn bulls**, which are for sale. Also for sale a number of **home-bred heifers**, sired by Lord Stanley H. = 2229 = and Golden Measure (imp.) (72613) = 2957 =, and the Clydesdale stallion, Prince Charles (imp.). These, being the best that money and experience could buy, are required to maintain the high reputation of the stock of the Beresford and Smithfield Farms. Come and see the stock, or write for what you want, to



For sale, a number of **Clydesdale mares and fillies**, all registered; will be served by Prince Charles (imp.). All animals for sale, except the stock bulls, Lord Stanley H. = 2229 = and Golden Measure (imp.) (72613) = 2957 =, and the Clydesdale stallion, Prince Charles (imp.). These, being the best that money and experience could buy, are required to maintain the high reputation of the stock of the Beresford and Smithfield Farms. Come and see the stock, or write for what you want, to

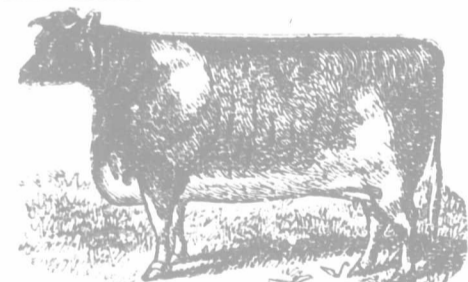
**J. E. SMITH,**  
P. O. Box 274. Smithfield Ave., BRANDON.

**SHORTHORNS**



Masterpiece = 23750 =, by imp. Grand Sweep, out of an Indian Chief dam, at head of herd. Imp. Large Yorkshires for sale.

**JAMES BRAY,**  
LONGBURN, MAN.



**PIONEER HERD OF SHORTHORNS**

Won the gold medal at the last Winnipeg Industrial Exhibition; also first for bull and two of his get, first for cow and two of her progeny, and numerous prizes for individuals. They were bred right here, and I can usually show a few generations of their ancestors, and am always pleased to show them.

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

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

Brooders and importers of **Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs** a specialty. Young stock for sale.

**Shorthorns** 4 Heifers and 2 Young Bulls. Choice ones of Royal and other blood. Imp. also Adair's. Their stock bull. Also imported **CLYDESDALE STALLION.** A. A. L. GRAPPELIER, Kipling, Man.

**SHORTHORNS, YORKSHIRES AND TAMWORTHS.**

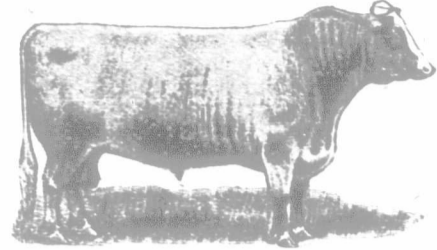
Stock of all ages and both sexes at prices according to quality. A few sides of tanned skins undertaken. Imp. and tam. and all kinds of stock in the Winnipeg district. Can be seen at our place.

**W. G. STYLES,**

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

**"PRAIRIE HOME STOCK FARM."**

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



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

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

**Bulls! Bulls! Bulls!**



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

**ANDREW GRAHAM,**  
Pomeroy P. O.

**THREE BULLS**

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

**GEORGE RANKIN,** Hamiota, Man.

**GOSSIP.**

A BIG IMPORTATION OF SHORTHORNS. From our Old Country exchanges we learn that Messrs. W. G. Pettit & Son, of Freeman, Ont., have purchased in Scotland for importation, about 70 head of Shorthorns, selected from a number of well-known herds, including those of Messrs. Marr, Cairnbrogie, Young, Tillbouries, Wilson, Pieriesmill, Summers, Whiteside, Merson, Craigwillie, and Law, New Keig. We hope to give fuller particulars in a future issue of this, one of the largest importations in recent years.

**SHROPSHIRE AT HOME.**

At the Shropshire County Show, held at Shrewsbury, May 23rd and 24th, the prizes for Shropshire sheep were awarded as follows: Shearling rams: 1 and 4, A. E. Mansell; 2 and 3, Mrs. M. Barrs; 3, R. P. Cooper; grand he, W. F. Inge. Rams, any other age: 1, R. P. Cooper; 2 and he, A. Mansell; 3, A. S. Berry; he, A. Bradburne, J. Harding; 4, T. Fenn, T. S. Minton. Five shearling rams: 1, P. A. Muntz, M. P.; 2, W. F. Inge; 3, Mrs. Barrs; 4, R. P. Cooper. Five shearling ewes: 1, W. F. Inge; 2, Mrs. Barrs; 3, A. Bradburne; 4, R. P. Cooper; 5, P. A. Muntz, M. P. Five ram lambs: 1, A. Mansell; 2, J. Harding; 3, W. Thomas; 4, G. L. Foster-Harter. Five ewe lambs: 1, G. L. Foster-Harter; 2, A. E. Mansell; 3, J. Harding; he, R. P. Cooper, W. Thomas.

**NOTICES.**

**Soiling Crops and Ensilage.**—Having had many years of satisfactory experience with the practice of soiling stock, Mr. F. S. Peer, the well-known dairy stock authority and writer, has put into form a new book on agriculture, entitled "Soiling, Ensilage, Barn, Stable, and Silo Construction." It gives his personal experience, as well as the results of many well-conducted experiments in soiling cattle, sheep and horses, and the most economical methods of growing and handling soiling crops and ensilage; also the stable management of farm stock, together with detailed plans of barns and stables and silo construction. Elsewhere in this issue we publish Chapter X., which deals with cutting, gathering and feeding soiling crops, which is peculiarly seasonable and helpful to those who have learned that pasturing is not the best way of summering cows for profit. The book, which has just been issued, contains 250 pages, neatly bound and illustrated. It is published by M. F. Mansfield, New York. Copies can be secured through our office at the regular price of \$1.00.

**Noxious Weeds.** The Department of Agriculture of the Northwest Territories has just issued Bulletin No. 2 on "Noxious Weeds and How to Destroy Them." The pamphlet has been prepared by T. W. Welling, Territorial Weed Inspector, and includes copious extracts and cuts of weeds from Dr. Fletcher, Botanist of the Dominion Experimental Farm, Ottawa. Addresses delivered by Dr. Fletcher and Mr. Welling at Agricultural Society meetings last year are included, together with a chapter entitled "What is a Weed?" Discussions and illustrations of all the principal noxious and many other weeds not classified as noxious are embodied in the pamphlet, as well as a list of 29 of the more prominent weeds of the Territories, with their chief characters. A copy of the Noxious Weed ordinance also appears in the pamphlet, and altogether it makes one of the most complete weed books that has ever been issued. Every farmer, school teacher, and other persons interested in the subject, should secure a copy of this pamphlet, which can be obtained free of charge from the Commissioner of Agriculture, Ottawa.

**"DOMINION" PIANOS AND ORGANS**



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



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

**Maw's Poultry Farm, Winnipeg.**

BREEDS BEST STRAINS OF UTILITY BREEDS.

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

**Birch Hills Stock Farm,**

Owned by **MRS. E. E. GREENALL,** - Yorkton, Assa.



Announces having purchased from Dr. F. C. Sibbald, "The Briars," Sutton West, Ont., his entire herd of Western Shorthorns. My present stock consists of 52 head of choice breeding. Such noted sires as Royal Barnpton, Duke of Athol, Butterfly Duke, Mazurka Duke and The Dandy have been used in the formation of this herd. For terms and particulars address—

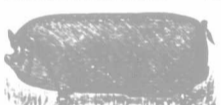
**STEPHEN TOYE, Mgr.,** - Yorkton, Assa.

**THORNDALE STOCK FARM,**  
MANITOU.

**JOHN S. ROBSON, PROP.**

Females of all ages FOR SALE. Write for particulars.

**Shorthorns and Berkshires.**



BREEDING AND QUALITY RIGHT. Write or call for prices. 3 nice young bulls for sale now.

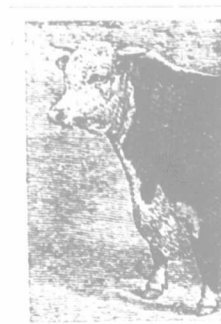
**R. L. LANG,** Spruce Brook Farm, OAK LAKE, MAN.

**POLLED ANGUS**

**Two Bull Calves** Apply to **Aged 4 months.** 12-b-m **F. J. Collyer,** breeder of Polled Angus and Berkshires, Welwyn, Assa.

**SOUTH SIDE FARM CO.,**

White Bear, Minn. Have fine butter-bred Holstein Friesian bull calves for sale at reasonable prices. Johanna Rue 2nd St. Paul De Kol at head of herd.



**POPLAR GROVE HEREFORDS**

THE LARGEST HERD IN CANADA. STOCK OF ALL AGES FOR SALE.

**J. E. MARPLES,** DELEAU, MAN.

**Galloways and Shropshires**

BULL CALVES by the sweepstakes bull of '98 at Toronto. In Shropshires we have about 30 ewes and 20 ram lambs for sale.

**T. LLOYD-JONES & SONS,** BURFORD, ONT.

**Galloways**

APPLY TO **T. M. CAMPBELL,** Hope Farm, St. Jean Baptiste, Manitoba.

PLEASE MENTION FARMER'S ADVOCATE.

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

Choice young stock for sale. 24-2 y-m

**JERSEY BULLS**

2 high-class Jersey Bulls for sale. Also farm lands. H. R. KEYES, 4-y-m Midway, Man.

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Is ready for distribution.



This Catalogue is way ahead of anything of the kind yet issued, both as regards the Catalogue itself, it being beautifully illustrated, etc., and the prices, which you will find very interesting. Will be glad to mail one to any address, on application.

THE **Hingston Smith Arms Co'y,** WINNIPEG.

VISIT THE **Boston Optical CO.,**

AND see the most complete set of eye-testing appliances. The largest stock of Optical goods, and the finest equipped Optical parlors in the Dominion of Canada, under the management of Dr. H. McK. Jordan, D. O., late of Boston, who stands second to none in the successful practice of his profession. Difficult cases which have heretofore baffled the skill of those lacking Dr. Jordan's remarkable training and experience are especially solicited. No cases too difficult for us. All examinations without charge, and glasses sold at a fraction over manufacturers' prices for a few days. When you visit the exhibition don't fail to see our office.

**Livingston Block,**  
COR. PORTAGE AVE. AND MAIN ST.,  
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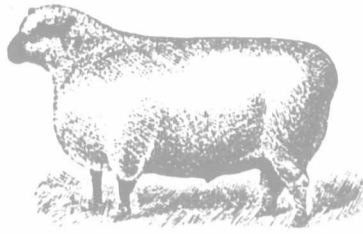
Very Resp'ct'y, **BOSTON OPTICAL CO.**

**Rare Chance** to obtain winners for Winnipeg's greatest Industrial yet held. Our entire flock of grand Cotswolds at snap bargain prices. Some good Shorthorn bulls yet. Speak quick. **D. HYSOP & SONS,** Kibbey, 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.**  
FULL PARTICULARS ON APPLICATION.  
APPLY **P. O. BOX 403.**

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

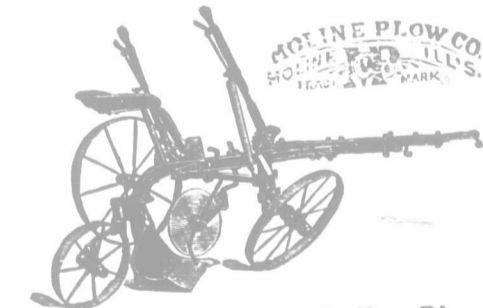
**THE GOLD STANDARD HERD**  
OF LARGE ENGLISH BERKSHIRES.



Does quality count with you? If so, and you want the best up-to-date bacon type, come to headquarters and place your order. I am now booking orders for spring pigs, bred from large mature stock, from bears weighing 300 lbs. and sows from 500 to 750 lbs. No better Berkshire blood in America. Pairs unrelated, and single animals of either sex supplied.  
Address—**J. A. MCGILL, Neepawa, Man.**

**IT'S A WINNER.**  
So is our  
**Ideal Flax note-paper and envelopes**  
120 sheets of paper with 100 envelopes, mailed for 60 cts.  
This is only one of the many snags we offer. We carry a full stock of office, school, municipal supplies. Write us for catalogue. Our store is "valuable."

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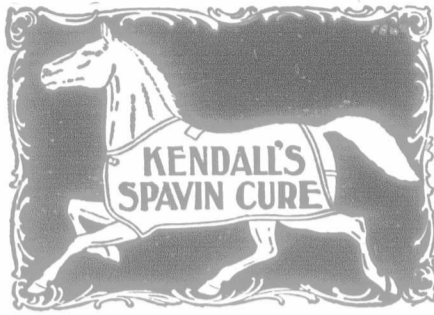
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CAN NOT BE BEAT.  
The Price will please you and its work will surprise you!  
Write for illustrated circular. It will pay you.  
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**PLYMOUTH ROCKS**  
HIGH-CLASS STOCK.  
**WILLIAM LAUGHLAND, - Hartney, Man.**

**Norwood Bridge Poultry Yards,**  
WINNIPEG, MAN.  
Breeder of high-class S. C. B. Minorcas, Houdans, and White Wyandottes; also Bronze turkeys, Pekin Bantams, Pekin ducks. Young stock for sale of all varieties. Write or call.

**BLACK MINORCAS.**  
Young stock for sale—some beauties. Satisfaction guaranteed.  
**A. M. ROBERTSON, KEEWATIN, ONT.**  
PLEASE MENTION FARMER'S ADVOCATE.

**Don't Guess At Results.**



This man knows what he did and how he did it. Such endorsements as the following are a sufficient proof of its merits.

Oshawa, Minn., Feb. 22, 1898.  
Dear Sirs—Please send me one of your Treatise on the Horse, your new book as advertised on your bottles, English print. I have cured two Spavins and one Curb with two bottles of your Kendall's Spavin Cure in four weeks.  
FRANK JUBERIEN.  
Price, \$1; six for \$5. As a liniment for family use it has no equal. Ask your druggist for **KENDALL'S SPAVIN CURE**, also "A Treatise on the Horse," book free, or address **DR. J. B. KENDALL CO., ENOSBURG FALLS, VT.**

**FORT ROUGE POULTRY YARDS.**  
For sale: 1 breeding pen each Indian Games, Golden Wyandottes, and Black Langshans, 4 Pekin ducks and 1 drake, 1 trio Pearl guinea, a few pair of pigeons and Belgian hares. The foregoing include several prizewinners. Will be sold very cheap to make room. Eggs for hatching for sale after June 20th at \$1.00 per setting. Also 3 pairs of English turkledoves. **S. LING & CO., Winnipeg, Man.**

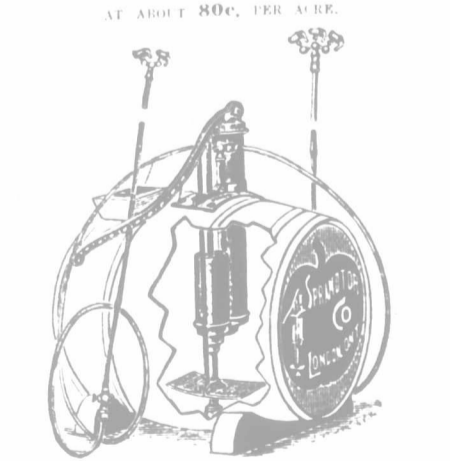
**THE Very Best**  
PLACE FOR THE FARMER'S SON TO SPEND THE WINTER MONTHS IS AT THE  
**Winnipeg Business College.**

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

**Are You Thinking of Building?**  
IF SO, TO YOUR ADVANTAGE TO WRITE  
**Dick, Banning & Co.,**  
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**Wild Mustard and Potato Bugs**  
MAY BE KILLED BY SPRAYING WITH A

**SPRAMOTOR**  
AT ABOUT 80c. PER ACRE.



If you have any, and want to know more about it, write us, and we will send you full particulars.  
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**Spramotor Co.,**  
68-70 King St., London, Can.

**GOSSIP.**

The Prince of Wales' 2-year-old Shorthorn bull, *Pride of Collynie*, a light roan of excellent parts, bred by Mr. Duthie and sired by *Pride of Morning*, won the male championship of the breed at the Bath and West of England show this month.

Referring to the shipment of 10 Shorthorns on May 5th, per SS. "Lakonia," by Messrs. Alfred Mansell & Co., live stock exporters, Shrewsbury, England, consigned to Mr. Robert Miller, Stouffville, Ont., it consisted of several good young bulls and 2 heifers, viz., "Rob Roy," a roan bred by Messrs. W. & J. Peterkin, by Merry Hampton 73063 from Jessica 3rd by Scottish Archer 58833; "McNaughton," a good red bull, bred by Mr. N. L. Napier, by Watchman 71828 from Cleopatra 4th by Prince of Fashion; "McIntosh," a red bull, bred by Col. Munro, by Kruger, dam Mabel by Vice Chancellor 36681; "King Robert Bruce," a fine roan, also bred by Messrs. Peterkin, got by Commodore 63286, out of Queen 6th by Lord Lollo 59337; "Hector MacDonald," a red bull, bred by Mr. J. Grainger, sire Coral Prince 74278, dam Medal Groat 2nd by Marksman 70945; "Golden Opportunity," also roan, bred by Messrs. Macrae, by Golden Cup 72608, from Golden Thought 2nd by Cyprus 66894; and "Black Watch," a grand red, bred by Mr. J. Durno, by Remus 73402, out of Rose of Elbe by British Leader 60417. The heifers were: "Lady Maid 3rd," bred by Mr. Napier, by Watchman 71828, from Red Lady by Better Luck 65149, and "Fancy 7th," a red heifer, bred by Mr. J. Young, sire Alan Gwynne 66699, dam Fancy 2nd by Portland of Cluny 61472. This latter heifer had a good calf at her side, bred by Mr. P. L. Mills, sired by Scottish Prince 73533. Messrs. Mansell & Co. have just received advice by cable that these cattle have arrived safely at Quebec.

A. W. Smith, Maple Lodge, Ont., writes: "We have recently sold an excellent lot of Shorthorns and Leicesters to Messrs. Ellison & Ford, from Utah, U. S. A., consisting of four grand bulls and an exceptionally good lot of Scotch and Scotch-topped heifers, mostly in calf to imported "Knuckle Duster." One of the bulls was by *Caitness*, and his dam was the first-prize cow at the Provincial Dairy Show at London in December last; another was the fifth-prize calf at Toronto last fall. He was from same dam as *Caitness*, and got by Abbottford, also a stylish two-year-old by *Caitness*, dam by *Lavender Prince*. The fourth bull was a very handsome red calf out of the 5th-prize cow at Dairy Show, and got by Lord Lossie 22nd, now at the head of the Exp. Farm herd at Brandon, Man. The heifers comprised some choice things of the Cruickshank Lovely family and other Scotch sorts, some good *Constance* and other Scotch-topped bulls and some of our best milking families. To fill up the car, these gentlemen took a very choice bunch of Leicesters, which would make a good showing even in the best Canadian shows. They had not seen any Leicesters before, and were so delighted with the appearance of our flock, they could not go without a selection from them. Mr. Dissenger, of Canada, N. Y., got a fine bull, strongly bred in milking qualities. Another good one goes to Mr. Lapaney, of Easton, Maine, U. S. Mr. J. D. Clement & Son got a good young *Lovely* bull by *Caitness*, and Mr. Peter McDonald, Amherst, Ont., got a sturdy, well-shaped son of *Caitness* and our best milking cow.

**THE GERRAUGH SHORTHORN SALE.**  
The sale of Shorthorns from the herd of Mr. C. L. Gerraugh, of Osborne, Ohio, held at that place, May 23rd, was a pronounced success. A large representation of breeders attended, and the bidding was spirited and prices good. Canadian breeders were represented by W. D. Platt, Hamilton, and Arthur Johnston, Greenwood, who did some pretty bidding. Mr. Philas secured the imported cow, *Meadow Beauty 6th*, a roan 4-year-old, by Lord of the Meadow, at \$1,200, the second highest price in the sale. Imp. *Bessie 151st*, a roan 3-year-old, by Sittytton *Pride*, sold for \$1,225, the highest price, to C. M. Casey, of Missouri. Two imported bulls sold for \$900 each, the highest average for bulls. Twenty-two imported cattle made an average of \$78.35, and the thirty-eight head sold brought \$20,000, an average of \$541.77.

**CLYDES AT CASTLE DOUGLAS.**  
Clydesdales made a good show at Castle Douglas spring meeting, April 14th. The striking feature of the show was the prominence of the get of the famous stallion, *Baron's Pride*. In a capital class of 2-year-old stallions, the first, second, third and fifth prizes went to sons of this great sire. The first and champion of the section, *Baron's Crown*, shown by Mr. H. Webster, and bred by Mr. Wm. Hood, was first here and at the Royal last year. He is a big, heavy size, has splendid feet and legs, and moves well. The second winner, *Baron Robgill*, a beautiful colt with rare quality of bone, stood second at the Highland, his dam being the noted mare, *Princess Alix*. Third also went to Messrs. Montgomery for *Pride of Morning*, a bonnie colt bred by Mr. A. McKay, Bruchag. The fourth was Mr. Wm. Crawford's brown colt by King O'Kyle, and his dam by Sir Everard. In yearling colts, Messrs. Montgomery won 1st and 2nd with sons of *Baron's Pride*. The first was bred at Barcheskie, from a MacMeekin mare. The second bred by Mr. Stephen Hunter, Whiteleys, and out of a mare by Handsome Prince. The 3rd went to Mr. Jas. Picken, Torrs, for *Kit Kennedy*, a good, massive colt by *Cawdor Cup*, from a *Cruickshank* mare.

In the brood mare class, Mr. A. B. Matthews' brown mare, *Queen of Beauty*, was 1st, and in the yeld class, Mr. L. Pilkington's *Maid of Honor*, by The Royal Standard, won 1st. Three-year-old mares were a strong class, and the 1st prize and female championship of the show went to Mr. Thos. Smith's *Baron's Point* *Jennie Deans*, by *Baron's Pride*, and 2nd to *Jubilee Fashion*, shown by the same owner. She was 2nd at this show and at the Royal last year, and is by *Montrach Chief*; dam *Belle of Fashion*. Two-year-old fillies were strong in number, but not in quality. First went to Sir H. E. Maxwell for a bay filly by King of the Roses. Mr. Thos. Smith had the second, by *Baron's Pride*, out of *Fickle Fortune's* *Princess*, and 3rd by *Prince Pleasing*. Yearlings were especially interesting, as four of *Baron's Pride* were forward. Mr. Webster was 1st with a filly of fine quality and action, Mr. R. S. Scott's filly of rare quality coming in for second, and Mr. David Hood, of his own breeding, out of a *Bayson Lad* mare, third.

**HORSEMEN! THE ONLY GENUINE IS**

**GOMBAULT'S CAUSTIC BALSAM.**

None genuine without the signature of *The Lawrence, Williams & Co.*  
Sole Importers & Preparers for the U. S. & CANADA: CLEVELAND, O.

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 bluish. 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.**

**GOSSIP.**

**A GREAT DAIRY COW GONE.**  
The death of the great Holstein-Friesian cow, *Rosa Bonheur 5th* (11227, H. F. H. B.), occurred last month at the Michigan Agricultural College farm. She was a few days over 12 years old when, owing to an attack of paralysis in her limbs, she was killed. In her sixth year she is reported to have made the following remarkable record of milk production: 1 day, 106.75 lbs. milk, 3.22 lbs. fat; 1 week, 726.25 lbs. milk, 20.47 lbs. fat; 10 days, 1,033.5 lbs. milk, 28.75 lbs. fat; 30 days, 2,889.5 lbs. milk, 82.16 lbs. fat. She was an unusually large cow, her weight at the time of this test being 1,750 lbs., and at one time her weight reached 2,070 lbs. For a period of 6 weeks she averaged 97.66 lbs. milk daily, during which time, being a very large animal, her daily consumption of food was: silage, 114 lbs.; corn meal, 12 lbs.; oatmeal, 9 lbs.; bran, 3 lbs.; oil meal, 9 lbs.; roots, 27 lbs.

**MESSRS. A. & J. CHADBURNE'S STOCK FARM, RALPHITON.**

The above farm is located in an excellent farming district on the north side of the Assiniboine, some fifteen miles northward from the town of Oak Lake, Mr. John Chadburne, one of the owners, showed us over their stock, which we found in good thrifty condition. We first visited their stone-foundation barn, in which we found a Shorthorn bull, *Admiral*, sired by *Royal Sailor*, bred by J. & W. Watt, Salem, Ont. He is a squarely-built, low-set red, full of vigor, and has proven himself a splendid sire, as the young stock on this farm from him clearly prove. *Aggie Ura 2nd*, sired by *Golden Crown* (imported), has a nice red September calf by her side. Two young heifer calves from *Emma* of *Ralphiton* and *Cleopatra* are a good useful sort, as are also a couple of young bull calves from *Lovely Gem* and *Bonny Daisy*, all sired by *Admiral*. Four yearling heifers are good sized, and a very even lot from *Cleopatra*, *Bonny Daisy*, *Lovely Gem* and *Emma*, sired by *Admiral*, will likely be shown at some of the coming exhibitions, and will add attractions and competition in the judging ring. Two young bulls were recently sold to Mr. A. Cameron, of Oak Lake, and a *Cleopatra* 2-year-old heifer, sired by *Royal Standard*; also a bull to *John Lindsay*, of Moosomin. A large stock of useful horses are kept on this farm, including a number of registered Clydes. The *Clydesdale* stallion, *The Mackinnon 8832*, sired by *Lord Eskine*, is at the head of this stud. A young stallion, coming one year old, from *Silva*, a *Clyde* mare, bred by *General Wilkinson*, at *Birtle*, sired by *The Mackinnon*, is a good sized, strong colt. The stud also includes a nice filly by same sire, and from another mare of *General Wilkinson's* breeding, *Lady Green*, with her two-year-old filly, *Lady Jane*, sired by a *Clyde* stallion, owned by Mr. Cummings, of Shoal Lake, and a sucking colt sired by *The Mackinnon*, are among the registered horses. Besides giving attention to stock, a large acreage it under crop, and although some of the cropped land on the higher knolls was considerably blown by the high winds, yet the crop generally was very promising. Mr. Alfred Chadburne, the other partner, is at present in Scotland, and had been out with him some *Clydesdales* and *Shorthorns*. In the poultry yards are a fine lot of *Light Brahmas*, foundation stock selected from the pens of W. P. Scarth, Virden.

**SHOW AYRSHIRES FOR SALE.**

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

**Rosedale Stock Farm.**

**CLYDE AND SHIRE HORSES. SCOTCH SHORTHORNS. LEICESTER SHEEP.**  
A choice lot of Leicester ewes and rams with superior quality and good blood as is obtainable. My motto, "The best is none too good."  
**J. M. GARDHOUSE, Highfield P. O.**  
Malton Sta., G. T. R. on Weston Sta., C. P. R.

**Herefords for Sale.**

Three or four one-year-old bulls. Cows and heifers.  
The Plains Farm, Arkell: Moreton Lodge, next the O. A. C. College, containing 200 to 250 acres each.  
**The F. W. Stone Stock Co.,**  
Guelph, Ont., Can.

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PLEASE MENTION FARMER'S ADVOCATE.



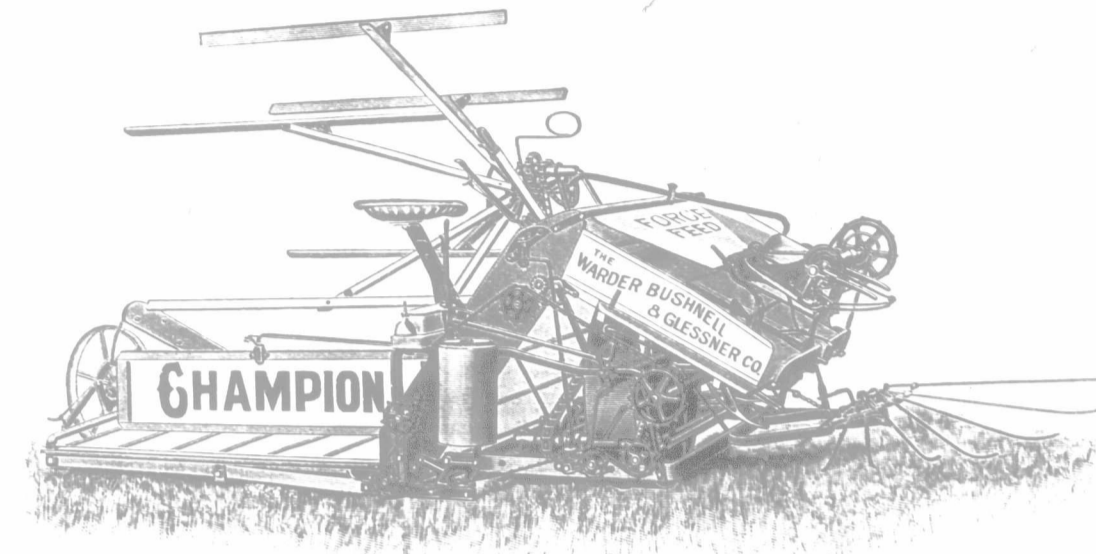
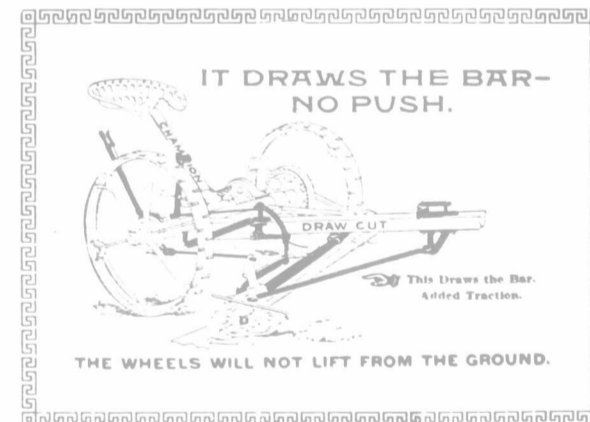
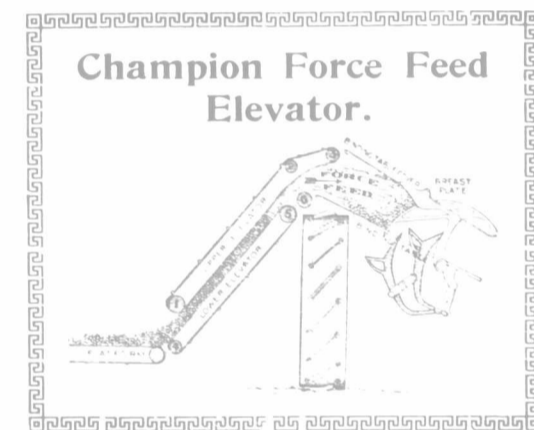
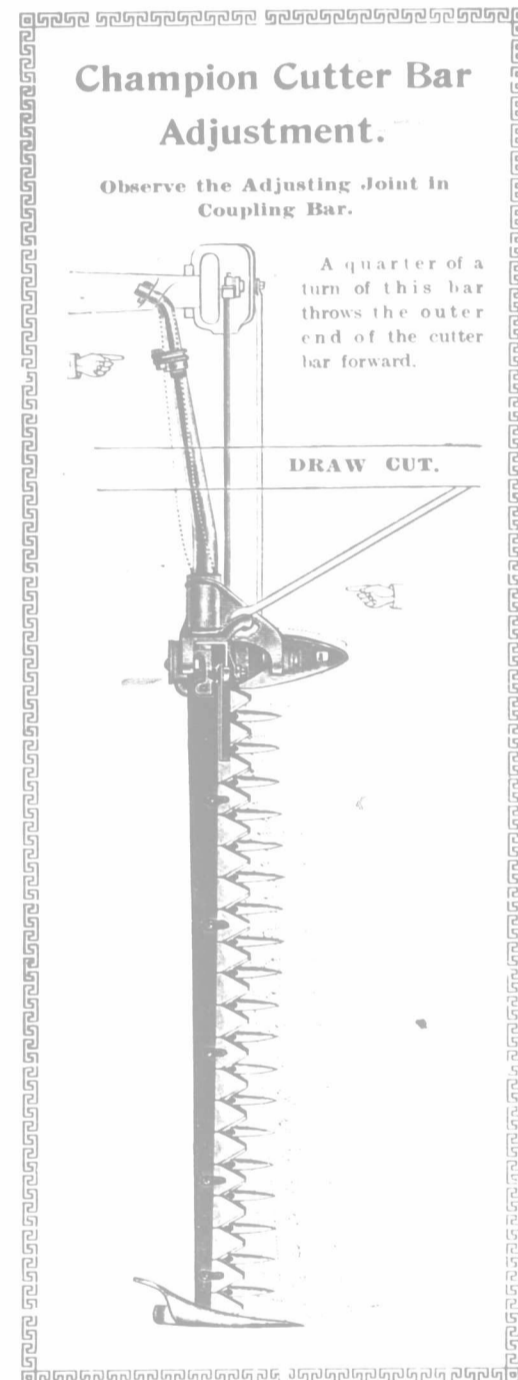
# CHAMPION BINDERS AND MOWERS

## RECENT INVENTIONS!

The only recent inventions of any importance in BINDERS and MOWERS are:

- The Force Feed Elevator.
- The Eccentric Binder Wheel.
- The Draw Cut principle.

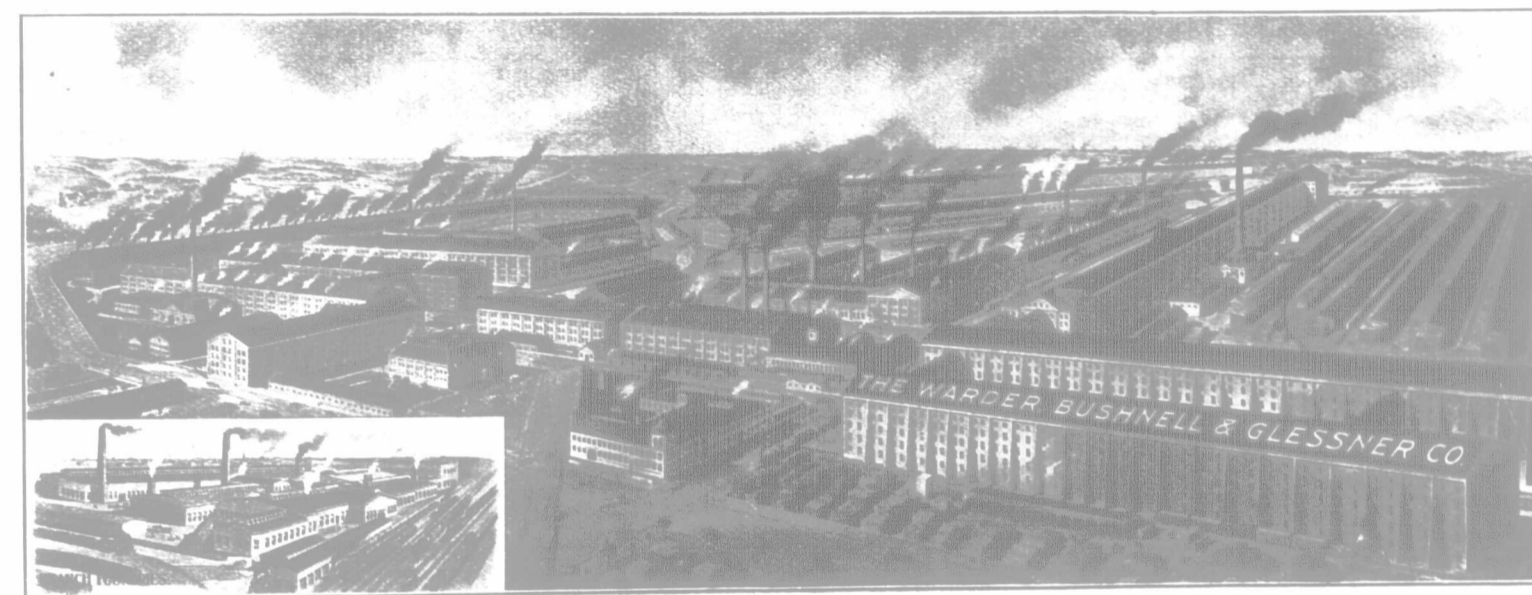
A practical device for keeping the Cutter Bar in line with the Pitman.



**Champion Force Feed Eccentric Wheel Binder.**

**Strong, Durable, with Great Capacity, and Light Draft.**

The CHAMPION Force Feed Binder will waste less grain at the top of the elevator while cutting an entire harvest than any other Binder will waste in cutting one acre. The eccentric wheel on the CHAMPION Binder gives a gain of 16 2-3 per cent. in power when the hardest work is being done.



CHAMPION Factories at Springfield, Ohio, U. S. A. The largest factories in the world devoted exclusively to the making of Binders, Mowers and Reapers.

These are found only on the CHAMPIONS.  
These are not wild statements made by an irresponsible ad. writer. They are facts that you can verify. They are unpalatable to our competitors, but we are not inclined to conceal them because of that.

CHAMPION Machines sell readily because they are modern.

**THE WARDER, BUSHNELL & GLESSNER COMPANY**

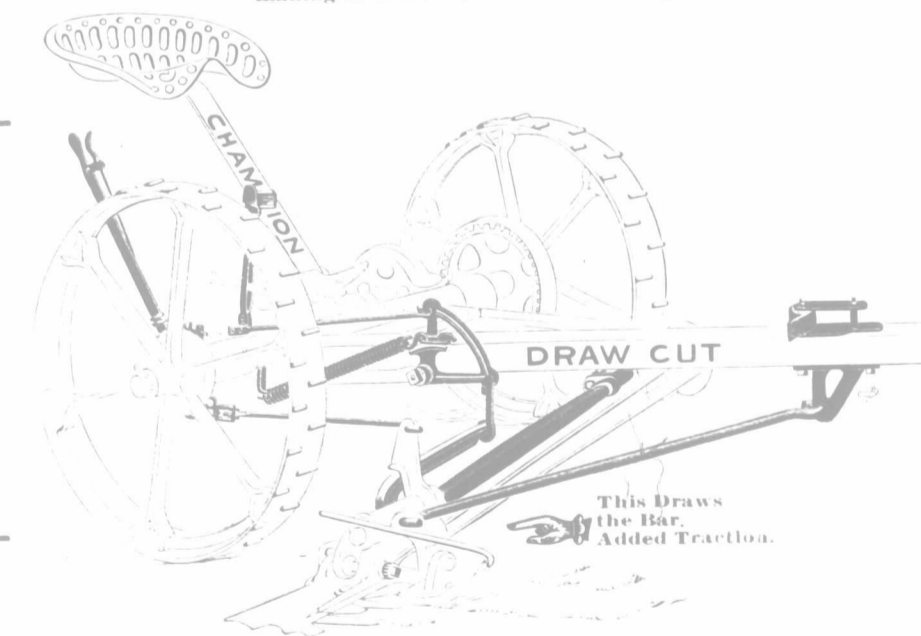
SPRINGFIELD, OHIO.

Manufacturers of CHAMPION Binders, Mowers and Reapers.

CHICAGO, ILLINOIS.

R. H. POTTER, General Agent, Headquarters with Johnston & Stewart, Winnipeg, where Stocks of Machines and Repairs are Kept.

**Champion Draw Cut.**  
It Draws the Bar, No Push.



**The Wheels Will Not Lift From the Ground**

The CHAMPION Draw Cut Mower, though a front-cut machine, has all the power and traction of a rear-cut machine. On the CHAMPION Draw Cut Mower the Wheels will not lift when the cutter bar comes in contact with an obstruction. It is the only Mower with an effective and practical device for lining the cutter bar with the pitman. We defy any one to disprove these statements.

They work well, and give no trouble in harvest time.



LIVE STOCK AUCTIONEER. The undersigned is prepared to conduct pure-bred auction sales...

Catalogue Printing our Specialty.

Many of the best Catalogues in Canada are produced by us. Latest type faces, designs, ornaments, and modern machinery...

THORNCLIFFE Stock Farm

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

"LYON MACGREGOR."



Stallions and Colts

From the best blood in Scotland and Canada. Ayrshire bulls and heifers from imported stock...

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO.

CONTAGIOUS ABORTION

HAS BEEN CURED BY WEST'S FLUID

In several of the finest herds of prize stock in the country; but as it would injure the reputation of the breeders...

Write for circular on this disease, specially prepared by a V.S. Headquarters for "STANDARD" Sheep Dip...

Hillhurst Farm.

Scotch Shorthorns.

Scottish Hero and Joy of Morning. Bred by W. DUTHIE, COLLYNIE. Oldest Stud of Hackneys in America...

M. H. COCHRANE. Hillhurst Station, Compton Co., P. Q.

SCOTCH SHORTHORN BULLS AND HEIFERS

Such sires as imported Royal George and imported Warfare have put us where we are. Imported Blue Ribbon now heads herd.

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

H. SMITH, - Hay, Ont.

Shorthorn Cattle.

Two good roan bulls and a fine bunch of heifers FOR SALE. Exeter Station on G. T. R., half a mile from farm.

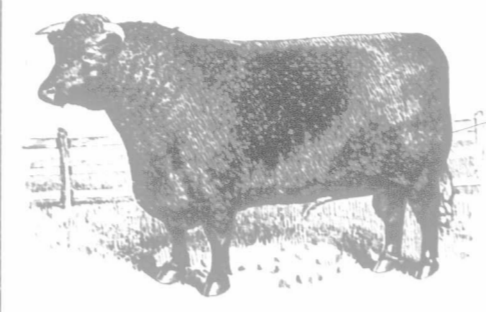
SPRINGBANK FARM.

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

W. D. FLATT,

Hamilton, Ontario, Can., Importer and breeder of

Shorthorn Cattle.



GOLDEN FAME (IMP.) - 26556 - (72610). My herd is one of the largest in America, both imported and Canadian-bred...

JAMES SMITH, Mgr., Millgrove, Ont. R. R. Station and Telegraph, Hamilton, on main line Grand Trunk RR.

John Miller & Sons,

BROUGHAM P. O. and TELEGRAPH OFFICE.

OFFER FOR SALE...

4 Imported Clydesdale Stallions. 10 Scotch-bred Shorthorn Bulls. PRICES REASONABLE.

Claremont Stn., Pickering Stn., C.P.R. G.T.R. Correspondence Invited.

Bonnie Burn Stock Farm

Forty rods north of Stouffville station, Ont., offers for sale Shorthorn bull calves and yearling heifers...

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.

We are offering 5 young bulls for sale, of first-class quality, and AI breeding.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898...

Scotch Shorthorns FOR SALE.

100 head to select from: 15 grand young bulls by Valkyrie - 21846 - and cows and heifers of all ages...

T. DOUGLAS & SONS, Stratford Station and P. O. Farm 1 mile north of the town.

Pure Scotch Shorthorns for Sale.

Two bulls and thirteen heifers, aged from thirteen and fifteen months old, and three two-year old and two one-year old heifers...

5-- Shorthorn Bulls--5

From 9 to 15 months. Also a few choice yearling and 2 yr. old heifers, among which are grand, thick-fleshed and choicely bred animals...

R. & S. NICHOLSON

SYLVAN P. O., PARKHILL STATION. Scotch Shorthorns, imp. and home-bred. The Imp. Clipper bull, Chief of Stars, heads the herd...

JAS. DORRANCE.

SEAFORTH, ONTARIO. Shorthorn Cattle and Berkshire Pigs. Young stock always for sale.

GOSSIP.

At a sale of Shorthorns made by J. C. Shropshire, at Montrose, Kentucky, May 24th, thirty-two females made an average of \$136.25...

James Boden, Farm Manager for Mr. R. Reford, St. Anne de Bellevue, Quebec, advertises for sale the imported champion Ayrshire bull, Napoleon of Auchincroft...

Col. Jay L. Torrey, President of the Embur Cattle Co., who organized "Torrey's Rough Riders for service in the Spanish-American war, paid two visits to Guelph, Ont., in May...

OFFICIAL TESTS OF HOLSTEIN-FRIESIANS. TO THE GAZETTE. The following tests, from Jan. 1 to Feb. 1, 1900, are uniformly made by representatives of agricultural colleges...

Summary: Eight cows, five years old or over, average per cow, 41.6 lbs. milk containing butter-fat equivalent to 18 lbs. 7.3 ozs. butter at 80 per cent. fat to the pound...

The two most remarkable are those of Beryl Wayne, a cow between seven and eight years old, with a product of 24 lbs. 3.8 ozs. butter, 80 per cent. fat, or 22 lbs. 9.9 ozs. butter at 83.7 per cent. fat...

SOME WINNERS AT THE BATH AND WEST OF ENGLAND SHOW. The classes of cattle, sheep, and pigs are said to have been unusually strong at the above show held at Bath, June 1-4...

Shorthorns - Bulls, calved in 1896 or 1897: 1, H.R.H. the Prince of Wales, K.G. (Stephanos); 2, C. W. Brierly (Ben Ledin); 3, J. D. Willis (Silver Plate)...

Bulls, calved in 1898: 1, H.R.H. the Prince of Wales (Pride of Collymore); 2, D. H. Green (Lavender Yeth); 3, Miss Alice de Rothschild (Dashful Youth)...

Bulls, calved in 1899: 1, Lord 3, W. J. Hosken (New Year's Gift and Royal Sovereign); 2, J. D. Willis (Rippon Sentinel)...

Shropshires - Shearling rams: 1, R. P. Cooper; 2 and 3, A. Turner; 3, W. F. Figg; 4, Tom Lamb; 5, P. L. Mills; 6, R. P. Cooper; 7, D. Gibson; 8, Shearling ewes: 1, P. L. Mills; 2, A. Bradburne; 3, W. F. Figg...

Shropshires - Bows, farrowed in 1897, 1898, or 1899: 1, R. Swarwick (Pearl and Ruby); 2, J. Jefferson (Pool Royal); 3, Earl of Carnarvon (Flying Fox); 4, Bows, farrowed in 1900: 1, J. A. Fricker; 2, A. Hiseock, jun.; 3, R. Swarwick; 4, Sows, farrowed before 1900: 1 and 2, A. Henderson (Buscot Stumpy and Buscot Fancy); 3, J. A. Fricker (Gillingham N.C.); 4, Sows, farrowed in 1900: 1, A. T. Tomkin; 2, J. A. Fricker; 3, F. Burbridge...

Large Heifers - Bows, farrowed in 1897, 1898, or 1899: 1 and 2, Sanders (Spencer Holywell Royal and Holwell Barron); 3, Sir Gilbert Greenall, Bart. (Walton Regent); 4, Bows, farrowed in 1900: 1, D. Gibson; 2 and 3, and 4, S. Spencer; 5, Sows, farrowed before 1900: 1 and 2, and 3, F. Allmand (Walsham Venus and Walsham Hawthorn); 4, D. Gibson (Wardley White Rose); 5, and 6, Sir G. Greenall (Walsham Venus and Walsham Venus); 7, Sows, farrowed in 1900: 1 and 2, S. Spencer; 3 and 4, D. Gibson...

PLEASE MENTION FARMER'S ADVOCATE.

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS - An excellent lot of young bulls, and a special value in young cows and heifers in calf to our imported Knuckle Duster.

LEICESTERS - Imported and home bred - the best. ALEX. W. SMITH, MAPLE LODGE P. O., ONT.

SHORTHORN CATTLE AND LINCOLN SHEEP.

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

J. T. GIBSON, DENFIELD, ONT.

Herefords for Sale

Choice young bulls, from 1 to 2 1/2 years old, and show bull, 3 years. Also Moreton Lodge Farm, Plains Farm, Arkell, containing from 200 to 250 acres each.

The F. W. Stone Stock Co.,

GUELPH, ONT., CANADA.



75 HEAD High-quality, Early maturing Herefords. Prizewinners, Producers of Money-makers in the feed lot.

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

H. D. SMITH, COMPTON, QUE.

Kicking Cows.

Stop your cows kicking, increase the flow of milk by the use of SORE TEAT SALVE. Positively prevents chapped teats, warts, and caked bag or udder. Price, 25c., 50c., and \$1. per tin.

WM. MOLE, Veterinary Surgeon, 443 Bathurst St., TORONTO.

Wm. Willis, NEWMARKET ONT.

BREEDER OF Jersey Cattle (St. Lamberts). Some fine young bulls for sale at farmers' prices, if taken at once. Also Cotswold sheep.

GLEN ROUGE JERSEYS.

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

JERSEY CATTLE

That will put Money in your pocket. MRS. E. M. JONES, Brockville, Ontario, Can. Box 721.

JERSEY BULLS.

High-class show bull, Prince Frank's Son 48758, A.J.C.C., 3 years old. 1st prize at Western Fair, London, as a calf, and as a yearling. Probably the best show bull in Canada today. Sire 3 times cow-sweepstakes winner at Western Fair; dam a pure St. Lambert. Also yearling bull, St. Lambert of Ettrick 48850, A.J.C.C., handsome and richly-bred. Also handsome bull calf, eligible to register. Prices right in equality. Come and see, or write.

W.G. LAIDLAW, Wilton Grove, Ont.

BROOKBANK

Is headquarters for Holstein bulls. They are going fast; be quick if you want one. In writing, state age, etc., preferred.

GEO. RICE, Currie's Crossing, Ont. Oxford Co.

FOR SALE:

Jersey bulls from tested and prizewinning dams, and sired by our champion bull. They are fit to head any show and dairy herd. Also a number of young A.J.C.C. cows, and a few registered cows and heifers, grand family cows. Write now for price, stating what you want.

R. H. BULL & SON, Brampton, Ont. G. T. R. & C. P. R. Stations, 20 miles from Toronto.



**THINK !!**

Three pounds of impure salt will spoil one hundred pounds of butter or cheese.  
Buttermakers and cheesemakers, the salt for you is

**Windsor Salt.**

Perfectly pure and satisfactory in every respect.

THE  
**Windsor Salt Co.,**  
LIMITED.  
WINDSOR, ONTARIO.

**"SAFE LOCK" METAL SHINGLES**  
THE KIND THAT ARE WEATHERPROOF  
GOST LITTLE MORE THAN WOOD SHINGLES  
AND ARE LIGHTNING AND FIRE PROOF  
ASK FOR FREE SAMPLES  
METAL SHINGLE & S/DING CO  
PRELON ONT

**INVESTIGATION SHOWS WISDOM.**

I make the absolute claim that Rob Roy Mining Shares are one of the least risky things you can invest in!

Strong language, as mining is usually classed as a speculation, and rightly so— if a lot of good common sense isn't used!

Still, I fearlessly say that these shares are safer than nine tenths of the monetary risks you daily run—in horses or cattle, for instance!

I have seen the properties, know the men at the head of affairs (well-known London men they are too), have my own money up, and am prepared to give you the benefit of my experience if you want it!

You have \$100, say, that you want to invest if you can find a safe and profitable place for it. Well, there's nothing going that I know of better than Rob Roy stock at 15 per share!

If this interests you, and you mean business, drop me a line, and I'll gladly tell you what I know.

In any event, you don't have to buy. Altogether likely these shares will be taken off the market inside of a few weeks.

**A. E. WELCH, SAFE MINING STOCKS,**  
207 Dundas St., London, Canada.

**3 Holstein-Friesian Yearling Bulls** FOR SALE.  
Prices right. Apply to  
**WILLIAM SUHRING, Sebringville, Ont.**

**Maple Glen Stock Farm.**  
The home of officially tested, Advanced Registry dairy stock and showing winners. A grandsonning herd of 85 Friesian HOLSTEINS, of Canadian Sylvia 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.

**MAPLE HILL HOLSTEIN-FRIESIANS**  
Three Yearling Heifers, sired by Colanibus Abbeker 2nd, and in calf to Daisy Teakes King (brother to Daisy Meake's Queen, the great test and show cow).  
Three Bull Calves, sired by De Kol 2nd's Paul De Kol Duke, the great butter-bred bull; dams, the fine show cows, Lady Akkrum 2nd, Cornelia Artis, and Madge Merton.  
**G. W. CLEMONS, St. George, Ont.**

WE WANT TO SELL A FEW  
**Holstein Heifers, coming 2 years old**  
richest and or a few young Cows.  
largest producing strains, fine individuals, and bred to a good bull—there are living. We have a few bull calves and yearling bulls also for sale.  
**HENRY STEVENS & SONS,**  
LACONA, OSWEGO CO., N. Y.

**GOSSIP.**

The Breeze Hill stud of Hackneys, property of Messrs. Anderton & Bullough, near Preston, England, was sold May 24th, making an average, for 61 head, of £56 11s. 11d.; 16 brood mares averaged £85 11s., the mare Rosadora making the highest price of the sale, 300 guineas.

At the closing-out sale of the estate of the late Mr. James Bruce, Inverpohomery, Aberdeenshire, 12 Shorthorns with 7 calves were sold at an average of £36 16s. 3d. Mr. Wright, Co. Wicklow, Ireland, bought Augusta 21th and her calf for 16 guineas, and Mr. Duthie bought Rose-wood 5th and Rosebud 3rd with their calves at 11 guineas and 41 guineas respectively, and these were the highest prices made.

**THE COOPER SALE OF JERSEYS.**  
The auction sale on May 30th of Mr. T. S. Cooper's herd of imported Jersey cattle, at his Lynden Grove Farm, Coopersburg, Pa., was, as expected, a red-letter day for the breed. Mr. Cooper's long experience and ripe judgment, and his acknowledged skill in preparing cattle for show or for sale, as well as his upright and straightforward way of doing business, has won the confidence of the public, and the large concourse of breeders (over 500), gathered from many States and from Canada, were not disappointed in the character and quality of the animals offered, nor surprised that some high prices were realized. The distinguishing features of the stock offered were the preponderance of the blood of the noted Island-bred bull, Golden Lad, and the uniformly large and well-balanced udders of the cows, combined with handsome conformation. The highest price of the day, \$1,000, was made by the 2-year-old heifer, Golden Sultanne, born February 1st, 1888, and having produced her first calf a day or two before the sale. She is a beautiful heifer, of good size for her age, showing strong constitution and a model shaped udder, with large and well-placed teats, and was the gem of the sale in breeding and individual merit. She was bought by Dr. C. E. Still, of Kirkville, Mo., in partnership with Michael Hilgert, of St. Joseph, Mo., who purchased 12 head at \$6,325, including Rosette's Golden Lad, the highest priced bull in the sale, at \$800, and the 3-year-old cow, Golden Lad's Solid Gold, at \$1,000. The second highest priced cow was the 7-year-old Golden Lad's Pretty Rose, which brought \$1,325, and was purchased by M. S. Beltzhoover, of New York. The stock bull, Golden Lad's Champion, a noted Island prizewinner, which it was generally expected would run into four figures, fell at \$225 to the bid of Mr. E. A. Darling, President of the A. J. C. C., who, it is said, would have followed him to more than double the money if he had had competition. Six of the imported bulls brought prices ranging from \$400 to \$800, an average of \$510, and the 18 imported cows, many of them quite young calves, an average of \$375 each. Twenty-one of the females sold for \$100 to \$200 each, or an average of \$875. Forty-seven imported cows averaged \$143. One cow came to Canada, viz., Uncle Peter's Columbine, purchased by Mrs. D. L. White, of London, at \$205. The 7-months bull calf from this cow was considered one of the best young bulls in the sale, and brought \$350. He is Uncle Peter's Gold Mine, and was bought by Still & Hilgert for a show bull. The total sum realized for the 89 head of imported animals, young and old, was \$22,574, an average of \$355, and the whole number sold (98 head), including 9 young things of Pedro blood, made a grand total of \$23,300, and an average of \$310 per head. Truly a great sale.

**LIVE STOCK AT THE GREAT BUFFALO SHOW IN 1900.**

Pan-American Herald: "There was some thought a few weeks ago that the live stock display at the Pan-American would suffer next year on account of the Exposition which Toronto contemplates holding during next summer. But Director General Buchanan has placed himself in communication with the gentlemen at the head of the Canadian Exposition, and has made such arrangements that both cities will gain. There will be no clash of dates, and the breeders and owners from across the border realize that the Exposition on this side will be a marvellous aid to their smaller enterprise. They have signified their intention of having representation at the Pan-American for the four months which will intervene before their gates will be opened, and in that time they will persuade Canadians to bring their stock to Buffalo, and will invite the owners to ship it back to Toronto after the judging has been done at Buffalo.

In connection with the show of cattle, Superintendent Conners has decided to put on a very comprehensive dairy test as a special feature. The milk given each day by each cow will be carefully weighed and measured, and against the production will be charged the amount of food consumed. Then the cream will be separated from the milk and the amount of pure butter produced will be credited to the various animals. This test will be started on June 3, and will continue for fourteen days, and though no official announcement has as yet been made of it, many breeders have already written to say that they desired to enter animals in the competition, and a number of breeders' associations have asked permission to offer special cash prizes and valuable trophies.

In the giving of the prizes, both for this test and in the general judging of the animals, great care will be taken to see that the most competent and critical judges in the country are chosen. It has already been decided to give over \$20,000 in cash prizes, and besides that sum of money there will be gold and silver trophies of great value and beauty given both by the Exposition management and also by various breeders' associations.

The best show will be carried through on a scale of splendor. There will be a great showing of the blooded stock of the country. Each winter Madison Square Garden in New York anticipates the grand opera of the wealthy open House in the gathering of the Pan-American large show will be some months prior to the Metropolitan show, it is expected that the men from the east who yearly seek occasion to show their canine pets will send their finest animals to Buffalo.

PLEASE MENTION FARMER'S ADVOCATE.

**H. CARGILL & SON,**  
CARGILL, ONTARIO.

The largest herd of Imported Scotch Shorthorn Cattle in Canada.

**SEVENTY-SIX HEAD** IMPORTED DURING 1899.

13 BULLS. 63 FEMALES.

ALL imported females of suitable age bred before leaving Scotland. Catalogue free. Correspondence or personal inspection invited. Address as above, Cargill Station half a mile from barns, on Grand Trunk Ry.; 70 miles north-west of Guelph.

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

**OFFER FOR SALE:** 1 imported bull, extra good; 3 imported cows, with calves at their side and in calf again; 6 home-bred bulls, from 3 to 13 months; 40 home-bred cows and heifers. All of breeding age have been bred to imported bulls. Our Shropshires have wintered well, and our lambs this season are a strong, thrifty bunch. 5 rams carried over from last season are in good shape. Correspondence or a personal visit solicited. Catalogues on application.

Burlington Junction Station and Telegraph Office, G. T. R., within half a mile of farm.

**Ayrshires, Guernseys, Yorkshires**  
and Shropshires are our leaders.

ALL high-class, pedigreed stock. Those desirous of purchasing thoroughbred animals should write for particulars at once. Orders booked now in rotation for present and future deliveries. Address—

**ISALEIGH GRANGE FARM, Danville, Quebec.**  
J. N. GREENSHIELDS, Prop. T. D. MCCALLUM, Mgr.

**W. G. Edwards** AND COMPANY,  
IMPORTERS AND BREEDERS

Laurentian Stock and Dairy Farm, NORTH NATION MILLS, P. Q.  
Pine Grove Stock Farm, ROCKLAND, ONTARIO.

**Ayrshires, Jerseys, Shropshires, Berkshires**  
Our excellent aged herd of Ayrshires is headed by our noted imported bull Cyclone. Tam Glen heads the young herd, and Fawn's Son 2nd of St. Anne's heads the Jerseys. The young stock are all from time-tried dams.  
**A. E. SCHRYER, Manager.**  
We can be reached either by steamboat, the C. P. R., or C. A. R.; the C. A. R. making connection with the G. T. R. at Coteau Junction. Rockland is our station on all lines. 7-1-y-om—

**KEEP THE BOYS ON THE FARM**  
By sending them to Meadowside Farm, Carleton Place, to see J. Yull & Sons' stock. Eighty-four Ayrshires, second to none in the world for milk production. Thirty-two Shropshire ewes and two rams which are from prizewinning stock. Fourteen Berkshires of the Baron type; and a grand flock of E. P. Rocks. Also two good Collie pups, 4 weeks old.  
**J. YULL & SONS, Props., Carleton Place.**

**Maple Cliff Dairy and Stock Farm.**  
Breeders of FOR SALE:  
**AYRSHIRES,** 1 yearling and 6 bull calves from 2 to 8 months old.  
**TAMWORTHS,** Boars and sows, 6 to 8 months old, and sucking pigs.  
**BERKSHIRES,** Booking orders for young pigs.  
**R. REID & CO., Hintonburg.**  
Farm 1 mile from Ottawa. Electric cars to farm. om

**Ayrshire Bull Calves of 1899**  
One bull 3 months and young calves 2 to 3 weeks, from some of our best imported cows. Will sell at reasonable prices. Address:  
**ROBT. HUNTER,**  
Manager to W. W. Ogilvie, LACHINE RAPIDS, QUE.

**SHROPSHIRE RAMS AND RAM LAMBS**  
From Tanner, Milton and Bradford foundation. Uniform and first class in quality, size and covering.  
**ESTATE JAS. COOPER,**  
Kippen, Ont.

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

**EUROPEAN ADVERTISEMENTS.**

**HAMPSHIRE DOWN SHEEP.**  
GREAT ENGLISH Pedigree Sales  
July, August, and September, 1900.

**WATERS & RAWLENCE, Salisbury, Eng.**  
Will sell by auction during the season upwards of  
**50,000 PURE-BRED EWES, LAMBS and RAMS,**  
Including both rams and ewes from the best registered prizewinning flocks in the country. Commis-sioners carefully executed. Address: om

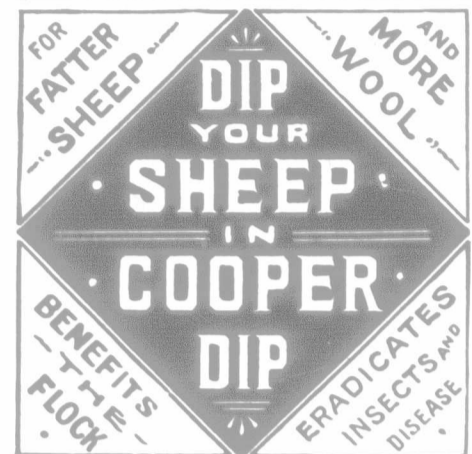
**Waters & Rawlence**  
SALISBURY, ENGLAND.

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



**IMPORTATION**

Of Shropshires for Fairview Farm in July. Our D. J. Campbell will select and import. Only choice rams and ewes will be brought out. 'Tis the good ones that please customers first and last. We breed them and import them. Orders can now be booked for imported stock, and some good rams are now at Fairview. on JOHN CAMPBELL, Woodville, Ont., Canada.



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

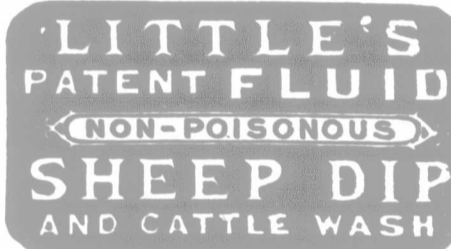
**Superior to all liquid Dips.**

25-gal. pkt., 50 cts.; 100-gal., \$2.00. If druggist cannot supply, send \$1.75 for 100-gal. pkt. to

**EVANS & SONS,**  
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Premiums on application to—  
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Write for pamphlet. om



**THE ORIGINAL Non-Poisonous Fluid Dip**

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.

**For sheep.**  
Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.

**Cattle, horses, pigs, etc.**  
Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

**Prevents the attack of Warble Fly**  
Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.

**No danger, safe, cheap, and effective**  
Beware of imitations.

Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.

**SOLD BY ALL DRUGGISTS. SEND FOR PAMPHLET.**

**Robert Wightman, Druggist, Owen Sound.**  
Sole agent for the Dominion. —om

**Snelgrove Berkshires.**

When others fail to please you with a good pig, come to us. Our herd is bred from the best strains of the Large English Berkshires. We now have a very promising lot of young pigs, April farrow, sired by Colonel Grant 350 (first prize under 12 months, Toronto, 1900 and Dictator 341). Write for prices.

**SNELL & LYONS,**  
Snelgrove, Ont.

**Large White Yorkshires.**

An offering during this month a grand lot of boars and sows ready for breeding, packed, supplied and taken from show stock also several sows and pig to imported boar. Young pigs from 2 to 3 months old, also from improved boars. Prices in 25 cents per lb. or by press-prepaid. Address:

**H. J. DAVIS,**  
Box 290, Woodstock, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

ASK YOUR DEALER FOR AN

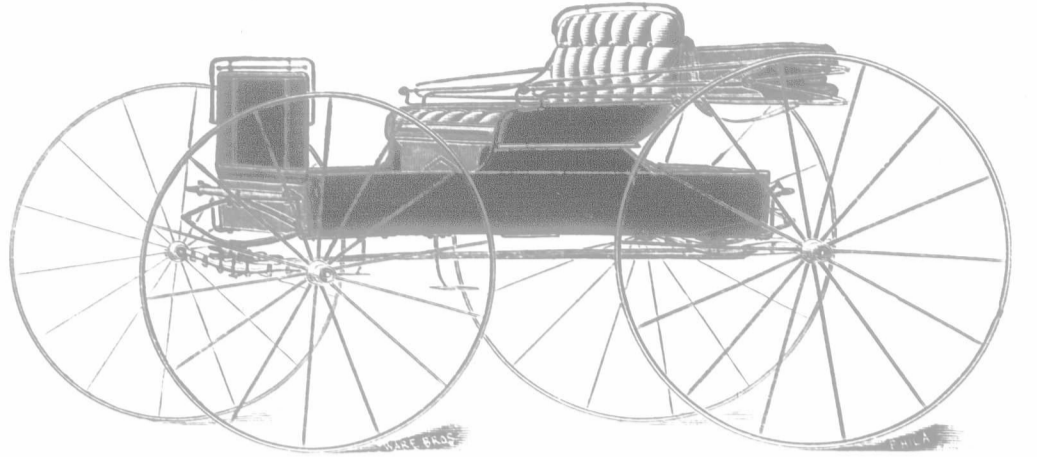
**Armstrong Buggy.**

Warranted first class and up-to-date in every respect.

Catalogue on Application.

Write us for particulars. om

**J. B. ARMSTRONG MANUFACTURING CO'Y, LIMITED (The Guelph Carriage Goods Co.), GUELPH, CANADA.**



**GOSSIP.**

At a sale of 21 registered Jerseys, property of C. L. Boyer, Finleyville, Pa., May 22nd, an average of \$83.50 was made. The bull, Oonan's Tormentor Lad, and a cow sold for \$170 each, and another cow at \$145.

Five breeders of Jersey cattle in Indiana and Ohio contributed to a list of animals included in an auction sale at Indianapolis, May 21th, which was fairly successful, fifteen head selling at prices ranging from \$100 to \$185; the fine cow, Ruth d'Or, going to Judge Bradbury, of Ohio, for the latter price.

Mr. Richard Gibson, Delaware, Ont., shipped on June 11th, 12 Shorthorns selected from a number of Ontario herds, including his own, for the stock ranch of Mr. W. E. Cochrane, at High River, Alberta. The stock went out in one of the Breeders' Association shipments, in charge of Mr. Ed. Forster, of Brampton.

At the dispersion sale, on May 22nd, of the herd of Galloways belonging to the estate of the late Mr. James Cunningham, Tarbreoch, Dalbeattie, Scotland, 10 head made an average of £31 5s. 1d., the highest price being 80 guineas for the 7-year-old cow, Dora of Drumhill, bought by Mr. R. Wilson, of Kilquhanty. Major Wedderburn Maxwell, of Glenair, got Maggie Lauder II., a 3-year-old cow, at 60 guineas, and Mr. Graham, of Edengrove, the 2-year-old heifer, Miss Emily 3rd of Durham Hill, at 40 guineas.

Brethour & Saunders report the Oak Lodge herd of Yorkshires in fine condition, with sales very numerous and prospects very bright for a heavy fall trade. They have on hand over three hundred pigs, of different ages, and can supply any age that customers may require. The Oak Lodge Yorkshires are bred upon sound principles. Easy-feeding qualities, and the ideal bacon hog have been the objects sought in the building up of this herd, and these characteristics are now firmly fixed in the produce of this herd, and they are now generally known as the Oak Lodge type. See their change of advertisement in this issue.

At the annual sale of Shorthorns from the herd of Mr. J. Wood, of Williamsport, Ohio, on May 24th, 47 head sold for an average of \$208.20; 31 females averaged \$217.05, and 13 bulls, \$181.60. The highest price, \$500, was paid for Imp. Golden Wreath 9th, a roan 2-year-old heifer, by A. Alexander, Morning Sun, Iowa. The same price was paid by R. M. Lawson, of Virginia, for the red-roan 3-year-old bull, Young Victor, by Victor of Browndale.

The imported Jersey cows illustrated in this issue represent two of the animals included in Mr. Cooper's recent great sale of Jerseys. The 2-year-old Golden Sultanne, the highest-priced animal in the sale (\$1,600), was photographed some ten days before calving, and her udder development was not then nearly as great as on the day of the sale, when it is said to have been immense for a heifer of her age. Her sire was a double grandson of the noted Golden Lad, and her dam, Sultanne 9th, a first-prize winner over the Island of Jersey. The 3-year-old cow, Golden Lady, sold for \$1,000, the third highest-priced cow (\$1,000), was photographed with her first calf. Her form and udder is that of a cow well along in years, and is really phenomenal. She is a daughter of Golden Lad, 1st prize over the Island, and sire of the bulls winning 1st over the Island in the last nine years with the exception of two years, when his sons won second and third prizes.

The American Southdown Breeders' Association, in annual session, was represented by a larger membership than for a number of years. The financial reports show that during last year the business of the Association greatly exceeded that of any previous, and the prospects for increased business and prosperity during the coming year was never brighter. Rules of entry were so amended that an animal may be recorded in the name of its owner at time of registry instead of in the name of its owner at time of birth; penalty fees for registry by members was made \$1.50 instead of \$1.50 for registry made after July first of the year following birth; and registry fees for imported animals was made the same for animals bred in the United States and Canada. It was decided that a meeting of the Association be held in Buffalo, N.Y., during the Pan-American Exposition. Officers were elected as follows: President, Jerome A. Leland, Springfield, Ill.; Secretary, Jno. G. Springer, Springfield, Ill.; Treasurer, Harry H. Devereaux, Springfield, Ill.; Vice-Presidents for Canada, J. T. Wilkinson, Chillywack, B.C.; T. A. Douglas, Galt, Ont.; Hon. Geo. A. Drummond, Montreal.

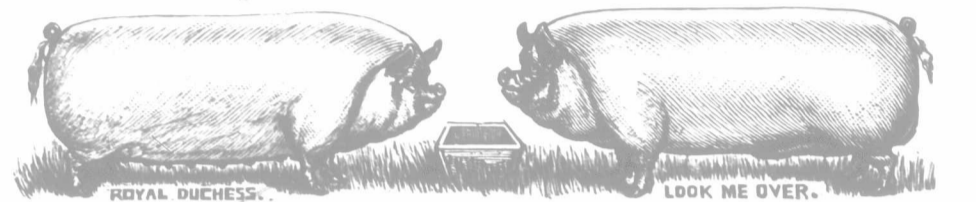
**DIAMOND JUBILEE WINS THE DERBY.**

The Prince of Wales' horse, Diamond Jubilee, won the Derby race and stakes of 1000 sovereigns at Epsom, May 30th, 1900. He had 1000 bets to the Prince's horse Perseus, which won the same trophy a few years ago, and is a son of St. Simon and Perdita. The Duke of Portland's St. Simon, also by St. Simon, was second in the race.

PLEASE MENTION FARMER'S ADVOCATE.

**Summer Hill Herd**

HEADQUARTERS FOR THE IDEAL BACON HOG.



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

**D. C. FLATT, MILLGROVE, ONT.**

**BINDER**

**FARMER'S**

**TWINE**

**PURE MANILA, 650 FEET, SPECIAL MANILA, TIGER, STANDARD.**

Farmers! Don't be taken in. There is none "just as good." These twines will not bunch at the knotter, and a Binder will run all day without stoppage, thus saving time, annoyance and a "lot o' cussin'."

We pack our twine in bags of the size of ordinary grain bags, and we are not ashamed to put our name upon it. Don't take any other.

**CONSUMERS' CORDAGE CO. Limited.**

**MONTREAL.**

**FARMERS! KEEP YOUR RECORDS.**

Young people are properly trained to do such work through a short term in that most successful and reliable Business School, the

**Central Business College, TORONTO.**

Open all the year. No vacations. Enter any time. A strong school. A good school. Twelve teachers. First-class results. Write for particulars. om

**W. H. SHAW, PRINCIPAL.**



The F. W. Stone Stock Co. shipped on May 21th seventeen head of choice pure bred Hereford bulls, cows and heifers to the Embury Cattle Co., Wyoming. These cattle were selected by Col. Jay L. Torrey, president of that company, during his two visits to Canada in May. The Stone Co. also shipped on June 5th to Qu Appelle, N. W. T., the Hereford bull, Gara Chief 4th. This is a very fine animal, and the kind suitable for the Northwest trade.

**ADDRESS**

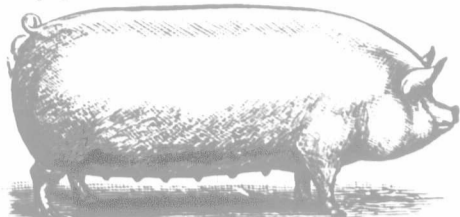


**Belleville Business College..**

**BELLEVILLE, ONTARIO.**  
om



# OAK LODGE Type of Yorkshires



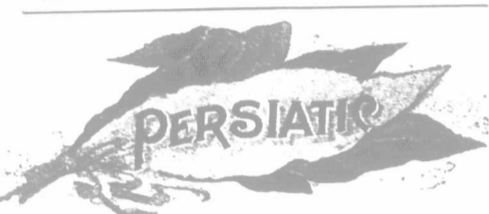
We have now on hand a large herd of pigs of different ages, and they are as good as we have ever offered. The winnings of this herd have been greater than all other herds combined at the largest Canadian exhibitions.

All stock shipped to order, fully guaranteed.

Brethour & Saunders, Burford, Ont., Can.

# DUROC-JERSEY SWINE.

We have a fine lot  
First-Class Stock  
of all ages and  
either sex. Address,  
-om TAPE BROS., Ridgeway, Ont.



# Tree Spray

PAT. FEBRUARY 14th, 1900.

# The "Tobacco" Spray.

Scientifically Prepared. PRICE, 50c. PER QT. CAN.

THE PICKHARDT RENFREW CO., LIMITED, STOUFFVILLE, ONT.

# DES MOINES INCUBATOR CO

The BEST and the CHEAPEST.

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

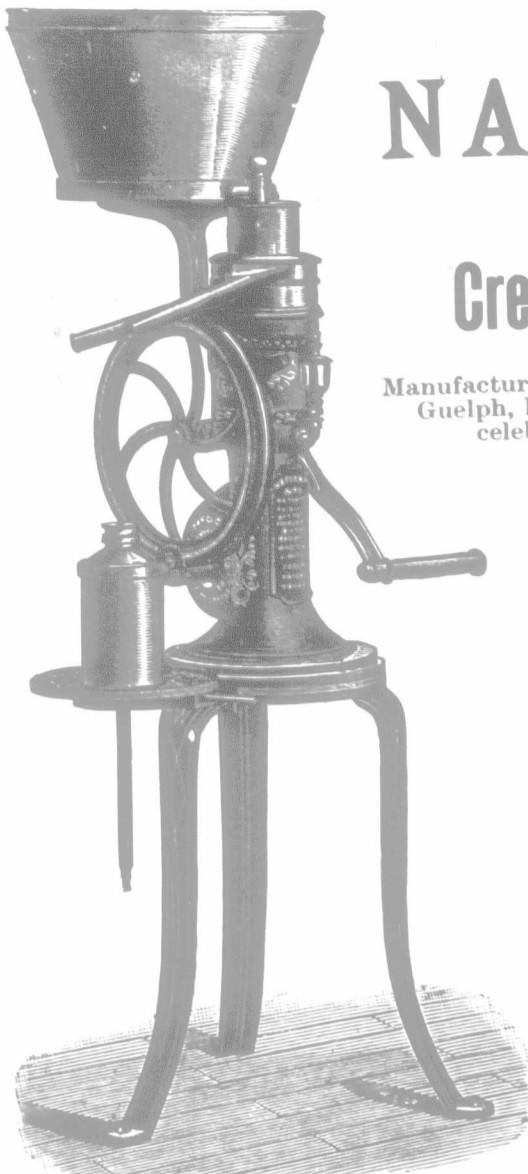
"THE POULTER'S GUIDE" (new edition) 15 cents by mail.

O. ROLLAND, 373 St. Paul St., MONTREAL.

Sole Agent for the Dominion.

### A VALUABLE IMPORTATION OF SHORTHORNS.

Messrs. H. Cargill & Son, Cargill, Ont., write: "We landed safely at quarantine, Levis, Quebec, on the 17th May, 52 head of Scotch Shorthorns; 47 females and 5 bulls. They are a very promising lot, and we think probably the best we have imported. There are a number of prizewinners at the leading spring shows, both bulls and females. Their breeding is the best obtainable in Scotland, and all were selected by Sylvester Campbell, of Kinellar, a thorough judge of Shorthorns, both as regards individuality and pedigree. The following celebrated prizewinning bulls are represented in the lot, by their get or blood, viz.: Pride of Fame (7328), Marengo (6988), Prince of Rattle (7128), Ian Alpine (6949), Waverly (6972), Royal Star (7192), Brave Archer (7018), Prince of Archers (7120), Craibstone (6885), etc., etc. These cattle will reach home about 1st of August. Catalogues will be issued in due course, and will be mailed free to any address upon request."



# THE NATIONAL FARM Cream Separator

Manufactured by the Raymond Mfg. Co. of Guelph, Limited, manufacturers of the celebrated Raymond Sewing Machines.

THE National is an up-to-date machine, leading all others in separating cream by centrifugal force. It is the farmers' choice, because it runs easy, skims fast and clean, and makes a perfect cream, containing any per cent. of butter-fat desired. It is also easier to clean than any other. The National is built of the very best material suitable for the construction of a high-speed machine, and with proper care should last a lifetime. The bearings are interchangeable and easily adjusted. Every machine is guaranteed to do good work, and a trial of the "National" is solicited before purchasing any other. The already large sale of the "National," and the growing demand for it, shows how much the Canadian farmers appreciate a Canadian-made machine that does its work so easily and well, and at the same time returns such a large profit on the small investment. Ask for the "National"; try it and buy it.

THE CREAMERY SUPPLY CO., GUELPH, ONT.

General agents for Ontario.

MESSRS. CAMPBELL & GLENN, 381 TALBOT ST., LONDON, ONT.

Agents for the Counties of Middlesex and West.

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

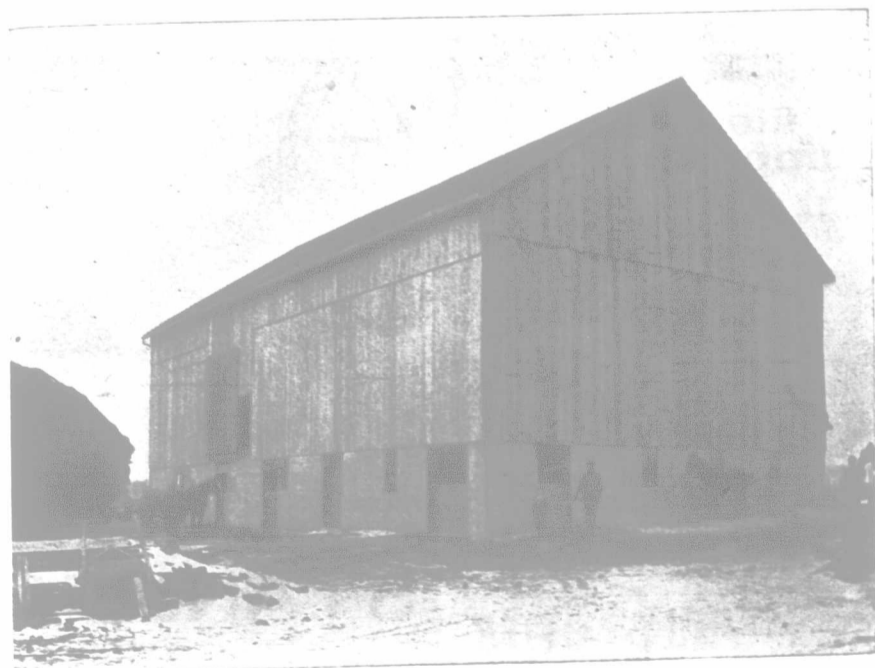
# The Raymond Mfg. Co'y of Guelph, Ltd.

GUELPH, ONT.

# A GOOD BARN.

With walls 11 feet high, and arched root-house under driveway. Walls

# Built With THOROLD CEMENT



Barn of John McFarlan, Leesboro, Ont. Size, 50x80 feet; walls 11 feet high. Walls and Floors built with Battle's Thorold Cement.

### READ WHAT MR. MCFARLAN SAYS:

ESTATE OF JOHN BATTLE, CEMENT MANUFACTURER, THOROLD, ONT., LEESBORO, ONT., Dec. 22, 1899.  
Dear Sirs, - It is with pleasure I testify to the good quality of your Thorold Cement, having used it in building the concrete walls of my barn, size 50 x 80, walls 11 feet high, with root house under driveway 11 x 12 feet, arched roof. The work was done under the supervision of Mr. Walter Lambert, and the floors under Mr. N. B. Hagar. I consider the work is a job for both to them, and to you. I have no hesitation in recommending your cement to those requiring it. JOHN MCFARLAN.

# Estate of John Battle, Thorold, Ontario.

### GOSSIP.

The American Oxford Down Record Association offers the following special cash prizes to Oxfords this year: \$250 at the International Exhibition, Chicago; \$50 at the Provincial Fat Stock Show, Guelph; \$30 at each State Fair in the U. S., and each Provincial Fair in Canada, where the Oxford breed is allowed a separate class.

A consignment of Oxford Down sheep have recently been selected and shipped by W. W. Chapman, of Fitzalan House, Arundel street, Strand, London, to the order of Messrs. H. Cargill & Son, of Cargill, Ontario. These are field sheep in store condition, and the measure of their quality and breeding can readily be seen from the list of their sires, among which is Jubilee Blazer, bred by W. J. Treadwell, and purchased at \$425 in 1897; Young Jumbo, bred by Mr. J. T. Hobbs, from whose noted flock the whole consignment was selected, was first-prize two-shear ram at the Maidstone Royal Show in 1899. This ram was by Jubilee, for whom Messrs. Hobbs gave W. J. Treadwell \$500.

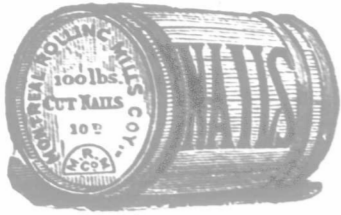
Experience has proven to the satisfaction of hundreds of breeders that it pays to advertise their stock continuously, and that a constant appearance of one's business before the public is better than intermittent efforts. A breeder should have his name and his herd name in the advertisement whether he has anything special to offer for sale or not. This keeps him in the mind of buyers, who are more likely to remember him when they want anything in his line of breeding than one who only advertises occasionally - the regular advertiser becomes a sort of acquaintance. Advertising is also cumulative - that is, it spreads a breeder's reputation over a wider field from year to year, as new readers are yearly added to the list of a paper's subscribers, and his name thus becomes a household word in thousands of homes over a territory even greater than the circulation of the medium used, because it is talked of by those who read to at least as many more.

Mr. J. P. Harsha, of Kansas, in a letter to Mr. Frank B. Hearn, Secretary of the Galloway Breeders' Association, writes: "In February, 1894, I purchased fifty-six Galloway heifers, not recorded, but most of them eligible; all were bred to registered bulls, and brought and raised fifty-four calves. I bought a bull, McBeth of Lyon, from E. W. Thrall. I used him five years on the original fifty-six cows, and raised 259 head of cattle. I bought another bull from Guy McCandless, Chase County, Kan., to use on the old bull's heifers, and from them I had equal success. My business being such that I had to close out my stock business this spring, I have sold everything but 125 calves one year old. These I will pasture until fall and sell them. Sales to date run a little over \$21,000, and I expect to get about \$4,500 for the 125 head, making over \$25,000 worth of cattle raised and sold in six years. I raised enough hogs to pay running expenses, and also pay the original cost of cows."

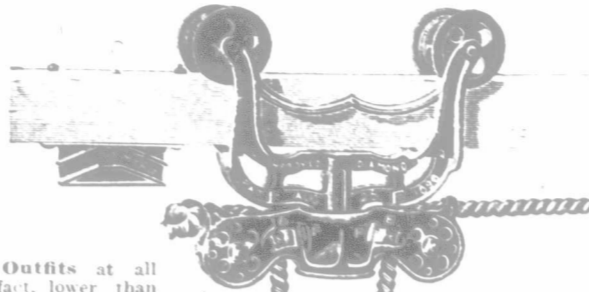
Under date of May 30th Messrs. H. Cargill & Son, Cargill, Ont., write: "Our Shorthorns have come through the winter remarkably well, and are about to go out on the grass in good breeding condition. Sales have been numerous during the winter season, especially so for heifers and cows in calf or with calves at foot, consequently we have not so many calves about as we had expected to have. During the season just closed we had 43 calves come on the farm, the last one arriving on the 11th May, only 20 of which we still have. They are a beautiful lot, and sired by such bulls as Count Sunbeam (7439), a grandson of Scottish Archer (6983), bred by Mr. Duthie; Silver King (75632), a Marr-bred Roan Lady, by Wanderer (60136), a Cruickshank bull, the sire of the 330 guinea bull, Scottish Champion (75598); Silver Plate (75633), the best of the bull calves of 1898 in the first-class Inverquhomery herd of Mr. Bruce, a Rosewood, sired by Waverly of Bapton Manor, at a long price, by whom he was shown at Newport this spring, winning first prize in a strong class of 16, containing the first prize Birmingham bull and other cracks. Lovat Champion (74948), by Lord Lovat's great breeding bull, Royal Star (71502), whose get were the winners at all the spring shows this spring, and sold for an average considerably over \$100. Mr. Duthie has repeatedly refused very tempting offers for this bull, the strongest possible evidence of his estimation of him. Scottish Champion (75598), the highest priced bull at the Duthie-Marr sale of 1898, bred by Mr. Marr, and bought by Mr. Duthie at 330 guineas, sired by the Cruickshank bull Wanderer (60136). Bapton Conqueror (73891), Mr. Duthie's choice of Deane Willis' crop of calves of 1898, out of which the Royal winner, Bapton Emperor (73882), was afterwards drawn. Count Amaranth (74280), imported by us last year, and a right good one, now in the herd of Thos. H. Canfield, of Lake Park, Minn., a Siltont Amaranth, by the Victoria bull, Count Arthur (60194), Princely Victor, an Uppermill Princess Royal; Best of Archers; Royal Member; Sovereign Duke; Scottish Victor, etc., etc. Our stock bulls are growing nicely, and developing as well as one could desire. Golden Drop Victor, the bull purchased at a long price at the Duthie-Marr sale of last year, is fulfilling Mr. Duthie's prediction of him where he speaks of his making a show bull. Mr. Duthie said of him: 'I think he is as good a calf as I ever bred, and I have a very high idea and hope of him, that he will be a show bull and a sire; he was always a favorite with me.' Prince Bosquet, a Princess Royal, by Wanderer, sire of the 330-guinea Scottish Champion, dam by the great breeding bull Athabasca, grandam by Heir of Englishman, has a combination of the very best blood, and, individually, is a first-class bull. Mr. Marr says of him: 'I have great faith in Prince Bosquet growing into a good bull, his dam has bred a lot of good ones, including the great bull Prince Frolic, used by Mr. Duthie for some time, and now in a good English herd for the second time.' He is the sire of Mr. Dustin's 300-guinea bull, Merry Hampton, Fashion's Favorite, of the Fragrant family, by Prince of Sanghar (71251), a bull used in Deane Willis' herd for a season. Is a grand, thick, dark roan, square, level in his lines, great back in fact, a capital bull all the way, and having five crosses of Cruickshank-bred bulls at the very top of his pedigree."



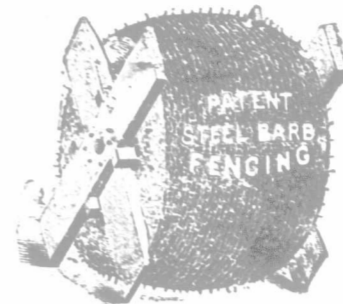
Send for Illustrated Price List.



Nails at less than car-load prices.



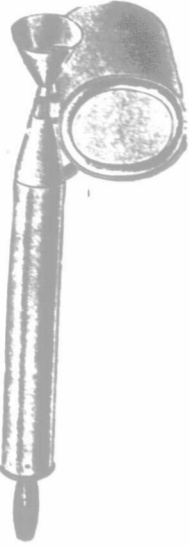
Hay Fork Outfits at all prices: in fact, lower than wholesale prices. If you want an outfit, buy at once, and get it in place in time.



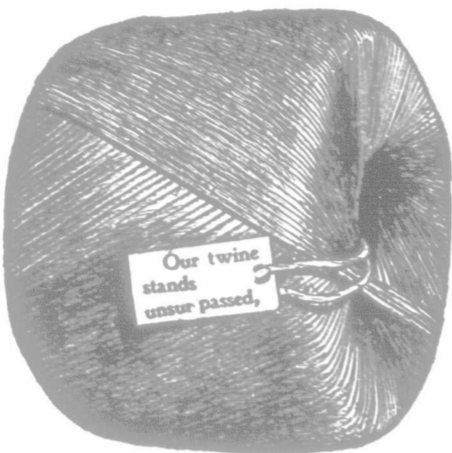
Barb Wire at factory prices.



Brace and 6 best Auger Bits, only \$1.50; postpaid anywhere in the Dominion for \$2.



Insect Destroyer, 75c. If required by mail, add 25c. for postage.

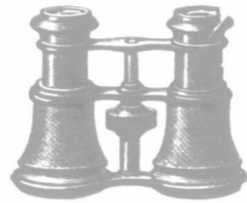


Our twine stands unsurpassed.

Blinder Twine at rock-bottom prices.

Threshers' Supplies. Belting of all kinds.

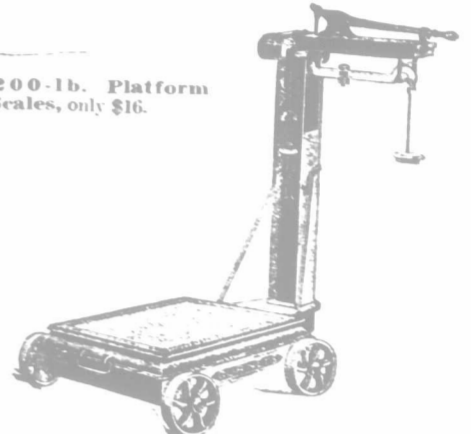
Machine Oil in all size vessels, at lowest prices.



Field Glasses at \$1 and \$5 each.



Clocks.—A beautiful eight-day clock—strikes the hour and half hour—only \$3.00.



1,200-lb. Platform Scales, only \$16.

WILKINS & CO., 166 AND 168 KING ST., EAST, TORONTO.

GOSSIP.

G. A. Brodie, Bethesda, Ont., breeder of Shorthorn cattle and Shropshire sheep, writes: "Short horns are doing well. Have a few good young bulls ready for service, which I offer at reasonable prices. A nice crop of excellent bull calves coming on for next season. Have also some good Shropshire rams and ewe lambs which will be for sale in the fall."

An Ottawa correspondent says that Mr. Robert Beith, M. P., is proposing a scheme for improving the horse stock on the Canadian Northwest ranches. Mr. Beith's idea is that the Government ought to establish an experimental horse ranch, which should teach the natives how to breed the right class. If placed in charge of competent men it ought to be a paying enterprise from the outset, not to speak of the healthy effect it would have on horse breeding in this country. With the prospect that our Canadian militia will be reorganized on a mounted infantry basis, and with Great Britain looking this way for army remounts, Mr. Beith is convinced that there will be a large and constantly expanding market for Canadian horses, provided they are of the right sort. Another proposal Mr. Beith has made for the improvement of the equine standard in Canada is that prizes should be offered by the Government for the best sire of each year. This prize scheme has been in operation in England for fifteen years, and the War Office declares that the benefits have been remarkable.

Visitors interested in Shorthorn cattle at the World's Fair at Chicago, in 1893, will remember the incident of Geneva, the little daughter of the late Col. T. S. Moberley, of Kentucky, leading into the show-yard arena the ponderous bull, Young Abbottsburn, winner of the grand championship prize as best bull of all beef breeds. The seven years intervening have made sad history for the family of Col. Moberley. Some three or four years after the event above referred to the Col. lost his life by drowning in a heroic effort to save this little girl from a like fate. The child was saved, but during last winter she sickened and died. The sad announcement is now made of the death, on May 19th, of Mrs. Moberley, the death of her daughter, added to her grief over the death of her husband, proving more than she could endure, and it is said she died of a broken heart. Those who had the pleasure of meeting Mrs. Moberley at the World's Fair, and those who knew her more intimately, will remember her as a singularly bright, intelligent and amiable lady. Only the son, Neville, survives of the once happy family.

The noted Shorthorn bull, Robert the Bruce 2263, illustrated on another page in this issue, owned by Mr. C. A. Archibald, Truro, N. S., is a massive roan bull of excellent quality of flesh and hair, with deep ribs, long, level quarters, and stately appearance. He was born April 3rd, 1895, bred by H. J. Elliot, Danville, Quebec, who purchased his dam, imported Minnesota 2482, and her white bull calf, Silver Chief, by Imp. Indian Chief, from Mr. Arthur Johnston, of Greenwood, Ont., and left her at Greenwood to be bred to Imp. King James 2887, before being shipped. The resulting offspring was the bull Robert the Bruce, and was sold to Mr. Elliot by Mr. Johnston, and by Mr. W. E. Elliot, of Hespeler, Ont., who purchased a roan or two-banded head with good horns, and will be handsomely developed, and a lot of good stock and grand calves, and a number of other things, which will be sold at a low price, and will be a great asset to the farmer.

A \$3000. STOCK BOOK FREE. It contains 183 large colored engravings of Horses, Cattle, Sheep, Hogs and Poultry with an illustrated veterinary department. The engravings cost us \$3000. We will mail you one copy free, postage prepaid, if you write us and answer these four questions: 1st—Did you ever use "International Stock Food" for Horses, Cattle, Sheep or Hogs? 2nd—Is it for sale in your town in 25-lb. pails? 3rd—How many head of stock do you own? 4th—Name this paper. "International Stock Food" is a safe vegetable stimulating tonic and blood purifier. It fattens stock in 30 days less time and saves grain. Aids digestion and assimilation. Thousands of farmers feed 50 to 200 lbs. every year. It makes colts, calves, lambs and pigs grow very rapidly and only costs 3¢. 3 Feeds for One Cent. It makes hogs weigh 300 lbs. at 6 months. It cures and prevents many diseases. Always sold on a guarantee to refund your money if it ever fails. Cheap and inferior imitations are on the market. Our dealers give this book free with "International Stock Food" in pails or barrels.

FLEMING'S LUMP JAW CURE. QUICKLY CURED. A case of lump jaw in your herd means immediate loss; it may mean the infection of the rest of your herd; it may result in the distribution of the germs all over your pastures. All loss and danger can be positively averted by prompt use of Fleming's Lump Jaw Cure. The only radical cure known. Is endorsed by the most prominent ranchers and shippers of the continent. Easy to use. Is applied externally. One to three applications cure. Leaves jaw sound and smooth. Cannot harm in any way. One bottle usually cures two or three ordinary or one severe case. Price \$2.00. Sold by druggists. Can be sent anywhere by mail. Money cheerfully refunded if the remedy ever fails. FREE—Some important reports and an illustrated treatise on Lump Jaw. Write for them. FLEMING BROS., Chemists, St. George, Ont.

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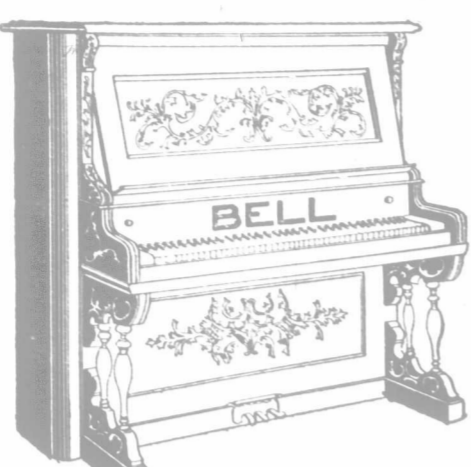


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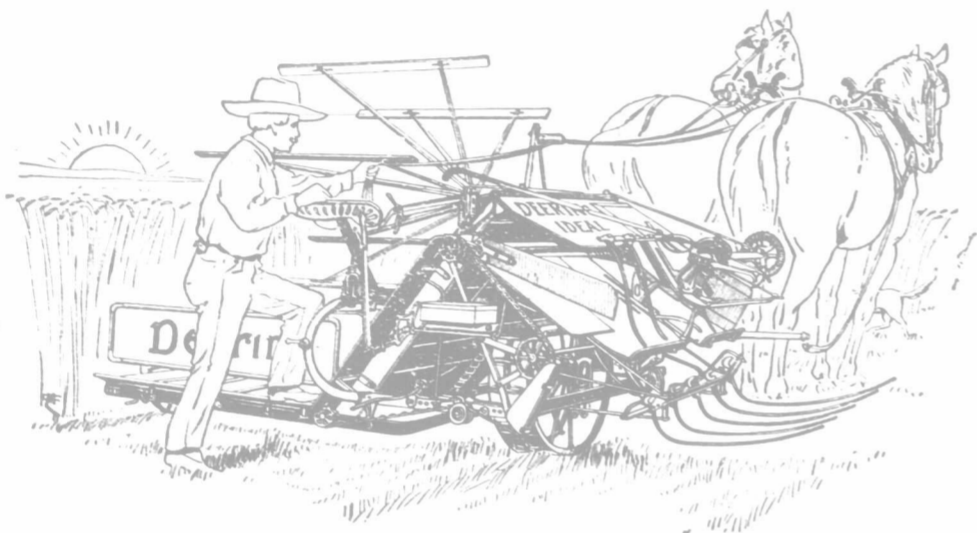
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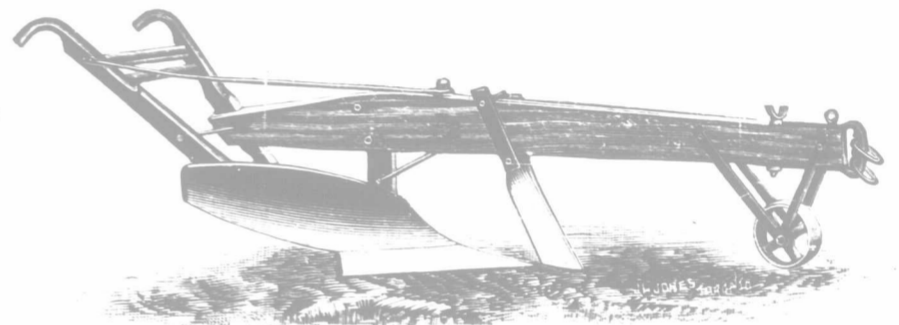
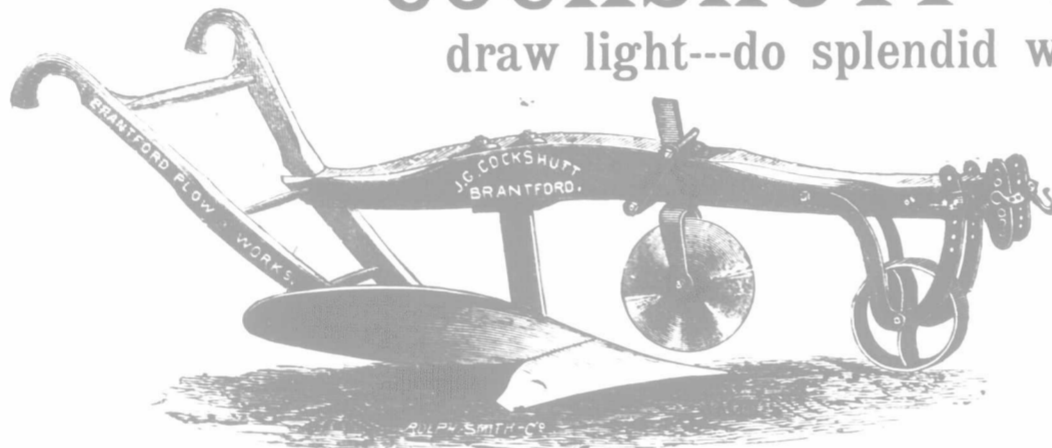
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