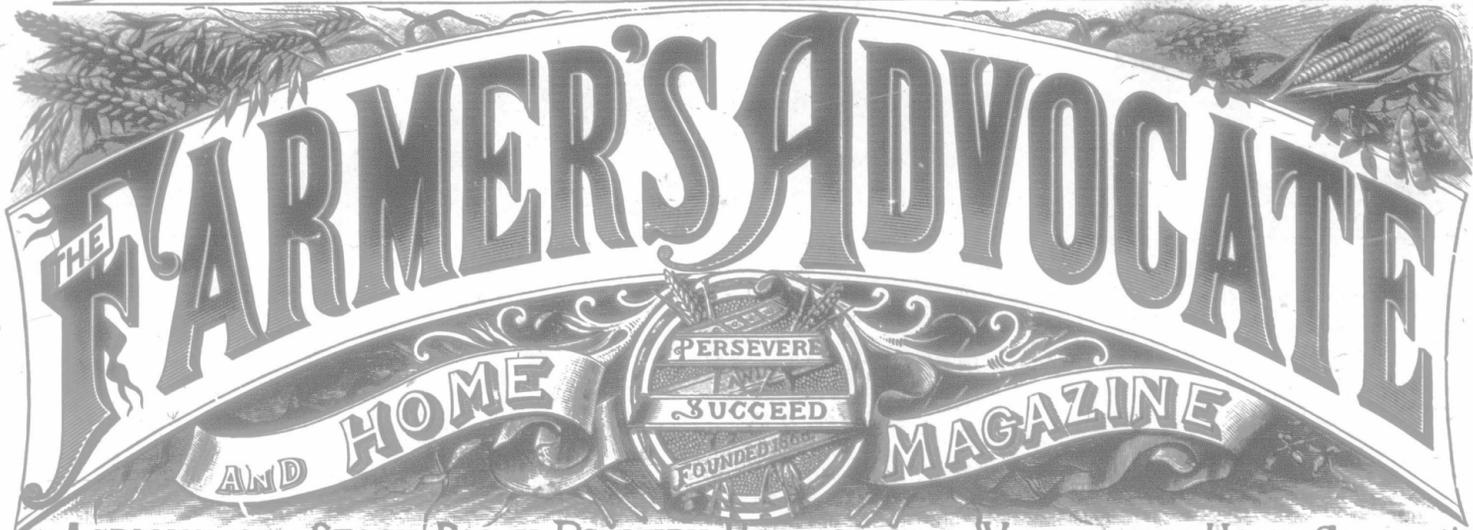


MANITOBA AND WESTERN EDITION



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

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Vol. XXXIV. LONDON, ONTARIO.

JULY 5, 1899.

WINNIPEG, MANITOBA.

No. 481.

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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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Vol. XXXIV.

LONDON, ONT., AND WINNIPEG, MAN., JULY 5, 1899.

No. 481

The "Farmer's Advocate" in New Quarters.

On this page appears a half-tone engraving of the McIntyre building, in which the FARMER'S ADVOCATE will make its future home. This magnificent building, certainly the finest business block in Western Canada, has just been completed on the site of the building destroyed by fire a little over a year ago. It has a frontage on Main street, just north of Portage Avenue, of 174 feet, a depth of 91 feet, is five stories high (six stories in the center), equipped with two large elevators, so that the higher stories are practically of as easy access as the first floor. The whole front is built of light blue Bedford limestone from Indiana, giving a very massive and solid appearance. Throughout the building is solid masonry, practically fireproof, and all internal finishings are in solid red oak, beautifully oiled and polished. The block is equipped from top to bottom with every modern convenience, and the front rooms lighted with large plate-glass windows. The beautiful suite of front rooms where our friends will now find us are in every way much more attractive and commodious than our old offices, and better fitted for the requirements of a modern publication and a rapidly increasing business.

It is not our custom to "talk shop," but for the information of many who have within the past few years joined our list of readers and patrons, it might not be out of place at this time to refer to matters of a personal nature.

It is now nine years since the Manitoba and Western edition of the FARMER'S ADVOCATE was established in Winnipeg, with the late J. W. Bartlett as editor. Upon his acceptance of the position of chief clerk in the Provincial Department of Agriculture, Mr. Wm. Thompson took editorial charge for a year and a half, being succeeded in the fall of 1892 by George H. Greig, who has since occupied the position of managing editor.

Our advertising department is in charge of Mr. D. W. McIvor, a son of one of the pioneer farmers in the Selkirk settlement of Kildonan, on the Red River.

Conducted upon an independent basis, without fear or favor, from the outset the FARMER'S ADVOCATE has met with popular approval, resting upon the secure basis of usefulness to the farmers and stockmen of this rapidly developing country. Its policy has been to tell the truth and give the Western farmer the most reliable information in regard to grain-growing under prairie conditions, stock-rearing, and other branches of agriculture. Neither effort nor outlay has been spared to furnish the reader the very best service and the highest class of an agricultural publication possible. Writing of Mr. Greig's occupancy of this position, an acquaintance makes the following kindly observation:

"Friend Greig is particularly well qualified for the position of editor of a Manitoba and Western journal. His early years were spent on a well-conducted farm in the fine old agricultural county of Oxford, Ont., among pure-bred stock, graduating from the widely-known agricultural college at Guelph in that Province in 1879. In the same year he located, in partnership with a brother, on a farm in the Red River Valley, where he remained till his acceptance of the editorship of the ADVOCATE.

He therefore passed through all the stern experiences of the pioneer prairie farmer, a school in which lessons are more thoroughly learned than they can be in any other way, becoming familiar not only with the practical difficulties which must be met, but with various other questions which directly or indirectly affect the prosperity of the West. On the farm at Otterburne a large and excellent herd of Shorthorns was maintained. While on the farm he was always an observant student, finding time amid the toils of the day to read the best works he could get hold of on agriculture and stock-breeding, as well as being a careful reader of the best agricultural journals. Understanding well the conditions and needs of the Western farmer and stockman, the practical side of the editorial work has naturally ever been kept in the forefront. I note also that friend Greig has found time to render service to the farmers and

Collyer, East Assiniboia; D. Fraser & Sons, Franklin; Wm. Grassick, Louise; James Riddell, M. P. P., Dufferin; W. R. Hull, Calgary; J. B. Powell, East Assiniboia; David Munroe, Winnipeg; Wm. Dickson, Indian Head District; J. J. Ring, Louise; Ferris Bolton, Pembina; Walter Lynch, Westbourne; Harry Brown, Brandon Experimental Farm; Wm. Wenman, Glenwood; H. C. Robey, Experimental Farm, Brandon; H. Ardington, Dufferin; A. B. Smith, East Assa; W. J. Johnston, Oaklands; Fred. Smith, Cornwallis; G. S. McGregor, Lansdowne; Hugh McKellar, Chief Clerk, Manitoba Dept. of Agriculture; W. J. Kennedy, M. P. P., Virden; E. J. Lawrence, Peace River District; R. G. Robinson, Elbow Park Ranch, Alberta; Chas. H. Goodhew, Franklin; J. S.

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Breeders' Association, Winnipeg; W. J. Young, S. Side Farm, S. Minn.; J. H. G. Bray, Stock Inspector, Medicine Hat; Dr. Jas. Fletcher, Dominion Entomologist and Botanist; and many others.

But in addition to its local strength, its connection with the Ontario and Eastern FARMER'S ADVOCATE, which for over thirty years has held the foremost place among the agricultural press of this continent, places it in a unique position. In this way we are enabled to utilize, in so far as we deem it suitable to Western conditions, the cream of the matter and wealth of illustrations provided for the readers of the Eastern edition by a strong staff of three of the best agricultural editors of America, all of whom have enjoyed the advantage arising from spending a considerable portion of time in Manitoba and the Northwest, making personal acquaintance with agriculture here. We have also the advantage of regular correspondence from two of the best authorities on live stock and other subjects in Great Britain "Scotland Yet" and Mr. W. W. Chapman, of London, Eng. Every member of our staff continues to retain their personal connection with the farms with which they have respectively been connected, so that they are in close touch with agriculture in all its varied branches.

We have scores of letters from farmers and stockmen all over Manitoba and the Northwest Territories bearing testimony to the superiority of the FARMER'S ADVOCATE. For these kind words



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stockmen by his presence on the Winnipeg Industrial Exhibition directorate. Coupled with enterprising methods, the ADVOCATE has, I am glad to say, exercised a wholesome and far-reaching influence upon Western agriculture."

Today the ADVOCATE has among its many regular contributors dozens of the most successful and practical agriculturists, horticulturists and stockmen of Western Canada. From these stores of experience our columns have been enriched and rendered in the highest degree helpful. Among many writers, we might mention a few to whom during the past year we have been indebted: Supt. S. A. Bedford, Brandon Experimental Farm; Angus McKay, Indian Head Experimental Farm; James Elder, Virden; Wm. Sanderson, Glenwood Municipality; J. H. McClure, Rockwood; James Bray, Portage la Prairie; W. E. Baldwin, Pembina; Henry Newmarch, Rockwood; K. McIvor, Wallace; James Duncan, Franklin; John Caldwell, Wallace; C. Marker and J. A. Kinsella, Government Dairy Service, N.-W. T.; J. R. Henry, Cornwallis; A. Maynard, Lake Dauphin District; A. Graham, Dufferin; Alex. D. Gamley, Cornwallis; J. G. Rutherford, M. P., Portage la Prairie; George Hoof, Dauphin; James Fleming, Morton; W. A. Robinson, Arthur; A. P. Stephenson, Stanley; John Hawkes, Eastern Assiniboia; William Wallace, Winnipeg District; D. F. Wilson, Dauphin District; W. A. Dunbar, V. S., Winnipeg; John Renton, Winchester; H. L. Patmore, Brandon; Fulton Bros., Portage Plains; F. J.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

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THE WILLIAM WELD COMPANY (LIMITED),
LONDON, ONTARIO, AND WINNIPEG, MANITOBA.

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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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14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD CO.,
WINNIPEG, MANITOBA.

we are always grateful, but are by no means disposed to rest on our oars. Improvement in every department is our determination, and to that end we solicit the aid of every reader. A word of appreciation expressed to a neighbor on the next quarter-section, telling of its practical merits and help, with a little effort on your part, will promote the good work of increasing our list of subscribers, thus enabling us to issue a still better paper.

The latch-string is on the outside of the door of our handsome new apartments in the McIntyre block, and we shall be glad to have readers and others interested in the great work in which we are engaged call and see us whenever opportunity presents itself.

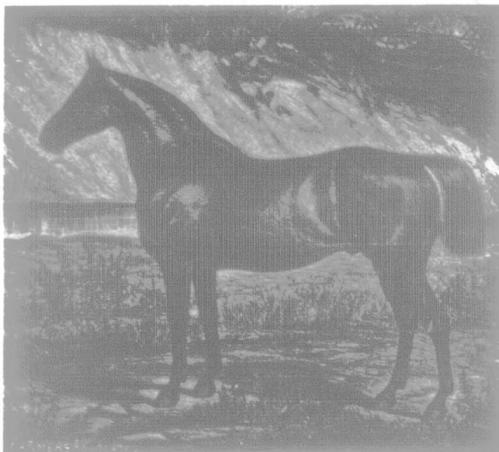
In the Roland District.

Roland, an ambitious young town on the Morris-Brandon branch of the Northern Pacific, lies about midway between Carman and Morden, in one of the most magnificent stretches of farming land in this broad territory. A soil unsurpassed in richness and durability, good natural drainage, water within easy access on almost every section, timber for fuel within reasonable distance, an efficient railroad service, and what is perhaps of equal importance, peopled with an excellent class of settlers, the district seems to be well supplied with churches, schools, football clubs and bicycles, but in the matter of road grading not as much progress has been made as in some municipalities one could name.

It was the writer's privilege to spend a couple of days among the settlers of a small portion of this district about the end of seeding, and to catch some of that June enthusiasm which is so contagious in the clear, bright atmosphere of those long, sunny days, when the wheat, in luxuriant growth, is nicely covering the ground and beginning to wave before the summer breeze.

The little town of Roland has made a mushroom growth, and boasts of four grain elevators. One of them, a farmers' elevator, we were told, had taken in more wheat during the past season than the other three. The farmers adjacent to neighboring

towns are following this example, and now farmers' elevators are under construction at Myrtle, Rosebank, and Miami. It is well to bear in mind, however, that to insure success in such an undertaking, having an elevator is not enough, it requires a head to manage it. Even if space would permit, it is not the intention of this article to "write up" the district adjacent to Roland, Rosebank, and Morden, for only a few hurried calls were made, and further remarks must be confined to a little individualizing. Half-way between Carman and Roland is situated Forest Home Farm, where Andrew Graham and his two oldest boys have some 400 acres in crop, 240 of which is wheat, 40 seeded down to timothy and native rye grass, and the balance in oats and barley. About June 18th barnyard manure was being spread on stubble and plowed under as fast as spread. On this, native rye grass was to be sown immediately to supplement the pastures for the Shorthorn herd that constitutes one of the chief attractions at Forest Home. The name is taken from a plantation of forest trees that, with shrewd foresight, were set out and carefully tended in the early days of settlement, and stand to-day an object lesson to every settler on a treeless farm. The grove now affords not only splendid protection to the home and barn buildings, but is a favorite picnic resort. The trees are a mixture of poplars, balm of Gilead, ash and native maples, set in rows equal distances apart each way. Adjoining on the east, Mr. Burnett has made a decided success as a wheat farmer, has added good, comfortable-looking buildings, and has a shelter belt coming on nicely. Another neighbor, Mr. Alex. McNaughton, farms a quarter-section and keeps a good stock of cattle, including a few fine Shorthorn females. Mr. — Wilton works a half-



THOROUGHBRED STALLION, KILBURN.
OWNED BY DR. J. G. RUTHERFORD, M. P. P., PORTAGE LA
PRAIRIE, MAN. SIRE WAPSBURY, BY SCOTTISH CHIEF;
DAM SAMARIA, BY SYRIAN.

section to the north, has a fine new house and a nice grove of maples.

To the south-west the Hardy family occupy several sections: good farms, good buildings, neat, tidy and prosperous-looking homes, each surrounded with a good grove of trees. In fact, there are few homes throughout the district where tree-planting has not been done. North and west of Rosebank, in what used to be known as the Tobacco Creek country, Jas. Riddell, representative of Dufferin in the Local Legislature, farms a section of magnificent land, and farms it well, and, in addition to growing wheat, makes a specialty of mutton sheep, about 100 grade Shropshire ewes having been wintered. A snapshot of the farm steadings and a few of the sheep, just shorn, together with their lambs, is reproduced in this issue. The buildings are beautifully located on the banks of Tobacco Creek. Seeding down with timothy and alsike clover has been practiced for a good many years to provide pasture for the sheep. The pastures have been fenced with woven wire, but still the sneaking prairie wolf has caused considerable loss, and on that account the flock has been reduced.

A little further up the creek, to the west, the Johnston Bros. have a fine section, with good buildings, well sheltered. Three hundred acres are in wheat this year, 90 in oats, 25 in oats to be cut green for green feed. For this latter purpose Black Tartarian are found to be best, sown four bushels to the acre. Formalin was used this year on oats, according to Superintendent Bedford's directions, and if effective as a preventive for smut, is considered a very convenient treatment. Some 40 acres have been seeded

down this spring, a mixture of timothy, Brome, alsike clover and orchard grass being used, the seed thoroughly mixed with the seed wheat and sown with shoe drill. This has given good results when the land was a firmly-packed summer-fallow, but is no use on loose land, as the grass seed is then covered too deeply. An experiment is being tried this year with seeding a patch of 10 acres at one end of the pasture field with rape, so that the stock can have access to it at pleasure. Of course there are several fields in pasture, so that the stock can be shifted from one to the other. Over 200 head of cattle, mostly steers, were wintered in open sheds and in the bluffs along the creek, to be finished on grass.

South and west of Roland a few miles, Andrew and David Allison occupy a section of fine land—a half-section each. The whole section is fenced, with divisional fences being put in. Each of the brothers has a good area of wheat in, as well as coarse grains. David has recently purchased the nucleus of a Shorthorn herd (see Gossip column), and intends erecting a new barn at an early date. Shelter belts have been set out on both farms, and in a few years will afford ample protection.

South of Rosebank, Peter Thompson, a half-section farmer, has a fine grove of maples, in the shelter of which is laid out a nice plantation of small fruits and a garden. The soil is a clear sandy loam, a choice location. A roomy, comfortable frame house and a new barn are conspicuous features. The barn is 42x66, with 9-foot stone wall, 16-foot posts and 26-foot purline posts. The frame is one of the heaviest and most substantial we have seen in this country. The barn is built on the level, with an embankment for approach to upper floor.

Just midway between Morden and Miami, at what was once the town of Nelson, A. P. Stevenson has, for nearly a quarter of a century, been a most extensive experimental horticulturist, and has now the gratification of having one of the loveliest places in the Province. The situation is peculiarly favorable, on the banks of a creek, which are well wooded with a natural growth of timber—oak, elm, maple, ash, etc., etc. A little half-tone engraving elsewhere in this issue gives but a peep of the beautiful grounds surrounding the house. Scotch pines, balsams, tamaracks and spruces (the native spruce the best in every case), all grown from seedlings, adorn the grounds, which are in every particular trim and neat. Flowering and ornamental shrubs, perennials and annuals in many varieties, help wonderfully in the general effect: Lilacs, honeysuckles, barberry, caraganas, flowering currants, etc., etc. Space does not permit of an account of the fruit department, which, by the way, was reviewed briefly by Mr. Stevenson himself in our June 20th issue. Suffice it to say that apples (both standard and crabs), plums, and a great variety of small fruits, all look vigorous and healthy, and give promise of a nice crop of fruit.

A few miles west of Nelson, nearer the foot of the Pembina Mountains, Mr. L. Watson is making a nice home on a half-section of strong, heavy land, with his buildings nicely situated on a creek with timbered banks.

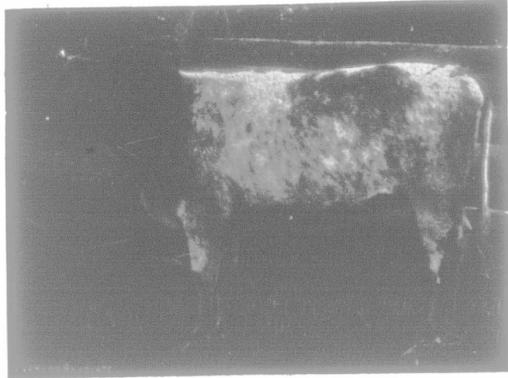
Mr. John George, another extensive farmer in this locality, has a half-section of home farm and another quarter a short distance away. He is a firm believer in mixed farming, and in order to practice it, built a big barn a year ago, 60x58, with 9-foot stone wall, 16-foot posts and 27-foot purline posts. He has a stock of good grade cattle, and a few Shorthorns. Mr. George has a comfortable home in a clump of natural forest timber, and is laying out a good-sized garden, including small fruits, etc.

A Distinguished Visitor.

Prof. Otto Lügger, the distinguished Entomologist of the Agricultural Experiment Station of the State of Minnesota, paid a visit to Manitoba about the middle of June, and accompanied Dr. Fletcher on his trip through the Boissevain and Deloraine districts, investigating the condition of the grasshoppers that have been in that locality for the past couple of years. A full report of their trip is given elsewhere in this issue by Dr. Fletcher. Prof. Lügger has had more experience, perhaps, than any other man in America in fighting the Rocky Mountain locust. In the Minnesota Experiment Station Bulletin, No. 53, he has given a most extensive history of grasshoppers, locusts, crickets, etc., covering over 350 pages, fully illustrated. The Professor was surprised at the rapid development that this country was making, and was especially delighted with the Brandon Experimental Farm, which he visited before returning south.

Summer-fallowing and Grass Rotation.

In all the older settlements of the West more attention is being given every year to soil cultivation, particularly where land has materially increased in value. When a man finds his farm worth \$20 or \$25 an acre, he is naturally disposed to give it better treatment than if it is only worth \$4 or \$5. Here and there in favored localities are spots that after even twenty years' steady cropping, show little or no evidence of exhaustion, but in the majority of cases continual cropping, without return of plant food of some sort, leaves the soil in a deteriorated condition, both as to fertility and work-



GRESETTE.

HEIFER CALF, TWIN WITH GREY HERO, BY VILLAGE HERO -14342-, OUT OF MERINGUE. BRED BY WALTER LYNCH, WESTBOURNE, MAN.

ing condition; light soils are more liable to drift and heavy soils more difficult to work and more inclined to bake. Under the present system of extensive grain-growing, summer-fallowing seems to be the only practical system of keeping the soil in condition, keeping down weeds, conserving moisture, and getting work done at a convenient time. But the bare fallow only tends to exhaust the root fiber or humus, and while it makes available fresh supplies of latent plant food, really adds nothing to the soil. On the big grain farms, or in localities not adapted to stock-raising, on account of scarcity of hay, pasture, etc., manuring with barnyard manure is out of the question, and the only practical system of restoring the humus to the soil is by seeding down to grass. But the grass, besides supplying the desired root fiber to the soil, will furnish the necessary pasture and hay for the maintenance of stock. The stock will also utilize and convert into manure a large quantity of straw and other roughage; will make a home market for barley, which can be used as a cleaning crop on manured land, and in the eastern parts of Manitoba, where the rainfall is generally more abundant, as a nurse crop with which to seed down to grass. The keeping of stock means a more equitable division of labor throughout the twelve months of the year, as well as fencing and the building of barns. With stock, fences and barns, a regular rotation of crops, with grass, can be adopted, labor can be provided throughout the year, the fertility of the soil maintained, the yield per acre of wheat increased, the returns to the farmer made more certain, and the stability and progress of the country's trade more firmly established, to the benefit of every resident, whether of town or country. Slowly perhaps, but none the less surely, must the exclusive wheat-grower become farmer in the fuller sense of the word. As one correspondent, from an almost exclusive wheat district, puts it, "The question of seeding to grass is one we have all yet to face before long, for we cannot go on much longer without doing something to renew the humus in the soil." And as we have endeavored to point out, stock-raising naturally follows grass-growing. This question of summer-fallowing and grass rotation is one of ever-growing importance, and we have pleasure in publishing herewith a number of letters from practical men in reply to the following questions:

1. How frequently do you consider it advisable to summer-fallow?
2. Do you give the land any previous treatment to plowing?
3. When should the plowing be done?
4. What after-treatment do you give?
5. By the adoption of a short rotation, including seeding down to grass, do you think summer-fallowing could be dispensed with? If so, what rotation would you suggest?

The Grass Question One that Must Soon be Faced.

As even in the same district there are different practices on the line of the questions you have requested me to answer, I will simply give you our own method, which has proved as successful as any.

1. I consider it advisable to summer-fallow every third year; that is, one crop on the summer-fallowed land, one crop on the stubble, then fallow again.
2. I give the land no other treatment than burning the stubble if possible.
3. The plowing should be done as soon after seeding as it can be done.
4. Harrow right after plowing; that is, not after the whole fallow is plowed, but every second or third day; in fact, every day would be better, then harrow and cultivate whenever weeds appear during the season. For all ordinary weeds this will be found sufficient, but if much volunteer grain comes up we go over with the gang plow and finish with the harrow. Some claim that with two plowings you get a heavier yield, especially from the stubble crop, but I have not found it so. Last year we had two pieces of summer-fallow: one of 23 1/2 acres, plowed twice, yielded 1,161 bushels; one of 28 acres, plowed once, yielded 1,152 bushels. This was thresher's measure, and each lot weighed out about 50 bushels more. Each of these plots got the same amount of harrowing. Twenty-five acres sown on stubble after a fallow, which was only plowed once, yielded 846 bushels. I consider that if you can get the weeds to start, and can keep them down with harrow and cultivator, one good plowing is as good as two; but if weeds get the start of the harrow, then a second plowing must be done, for if a fallow is to fulfill its object of conserving moisture and cleaning the land, it must be kept clean.
5. As an answer to the fifth question would be merely suggestion, and as I have given the subject very little thought, I would rather shirk it. Still, I do not think that summer-fallowing can ever be dispensed with entirely, especially in a purely grain-growing district as this is. The question of seeding to grass is one we have all got to face before long, for we cannot go on much longer without doing something to renew the humus in the soil.

Indian Head District, Assa. **GEORGE LANG.**

Importance of Early Plowing Summer-fallow.

1. In land which has been in cultivation more than five years, not more than two crops should be taken off without summer-fallowing.
2. Disking in fall or spring is an advantage to start weeds.
3. As early as possible after seeding. This conclusion has been brought home to me very forcibly within the last year or two through studying the effect of a potato crop on the crop of wheat following. I used to account for the extra yield we always get after potatoes over the best summer-fallow by the fact that possibly the potato-tops help to shade the ground, and that they often get a little extra cultivation. In harvesting my crop in 1897, I was particularly struck by the appearance of a strip of potato land alongside of my summer-fallow. I could not account for the decidedly better yield from either of the foregoing explanations—the potatoes having received the less cultivation of the two, and as the seed was bad, they were a very thin, straggling crop—so had to hunt around for another. It was this: The spring of '96 was a very wet one till about the end of seeding, followed by a very dry summer. The potato ground was plowed when the land was full of moisture, and this helped to retain it. The fallow, on the contrary, was not plowed till the end of June. The drouth by that time had become bad, and the growth of weeds on the fallow had pumped the ground quite dry. These weeds do not rot without moisture, especially if they have become hard and woody in the stem, and instead of being a benefit they are rather the reverse. I have acted on this explanation since. Last year I started to plow my fallow in the end of May, and although the season was the reverse of '96—a very dry spring up till the end of June, followed by a wet summer and fall—still at this date the early fallow is certainly the best.
4. The objection to this, that it takes a lot of work to keep early-plowed fallow clean, is no objection at all. The harrowing and cultivation it takes to keep it clean is just what it wants to store up the moisture, with us the most vital point in fallowing. I harrow as long as I can keep the weeds down in this way, then use a Wisner spring-tooth cultivator with broad shares attached.
5. We may by seeding down to grass be able to dispense with the word "summer-fallow," but I am afraid that will be all. What little experience I have had with grass leads me to the belief that if we wait for a crop of hay, especially if we let it mature enough to be fit for seed and then plow, the following crop of wheat will not be a satisfactory one. It should be broken and backset like prairie, the earlier the better. This with Bromé I think is an absolute necessity. I am like a good many more in the Province—trying to figure out a rotation, but have not got sufficiently advanced with my "figuring" yet to be able to "suggest" anything. This is something that will take years of patient experimenting.

Morton Municipality, Man. **JAMES FLEMING.**

Grass Rotation Dispenses with Summer-fallow.

In my case the answer to your fifth question does away with the other four, as I have followed a system of grass rotation for some years, not having done any summer-fallowing since '91. The ordinary fallow can be dispensed with by seeding down to grass. If cattle are grazing on a field, it can be plowed up at almost any time of the summer, but I think the best time is in July. The first grass field I broke up I broke and backset like new land, but it grew too much straw the next year and the sod disappeared too quickly, so since that I have plowed five to six inches deep in July and then worked along and across with disk harrow. Next spring I cultivate with the old spring-tooth seeder before drilling. The value of this spring cultivation I proved this year by missing a little piece, which is weedy, while nearly all the rest of the field is very clean.

After breaking up a grass field the rotation used at present is as follows: First year, wheat; second year, wheat; third year, oats; fourth year, part wheat and part barley, with grass seed mixed with grain; fifth year, hay; sixth year, pasture; seventh year, broken up. When the farm gets more heavily stocked with cattle I expect to grow some corn for ensilage and more barley and less wheat, which would change the rotation a little in second and third years. Wheat and barley are both better to seed down with than oats. All the manure that can be made is put on the field being pastured.

Wallace Municipality, Man. **CHAS. E. IVENS.**

A Grass Rotation Satisfactory.

1. On light soil (sandy subsoil) I have been in the habit of summer-fallowing every alternate year. On clay bottom every second and third year.
2. I give no previous treatment, but plow in July, or early enough to get all the weeds under before maturing seed, and give no after-treatment.
5. I feel satisfied that by seeding to grass summer-fallowing can profitably be dispensed with. The strongest points in favor of summer-fallowing are that it can be done at a comparatively slack time and that it kills a lot of annual weeds. In seeding to grass for, say two seasons, the first season there is excellent pasture, and the second hay, pure and free of weeds. This system, I find, has many advantages. It enables the farmers in grain districts to keep more stock; it frees the land of couch grass, if plowed in spring; it also prevents the soil from drifting, and, though I cannot explain the reason scientifically, it seems to renovate the soil, whereby I find a crop better after grass than when first broken up. I would not like to lay down a rotation for others to follow, but two years in grass and two in grain would suit light, thin soil, whereas on richer soils more crops of grain might safely be taken. In seeding grass as a substitute for summer-fallowing there is one point to notice, and that is, that instead of sowing it on the highest-cultivated piece of land, it must be sown on the poorest. I generally sow in grain in June. Last year I mixed with grain before sowing, with good results. This season I intend drilling in crossways in wheat.

Wallace Municipality, Man. **K. McIVOR.**



AT HOME IN HIS PADDOCK.

VILLAGE HERO -14342- AT THE HEAD OF PIONEER HERD OF WALTER LYNCH, WESTBOURNE, MAN.

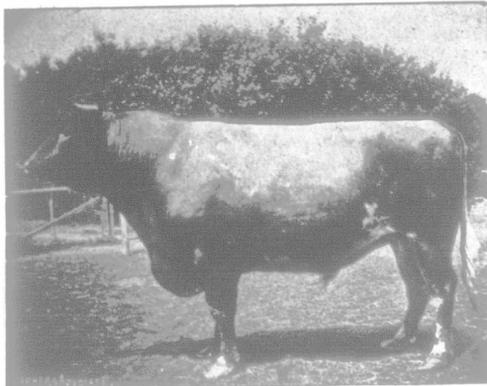
Manures for Barley and Seeds Down.

Would summer-fallow every fourth year if not seeded down. I have not given any treatment previous to plowing but disking would help germinate weed seeds. The fallow should be plowed before the sweet grass ripens, or if there is none in the soil, about the middle or towards the end of June. After plowing, harrow and cultivate to keep the weeds from going to seed and to get the land firm. I think fallowing might be superseded by a regular grass rotation. I would take one crop of wheat off grass sod, then oats and barley. I always manure with the barley crop and seed down.

Pembina Municipality, Man. **J. S. ROBSON.**

Summer-fallowing Indispensable.

1. I would not take more than two crops of wheat, and say one of oats or barley between summer-fallowing.
2. Nothing, except putting some manure on the high land.
3. The plowing should be done as soon as the weeds are well started, and it should be done before the weeds are large, for they take a great deal of nutriment and moisture out of the soil that should be reserved for the succeeding crop. People seem to think that if they turn under a large crop of big weeds that they are adding to the fertility of the soil. This I consider a great mistake, for I believe the



ROBBIE O'DAY =22672=.

BY IMPORTED PRIME MINISTER, AND OUT OF MARIGOLD, BY CHALLENGE, AT THE HEAD OF FOREST HOME HERD OF ANDREW GRAHAM, POMEROY, MAN.

weeds have taken far more, especially moisture, out of the land than they can give back.

4. The after-treatment consists of harrowing, and sometimes cultivating to kill any weeds that may come up, and to make a good seed-bed.

5. There is no rotation of crops that I have heard of that can take the place successfully of summer-fallowing. Things are very different here from what they are in Ontario and in many other countries. There the farmer on fifty or a hundred acres has a piece of land in hay, some in pasture, some in wheat, oats and barley, and a considerable acreage in potatoes, turnips, and corn; then they may do without summer-fallowing; but when we consider that many of us have more summer-fallow than many an Eastern farmer has land altogether, it will be easily seen that while that system of rotation may do for the East, it is not adapted for this country. Indeed, the question of seeding down and rotation of crops is a problem that has not been yet fully solved in this country. In seeding down it is very difficult to advise. Timothy, while it does fairly well on flat, moist land, does not do well on high, dry land. Brome grass seed is too expensive at 20 or 25 cents per pound to seed down any very large area. We have been told that the man that causes two blades of grass to grow where formerly only one grew is a benefactor to his country. I am sure that the man that finds a variety of grass suitable for this country, that can be sold at a reasonable price, will deserve the gratitude of the farmers of Manitoba. This grass question is of vital importance, and is yearly becoming more so. A proper rotation of crops is likewise difficult in this country. I have seen several systems proposed, but none of them are without some drawbacks. Indeed, while we are growing so much wheat, it will be difficult to find a proper system of rotation. The one that I have thought most suitable would be two crops of wheat, then plow the land well in the fall, and then again in May, and sow with barley and seed down with some kind of grass. Take a hay crop one year, pasture one year, and break up again for wheat. Now, I said that all the rotations had their drawbacks; the drawback that this one has is that it might be difficult to find a market at a paying price for the barley. Men that are doing something in stock could feed it and realize a good price for it in that way.

JOHN RENTON,
Winchester Municipality, Man.

Summer-fallow Early to Retain and Conserve Moisture.

It depends very much upon whether a man is growing grain exclusively, or is a mixed farmer, as to how he shall best handle his land. In mixed farming I think every five years is often enough to summer-fallow. After summer-fallowing I would seed down with wheat, pasturing the following year, then a crop of hay, and as soon as the hay is off plow the land, preparing it for wheat, followed by oats or barley. I prefer pasturing the first year after seeding down, for if there are any patches where the seed is missed it gives it a chance to fill up, and the stock will keep down the weeds, preventing them from going to seed. In exclusive grain-growing I think three crops plenty between summer-fallowing. I prefer plowing summer-fallow early, not later than the 1st of July. The earlier in the season the deeper you can go, as there is more moisture then in the ground. I like to plow about eight inches deep. With early plowed summer-fallow we have a chance to hold

the moisture in the soil by cultivator and harrow. I do not think we can give too much top cultivation. I do not think it advisable to advocate any system of farming which does not include summer-fallowing, as the acreage per farmer in this country is very large, and we can, by summer-fallowing, get a lot of work done between seeding and harvesting, during our slack time, having it ready for seeding the following spring. This is of great importance where we are farming so many acres and are much crowded with fall work.

J. H. IRWIN,
Langford Municipality, Man.

Barley as a Cleaning Crop.

I think it best to summer-fallow every fourth year, then take two crops of wheat, one of oats, and fallow again. My treatment of summer-fallow is as follows: Immediately after seeding, Randall or disk harrow, then drag harrow, and plow about the first of July; harrow again frequently to keep down weeds and create a soil mulch on the surface to conserve moisture. My reason for Randall harrowing first is to germinate all seeds and any grain that may have shelled out from the previous harvesting. We can hardly plow or summer-fallow early enough to prevent weeds from getting too woody. Another reason for Randall harrowing is that I find it the best way to destroy sweet grass; cutting it up well with the disk harrow early keeps it from seeding, and then plowing it deeply almost, if not entirely, destroys it. To dispense with some summer-fallowing, I find a good plan is to plow in the fall, applying all the manure made through the winter. Randall the manure in in the spring and sow to barley. Sow to wheat next year, and seed down to timothy. Let it lie in timothy two years, then break up, and you have land fit for a couple of crops of wheat and a crop of oats before fallowing or repeating the barley treatment.

STEPHEN BENSON,
Langford Municipality, Man.

A Four-Year Rotation Without Grass.

1. In the early days I summer-fallowed each alternate year, but found the crop grew too heavy and lodged. We then tried every third year, but have finally adopted the four-year rotation.

2. When time permits we plow lightly the fall preceding the summer-fallowing, the object being twofold: 1st, to give all weed seeds on the surface a better chance to germinate, and, 2nd, to check the couch grass, which is only propagated by the system of once plowing, because it matures its seed before the time of summer-fallowing.

3. Plowing should be done before the middle of July or seeds will mature.

4. After plowing we keep the harrows going till 1st August. About that time we sow wheat at the rate of one bushel per acre, using only each alternate shoe on drill. Objects: 1st, fall pasture; 2nd, compacting the land; 3rd, preventing the land from blowing during the following summer. (This is no new fad. We have practiced it with the most satisfactory results for the last nine years.)

5. I do not think of dispensing with summer-fallow; that is, summer cultivation of some kind, because otherwise the fall and spring work would be greatly increased, and these are our busy times. Besides, I consider the fall pasture I secure by the above plan of just as much importance as a crop of hay, and it is just at its best when the frost has withered the prairie grass. However, I could suggest a rotation which I believe would work all right, but I prefer to leave this to men who have practiced it successfully. I believe your intention, and the proper sphere for an agricultural journal, is not to publish theories, but the results of practical experience. I have, for a number of years, seeded with timothy, but find high-land hay a rather uncertain quantity, governed entirely by the season. For hay, I now prefer sowing thickly with oats or barley, and cutting on the green side. For winter feed we use chaff and oat sheaves. We never feed a pound of hay in winter. Our horses are always in good condition, and our cows milk splendidly.

JAMES ELDER,
Hensall Farm, Wallace Municipality.

Summer-fallow.

My soil is a dark loam, neither clayey nor sandy. My aim has been to take two crops of wheat and one crop of oats or barley, then summer-fallow. I plow as late as it is safe in order to get a large bulk of green growth to turn under, and the best fertilizer I can get of voluntary growth is Canada fleabane. I give no cultivation before or after. Cultivation of the summer-fallows on my land produces more straw than I desire, and the tendency is to retard ripening. I do not think it is wisdom to dispense with a summer-fallow. Every fourth year no cereal crop should be grown, but a grass crop or a green crop should be plowed under. In a small way I have grown and plowed under as a preparatory crop for wheat, peas, turnips, corn, rye, barley, rape, sweet clover, and timothy. As fertilizers they are all good. Wherever the land is of a hungry, sandy nature, I am satisfied it will pay to grow and plow under a crop of long-strawed peas every third or fourth year. In future the land I intend to summer-fallow will be plowed in the fall and seeded with rye early in the spring, and plowed again when the rye is heaving out about the end of June. I harrow the summer-fallow before seeding and after the grain is up, and it leaves the crop clean and the land compact enough to retain the moisture. I would

prefer a grass crop to plow under, but I can sow a green crop easier and cheaper.

WILLIAM LAUGHLAND,
Cameron Municipality.

Barley and Grass Take the Place of Summer-fallow.

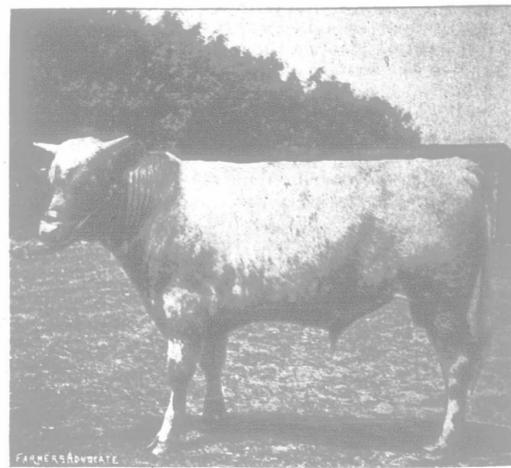
I am not an advocate of summer-fallowing, but many will summer-fallow, nevertheless, and anything that is worth doing is worth doing well and often. From what I have noticed in this district, summer-fallowing is done every third or fourth year, one or two crops of wheat, one crop of oats, then fallow.

One of the objects in summer-fallowing is to clean the land. In order to do this it is quite necessary to plow more than once, or cultivate in some other way. A piece of land intended for fallow should be either light plowed or cultivated the previous fall or in spring, so as to start weed seeds.

If plowed twice, first plowing should be done early in June, or as soon as there is a growth of weeds started, and followed by the harrow; if the land is very dry, and the weather dry, it is well to roll after plowing and before harrowing; the rolling will retain the moisture, the harrowing will prevent drifting. Second plowing should be done about the end of July or 1st of August, or soon enough to prevent any weeds going to seed.

Cultivate and harrow to encourage weeds to grow, and destroy them before going to seed, also to firm the land. This plan works all right as far as weed-killing goes, but on land similar to what we have on the Portage Plains this is too much cultivation for a profitable wheat crop, as we are very liable to get too much straw.

I am a firm believer that summer-fallowing could be dispensed with by a rotation of crops, including seeding down to timothy or Brome grass. With the latter I have had little or no experience. My opinion is that every section of land on the Portage Plains should carry from 50 to 60 head of cattle, besides horses enough to work the farm, also a number of hogs, so that all coarse grains could be fed on the farm. We can't get too much manure. As a rotation of crops I would suggest to commence with barley. Have the stubble land cultivated the previous fall or light plowed (the latter being objectionable on account of the growth not starting soon enough in the spring). Cultivating the stubble land with a disk or spade harrow is better than light plowing. Put about fifteen loads of manure to the acre, and, if possible, plow about the first week in June, or as soon as there is a good growth of weeds started. If the weather and land are very dry, harrow and roll close behind the plow. Drill two bushels barley per acre, harvest as soon as possible—a little on the green side if there is likely to be wild oats—plow and harrow in early fall to insure another growth of seeds. Land handled in this way gives a surer and more profitable crop of wheat than summer-fallows. Then seed down with either the first or second crop of wheat; if manured you can take a second crop before seeding. One crop of hay, then either pasture or cut another crop of hay, and break and bakeset the same summer. We can take two crops of wheat and a crop of oats. I have also sown a



CHIEF JUSTICE =27996=.

CALVED JULY, 1888. BRED BY ANDREW GRAHAM, POMEROY, MAN. Sired by MANITOBA CHIEF =2004=.

part of my land prepared for barley with oats, and cut them green for feeding in the sheaf. They make excellent feed for milk cows, young stock, and horses, and the wheat does about as well as on barley land.

JAS. BRAY,
Portage Plains, Man.

Barley as a Cleaning Crop.

The question of summer-fallow is one which few farmers deal with in a practical manner, and yet one which should receive most careful consideration. Where mixed farming is not carried on I would summer-fallow, disking the land as early in spring as possible; then when manure is available on the farm it should be applied. Plowing should commence by the last week of June, as by that

time the weeds have well germinated, but have not got too rank to allow of their being turned under. The land should then be harrowed frequently to kill weeds and firm the ground. Where mixed farming is carried on I do not think it advisable to do much summer-fallowing, as I have found by practical experience good results from the following method: Give the land a good manuring any time before the first of June, then plow just deep enough to cover everything well: harrow once, then roll with heavy roller, and sow barley at the rate of two bushels per acre with shoe drill. Barley is a quick grower and easy on the land, and we can get off the crop in 70 days, so that weeds do not get much chance to mature seed. As soon as the barley is harvested, or as soon as it is stooked in rows, plow the land again about an inch deeper than in the spring. This treatment effectively destroys nearly all weeds, especially couch or sweet grass, which is very troublesome and impossible to kill by an ordinary summer-fallow. It is well to harrow once or twice as soon after the second plowing as possible. This gives a fine seed-bed for wheat. In our district this treatment is more satisfactory than summer-fallow, as the wheat is not as heavy in the straw, ripening early and of better quality. I would then take two crops of wheat and one of oats and seed down with timothy, two crops of hay, and pasture the next season. In breaking up, plow three or four inches deep, after which give it top work only, and the results are equal to new land. W. E. BALDWIN.
Pembina Municipality, Man.

Summer-fallows Every Three Years.

Summer-fallow once every three years; that is, two crops and then summer-fallow. I don't give any previous treatment, but believe that more weeds could be got to germinate if land was cultivated early in spring or the previous fall. Plow summer-fallow between the 15th of June and the 10th of July. If, however, there is any

make the weed seeds germinate, but we think it is labor thrown away.

3. We do our plowing in dry years the 1st of July, and when it is a moist year like this has been we do not plow until 12th of July—more weeds have time to germinate, and the land does not require so much working.

4. Harrow after plowing, and if weeds grow we cultivate until all weeds are destroyed, then work it up in the spring to kill the perennial weeds.

Some years back we tried timothy, but as the seasons were dry, it did not grow, and we found it too expensive an experiment to keep up. This year we have seeded twenty-five acres, and some last year. If the seasons continue wet as this one we will seed down every year in order to get root fiber into the soil. Our plan of rotation is to take two crops of wheat, or two crops of wheat and one of oats, and then seed down, then two crops of hay, plowing right after the hay is taken off. We work the three or five years' rotation according to the strength of the land. WM. MIDDLETON.
Elton Municipality, Man.

Will Soon Require to Seed Down.

My plan of summer-fallowing is to crop two-thirds of the land and summer-fallow one-third, which means taking off two crops and then summer-fallow.

In a dry spring I harrow the land to be summer-fallowed, as soon after seeding as possible, so as to retain the moisture and germinate the weed seeds. When the ground is full of moisture, with frequent showers, the harrowing is not so necessary.

In a dry spring I plow as soon after seeding as I can get the weeds started to grow, in order to prevent the weeds drawing the moisture from the soil. In a wet year would let the weeds grow and turn them under before there is any danger of them maturing seed. My reason for this is, in a wet year we can easily spare the moisture, and the weeds, especially lamb's-quarter, take a great

4. We always drag as soon as possible to keep in the moisture and kill the rose bushes before they get rooted again, and also to get weeds started as soon as possible, so as to get the land cultivated before haying and harvest. This is of the utmost importance, as it means several bushels to the acre more.

4. I think it is indispensable to summer-fallow to keep up the fertility of the soil. In the absence of green manure, vegetable matter or humus, of course we can seed down with Brome grass or native rye grass for three or four years. Then it has to be broken again and backset, which is quite equal to summer-fallow, and a little better. The want of red clover is a great drawback; as a green manure nothing equals it, as it leaves the ground so much more open by its taproots, and supplies organic matter and nitrogen. Peas are another good fertilizer, but other fibrous-rooted grasses do not leave the ground in as fine, mellow shape.

I think a good rotation would be, for good land in perfect state of cultivation, two years wheat, then oats or barley, and seeding down. Barley is preferable to seed down with, as it appears to take so much less from the soil, and comes off much earlier, giving grass a better chance to grow. Arthur Municipality, Man. J. S. THOMSON.

Fairs of 1899.

CANADA.

Winnipeg Exhibition, Winnipeg	July 10 to 15
Western Manitoba, Brandon	" 18 " 21
Stanstead Live Stock, Stanstead, Que.	Aug. 23 " 24
Industrial Exhibition, Toronto	Aug. 28 to Sept. 9
Dundas County, Morrisburg	Aug. 29 to 31
Eastern Exhibition, Sherbrooke, Que.	Sept. 4 " 9
East Elgin, St. Thomas, Ont.	" 6 " 8
Western Fair, London, Ont.	" 7 " 16
South Lanark, Perth, Ont.	" 11 " 13
Kingston District, Kingston	" 11 " 14
New Brunswick Provincial, St. John	" 11 " 20



ON THE FOOTHILLS OF SOUTHERN ALBERTA.

stinkweed, shepherd's purse, or peppergrass in the land it should be plowed the end of May, as these weeds seed very early.

After-cultivation, sufficient to keep down weeds. Up till the present time we have used nothing but the ordinary harrow, but a cultivator that cuts the whole of the surface would be better, as it would destroy thistles and other weeds that grow from roots, upon which the harrow has no effect.

To dispense with summer-fallow it would be necessary in a rotation to have a large area in grass each year. Sufficient stock, however, would have to be kept to consume the hay grown. The following system might do: Sow down with Brome grass. The second year, after the hay is cut (about the beginning of July), break it up and backset a month later; then two crops of wheat, followed by oats and barley, putting on all the available manure before plowing. Corn grown for fodder in rows and cultivated might also take the place of a bare fallow. [This would only be practicable on a small scale.—Ed.] J. B. KING.
Whitewater Municipality, Man.

Summer-fallow.

The discussion of summer-fallowing is of ever-growing importance to us older settlers; the longer we are at the business the more we find there is to learn. Any experience of ours we cheerfully give for the benefit of new settlers or others of your readers. There are many farmers, and many ways of farming too, but there is only one right way, and that is the way we know to be the best way under our individual conditions.

We summer-fallow every three years—two crops of wheat and one of oats or barley; that is to say, old land that we have been working for twenty years; new land we take five crops off before summer-fallowing.

2. Yes, we have disked and harrowed land to

amount of nitrogen from the air, and when turned under in a moist soil are immediately available for plant food. In a dry season the weeds rob the land of the little moisture it has, and when turned into a dry soil are of little value, as they do not rot.

I harrow as often as it is necessary to destroy the weeds and keep the surface loose; my object in summer-fallowing being to germinate all the weed seeds within two or three inches of the surface and destroy the weeds, and as much as possible to retain the moisture from two seasons' rain and snow fall for one season's crop.

Can say very little in regard to seeding land down to grass, as I have sufficient wild hay and have not yet seen a paying crop of timothy in this neighborhood. We will have soon to begin seeding down our land, for I find that the land that was first broken bakes after a heavy rain, and we do not get the same good from a rain as we did in the earliest years, when the surface of the soil was full of grass-root fibers. W. T. JOHNSTON.
Oakland Municipality, Man.

Summer-fallowing is Indispensable.

1. I would say if the land is dirty, bad with weeds of any kinds, or run down, fallow after every second crop; if in fair condition of tilth and free from weeds, after two crops of wheat and one of oats. My method is the last named, as my land is clean and in No. 1 shape.

2. In regard to treatment of land, before plowing for fallow, if I have time after seeding I generally run the cultivator over to start the weeds, and sometimes the hoe drill. Load the hoes down with stones on drawbars, which makes a fine job. Cultivation before plowing is a great help, as it sprouts the most of the seeds.

3. I always like to commence in June, as soon as possible, generally about first of the month if we are not breaking.

Central Canada, Ottawa	Sept. 11 to 23
Wellesley & N. Easthope, Wellesley	" 12 " 13
Owen Sound, Owen Sound	" 12 " 14
Bay of Quinte District, Belleville	" 13 " 14
Southern, Brantford	" 16 " 21
West Middlesex Union, Strathroy	" 18 " 20
Northern, Walkerton	" 19 " 20
Prescott, Prescott	" 19 " 21
Central, Guelph	" 19 " 21
Great Northern, Collingwood	" 19 " 22
North Oxford, Woodstock	" 21 " 23
Nova Scotia Provincial, Halifax, N. S.	" 23 " 30
North Brant, Paris	" 25 " 26
Center Bruce, Paisley	" 26 " 27
Haldimand County, Cayuga	" 26 " 27
Central, Peterborough	" 26 " 28
North Simcoe, Stayner	" 26 " 28
Northwestern, Goderich	" 26 " 28
Peninsular, Chatham	" 26 " 28
North Lanark, Almonte	" 26 " 28
Center Wellington, Fergus	" 27 " 28
Ontario and Durham, Whitby	" 27 " 28
South Renfrew, Renfrew	" 28 " 29
North Perth, Stratford	Oct. 3 " 4
East York, Markham	" 4 " 6
North Renfrew, Beachburg	" 5 " 6
South Norwich, Otterville	" 6 " 7
"World's" Fair, Rockton	" 10 " 11
Norfolk Union, Simcoe	" 17 " 19

UNITED STATES.

Ohio State, Columbus, Ohio	Sept. 4 to 8
New York State, Syracuse, N. Y.	" 4 " 9
Cambridge, Cambridge, N. Y.	" 5 " 8
Monroe County, Stroudsbury, Pa.	" 5 " 8
Inter-State, Trenton, N. J.	" 25 " 29
Michigan State, Grand Rapids, Mich.	" 25 " 30
Illinois State, Springfield, Ill.	" 25 " 30
St. Louis, St. Louis, Mo.	Oct. 2 " 7

Tree Planting on the Western Prairies.

A few remarks on tree-planting from many years' experience in the Virden District may at this time be helpful to some of your readers.

The native maple is still the great stand-by, but two or three varieties of Russian poplar and willow have given the very best of satisfaction. The small maples for breaks planted mostly among the farmers are transplanted when one year old, grown either at their own places or at the nursery in Virden from seed. Never leave the transplanting till they are more than two years old. A good one-year-old tree is better than a two-year-old. Plant in rows about four feet apart and about three feet apart in the row. Trees will never smother one another at that distance. When they can't spread any more they will run up all the faster, and in time the bottom branches will begin to die off, and the windbreak will take care of itself after the third or fourth year.

Russian poplars and willows are grown from cuttings and are not very sure to strike on heavy land. Anyone getting fifty per cent. to grow should be well satisfied, and what do strike will grow half as fast again as the maple and live as long or probably quite a bit longer. On light sandy land the Russian poplar and willows are away ahead of the native maple. Seventy-five per cent. should strike, and they will grow very fast and thrive well where the maple can hardly get enough substance to live on. Russian stock should be planted about the same distance apart as maples, but do not prune them. It is all right to take off cuttings after about the second year, but be careful and not take off two many, as it is liable to spoil the tree.

Elm, ash, birch, and basswood are all a far better class of tree, but when a man wants to plant two to five thousand young trees for a break it is simply out of the question to talk of these varieties on account of the expense, which would be at least three times as great as with maples. The Virden District has had almost no experience with cottonwood. No doubt they are almost the same class of tree as the Russian poplar. There is probably no more vigorous or healthy tree grown than the Wobestii Riga poplar, and the Petrofsky follows very closely. Maple trees on the streets in some places where the land is very light and near the gravel find it difficult to live. Quite a few were lacking in vitality last fall, and this last winter, which was a little more severe than usual, seems to have finished them altogether. Russian poplars on the same kind of soil are in the very best of condition this spring. Maples on good land are all right, and have the thriftiest and healthiest appearance we have had for some years, almost no vermin of any kind to trouble them. A great many maples about an inch and a half in diameter are planted in this district from the river; they have good roots and nice, clean, straight trunks, and do extremely well. The top is cut entirely off about seven or eight feet from the ground, leaving no branches on whatever. In about a month they begin budding out all up the trunk, but only those coming out within a foot of the top are left on, thus forming a very pretty top the first season. These maples may be planted on sod, providing the sod is all dug down, leaving none within four or five feet of any tree. When planting a grove of these trees about six to nine feet apart, the whole thing should be dug, and kept in a good state of cultivation. When planting a tree the top soil should always be well pulverized and firmed down among the roots. Always dig a large hole, the larger the better. Small seedlings and cuttings of Russian stock are nearly all planted with dibbles for the purpose. One man and a boy can plant one thousand in ten hours easily. It is quite a mistake to round up the soil about the tree, leaving a trench probably three inches deep two or three feet out from the tree; that simply leaves the roots three inches nearer the sun; it is the roots that require the protection and not the trunk. Flat cultivation is by far the best, and on light land shallow surface cultivation and plenty of mulch on top. The middle of June is about the best and safest time to prune trees; the very worst time is about the middle of April or 1st of May, when the sap is sure to run out of the cut, and is liable to make the trees black-hearted.

Tree-planting in Manitoba is greatly on the increase, which is as it should be. A whole carload was shipped from Virden to C. H. G. at the spring of these river trees. They were carried free of freight, which was a liberal and far-sighted policy on the C.

P.R. There is a Transcendent crab here, with twenty-five nice little crabs on it, also lots of wild plums full of fruit. It is altogether likely that twenty years from now will see nice little orchards of crabs, plums, and even apples, all over Manitoba. There is one seedling apple tree here which has stood four years, and is thrifty and hardy to the tips after the past severe winter, with very little protection. It is just something like this that will lead us to what we want.

JOHN CALDWELL.

Wallace Municipality, Man.

Farming for Profit and Satisfaction.

To the Editor FARMER'S ADVOCATE:

SIR,—If the selection of a farm has to be made, it should be done with careful consideration as to location and adaptability for the particular kind of agricultural industry desired to be pursued, be it mixed farming, grain production, stock-raising for dairying or beef production, sheep industry, etc. In the case of the selection being an "improved" one, the material used in the construction, condition and convenience of buildings of all kinds, nature and condition of the soil (being careful to avoid that containing much alkali, and gumbo clay that has little or no vegetable mould on top), quality, quantity and convenience of water supply, convenience to market, church, school, etc., and surroundings generally, together with the cost to secure the same, should all be very fully considered before the final selection is made, bearing in mind that the cheapest in the first instance is not always the most profitable. But if already in possession of a farm, it is necessary to see to it that our operations are so directed as to be in accordance with the condition we find ourselves placed in, such as present worth, locality, condition and nature of soil, and all other circumstances.

In order to achieve the greatest possible success,

verting the by-products, such as straw and chaff and coarse grains, into a concentrated form, for which there is always a cash market, the same time leaving on the farm in the manure heap the best kind of soil fertilizer. Indeed, stock-raising is a branch of farming out of which a great deal of pleasure can be taken, and, unlike grain-growing, adds rather than deducts from the fertility of the soil. At least as many horses of suitable breed should be raised as to meet our own requirements from time to time, and a few well-bred ones, that have been well kept and well broken, will find ready sale almost any time, at a good margin of profit. I think many of us should feel ashamed of ourselves at not being able to supply some of the horses that have to be imported every year to meet the demand. For breeding purposes secure good brood mares, and breed to suitable pedigreed stallions. The cost for service should not prevent anyone from using the best. Try to raise horses that are worth having, and that will be suitable almost any time. All horses that are not required should be disposed of at the first opportunity. Do not permit them to "eat their heads off," as the saying is.

A good herd of cattle will also be found of great value. The selection should not only be made according to choice, but we should also be guided by the condition and circumstances we find ourselves placed in. But whatever breed is selected, be it for the production of beef, or dairy purposes, or for both, the object should be kept clearly in view, and in the selection of females, whether it be in buying the foundation of a herd or in weeding out, the most suitable ones should be retained; and bulls most likely to improve the herd, with good pedigrees, should be used. By all means avoid the scrub bull, even suppose he boasts of a pedigree. Thus, by intelligent selection and mating, feeding, good

shelter and care, a herd can soon be secured that will not only be pleasing to look at, but will also be a source of profit.

What has been said with regard to horses and cattle will also apply to hogs and sheep; that is, if the prairie wolf can be prevented from interfering too much with the latter. Barnyard fowls will be found as handsome and profitable as any, if the right breeds are selected and proper care and attention given. Care should, however, be taken not to attempt breeding more stock of any kind than can be properly fed and taken care of, as there is more pleasure and profit in raising one good animal than two miserable-looking, half-starved ones. The time spent in a vegetable and small-fruits garden will be amply repaid.

Good, comfortable buildings should be erected as soon as means will permit; everything in and around them should be made as convenient as possible; dwelling house and stock buildings should be located where an abundant supply of good water will be convenient. Buildings should also be conveniently situated, and at the same time removed far enough from each other to insure a reasonable amount of safety in the case of fire. Generally speaking, there should be four buildings—dwelling house, stock barn (with ample storage room for fodder), a granary, and an implement shed. Buildings should be kept well painted, not only as a protection, but on account of the improved appearance, and they should be kept well insured in some good Farmers' Mutual Fire Insurance Company, of which there are several in the Province, the rates being much cheaper, as they assume no risks on village, town or city property.

Fencing must not be neglected; an effort should be made to enclose the whole farm as soon as possible, and then it can be divided into fields as required. If nature has not provided good shelter for the buildings, it should be afforded as soon as possible by planting with some of the fast-growing kinds of trees, such as box elder, cottonwood, poplar, balm of Gilead, etc., on the north and west sides. Care should, however, be taken to not plant too close to the buildings, but to leave sufficient space for the snow drifts between buildings and shelter belts.

Do business on business principles, and, by all means, be honest and energetic. Keep posted on the value of things, and buy and sell to the best advantage, and do not try to get along without a copy of the FARMER'S ADVOCATE every two weeks.

Stanley Municipality, Man. JOHN GEORGE.

HERBERT SMITH, Saskatoon, Sask.: "Accept thanks for the efforts which have made your paper so useful to me, and my best wishes for your continued success." April 27th, 1909.



THE TOWN OF FERNIE, B. C., SHOWING THE COKE OVENS AND THE MOUNTAINS.

The above beautiful view of one of the many towns springing up among the mountains of Southern British Columbia reminds us of the incalculable importance the development of these vast mineral regions is to the agricultural and stock-raising interests of Alberta, Assiniboia, and Manitoba.

it is necessary that the experience of others similarly situated be taken advantage of, never failing to work with mind as well as with hands; industry and economy must be well practiced. I am very much in favor of mixed farming if properly conducted, but not mixed up to the extent practiced by some, first trying one thing, then another, and so on. I am in favor of mixed farming so arranged that our time and attention shall be fully taken up for the whole year, giving each branch taken up special attention, ever striving to produce at least as good as the best at the least possible cost of time, money, and labor.

Now, as much of this Province is well suited for the production of wheat and other cereals, both as to climate and soil, giving a good margin of profit and quick returns in average seasons, consequently that branch of farming should be taken up as extensively as possible, in most cases without exhausting the fertility of the soil. It is one, too, that only requires special attention during that part of the year when stock requires very little. First of all the soil should be well and intelligently prepared (different kinds of soil requiring different kinds of treatment). Then good sound seed of the best varieties, properly treated with bluestone, should be used, and well put into the soil with good press or hoe drill. Do not expect the same piece of land to give good crops of wheat a great number of years in succession, but arrange a rotation of crops, summer-fallowing occasionally, applying all the manure that can be made, and in this way keep the soil supplied with plant food. Manitoba is also well adapted for all kinds of stock-raising, and no farmer can succeed as he should without taking it up in some of its branches, as it requires very little of our time or attention during the season when we are busy with regular farm work. Stock-raising helps in grain-growing by enabling us the better to follow a system of crop rotation, as well as by con-

The Rocky Mountain Locust in Manitoba.

BY DR. JAMES FLETCHER, DOMINION ENTOMOLOGIST.

Last year some damage to crops in Southern Manitoba was done by the Rocky Mountain locust (*Melanoplus spretus*). The district then infested lies to the north of the Turtle Mountains and south of Boissevain and Deloraine, extending west of the mountains to Lennox. The region was visited in July, 1898, and also in the middle of the next month. The spring of 1898 was very hot and dry, and the grasshoppers, as a consequence, developed early, being fully matured with wing by July 7th. In August the numbers of the insect were such as to make it necessary to warn farmers that steps should be taken last autumn to prevent injury in 1899. The most effective remedy for locusts is to plow down all stubbles in the autumn, or before the eggs hatch the following spring. This remedy owes its efficacy to the fact that nearly all the eggs are laid in fields which have been under crop in the year when the invasion occurs, and also to the further fact that the eggs are laid in compact clusters, known as "pods," about an inch below the surface of the ground, with an opening at the top through which the young emerge. It has been found by experience that if the land is plowed so that the surface is turned over about 4 1/2 inches deep, the opening of the egg cluster is turned down, and when the young grasshoppers hatch they are unable to work their way to the surface. It is best to do this plowing in the autumn, but if this is impossible, good work may be done the following spring, the surface of the land becoming consolidated by rain or wind.

Meetings were held last year in the parts where the grasshoppers occurred, and articles were published in the FARMER'S ADVOCATE and other papers urging farmers to plow as much as possible, not to sow any crops on stubble, and to turn down all summer-fallows in 1899 before the middle of June. Many did take these precautions, and doubtless much good will result therefrom. In company with Mr. Hugh McKellar, the Chief Clerk of the Manitoba Department of Agriculture; Mr. Charles Braithwaite, the Provincial Weed Inspector; and Prof. Otto Luggner, the eminent State Entomologist of Minnesota, I have recently (June 17th) examined some of the lands where grasshoppers occurred last year, and it seems well to make known, for the sake of Manitoban farmers, what was found to be the condition of affairs. Meetings were called and well attended by interested farmers at Boissevain on June 14th, and at Deloraine on June 15th. At these meetings addresses were given by Messrs. Luggner, McKellar, and the writer, in which the life history and the nature of the insect, the extent of possible damage, the actual state of present affairs and the best remedial measures to adopt were fully explained.

The Life History of the Rocky Mountain Locust.—The eggs of this insect are laid towards autumn, and each female lays an average of 100 eggs. A healthy, well-fed female lays one large pod of about 80 eggs, and two or three smaller ones of from a dozen to 40, in varying numbers. These eggs are deposited in such places as there is little root fiber in the ground, and where the soil is not too loose or too hard. The most suitable places are fields which have been under crop, bare patches in timothy fields, along roadsides, and on railway banks. They are seldom laid in land heavily cropped or on the open prairie, where the land is full of roots (which form a mechanical hindrance to the female when making the holes to lay her eggs) or where a dense crop shades the ground. There is only one brood of this insect in a year, the eggs remaining in the ground all the winter, and the dark-colored young locusts (about 1/2 to 3/4 inch in length, shaped much like the full-grown ones) hatching, as a rule, when the wheat is about two inches high the following year. Last season this was towards the end of May. This year in the same place, owing to the cold, wet and backward spring, the young were only beginning to hatch by the middle of June. These grasshoppers take six or seven weeks after they leave the egg to become fully developed, during which time they pass through six stages, in the last of which alone do they possess wings with which they can fly. They are from the beginning social in their habits, and, when abundant, more like armies eating everything before them. This habit makes it possible to control them by plowing them down when young, or with mechanical contrivances.

The Present State of Affairs.—There are at present in Southern Manitoba sufficient young grasshoppers already hatched—and many more have yet to hatch—to make it most advisable for farmers to watch their fields carefully and notice whether any young locusts appear in undue numbers, so that the remedies given below may be promptly applied. Near Boissevain no Rocky Mountain locusts were found, and a remarkable absence of even the many ordinary native species was noticed. South of Deloraine the insects were found to be hatching in considerable numbers. Egg pods were also discovered, and although a vigorous onslaught was being made upon these by parasites and predaceous enemies, there were a great many healthy eggs which will hatch in a few days.

Remedies.—All summer-fallows should be plowed at once, so as to bury the unhatched eggs and the recently-emerged young. When young are seen on stubble land, this should be plowed round from the outside, using as many teams of horses as possible, following each other in quick succession, so as to drive the young locusts to the center and bury them up as they fall into the furrows. When they have left the hatching grounds and have entered crops, these latter must be treated with the implements known as "hopper-dozers," which may be cheaply made as explained by Prof. Luggner, who has had much experience in fighting locusts in Minnesota and Dakota: Take a sheet of stovepipe iron, 12 ft. long by 2 ft. wide, and turn up the edges 2 in. all round. Beneath this pan attach three pieces of board 6 in. wide as runners. The two outside ones of these must project 3 or 4 in. in front and all about 2 in. behind. To the two outside runners ropes 12 to 15 ft. long are attached by means of rings on holes bored through them. On the 2 in. projecting behind a light frame rests, covered with factory cotton or canvas, about two feet high and stayed by means of side pieces at the ends. In the bottom of the pan about an inch of water is placed, and in this, to prevent slopping, a piece of canvas. A small quantity of kerosene oil is then poured in, and the machine is ready for use, at a cost of a little more than \$1. This is dragged quickly over infested fields by means of horses or boys, and two or three hopper-dozers may be easily attached side by side and drawn by a single horse. About a foot in front of the pan a slack rope is attached to the two ropes, which drags along the ground and disturbs the locusts, so that they hop up and then drop into the pans. Tar has been used for the above purpose, but is far less satisfactory than kerosene oil (coal oil). It is much dirtier to use and sooner becomes thick by reason of the dust which on windy days or on dry land soon thickens the contents of the pan. Kerosene oil is particularly fatal to grasshoppers. Prof. Luggner states that if the locusts fall in for a second and then jump out again, as many do, they are sure to die, for if even one foot gets into the oil a kind of paralysis soon sets in, which destroys them. Drawing the hopper-dozer over crops until they are nearly a foot high does no harm, and as a rule

mulch, in a very few days the Brome plants would have appeared above the stubble and soon covered the ground. So do not be discouraged if very few grass plants show up at this season of the year, and do not neglect to mow the weeds when sufficiently high for that purpose. It is well to go over the grass field early in the season and keep a watch for noxious weeds. This is particularly necessary when foreign seed is used. With a little practice nearly all the weeds can be detected, and they should be pulled up and destroyed at once.

Fields of last year's sowing kept for seed: Only such fields as are particularly free of weeds should be reserved for seed purposes, for it is very difficult to separate the lighter class of weed seeds from Brome seed. If, however, there are but few weeds, they can be pulled by hand early in the season. If the best results are to be obtained, care must be exercised that the seed is in the right stage when cut. The hull covering the seed is at first of a purple color, and, if cut at this stage, the seed is light in weight and does not germinate well, and if allowed to remain uncut until the hull is a dull brown the seed scatters and much of the crop is wasted. We have found that the best time to cut for seed purposes is just as the color is changing from purple to brown. Cut at this stage, last year's seed, on this farm, germinated 100 per cent. For seed purposes the crop is cut with the grain binder and stooked the same as any grain crop. When well cured it is either stacked or threshed direct from the stook, as may be preferred. A considerable saving is made if a sheet is spread over the rack to catch the shelled seed, or a tight wagon box can be used for the purpose. We have, of late years, threshed out the heads of the sheaves of Brome by holding the sheaves firmly in the cylinder for a short time. This plan secures all the seed, with only a small proportion of chaff. The Brome straw, when the seed is threshed from it, makes excellent fodder, and is much relished by both horses and cattle. It must be borne in mind that a field kept for seed is permanently injured for future crops of hay, the ripening of seed apparently making a large demand on the vitality of the plant.

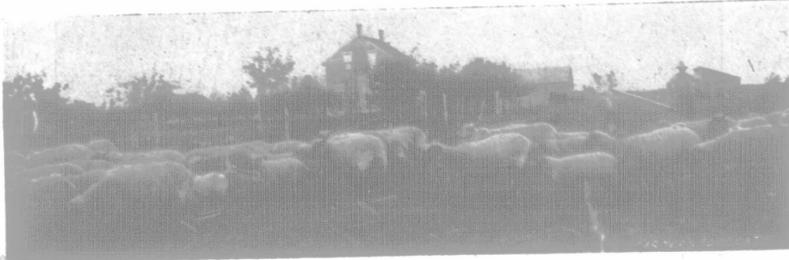
Cleaning the seed: As Brome grass seed is very light, it is somewhat difficult to separate from the chaff and broken stalks, but with practice an excellent sample of seed can be produced with the fanning mills generally in use here.

When grown for hay: Although Brome grass makes good hay, even when the seed is allowed to form, still, for the future welfare of the field, I would advise cutting when in blossom. The hay will then be tender, there will be a good aftermath, and the yield in future years will be better than if the seed is allowed to form. This grass has a large quantity of very succulent leaves, and for that reason requires careful and thorough curing for hay. If put into cocks too soon it will become musty. Fortunately, there is not so much danger of over-curing it as with some other varieties of grass. When properly cured all classes of stock are very fond of it. In average seasons it can be depended upon to produce a profitable crop of seed for two seasons, or a crop of hay for two or three years, depending on the seasons. Its limit for pasturing purposes has not yet been reached here. At the end of the sixth season a field on this farm continued to produce a profitable amount of pasturage.

S. A. BEDFORD,
Supt. Brandon Experimental Farm.
[On the moister soils of Eastern Manitoba it is general to seed down with wheat or with barley. A good many mix the grass seed with the seed grain and sow all together with the shoe drill. One extensive farmer in Dufferin Municipality, who has had considerable experience with timothy, Brome and other grasses, finds that seeding grass along with wheat gives good results only when sown on very firm soil, such as well-packed summer-fallow. On loose fall or spring plowing the seeds get buried too deeply. ED. F. A.]

Dilution Separation.

"Inquiries are constantly being received regarding the dilution or hydraulic separators. It is evident that large numbers of them are being sold and that claims are being made as to their efficacy in separation which are unsupported by facts.
"The dilution separator is a tin can with a faucet at the bottom, and more or less complicated in construction by tubes for the addition of water, or as a means of introducing air, or other so-called improvements. The tubes add nothing to the efficiency of the machine, and only are a pretext for charging \$10.00 to \$15.00 for a tin can, which without them would be worth one to two dollars.
"Everything claimed for the hydraulic separator can be equally well done in a shotgun can, and if water below 40° F. can be obtained, or ice to bring the temperature down to 40° F., the thoroughness of separation will be far superior to any hydraulic separator.
"The only case where there is any advantage in using the method is in milking from cows far advanced in lactation, and then the efficiency of the process is about equal to deep setting in ice. They are no more efficient than the old-fashioned shallow



THE HOME OF JAMES RIDDELL, M. P. P., ON TOBACCO CREEK, AND A FEW OF HIS GRADE SHROPSHIRE.

two treatments are sufficient to destroy the insects. In restricted areas, as gardens, or where an army is just moving into a crop, good results may be secured by burning on patches of dry straw spread over the fields upon which young locusts perch at night, or by poisoning. This may be done either by spraying a strip of crop with a very strong mixture of Paris green, London purple or arsenate of lead in water, or by sprinkling wheat bran, poisoned with Paris green, in front of the moving army.

Is the Position Serious?—It can hardly be said positively as yet that there will be serious havoc wrought by Rocky Mountain locusts this year, but there are certainly more insects in sight already than are good for the crop, and it would be most unwise for farmers to relax any of the vigilance they are now showing in attending to this outbreak, which if neglected might mean enormous loss not only to Southern Manitoba, but to much more of the Province besides. Although it is true we have not had grasshopper outbreaks for many years, it must never be forgotten that enormous loss was sustained from the attacks of this very species in 1870, 1872 and 1874 over a very wide area in Manitoba, and, of course, whatever has once been the case may be so again, unless much greater changes have taken place than actually have in the nature of the farms in the southern parts of the Province since the so-called "old grasshopper years."

Summer Treatment of Brome Grass.

To the Editor FARMER'S ADVOCATE:
A very large number of farmers will this year, for the first time, make a trial of Brome grass, and a few suggestions regarding its treatment may prove useful.
Fields of this year's sowing: Where the seeding has been done on spring-plowed stubble, without a nurse crop, weeds and volunteer grain will apparently, at this date, have full possession, and very little Brome grass will be seen. This state of affairs has, in former years, led many to condemn the seed as useless, and, fearing that the weeds would ripen, they have plowed up the fields. If, instead of doing this, they had mowed down the weeds and volunteer crop and left the cuttings as a

pan setting, with the disadvantage of greatly increasing the volume of skim milk to be handled, and in case hot water is used, as is sometimes advised, there is the added inconvenience of the rapid souring of the skim milk.

"If any dairyman wishes to try the method there is no patent to prevent his using the process to his heart's content. Numerous patents have been granted on the various forms of cans used, but these are of no particular value, except to their owners, and certainly are not worth to any dairyman the \$10.00 or \$15.00 which are asked for the so-called "hydraulic separators."—*Hoard's Dairyman*.

[NOTE.—As in the United, so in Canada, farmers have been vigorously canvassed by agents for these dilution cans, and not without success, we believe, as occasionally we hear of a man having purchased and using one of these separators, which are simply cans or tanks in which the fresh milk is mixed with an equal quantity of water, and the cream rises by gravity, as in shallow or deep setting. The strange thing about it is, people seem content to go on using such a system without going to the trouble of satisfying themselves, by a sure method, whether or not the work accomplished is worthy of confidence. We have no hesitation in believing that if careful tests of the skim milk were made by the Babcock test, the favorable impression of the system, if, indeed, such exists, would very soon cease to be. So far as we can learn, what *Hoard's Dairyman* says concerning the dilution plan is correct, as taught by proper tests. In our issue of Jan. 20th, of this year, we pointed out to our readers what careful investigation had discovered regarding the system. In fifteen tests made at Cornell University by Prof. Wing, an average of nearly one per cent. of the fat (which means from quarter to one-third of the total quantity) was left in the milk, while centrifugal separators seldom leave more than from one to two tenths of one per cent., shallow pans a little over three-tenths of one per cent., or deep setting three-tenths of one per cent. of fat in the milk. We did not feel warranted in commending these "separators," and declined to advertise them. We trust our readers will observe what authorities agree upon regarding some of these new things that receive no sanction from responsible institutions.—EDITOR F. A.]

Buttermaking for Exhibition.

In buttermaking one cannot lay down certain rules and rigidly follow them out, but the buttermaker must use his own judgment to a great extent—varying his methods at different seasons and also to suit the circumstances in which he is placed, so that the method which I shall give here may not successfully be carried out at all seasons of the year or in all of the different creameries of the Province.

In describing my method of making exhibition butter, I am simply describing the way I would make butter every day, if circumstances would permit, but during the warm weather, owing to the lack of care which some patrons give their cream, and the infrequency of gathering the same, the buttermaker has not always got the ripening of the cream and the flavor of the butter under his control.

Have the cream gathered perfectly sweet—separator cream if possible—and at a temperature of about 54°; this can be accomplished by the drivers taking a supply of ice, which is added to the cream as it is collected. Having strained the cream into the receiving vat, I stir thoroughly to have the different lots of cream well mixed so that they will ripen evenly. Then I would add two per cent. of starter which I have previously prepared. During the hot weather it is usually not necessary to use starter, as the cream contains the necessary amount, or more, of lactic acid when it is delivered at the creamery; in that case I would cool the cream down to below 50°, let stand over night, then heat to the proper temperature and churn next morning.

In preparing the starter it is better to use whole or skim milk, but as we only receive cream I use cream. Take nice, fresh, sweet, separator cream skimmed from the milk of cows not far advanced in lactation, heat to 90°, cover, and set away in a corner, where the temperature will be even, to ripen. When ready for use it will have a mild acid flavor and will be quite thick; before adding to the cream it should be broken up by pouring from one vessel to another or by pouring it through a strainer. After adding the starter, stir occasionally so that the body of cream will ripen evenly. Always keep the cream covered to keep the air from the surface of the cream. When ripe the cream will have a smooth, glossy appearance, will be fairly thick, and will show from .55 to .6 acid. Strain the cream into the churn, which should make from 60 to 70 revolutions per minute, and churn. This operation should take from 15 to 60 minutes. When the granules of butter are about one-half the size of a grain of wheat, draw off the buttermilk, straining it through a horse-hair strainer. After the buttermilk has drained off add as much water as there was buttermilk, at a temperature of 52°, and also add about 3% salt, so as to expel the buttermilk from the butter. After giving the churn 12 to 18 turns, let the water off and wash the second time with water at 50°. After washing the butter the second time let it drain 20

minutes, and salt in the churn, using 1½ ozs. salt per pound of butter. The amount of butter can be ascertained within a few pounds by testing a sample of cream from the vat with the Babcock tester, and calculating by the number of pounds of cream. After salting, take the butter from the churn, place it in large tubs or boxes in the store-room, which should be at a temperature of 54° or 55°, until next day. Next morning work the butter until the salt is evenly distributed through it, and the whole is an even color. I work in a Mason worker, and find 12 to 18 rounds sufficient.

In packing the butter, spray the inside of the boxes with formalin to prevent mold, and line with heavy parchment paper, which has been soaking in strong brine for 24 hours. Cut the squares of butter rather smaller than the box, and pack down solid, so there will be no spaces left in the butter. Begin packing at the outside, working gradually towards the center; this has a tendency to force the butter tight against the sides of the box. I fill the box flush and cut off level with a piece of string. With the 56-pound boxes I allow 1 pound for shrinkage, and a ½ pound on the 28's and 14's. The boxes I am using this year hold just about the proper weight of butter. When too heavy, I take out some by leveling off the edges all around the box. After the paper has been folded neatly over the top of the butter, spray with formalin, and nail on the covers with 1½-inch nails. Then place it in a jute sack, and the butter is ready for shipment.

I would advise all creameries to use sacks for their butter boxes this season. We are using them this year, and find that they not only keep the boxes nicer, but that the butter is not so much affected by the sudden change of temperature which is incident to shipping it.

A. K. BAIRD,
Maker, Rapid City Creamery.



THE FIRST BRICK FARMHOUSE BUILT IN MANITOBA SOUTH OF WINNIPEG. THE PROPERTY OF JOHN S. CAMPBELL, AT "SILVER PLAINS," MORRIS, MAN.

Blyth Plowing Match.

The Blyth plowing match, held on the farm of Frank Baker, was a greater success, in many ways, than any match previously held, there being over 50 competitors. The land was of a very even character, and there was a notable improvement in the quality of the work done. The judges—Messrs. James Henderson, George Halse, F. Thornton, J. H. Jackson, N. Reid, and H. Nichol—had no easy task in making the awards. While the judges were making up the scores, addresses were delivered by some of the prominent visitors present: Hugh McKellar, Chief of the Department of Agriculture; Prof. Luggler, State Entomologist of Minnesota; Dr. Jas. Fletcher, Dominion Entomologist and Botanist; Frank Fowler, M.P.P.; and others. The prizewinners, with the scores made, are as follows, in the order of merit:

Men's class, 14-inch walking plow (15 entries).—James Sutherland, 83 points; Thomas Murphy, 75; W. Guild, 69; W. Turner, 68; George Boles, 67; John Bain, 66. Blyth Farmers' Institute gold medal, value \$25, in above class, to be won three years in succession, James Sutherland.

Men's class, 16-inch plows (9 entries).—A. T. Elder, 83; George Charleson, 77; G. Mayhew, 73; A. Foster, 72; J. Davis, 66; N. Henry, 63. The P. Payne gold medal, value \$25, for championship in above class, to be won three years in succession, A. T. Elder.

Young men's class, under 21 years, 14-inch plow (6 entries).—Fred Terry, 65; R. Tran, 64; B. Barrager, 62; John Thornton, 61; Allan Tran, 59; Fred Wells, 58. Silver medal, value \$5, presented by A. E. McKenzie & Co., for championship in above class, Fred Terry.

Boys' class, under 17 years, 14-inch walking plow (8 entries).—B. Elder, 76; George Elder, 62; J. W. Leslie, 59; D. Charleson, 54. Silver medal, presented by T. F. Butcher, for championship in above class, Bain Elder.

Gang plow, 11 inches, four horses (8 entries).

George Ross, 74; Thomas Baker, 72; H. Lougham, 71; George Johnson, 69. Silver cup, value \$15, presented by Nation & Shewan, for championship in above class, to be won three years in succession, George Ross.

Twelve-inch gang plow, three horses (4 entries).—W. Elder, 77; Chas. Detwiler, 72; W. E. Lawson, 71; W. Charleson, 66. Silver cup, value \$5, presented by Henderson & Matheson, for championship in above class, Willow Elder.

Sulky plow, three horses (2 entries).—W. L. Johnson, Jasper Wells. S. A. Cox, V.S., medal, W. L. Johnson.

Sweepstake competition prizes.—Silver cup, value \$35, presented by F. O. Fowler, to be won three years in succession, A. T. Elder. Silver medal, value \$7, presented by J. W. Fleming, for the best crown and finish on the field, James Sutherland, best crown; A. T. Elder, best finish.

Special prizes.—For best kept and harnessed team (9 entries)—Wesley Morgan, Thomas Murphy; for best plow team, James Sutherland, J. Davis; best handled team, John Stot.

Prizes and Medals Offered for Grain Grown in the Territories

The Territorial Department of Agriculture has issued the following memorandum: This Department has been requested by the Commissioners for the International Exhibition at Paris in 1900, to procure samples of the various grains produced in the Northwest Territories in connection with the Canadian exhibit on that occasion, and it has, therefore, been decided to adopt the following plan: Three prizes will be offered by this Government at each of the forthcoming fall shows—\$3 for the best half bushel of wheat; \$2 for the best half bushel of oats; and \$2 for the best half bushel of barley; open only to grain raised during the season of 1899. The grain to be exhibited in a white duck sack, and the prizewinning exhibits to become the property of the Government. These samples will then be shipped to the Department of Agriculture at Regina, and any agricultural society which has not held a show during 1899, or held a summer show where grain of 1899 could not be exhibited, will then be invited to forward to the Department an exhibit of each of wheat, oats, and barley, raised in the district represented by such society, and after submitting the whole to competent judges, the following prizes will be awarded to the persons who raised the grain:

Best sample of wheat for Territories—Gold medal and diploma; 2nd, silver medal and diploma; 3rd, bronze medal and diploma.

Best sample of oats for Territories—Silver medal and diploma; 2nd, bronze medal and diploma; 3rd, diploma.

Best sample of barley for Territories—Silver medal and diploma; 2nd, bronze medal and diploma; 3rd, diploma.

The prizewinning samples will be sent to Paris as part of the national exhibit.

White Clover in Western Manitoba.

Wm. Laughland, of Cameron Municipality, Man., writes us under date of June 23rd: "The wheat I kept for the Brandon Show last year I sowed on a piece of well-prepared summer-fallow. It is remarkably fine." It will be remembered that Mr. Laughland won first prize on his wheat at the Winnipeg Industrial last year, and on that account was debarred from competing at Brandon. The letter continues: *Melilotus alba* (white clover) is over two feet high and in fine shape for plowing under." Certainly the growth of the samples enclosed was wonderfully luxuriant; but we would like Mr. Laughland to tell us more about this white clover, as to acreage, location and nature of soil, method of seeding, and cost of seed per acre, etc. On irrigated lands in the Eastern Rocky Mountain regions, according to a report on grass and forage plants, lately issued by the United States Department of Agriculture, white sweet clover makes a wonderful growth on irrigated lands. "At Belle Fourche (Wyoming) was seen near a spring about an acre that stood about 9 feet high," says T. A. Williams in said report. This clover makes a vigorous growth in ditches and on moist, heavy soils, and wherever it gets a good covering of snow seems perfectly hardy; but this is the first time we have heard of it making a two-foot growth under field conditions in Western Manitoba, or of being proposed as a crop for plowing under.

Hartney District.

Delighted with the rainfall and growth: from 1st of April to date (June 21st) precipitation has been 10.97 inches, unprecedented. The growth of the shelter belts has been immense, fruit bushes have been a mass of blossom and fruit is set well.

Brandon District.

Grain and grasses doing well. The heat-loving plants, such as corn, millets, etc., are almost at a standstill. Brome grass commencing to lodge. Lots of visitors at the farm every day.

S. A. BEDFORD.

Fattening Cattle Loose Instead of Tied.

Early in the year 1897 the attention of one of the editors of the FARMER'S ADVOCATE was called to the results of a comparative test between cattle fattened loose and a similar lot tied in the usual way. It was conducted on the farm of Hon. Wm. Mulock, Postmaster-General, near Aurora, Ont., in the County of York, and was under the oversight of Mr. Wm. Linton, the well-known Shorthorn breeder. The gains in flesh stated to have been made by the cattle at liberty, compared with these confined, were so remarkable as to challenge instant attention. A member of our staff visited the farm, obtained a description of the plan of feeding and particulars generally of the trial, which were published in the April 5th issue of the ADVOCATE of that year. There was not only the direct advantage of extra gain in flesh, but a simpler and less expensive plan of stabling, and lessened labor for the attendants, all of which are important items which a good business farmer will not overlook in these days of close margins, because they may mean the difference between loss and profit. That the subject deserved further investigation was, therefore, apparent on its face. On a few stock farms here and there the plan had been in use, giving satisfactory results, such as those of Mr. W. C. Edwards, M. P., of Rockland (where this plan had been in vogue for some years on an extensive scale); A. & D. Brown, Elgin Co.; the McMillans, of Huron; Baty, of Middlesex, and others, from whom we obtained and were enabled to lay before the farmers of the country a fund of definite and suggestive information. The desirability was suggested of an experiment on this subject at one of the Government institutions, and the matter was promptly taken up by Mr. Wm. Rennie, the able Superintendent of the Ontario Agricultural College Farm at Guelph. A careful trial was made during the winter of 1898, which resulted in favor of the loose system of feeding, as our readers are aware. In the 6 months' feeding period the loose steers, on similar rations, gained about 70 pounds each per head more than those confined. A good many others have since been encouraged to give this plan a trial, and the consensus of opinion seems to be that the cattle make greater gains—"do" better—on the same food with less labor. That they should thrive better with a fair amount of liberty and exercise than when tied day after day and month after month—in many cases never let out at all—during the long feeding period, does not seem unreasonable, because under the latter conditions the secretions and other processes will naturally become clogged and impeded, thus preventing the animal from making the best use of its food. Animals so fed require to be dehorned; and, as a rule, have access to water at all times. An incidental advantage arises in the fine condition in which a large quantity of manure is left for use in fertilizing the farm for future crops. Last year a number of stables were overhauled in order to change from stalls, with stanchions or chains, to open compartments, and this year some old stables are being altered and new ones constructed according to the latter plan. That feeders might be further informed on the subject, one of our staff recently spent a couple of days in Huron Co., Ont., and elsewhere we give the results of his enquiry in the case of two successful feeders, Mr. Wm. Murdock, who the past season fed 44 head loose and 18 tied, and Mr. D. A. Forrester, who delivered the other day a well-fattened bunch of 40 head, all fed loose—5 in each pen. Both are well satisfied with the system. A plan of each stable is given. We might add that Hon. Mr. Mulock himself visited Mr. Forrester's stables last winter and was so well pleased with the details of the internal arrangement that he intends to modify his own stables accordingly this summer. He now considers it an advantage to have fewer cattle penned together. We also publish a letter with an elaborate set of plans kindly furnished us by Mr. A. S. McBean, of Glengarry Co., Ont., in reply to a recent enquiry from one of our readers, in which he gives an admirable description of his stabling for 125 head of cattle, 100 hogs, and 8 or 10 horses, besides poultry. Mr. McBean has been fattening export cattle for 7 or 8 years, and a year ago rearranged his stables, giving up the system of tying cattle, and he is well pleased with the change. The plans which he has furnished us, as well as the others published, will repay careful study.

Summer Fairs.

Portage la Prairie.....	July 5th and 6th.
Emerson.....	" 6th " 7th.
Virdeu.....	" 25th " 26th.
Regina.....	" 25th " 26th.
Glenboro.....	" 25th " 26th.
South Edmonton.....	" 25th " 26th.
Cypress River.....	" 27th.
Minnedosa.....	Aug. 2nd.
Carberry.....	" 3rd and 4th.
Neepawa.....	" 8th to 10th.
Calgary Industrial.....	Sept. 3rd, 4th and 5th.

Preparation for the Fairs.

As the fair season approaches again, we are led to think of the need of preparation for the competition for the prizes offered in the various lines of live stock, agricultural, dairy and horticultural products. In the case of live stock, no doubt the work of preparation has been, as a rule, in process for many months. The experienced breeder and showman recognizes the fact that the preparation of prizewinners, in the broadest and best sense, begins before they are born by the mating of the best parents, with a view to the production of offspring combining a maximum of the good qualities of the highest type of the breed.

Having such a foundation to build upon, the preparation of the animal for this year's showing may well have commenced at the close of last year's fair season—not by continuing to force it to obesity by feeding full rations of concentrated and fattening foods, but by varying its bill of fare, making it to consist mainly of bulky foods, such as good clover hay and early-cut, well-saved straw, corn fodder, and a liberal supply of roots, bran, and ground oats. This, together with regular and sufficient exercise, appears to us ideal treatment for at least the first half of the year since the last year's showing season. While in these remarks we are thinking primarily of cattle, yet in the main the same general line of treatment, with variations to meet the different circumstances, applies to all classes of stock. The first desideratum is the laying of a firm foundation by securing a strong constitution, with the best quality of bone and abundant muscle and vital force; then the finishing touches may safely be added in the form of a larger proportion of the more concentrated foods, such as oil cake and cotton-seed meal, peas

cloths, and, what is still better, a free use of "elbow grease," or long-continued hand-rubbing, which is the best possible agency to produce a gloss and a kindly feeling.

Training animals to lead gently and naturally by the halter or line, to walk freely with a proud and sprightly carriage, and to stand well in the best positions to show themselves to advantage, counts for much more in the showing than many exhibitors reckon upon. We have seen prizes awarded to animals judged in a fixed standing position which we apprehend would not have gone to their credit had they been required to walk around the ring before the ribbons were tied. Judges are now rightly paying more attention than formerly to this feature in all classes of stock. An animal intended for breeding purposes ought certainly to be capable of walking freely, and the idea contained in the axiom, "No foot, no horse," is being wisely extended so as to apply to all live stock, for it is certain that quality and strength of feet and legs and their proper placing are of no small importance as indications of constitutional vigor and prepotency.

The same general idea of early planning and thorough preparation as is outlined in the foregoing remarks apply to all exhibits intended for competition, whether they be agricultural or dairy products, or fruits and flowers. Strict attention to the adoption of the most approved methods in the selection, cultivation and development of the best varieties of grain or roots, the fertilizing, thinning and protection of fruits, and the most scrupulous cleanliness in the handling of milk from which butter or cheese is made in order to secure the highest degree of perfection in quality and aroma, are absolutely necessary to success where competition is so keen and trained judges of fine discriminating taste are called upon to officiate. In every department of our great agricultural and industrial exhibitions the standard of excellence is advancing, and those who would stand among the winners in this friendly rivalry must learn to realize that the best is none too good.

Testimonials.

JOHN CLARK, Sr., Crowfoot, Alta.:—"I enclose herein the sum of \$1 for my renewal to the FARMER'S ADVOCATE, which I can ill afford to do without for even one copy, as I consider it the best farmer's paper I have yet seen."
April, 1899.

W. J. DUNCALF, Spring Creek Farm, Miami, Man.:—"Your Christmas number was a very fine paper, and I have shown it to several who may in the future become subscribers. Continue in your good work."
April 19th, '99.

WILLIAM LOGAN, Wapella, Assa.:—"I can assure you that the FARMER'S ADVOCATE is highly appreciated by myself and family, and we should very much like to have it continued. Each succeeding copy seems to surpass all former ones, and is up to date on all subjects treated."
June 12th, '99.

D. J. McQUEEN, Gladstone, Man.:—"I like the paper very much."
June 7th, '99.

W. J. MAYBERRY, Newdale, Man.:—"I cannot do without this valuable paper—a paper every man should take."
May 15th, '99.

JOHN HOOD, Heriot Bay, Valdes Island, B. C.:—"Yours of April 10th to hand, also the premium Bagster's Bible, with which we are well pleased. It is the best premium we have seen given away in any way; and anyone wanting a good Bible I do not think could get it more easily than by obtaining new subscribers for the FARMER'S ADVOCATE."
June 12th, '99.

MATTHEW BLACKBURN, Pilot Mound:—"I appreciate the ADVOCATE very much."
June 12th, '99.

JOSEPH BOWES, Boissevain, Man.:—"I have been a subscriber to your paper for many years before I came to Manitoba, and value it very highly as an agricultural paper."
June 3th, '99.

HORACE HAY, Norgate, Man.:—"I certainly appreciate the FARMER'S ADVOCATE, and the expense entailed in publishing it."
June 12th, '99.

MARTIN NICHOL, Calf Mountain, Man.:—"Your paper is all right. I would not like to be without it."
May, '99.

J. P. SMITH, Crystal City:—"Your paper is the best invested dollar of the year, the Christmas number being worth the subscription price for the year."
May 13th, '99.

W. J. SCHNARR, Killarney, Man.:—"I don't wish to be without the ADVOCATE."
Jun 9th, '99.

A. H. McGAFFIN, Melgund:—"The FARMER'S ADVOCATE has been worth many times the cost to me in the years I have been taking it."
May 3rd, '99.

B. BERKENHAGEN, Longlaketon, Assa.:—"I enjoy reading your paper very much."
May 5th, '99.



A GLIMPSE OF THE HOME OF THE WELL-KNOWN HORTICULTURIST, A. P. STEPHENSON, NELSON, MAN.
In the right foreground is a Scotch pine, and on the left a balsam, both handsome trees grown from seedlings.

and corn; but for variety and safety it is well, in feeding any or all of these, to add bran and oats, in order to avoid cloying of the appetite, and to produce natural flesh in preference to fat exclusively, and to prevent the tendency to lumpiness or the production of rolls of hard fat on the exterior of the carcass, on the one hand, or of excessive softness and flabbiness on the other. There is a quality of handling in the well-fed animal which responds to the touch with a certain elastic softness which pleases and satisfies a judge who knows from experience when he finds what is about right; and, other things being equal, this quality of handling may well, and often does, turn the scales and decide the placing of competing animals, since it indicates a kindly feeder in any class of beef cattle, and is found, as a rule, in the deepest milking and richest butter-producing cows. While it goes without saying that it is hardly possible to prepare stock for successful showing by allowing them to run out in the hot summer sun, where they have to fight flies and forage for a living, but that they must be kept up in well-ventilated stables with screen doors and windows to admit fresh air and exclude flies, yet it is important that sufficient exercise to keep their legs in the best condition shall be given, and to this end they should have the run of a pasture field, if not during the nights, at least for two or three hours in the evening and early morning of each day. This we know is hardly practicable in the case of bulls, but these may be given liberty to exercise in a shed, or be led out for a mile or two in the cool of the evening. Experienced showmen know the importance of securing a glossy and soft-feeling quality of hair, and this can only be obtained by blanketing and careful and industrious grooming, which does not mean scratching with a sharp currycomb, but frequent brushing, the use of soft woolen dusting

The Royal Counties Show.

This very popular society was honored this year by the acceptance of its presidency by Her Majesty the Queen, and its grand exhibition of live stock was during the week honored by visits from H. R. H. the Prince of Wales and their Royal Highnesses the Dukes of York and Connaught, as well as other members of the royal family. H. R. H. Prince Christian undertook the duties of acting president, which were carried out in a thorough and efficient manner by His Royal Highness, assisted as he was by a most energetic council. Under such high patronage, and favored with an ideal showyard, under the shadow of the royal residence at Windsor Castle, it is no wonder that there was in all



KING CLOVIS 6794.

WINNER OF CHALLENGE CUP AND GOLD MEDAL AT ROYAL DUBLIN SOCIETY'S SHOW, 1899.

sections a record entry and a high standard of quality. This society is one that fully recognizes the claims of sheep, and gives them the place of precedence in its catalogue; therefore we will, in our brief and necessarily much condensed report of this excellent show, follow the same order.

Hampshires were the first breed placed in the catalogue, and its total entry was one hundred pens. The general high merit, even and uniform type and true character of this breed was such that we think that it has at no previous exhibition of this society been exceeded. The yearling rams were a capital class—uniform in flesh and fleece, the old rams a notable class for great merit of type and character, particularly the leading sheep. The single ram lambs, a class of twenty-nine, were an exceptionally grand lot, showing, in the best sense of the word, early maturity. There have been larger classes of single ram lambs, but certainly not in recent years—at any rate, one that was equal in merit to this. The pens of three ram lambs were fully equal in merit to the former, but not quite so uniform in respect to character, for in selection there is always experienced the great difficulty of being able to get all three alike. The yearling ewes were a capital class, of nice merit and type, notably the leading pen; and the ewe lambs exhibited in a marked degree the chief characteristics of this breed. The principal prizewinners were: Mr. J. Flowers; Mr. A. Henderson, who took champion prizes for best pen of lambs and for best pen of females; Mr. R. W. Hudson, who secured championship for best ram or ram lamb; Cary Coles; E. Coles; W. T. Twidell; H. C. Stephens; T. F. Buxton; E. Whalley-Tooker; J. Bonham-Carter, etc.

Southdowns, with an entry of ninety-two pens, made a large exhibit, but there was entirely lacking that uniformity of type and character, especially in respect to quality of fleece and color of faces and legs, that one would desire to find in a breed that has behind it so grand a reputation. No matter how one may regret to record the fact, it becomes clearer every year that unless a more careful system of mating and breeding is observed by a larger number of breeders than are doing so at the present time, it will be a long time before this breed regains that uniformity of type and character it once possessed. The yearling rams were a useful lot, the Prince of Wales being particularly fortunate in securing premier honors and championship for his entry in this class, which was far too feminine in appearance, especially in its head, for a ram. The old rams were a useful class, the leading sheep being a very good one from Mr. C. R. W. Adeane's. The ram lambs, both in the class for singles and for pens of three, had many very excellent specimens amongst them, though in many instances these, for some cause or other, failed to secure the judge's approval, whose method of selection was somewhat sharply criticised. The yearling ewes and ewe lambs were very useful, and we thought, far more credit to their breed than the rams. In addition to H. R. H. the Prince of Wales, the following noblemen and gentlemen were amongst the prizewinners: Earl Bathurst, who took the female championship; Lord Ellesmere; Sir James Blythe; W. Bomp; the Pagham Harbour Co.; Mr. H. C. B. McQuinn; H. Penfold; and A. Hearman.

Kent or Romney Marsh sheep had an entry of twenty-nine, and there was disclosed throughout the whole of the classes far greater uniformity of type than a few years ago, previous to the work of registration being undertaken. Yearling rams were not particularly strong, but the three specimens in the old ram class to which the awards were made were of grand type and quality. Yearling ewes and ram lambs were small but highly creditable classes, the principal winners being Messrs. W. Millen, C. File, and F. Neame.

Shropshires made a large entry, there being no less than forty-four pens present, as against nineteen last year. Their general average of merit and quality was high in all respects, and it is much to the credit of this breed that so great uniformity is and can be shown. The yearling rams were headed by a typical Barrs ram, followed by one of Mr. A. E. Mansell's, whilst one of A. Bradburn's came in for third honors. The old ram class found Mr. Tanner's ram at its head—a ram bred by Mr. A. Mansell, and Barrs' flock came next. A very creditable lot of yearling ewes were shown, whilst the ram lambs were hardly up in condition, though the winning pen was a typical one, of high merit and quality; the more successful winners being Messrs. M. Barrs, A. Tanner, A. Mansell, R. P. Cooper, P. L. Mills, and A. Bradburne.

Oxford Downs were more fully typical of their breed, owing to an increased entry and to the reappearance of Mr. A. Brassey's exhibits, which for the past year did not compete. His unbroken success has, however, been stopped, for in yearling rams Mr. Treweeke's flock secured the lead, but in the classes for ram and ewe lambs the known merit and quality of the Heythorpe flock held its own, Mr. W. A. Treweeke winning champion in the yearling ram, Messrs. Brassey and W. Arkell also being winners in the different classes open to them.

Agricultural Horses (principally, if not entirely, Shires) numbered ninety-nine entries, and these were undoubtedly of a far higher merit and quality than we have ever seen before at the meetings of this society. The present high value of the Shire horse and the increased number of studs, combined with its present-time popularity, all tended to make this exhibit, which will probably hardly be equalled at the Royal, one of the greatest merit and quality throughout. We tabulate below some of the principal winners, giving first those who secured the champion and special awards. The best stallion or colt was Buscot Harold, Mr. A. Henderson's champion at Islington in 1898 and 1899; best mare or filly, Sir J. Blundell Maple's Dunsmore Gloaming, champion female at the last Shire horse show, bred by H. R. H. the Prince of Wales. Lord Wantage's Hendre Crown Princess won the Shire Horse Society's medal for mare or filly, and Mr. R. W. Hudson's Traitor that for colts. In addition to the above, the following breeders secured first prizes: A. Ransom, Lord Wantage, Lord Llangattock, and Sir J. B. Maple; Mr. R. W. Hudson being perhaps the most successful.

Hackneys were considerably in excess of the previous year's entry—forty as against fifteen—Sir Walter Gilbey's Gay Danegelt being a most prominent winner: a grand type of this breed, and one whose improvement is most noticeable; Orange Blossom securing the Hackney Society's medal for mares, and amongst the other winning studs we noticed those owned by Messrs. A. E. Evans, W. Foster, J. Barker, and Sir Charles Piggott were very successful.

CATTLE.

Shorthorns numbered one hundred and sixteen entries, as against forty-one last year; the high merit, typical character and good quality of many being very noticeable, particularly the winning animals, many of which, we are pleased to note, were bred and owned by Her Majesty the Queen, amongst whose deservedly popular successes (for in every instance the merit of the animal fully justified the award) were the following: Champion of the yard and best female (Fairy Queen); 2nd and R. N. for bulls calved in 1897; 2nd and 3rd for bulls calved 1898; 1st and 2nd for heifers calved in 1897; and 1st for those calved in 1898. Messrs. George Harrison, J. Deane Willis, Miss A. de Rothschild, J. Thorley, H. Dudding, etc., were also winners.

Aberdeen-Angus were entered to the number of forty-two, and the general high merit has, we think, been seldom equalled at any previous show of this society, which has been only recently induced to include these cattle in their schedule. The Rev. C. Bolden, who secured two out of the three special awards, was the more successful exhibitor, though Col. Tufnell, who took the other special, was a very strong competitor; Mr. W. B. Greenfield, Sir J. B. Maple and R. W. Hudson also being successful winners.

The **Sussex** breed of cattle were only thirty-three in number, but that which was lacking in respect to number was fully made up by their very high and uniform quality. The Earl of Derby and Mr. P. Lalliard were the winners of the specials, two falling to Earl of Derby's share, and it may be remarked that the herd of this breed owned by His Lordship is one of exceptional merit, true type and character. The Hon. R. P. Nevill's herd was also very successful.

Devons made a very excellent entry of twenty-five, Her Majesty the Queen's herd securing the R. N. for the specials, which were won by Hon. W. E. B. Portman.

Hertfords, with a typical entry of first-class merit and quality, were honored by a valuable

entry from Her Majesty the Queen's herd, whose uniform success was very popular, the premier prizes in both bull classes going to the royal herd, as well as R. N. for the special prize, which was secured by Mr. A. E. Hughes' cow, Mr. J. Tudge securing the leading place for heifers.

The entries in the **Jersey** classes numbered two hundred and twenty-seven, a record entry of the breed at this show, and remarkable as being one of very great quality and merit. N. S. Freeman-Thomas won the bull championship, and Mrs. McIntosh that for females.

Guernseys made an equally large entry, one hundred and thirty being the number. Their general average merit, even quality and type was admirable throughout the whole of this large entry, Mrs. F. A. Montefiore securing the female championship, and Mr. E. A. Humbro that for the males.

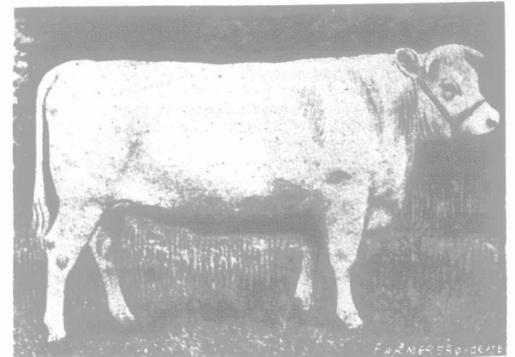
Thirty-six **Kerry** cattle were entered—grand animals, of very excellent type—Messrs. Robertson being the principal winners; and an entry of forty-one was made in the sister breed, **Dexter Kerries**, wherein Mr. E. S. Woodiwiss won the principal awards.

SWINE.

The **Berkshire** pigs were largely and well shown, the entry numbering no less than seventy-two, as against forty-eight last year. Mr. Edney Hayter's Highclere Topper, a grand boar, was made champion of the breed, and Mr. G. T. Tomkins secured the special for best sow. Amongst the other successful winners were Messrs. J. Jefferson, E. Burbridge, N. Benjafield, A. Hiscock (Jr.), Earl of Carnarvon, etc.

Shorthorns at the Royal Counties Show.

The red, white and roan were in force at this show, held this year at Windsor, June 5th to 8th, the entries numbering 116. There were, however, some absentees. In the class for bulls calved previous to 1897, nine had been entered, but five only came into the ring. The quintette were, however, all well-known old competitors, and the first winner was found in Mr. P. L. Mills' celebrated champion Marengo, which is now so massive that he weighs over 25 cwt., but he is said to be as active for service as ever. Second to him was placed Mr. J. Deane Willis' Bapton Victory, of grand character and very perfect build, and H. R. H. the Prince of Wales brought a very shapely roan called Stephanos, with a handsome head, broad, level back, wanting perhaps a little better covering at the shoulders, but otherwise of excellent mold, which proved a worthy third winner. He was bred by H. M. the Queen. Thus it happened that Mr. John Handley's Prince of the North, the champion of the Oxfordshire Show, and the second winner at Exeter, could only obtain reserve. The only other animal that appeared was Mr. Richard Stratton's six-year-old Flag Signal, which has developed into considerable length, and, with his good middle and hind-quarters, fully deserved the H.C. ticket awarded him. Bulls calved in 1897 mustered to the number of sixteen, and were headed by Mr. George Harrison's shapely and grandly-ribbed Count Beauty, bred in Scotland, and a son of Mr. W. Duthie's Golden Count. There were two very good bulls in the class from the Royal herd of H. M. the Queen, and Matchless, by Captain of the Guard, was selected for second prize. He carries a handsome head,



SHORTHORN HEIFER, FAIRY.

BRED BY AND PROPERTY OF H. M. THE QUEEN. WINNER OF CHAMPION PRIZE AS BEST SHORTHORN AT ROYAL COUNTIES SHOW, AT WINDSOR, 1899.

stands wide, and is of full substance, filling the eye well, but on close inspection requires a little more packing at the shoulders. Robin Nonpareil, the other Royal bull, a handsome roan, obtained reserve; Mr. J. Deane Willis' Bapton Count, with his broad back and uniform build, making an excellent third prize winner. Three other very useful animals were noticed, Mr. G. F. King's Viceroi, of a rich dark color, a son of Mr. Deane Willis' Count Lavendar, a handsome roan, belonging to Mr. W. Heaton, from Lancashire, called Prince Arvon, and Mr. D. A. Green's Bapton Emigrant, another of Count Lavender's sons, a well-shaped roan of admirable character. Mr. H. Dudding had three very useful animals in the class, one of which, Pride of Fortune, bred by Mr. W. Duthie, did not seem to be appreciated sufficiently. Mr. Morgan Richardson's Cavalier, bred by Mr. J. D. Willis, also seemed well worthy of notice no less than Mr. J. Thorley's Ringdale Rover. The judges were certainly not liberal enough in their honorary awards.

The yearling bulls were in still greater force, numbering nearly a score, and quite filling the ring. The high merit of about eight of them also entailed a severe task on the judges. The chief difficulty, however, lay between the Queen's pair of grand-looking roans and Mr. J. D. Willis' Bapton Emperor and Rosedale Jeweller. The latter two are well known to have beautiful character, and the former is so perfect in outline that it is hard to find his equal. He is a son of the far-famed Ingram Yet, but the Queen's Marmaduke, with his beautiful coat and full outline, was so even a competitor that one of the judge's would have made him first, while the other was as steadfast in preference for Bapton Emperor. Lord Brougham was therefore called in as arbitrator, who decided in favor of Mr. Willis' being first and reserve, and the Queen's two having the second and third prizes. Half a dozen others received barren honors, consisting of Mr. Cookson's Gustave, Mr. Sidney Hill's Langford Lavender, Mr. D. A. Green's Lavender Yet, Mr. Leopold de Rothschild's White President, which was first prizetaker at the Oxfordshire Show, and Mr. G. F. King's two useful white bulls. Mr. Morgan-Richardson's Major-General appeared superior in symmetrical molding, and certainly in wealth, to the others, except the prizetakers.

The half dozen cows which came into the ring seemed to puzzle the judges almost as much as the young bulls had done, and, indeed, it was difficult to decide amongst the respective merits of three or four of them. Mr. George Harrison's well-known Welcome was moved up until she got quite to the top, one of the judges favoring her claims in preference to those of the Waddesdon Manor Miss Belladrum 6th, and, indeed, the type of the two animals is different, Welcome excelling in evenness, but not having the wealthy substance and large scale of Miss Alice de Rothschild's cow. Lord Brougham, as referee, gave preference to Welcome, and after Miss Belladrum 6th came Mr. Brierley's Queen of Hearts and Jewel 2nd for third prize and reserve, Mr. Leopold de Rothschild's Sittytton Bride and Mr. John Little's Ruby being both H.C. Of Mr. Brierley's pair Queen of Hearts has preserved her grand form perfectly, and, strange to state, her defect at the tail does not appear so noticeable as when she was younger. Some will have it that Jewel 2nd has lost form since last year, but this does not seem very perceptible, although she has certainly lost bloom owing to breeding so fast. She has a good calf at foot now. The three-year-old breeding heifers formed a class well-nigh equal to that of the cows. Mr. Sidney Hill's Evelyn 2nd, a full-shaped, grand roan, bred by Mr. G. F. King, was selected for the first prize above Mr. Henry Dudding's Blossom, which, with a little more packing at the shoulders, would be very perfect. Mr. Leopold de Rothschild's Mayflower 4th, with her well-sprung ribs and substance, made a worthy third winner. She was a first winner at the Oxfordshire Show, when not having such strong competitors as here. A reserve was found in Mr. D. H. Mytton's Silene, also very broad, deep and massive; Mr. John Little's Butterfly 2nd, of nice character, and having a fine calf at foot, being, perhaps, the most useful of the lot for dairy purposes. The two-year-old heifers formed a very superior class. Her Majesty had two therein, a beautiful level white called Fairy, which was not only first, but eventually carried off two champion prizes, and Feodora, more wealthy, with finely-sprung ribs, but not quite even. To her was allotted third prize, a second winner being found in Mr. J. D. Willis' Bapton Pearl, tolerably well known as a full-shaped heifer, of very uniform build and nice character. Mr. Heaton had reserve with the well-known Daisy IV. Mr. Deane Willis' Bapton Fluff could only get H. C., a distinction bestowed also on Mr. George Harrison's Fairy Queen, Mr. Leopold de Rothschild's President Bride, and Miss Alice de Rothschild's Princess Ida. The yearling heifer class was large as well as good, as many as nineteen competing, and there were some half dozen absentees from those originally entered. The Queen got another first prize with her very handsome roan Cicely, by Prince Victor, a full-shaped heifer, very uniform and handsome. Of course she must have been very good to have been placed in front of Mr. J. Thorley's beautiful pair, Ringdale Memory 3rd and Nonpariel 2nd; the former with her handsome head and lovely coat satisfies the eyes more and more the oftener she is seen; her herd companion is very compact in build, and very wealthy. These deservedly received second and third prizes, leaving reserve to Mr. Deane Willis' White Heather, of stylish form and nice character. The Prince of Wales had a good roan heifer by his bull Stephanos, called Glisten, which received H.C., as well as Mr. Sydney Hill's Crocus, which, with a little more packing at the shoulders, would be very perfect.

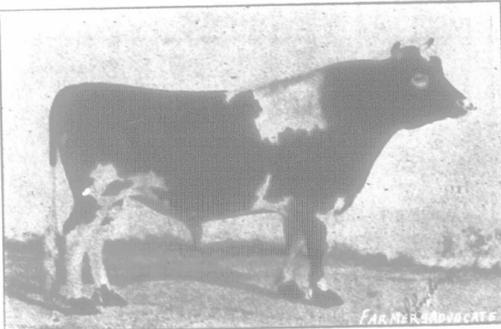
The Shorthorn dairy class for cows in profit should perhaps have been noticed before, it having been the first to enter the ring. Miss Alice de Rothschild's Bructer Queen, bred by Lord Lovat, in Scotland, of large scale, and a cow combining grazing and dairy property admirably, was selected for first prize: Mrs. Francis Pratt's Dairymaid's Daughter, whose deep milking causes her to carry little flesh on her bones, getting the second premium; Lord Rothschild's Princess 2nd being reserve. The Shorthorn Society's special prize for the best bull in the three counties of Berks, Wilts, or Hants was awarded to Mr. J. D. Willis' Bapton Emperor, to which the Queen's Marmaduke was placed reserve. A champion prize for the best female in the

Shorthorn classes, offered by Viscount Baring, was taken by the Queen's Fairy, which also carried off Mr. Martin J. Stutton's 20-guinea champion prize as best animal in the Shorthorn classes. As Mr. George Harrison's Count Beauty was placed reserve for it he was deemed the second best Shorthorn. The reserve for the female champion prize was the Queen's heifer Cicely.

Weaning and Feeding Lambs.

BY J. M'CAIG, PETERBORO.

The time of weaning lambs will depend to some extent on the time at which they have been dropped. Four months is not too young, and more mistakes are made by delaying it too long than in doing it too soon. If lambs have thrived well, an earlier age is preferable, both on account of the lambs and for the good of the ewes. The time to prepare for a successful lambing season next year is before the time of coupling in the fall, and an important consideration is to have the ewes properly rested and recuperated between weaning and coupling time. Those who leave their lambs too long with their dams are usually the ones who make the poorest provision for the lambs after they are weaned, and the lambs are taken off the ewes either in the brown pastures of harvest or after the grass has been stricken with early frosts and has become indigestible and innutritious. In either of these cases lambs will fall away if not properly looked after, and will not have the constitution and vigor that will fit them to go into the breeding flock as either sires or dams. By having lambs as early as March, they may be weaned before the pastures become dry, and the more experience one has with early and late lambs the more he finds the possibilities for excellence in favor of the early ones. A grass lamb may be little trouble and may turn out fair at a low average cost, but in order to force a lamb, and this seems to be the profitable and inevitable tendency on our valuable lands, the lamb requires vigor, hardiness, and good appetite, and for these qualities a sniff of the March blasts and taste for concentrated grain food in the creeps is necessary. A lamb dropped on the grass will not take to grain foods as well as one whose run is



GUERNSEY BULL, SHEET ANCHOR.
OWNED BY H. M'TWOMBLEY, MADISON, N. J.

limited to the pen and that has a comparatively roomy end of it available with tempting foods in it for himself alone.

A March lamb may be weaned by the end of June. If he has had grain food while sucking, so much the better; he will be large, lusty, and strong, and will not lose flesh. It will be advisable in all cases to feed some grain before weaning, and only a small quantity is necessary. A mixture of equal bulk of bran with a combination of chopped peas and chopped oats in equal weights is good. A good single handful of linseed meal mixed with a gallon of this will be profitably added and will help to preserve and increase the bloom of the young things. Mature sheep show no unground grain in their manure and may be left to do their own grinding. Many prefer whole grain for lambs even. For rapid gains I prefer ground feed before and even after weaning. Lambs eat and masticate ground food slowly. Of course, with ruminating animals all food goes pretty well through the mill. I cannot give any satisfactory reason for my choice of ground feed. I have a decided preference for it, however, as I feel that a little less will do them and they seem to fill out on it from the beginning. It may be that the fine grinding of the food lessens the work of the paunch itself, which triturates the food to some extent, and that the grinding likewise makes the elements of the food more easily acted on by the fluids secreted by the paunch. The slowness with which lambs lick up ground food suggests the idea of its passing directly over the gullet into the fourth stomach. In either of these cases there is an economy in the energies of the organism just as there is in feeding a sheep in the fold or pen instead of making him travel long distances for it. Experiments with ground and unground foods go to show that the grinding brings no more than enough advantage to pay for milling the grain. The experiment, to be valuable, should begin with the life of the lamb and last until matured or sold, as it is probable that in fattening lambs that have been rustling over rough foods the mastication of whole oats would be no tax on their energy compared to the increased and concentrated nutriment it would yield, and conversely the relief from feeding ground food would be no advantage.

The method of weaning need not be elaborate. Both ewes and lambs probably adapt themselves to the changed conditions most quietly by a total separation at once. The little care that is necessary in milking ewes after weaning shows that the milk supply gets very small in three or four months, so that the advantages a lamb would get from a protracted weaning are small compared to the trouble of frequent separations and the uneasiness caused by the lengthening out of the weaning process. The ewes should be watched for three or four days to prevent spoiling of the udder. Some will need no milking at all, some will require it once, and very few will need it more than three times. They should not be milked dry, and once a day is often enough at first, with longer intervals later if the milking has to be continued. They should be turned on dry pasture for a few days. I have found it a good plan in the case of ewes with twins to leave the smaller of the two with the ewe for a week or ten days after the other has been taken off. It helps the weaker lamb and dries the ewe gradually, and it is generally a ewe suckling twin lambs that has the greatest quantity of milk and requires attention at weaning time.

The lambs after weaning should have the best grazing the farm affords. Rape is good sheep feed at all times, but is at its best after the cool weather of fall has begun. The after-grass of good clover meadows is ideal lamb food and should be saved for them. New-seeded meadows are good for them also—better than the lambs are for the meadows. The practice of sowing rape thinly in spring grain crops furnishes a lot of valuable feed and improves the land at the same time. Adjacent pieces of rape and meadow have proved to be the very best arrangement for fall feeding of lambs—better than rape alone and just as profitable as rape and grain. Rape seems to be such a complete ration for lambs that for ordinary purposes grain feeding is unnecessary with it, but to the man who is possessed with the idea that the best lamb is none too good for him, a feed of grain will be found a good tonic for his young things in the morning, and he will find no difficulty in creating an appetite for the same thing in the evening. An important difference between the feeding of young and old stock is that with the young stock feed, by causing growth, is creating an increased capacity for more food, while in the case of old stock the capacity is fixed. Young stock running out is not likely to be fed off its leg. Generous feeding of young stock is profitable likewise because that growth in bone, frame, etc., as well as flesh, appropriates food elements more completely than the making of flesh alone does, as in the case with old sheep.

Ewe lambs require plenty of muscle- and bone-making rather than fat-making food, and their ration should consist principally of bran and oats. Wethers require more fattening rations, but the demand is not for fat sheep to such a degree that wethers and ewes should be separated. What will put the wethers in good shape will be none too good for your future ewe flock. In the case of ram lambs for breeding purposes heavier feeding is both desirable and necessary. The additional size, strength, and coarseness of the sex means grosser appetite; the restlessness of rams on the approach of fall means more food to keep them in good flesh; and to take the market well for breeding purposes, size from rapid growth and good looks from generous feeding are necessary. It is harder to get a ram fleshed up on top than it is a ewe. For these reasons peas and oil cake may be added to the rations of bran and oats, and the rams should be kept well filled all the time. The grains may constitute a larger portion of the whole ration for rams than they do for ewe lambs. Feeding suitable rations as to kind and quality, the only measure as to quantity is the appetite of the lamb. Feed enough to satisfy you that the lamb is ready to quit when the trough is empty.

The Honor Roll Again.

SIR,—In the construction of the notes under the record of 1888, in the Honor Roll of the Royal, I presume you took your data from the London *Live Stock Journal* of July, 1888, which reads as follows: "Mr. Robert Thompson (of Inglewood, near Penrith) takes five out of the eight first prizes; having also the champion prize for females, and holding reserve for champion males. Hardly ever before in the history of the Society have so many of its honors gone to one man. And the Inglewood winners were curiously alike. If it be a feat to accomplish—to have bred a lot of cattle with a strong family likeness running through the whole, and to have assured that that family type is a very fine type—Mr. Thompson (thanks to a very impressive sire) has achieved that feat." Speaking of the female section, it is said that Mr. Thompson's Molly Millicent is "almost an ideal Shorthorn. It is impossible to maintain that milk and meat cannot be combined when such cows are presented. They all have frames like Christmas bullocks and udders like dairymen's cows." Perhaps your historian might have given the Sheriff Hutton herd a little credit also for Mr. Handley's bull, Self Conceit (55026), and done no one an injustice. We had supposed Mr. Gibson intended to give us an elaborate description of a great many of the winning animals individually, but, with very few exceptions, it is a repetition of the report of the Royal Agricultural Show. With regard to the Duke of Northumberland, your historian says: "He must have been a freak, or our breeders have been standing

still. I never yet met a breeder who knew him at his best but what said he was better than any they had since seen." I believe there are a very great number of breeders of the present day who would like to know wherein his superlative goodness consisted. His picture, reproduced in connection with the Honor Roll, is said to be a true likeness of the bull. If so, looking from the cut of the Duke of Bracelet on the same page, it is very easy to see where his defects lay, and he never was a remarkably good bull. There have been thousands of bulls that were his peers since his day. We knew Thos. Bates and we knew his cattle in his lifetime,



LINCOLN RAM LAMB "A1."
BRED BY KIRKHAM BROS., BISCATHORPE. IMPORTED MAY, 1899, BY F. S. PEER, MT. MORRIS, N. Y., FOR MR. ROBERTS, PHILADELPHIA.

and he never owned as heavy-fleshed cattle as many we have seen since. We will admit that he was an artist, and that he put a finish on his cattle that we do not see to-day; but he bred his cattle in and in so much that he ruined them constitutionally. At the same time, it was wonderful how they retained their beauty of outline; and whenever they got onto any other family they invariably put that beautiful finish to their progeny. Mr. Bates never won a prize after the Booths stepped into the arena; nor were his cattle able to win in other hands until they got a cross of the blood of other good families, but were still called Bates cattle; and perhaps this same statement applies to all breeders who have tried to hold a monopoly of certain families of Shorthorns. WM. LINTON, York Co., Ont.

Summarized Notes from English Shows.

At different county shows through England one or other of the different breeds are generally found more numerous than others; hence, to see an entry of Hampshire Downs alike remarkable for its number and quality we would find that the Wiltshire County Show was one at which this breed's entry is sure to be seen to great advantage. At this Society's show, May 31st to June 1st last, there certainly was on exhibition as fine a lot of this particular breed as we would desire to see. The Chilmark flock, property of Mr. James Flower, fully maintained its high reputation for the merit and quality of its exhibits, which were well-developed and grand typical specimens of this very excellent variety of sheep. The whole of the first prizes offered went to Mr. Flower, who also secured the champion award. Mr. Carey Coles, with a grand ram, came in for second honors in the yearling ram class, R. N. in the ramb lamb class (pen of five), and H. C. for ewe lambs. Mr. H. C. Stephens' big, well-developed pen of five ram lambs secured the second prize in their class; Mr. E. Whalley-Tooker being second for single ram lambs, running Mr. J. Flower very close for first place; and Mr. R. W. Hudson was second in the ewe lamb class for pen of five; Mr. G. Palmer being the owner of a typical and level pen that came in for R. N.

The Suffolk County Show at Bury St. Edmunds.—The most notable features of interest at this show were the grand display made by the Suffolk sheep, the Suffolk Punch horses, and the Red Polled cattle. Taking the sheep classes first, we find that Lord Ellesmere's flock were most successful, winning all the champion awards and the special for best collection of Suffolk sheep with his entries, the whole of which displayed a grand typical character, with excellent conformation and first-class wool and flesh. Mr. S. Hubert Smith, a young exhibitor, came in for first honors in both the house and the field ram lamb classes, the former of which numbered forty entries and the latter fifteen. Mr. H. L. B. McCalmont's flock was successful in the old ram class, securing the second prize with a grand specimen. Mr. R. Burrell's flock, as well as those of Messrs. A. Paley, J. W. Eagle, S. R. Sherwood, and R. W. Barclay, were also successful. The exhibit was a remarkable display of this breed, whose repute for mutton production of the highest quality rivals that of the Southdown, which breed made but a very small entry, but of capital quality, Earls Ellesmere and Cadogan being the successful winners.

The Red Polled cattle, alike useful as milk and beef producers—in fact, a breed many consider one that more nearly than any other represents the ideal general-purpose cattle—made a display of excellent quality and good merit, many of the successful animals being those bred by the late Mr. J. J. Colman, whose recent lamentable death

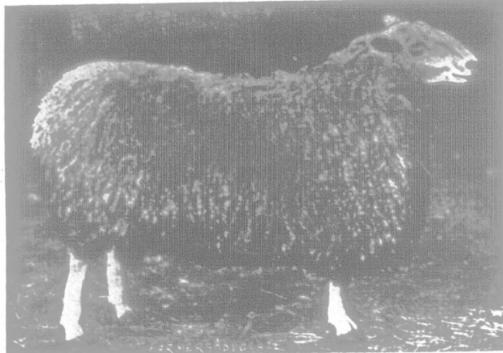
necessitated the dispersal of his world-renowned herd some time since at a very high average. There were three classes for bulls, and the following were owners of the winning animals, which were grand in type and character: Sir J. T. Rowley, Bart., James G. Platt, and T. G. Method; whilst Messrs. R. H. Mason, Alfred Smith, the Hon. W. Lowther, and J. B. Dimmock were also successful. The female classes numbered four and contained as grand a lot of cows and heifers as one could wish to see, to the number of 23 entries, Mr. J. E. Platt leading in three classes, and Lord Amherst, of Hackney, in the other.

Suffolk Punches, a grand breed of most valuable draft horses, whose value for hardiness of constitution, great endurance, and quick action, appears not yet to have become well known to Canadian breeders. The demand for the geldings of this breed is a large one, and as this breed is one that can move, it would, we feel sure, be of value to your own farmers, for they would find them to be excellent horses for general farm work, and their produce would no doubt meet with a ready, lucrative sale if sent here broken at four or five years of age. Visitors from Canada are strongly recommended to take a trip in East Anglia and see these excellent horses at their home. The entry as a whole was one of sterling merit and high quality. As evidence of this we quote the fact that the judging took from 8.30 a. m. to 5 p. m. in the opening day to complete. Thirty-five entries filled the four classes of males, and the principal winners therein were W. H. Hewitt, Alfred Smith, and A. H. E. Wood. Sixty-four entries were made in the mare, filly and foal classes, representing as level, even, and typical an exhibit as we have ever seen of this breed, whose truthness to type, color, and character is well known. The leading winners, which represent the principal studs of the breed, were A. Smith, whose stud is one of the foremost in the breed; R. W. White, Sir Cuthbert Quilter, A. H. E. Wood, and John Symons.

A Canadian's Visit to the Old Land.

To the Editor FARMER'S ADVOCATE:

SIR,—Having just returned from a visit to England and Scotland, I thought a few items of what I



AUCHENBRAIN (£80).

BORDER LEICESTER RAM. CHAMPION OF THE BREED AT GLASGOW AND PAISLEY, 1899.

saw there would be of interest to your many readers.

I attended the Bath and West of England Show at Exeter, which is second only to the Royal, and was somewhat disappointed in the exhibit of Shorthorns, especially in the male sections. I believe we can make as good a show of Shorthorns in Canada at our fall exhibitions. I saw no such animals as Royal Windsor, Lord Irwin, Sir Arthur Ingram, Telemachus, Lord Zelland, Bolivar and Edgar, Lady Fragrant, Vivandiere, Molly Millicent, and Queen Mary, as described by Mr. Gibson, and which I have seen shown at the Royal and other large shows in Great Britain. Mr. Mills' grand bull Marengo was not shown at Exeter. He is more of the stamp of the earlier Shorthorns, having great scale, very deep in his quarters, and beautiful character. I had the pleasure of inspecting Mr. Duthie's fine herd at Collynie. His stock bulls are a very grand lot, and the cows are just what a breeder would want to select a stock bull from, having large, deep frames and splendid udders. I find Mr. Duthie directs special attention to the milking qualities of his Shorthorns in using bulls from deep-milking dams. Mr. Marr was absent at Exeter, and we had only time to make a hurried visit. His cows have much of the fine character of his neighbors', and the fine old bull Wanderer heads his herd. Importers will find it very difficult to purchase cattle in Great Britain, as most breeders will not price their animals subject to the tuberculin test, and when a price is asked it is generally advanced about forty per cent., which, together with the cost of the testing, is a very serious item to the importer. I went across with Mr. W. D. Flatt, Hamilton, to assist him in selecting his importation, and he has now in quarantine at Quebec twenty-three head, which will be a great acquisition to his already very fine herd.

JAMES SMITH.

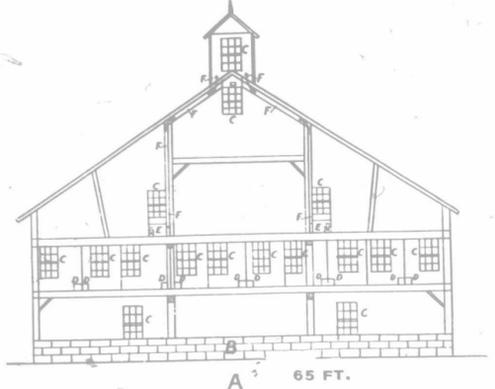
Brant Co., Ont., June 24th, 1899.

Stables for Fattening Cattle and Swine on a Large Scale.

To the Editor FARMER'S ADVOCATE:

SIR,—In your issue of May 5th I notice an inquiry from Mr. John Wallace for plans of a barn for feeding 200 or 300 head of cattle. I herewith submit plans of my barn calculated to accommodate 125 head of steers to be fed loose, 100 hogs, 125 fowl, and from 8 to 10 horses, the principal object in view being to save labor in the feeding of the stock.

I have been feeding cattle for export during the winter months for seven or eight years, and until within the last year I fed the cattle tied in stalls, but last summer I altered my barn, and last winter



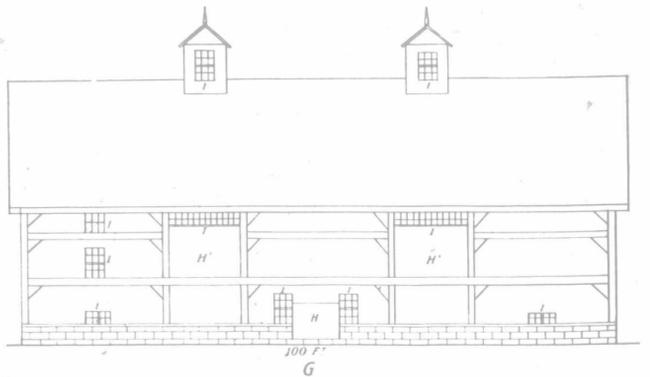
PLAN NO. 4 X—END VIEW OF STABLE RUNNING BACK FROM BARN OWNED BY A. S. M'BEAN.

- A—End view of cattle stable running off from barn.
- B—Three-foot stone wall.
- C—Windows in this end of building.
- D—Small doors leading from hen coops to yards below.
- E—End view of boxes running full length of stable in which chains for raising and lowering feeding racks are attached and through which hay is passed to feed racks when up. Boxes also used for ventilating, and from which spouts run up to cupola, marked with arrows.
- F—Ventilator shaft to cupola.

fed the cattle loose and all running together, with much better results.

My barn is 100 x 50 feet, feeding stable 105 x 65 feet, which is joined to the barn, forming the letter L reversed, as seen by plans. The whole building stands on a wall 2 feet thick and 2 feet above the ground, making a basement for cattle, pigs and horses; the basement in barn being 8 feet high, in which is the horse stable, implement shed, grinding apparatus, two stalls for sick animals, space divided off for hogs to sleep and feed in, and space for surplus roots. The boiler and engine are in a small building adjoining the barn on a level with basement, as seen in plan No. 1. The floor beneath the cattle is of earth, and beneath where the pigs are fed of cement concrete.

The basement of feeding stable varies in height: The two outside sections being 16 feet high, running from the ground to the loft; the middle section being 8 feet high, leaving a floor 23 feet wide on the second floor of the feeding stable, running from one end to the other on a level with the second floor of the barn, and a section 15 feet wide at each end of the stable on second floor, as shown in plan No. 2. The section nearest the barn, on the second floor, is used for large water tank, two stalls for milk cows, and hoisting apparatus for feed racks, and a bridge leading to basement, used in bringing up cattle to be weighed, and doors leading



PLAN NO. 4 Z—SIDE ELEVATION OF BARN OWNED BY A. S. M'BEAN.

- G—Front view of barn.
- H—Horse stable door.
- H1—Barn doors.
- I—Windows on this side of barn.

to barn floor. The farther end of section is divided off into 10 pens for hens; the center section, with the exception of two feeding passages 5 feet wide on east side, is used for a turnip bin and pens for breeding cockerels, as shown in plan No. 2.

The third floor of feeding stable is used as a mow; the middle section being used for storing hay, the two outside sections for straw for bedding, as seen in plan No. 3.

The second floor of barn is used for granary, grinding room, tool room, office, barn floors, large mow over horse stable, weighing scales, hopper bins for oats used in feeding horses, root cellars,

and space where corn and straw cutter stand. The root cellars (f. f., plan 2) are rendered frostproof by being double boarded, with felt paper between, and a dead-air space of 6 inches between the lining and outside boards of barn. There is also a 2-inch space between the turnips and wall, and a 4-inch space on floor. This is made by nailing a 2 x 4 inch scantling on walls and nailing boards on this, leaving the boards about 4 inches apart. There is also a shaft running down through the center of the bin, arranged with slats, and in this way air circulates all around the turnips. The root house is filled by carts being dumped on the floor and the roots thrown back by men. Doors open off this floor into round silo adjoining barn, as seen by plan No. 2. The bottom of silo is about 6 feet lower than the floor of second flat, and the silage from the bottom is forked up into large trucks which stand on floor.

The third floor of barn over granary contains hopper bins, mows for hay and other feed, as shown in plan No. 3. In the peak of the roof of barn and stable is a track by which the mows are filled from the barn floor.

The horses are fed their hay through trapdoors opening off each barn floor, as shown in plan No. 2, and are watered from the tank in basement of cattle stable, and which is directly under a large supply tank on second floor of stable, and which is filled by a windmill or steam pump, as shown in

plan No. 1. The water can have the chill taken off it by a steam pipe, which runs from the boiler into the tank, as shown in plan No. 1. The capacity of the large tank is about 2,000 gallons, sufficient for three days' water supply. The cattle have constant access to water supply.

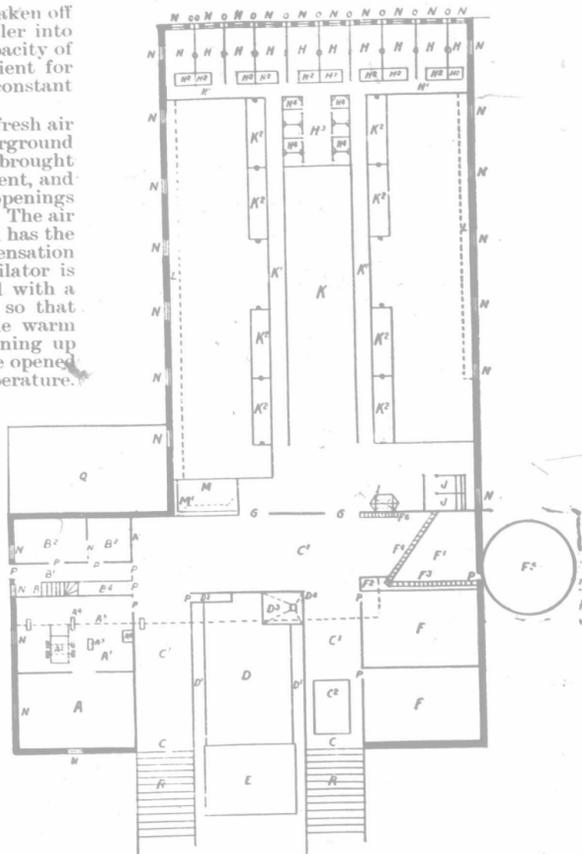
The stable is ventilated by bringing the fresh air in through a large box, which runs underground the full length of the stable, and which is brought up to the ceiling of middle section in basement, and runs back the full length of stable, with openings to distribute the fresh air into the stable. The air coming such a long distance underground has the chill taken off it, consequently no condensation takes place. The outside end of the ventilator is about ten feet above ground, and arranged with a wide-mouthed funnel with vane attached, so that the opening always faces the breeze. The warm and foul air is taken off by ventilators running up into cupolas, which have slides that can be opened or shut as required, regulating the temperature. A yard about 40 x 100 adjoins the stable, in which the cattle are allowed out on fine days.

The feeding racks are 16 feet long by 4 feet wide, divided into 16 boxes, 8 on each side, each box 2 feet square and 1 foot deep; 18 inches above top of boxes is the bottom of the hay rack, which is 1 foot wide at the bottom and 4 feet wide at the top, and 4 feet deep, having slats on the sides 6 inches apart. The boxes and rack are in one, and move together, as shown in small cut. There are four of these racks on each side of middle section, making a total number of feeding boxes 128. Chains are attached to each end of each rack, and run up and pass over pulleys, and join on to a main chain, which runs the full length of the stable over the top of joists of loft floor, and which is covered by a box 3 feet wide by 3 feet high, the top of the box being arranged to open so as to allow racks to be filled with hay. On the end of the chain nearest the barn a large box is hung which contains sand, and weighs about 1,000 pounds heavier than the four racks when empty, so that when the box filled with sand is down in the basement the tops of the racks are up to the joists of the mow which contains the hay, the hay racks being filled through trapdoors. The feeding boxes are level with the floor of the middle section, and are filled from the 5-foot passages. When the racks are full they weigh from 1,000 to 1,500 pounds more than the box containing the sand, and go down by gravitation. A brake is attached to the main chain at the point where it passes through the floor, regulating the speed ascending and descending, and which is left on when racks are empty or full, so that they cannot move until brake is released. It will be seen that these racks work automatically, and require no power to raise or lower them. The racks slide on grooved posts, which run from the basement to the upper joists, and which hold the racks in position. These racks work on the same principle as a hoist in a warehouse. It will be seen in plan No. 1 that there is space for five feeding racks on each side, but the center one is left out opposite each door, leaving a passage straight through the basement, making it more convenient for teams hauling out manure.

The pigs are fed in the space allotted to them in basement of barn, as shown in plan No. 1, so that the cattle cannot eat any of the pigs' feed. The pigs roam about among the cattle nearly all the time, picking up any feed that is dropped by the cattle. When the litter is changed in hen pens and dropped down through trapdoors into the basement the pigs pick any odd grain that is left in the straw. This shows the advantage of having the hogs running loose with the cattle, as they are always foraging, allowing nothing to waste. I never had pigs that did any better.

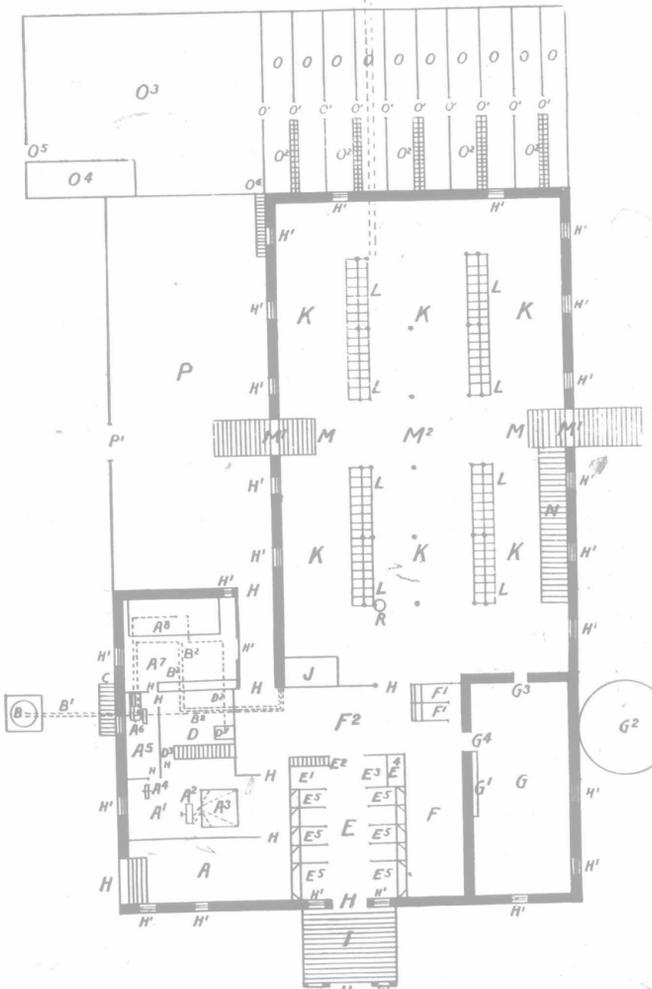
The cattle are all dehorned when put in the stable. Very little crowding is noticed, each animal soon learning to choose a box and stay there until he empties it. The racks are filled and lowered, and remain down until within an hour or so of the next feeding time, the cattle having hay before them all the time.

The manure is not moved until some time in February, fresh straw being put down each day. The manure becomes packed, and is almost as hard as a wooden floor. No evaporation takes place nor



PLAN NO. 2—SECOND FLOOR OF BARN OWNED BY A. S. McBEAN.

- A—Granary; a1, grinding room; a2, grinding apparatus which goes through floor; a3, elevator; a4, pulley just under floor; a5, shafting just under floor; a6, opening to hopper bin from barn floor where grain is dumped in from wagons and elevated to bins on top of granary for grinding.
- B—Stairs leading to upper part of granary which contains the hopper bins; b1, passage leading to door at the end of barn; b2, tool room; b3, office; b4, stairs to basement and engine room.
- C—Barn doors; c1, barn floor; c2, large scales on barn floor.
- D—Large mow over horse stable; d1, trapdoors arranged to feed horses from barn floors; d2, stairs leading to horse stable from barn floor; d3, hopper bin over horse stable used for storing oats for horses; d4, door for filling hopper bin from barn floor.
- E—Shed over horse stable door.
- F—Root cellars; f1, space where corn cutter stands, also elevator; f2, corn and straw cutter; f3, elevator in position for filling silo; f4, elevator in position for putting cut straw on loft over cattle; f5, silo; f6, steps leading to loft over cattle.
- G—Doors leading into cattle stable on a level with barn floor.
- M—Large water tank, capacity about 2,000 gallons; m1, pipes from windmill and steam pump and boiler.
- I—Apparatus for raising and lowering feed racks.
- J—Two stalls for milk cows.
- K—Large turnout bin; k1, feeding passages on either side of bin used for filling feed boxes of racks, also passage leading to hen coops; k2, feeding racks when lowered.
- H—Small hen pens divided by wire; h1, three-foot passage running along in front of pens, used to feed hens and gather eggs; h2, nests with roosts on top; h3, space for keeping feed; h4, pens used for keeping breeding cockerels during winter season.
- L—Two-foot walk running along wall, used for opening and shutting windows.
- N—Windows in feeding stable and hen coops.
- O—Small doors to allow hens to go down to yards.
- P—Doors in different parts of barn.
- Q—Roof of engine room.
- R—Approaches to barn floors.



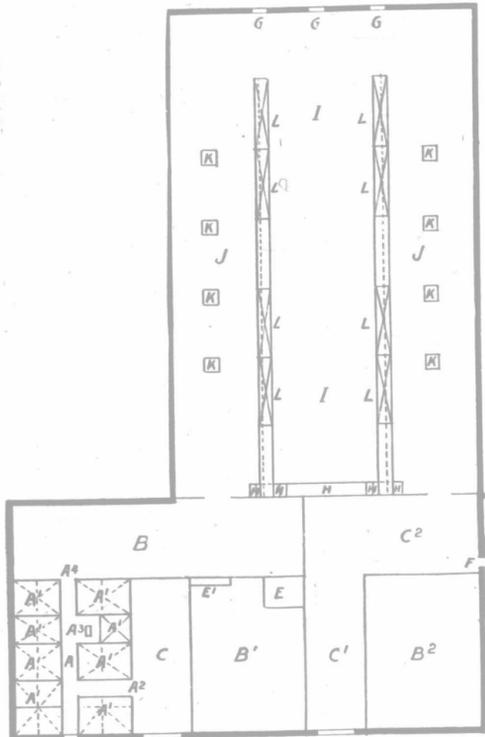
PLAN NO. 1—GROUND FLOOR OF BARN OWNED BY A. S. McBEAN.

- A—Implement room; a1, grinding room; a2, leg of elevator; a3, hopper bin, which is filled from barn floor; a4, large driving wheel; a5, engine room; a6, engine; a7, boiler room; a8, boiler.
- B—Large well and windmill; b1, pipes from well to tank and steam pump; b2, pipes leading to tank.
- C—Stairs leading from upper floor from outside.
- D—Room for wood; d1, boiler used to cook pig and chicken feed; d2, pipe from boiler; d3, stairs leading up to barn floor.
- E—Horse stable; e1, furnace room; e2, stairs leading to barn floor; e3, bottom of hopper bin where oats are drawn for feeding; e4, bottom of hopper bin; e5, stalls.
- F—Space used for storing turnips; f1, two stalls for sick animals; f2, space used to enter horse stable and water horses.
- G—Hog pen; g1, troughs for feeding; g2, bottom of silo; g3, small door through which hogs go out into cattle stable, being too small to allow cattle to enter hog pen; g4, door leading into hog pen.
- H—Doors in different parts of the basement; h1, windows in different parts of basement.
- I—Approach to horse stable.
- J—Tank where cattle and horses are watered.
- K—Large basement for cattle.
- L—Feed racks down ready for feeding.
- M—Bridges graded to doors over stone wall; m1, doors into cattle stable; m2, passage running from one side to the other.
- N—Bridge leading up to barn floor used in weighing out cattle.
- O—Hen yards; o1, doors leading from one yard to the other; o2, small bridges leading from pens to yards; o3, large yard for ducks during summer; o4, small shed for ducks to lay and sleep in; o5, door leading to duck yard; o6, stairs leading to hen yards from pens on the outside of building.
- P—Large yard where cattle are turned out in mild weather; p1, gate leading from yard.
- Q—Box underground bringing fresh air distributed from (R).



satisfaction. The spray was pumped on the cattle from the middle section above, the cattle all being driven to one side, and we were not troubled with vermin of any description. When they were shipped out they were as lean as race horses.

Glengarry Co., Ont. A. S. McBEAN.



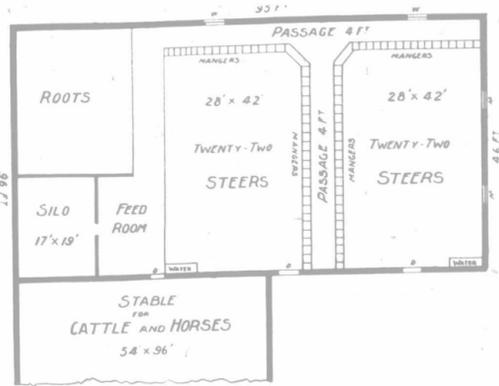
PLAN NO. 3—THIRD FLOOR OF BARN OWNED BY A. S. M'BEAN.

A—Top floor of granary and passage from stairs; a1, hopper bins; a2, passage and door opening opposite barn floor; a3, top of elevator on which is a swivel spout, which can be adjusted to put any grain or feed into hopper bins; a4, door leading to second floor.
 B—Mow over tool room, office and barn floor; b1, mow over horse stable; b2, mow over root cellar.
 C—Space over barn floor; c1, space over barn floor where hay and straw are put in mows, either in barn or feeding stable; c2, space over straw and ensilage cutter, which allows elevator to swing into silo and over cattle barn.
 D—Silo.
 E—Top of oat hopper bin; e1, top over stairs leading to horse stable.
 F—Door into silo.
 G—Windows in different places.
 H—Passage to allow man to pass from one side of loft to the other when loft is filled with hay.
 I—Large mows used for hay.
 J—Spaces used for keeping cut straw for bedding.
 K—Trapdoors through which straw is dropped to basement for bedding.
 L—Top of feed racks and trapdoors through which they are filled with hay. Dotted line is the main chain used in raising and lowering feed racks.

out three times during the winter. Each pen has an 8-foot door, which makes it possible to back a wagon or sleigh inside to haul away the manure. Above each door is a 6-foot window, 20 inches high. The windows are hinged at the bottom, and when open provide ventilation without direct draft upon the animals.

The 49 head that were tied were fed on ensilage and cut straw and cut-oatsheaves, with 6 lbs. corn chop per day. They were not quite as even a lot as the loose ones, nor did they present as thrifty an appearance. Some of their skins were scurfy and dry, while the loose ones presented a bloom and mellowness that indicated a very thrifty condition. The tied cattle had water before them constantly, and were never out of their stalls from fall till they went away on June 17th. They were mostly three-year-olds, but a few two-year-olds were scattered amongst them. They were not weighed when put into feed, but Mr. Forrester estimated the 89 head at about an average of 1,100 pounds each. When they went away the 40 head fed loose averaged 1,401 1/2 pounds each, and the 49 tied ones 1,335 pounds each. This difference cannot be taken as a basis for comparison between the two methods of feeding, as the loose cattle were of perhaps a bit better average class of cattle. They were selected for the box stalls on account of being dehorned. Mr. Forrester has fed cattle loose two winters, and holds a very high opinion of that method of feeding, as they take not more than half as much work as tied cattle. They are always apparently contented and ready for their meals at feeding time, and undoubtedly they gain some faster. Mr. Forrester's basement stables are not of a suitable form to divide up for loose feeding, but he thinks seriously of adjusting them for that purpose.

We might add that when Mr. Forrester was in Scotland a few years ago he looked into the systems of cattle feeding followed there, and found the plan of fattening cattle loose in compartments followed by many feeders altogether.

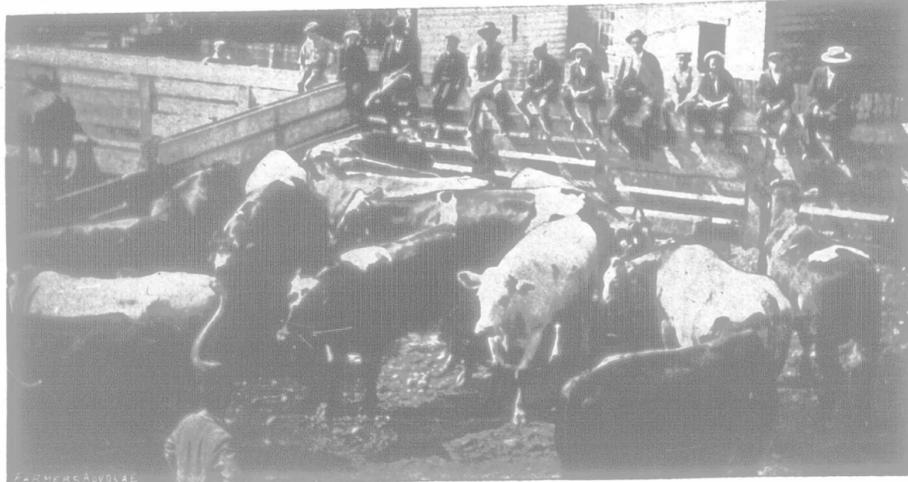


GROUND PLAN OF MR. WM. MURDOCK'S BASEMENT, SHOWING PENS WHERE 44 STEERS WERE FED LOOSE.

has fed 18 steers tied in double stalls, so that he has had a fair chance to estimate the relative advantages of the two systems. The pens in which the loose cattle are fed are floored with cement. They are furnished with water in each pen, and feeding mangers on two sides. The mangers of the old stalls, which were seven feet wide, are each divided into three compartments, separated only by a scantling at the top, so that stronger cattle cannot crowd the weaker ones away from the feed. The mangers are about 30 inches high, so that the feed is easily put in from the passage.

When the cattle were put in at the approach of cold weather they were fed on cut hay and straw and ensilage, with a light allowance of crushed grain. The hay and straw were mixed in equal parts and put into the mangers first. The chop was mixed with the ensilage, along with ten pails of water, twelve hours before feeding.

This softened the granular particles, which were thus rendered easily digestible. At the commencement each beast received 20 to 25 pounds of ensilage mixed with four pounds of bran and chopped oats in equal parts. This was placed in the mangers on top of the cut straw and hay. With the feed was mixed half an ounce of salt for each animal daily. The ensilage was increased up to almost 30 pounds per day, and the meal ration to 10 pounds per day by New Year's, and then the grain consisted of three pounds of corn, one of peas and six of oats. Mr. Murdock considers corn more economical than peas at the prevailing prices, but as the peas he used were broken and buggy, he could not sell them to advantage. He is also favorable to bran feeding—especially in the



A SAMPLE BUNCH OF D. A. FORRESTER'S STEERS, FED IN LOOSE BOXES. AVERAGE WEIGHT, 1,401 1/2 POUNDS EACH.

Feeding Cattle Loose in Pens of Five.

MR. D. A. FORRESTER, OF HURON CO., ONT., FED 40 LOOSE AND 49 TIED.

It is but a very few years since the fattening of steers in loose boxes was commenced in this country. We believe Mr. W. C. Edwards, M. P., Rockland, Ont., was among the first to discover its advantages, and the plan was soon investigated and adopted by other progressive spirits, until today we find the system growing in favor in almost every district where beef-raising is engaged in. There is perhaps no county in Canada where more good cattle are fattened than in Huron, and there we find loose feeding rapidly coming into vogue. Near the town of Clinton is Mr. D. A. Forrester's farm, from which he delivered, on June 17th, 89 head of nicely finished beefs. They were shipped by E. Watson, of Blyth. Forty of them had been fed loose in pens, and 49 tied in stalls. The loose lot were kept in bunches of five in the pens, the plan of which we show in this issue. The building of eight pens was planned and put up for loose feeding two years ago. The pens are each 15 feet square. The passage down the center is 4 1/2 feet wide, floored with cement, which is raised 2 1/2 feet above where the cattle stand. This passage forms the manger for the cattle on both sides. They were fed from a truck which is filled in the mixing room. The feed consisted largely of corn in the form of ensilage and corn chop. With the ensilage was mixed cut straw, which was given morning and evening, along with 6 pounds per day of corn chop, with a light admixture of oat chop after January 15th. They also received clover hay at noons, and drank at their pleasure from the troughs, which were supplied by a wash-bill pump. Above the pens is a loft, which is filled with straw direct from the threshing machine. The cattle were kept well bedded, and the pens were cleaned

Forty-four Steers Fed Loose—Bedding Not Used.

The plan we give of Mr. Wm. Murdock's cattle-feeding barn, in Huron County, Ont., represents clearly the arrangement of the part where he has for two winters fed steers loose. Each of the two pens is 28 by 42 feet, and sufficient to accommodate 22 head. Mr. Murdock



GROUND PLAN OF MR. D. A. FORRESTER'S BARN, SHOWING ANNEX WHERE 40 STEERS WERE FED LOOSE.

early part of the season.

The cattle were bedded for the first month, and cleaned out once a week. After that they received no bedding for a time, but the cement floor was scraped twice a day and cleaned out once a day. Mr. Murdock would prefer to use bedding, but his farm of 100 acres is not large enough to furnish sufficient straw. During the last six weeks they were bedded with cut straw, which gave them a chance to get cleaned up before being shipped. The 18 head of tied cattle were fed in the same way as the loose ones, but they received water only once a day and that when they were turned out.

On February 3rd, 52 head of the cattle were sold. On April 5th, 40 of those fit to ship were selected out from the entire herd. Of the 44 loose animals 34 were chosen and six were selected from the 18 tied up. That is, about 75 per cent. of the loose-fed cattle were ready to ship early in April, when only 33 per cent. of the tied ones were equally well finished. The lots were very uniform when put in and were fed alike, but Mr. Murdock attributes some of the advantage of the loose cattle over the tied ones to their free access to water at all times. He claimed that when the cattle were in one month he could plainly see the loose cattle doing better. The last of the cattle went away about the last week in May, a well-finished lot. They were not heavy cattle, but well finished, weighing upwards of 1,250 pounds. Mr. Murdock is so well pleased with the loose feeding that he intends to enlarge his loose-feeding pens for the coming winter, and feed all his beefing cattle in that way. He is greatly in favor of ensilage, and is growing 14 acres of Leaming and Butler dent corn for his silo.

LOOSE FEEDING FAVORED AFTER A TRIAL.

Near the farm of Mr. Murdock is that of Messrs. John Kitchen & Son. For lack of stall space, Messrs. Kitchen fed six head of steers loose, in 1897, in a pen 16 by 18 feet. The cattle were considered too crowded, and last winter just three head occupied the box stall, while 14 head were fed tied. Their feed consisted of well-cobbed silage and cut straw, half of each by bulk, and a mixture

of oats, barley and chop. Each beast received four pounds of chop per day at the commencement, increased to ten pounds as the season advanced. They were turned out to water once each day. Messrs. Kitchen turned off two lots of finished cattle last winter, the first going about the middle of February and the others at the middle of May. They were in nice thriving condition to commence with, and averaged about 1,300 pounds when shipped. Messrs. Kitchen intend to extend their loose-feeding capacity, and put water in the stables in the near future. They will not, however, abandon all their single stalls at present.

The 1899 Graduating Class from the Ontario Agricultural College.

In this issue we take pleasure in presenting photogravures of the members of the 1899 gradu-

ating class from the Ontario Agricultural College. It will be gratifying to our readers to notice that these young Bachelors of Scientific Agriculture (the degree conferred by the Provincial University) all come from Canadian farms, and also that they have decided to follow agriculture in one or other of its branches. We congratulate them on successfully completing their course, and bespeak for them, one and all, careers of usefulness, that will do credit to themselves and their alma mater.

Mr. A. M. High, B. S. A., was born on a farm in Lincoln Co., Ont. His parents are of German

and late manager of the Poultry Department of the Ontario Agricultural College. Mr. Jarvis, after receiving a good general education, worked on his father's fruit and poultry farm at Port Stanley, Elgin Co. In 1896 he entered the O. A. C., where he passed all examinations with good standing. Two years later he received his associate diploma, was awarded the scholarship in veterinary science, won first place in the essay competition at the College, and was awarded the Minister of Agriculture's prize. During his third year he was elected president of the O. A. C. Literary Society. Mr. Jarvis specialized in horticulture, and intends to follow this line of work. He is now employed at the Horticultural Department, assisting in experimental work in fruit and flowers.

Mr. Wm. N. Hutt, brother of Prof. Hutt, Horticulturist at the Agricultural College, was born in

His mother is a niece of the late Hon. Senator Read, who was born in the County of Suffolk, England. Mr. Mallory's father's 400-acre farm is one of the oldest in the country, being one of the first cleared by the U. E. Loyalists on their advent to Canada. His forefathers for five generations on the side of both parents have been farmers, and three generations on his father's side have lived upon the farm now in possession of his father. Mr. Mallory attended the public school until the age of thirteen, when he passed the entrance examinations. He then worked upon his father's farm until the age of fifteen. In January of 1896 he entered the Commercial Department of Albert College, Belleville; concluded his commercial course in April of the same year. With the purpose of following agriculture in view, he entered the first-year class at the Ontario Agricultural College in October of 1896. In his first-year examinations he



A. M. HIGH, B. S. A.



WM. N. HUTT, B. S. A.



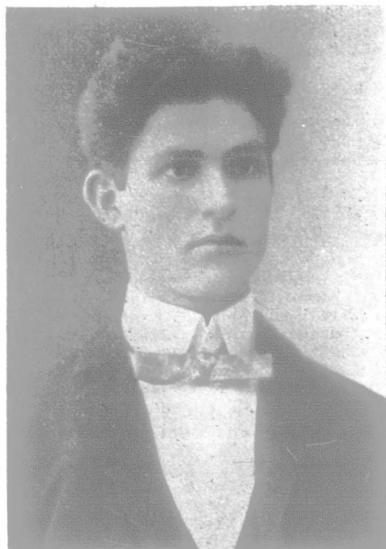
W. J. PRICE, B. S. A.

standing well up in general proficiency and passed with honors. In his second year he passed with honors in nearly all subjects. Entered the third year in October of 1898 and obtained the degree of B. S. A., being an honor man in nearly all subjects, and distinguished himself by writing the best thesis handed in by those who were candidates for B. S. A. In his third year, Mr. Mallory was agricultural editor of the O. A. C. Review. In his second year he held the position of secretary of the Young Men's Christian Association. Mr. Mallory at present intends to assist his father in managing and working the farm, upon which is kept herds of Holstein cattle and Berkshire and Tamworth swine.

the Township of Stamford, in the County of Welland. He comes from a long line of farmers of U. E. Loyalist stock, who were the pioneers of the Niagara district. His father, F. A. Hutt, is one of the leading farmers and fruit-growers of his county, and has always taken a deep interest in agricultural and municipal matters. Mr. Hutt was brought up on the farm, and attended the public and high school in his township. For two years he attended the St. Catharines Collegiate Institute, and there obtained honor matriculation and a first-class certificate. For a couple of years he taught school near home, and spent his summers on the farm. Mr. Hutt has always been a close student of

stood well up in general proficiency and passed with honors. In his second year he passed with honors in nearly all subjects. Entered the third year in October of 1898 and obtained the degree of B. S. A., being an honor man in nearly all subjects, and distinguished himself by writing the best thesis handed in by those who were candidates for B. S. A. In his third year, Mr. Mallory was agricultural editor of the O. A. C. Review. In his second year he held the position of secretary of the Young Men's Christian Association. Mr. Mallory at present intends to assist his father in managing and working the farm, upon which is kept herds of Holstein cattle and Berkshire and Tamworth swine.

Mr. Chester D. Jarvis, B. S. A., of Guelph, was born near London, Ont., in 1876, being the son of Mr. L. G. Jarvis, the well-known poultry judge



CHESTER D. JARVIS, B. S. A.



F. R. MALLORY, B. S. A.



G. H. MURDOCK, B. S. A.

descent, known as Pennsylvania Dutch. Mr. High secured his associate diploma at the end of his second year, in 1894, and did not re-enter the College till October, 1898, and graduated at the end of the 1898-9 College year. While at the College Mr. High was appointed by his fellow students to the office of treasurer of the Young Men's Christian Association, and editor of the Horticultural Column of the O. A. C. Review. He has given especial attention to horticulture, which line he intends to follow from now forward.

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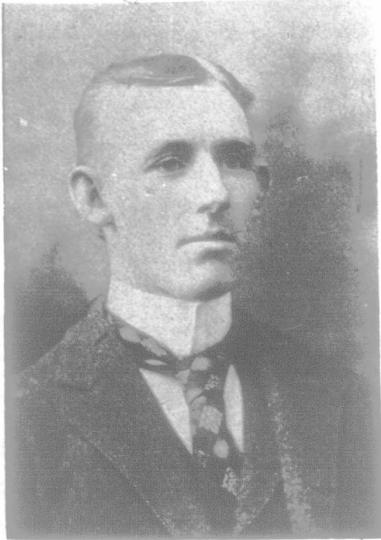
agricultural problems, and has kept in close touch with the current agricultural literature of Canada and the United States. He has also been a speaker at local Farmers' Institutes, and a writer for the agricultural press. In the fall of 1897 he entered the O. A. C., taking the first two years' work of the course in one year, and has graduated this year as a specialist in horticulture. At the College Mr. Hutt took prizes for oratory and essay writing. It is his intention to follow the science and practice of agriculture, which he considers well worthy of any man's best thought and energy.

Mr. F. R. Mallory, B. S. A., was born in 1880, in the Township of Sidney, County of Hastings. His father is a farmer of direct U. E. Loyalist descent.

Mr. W. J. Price, B. S. A., was born at Coningsby, Wellington Co., Ont., on September 9th, 1877. His father, Enoch Price, was born in Ireland, and for many years has followed the occupation of farming, formerly in the County of Wellington, but at present in Dufferin. His mother was born in Canada, of English parents. During Mr. Price's College course he won several prizes. Some of these were: first prize in general proficiency in the first year, first in English, first in natural science and the Geo. A. Cox scholarship in natural science. A prize won later was the special prize given by the College to the graduate who stood highest in his class with first-class honors in his special course. He held during his second year the office of secre-

tary-treasurer of the Athletic Association. Other offices held were corresponding secretary of the Y. M. C. A., critic for the Literary Society, business manager for the College paper, the O. A. C. Review, and a year later he was appointed managing editor of the same paper. It is now Mr. Price's intention to pursue the study and practice of agriculture on scientific lines.

Mr. G. H. Murdock, B. S. A., was born on a farm near Wyevalle, Simcoe Co., Ont., where his father, H. Murdock, was a successful farmer. Mr. Murdock's parents were born in Victoria County, near Lindsay, Ont. He entered the College in the fall of 1896, with the intention of preparing himself for farming, which is the line he intends to follow in after life. He will handle his father's farm and pay special attention to live stock.



M. RAYNOR, B. S. A.

Mr. M. Raynor, B. S. A., was born on his father's farm at Rosehall, Prince Edward Co., Ont., in 1879. His parents are both Canadians, descendants of the U. E. Loyalists. While at the College, Mr. Raynor was president of the Young Men's Christian Association during the College years of 1898 and 1899. He was also one of the agricultural editors of the O. A. C. Review published monthly for the College year by the Literary Society. In his first year he stood third in general proficiency and won a prize awarded by the College. He also won a \$20 scholarship for the Department of English in the same year. This was awarded by G. A. Cox. Mr. Raynor purposes to remain on the farm at home



JOHN BUCHANAN, B. S. A.

for a few years at least. At one time he says he felt like leaving the farm to enter some other work, but thanks to the training at the Ontario Agricultural College, he has changed his views, and now believes farming is an occupation which is not to be despised.

Mr. John Buchanan, B. S. A., was born of Scotch parentage, in the County of Huron, Ont., on April 5th, 1873, and lived on the farm until 19 years of age, thus serving a splendid practical apprenticeship to the profession of agriculture. He attended public school until he had passed the examination for entrance to high school, came to the O. A. C. in the autumn 1892, and secured his associate

diploma in the summer of 1894. Since then Mr. Buchanan has been engaged in the office of Mr. Zavitz, the Experimentalist, excepting three months in the winter of 1898, when he took a course in the Western Ontario Shorthand Academy. In October, 1898, he re-entered the College for his final year. During his course in college he endeavored to take as practical a course as possible, giving a fair share of attention to Athletic, Literary and Y. M. C. A. Associations. He took a good standing in class-work, however, securing first-class honors in several subjects, and standing sixth in general proficiency at the end of his second year. In graduating year he gave special attention to essay work and thesis, and won first-class honors in these branches. He held the position of personal editor of the O. A. C. Review during his second year, and College reporter for same in his third year.



F. R. MARSHALL, B. S. A.

Mr. Fred. Rupert Marshall, B. S. A., was born and has always lived at Westbrook, six miles west of Kingston. His parents are of English and Scotch descent, and his father has always made farming his occupation. On finishing public school work Mr. Marshall attended high school for one year, and then spent two years at the Kingston Collegiate Institute. He then remained three years on his father's farm, and entered the O. A. C. College in his nineteenth year. In his first-year work he obtained honors in all departments, with first-class honors in mathematics and natural science, being awarded the Cox scholarship in the first-mentioned department. For the year he stood fourth in general proficiency. In his second year he obtained honors in all departments and retained the same place in proficiency with those of the class who took the first year at the same time. In his final year he was assistant managing editor of the Review, and captain of the Rugby football team. On the final examination he obtained honors in several branches, with first-class honors in live stock, the exams. on which included written and practical work on sheep, swine, dairy cattle and beef cattle. For the present Mr. Marshall will remain at home, where mixed farming is followed, but he expects to take postgraduate work in agriculture.

Oak Lake Plowing Match.

The plowing match held on June 21st, on the farm of Donald Cameron, was a very successful affair. The judges were: A. Elder, of Blyth; T. Jasper, of Bradwardine; and H. Buck, of Virden.

There were fifteen entries, with the following successful competitors:

Fourteen-inch plow—1st, J. Sutherland, of Brandon; 2nd, James Goodwin; 3rd, Wm. McCoy; 4th, J. Scott; 5th, J. Gillispie.

Sixteen-inch plow—1st, John Redden; 2nd, E. Allen.

Gang plow—1st, Robt. Summerville; 2nd, Henry Gillispie.

Young men, under 21 years of age, 14-inch walking plow—1st, D. A. Goodwin; 2nd, B. Sturgeon; 3rd, A. Walton; 4th, Ralph Helliwell.

Boys, under 16 years of age—1st, Leslie Wisner; 2nd, J. Johnson; 3rd, P. Hatch.

Special prize for the best plowed acre—J. Sutherland; best ridge, J. Sutherland; best finish, Leslie Wisner; oldest plowman, James Gillispie. Special \$5 gold piece for best plowing done by boys under 16 years, Leslie Wisner.

Speeches were made by T. C. Norris, M. P. P.; Robt. Hall, of Griswold; A. Fenwick, of Alexander; Reeve Chisholm, and President J. J. Arsenault. To Isaac Young, the Secretary, much credit is due for the success of the match.

Indian Head District.

Crops in this district are looking well, and weather at present all that can be desired.

ANNAS MACKAY.

QUESTIONS AND ANSWERS.

Veterinary.

PROBABLY RINGBONE.

SUBSCRIBER, Pilot Mound, Man.:—"I have a blood mare, 11 years old; went lame on hind foot for a week in February, and now is lame again. There is a small fullness on the front of the fetlock. Would it be ringbone? If so, is there any cure?"

[It is probably ringbone; and if so, the proper treatment would be judicious firing and blistering. I would advise you, however, to consult your local veterinarian, who, by seeing the case, will be in a much better position than I am to diagnose it correctly and to prescribe the proper treatment.]

W. A. DUNBAR, V. S., Winnipeg.]

WOUNDED JOINT.

SUBSCRIBER, Agassiz, B. C.:—"A friend has a horse that was cut with a road scraper, nearly two weeks ago, just above the fetlock joint of the left hind leg. At first there was a watery substance running from cut, now it is thick and looks as if the marrow of the bone was oozing out. Kindly let me know what to do to effect a cure?"

[You do not mention what degree of lameness is manifested, but judging from the nature of the discharges, it probably consists of coagulated synovia, "joint oil." If it is, you have a case of open joint, which is always a serious lesion, especially if not properly treated at first. I would advise you to apply the following blister all around the joint: Powdered cantharides, four drams; vaseline, three ounces. Mix well, and apply by smart friction with the fingers. If there is great lameness it is advisable to place the animal in a sling. Keep the bowels open with laxative food.]

W. A. DUNBAR, V. S., Winnipeg.]

Miscellaneous.

NATIVE PLUMS.

J. H., Austin, Man.:—"I notice that you have had good success with native Manitoba plums. I wish to make a small plantation of them. How would you advise me to proceed? I understand that they grow wild on river banks near here. Will these succeed if transplanted, or is it better to grow them from pits?"

[Native plums are giving very good satisfaction here, and are full of promise for the country generally. I would advise you to examine the fruit found growing wild in your neighborhood and mark any trees bearing exceptionally fine fruit, and remove the best shaped trees to your garden early next spring, placing them 10 feet apart each way; also gather a quantity of fruit, and, after removing the pulp thoroughly, place the pits in a box between layers of damp sand and leave outside all winter, exposed to the frost. Plant in drills next spring. You will soon have a number of nice trees, which can be grafted with wood from your selected trees.]

S. A. BEDFORD.]

FOR LATE-SOWN FODDER.

R. H., Virden, Man.:—"I have some land, uncropped, which I would like to sow with a fodder plant. What would you recommend at this date, July 1st? Is it too late for oat sheaves or barley?"

[Although you could, without doubt, in a moist season like this, grow a fair crop of oat or barley sheaves even as late as July 1st, the fodder would, in all probability, be very rusty, and I would prefer some kind of millet; the variety known as Hungarian grass has given excellent results here. The land should be thoroughly plowed, the seed sown broadcast at the rate 23 lbs. per acre, and harrowed in. It should be cut as soon as it is in blossom. It should be fed sparingly to horses at first, as it produces indigestion with some animals. I have found no injurious results from feeding it to cattle.]

S. A. BEDFORD.]

FOR FALL PASTURE.

W. A., Elkhorn, Man.:—"As the native grass dries up early in this locality, I shall probably need some fall feed for my milch cattle. Is rape suitable for this purpose, and if so, how shall I sow it, broadcast or in drills? Can you suggest anything better?"

[Dwarf Essex rape yields a large quantity of very succulent food, and some claim that if fed with care it does not taint the milk, but on this farm we have been unable to feed it to milch cows without injuring the flavor of the milk. A fair yield can be obtained from broadcast sowing, and with very little labor, but much better returns are had if sown in drills three feet apart, and the land kept clean by the use of a one-horse cultivator. By the latter system the field is kept clean and is consequently in better shape for a crop of grain the following year.]

S. A. BEDFORD.]

Manitou District.

A larger average had been put in here than ever before, and the grain is looking well, the pasture is immense, and the stock all doing well. A good many cattle have been fed in this district during the past winter. Those that fed for the dealers at seven cents per pound for what they would put on the steers have found that there was no money in it, and had coarse grains been a good price the feeders would have been out. The farmers generally are giving more attention to cattle and hog feeding, and are coming to the conclusion that there is more money in raising young stock, and stall-feeding them to a finish, than selling to ranchers. This district has more bank barns than any other part of Manitoba. A good deal of stock is being fattened for the Winnipeg Exhibition, and Manitou District will not be forgotten.

P. B. P.



AN AFRICAN MILLIONAIRE.

EPISODES IN THE LIFE OF THE ILLUSTRIOUS COLONEL CLAY.

BY GRANT ALLEN.

(Continued from page 337.)

It was capitally done. We arranged the thing to perfection. We had a constable in waiting in our rooms at the Metropole, and we settled that Dr. Polperro was to call at the hotel at a certain fixed hour to sign the warrant and receive his money. A regular agreement on sound stamped paper was drawn out between us. At the appointed time the "party of the first part" came, having already given us over possession of the portrait. Charles drew a cheque for the amount agreed upon, and signed it. Then he handed it to the Doctor. Polperro just clutched at it. Meanwhile, I took up my post by the door, while two men in plain clothes, detectives from the police station, stood as men-servants and watched the window. We feared lest the impostor, once he had got the cheque, should dodge us somehow, as he had already done at Nice and in Paris. The moment he had pocketed his money with a smile of triumph, I advanced to him rapidly. I had in my possession a pair of handcuffs. Before he knew what was happening, I had slipped them on his wrists and secured them dexterously, while the constable stepped forward. "We have got you this time!" I cried. "We know who you are, Dr. Polperro. You are—Colonel Clay, alias Senor Antonio Herrera, alias the Reverend Richard Peplow Brabazon."

I never saw any man so astonished in my life. He was utterly flabbergasted. Charles thought he must have expected to get clear away at once, and that this prompt action on our part had taken the fellow so much by surprise as to simply unman him. He gazed about him as if he hardly realized what was happening. "Are these two raving maniacs?" he asked at last, "or what do they mean by this nonsensical gibberish about Antonio Herrera?"

The constable laid his hand on the prisoner's shoulder. "It's all right, my man," he said. "We've got warrants out against you. I arrest you, Edward Polperro, alias the Reverend Richard Peplow Brabazon, on a charge of obtaining money under false pretences from Sir Charles Vandrift, K. C. M. G., M. P., on his sworn information, now here subscribed to." For Charles had had the thing drawn out in readiness beforehand.

Our prisoner drew himself up. "Look here, officer," he said in an offended tone, "there's some mistake here in this matter. I have never given an alias at any time in my life. How do you know this is really Sir Charles Vandrift? It may be a case of bullying impersonation. My belief is, though, they're a pair of escaped lunatics."

"Well see about that to-morrow," the constable said, collaring him. "At present you've got to go off with me quietly to the station, where these gentlemen will enter up the charge against you."

They carried him off protesting. Charles and I signed the charge sheet; and the officer locked him up to await his examination next day before the magistrate.

Next morning, when we reached the court, an inspector met us with a very long face. "Look here, gentlemen," he said, "I'm afraid you've committed a very serious blunder. You've made a precious bad mess of it. You've got yourselves into a scrape; and, what's worse, you've got us into one also. You were a deal too smart with your sworn information. We've made inquiries about this gentleman, and we find the account he gives of himself is perfectly correct. His name is Polperro; he's a well-known art critic and collector of pictures, employed abroad by the National Gallery. He was formerly an official in the South Kensington Museum, and he's a C. B. and LL. D., very highly respected. You've made a sad mistake, that's where it is; and you'll probably have to answer a charge of false imprisonment, in which I'm afraid you have also involved our own department."

Charles gasped with horror. "You haven't let him out," he cried, "on those absurd representations? You haven't let him slip through your hands as you did that murderer fellow?"

"Let him slip through our hands?" the inspector cried. "I only wish he would. There's no chance of that, unfortunately. He's in the court there this moment, breathing out fire and slaughter against you both; and we're here to protect you if he should happen to fall upon you."

"If you haven't let him go I'm satisfied," Charles answered. "He's a fox for cunning. Where is he? Let me see him."

We went into the court. There we saw our prisoner conversing amicably, in the most excited way, with the magistrate (who, it seems, was a personal friend of his); and Charles at once went up and spoke to them. Dr. Polperro turned round and glared at him through his pince-nez.

"The only possible explanation of this person's extraordinary and incredible conduct," he said, "is that he must be mad—and his secretary equally so. I demand a summons for false imprisonment."

Suddenly it began to dawn upon us that the tables were turned. By degrees it came out that we had made a mistake. Dr. Polperro was really the person he represented himself to be, and had been always. His picture, we found out, was the real Maria Vanrenen, and a genuine Rembrandt, which he had merely deposited for cleaning and restoring at the suspicious dealer's. Sir J. H. Tomlinson had been imposed upon and cheated by a cunning Dutchman; his picture, though also an undoubted Rembrandt, was not the Maria, and was an inferior specimen in bad preservation. The authority we had consulted turned out to be an ignorant, self-sufficient quack. The Maria, moreover, was valued by other experts at no more than five or six thousand guineas. Charles wanted to cry off his bargain, but Dr. Polperro naturally wouldn't hear of it. The agreement was a legally binding instrument, and what passed in Charles' mind at the moment had nothing to do with the written contract. Our adversary only consented to forego the action for false imprisonment on condition that Charles inserted a printed apology in the *Times* and paid him five hundred pounds compensation for damage to character.

Dr. Polperro, who was a familiar person in literary and artistic society, as it turned out, brought an action against the so-called expert who had declared against the genuineness of his alleged Rembrandt, and convicted him of the grossest ignorance and misstatement. Then paragraphs got about. The *World* showed us up in a sarcastic article, and a week or two later my brother-in-law received a cheerful little note on scented paper from our persistent sharper. It was couched in these terms:

"Oh, you innocent infant! And did it believe, 'Bless your ingenious little heart! And did it believe, then, it had positively caught the redoubtable colonel! And had it ready a nice little pinch of salt to put upon his tail! And is it true its respected name is Sir Simple Simon? How heartily we have laughed, White Heather and I, at your neat

little ruses! It would pay you, by the way, to take White Heather into your house for six months to instruct you in the agreeable sport of amateur detectives. Your charming naïveté quite moves our envy. When again shall such infantile transparency be mine? When, ah, when? But never mind, dear friend. Though you didn't catch me, we shall meet before long at some delightful Philippi.

Yours, with the profoundest respect and gratitude,
ANTONIO HERRERA.
"Otherwise RICHARD PEPLow BRABAZON."

Charles laid down the letter with a deep-drawn sigh. "Sey, my boy," he mused aloud, "no fortune on earth—not even mine—can go on standing it. These perpetual drains begin really to terrify me. I foresee the end. I shall die in a workhouse. What with the money he robs me of when he is Colonel Clay, and the money I waste upon him when he isn't Colonel Clay, the man is beginning to tell upon my nervous system."

"You must need rest and change," I said, "when you talk like that. Let us try the Tyrol."

IV.
THE EPISODE OF THE TYROLEAN CASTLE.

We went to Meran. The place was practically decided for us by Amelia's French maid, who really acts on such occasions as our guide and courier.

She is such a clever girl, is Amelia's French maid. Whenever we are going anywhere, Amelia generally asks (and accepts) her advice as to choice of hotels and furnished villas. Cesarine has been all over the Continent in her time; and, being Alsatian by birth, she of course speaks German as well as she speaks French, while her long residence with Amelia has made her at last almost equally at home in our native English. She is a treasure, that girl—so neat and dexterous, and not above dabbling in anything on earth she may be asked to turn her hand to.

So when Amelia said, in her imperious way, "Cesarine, we want to go to the Tyrol—now—at once—in mid-October; where do you advise us to put up?" Cesarine answered, like a shot, "The Erzherzog Johann, of course, at Meran, for the autumn, madame."

So to Meran we went; and a prettier or more picturesque place, I confess, I have seldom set eyes on. A rushing torrent; high hills and mountain peaks; a Rhine town plumped down among green Alpine heights, and threaded by the cool colonnades of Italy.

I approved Cesarine's choice; and I was particularly glad she had pronounced for an hotel, where all is plain sailing, instead of advising a furnished villa, the arrangements for which would naturally have fallen in large part upon the shoulders of the wretched secretary.

The great peculiarity of Meran is the number of Schlosses (I believe my plural is strictly irregular, but very convenient to English ears) which you can see in every direction from its outskirts. One would be square, with funny little turrets stuck out at each angle, while another would rejoice in a big round keep, and spread on either side long, ivy-clad walls and delightful bastions. Charles was immensely taken with them. From the moment he came he felt at once he would love to possess a castle of his own among those romantic mountains.

"Seldon!" he exclaimed, contemptuously, "that's a castle! But you and I know very well, Sey, it was built in 1880, with about antique stones, for Macpherson of Seldon, at market rates, by Cubitt and Co., worshipful contractors of London. Now, these castles are real. They are hoary with antiquity. Schloss Tyrol is Romanesque—tenth or eleventh century." (He had been reading it up in *Baedeker*.) "That's the sort of place for me!—tenth or eleventh century."

As for Amelia, strange to say, she was equally taken with this new fad of Charles'. As a rule she hates everywhere on earth save London, except during the time when no respectable person can be seen in town, and when modest blinds and the scandalized face of Mayfair and Belgravia. She set Cesarine to inquire of the people at the hotel about the market price of tumbledown ruins, and the number of such eligible family mausoleums just then for sale in the immediate neighborhood. Cesarine returned with a full, true and particular list. Several of them had witnessed the gorgeous marriages of Holy Roman Emperors, and even some of them was provided with some choice and selected first-class murders. Ghosts could be arranged for, as desired; and armorial bearings could be thrown in with the moat for a moderate extra remuneration.

The two we liked best of all these tempting piles were Schloss Planta and Schloss Leobenstein. Schloss Planta was the most striking externally, I should say, with its Rhine-like towers and its great gnarled ivy stems, that looked as if they antedated the House of Hapsburg; but Leobenstein was said to be better preserved within, and more fitted in every way for modern occupation. Its staircase has been photographed by 7,000 amateurs.

We got tickets to view. The invaluable Cesarine procured them for us. Armed with these we drove off one fine afternoon, meaning to go to Planta, by Cesarine's recommendation. Half way there, however, we changed our minds, as it was such a lovely day, and went up the long, slow hill to Leobenstein. I must say the drive through the grounds was simply charming.

We knocked at the door—for there was really no bell, but a ponderous, old-fashioned, wrought-iron knocker.

The door was opened for us by a high well-born man, attired in a very ancient and honorable livery. Nice antique hall; suits of ancestral armor, trophies of Tyrolean hunters, coats of arms of ancient counts—the very thing to take Amelia's aristocratic and romantic fancy. The whole to be sold exactly as it stood: ancestors to be included at a valuation.

We went through the reception-rooms. They were lofty, charming, and with glorious views, all the more glorious for being framed by those graceful Romanesque windows, with their slender pillars and quaint, round-topped arches. Sir Charles had made his mind up. "I must and will have it!" he cried. "This is the place for me. Seldon! Pah, Seldon is a modern abomination!"

Could we see the high well-born Count? The liveried servant (somewhat haughtily) would inquire of his Serenity. Sir Charles sent up his card, and also Lady Vandrift's. These foreigners know little spells money in England.

He was right in his surmise. Two minutes later the Count entered, with our cards in his hands. A good-looking young man, with the characteristic Tyrolean long black moustache, dressed in a gentlemanly variant on the costume of the country.

He waved us to seats. We sat down. He spoke to us in French; his English, he remarked, with a pleasant smile, being a negligible quantity. We might speak it, he went on, he could understand pretty well, but he preferred to answer, if we would allow him, in French or German.

"French," Charles replied, and the negotiation continued henceforth in that language. It is the only one, save English and his ancestral Dutch, with which my brother-in-law possesses even a nodding acquaintance.

We praised the beautiful scene. The Count's face lighted up with patriotic pride. Yes, it was beautiful, beautiful, his own green Tyrol. He was proud of it and attached to it.

Then they got to business. The Count was a delightful man to do business with. His manners were perfect. While we were talking to him, a surly person—a steward or bailiff, or something of the sort—came into the room unexpectedly and addressed him in German, which none of us understood. We were impressed by the singular urbanity and benignity of the nobleman's demeanor towards this sullen dependant. He evidently explained to the fellow what sort of people we were, and remonstrated with him in a very gentle way for interrupting us. The steward understood, and clearly regretted his insolent air. For after a few sentences he went out, and as he did so he bowed and made protestations of polite regard in his own language. The Count turned to us and smiled. "Our people," he said, "are like your own Scotch peasants—kind-hearted, picturesque, free, musical, poetic, but wanting, *heh-heh*, in polish to strangers."

He named his price in frank terms. His lawyers at Meran

held the needful documents, and would arrange the negotiations in detail with us. It was a stiff sum, I must say—an extremely stiff sum, but no doubt he was charging us a fancy price for a fancy castle.

I may add that people always imagine it must be easier to squeeze money out of millionaires than out of other people, which is the reverse of the truth, or how could they ever have amassed their millions? Instead of oozing out gold as a tree oozes gum, they mop it up like blotting paper, and seldom give it out again.

We drove back from this first interview none the less very well satisfied. The price was too high, but preliminaries were arranged, and for the rest the Count desired us to discuss all details with his lawyers in the chief street, Unter den Lauben. We inquired about these lawyers, and found they were most respectable and respected men. They had done the family business on either side for seven generations.

They showed us plans and title deeds. Everything quite *en règle*. Till we came to the price there was no hitch of any sort.

As to price, however, the lawyers were obdurate. They stuck out for the Count's first sum to the uttermost florin. It was a very big estimate. We talked and shilly-shallyed till Sir Charles grew angry. He lost his temper at last.

"They know I'm a millionaire, Sey," he said, "and they're playing the old game of trying to diddle me. But I won't be diddled. Except Colonel Clay, no man has ever yet succeeded in bleeding me. And shall I let myself be bled as if I were a chamois among these innocent mountains? Perish the thought!"

Things dragged on in this way, inconclusively, for a week or two. He bid down; the lawyers stuck to it. Sir Charles grew half sick of the whole silly business. For my own part, I felt sure if the high well-born Count didn't quicken his pace my respected relative would shortly have had enough of the Tyrol altogether, and be proof against the most lovely of crag-crowning castles. But the Count didn't see it. He came to call on us at our hotel (a rare honor for a stranger with these haughty and exclusive Tyrolean nobles), and even entered unannounced, in the most friendly manner. But when it came to £, s. d. he was absolute adamant. Not one kreutzer would he abate from his original proposal.

"You misunderstand," he said, with pride. "We Tyrolean gentlemen are not shopkeepers or merchants. Were you an Austrian I should feel insulted by your ill-advised attempt to beat down my price. But as you belong to a great commercial nation—" he broke off with a snort, and shrugged his shoulders compassionately.

We saw him several times driving in and out of the schloss, and every time he waved his hand at us gracefully. But when we tried to bargain it was always the same thing—he retired behind the shelter of his Tyrolean nobility.

At last Charles gave up the attempt in disgust. He was tiring, as I expected. "It's the prettiest place I ever saw in my life," he said, "but, hang it all, Sey, I won't be imposed upon."

So he made up his mind, it being now December, to return to London. We met the Count next day, and stopped his carriage, and told him so. Charles thought this would have the immediate effect of bringing the man to reason. But he only lifted his hat, with the blackcock's feather, and smiled a bland smile. "The Archduke Karl is inquiring about it," he answered, and drove on without parley.

Charles used some strong words, which I will not transcribe (I am a family man), and returned to England.

For the next two months we heard little from Amelia save her regret that the Count wouldn't sell the Schloss Leobenstein. Strange to say, she was absolutely infatuated about the castle. Moreover, Cesarine further inflamed her desire by gently hinting a fact which she had picked up at the courier's *table d'hôte* at the hotel, that the Count had been far from anxious to sell his ancestral and historical estate to a South African diamond king.

One morning in February, however, Amelia returned from the Row all smiles and tremors. (She had been ordered horse exercise to correct the increasing excessiveness of her figure.)

"Who do you think I saw riding in the Park?" she inquired. "Why, the Count of Leobenstein."

"No!" Charles exclaimed, incredulous.

"Yes," Amelia answered.

"Must be mistaken," Charles cried.

But Amelia stuck to it. More than that, she sent out emissaries to inquire diligently from the London lawyers whose name had been mentioned to us by the ancestral firm in Unter den Lauben as their English agents as to the whereabouts of our friend, and her emissaries learned in effect that the Count was in town and stopping at Morley's.

I was all for waiting prudently till the Count made the first move, but Amelia's ardor could not now be restrained. She insisted that Charles should call on the Graf as a mere return of his politeness in the Tyrol.

He was as charming as ever. He would be ravished to dine next evening with Sir Charles.

He dined with us, almost *en famille*. In the billiard-room, about midnight, Charles reopened the subject. The Count was really touched. It pleased him that still, amid the distractions of the City of Five Million Souls, we should remember with affection his beloved Leobenstein.

"Come to my lawyers," he said, "to-morrow, and I will talk it all over with you."

We went—a most respectable firm in Southampton Row; old family solicitors. They had done business for years for the late Count, who had inherited from his grandmother estates in Ireland, and they were glad to be honored with the confidence of his successor.

Sir Charles named a price, and referred them to his solicitors. The Count named a higher, but still a little come-down, and left the matter to be settled between the lawyers. He was a soldier and a gentleman, he said, with a Tyrolean toss of his high-born head. He would abandon details to men of business.

I met the Count accidentally next day on the steps of Morley's. (Accidentally, that is to say, so far as he was concerned.) I explained, in guarded terms, that I had a great deal of influence in my way with Sir Charles, and that a word from me—I broke off. He stared at me blankly.

"Commission?" he inquired at last, with a queer little smile.

"Well, not exactly commission," I answered, wincing. "Still, a friendly word, you know. One good turn deserves another."

He looked at me from head to foot with a curious kind of scrutiny. For one moment I feared the Tyrolean nobleman in him was going to raise its foot and take active measures.

[TO BE CONTINUED.]



Somebody Else.

Who's Somebody Else? I should like to know
Does he live at the North or South?
Or is it a lady fair to see,
Whose name is on everyone's mouth?
For Meg says, "Somebody Else will sing."
Or, "Somebody Else can play;"
And Jack says, "Please let Somebody Else
Do some of the errands to-day."
If there's any hard or unpleasant task
Or difficult thing to do,
'Tis always offered to Somebody Else—
Now, isn't this very true?
But if some fruit or a pleasant trip
Is offered to Dick or Jess,
We hear not a word about Somebody Else;
Why, I will leave you to guess.

The words of cheer for a stranger lad
This Somebody Else will speak,
And the poor and helpless who need a friend
Good Somebody Else must seek.
The cup of cold water in Jesus' name,
Oh, Somebody Else will offer,
And words of love for a broken heart
Brave Somebody Else will proffer.

There are battles in life we only can fight,
And victories, too, to win,
And Somebody Else can take our place
When we shall have "entered in;"
But if Somebody Else has done his work
While we for our ease have striven,
'Twill be only fair if the blessed reward
To Somebody Else is given.

Why She was Popular.

A queer old man once made a tea party for all the little girls in our town, and when they were all gathered in his front yard, in white dresses and carefully-tied sashes, he offered a doll for the most popular little girl in the crowd.

But half the children did not know what "most popular" meant, so he told them it was the best-liked little girl. All the children voted, and Mary Blain got the doll. Mary was not the prettiest nor the cleverest of the children, but she got the doll.

"Now," said the queer old man, "I will give another doll to the one that first tells me why you all like Mary the best."

Nobody answered at first, but presently Fanny Wilson said, "It's because Mary always finds out what the rest of us want to play, and then says, 'Let's play that.'"

The old gentleman said that was the best reason he had ever heard, and he was going to try for the rest of his life to find out what other people wanted to play, and then say, "Let's play that!"

"Secrets."

Jimmy and Jack, always called by the rest of the family "the kids," are the youngest of seven—all boys! Can you imagine the wear and tear on trousers and boots in that family? To let you into a secret (not the one Jack is whispering to little Jim), the eldest boy, Ted, is almost as good as a girl. Mind you don't tell, he doesn't want it to be talked about. He can wash dishes, sweep, peel potatoes, and has even tried his hand at mending stockings.

I am sorry to say, though, that mother ripped out his long, straggling stitches, on the sly, and did the work all over again. But let us see what the "kids" are so eagerly discussing. To-morrow will be the dear mother's birthday, and everybody has a present for her—"everybody but us," as Jack said sadly half an hour ago. Ted has made her a splendid slat hammock. Frank brought from the woods a beautiful maiden-hair fern, and planted it in a rustic basket which he made himself. Tom and Fred, who are fond of amateur carpentering, have contrived to put together a rather shaky clotheshorse. Dick, who has a hen of his "very own," has saved six eggs for the great occasion. What can these little fellows make? Mother doesn't care much for "boughten" presents; besides, they haven't a copper between them.

This is Jack's brilliant idea, which Jimmy is absorbing with intense interest. "Let's get up, *ever so early* in the morning, and go fishing. Then we'll clean the fish and get Ted to cook them for mother's breakfast. Oh, won't she be surprised?"

So Jack talks on, trying to silence his conscience which whispers that they are never allowed to go fishing alone. Jim is rather doubtful, and a little frightened at the daring scheme; but then he never contradicts Jack. The little conspirators have not yet learned that it never pays to do evil, but good may come. Mother would certainly rather go without a birthday present than have two disobedient children. Let us hope that they are getting something worse than a ducking, and that their punishment will be which is certainly well deserved.

THE QUIET HOUR.

The Ministry of Well-Wishing.

"Learn that each duty makes its claim
Upon one soul, not each on all.
Now, if God speak thy brother's name,
Rare thou make answer to the call!"
"The greater peril in the strife,
The less this evil should be done,
For as in battle so in life,
Danger and honor still are one."
"Arouse him, then! this is thy part:
Show him the claim, point out the need!
And nerve his arm, and cheer his heart,
Then stand aside, and say, "God speed!"
"Smooth thou his path ere it is trod,
Burnish the arms that he must wield,
And pray with all thy strength that God
May crown him victor in the field."
And then, I think, thy soul shall feel
A nobler thrill of true content
Than if presumptuous eager zeal
Had seized a crown for others meant."

One of the saddest things about life is that, with such boundless power to give cheer to others by our speech, most of us pass through the world in silence, locking up in our own hearts the thought-

How much better it would be if at all times we gave freer rein to our lips in speaking kindly and cheering words. It is truly very sad when nothing less than the death of our friends can draw from our slow and selfish hearts the debt of love and of helpfulness that we owe them. There is a time for the angel ministry—it is when the conflict is waging. When death has come, or failure, or defeat, the opportunity is past forever. The good wishes of friends do not by their mere utterance become realities in our lives. If they did, how rich most of us would be, and how happy! Good wishes, however, may be made to come true. They may be turned into prayers by those who make them, and, passing through the hands of Christ, may be changed from mere empty breath into blessings that shall enrich our lives or feed our souls or shine like sparkling gems upon our brows. The best way for our friends to get good things to us is to pass them through Christ's hands.

The friends who think only of this world's honors and possessions and attainments when they wish us well do not understand the table of values by which heaven estimates everything. The good wishes that are of most worth are those that are for qualities of character which we can carry with us through the pearl gate.

How to get these great things into our lives is the question. Our best and truest friends cannot put them into our lives by any power of love. They may utter the wishes, and may translate them into prayers, but only we ourselves can take the benedictions and the answered prayers into our life. This we cannot do by mere resolving and purposing. New Year or birthday resolutions are good enough as such, but unless they are gotten into the heart and life, as well as down in neat lines on paper, they will amount to little. Intentions may be very fine, but they must be lived out to become of practical worth. We must take the good wishes of our friends and turn them into life; we must let them into our spirits, as the bare briery rod in the garden lets the sunshine and the rain into itself, and transmutes them into blooming, fragrant roses.

Just how to do this is an important question. The Bible emphasizes the fact that all growth of character must begin within. We are to be transformed by the renewing of our minds. Our hearts make our lives. What we are in heart, in spirit, in the inner life, we are really before God; and that, too, we shall ultimately become in actual character, in outward feature. The disposition makes the face. Every creature builds its own house to live in, and builds it just like itself. Coarseness builds coarsely; taste builds tastefully. A corrupt heart works through in the end, and changes all without into moral decay like itself. Jealousy, envy, bitterness, selfishness, all write their own image and signature on the features if you give them time enough. A pure, beautiful soul builds a holy and divine dwelling for itself. In one of Goethe's tales he tells of a wonderful lamp which was placed in a fisherman's hut and changed it all to silver. The lamp of Christ's love set in a human heart transforms the life from sinfulness and earthliness into the likeness of Christ's own spirit. To make good wishes come true we must first get them into our heart and then they will soon become real in our life.

No wish is more commonly expressed than that we may be happy, but true happiness depends altogether on the heart. A heart at peace fills our world with peace. Light shining in our bosom gives us light wherever we may be. The miners carry little lamps on their caps, and wherever they move in the dark mines there is light. So it is with us if in us the lamp of joy shines. The world may grow very dark sometimes, but round about us there is always light. We shall surely be happy in the truest sense if we have Christ's joy in our hearts. This is a lamp that shines through the longest night. No storm blows it out—indeed, its beams grow brighter the denser the gloom about us and the fiercer the storm. Christ's joy was, in His own life, a lamp which was not quenched, even by the awful darkness of the cross.

If we would realize the wishes of our friends for joy, we must be sure to get the love of Christ into our hearts, and then we shall always have our own lamp, and shall find gladness wherever we go. We need not, then, in any case greatly worry about our circumstances. If we are right within, all will be well. If the lamp is kept burning within the chamber it will be light there, however deep the gloom outside.—J. R. Miller.

If we could read the secret history of our enemies we should find in each man's life sorrow and suffering enough to disarm all hostility.—Longfellow.



"SECRETS."

ful and helpful words which we might speak, and which, if spoken, would minister so much strength and inspiration. Hearts are breaking with sorrow, men are bowing under burdens too heavy for them, duty is too large, battles are too sore. On every hand, in every life, there is need for love's ministry, that men and women may not fail. Nor is it large and costly service that usually is needed. The kindly utterance of a kindly feeling will often give all the impulse and inspiration required. Yet many of us let the good-will lie in our heart unuttered, and stand by in silence while our brother beside us goes down in defeat, which a few words of ours might have changed into victory. It is not the want of love that is our fault, but the penuriousness which locks up the love and will not give it out to bless others. Is any miserliness so mean? We let hearts starve to death close beside us, when in our hands is the food to keep them living and make them strong, then when they lie in the dust, we come with our love to make funeral wreaths for them and speak eloquent eulogiums to their memory.

"What silences we keep, year after year,
With those who are most near to us and dear!
We live beside each other day by day,
And speak of myriad things, but seldom say
The full, sweet word that lies just in our reach,
Beneath the commonplace of common speech:
Then out of sighs and out of reach they go
These close, familiar friends who loved us so,
And, sitting in the shadow they have left,
Alone with loneliness, and sore bereft,
We think with vain regret of some kind word
That once we might have said, and they have heard."

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

Hip, hip, hurrah! Don't you hear the merry shout? The hot, dusty school-rooms are all closed, and for six long weeks the well-thumbed books will be allowed to lie in silent state, while their owners revel in the freedom of holiday-time. The rosy June hours dragged on but slowly to those eager hearts whose anticipations not even the dread of approaching examinations could mar. Now that the much-desired time has really come, I hope all will find their fairest flights of fancy fully realized. Oh, that the joyous hopefulness of youth might never leave those merry hearts—that care might never leave its traces on those fair young brows! And yet I pause ere giving free utterance to such a wish, for a cloudless sky sates the sight, and one must have gale enough to ruffle the sails, would he ever reach his destination; for it is truly said that "No one ever worked his way in a dead calm."

Many things we are wont to call "misfortunes" prove stepping-stones to success, the gale that fills our sails and bears us on our long life-voyage. We must, however, look to our rigging and keep the sails trimmed and in proper shape, not only that we may catch the breeze, but that we may make it serve our purpose instead of being buffeted by it or driven upon the rocks.

We are often inclined to envy those fortunate beings whose wealth or social position appears to give them greater advantages than we can hope to enjoy, and yet if we take the trouble to look into the matter, we find that very many of the world's cleverest men have climbed from obscurity and comparative poverty to eminence and wealth. Homer was once a beggar; Cardinal Wolsey a butcher's son; the father of the great poet Virgil a potter; Robert Burns a simple plowman; while Shakespeare, Daniel Webster and Abraham Lincoln were farmers' sons. Coming to our own day, we find that Garfield worked his way "from log cabin to White House." Again, Mr. Schurman, who receives a large salary as secretary to the present President, was thirty years ago working in Prince Edward Island for a salary of thirty dollars a year. By dint of hard studying he won a scholarship worth sixty dollars a year; then he went to college and paid the remaining fees by acting as accountant for different merchants every moment of his spare time.

The accident that deprived Prof. Mills of his hand was instrumental in advancing him in his after career, for by incapacitating him for farm work it caused him to turn his attention to study. I might quote many similar instances to show that so-called adversity is often a blessing in disguise, but I know you are anxious to be off to play, so I will say good-bye for this time.

Your loving— UNCLE TOM.

The Meadow Lark
(*Sturnella magna*).

This pretty, plump little bird is familiar to many of us. As we walk through the fields we often hear the sweet, plaintive call, to which some song-bird lovers have fitted these words: "Betsy-de-ah—Betsy-de-ah"—"Spring o' ye-ah—Spring o' ye-ah." The plumage is brown and yellow, speckled with black. It has a curious habit of seldom perching upon trees, but generally preferring fences or telegraph poles. This propensity, however, is of the greatest service to farmers, for when the cutworm begins its dreaded work our little meadow lark comes nobly to the rescue, as the tree-loving birds do not see these horrid ground caterpillars; but our friend *does* see them—and a fine meal is made! It walks with a dainty step (as the picture would indicate), and every now and then, stops to give its tail a little nervous twitch, which is very funny. It eats various weeds, but the chief food is insects—favorite of all, the grasshopper, which, we suppose, is a very dainty dish to set before the king—if the king happens to be a grasshopper epicure! It has been proved that the meadow lark's food consisted of a large percentage of insects even when the ground was covered with snow, which speaks much for the bird's skill in finding what it preferred. As a rule, meadow larks are not looked upon as enemies to agriculture, and are usually left in peace. Sometimes, however, they fall victims to the cruel gun, for they are considered to be a great table delicacy. The writer—alas!—has eaten roast lark—about a hundred years ago—but now feels quite ashamed of it. This plump little lark looks so innocent—but, still, what horrid things he eats!

Kitty Knew About Sheep.

"Seven sheep were standing
By the pasture wall,
"Tell me," said the teacher
To her scholars small—
"One poor sheep was frightened,
Jumped and ran away,
One from seven—how many
Woolly sheep would stay?"
Up went Kitty's fingers—
A farmer's daughter she,
Not so bright at figures
As she ought to be,
"Please, ma'am!" "Well, then, Kitty,
Tell us if you know."
"Please, if one jumped over
All the rest would go."

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-
1. What tree is called the dancing tree?
2. " " housemaid's tree?
3. " " is the tree that is nearest the sea?
4. " " " forbids you to die?
5. " " " where ships may be?
6. " " tree is warmly clad?
7. " " the schoolboy's restraint?

BUTTERCUP.

2-RIDDLE.
We are five little creatures, all of different voice and features. One of us in glass is set, one of us you may find in jet, another you may see in tin, and if the others you wish to find, we never fly from you. What are our names?

BUTTERCUP.

3-DOUBLE ACROSTIC.

In "friends" we like,
In "soldiers" with pikes,
In "rambler" who bikes,
In "painters" on strike
Led by the renowned Mike.

In "printers" fond of pie,
In "sailors" drinking rye,
In "buffoons" who dye,
In "juveniles" that cry
And really don't know why.

In "Cupids" with arrows,
In "animals" that burrow,
In "farm boys" that will harrow
The wheat field to-morrow.



THE MEADOW LARK.

Twice you have to read me down
Ere the answer correct is found;
Days of celebrations then you'll get,
That loyal Canadians never forget.
"ARRY 'AWKINS."

4-NUMERICAL ENIGMA.

My 2, 10, 3, 6 is to avoid.
My 12, 2, 1, 7 is labor.
My 4, 11, 3, 1, 8 is bold.
My 9, 11, 6 is a vessel.

Whole, one of the most enjoyable parts of our "Dom."
"ARRY 'AWKINS."

5-SUBTRACTION.

Take thousand from a sum of money and leave to expire.
Take one from to hasten and leave a pronoun.
Take 500 from grub and leave charge.
Take 500 from beverage and leave a place of enjoyment.
Take 50 from a support and leave reposed.
Take 1 of one from a vein of metal and leave a boy's name.
Take 1000 from a vessel and leave to plunder.
Take one from to stop and leave a pen.
Take part of three from flow and leave to mind.
Take 100 from a play and leave charge.
Take 1-5 of eight from to acknowledge and leave a large basin.
Subtractions added will give the name of a popular novel.
"ARRY 'AWKINS."

6-

We belong to a school of twenty-six;
Our captain, who leads us, is called No. 8.
We're a part of the body that sometimes doth ache.
The next in command is called No. 5.
After five comes another, and he's No. 1.
I'll make this a vowel that him you can't shun.
Now we have three, but there's one to come yet.
That man, on the list, is named No. 4.
Those make the whole, and you want no more.
You can't work without it or leave it at home.
With your wits about you you can see it, I'm sure.
There's only four needed, and you want no more.
RUPERT NEPTUNE.

7-

- Work around the field, and practice with the swords.
- The small boy's and the stone cutter's favorite.
- To drop from a high place, and just before winter.
- What the coppers carry, and a person's name.
- What belongs to a window and to a girl's dress.
- He plays in the Band, and to sell his goods he must travel.

8-CHARADE.

My first takes an almost princely rank
(Pronunciation not the best);
My second is found in "of" how frank!
My third soon make one sigh for rest.
My whole now find in our fair, free land,
A refuge from a despot's hand.
"K. K."

9-ACROSTIC.

(Words of the same number of letters.)

- Fencing material; 2, a bay; 3, a Mohammedan pilgrim to Mecca; 4, a harbor; 5, remains of burnt bodies; 6, proportion; 7, a ditch.

Primals and finals spell one of our "Cousins" who has made a very satisfactory standing during the past year.
"DICKENS."

10-ANAGRAM.

When difficulties block our way,
And pause we must in dire dismay,
Shall we retreat and shun the fight,
Deny the truth, betray the right?
NO EVER DARE.

F. L. S.

11-CHARADE-RIDDLE.

Every married SECOND is a FIRST, but not every FIRST is a WHOLE. Every WHOLE, though, is a SECOND and a farmer.
F. L. S.

Answers to June 5th Puzzles.

- Sinal, Anna, nothing, two—Santiago.
- Shark—hark; table—able; maid—aid; gate—ate.

3- Pestilent

estover
nacre
era
t
mar
extra
neglect
ransfuse

- Simple Simon, Una, Buttercup, Toledo, Jessie Hyde, A. E. T., Barney, Ogma, Dickens.
- Elephant, gorilla, weasel, giraffe, antelope, bearer.

ADDITIONAL SOLVERS TO JUNE 5TH PUZZLES.

Emma H. Humble, M. R. G.

ADDITIONAL SOLVERS TO MAY 20TH PUZZLES.

M. N.

COUSINLY CHAT.

Rupert Neptune.—We are very glad to have you for our cousin, and hope you will long be one of our number.
K. K.—You are very welcome also. We have several cousins from your country.
F. L. S.—I thought you had deserted us altogether, and am pleased to find myself mistaken.

I notice a considerable falling off in our list of solvers, while contributors of original puzzles continue to come in. Why do not all send answers as well, and kill both birds with the one stone? We commence a new quarter with this issue, so all begin anew, and let us have a larger circle than ever.
A. A.

Recipes.

JELLIED CHICKEN.

Boil a chicken in as little water as possible until the meat falls from the bones, chop all fine and season with pepper and salt. Now put in a mold a layer of hard-boiled eggs cut in slices, and then the meat in layers with the eggs until the mold is full. Boil down the liquor left in the pot and add a tablespoonful of gelatine, and when dissolved pour into the mold with the meat. Set in a cool place over night and then turn out when wanted.

RASPBERRY VINEGAR.

To four quarts of red raspberries put enough vinegar to cover, and let them stand twenty-four hours. Scald and strain it, and add a pound of sugar to every pint of juice. Boil for twenty minutes, and bottle.

RASPBERRY ICE.

One quart berries. Extract the juice, and strain. Add one pint of sugar, let dissolve in the juice, half a pint of water and the juice of one lemon. Freeze like ice cream.

DELICATE PUDDING.

One cup sugar, 1 cup milk, 1 egg, 1 cup of raisins, and butter the size of an egg; 2 teaspoonfuls of baking powder, and flour to make a stiff batter. Steam one hour. As this makes a large pudding, allow plenty of room for rising.

A Reader's Lament.

I cannot read the old books
I read long years ago—
Eliot, Dickens, Thackeray,
Bulwer, and Scott, and Poe;
Marryat's yarns of sailor life,
And Hugo's tales of crime—
I cannot read the old books,
Because I haven't time.

I love the dear old stories,
My thoughts to them will stray;
But still one must keep posted on
The writers of to-day.
My desk is piled with latest books
I'm striving to dispatch;
But ere I've finished all of them
There'll be another batch.

Hope's new one isn't opened yet,
I've not read James' last,
And Howells is so prolific now,
And Crawford writes so fast;
"Evelyn Innes" I must skim,
O'er "Helbeck" I must pore,
"The Day's Work" I'll enjoy, although
I've read the tales before.

And then there is "The King's Jackal,"
"The Gadfly," "Caleb West,"
"Silence," "The Forest Lovers," and—
I can't name all the rest.
I'll try to keep up with the times,
But oh! I hope that I
May read my "David Copperfield"
Once more before I die.

—Cayolyn Wells, in the "Bookman."



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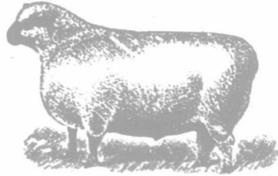
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J. E. SMITH
BRANDON, - MAN.,

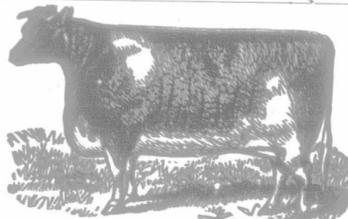


Breeder and Importer of CLYDESDALE HORSES and SHORTHORN CATTLE, who owns one of the best and most extensive establishments of the kind in Canada, will hold his first

Annual Auction Sale Early in November, '99.

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

J. E. SMITH, Box 274, Brandon.



PIONEER HERD OF SHORTHORNS

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

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

SHORTHORNS

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

IMP. LARGE YORKSHIRES
FOR SALE.

JAMES BRAY, Longburn, Man.

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

A FEW CHOICE YOUNG
Shorthorn Bulls & Heifers for Sale.
Write for particulars.

SHORTHORNS

STOCK FOR SALE. WRITE OR CALL ON

J. H. KINNEAR, Souris, Man.

SHORTHORNS.

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

Shorthorn Cows and Heifers for Sale

of good breeding. Prices right.
GEORGE RANKIN, Hamiota, Man.
"Melrose Stock Farm."

HOPE FARM,
ST. JEAN BAPTISTE, MAN.

Headquarters for

Galloway Cattle.

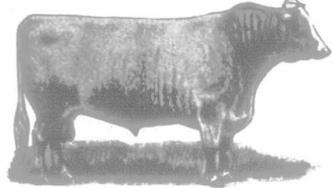
Apply to **T. M. CAMPBELL, Manager.**

"Prairie Home Stock Farm"

BULLS AT HEAD OF HERD:

JUDGE = 23419 = AND IMP. JUBILEE = 28858 =

SHORTHORN
AND
AYRSHIRE
CATTLE.



YORKSHIRE
AND
BERKSHIRE
SWINE.

SHROPSHIRE SHEEP.

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

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Mutual Hail Insurance Co'y
OF MANITOBA.

ESTABLISHED 1891. HEAD OFFICE: 465 MAIN STREET.

The ORIGINAL and ONLY HAIL INSURANCE COMPANY IN MANITOBA FOR THE PAST EIGHT YEARS, chartered by and conducted strictly under the laws of the Government of Manitoba, by MANITOBA FARMERS ONLY, FOR THE FARMERS.

- No foreign canvassers employed by this Company.
- No salaries paid to Directors.
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Everything square, open and above-board in YOUR OWN OLD AND RELIABLE COMPANY, which has paid to losers by hail storms over (\$100,000.00)

ONE HUNDRED THOUSAND DOLLARS

DURING THE PAST EIGHT YEARS.

Farmers, Make Certain that You Insure Against Hail

with the local agents of THE PROVINCIAL MUTUAL, who are men resident in your own district and known to you, and thus secure CERTAIN PROTECTION AND INDEMNITY from your own farmers' company, which is thoroughly mutual, and at the LOWEST POSSIBLE COST.

BOARD OF DIRECTORS FOR 1899:

- H. B. Brown, Morden.
- Jas. Molland, Glendale.
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- Frank Schultz, Baldur.
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LOW PRICES. EVERYTHING OF THE BEST. BIG ASSORTMENT.



There is nothing in the way of Sporting Goods that we do not handle.

Our new Catalogue of

Guns, Rifles, and Ammunition

is now ready for distribution.

We extend a hearty invitation to all Visitors to the Exhibition to call and inspect our goods for themselves.

The Hingston Smith Arms Co.,

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WINNIPEG, - MANITOBA.

Stock Sale

To make room for young stock, will sell all this year's breeding pens of Wyandottes, Plymouth Rocks, Leghorns, Brahmans, etc., at reasonable rates. This is a chance to get first-class stock. Young stock for sale in fall, in White Wyandottes, Silver-Laced Wyandottes, Plymouth Rocks, Light Brahmans, White Leghorns, Toulouse geese, Bronze turkeys, Pekin and Rouen ducks. Can supply choice specimens for exhibition purposes or stock birds for breeding purposes. Address—

Maw's Poultry Farm,

WINNIPEG, MAN.

LARGE CIRCULARS MAILED FREE.

THE BEST IS THE CHEAPEST!

SEE OUR NEW

Chicago Aermotor Windmill

IN OPERATION AT THE FAIR.

We will show you something novel and new, and something that will interest you. We will also have a mill in operation at the Brandon Fair. We carry the largest line of CARRIAGES in the West.



OUR SPECIAL LINES ARE:
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PUMPS of all descriptions, HARNESS,
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THE MASSEY-HARRIS AGENTS REPRESENT US AT ALL POINTS THROUGHOUT MANITOBA AND THE NORTHWEST TERRITORIES.

Will be pleased to have all visitors to the Winnipeg Fair call and see us at our showrooms, Market Square. We have also the best-equipped Bicycle Repair Shop west of Toronto. Mail and express orders given prompt attention.

Joseph Maw & Co.,

MARKET SQUARE. WINNIPEG, MAN.

FOR THE BEST VALUE IN

Buggies, Wagons

AND

Gang Plows

XX RAYS GANG PLOWS, RUSHFORD WAGONS,



M^cLAUGHLIN BUGGIES, GANANOQUE BUGGIES.

Everything at Rock-Bottom Prices, consistent with first-class goods.

A. C. McRae,

COR. KING AND JAMES STREETS, WINNIPEG, MANITOBA.

MENTION THIS PAPER.

NOTICES.

The Provincial Mutual Hall Insurance Co., which for some eight years has been doing business in this country, is extending its operations very materially this season. The head office is in Winnipeg, and the directors of the company are old and respected readers of the FARMER'S ADVOCATE.

We are advised by Mr. H. Swinford, General Agent at Winnipeg for the Northern Pacific Railway Company, that, commencing July 1st, local passenger rates on main and branch lines of the Northern Pacific in Manitoba will be on the basis of three cents per mile, instead of the prevailing rate of four cents per mile. This reduction will, no doubt, be appreciated by the travelling public.

The Prize Lists of the Regina Fair, which is to be held on July 25th and 26th, are ready for distribution. Very liberal prizes are offered in the principal stock and grain classes.

A New Machine for Pickling Grain.—Mr. A. Shepherd, of Rothwell, has invented a machine for pickling grain for the prevention of smut, and has applied for a patent. It is very simple, and can be manufactured cheaply. There is a reservoir for holding several pails of the solution. This reservoir is inside a framework, which is about two feet by four. There are two sets of conveyers or screws, one for submerging the grain and one for withdrawing it. There is a hopper placed over No. 1 conveyer. As the grain falls down it is submerged and passed through the solution, and then expelled by the other conveyer, and passed over a perforated spout or strainer, which allows the liquid to drain off thoroughly. The solution runs back into the reservoir to be used over again. The inventor claims his machine will make a revolution in the process of pickling grain. It handles wheat, oats or barley to perfection, as it will be seen that it simply passes the grain through the solution, which he thinks is much better than the old method of steeping the grain. Mr. Shepherd treated part of his oats with formalin with his machine, and they were up above the ground about three days earlier than those treated with bluestone. A number of farmers in the district also used the machine, and they say it makes the best job of any machine they have seen for the purpose.

GOSSIP.

Mr. James Boden, manager of Mr. R. Reford's Tredinock Farm and herd of Ayrshires, at St. Anne de Bellevue, Que., writes:—"Our stock went out to pasture in splendid shape, as we had plenty of roots and ensilage up to the 1st of June. Pasture is very short here, as we just had two showers of rain since April. Hay will hardly be worth cutting. Oats look not bad, but will be very short unless we get rain very soon. Our roots look very well. We have 8 acres of turnips, 6 of mangels, 2 1/2 of carrots and 12 of corn, and 90 tons of hay, bought last winter and put in the barn at \$4.50 per ton. We have decided not to show this fall, as we have a lot of outside work that we want to get finished, so will sell all our young bulls, six in number, four of them sired by Napoleon, the sweepstake bull at Toronto, and their dams by Glencairn 3rd (imp.). Will also part with a few cows and heifers, as we have 66 on hand, with 26 to calve in August and September, so anyone wanting show cows should give us a call. Our stock won 34 prizes last fall at Toronto, London and Ottawa, 17 of them being firsts.

JUDGES AT THE WINNIPEG INDUSTRIAL.

Heavy Horses.—Not yet decided.
 Thoroughbreds, Hackneys and Ponies.—D. H. Charles, Galt, Ont.
 Standard-breds and Carriage.—F. Kenyon, Chicago.
 Cattle, beef breeds.—Wm. Watt, Salem, Ont.
 Cattle, dairy breeds.—Wm. Stewart, Menie, Ont.
 Milk Test.—C. C. Macdonald, Provincial Dairy Superintendent.
 Sheep and Swine.—J. C. Snell, London, Ont.
 Dairy Products.—Hon. Thos. Ballantyne, Stratford, Ont., or Prof. Heaker, of the State Dairy School, Minnesota.
 Poultry.—S. Butterfield, London, Ont.

MAPLE HILL HOLSTEINS.

One of the staff of the FARMER'S ADVOCATE recently called on Mr. George W. Clemons, St. George, Ont., and found his noted herd of Holsteins in their usual good shape, making butter cheaply while the grass grows, as they do profitably the year round. A prominent figure in the herd is the matronly Madge Merton, who boasts a shining record as a prizewinner, having stood third at the World's Fair and first as a three-year-old, and sweepstakes for the silver medal as best female any age at Toronto in 1895. She will be due to calve in this month, and will be in fine shape for the shows, her wonderful constitution, great udder development and rich colored skin making her a choice specimen of her sort. Mondamin's Daisy Barrington, whose record of 62 lbs. milk daily at two years old, and an average of 50 lbs. for six months in her two-year-old form, and a record of eleven first prizes and three sweepstakes at thirteenshow, is also "coming in" this month, and is in fine bloom. Queen DeKol 2nd is now in her four-year-old form, and is fulfilling in her maturity her great promise when as a two-year-old she won first prize at the Provincial Dairy Show at Brantford, and the Prince of Wales sweepstakes as best in the test under thirty-six months old. Empress Josephine DeKol, the sweepstakes two-year-old wherever shown last year, is now in full flow of milk, and shows splendid indications of great capacity for dairy work, having extraordinary milk veins and a shapely and well-balanced udder, which measured 18 inches as a two-year-old. She will be due in August, and should make a grand show. Inka 5th is holding her own admirably. The young things sired by Colanthus Abbekirk 2nd, and the champion Count Mink's Mercedes, are very promising, and the young imported bulls now in service, DeKol 2nd's DeKol Duke and Sir Pledge DeKol, strong in the blood of that great family, are going on splendidly. A new addition to the list of stock bulls is Young Daisy Teak's King, a brother of Daisy Teak's Queen, winner of the championship in the milking test at the Winnipeg Industrial in 1895, and sweepstakes as best dairy cow any breed at the same show last year, her phenomenal record of 72.25 lbs. milk and 2.62 lbs. butter (89 per cent. butterfat) in one day on the fair grounds stamping her as one of the very best of any breed.

Horse Owners! Use

GOMBAULT'S

Gaustic Balsam

A Safe Speedy and Positive Cure

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

F. W. STONE ESTATE,
 GUELPH, ONTARIO.

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

HEREFORDS

I keep only the best. For stock of all ages. Write or call. W.M. SHARMAN, -m
 "Ridgewood Stock Farm," SOURIS, MAN.

FOR HEREFORDS

CALL ON OR WRITE TO

J. E. MARPLES, -m

DELEAU (Pipestone branch C. P. R.), MAN.

GUERNSEYS

Two Choice Bull Calves AND Five Heifers for Sale.

—ALSO—

Tamworth and Berkshire Pigs.

W. H. & C. H. McNISH,

LYN, ONT.

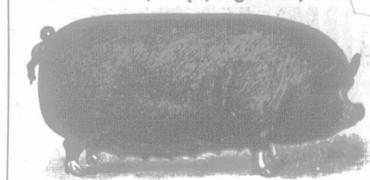
STEEL BROS., Glenboro, Manitoba,

BREEDERS OF Ayrshire Cattle.

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

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R. McKenzie, Prop., High Bluff, Man.



Large English Berkshires Herd headed by three first-class stock boars of large size, strong bone and fine quality. Young boars and sows, all ages, for sale. Spring pigs ready to ship. A number of sows in pig to Perfection, winner of eleven first prizes; weight, 700 lbs., when shown in the yearling class. Young pigs, single or in pairs, not akin. Write for prices

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

LEICESTERS!

Young Rams and Ewes for sale. Write or call on **A. D. GAMLEY,**
 Box 193. BRANDON, MANITOBA.

Scotch Collie Dogs

WE have two grand litters of Collie Pups for sale at \$10 each. They are workers, and from prizewinners. Also Fox Terrier Pups. Try one, they will clear your farm of gophers. Won all the firsts at the Winnipeg Industrial in 1898.

W. J. LUMSDEN,
 HANLAN, MAN.

FORT ROUGE POULTRY YARDS.

EGGS FOR HATCHING from high-class Golden Wyandottes, Langshans, Plymouth Rocks, Indian Games, Pyle Leghorns, White Wyandottes. \$2 per 15 eggs, or \$3 for 30.
 Pekin Ducks and Pearl Guineas, \$1 per 13.
 Bronze Turkeys, \$2 for 10 eggs.
 A few choice birds for sale; also Belgian Hares and Fancy Pigeons. Write for circular. Address,
S. LING & CO., WINNIPEG, MAN.

Barred Plymouth Rocks

TO make room for young stock will sell good breeding hens at 50c. and \$1.00 each. Now is the time to secure bargains.

(MISS) P. J. COLDWELL,

Constance, Huron, Ont.

MINORGAS, B.

Eggs from first-class prizewinners, \$1 per setting after June 15. Young stock for sale. Satisfaction guaranteed.
 A. M. ROBERTSON, KEEWATIN, ONT.

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



The FORD STATIONERY CO.,
One door north of P. O.,
P. O. Box 1273. 407 Main St., Winnipeg.

Card of Thanks...

\$1,370.00 SHOAL LAKE, May 29, 1899.
Received from the Miniota Farmers' Mutual Fire Insurance Company their cheque for \$1,370, in full payment of our claim for loss by fire on 19th instant.
Mr. Doyle, the Manager, has paid this claim immediately upon the completion of our proofs of loss, to our entire satisfaction, and we are pleased to be able to recommend the Miniota Farmers' Mutual to all insurers.

SIGNED, (W. R. F. COLLIS,
H. J. DEWINTON.

Are You Thinking
of Building?
IF SO, TO YOUR ADVANTAGE TO WRITE
Dick, Banning & Co.,
WINNIPEG, MAN.

Durability Combined with Cheapness!

OUR HARNESS

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

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THE only ORIGINAL and GENUINE Fish Bros. wagon, made only at RACINE, WIS. Send for catalogue to us, or our agents for your territory.

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If you are desirous of purchasing in the district you reside, call and see us during Exhibition week. LAND for sale in all parts of Province. LISTS on application to

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EDMUND WELD,

Barrister, Solicitor, Notary Public, Etc.
Moneys loaned on real estate at lowest rates. Investments procured. Collections made.
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GOSSIP.

In conversation with Wm. Chalmers, breeder of Shorthorns, Hayfield, we learned that his Shorthorns were doing well on pasture, and he expected to have a number of good young things to dispose of in a short time. Mr. Chalmers' stock barn gave him splendid satisfaction the past winter.

J. A. S. Macmillan, Brandon, reports the shipment of a small car of Shropshire sheep to Prof. J. A. Craig, to be placed on his large sheep farm in Wisconsin. Prof. Craig, it will be remembered, is Professor of Animal Husbandry at the Iowa Agricultural College, and delivered several lectures on stock at the live stock conventions held in Winnipeg last winter. He at that time visited Mr. Macmillan's farm and made a selection of some sixty head of shearing Shropshires. To sell to such an expert sheepman (there are few better in America) is a compliment indeed.

David Allison, of Roland, as previously noted in these columns, purchased from the Prairie Home Herd of Hon. Thos. Greenway several head of show cattle: Daisy of Strathallan 12th, first prize cow at the 1898 Industrial; Jubilee Queen = 30151 =, first prize yearling; Prairie Flower, by Abbottsford, out of Village Flower, the first prize calf in '98; and 8th Constance of Maple Lodge, a big heifer by Village Squire. Daisy of S. has a roan bull by Hillary that promises well. He is smooth and straight. Daisy herself is carrying a load of flesh and still retains much of her last year's form that proved so captivating. Jubilee Queen is fulfilling all the promise of her early days, and in her two-year-old form will require something extraordinary to turn her down. She is lengthy, level, broad and deep, and well covered with firm flesh. To head his head Mr. Allison has bought, through James Yule, the yearling bull, Riverside Stamp 2nd = 27658 =, bred by Thos. Russell, Exeter; sired by New Year's Gift, out of Medora 12th, by Sultan Salem. This youngster was second prize at the Toronto Industrial, and is strictly among the "tops." He is a good roan, with nice head and horn, good neck, full and deep in the brisket, straight in his lines, with width and depth. He is particularly good in his lower lines; in fact, it will take a good one to take the red ticket from him. The way Mr. Allison is carrying these cattle along is pretty satisfactory evidence that he is no novice at the business, and with such a foundation his success as a Shorthorn breeder should be assured.

W. V. EDWARDS' JERSEYS.

A short distance east of Souris lies the large farm of W. V. Edwards, and in a pasture field across the main road, adjacent to the house, is an attractive little herd of Jersey cows and heifers, all in first-class condition; among them being Yankee Rosebud, a cow of excellent dairy type, with large udder. She averages daily from 48 to 50 pounds of milk. This cow won first prize as a three-year-old at Winnipeg Industrial in 1898. Tip Malone, another stylish Jersey, is also doing good service at the pail; does not give such a large quantity as Rosebud, but, in the proprietor's opinion, gives richer milk. Duchess Malone, the handsome heifer, first at Winnipeg as two-year-old, '98, is soon due to calve to the service of Dean of Highfield. The stock bull, Dean of Highfield, three years old, imported from Smith & Sons, of Highfield, Ont., is in splendid condition and full of vigor; he was a winner in calf class at Montreal, Toronto, Ottawa, and London, before coming West, and his dam was a winner in dairy test at Guelph, Ont., with a butter record of 19½ pounds of butter a week, and his granddam recorded 20 pounds a week, so Mr. Edwards certainly has the right sort to head his herd of buttermakers. Souris Chief, a yearling bull, out of Yankee Rosebud, and by Sir Oliver of Canada, is also a handsome bull.

A BEAUTIFUL SPOT IN ALBERTA.

This beautiful sheet of water, Pine Lake, lies east of Innisfail about twenty-five miles. The trail leading to the lake runs through a rolling, fairly well settled country, partly covered with scrub. The lake at first sight has the appearance of a large river winding through between the hills. It is about six miles in length and is well stocked with fish, principally pike and perch. During our visit the surface was dotted with wild fowl. Its edges are fringed with a nice forest of cottonwood, spruce, poplar, and aspen. Although the trees are not large, the timber is very useful for building, fencing, and firewood. The country adjacent is rolling, and many of the hillsides are clothed with timber, giving the country that parklike appearance so much to be admired. Within these leafy groves nestle many comfortable and pleasant homes. "Pine Hurst," with its attractive buildings, stands out prominently and is sure to attract attention. Here Mr. Page is establishing a herd of Shorthorn cattle that, with judicious management, will yet make Pine Hurst and Pine Lake district famous.

PLUM CREEK SHORTHORNS.

On a splendid location, drained by Plum Creek, about eight miles west of Souris, is the comfortable home and large farm of Mr. J. H. Kinnear. Recognizing the desirability of keeping stock, and considering that his farm was well adapted to stock-raising, Mr. Kinnear decided to keep a few of the breed of his choice, and has now a splendid little foundation herd of some nineteen head of Shorthorns. Having sold Golden Royal to go West, Mr. Kinnear recently imported from Pearson & Sons, Mead, Ontario, the seventeen-months-old bull, Royal Champion, to place at the head of his herd. Royal Champion is a lengthy, well-proportioned youngster, with nice head and horns. He is of good stock, and should be an excellent herd bull. In the pasture demonstrated what a lot of yearling grades, demonstrating what breeding to a good sire means. We also noted three nice bull calves, sired by Golden Royal. Rose and May Beauty, two handsome red heifers, out of Royal Don, in calf to Golden Royal. Queenie, a splendid cow, which has had already four heifer calves, all of which show good quality and strong constitution. Quaker and Lyle of Luster, the latter being from old Luster, a cow imported by John Sharman. Mr. Kinnear has also a large grain farm, and his crop looked splendid, and, unless there be some unforeseen mishap, will reap an abundant harvest.

Black-Leg Vaccine.

[SYMPTOMATIC ANTHRAX VACCINE]

WE SUPPLY THIS VACCINE IN TWO FORMS:

- A. SINGLE VACCINE; each case containing ten doses. With this the animal is vaccinated but once. Price per case..... **\$1.50.**
- B. DOUBLE VACCINE; each case holds two vials—No. 1 containing ten doses of Primary or Weaker Vaccine; No. 2 containing ten doses of Secondary or Stronger Vaccine, which is injected eight days after the Primary (No. 1) Vaccine has been used. Price per case..... **\$2.00.**

SUPPLIED BY ALL DRUGGISTS.

WE also furnish this case containing the apparatus required to successfully prepare and administer Black-Leg Vaccine. Price, complete..... **\$5.00**

IF YOUR DRUGGIST DOES NOT HAVE BLACK-LEG VACCINE, P. D. & CO., IN STOCK, YOU CAN PROCURE IT FROM

McGlashan & Waldon,
Princess Street... Sanford Block... Winnipeg, Man.,

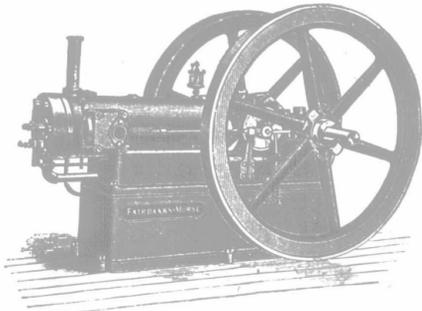
Parke, Davis & Co.,
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MONTREAL, QUE.



WHO WILL PROMPTLY MAIL YOU A SUPPLY ON RECEIPT OF PRICE.....

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GAS AND GASOLINE ENGINES

Suitable for All purposes: Manufacturing, Pumping, Irrigating, Dairy Work, Grain Elevators, Threshing, Sheep Shearing, Well Drilling, Etc., etc.



The Best, Simplest, most Economical, Most Reliable, And most Durable Gas and Gasoline Engines On the market. Write for Catalogues.

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THE MANITOBA FARMERS'

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HEAD OFFICE: - - WINNIPEG, MAN.

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

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

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

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What the Public Need! RUBYFOAM.

The 20 Century Washing Compound for all kinds of washing

LATEST, CHEAPEST, BEST.

Surpasses All Others in Washing Woodwork or Boiling Clothes.

It only requires to be tested to be appreciated. Warranted to do its work without injury to the hands or clothes. Contains no acid, no potash. Each package contains a coupon. Return those to your grocer and get a picture. With twenty coupons we present you one of our 14 x 17 pictures, framed; or, with fifty coupons, one of our 18 x 20 pictures, framed, or with twenty coupons and 50c. cash. Pictures can be seen at all grocery stores. Don't fail to try the wonderful labor-saver and be convinced!

.. MANGE CURE ..

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

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

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WINNIPEG, - MANITOBA.

GOSSIP.

When in Souris district recently a representative of the FARMER'S ADVOCATE visited the stock farm of Mr. E. T. Petar, who has a large farm partly under cultivation, and on which is good pasture. Mr. Petar wisely decided to go in for stock raising, and made purchases of Shorthorns from Mr. Wm. Chalmers of Hayfield, and Ayrshires and Shorthorns from Hon. Thomas Greenway, Crystal City; also a splendid young Ayrshire bull, Silver Prince, from Steel Bros., Glenboro, as the foundation of a Shorthorn and Ayrshire herd. Silver Prince is a promising youngster, much like his sire, Steel Bros' stock bull, What Care I—7117, in color and type. Lady Minto, a 7-months-old Ayrshire heifer, from Mr. Greenway's herd, sired by Imp. Victor, is as sweet an Ayrshire as one will meet with in many days' travel. Lassie Jean 1st at Winnipeg as a two-year-old in 1888, Jenny Lind, Stately Twin, and Nellie of Rockton, the latter second prize winner in the aged cow class at Winnipeg in 1888, from Mr. Greenway's herd, make the foundation of a good Ayrshire herd. Besides the red Shorthorn bull calf, Aberdeen 4th, and the thirty-months-old heifer, Lady Aberdeen, from William Chalmers, Mr. Petar purchased two Shorthorn heifers from the Prairie Home Farm. A large number of fine grade pigs are kept, and good results have been obtained by crossing a Chester White hog on Berkshire sows, and from this cross he has sold pigs to the butcher eight months old that averaged 248 lbs. each. Mr. Petar intends trying a Tamworth cross, as he thinks his sows should produce a very desirable market hog if bred to a Tamworth boar. A few Red Caps and Buff Plymouth Rock fowl are kept, the roosters of each breed and a few hens being imported from Shoemaker, Freeport, Ill.

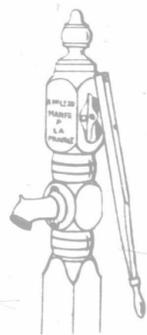
FOREST HOME HERD.

At head of this well-known Shorthorn herd is the three-year-old bull, Robbie O'Day, whose portrait appears elsewhere in this issue. Robbie is a bull of tremendous scale, strong masculine presence, and with a kind and gentle bearing. He has developed and thickened up greatly since last year, and in his three-year-old form will show better than ever before. He is proving a sure and successful stock-getter, and his calves, although young, are very promising. Mr. Graham's old stock bull, Manitoba Chief, has left many good calves behind him, but among the last are some of the best. (The Chief, by the way, is now owned by Nelson Bedford, of Glenora.) Among these are: Prince of Quality—2798, a red calf of June '98, out of Rose of Autumn, bred by Jas. Russell, Richmond Hill, got by Lord Stanley. Calved a little too early to get much chance in a showing. Prince of Quality is, nevertheless, a bull that will stand a second look, and somewhat the more he is looked at the more one likes him. He is remarkably level in his under lines, full and smooth behind the shoulders, straight above and behind, with a good head and neck. His playmate is the roan calf, Chief Justice—2796. A snapshot of him is reproduced in this issue. The picture, however, does him scant justice. "He is a calf as is a calf," length and level, straight as a gun barrel in all his lines, with a bold, strong head and a crested neck like a four-year-old. Readers will have a chance of seeing him this month at the leading shows and should take the opportunity. Three heifer calves, all by Manitoba Chief, make a most charming trio: Necklace of Pomeroy, a red, out of Necklace 21st, by Sittlyton Chief; Princess, another red, from a home-bred cow; and the roan Evaline. The first named is a lovely thing, and the three, with Chief Justice, make a calf quartette that no breeder might be ashamed of. Another attractive heifer is the red yearling, Golden Belle, by Golden Royal, out of a daughter of Manitoba Chief. Sam Johnston is a red bull just coming two years old, got by Imp. Oxford, of excellent breeding and good individuality. The cows were all out at pasture. In swine, Yorkshires and Berkshires are kept in about equal numbers. Representatives of both breeds will be shown at the Industrial. The flock of Barred Plymouth Rocks are in fine shape and the crop of chickens a large one.

RIDGEWOOD STOCK FARM.

The above farm, a short distance south-west of the thriving town of Souris, was recently visited by the representative of the FARMER'S ADVOCATE. Small shelter bluffs of poplar give a homelike appearance to this large farm, comprising some 640 acres, most of which is under cultivation. The wheat gives every promise of an abundant crop, being strong and healthy. Although a large proportion of the farm is devoted to wheat, oats and barley are also grown, and a number of acres seeded down to native rye grass (*Lycopodium tenerum*), which is doing well. A few years ago a small quantity of native rye grass seed was purchased from Kenneth McIvor, of Virden, and did so well that a large area has been seeded down since with very satisfactory results. Besides retaining the moisture in the land by its fibrous roots, this grass makes good pasture and a much superior hay to wild prairie grass, besides yielding much more abundantly. A splendid lot of young horses are kept, chiefly of Clyde breeding, and although seeding had just been finished they were in first-class condition. William Sharman, proprietor of this farm, although a large grain-grower, has, as is well known, devoted much of his personal attention to the breeding of Hereford cattle, and with such marked success that Sharman's Herefords are known as hard to turn down in the show-rings of the principal exhibitions of the Province. Mr. Sharman is a lover of the Hereford. They are, in his opinion, the most vigorous, healthy, early maturing and easily kept beef cattle. During the past winter his stock did not receive any hay at all, the ration being cut sheaves in the morning, straw at noon and evening, followed by a little dry chop. Sales have been numerous, and most satisfactory during the past season, both in Manitoba and the Territories, the latter being the chief market. Two important sales were just completed before our visit, one being twenty-five head, including many prize winners, J. E. Marples, of Deleath. Another important sale was one to T. M. Palmer, of Medicine Hat, consisting of young heifers and heifer calves, and one bull calf. At the head of the Ridgewood herd is the two-year-old bull, Proprietor of Eastwood, first prize winner in the yearling class at Winnipeg in '88, and imported from D. M. Wilson, Moe's River, Que. This bull has grown well since going into Mr. Sharman's hands, and is a good type of the breed.

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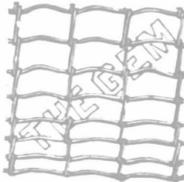
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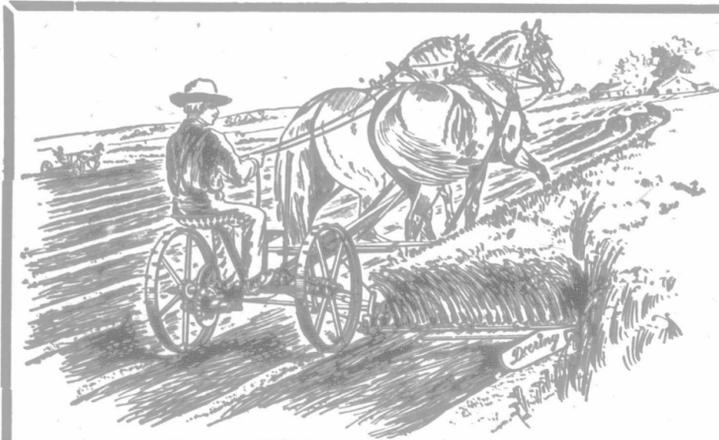
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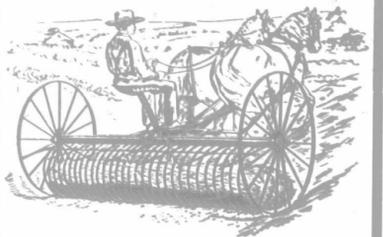
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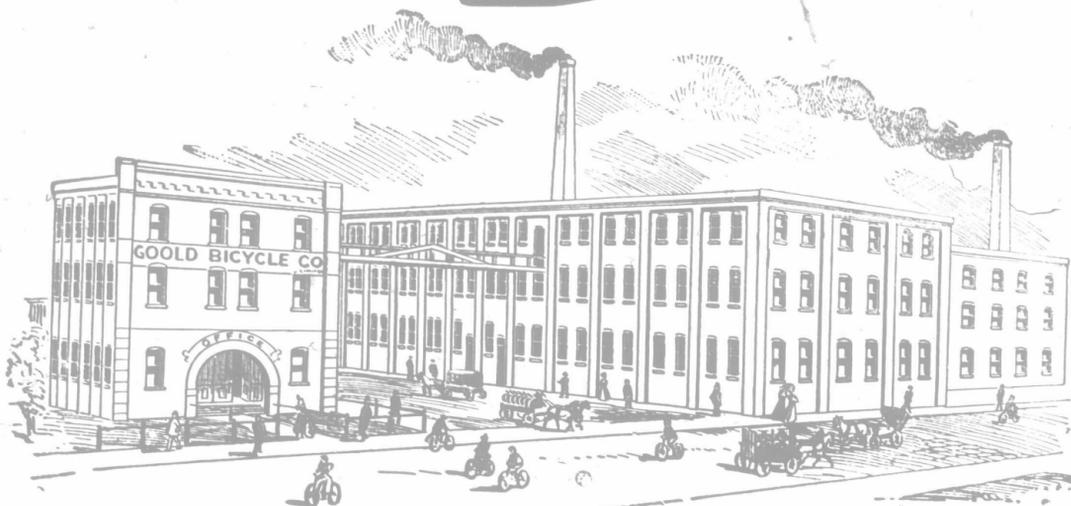
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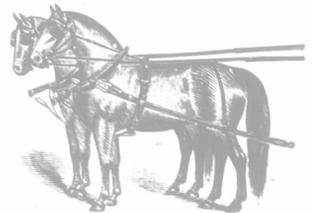
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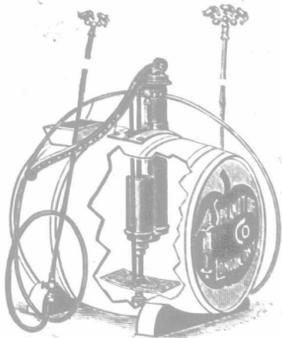
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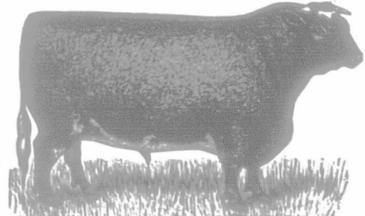
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TEMPERANCE ST. TORONTO, CANADA. All students of the College of Toronto. Patrons: Ontario, Canada, and the Government of Ontario.

GOSSIP.

A. McNaughton, of Pomeroy, has a couple of Shorthorn bull calves by Graham's herd bull, Robbie O'Day, that are of exceeding promise: one a big lusty red, straight in his lines, with a heavy coat of mossy hair, straight in his lines, with a broad, well-covered back and loin.

About a year ago Wellington Hardy, of Pomeroy, purchased the foundation for an Ayrshire herd, headed by the two-year-old bull St. Patrick; bred by the Smiths, of Fairfield Plains; sired by Barney M. The cows were out in a good pasture and in excellent condition.

A FINE IMPORTATION OF SHORTHORNS.

Mr. W. D. Flatt, Hamilton, Ont., finding a growing demand for Shorthorns from his well-known Trout Creek herd, recently made a visit to England and Scotland, accompanied by Mr. James Smith, of Brantford, formerly manager of the Bow Park farm and herd, one of the most reliable judges of cattle in Canada.

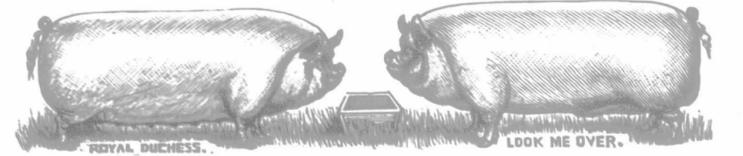
Mr. W. D. Flatt, Hamilton, Ont., finding a growing demand for Shorthorns from his well-known Trout Creek herd, recently made a visit to England and Scotland, accompanied by Mr. James Smith, of Brantford, formerly manager of the Bow Park farm and herd, one of the most reliable judges of cattle in Canada.

Among the females are five charming young heifers from the Ruddington Hall herd of Mr. Mills, two of which are daughters of Marengo, winner of 22 first prizes and 6 championships, including the Royal Show of 1888, and who will undoubtedly add more to the list this season.

From the herd of Mr. A. M. Gordon comes the cow Red Ruth, of the famous Sittlyon Cliper tribe, a 1st prize winner in the Old Land, and a daughter of Star of Morning, who is a grandson of Field Marshal and sire of numerous winners.

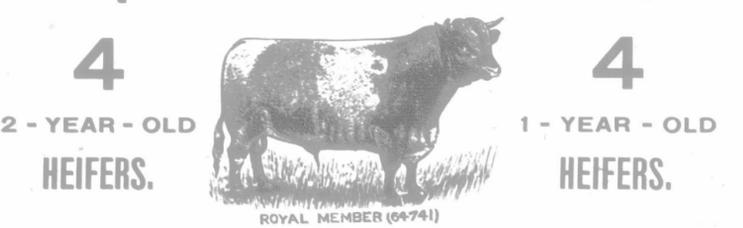
Lady Douglas, bred by Mr. James Durno, Rothie, is a roan 4-year-old that has won six first prizes, including 1st at the Royal Northern at Aberdeen. Her sire, Lord Douglas, a winner of six first prizes, is a son of Lavender 4th, Duke of Lavender and Lavender Lad.

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



Large, Lengthy, English Type. Among them being the first choice of the most important prize-winning English herds. My Canadian-bred herd comprises the choicest individuals, selected from the best herds in the country, and is headed by the undefeated prize-winning boar, Look-Me-Over 2012.

2 Imported Shorthorn Bulls 2



HEIFERS ALL IN CALF TO IMPORTED BULLS. Correspondence or a personal visit solicited. Catalogues on application.

H. CARGILL & SON, CARGILL, ONT. Cargill Station and Post Office on G. T. R., within half a mile of barns.

PURE-BRED GUERNSEY CATTLE



FOR SALE—Two young Bulls ready for service, and Heifers bred. First-class Pigs of all ages from imported and prizewinning sires and dams. Twenty head of HOLSTEINS for sale.

SNELGROVE - BERKSHIRES AND COTSWOLDS

High-class Berkshires of the large English bacon type, bred from the best specimens of the best importations. Young Boars and Sows of breeding age for sale.

R. P. SNELL, Snelgrove, Ont.

SPRING OFFERING YORKSHIRES AND BERKSHIRES

A fine lot of boars and sows eight weeks old. Pairs and trios supplied, not akin, of the best breeding and individual merit.

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LARGE ENGLISH BERKSHIRES.

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

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

DUROC - JERSEY SWINE

We have an excellent lot of long, strong, hardy young Duroc-Jersey pigs now on hand.

TAPE BROS., Ridgeway, Ont.

Large English Berkshires.

HERD headed by two imported boars—Nora B's Duke and Royal Star II, half-brother to Columbia's Duke, which recently sold for \$1,200.

H. BENNETT & SON, St. Williams, Ont. PLEASE MENTION FARMER'S ADVOCATE.

OXFORD HERD OF POLAND-CHINAS

The home winners of the Healed by the imported boars, Conrad's Model and Klondike, assisted by Bacon Boy and Lennox. Has won 64 out of a possible 69 first prizes.

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OAKHILL TAMWORTHS.

FOR SALE—One boar, 16 months old. Sows in pig, and young pigs from 6 to 10 weeks old, sired by Sandy III. 639, a prizewinner wherever shown, and out of first-class sows.

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SPLENDID MUTTON. GOOD WOOL. GREAT WEIGHT. This highly valuable English breed of sheep is unrivalled in its

Rapid and Wonderfully Early Maturity, possessing, too, a hardness of constitution adapted to all climates, whilst in the quality of

MUTTON AND LARGE PROPORTION OF LEAN MEAT IT IS UNSURPASSED.

Full information of JAMES E. RAWLENCE, Secretary, Hampshire Down Sheep Breeders' Association, 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.

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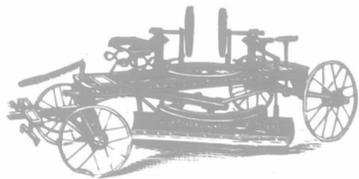
VICTORIA BRIDGE, MONTREAL, QUEBEC.
Showing part of the old and new work. Masonry work under the water built with Thorold Cement in 1853-60. Messrs. Jackson, Peto, Brassey and Betts, London, Eng., contractors. Ross and Stephenson, engineers of the old bridge.



VICTORIA BRIDGE, MONTREAL, QUEBEC.
Showing one span of new work. Masonry work under the water built with Thorold Cement in 1853-60. Messrs. Jackson, Peto, Brassey and Betts, London, Eng., contractors. Ross and Stephenson, engineers of the old bridge.

FOR FREE PAMPHLET WITH FULL PARTICULARS, ADDRESS
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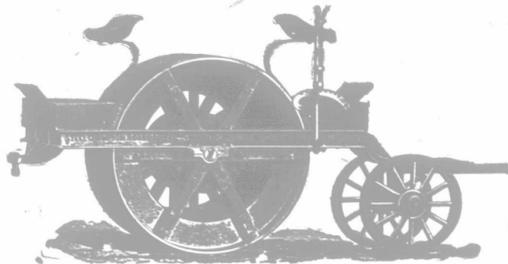
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Macadam Wagons
for spreading
Road Material,
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Send for Catalogues, Mailed Free
to any Address on Application.

GOSSIP.

R. McLennan, Lakeside Stock Farm, Morpiano, Man., changes his advertisement in this issue, offering for sale Shorthorn cows and heifers in calf to (imp.) Sir Colin Campbell.

In a letter to this office, A. M. Robertson, the Black Minorca breeder, of Keevatin, says regarding the question of incubator vs. hen: "Hatches are very satisfactory so far. This is our third year with the machine, and each year's record beats the last; still, we don't claim to know all the ideal hen knows—yet, I say ideal hen, for—dear me—my experience is, she is a rare bird—that is, when it comes to the kind warranted to 'sit.' Never another hen will I set!"

ANNUAL MEETING AMERICAN HOUSTON ASSOCIATION.

At the 14th annual meeting of this Association, held at Buffalo, N. Y., June 7th, the attendance embraced members from 14 States and from Canada. Mr. W. A. Matteson, Utica, N. Y., was re-elected President; F. L. Houghton, Brattleboro, Vt., Secretary and Editor; and S. Hoxie, Yorkville, N. Y., Supt. of Advanced Registry. The Treasurer reported a balance on hand of \$17,361.82. The schedule of Officially Authenticated Butter Records and Report of Economic Tests attached hereto, forming a part of the report, show very valuable and instructive results from the work carried on during the year.

In class 1, for cows five years old or over, 55 cows of an average age of 6 years, 9 months and 6 days, yielded 18 lbs. 13.2 ozs. of butter, 80 per cent. fat, in 7 days. In this class first prize went to Belle Korndyke; milk, 509.8 lbs.; average per cent. fat, 4.01; butter (80 per cent. butter-fat), 25 lbs. 12.3 ozs.; owner, Henry Stevens & Sons, Lacona, N. Y. Second prize to Calamity Jane; milk, 572.15-32 lbs.; average per cent. fat, 3.5; butter, 25 lbs. 9 ozs.; owners, A. & G. Rice, Currie's, Ontario.

In class 2, nine cows of an average age of 4 years, 8 months and 6 days, yielded an average product of 17 lbs. 2.1 ozs. of butter in 7 days.

In class 3, thirteen cows of an average age of 4 years, 3 months and 10 days, yielded an average product of 16 lbs. 15.8 ozs. of butter in 7 days.

In class 4, fourteen cows of an average age of 3 years, 9 months and 16 days, yielded an average product of 16 lbs. 15.8 ozs. of butter in 7 days.

In class 5, twenty-seven cows of an average age of 3 years, 2 months and 5 days, yielded an average product 15 lbs. 9.3 ozs. butter in 7 days.

In class 6, thirteen cows of an average age of 2 years, 9 months and 18 days, yielded an average product of 13 lbs. 2.7 ozs. of butter in 7 days.

In class 7, sixty-nine cows of an average age of 2 years, 1 month and 14 days, yielded an average product of 11 lbs. 6.8 ozs. of butter in 7 days.

The results of the Economic Test to determine the cost of a pound of butter and per 100 lbs. of milk were most gratifying.

In class 1, cows five years old and over, the average yield per cow was 18 lbs. 8.2 ozs. of butter in 7 days, at an average cost per pound of 6.43 cents. Cost of milk per 100 lbs., 28.19 cents.

In class 2, cows four years old and under five, the average yield per cow was 17 lbs. 2.7 ozs. of butter at an average cost of 6.19 cents per pound. Cost of milk per 100 pounds, 28.57 cents. In class 3, cows three years old and under four, the average yield per cow was 16 lbs. 6.9 ozs., at an average cost of 6.65 cents per pound. Cost of milk, 30.97 cents per 100 lbs.

In class 4, cows under 3 years old, the average yield per cow was 13 lbs. 3 ozs., at an average cost of 7.34 cents per pound. Cost of milk per 100 lbs., 32.64 cents.

In his very felicitous address President Matteson said: "As I look over this large gathering of intelligent, successful breeders, I recognize men who have so successfully developed their cows that in a seven-day official test they have produced—in two-year-old form, 16.84 pounds of butter; in three-year-old form, 21.94 pounds; in four-year-old form, 24.14 pounds; in mature form, 26.66 pounds—while another mature cow, in making an official butter record of 24.27 pounds, showed the remarkable average in 7 days of 5.44 per cent. butter-fat. I see also men who have so skillfully handled their herds that in a public fair ground test, amid all the excitement incident to public exhibitions, a cow has produced 85 pounds milk and over three pounds butter in twenty-four hours, while other cows have undergone thousands of miles of jolting railroad travel to enter the Omaha Exposition dairy test, and there won magnificent victories over all other breeds."

OFFICIAL TESTS OF HOLSTEIN COWS.

Mr. S. Hoxie, Supt. of the Advanced Registry of America, has issued a statement of tests of 34 cows and heifers made from Oct. 1st, 1898, to Jan. 1st, 1899.

These tests are for seven consecutive days, and are supervised by officers of agricultural colleges and State experiment stations or by persons vouched for by such officers. The amounts of butter-fat are determined by the Babcock test, and the amounts of butter are calculated on the basis of 80 per cent. fat to a pound of butter—the rule established at the World's Columbian Exposition.

Amongst the number in this report we find the following, which are the highest in the list: Calamity Jane 26292; age 7 years, 10 months, 11 days; owned by A. & G. Rice, Currie's, Ont.; amount of milk, 485.8 lb.; amount of butter, 22 lb. 5.2 oz., in a food test; cost of butter per pound, 7.94 cents.

Calamity Jane 26292; age 7 years, 10 months, 11 days; amount of milk, 572.5 lb.; amount of butter, 25 lb. 9.9 oz.

Inka Hartog's Pietertje Kate 23481; age 8 years, 1 month; amount of milk, 456.8 lb.; amount of butter, 20 lb. 3.2 oz.

Daisy Texal 2nd 4831; age 3 years, 1 month, 21 days; property of A. & G. Rice, Currie's; amount of milk, 448.8 lb.; amount of butter, 18 lb. 2.1 oz., in a food test; cost per pound, 9.32 cents.

Daisy Texal 3rd 4832; age 1 year, 11 months, 25 days; owned by A. & G. Rice; amount of butter, 10 lb. 1 oz.

Lilith Pauline DeKol 4344; age 2 years, 1 month, 18 days; amount of milk, 333.9 lb.; amount of butter, 15 lb. 2.2 oz.

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DRY WEATHER
WILL SOON BE HERE,
AND YOU WILL NEED A

Canadian Steel Airmotor.

NOT ONLY WILL IT
GIVE YOU

ABUNDANT WATER,
BUT IT WILL

RUN YOUR
Chopper, Feed Cutter,
Pulper, Grindstone,
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We Make
The Best, The Strongest,
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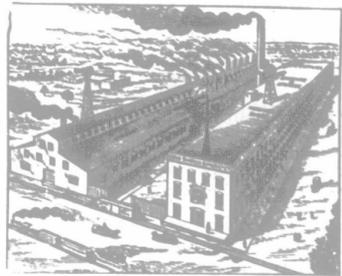
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GRINDERS, HAVING
TOOLS, ETC.

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and Pump Co., Ltd.,

Atlantic Ave.,
TORONTO, - ONT.

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Galvanized Steel Windmills,
Towers and Grinders. ...



Our New Factory—Large, Well Equipped.

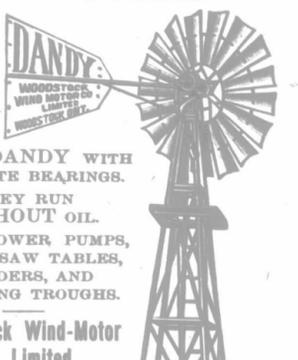
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Grinders, Iron
and Wood Pumps,
Bee Supplies, etc.



(Mention this paper.)
COCKSHUTT PLOW CO. (Limited),
Agents for Manitoba and N.W.T., Winnipeg.

Woodstock Steel Windmills

FOR
POWER
AND
PUMPING



GET A DANDY WITH
GRAPHITE BEARINGS.
THEY RUN
WITHOUT OIL.
STEEL TOWER, PUMPS,
TANKS, SAW TABLES,
GRINDERS, AND
WATERING TROUGHS.

Woodstock Wind-Motor
Co., Limited.

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Agents: SYLVESTER BROS. MFG. CO.
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FOR 60 DAYS

GEORGE HOTEL, Shrewsbury, Eng.
WILL BE
Sheep AND Cattle

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

ROBERT MILLER, Stouffville, Ontario.

HENRY ARKELL, ARKELL, ONTARIO.

IMPORTER AND BREEDER OF

OXFORD-DOWN SHEEP.

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

EGGS FOR HATCHING: Brahmas, Games, Minorcas, Wyandottes, Dorkings, Hamburgs, Houdans, Polands, Leghorns, Ducks, Geese, and Turkeys. -om For prices write

WM. STEWART & SON, MENIE, ONT.

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"A" STANDARD WHEELS
 ON EVERY VEHICLE WE MANUFACTURE.

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 OUR MOTTO FOR 30 YEARS.

Buy the **"Old Reliable"**
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 Eighty-three varieties to choose from.
 Agencies from Coast to Coast.

THE
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METAL EAR LABELS
 Used by all Live Stock Record Associations.

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 Sheep size, per 100.....\$1.50
 Hog size, per 100..... 1.50
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 Punch and Pliers for attaching labels to ear, each \$1.00.
 Name on one side and any numbers wanted on reverse side. **F. S. BURCH & CO.**
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SHEEP BREEDERS' ASSOCIATIONS.
 American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana. —om

GOSSIP.

W. & H. Jones, breeders of Poland-China hogs, Mt. Elgin, Ont., in remitting for their advertising account, write:—"Our stock is doing well. We have received many enquiries from our advertisement and have made good sales, in number quite beyond our expectations."

At a sale of Clydesdales and Shires belonging to the Earl of Durham, May 31st, sixty lots were sold for 2,840 guineas, an average of about \$250 for young and old. A Shire mare and filly foal brought 100 guineas and a Clyde mare 91 guineas. A 4-year-old Shire gelding sold for 150 guineas, and a 3-year-old gelding for 79 guineas.

Mr. F. S. Peer, Mt. Morris, N. Y., writes:—"I have lately returned to New York with my twelfth importation of cattle from England and the Channel Islands, consisting of 66 head of Jerseys and Guernseys and 16 head of sheep. The sheep are mostly Lincolns, and a very grand lot they are. The last few years in England, at the Bath and West and Royal Counties Shows, has convinced me that there is no breed of sheep in England that show as much improvement as has the Lincoln in the last 15 years. They have not only the grandest fleeces, but the quality and fineness of the staple is something to be proud of. They are getting them with well-covered heads, and I must say, taking them all in all, they are about my ideal wool and mutton sheep. I enclose you a photo of a ram lamb 13 months old. His wool measures 15 inches, and the quality and luster is the best I ever saw, not only on the shoulders and sides, but down the flanks as well. This ram and 10 ewes were imported for Mr. Percival Roberts, of Philadelphia, and are, I believe, the first Lincolns to be imported to the U. S. directly from England, though there has been a few brought over from Canada. I had the pleasure of selecting these sheep from the celebrated flock of Messrs. Kirham Bros., Biscathrope House, Lincoln. The ram is a fair sample of the 10 ewes of the same age. The ewes were the pick of 155 hoggs (my pick), and I must say I never saw 11 such sheep together. I hope later to send you a photo of the ewes. Some of the ewes were sired by Royal, for which ram Messrs. Kirham Bros. paid 350 guineas (\$1,785)."

Messrs. Henry Stevens & Sons, Lacona, N. Y., in reporting the sale of a fine herd of twenty-five Holsteins to Messrs. Averill & Gregory, proprietors of the Yates Hotel, Syracuse, N. Y., write:—"One of the finest and best bred herds that ever left Brookside are now grazing on the pastures of the Geddies Farm, and supplying butter, cream and milk to the guests of the Yates. The proprietors of this magnificent hotel also run in connection with it the large and beautiful farm known as the Geddies Farm, comprising 500 acres and situated near the city of Syracuse. For some years they have been running a mixed herd of various breeds, and deciding they would keep nothing but thorough-breds, some months ago they hoisted the 'red flag' and sold all the cattle upon the farm. They were then undecided which breed to purchase, but after making a thorough investigation of the different breeds they decided Holsteins were best suited for their purpose. After careful examination of our herd, which numbered at the time about eighty milk cows, they made their selections, discarding everything except those that tested high in butter-fat. And we think we can safely say a finer, more uniform or better bred herd never left the home of any breeder. Had we the time and you the space we would gladly mention each individual animal, but will only say that this herd is strong in the blood of DeKol 2nd, Netherland Hengerveld, and Pauline Paul. Several of them had made large official butter records. The bull selected to head this herd was a son of Pieterdje Hengerveld's Lady DeKol 2nd, sired by Mutual Friend 3rd's Paul, thus giving him a combination of the blood of the largest producing families ever known. His dam, Pieterdje Hengerveld's Lady DeKol 2nd, won third prize in her class in the late official butter prize contest, and his sire's dam won first prize in the official butter prize contest two years in succession. This bull is not only backed up on both sire and dam's side by the largest official butter records ever yet made, but he is also an exceptionally fine individual."



Before the Roof Leaks

make it water-proof and save it from decay with **THE SHERWIN-WILLIAMS CREOSOTE PAINT**, the original creosote paint. It will cost less than to let the roof go and repair the leaks. Use it on shingle roofs—any kind of wooden roofs. Creosote prevents decay.

THE SHERWIN-WILLIAMS CREOSOTE PAINTS

is specially made for use on roofs, barns, out-buildings, shops, bridges and fences. It preserves them at the smallest outlay. It costs less than ordinary paints. It is far cheaper than doing without any paint. Be sure it's **THE SHERWIN-WILLIAMS CREOSOTE PAINT**. The label is your safeguard. Send for color card.

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for your rooms are now possible by the use of Church's Alabastine (never sold in bulk) Danger lurks in Kalsomines which decay and in wall papers which contain poisonous coloring matter, but Alabastine is sanitary to the highest degree. It is permanent—it will not peel or scale from the hardest surface, and you can't rub it off. And, too, it is easily applied with cold water and a brush. 16 beautiful tints and White. "The healthful wall coating."

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 Free, to anyone who will mention this paper, a 45-page book, "The Decorator's Aid." It gives valuable information about wall and ceiling decorating.
The Alabastine Co., Limited, Paris, Ont.

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



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 Locomotive & Return-Tube Style Boilers, Portable and Traction...

2 STYLES OF THRESHING MACHINES:
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Fleming's Lump Jaw Cure.

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

Like all other articles of exceptional merit, it is imitated in external respects, but these imitations wholly lack the distinctive qualities of the genuine.

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BUTTER, HONEY, JAM, ETC.,

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CONTAGIOUS ABORTION AND HOG CHOLERA

can positively be cured or prevented by the use of

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

Circulars (specially prepared by a veterinary surgeon) on these diseases, on application. THE WEST CHEMICAL CO., "Dept. F.," TORONTO, ONTARIO.

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

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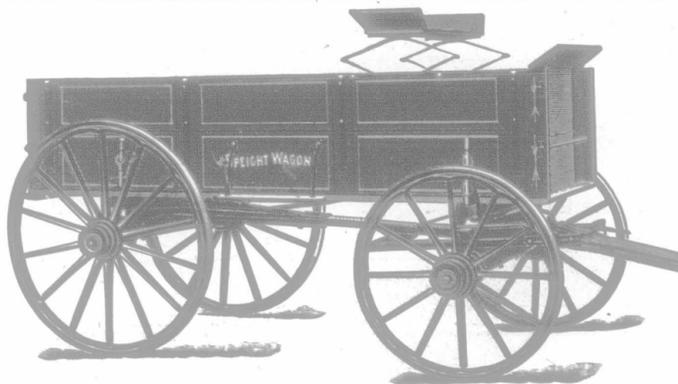
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The most effective and highly-concentrated spray in the market. Has successfully coped with the dreaded San José Scale, and readily destroys all orchard and garden pests, such as grubs, worms, brown-rot, curled-leaf, pear blight, apple scab, and all forms of animal life or fungi. Persiatric Plant Spray has been tried and proved by leading nurserymen and farmers all over Canada. It does its work thoroughly and effectively, and gives unqualified satisfaction. If your dealer cannot supply you, write us direct. We invite correspondence.

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



The lightness of draft, perfection of proportion, excellence of finish of the SPEIGHT WAGON, combined with strength and durability, make it the farmers' favorite. Dealers should write for catalogue and prices to

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THE ABELL

TWIN CYLINDER COMPOUND **Traction Engine**

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With Parson's Patent Band-Cutter and Self-Feeder (of which we are the sole manufacturers for Canada), and The Toronto Advance Cyclone Stacker.

Our handsome new 66-page illustrated Catalogue is out now. If you are interested in threshing send for our Catalogue "No. 70 M."

THE JOHN ABELL ENG. & MACH. WORKS CO., LIMITED, TORONTO, CANADA. WINNIPEG BRANCH: 144 PRINCESS STREET, MARKET SQUARE.

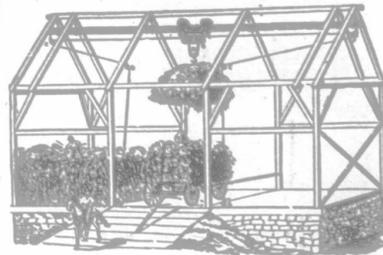
GOVERNMENT ANALYSIS

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

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

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



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On receipt of only \$12.25 we will promptly ship you a complete Horse Fork Outfit, consisting of the following articles:

- 1 Improved Reversible Carrier,
- 1 Double Harpoon Hay Fork,
- 12 Jointed Track Hooks,
- 3 Swivel Pulleys (one a knot passer),
- 3 Wrought Iron Screw Pulley Hooks,
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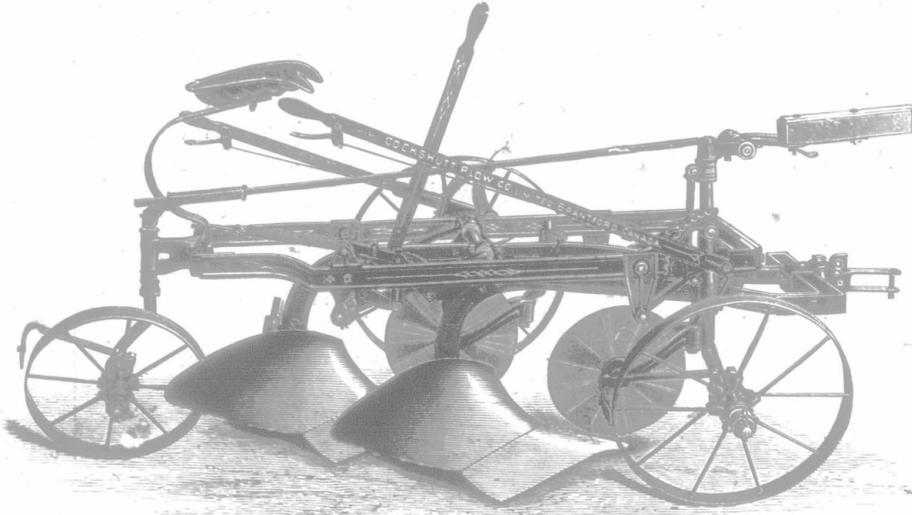
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