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FARMER'S ADVOCATE
AND HOME
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THE FARMER'S ADVOCATE & HOME MAGAZINE

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The FARMER'S ADVOCATE is published on or about the first 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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Our Monthly Prize Essays.
CONDITIONS OF COMPETITION.

- 1.—No award will be made unless one essay at least comes up to the standard for publication.
 - 2.—The essays will be judged by the ideas, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling.
 - 3.—Should any of the other essays contain valuable matter, not fully covered by the one awarded the first prize, or should any present different views of the same topic, and we consider such views meritorious, we will publish such essays in full, or extracts from them as we may deem best, and allow the writer ten cents per inch (one dollar per column) printed matter for as much of such articles as we publish. By this rule each writer who sends us valuable matter will receive remuneration for his labor, whether he be the winner of the first prize or not.
 - 4.—We invite farmers to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch (one dollar per column) printed matter. Criticisms of Articles, Suggestions How to Improve the ADVOCATE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
 - 5.—Replies to circulars and letters of enquiry sent from this office will not be paid for as provided by rule 4.
 - 6.—No anonymous communications or enquiries will receive attention.
 - 7.—Letters intended for publication should be written on one side of the paper only.
- A prize of \$5 will be given for the best essay on "Butter-making on the Farm, and the profits to be derived therefrom;" essay to be based on writer's own experience. Essay to be in this office not later than August 15th.

For conditions *re* prize offered for best plan of barn to hold 60 cattle, with silo inside, see June issue of the ADVOCATE, page 216. Plans and descriptions are to be in this office by July 15th.

A

Timely Notes for July.

HAY AND STACKING.

This season there will be in most sections of the province a superabundance of good hay, both wild and cultivated. I would advise cutting the coarser kinds first, such as Scotch Grass and Sword Grass, then the others in order of ripening. Cut before seeds are ripe in all cases, for the hay seeds are a most important part of the hay.

In stacking the hay, I would recommend the Old Country rick stands or "stathels." Set a row of posts two feet long in rows to support the beams or sills of rough logs, and on these lay small rails and brush, so as to raise the bottom of the stack some two and a-half feet from the ground. I would not advise making stacks too big, but the higher and more solid they can be built the better. Stack your hay to keep, not only for this year, but, if need be, for next as well, and let this season's abundance help you with next year's scarcity. You can't expect a good crop every year.

Those who have a number of stock to feed could profitably invest in a hay sweep, hay loader and horse fork, thereby saving the wages of two or more men, and in a dropping season get their hay saved in good condition. A little salt sprinkled through your coarsest hay and seeds will make it all the more palatable. My practice has been to allow a pailful or two gallons to every load. I just spread loosely on the stack after pitching off each load, and the tramping and moving about of the hay shakes it down through the stack. A pint of sulphur per load is also useful in keeping your cattle free of parasites in winter.

Above all stack well, expect bad weather of all kinds, and be prepared for it, whether:—
"The rain may rain, or the wind may blow,
The hail may hail, or the snow may snow,
For it will na frichtin Jack McCrae,
The smartest man in Manitoba."

DEHORNING.

Many of us who see no beauty in the "doddies," are looking out for the report of the Dehorning Commission in Ontario, for we think if dehorning is really the benefit its advocates claim for it, the sooner we start the better. Having had occasion a few times to cut off the horns of some fighting cows, I know they suffer greatly during the operation, but would calves suffer so much, especially when the little horns are still loose? I fancy that would be the right time to dehorn; and if so, is the knife the best method, or would caustic potash be more humane? Again, in nine cases out of ten, the rings on the horns are the only guide folks have of guessing the age of a beast, and there would be another method of deceit added if the horns were removed.

PRESERVATION OF OUR GAME.

Farmers are generally born sportsmen, in fact as well as in name, and it is only necessary to point out that the present game law allows them to forbid shooting or hunting on their

enclosed lands without their permission having been first obtained—that no hunting dogs shall be allowed to run at large. We may hope to enjoy the pleasure of eating at least a portion of the chickens or partridges that we carefully watched during the season of growth. If one or two of these "tramp" sportsmen from Winnipeg or the towns were fined for trespassing, it would be a decided benefit to the farmers all over the province. Last year in this particular district it was impossible to obtain a prairie chicken or a duck one week after 1st September. In many cases shooting was indulged in by these vagrants long before the close season ended.

THE WINNIPEG EXHIBITION.

The prize list of the Winnipeg Exhibition is to hand, and, with a few exceptions, seems to be very full in all branches. The prizes for butter and grains are exceptionally liberal. I would, however, take exception to offering prizes for Merino sheep. Are there any in the country? And are they suitable for us here? Why not give prizes for Oxford-downs, Lincolns and Dorsets in preference?

Why should certificates of registry not be required for Yorkshires and other pure-bred pigs, as well as for Berkshires? Why offer a prize at all for Percherons after last year's experience, and the general opinion of the country regarding Percherons as adapted for this country?

Can a trotting horse (*per se*), be called a carriage horse? Should there not be some regulations as to weight in carriage horses? A 1,100-lb horse is hardly a Coach horse.

In poultry, would it not be better to ignore Bantams, except as pets. It seems ridiculous to offer the same prize for them as for such really useful birds as Brahmas, Plymouth Rocks and Leghorns? Why not also offer prizes for single birds of some of the principal breeds? The rabbit class is altogether too small after the larger classes for pigeons and Bantams.

Why is the baby class not made more of? Are we ashamed of our youngsters? A Manitoba baby is as important a product of Manitoba as even Red Fyfe wheat, and should be given just as big a prize. May I suggest that the children entered should be judged by three physicians, and the prizes awarded not to the prettiest, fattest or biggest ones, but to those that are perfectly proportioned, healthy and vigorous. If we can't grow energetic and strong men and women here, and show the world that we can too, let us leave it out of the programme altogether.

GENERAL.

Let your horses go unshod for awhile in summer.

Use kerosene for spraying your horse stable, to keep out the flies.

Can, and preserve all the fruit possible, this year. Next year may be like last, and there may be only half a crop.

Keep the weeds down.
Sow rape seed on your summerfallow—6 lbs. to the acre, and if you have no cattle of your own, let your neighbor's cattle eat it. It will do them good, and they will do your land good by tramping and enriching it.

Go to the Exhibition—all of you.

"INVICTA"

Agricultural Exhibitions.

Grenfell, Assa.....	July 14th
Virdeu.....	" 14th
Moosomin, Assa.....	Thursday, " 15th
Glenboro.....	Friday, " 15th
Oak Lake.....	Saturday, " 16th
Brandon.....	Tuesday and Wednesday, " 19-20
Portage la Prairie.....	Thursday and Friday, " 21-22
Boisseval.....	Thursday and Friday, " 21-22
Winnipeg "Industrial".....	" 25-29
Macleod, N. W. T.....	Tuesday, Aug. 2nd
Melita.....	" 2-3
Moosejaw, Assa.....	" 4th
Treherne.....	" 10th
Orbon, Assa.....	Sept. 30th
Meadow Lea (Woodlands E. D. Soc.).....	Tues., Oct. 4th
Selkirk.....	" 4-5
Pilot Mound.....	" 4-5
North Plympton, Springfield.....	" 5-6
Saskatoon.....	Wednesday and Thursday, " 5-6
Killarney.....	" 5-6
Carberry, Man.....	" 6-7
Birtle.....	" 6-7
Regina.....	Thursday and Friday, " 6-7
Swan Lake (Lorne E. D. Agr. Soc.).....	" 7th
Strathclair, Man.....	" 7th
Stonewall, Man.....	" 11-12
Nee-pawa, Man.....	" 11-12
Minnedosa, Man.....	" 12th
Wolseley Agr. Soc.....	" 18th

NOTE.—Fair secretaries or directors are requested to send in additions to the above list.—ED.

Additions to the Winnipeg Fair Prize List.

The Secretary of the Industrial Exhibition, Winnipeg, notifies us that the following prizes are offered which do not appear in the printed list distributed. ADVOCATE readers interested will govern themselves accordingly.

CLASS 38.—FOWLS.

White Wyandottes.....	1st. \$2 50	2nd. \$1 50	3rd. \$1 00
Polish.....	2 50	1 50	1 00
Black Spanish.....	2 50	1 50	1 00

CLASS 39.—CHICKENS OF 1892.

White Wyandottes.....	\$2 50	\$1 50	\$1 00
Polish.....	2 50	1 50	1 00
Black Spanish.....	2 50	1 50	1 00

CLASS 40.

Best Incubator, in operation.....	\$20 00
Best Brooder, in operation.....	10 00

CLASS 56.

Section 15.—Bread, three loaves (2nd Prize).....	\$5 00
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A Prominent English Show.

The Bath and West of England Show is considered in England second in importance to that held by the Royal Agricultural Society. For many years Canadian breeders have been in the habit of attending, in order to select specimens of sheep and pigs that may be heard from later on at our fall shows.

The recent show was held at Swansea, Wales, and more than held its own in point of numbers as regards the display of sheep, 246 being the number catalogued.

In Cotswolds, R. Swanwick, G. Bagnall & Son, W. Thomas and T. R. Hulbert were all successful exhibitors.

Southdown prizes were won by specimens from the flocks of A. de Murrieta, E. Ellis, J. Blythe and C. Y. Lucas.

Shropshires were an exceedingly good show, and in numbers constituted one-third of the whole. T. & S. Bradburn, Astwood Hill, Redditch, England, carried off prizes in shearing rams, ram lambs and shearlings, their sheep being exceedingly stylish, and of extra good quality. Mr. G. Thompson, Wyke, Warwick was also a successful competitor. He had a lot of neat, compact sheep of capital quality. Messrs. G. Graham, G. Jervis, H. C. D. and A. F. Marshall, J. Bowen-Jones and J. H. Hill all had good specimens that were highly commended by the judges.

Wethers downed were a very small class, but A. Bressy, G. Adams, R. W. Hobbs were the principal exhibitors.

In Somerset or Dorset Horns, C. B. T. Jones, Bridgewater, Somerset, won all the principal prizes, winning first in every class.

Seeding Down—Promising Grasses.

A large'y increasing area of lands in this province is being brought under cultivation for the growth of grain and other crops, as a consequence of rapid settlement. New towns are springing up and old ones rapidly growing larger in all directions. In many parts of Manitoba a more diversified system of agriculture is being adopted, to bring about which live stock is being introduced. Large districts are better adapted for rearing cattle, sheep and other classes of stock than exclusive grain-growing, and all this means an increasing consumption of fodder, of which hay will undoubtedly continue a staple. There has been a very large increase in the number of horses in this province during the past year, and to feed these horses more hay will be required. Indications promise an abundant growth this season, however. An important reason for hay or grass-growing arises from the fact that a large proportion of prairie soils is peculiarly loose, a condition which continuous cultivation greatly aggravates. By seeding down and taking off a couple of crops of hay, the soil seems to become more firm and to some extent is restored to the condition found after the original breaking from prairie sod. (This firmness of the soil, as our readers know, promotes early maturing, which is most important in connection with the wheat crop.) It is also useful in exterminating weeds, and it affords an excellent opportunity for top dressing with manure, and thus maintaining the fertility of the soil. That timothy and other grasses can be cultivated with advantage is amply demonstrated by the experience of many farmers throughout the province, and, as a writer in the FARMER'S ADVOCATE pointed out in a recent issue, it is more desirable to grow large crops of hay upon the farm than it is to go scouring the sloughs miles away for a supply. At the Portage la Prairie and other institute meetings during the past season the virtues of seeding down have been strongly emphasized and testimony given as to the advantages and profits of hay culture. It will perhaps be found that for some localities, and perhaps for a large proportion of the province, a number of our native grasses may prove superior to timothy. At the Brandon Experimental Farm this spring the native grasses gave evidence of having stood the winter remarkably well, and displayed a greater early spring growth, which is an important point in their favor.

As to the cultivated varieties, Mr. Bedford, Superintendent of that Farm, is disposed only to recommend timothy, *Bromus Inermis* (or Hungarian Forage Plant), *Poa Compressa* (or Canadian Blue Grass) and the Fescues. Kentucky Blue Grass was killed in spots during the past winter, so I hesitate to recommend it.

Of the natives, *Meibomia Glomerata* (or Wild Timothy), is the most nutritious, but not such a heavy cropper as some others. It ripens late. *Agropyrum Tenuum* (or Western Bunch Wheat Grass) is, perhaps, next in value. It is very much like the English Rye Grass. It is the earliest of cultivated native grasses and is, on June 14th, two feet high. *Elymus Virginicus* (or Lyme Grass) has a head very much like wheat, a free grower and promising. *Elymus Americanus* (or American Lyme Grass) is the tallest of our cultivated native grasses; bearded, a rank grower, very vigorous and should be cut green; very hardy. *Agropyrum caninum* (Bearded Wheat Grass) is not quite so tender feed as the *A. Tenuum*, but equally hardy and productive. *Bromus ciliatus* (Fringed Brome Grass), very much like chess, is of the same family, grows four feet high and is covered with leaves from root to seed-head. All the Brome grasses do well in this province, and this is no exception.

"All the above," says Mr. Bedford, "are perennial and, of course, hardy. The more I see of them the better I like them. I have tested a large number of others, but so far the above are all I can recommend."

We should be pleased to receive from our readers the result of their experience in hay making, especially with regard to the best methods of seeding down, and varieties that have done

The Mercer Company (Limited).

The farmers will be pleased to see the advertisement of the fine line of implements manufactured by the Mercer Company (Limited), of Alliston, Ont., which will be found on another page of this number.

The saying that nothing succeeds like success is fully exemplified in the case of this Company, whose works are running night and day, to supply the demand for their implements. Three years ago, when the firm of Mercer Bros. & Co. commenced the building of the Mercer Binder without canvas, of which they are the sole inventors, manufacturers and patentees, there were not prophets wanting who predicted as speedy a downfall to the Mercer binder as all other firms who endeavored to build a binder which would work satisfactorily without canvas. In this case, however, their prediction was far from being fulfilled, for, as an instance of Canadian inventive genius and energy, the firm have gained for themselves during the short time mentioned above a world wide reputation for their Mercer binder, which is to-day a household word in the principal grain-growing countries of the world, having branches in the following places: London, England; Padstow, Cornwall, England; Glasgow, Scotland; Kelso, Scotland; Ballarat, Australia; Dunedin, New Zealand; Cape Town, South Africa; Winnipeg, Manitoba, and local branches throughout Ontario.

Owing to a great demand for these goods during the season of 1891, and to compete with the larger firms, it was deemed advisable to enlarge the Company, and accordingly a charter was applied for and granted on the second day of April last, under the name of Mercer Company (Limited), instead of as heretofore, Mercer Bros. & Co. Their friends will kindly notice the above change in the name of the Company. It is worthy of note that the Mercer Company (Limited) are the second largest builders of binders in Canada this year, which must speak for itself as to what their machine has done in the past. The most flattering testimonials have been received by the firm from farmers in all parts of the world, and in trials with the leading canvas binders of the world the "Mercer" has held its own in the severest competitions.

It is a noteworthy fact that at Smeaton, Victoria, Australia, December 18th, 1891, the "Mercer", both in the experts' and farmers' classes were the only machines which cut their plot from start to finish without a stop. So pleased were the Australian farmers with the magnificent performance of these binders, that orders were taken for forty-five before leaving the trial ground, and it must be borne in mind that the crop on which the trial was made was so badly tangled that several canvas machines threw up the sponge disgusted, acknowledging their inability to cope successfully with the crop. We must also call attention to the Mercer Knotter, which is said to be the simplest and most complete in the market, consisting of only four working parts, thereby doing away with disk wheel, plunger bolt and knife arm. The makers claim that the machine saves fully an inch of twine on every knot tied, over the majority of other knotters, thus saving, much as every twelve sheaves means one band.

Five Months' Immigration.

Mr. Alex. Smith, of the Manitoba Government Immigration Office, Winnipeg, furnishes the following statement of the arrival of settlers for Manitoba and the Northwest during the first five months of this year, together with the number of cars of stock and effects, by C. P. R. via Ft. William and Gretna:—

1892.	Via Ft. William.		Via Gretna.	
	Number settlers.	Cars effects.	Number settlers.	
January.....	397	25	January.....	30
February.....	379	53	February.....	26
March.....	4,480	599	March.....	59
April.....	4,157	221	April.....	187
May.....	2,652	31	May.....	40
	11,975	929		342
Total number of settlers.....			12,317	

Good Seed.

It must be evident to every thinking man that there is no one thing which the farmer can do, with perfect confidence that it will insure the production of a good crop. There are many operations which are essential to success, and while no one of them alone can meet all the requirements of the case, no one of them can safely be left out. It is absolutely necessary that the land should be well prepared; but if nothing else were done, the best preparation in the world would not produce a crop. It is also necessary that good seed should be used; but even this alone will amount to nothing. There must be a good soil, a suitable preparation, and proper culture of the growing plants, in connection with the use of good seed, if the best results are to be secured.

For some reason, which is not plain to be seen, the

SELECTION OF THE SEED,

as one of the leading elements in the production of large and profitable crops, has never received the attention which it has deserved. Other matters seem to have engrossed the attention of most of the men who have made agriculture a special study. They have been engaged in trying to discover new varieties, to learn the best methods of fitting the soil, and in developing new systems of cultivation. Meanwhile the practical farmers have gone right along in the old way of using seed from their own crops, and without making a careful effort to select that which was the best fitted for their purpose. There have been some individual exceptions to this rule, but the general practice has indicated a great lack of interest in this very important part of their work. The study and thought which have been given, and the experiments which have been made in these and other directions, have led to valuable results. The labors of men who have been engaged therein should be gratefully recognized, and farmers should cheerfully avail themselves of the benefits which have thus been placed within their reach.

But in addition to all the light which has been obtained, and all the advantages which have been secured in these directions, there is need of a clearer realization of the fact that the seed exerts a controlling influence upon the quantity and quality of the crop. It is for want of attention to this fact that so many efforts to obtain large yields have failed of success. In some of these cases all of the conditions except this one seem to have been complied with; but the seed which was used was not the best, and the best results were not obtained. Just as long as effect follows cause, just so long will it be impossible to secure first-class crops from second-class seed. We know that in the animal world the character of the offspring is determined by that of its parents. We have the same assurance concerning the individuals of the vegetable kingdom. The seed as surely determines the character and appearance of the crop which it produces, as parents impress their characteristics upon their children.

Let us consider some of the powers and qualities which are, or should be, possessed by the seed of our ordinary farm crops. In some inexplicable manner there is hidden in every well developed seed a mysterious quality called

VITALITY.

This quality enables the seed, when placed under certain favorable conditions, to germinate, and thus commence the series of changes which will result in the production of other specimens of its kind. As long as the seed is kept intact, this power lies dormant. When it becomes active, a change in the character and appearance of the seed is manifest. The interest of the farmer requires that this change shall take place only in those specimens which he uses for the production of future crops, and that they shall remain in their natural condition until, or very nearly until, the time when they are cast into the soil; for the process of growth injures the seed for other purposes, and if it takes place long before the seed is planted, spoils it for reproduction. Consequently, it is for the interest of the farmer to keep his ripened grain as much as possible from all untoward influences. If his wheat, which is in the stack, is for several suc-

cessive days exposed to warm and wet weather, much of it will sprout. In other words, the vital principle becomes active, chemical changes are effected, and growth is the result. In such circumstances growth inevitably means injury, and this injury is very closely in proportion to the extent to which the changes are effected. If the rain is of short duration, and the kernel merely absorbs a little moisture which is soon evaporated, no great harm is done. But if the rain continues and the kernel keeps on absorbing moisture, in a short time the starch which it contained, and which is absolutely necessary to the production of nice flour, is converted into sugar, which is considerably diluted with water. As the process continues, the sugar which has been formed is changed to cellulose, and the kernel is wholly ruined for flouring purposes. The conversion of the starch into sugar before the kernel is planted also injures it for seed, because the plant cannot live for any length of time away from the soil, and, unless the seed is at once put into the ground, all the growth which has been made will be wholly lost. The young shoot will very soon wither and die.

This is not all the injury that has been done, as we shall see at once when we reflect that the starch which was stored in the kernel was just the kind of food which the plant requires for its nourishment until its roots become strong enough to obtain from the soil, and its leaves are developed enough to secure the materials for growth which are furnished to all plants by the atmosphere. But the process of sprouting through which the kernel has passed has changed the materials of the seed and partially used them as food for the plant which had become partly developed. When such a seed is planted it will absorb moisture, but there will be no starch and but little sugar upon which the plantlet can feed. Some seeds will only sprout once, and if the process of germination is checked it cannot be renewed. Other seeds will endure some interruption, though they are greatly injured thereby. From this it will be evident that the selection of seed is a matter of importance to the farmer, and that in making the selection he should be careful to obtain only that in which the quality described as vitality is unimpaired.

Another quality which some seeds possess, and which should always be sought when a selection is made, may be described as

VIGOR.

This can never be present without vitality, but there can be vitality without vigor. There are men in the world who are alive but who possess but very little vital force. It requires about all their strength to maintain their feeble hold upon life. The same principle applies in all its fullness to the case of plants. In a great many fields of grain, plants can be found which, while living, are but little better than dead. They will grow for a while, and the fields may look a little better for their presence, but the difference which they will make in the yield of the crops will be very small. From these extremely weak specimens there are various grades of improvement until we reach the plants which are full of life and strength. Each and every stalk of these several grades has power to produce seed after its own kind. If the seed from the strongest plants is saved to furnish the germs for a future crop, the plants which will be secured will, if circumstances are favorable for their development, be almost sure to be strong and vigorous. But if seed is saved from the weak stalks, the product of that seed will be very likely to be still weaker than the parent stalks. The grade of plants can be lowered much more easily than it can be raised. The natural tendencies seem to be downward, rather than toward a higher type. Still, this tendency can be counteracted, and the various kinds of plants can be greatly improved by careful selection, combined with good cultivation.

The facts that the seed has a strong power of its own characteristics upon its product, and that this power is somewhat modified by a natural proneness to seek a lower level, should induce farmers to make a very careful selection of the seed which they design to use for planting. They also show very plainly why some farmers

who have good land and give good culture do not obtain paying crops. These men are not careful in making a selection of seed, but take about an average lot for this purpose. In this there is the product of some stalks of each of the several grades of vigor. While part of the seed was produced by the best stalks, much of it came from the weakest plants. The grains from the best stalks will probably yield a good crop, but those which came from the lower grades will be very sure to have all the undesirable qualities of their parent plants. If we sow seeds from weak plants we must expect to have weak plants for our product, and if our crops are largely composed of weak plants, they will be both small and unprofitable.

Another quality which seed should possess is

PERMANENCE OF CHARACTERISTICS.

This is an important quality and one which a great deal of seed does not possess. It can be secured by careful selection of the seed which is used in a series of years. Without it there is a great deal of risk that the crops will be poor. In their efforts for the improvement of seeds, horticulturists often have a great deal of trouble to fix the characteristics of certain specimens which they wish to preserve, and it often requires many years to enable them to secure the desired result. But when permanence has once been established it can be retained by carefully selecting the seed which is to be sown. If this selection is neglected, the variety will show a strong tendency to run back to its original condition. The common carrot furnishes an illustration of this. As long as the seed is carefully saved from good specimens, and proper cultivation is given, the crops which are obtained will be like the ones which produced the seed. But if there is carelessness in producing the seed, or culture is neglected, it will be but a short time before the useful carrot is changed into a worse than useless weed. Many crops retain their distinguishing characteristics much better than the carrot, but with all plants there seems to be a strong tendency to revert to some former style of growth and appearance. It requires a vast amount of patient effort to firmly "fix" the characteristics of new kinds of grain. In selecting seed the farmer should keep this fact in mind, and not only secure seed which is good in itself, but also that which will, under good cultivation, produce its like. And when this characteristic has been secured it can, and should, be maintained by means of careful selections of seed for future crops.

EARLY MATURITY

is another quality which the seed of farm crops should possess. In the minds of many farmers this quality is generally associated with a dwarfish habit of growth and a light yield of grain. But these things do not always connect themselves with an early ripening of the seed. Still it is quite natural that the longer the time which a crop requires in which to mature, the larger it should grow, and we find that many of the very large varieties of grain are late in ripening their seed. Perhaps if plants were left wholly to themselves this would be a universal rule, but under the present methods of culture there are many exceptions. With some varieties man has long been experimenting, in order to change the time of ripening, and his efforts have been very successful. Some medium-sized varieties of corn have been made to ripen some weeks earlier than their original time, and this has been accomplished without diminishing the size of either stalks or ears, and without decreasing the yield per acre.

PURITY.

This is another quality which the seed of farm crops ought always to possess. By this term we mean not merely the quality of producing its kind, which has already been considered, but perfect uniformity of appearance. In this respect an immense amount of seed which farmers use is deficient. Instead of taking pains to have their barley or wheat all of one variety, or if different kinds are cultivated to plant them in fields distant from each other, too many growers allow several different kinds to mix and make no effort to secure purity of the seed. In a few cases this may be due to the impression, which some farmers have, that grain will "do better

if several sorts are mixed than it will if only one variety is planted. This idea is wholly without a reasonable foundation, and the more farmers read and study, the less it will prevail. In most cases the use of mixed seed is due to a want of thought and care, rather than to any belief that it is superior to that which is pure. Instead of being better, the impure seed is far inferior to that which is unmixed. To any one who will think carefully upon the subject this will be evident.

But the principal reason why strict purity of seed should be secured and preserved may be found in the fact that this would enable the grower to obtain quite an increase of the price which his mixed grain now commands.

PRODUCTIVENESS.

This is another quality which should be sought in selecting seed. There can be no doubt that some seed possesses this quality in a high degree, while other specimens, which to all appearance are just as good, are very deficient in this respect.

This point has not received the attention it deserves, and many farmers are slow to believe that there is any particular difference in seed as far as its productive powers are concerned. They know that certain trees are more fruitful than other specimens which are as favorably situated, and they cannot escape the conviction that there is a quality of productiveness which is inherited by different trees in different degrees of intensity. But when they are told that plants also possess this quality, and that the yield of a crop will be largely determined by the degree in which it has been inherited from the seed, they are incredulous. But sometimes when in adjoining fields, in which the soil is nearly alike as soils can be, the same varieties are planted, and there is no difference either in the cultivation or the manuring, but a great difference in the quantity of grain which is harvested, they are almost compelled to acknowledge that there is a difference in the productive powers of seed which belongs to the same variety, but is produced by different specimens of plants.

Careful experiment has proved to the satisfaction of all unprejudiced parties who have studied the results, that the quality of productiveness is strongly developed in some plants, and possessed in only a slight degree by others, and that the plants communicate these characteristics to the seed which they produce.

THE SELECTION OF SEED.

It is only by a patient, careful, and wise selection of the plants, or roots, or bulbs, that the finest seed can be secured. The careless, haphazard way in which many farmers and gardeners save the seed which they plant, accounts, in a great measure, for the poor quality of the seed itself and the light yield of the crops which they obtain therefrom.

Good seed is not produced by every plant, and if no care is taken in selecting the plants for seed, the choice of many inferior ones will be inevitable. The average product of an ordinary field is very far below what should be taken as a standard by which to measure plants for seed. The very best plants which can be obtained are none too good for the production of seed. The man who saves the poorest part of every crop for seed will soon have very small crops. When the average product of the field is saved, the yield does no more than hold its own and keep up the average. It is only when the finer plants are saved for seed that the yield increases and a manifest improvement of the quality is secured. Even then, if there has been no care in guarding of the plants during the period of their growth against the various adverse influences which invariably surround them, and no thought as to their health, the quality of the seed secured will be far below the grade which it should have.

At the next two months, and at the next, watch their growth, and when the proper time has come, select the best grown in a row, and save them. They will be seen here and there, scattered all over each grain and straw field in other parts of the country. The seed should be selected when quite ripe, and when

It is wise even to make a careful selection from this already select grain before threshing. All should be severely screened and fanned. If this course was intelligently followed by all Canadian farmers the average yield of our cereals would soon materially increase. When it is desirable to shorten the period of growth of any sort, that is to render it more early, the portions of the crop which ripen first should be cut and kept for seed, but should be subjected to careful cleaning. In saving seed do not on any account select for crops that of a mixed character. It is very important that seed grain be pure. Much valuable work can be done towards accomplishing this end while the grain is yet growing. At intervals before harvest farmers should go carefully through their field, removing all foreign sorts. This course must be followed to maintain the purity of any sort. Especially would we direct the attention of our readers to their two-rowed barley. Now is the time to remove the six-rowed which is growing among it. This must be done in the case of seed grain, and should be also done in the case of that intended for shipment to European markets.

Chatty Letter from the States.

June prices in the Chicago live stock market ranged as follows:—

Poor to prime steers, 1000@1600 lbs., \$3.50@ \$3.75, with export cattle, 1250@1500 lb., largely at \$4.10@ \$4.35. Fat heifers and yearling steers, 600@1000 lbs., \$3.25@ \$4.00. Cows, \$1.25@ \$3.50. Stockers and feeders, 600@1200 lbs., \$2.35@ \$3.60. Texas fed steers, \$3.50@ \$4.05. Grassers, \$2.15@ \$3.25. Distillery steers, 1050@ 1300 lbs., \$3.90@ \$4.30, largely at \$4.10@ \$4.20. Milk cows, \$15@ \$35 per head. Heavy hogs, \$4.50@ \$5.15; light hogs, \$4.40@ \$5.05. Native sheep sold at \$4.50@ \$6.10. Westerns, averaging 90@110 lbs., sold at \$4.80@ \$5.75, and Texas, averaging 70@86 lbs., at \$3.85@ \$5.40. Native lambs, \$5.50@ \$7.50 per cwt.

Cattle sold \$1@ \$1.35 lower than a year ago; hogs 25c. @ 50c. higher, and sheep and lambs the same as the corresponding time last year.

Calves are being slaughtered in large numbers. Good 100@140 lb. "veals" are in good demand at \$4.00@ \$5.90 per cwt., but many of the calves are almost worthless, and can only be sold at a great sacrifice. The best veal calves reaching Chicago come from the Wisconsin dairy districts.

The store cattle and "feeder" market is dull. There were some limited orders here for choice selected 800@1000-lb. cattle at \$2.50@ \$3, but such orders could not be filled, though rough, mixed lots of heavier weights sold at a lower range.

There will not be much demand from the east for about 60 days, as the farmers have to turn off their fat cattle before they are ready for feeders.

The calf crop in Montana is reported good, and grass is fine. Texas and New Mexico have suffered from drouth.

The movement of live stock at the western live stock markets shows an increase in cattle, and a decrease in hogs, compared with the corresponding time last year.

The permanent home of the American Fat Stock Show at the Union Stock Yards is nearing completion.

The Chicago live stock dealers have decided to closely observe five national holidays each year—New Year's, Washington's Birthday, July 4th, Thanksgiving and Christmas. No stock will be sold on those days.

Seventh Volume of the Dominion Shorthorn Record.

The seventh volume of the Dominion Shorthorn Herd Book has reached our office, for which we are indebted to Mr. Henry Wade. Three thousand pedigrees of bulls and 1,956 of cows are recorded in this volume. Bulls number from 11,101 to 14,100 inclusive; cows from 16,401 to 18,356—in all 4,956 pedigrees. The book is in advance of the former volumes, in that the pedigrees are given complete in this book. When a bull is mated, the remainder of the crosses and matings are referred to another page. The Dominion Shorthorns (imported) is contained in the office, rules of entry, lists of members, and owners, directors and officers, and pedigrees of the bulls and cows imported and bred in the Dominion are all given.

What Constitutes Judgment in the Show Ring.

The show season again approaches us, and it would be well if he who has accepted, or is about accepting a position as judge, would consider that through acting in this capacity a man is looked upon as the schoolmaster of the hour. In the majority of cases the fair boards have this season appointed the judges on stock from the list of names suggested by the different breeders' associations, therefore the onus will now rest on the breeders themselves as to the capability or incapacity of those acting in the ring. It is to be hoped that the gentlemen who have thus had the work placed in their hands, will endeavor to do justice in the departments they have been selected to pass their opinions upon. Not a few men go into the show ring without any defined idea of what they intend to do. Then, should they prove inconsistent in placing the awards, which too often is the case, they are unable to speak in their own defence, or yet in favor of the animals they may have wrongly placed. What pleases the eye appears all right to many an onlooker, but if men are really to do justice to the animals brought before them, they should make a study of the characteristics which they intend to place most value on, and base their awards accordingly. There can be little doubt that the wants of the general public are now more studied by the expert judges of the day. Take, for instance, beef cattle. Great attention is now rightly paid to the quality and thickness of flesh on the loins, back, crops, and rumps. A really good judge does not wish to give a prize to an animal which shows excess of beef in the boiling and inferior parts of the carcass. Breeders should also be alive to their interests in keeping the wants of consumers in view. This, together with the criticisms of the agricultural press, will do much to bring about a practical state of affairs. But the useful qualities might still be pushed more to the front. At any ordinary exhibit of the beef breeds, why should not the udder of a cow or heifer receive more attention at the hands of the judges? We have not yet arrived at the stage of calf rearing when milk is superfluous. The milk producing powers of a cow of any breed add very largely to her value. Beef, all beef, nothing but beef, sounds all very well in the ring, yet the calf nursed by a heavy milking dam will hold its own against all that scientific feeding can do.

Again, in the milking breeds pure and simple, be the cow Ayrshire, Jersey or Holstein, how often are the prizes awarded because of other qualities. It is common enough to see just a fairly good milker win over an exceptionally good one, the structural points being only slightly in favor of the former, with probably the addition of high show condition. Bodily structural points should not be neglected, but milk production should be the chief consideration in a competition of this kind.

Scotchmen are considered the most practical people in the world, yet the Clydesdale breeders of that country have paid such attention to legs and feet, or rather quality of bone and pasterns, that they have often lost sight of some of the most essential points in draught horses—size and weight—qualities which are particularly required in the geldings purchased for heavy work in the streets of American and British cities.

The breeders of the Shire horse have all along paid due regard to the body of the horse, though they have been accused by Scotchmen of passing as correct round-boned legs, upright pasterns and indifferently shaped feet.

The weight-giving width and depth of the Shire horse has already made him many friends among the breeders of the West, who claim that he transmits this quality more certainly than any other breed.

Practical utility should be the first aim of every breeder of improved stock, always paying regard to appearance. Unless a judge enters the ring with some defined idea of the requirements of the times, he will surely blunder when he places the awards.

Lathyrus Sylvestris.

On page 174 of the May number of the *ADVOCATE* were given particulars of the *Lathyrus Sylvestris*. In order to test the plant, we bought and sowed a quantity of the seed. Since then we have received a number of letters from farmers, asking for fuller particulars regarding planting, culture, etc. These questions are answered as follows by Mr. Francis E. Clotten, of London, England, who is the general agent for the seed:—

DEAR SIRS,—Your favor of recent date to hand. I mailed you to-day in six strong, linen paper bags, registered, three pounds net of Professor Wagner's improved cultivated, constant, best strain Hungarian-grown *Lathyrus Sylvestris*, a forest flat pea seed, as a consignment, and in order to enable you to fill to that extent any seed orders you may get from Canadian farmers during June and early July, which is, in your country, by no means too late to sow, provided the land to be sown then has been plowed up and harrowed some four to six weeks previously, and is fairly aerated and mellow for receiving the seed.

Canadian farmers should take particular note that this Wagner's *Lathyrus* detests and rejects nothing so much as raw, fresh plowed up sandy soil, and on such land germination is almost always very bad. Farmers who wish to go in for *Lathyrus* sowing in autumn next, from last week of August till early October, or let me say, at the same time when winter wheats are sown there, should get any land to be sown with this *Lathyrus* plowed up at once—the sooner the better—at least twelve inches deep; deeper by preference, so to stir and unloose the upper layer of the subsoil. This Wagner's *Lathyrus* appreciates a seed bed of fine tilth, and answers the more liberally the more preparatory care has been given to such seed bed. This is a uniform experience everywhere; moreover, it pays well to bestow such preparatory care to the land to be sown.

The farmers there cannot be sufficiently and often enough impressed with the fact that thorough and timely preparation of the soil in which this Wagner's *Lathyrus* is to grow is seven-eighths of all the difficulties and dangers brushed aside, and complete success assured. Many failures and defective results have been due here, and also in two or three instances in North America, to no other cause than raw, hard, not sufficiently aerated and developed soil in which the seed was sown. I wonder whether an Ontario vine grower or fruit grower ever expected to get a good crop from a vine or a fine strain fruit tree by simply sticking a piece of vine or a seed, or rather a cutting of a fruit tree, in hard land or on a poor sandy soil? If so, and if he gets any results, a happy man is he,—a glorious country Ontario, and to be envied. I would never do it, and I have been a vine grower from childhood, on the Rhine, in South Africa and here.

I send you copies of letters which I received from the Hon. O. Clute, President of Michigan State Agricultural College and Director of Michigan State Agricultural Experiment Station, written on Oct. 12th, 1891, as follows:—

"The ten pounds of Wagner's *Lathyrus Sylvestris* seed procured of you last Spring germinated well, though slowly, as it took them four or five weeks to come up. The young plants have however grown well and are now in fine condition. We have recently had four severe frosts, but the plants are not at all affected. I shall watch with greatest interest their conduct during the next twelve months under the severe conditions they will be exposed to on the sandy land here. I would like to secure 50 to 100 lbs. of Wagner's *Lathyrus* seed, for which quantity please state lowest rate."

Writing again on February 25th, 1892, the Hon. O. Clute says:—

"I was able to make to our State Board of Agriculture a most encouraging report concerning the growth of Wagner's *Lathyrus Sylvestris* last year, and am authorized to procure from you a further quantity of seed as offered by you. Present appearances of last year's *Lathyrus* plants indicate good results next season. The thermometer has registered here 23 degrees below zero this winter, and as soon as the frost is out of the ground and the plants have had a chance to start, I shall report to you how they have wintered."

This is what the Hon. O. Clute writes on April 25th, 1892:—

"The Wagner's *Lathyrus* plants have wintered well. Every plant is starting vigorously, and that means much, considering the thermometer had been several times as low as 23 degrees below zero last winter. I have just commenced digging out and transplanting a number. Truly, these plants have the most wonderful development of roots and nodules I ever saw. The roots seem to go down—to China."

The following was received by me from Messrs. W. Drummond & Sons, Stirling, N. B., the well-known seedsmen:—

"The Wagner's Improved *Lathyrus Sylvestris* plants we had from you in Autumn, 1889, gave a much more abundant crop the second year than they did the first. We exhibited a bunch of it at the Highland Society Show this year, alongside a bunch of ordinary tares reaped from a corresponding area, the weight of the tares being much inferior to that of the *Lathyrus* crop. We made no experiments in feeding stock."

The following report was published by the Rev. J. B. McClellan, M. A., Principal Royal Agricultural College, Cirencester, England, in the *Agricultural Students' Gazette*:—

"In the summer of last year (1890) an old student (T. Huband, Esq., Cheltenham), presented us with a small packet of the much belauded Wagner's *Lathyrus Sylvestris*, procured from Mr. F. E. Clotten, London, and we set aside one of the large botanic garden plots for an experiment on its growth and suitability to our soil and climate. The seeds were divided into two portions, one of which was sown in a hot-bed, and the resulting seedlings were transferred to pots, finally hardened off, and planted out in one portion of the bed. The remaining seeds were sown direct in rows in the bed, and came up very strong and vigorous, forming a close, compact sward."

When the bedded plants were put out side by side with the free sown, the former were of much greater length, but looked naturally more feeble in growth, and as a matter of fact they never acquired such a healthy strong appearance as the rest. Some died off, first presenting a yellow, sickly lower leaf and stem. Examination of the roots showed no trace of eel-worm or other cause sufficient to explain this dying off. A little nitrate of soda was given, and the diminution was stayed after its application, but up to the present that portion of the bed is markedly less successful than the rest. In September no flowers had been formed; we had sown too late to expect it, so it was decided to allow the plant to remain uncut for that year. The exceptionally hard winter did not appear to damage the plant in any way, and by the end of May there was a strong healthy growth of a very rich sap-green color on the free sown part of the bed. The bedded out plants were good in color, but loose and straggling, owing to blanks by death. On the 22nd June we cut and weighed the green crop from the free-sown bed. It gave on the most careful estimate eleven and a-half tons per acre. From a small plot it is unsafe to give figures calculated to acres, as the plant has a habit of spreading freely over the edge of the bed; but, on the other hand, if the rows were numerous and no free edge to spread over, the plant would raise itself higher by means of the support afforded by its neighbors, and the result would probably not be found so far out if compared with larger plots. The green crop was carefully sun dried without exposure to any rain, and lost eighty four per cent. of its green weight. In cutting, the gardener mowed it off rather close, but in ten days, thanks to abundant rain, a very fine after-math was already showing, of rich deep color."

The hay is being subjected to analysis in the Chemical Laboratory.

In the December number, 1891, of the *Agricultural Students' Gazette*, Professor Edward Kinch, F. I. C., F. C. S., etc., publishes the results of analysis as follows:—

WAGNER'S LATHYRUS SYLVESTRIS OR WOOD PEA.

Analysis of the hay of *Lathyrus Sylvestris* (Wagner's) grown in the Botanic Garden, and made into hay July, 1891:—

Water	13.68	per cent.
Ash	6.23	"
Fat, etc. (ether extract)	2.13	"
Fibre	25.90	"
*Nitrogenous matter (N x 6.25)	24.75	"
Soluble carbohydrates	30.25	"
*True albuminoids	100.00	"
Total nitrogenous matter in dry matter	18.25	"
True albuminoids in dry matter	28.67	"
Of total nitrogen 26.2 per cent. in non-albuminoid.	21.14	"

This hay is remarkably rich in nitrogenous matter; in composition it agrees with that grown in other places, though when grown in rich soil it is said to be even richer in nitrogenous matter.

As above stated, Mr. Clotten has sent a quantity of seed to us, which he instructs us to sell at \$10 per pound, which seems to us a high price; but from experience we know that new and improved plants cannot be put on the market as cheaply as the originators desire. Prof. Wagner is said to have spent thirty years in perfecting this plant.

The Farmers' Grist Mill.

In our February number "*Thorah Farmer*" made enquiries concerning grist mills owned and operated for the benefit of farmers by joint stock companies. At that time we were not aware of any such existing corporations, but immediately set about making enquiries. By the kindness of Mr. J. Taylor, of Nottawa, we succeeded in learning the address of several parties, who willingly gave us much valuable information. We find there are many mills in Canada owned and operated by joint stock companies which were founded by farmers, and all the stock owned by agriculturists. We have made many enquiries regarding these companies, and find that in every instance that came to our notice the results are satisfactory. The following articles have been received from farmers who have had experience with mills owned and operated by farmers' companies. To these gentlemen we extend our sincere thanks, and we are quite sure many thousands of our readers will feel very grateful for the information so kindly sent. To Mr. Taylor and Mr. McKee we are especially indebted. We wish there were thousands of such men throughout Canada, and that each was ready to come to the help of his brethren. We invite farmers everywhere to write us full particulars of their successes and failures. Your experience may be useful to others, or perhaps others of our readers will come to your aid, as these gentlemen have come to the aid of "*Thorah Farmer*":—

To the Editor of the *FARMER'S ADVOCATE*:

DEAR SIR,—In reply to your letter I will try and give a condensed outline of the history of our company. The farmers of this section, like "*Thorah Farmer*," were dissatisfied with the manner in which they were used by the millers, and in April, 1890, a public meeting was held to discuss the propriety of forming a joint stock company and building a mill.

At that meeting it was resolved that an effort be put forth to form a company, to be known and incorporated as the Nottawasaga Farmers' Milling Company, Limited, with a capital stock of \$10,000, to be divided into 400 shares of \$25 each. A committee was appointed to carry out this object, and about the end of June this committee succeeded in getting sufficient subscribers to warrant them in organizing as a company. Consequently, a general meeting of stockholders was held, when three provisional directors were elected, who were instructed to apply for incorporation under "The Ontario Joint Stock Companies' Letters Patent Act." Meantime the directors purchased a site and let contract for building a mill, and also for putting in machinery. In September we received our charter of incorporation, and on the first of January had our mill ready for operation. The mill is run by steam; its capacity is 50 to 60 barrels per day. We have also a "chop stone," that grinds from 10 to 14 bags per hour. The plant, when completed, including cost of incorporating and mill site, cost about \$9,000, and I might say here, for the information of "*Thorah Farmer*," that the stockholders are principally farmers, and the affairs of the company are managed by a Board of Directors, who are exclusively farmers. The company have been fairly successful in their operations. We do custom work on the exchange plan. Our exchange tariff is:—

- For wheat testing 62 lbs. or over, we give 40 lbs. flour, 10 lbs. bran, and 3 lbs. shorts.
 - For wheat testing 60 and 61 lbs., we give 39 lbs. flour, 10 lbs. bran, and 3 lbs. shorts.
 - For wheat testing 59 lbs., we give 37 lbs. flour, 11 lbs. bran, and 3 lbs. shorts.
 - For wheat testing 58 lbs., we give 35 lbs. flour, 12 lbs. bran, and 3 lbs. shorts.
 - For wheat testing 57 lbs., we give 31 lbs. flour, 13 lbs. bran, and 3 lbs. shorts.
- We charge 7c. per bag for chopping, or take 8 lbs. for toll.

We ground in grist during the year 25,000 bushels of wheat and chopped 6,430 bags of grain. The earnings of the mill, over and above expenses, amounted to about \$650. But we give in exchange three pounds of flour more to each bushel of wheat than the millers in this section gave before we started operations. You can readily see that this during the year would amount to a saving of about 3-2 barrels flour. The average price of flour during the year was about \$1.50, so that the amount of saving to the patrons of the mill would amount to \$1,500. This is the financial results of the year's operations. To us, at least, they are very gratifying, but we leave it to your readers to form their own conclusions. As to the manner in which we do business, I might say that we give a receipt to each

customer for the quantity of grain received and what it tests, and the quantity of flour, bran and shorts given in exchange. Each receipt has a stub, and is filled out the same as the receipt, so that reference can be made to this at any time. We take stock at the first of each month, so that we always have a fair idea of the business we are doing. Although we have done fairly well during the past year, we think that we can still do better, as we find less difficulty in disposing of our surplus stock of flour, etc. We have a set of by-laws for the government of our company, and at your request I send you a copy:—

BY-LAWS.

Whereas the Directors of the Nottawasaga Farmers' Milling Company, Limited, deem it expedient that certain By-laws for regulating the affairs of the Company should be made. Now, therefore, be it enacted and it is hereby enacted:—

1st. That the annual meeting of the Shareholders shall be held in the village of Dunroon on the second Monday in January, at 1 o'clock p.m., in each year, to receive the report of the Directors for the past year, to elect Directors for the ensuing year, and for all general purposes relating to the management of the Company's affairs.

2nd. That a general meeting of the Shareholders may be called at any time by the Directors whenever they may deem it necessary or advisable, for any purpose not contrary to law, or the Letters Patent of the Company, or the Statute. And it is incumbent on the Directors to call a special meeting of the Shareholders whenever required so to do by giving timely notice.

3rd. That meetings of Directors shall be held as often as the business of the Company may require, and shall be called by the President.

4th. That at general meetings of the Company every Shareholder shall be entitled to as many votes as he owns shares in the Company.

5th. That no Shareholder be allowed to own more than one share in the Company.

6th. That no Shareholder be allowed to transfer his share, unless by bequest, without consent of the Board, and such transfer be recorded in a book provided for the purpose.

7th. That questions at meetings shall be decided by a majority of Shareholders present, and in case the number of votes are equal the President or Chairman shall have a deciding or casting vote.

8th. That the affairs of the Company shall be managed by a Board of Nine Directors, five of whom shall form a quorum.

9th. That the President and Vice-President shall be chosen by the Directors from amongst themselves at the first Board meeting after the annual meeting.

10th. That the President shall, if present, preside at all meetings of the Company; he shall call meetings of the Board of Directors. In his absence the Vice-President shall exercise the rights and powers of the President. A Director may at any time summon a meeting of directors.

11th. That questions arising at any meeting of Directors shall be decided by a majority of votes; in case of an equality of votes the chairman shall have a casting vote.

12th. That the Secretary shall keep a record of the proceedings at all meetings of the Board and of the Shareholders of the Company, and shall be the custodian of the seal of the Company, and of all books, papers, records, etc., belonging to the Company, which he shall deliver, when authorized so to do by a resolution of the Board, to such person or persons as shall be named in the resolution.

13th. That any Shareholder, not in arrears for payments for calls upon his stock, may be elected a Director.

14th. That the Directors shall hold office for one year, and until their successors shall be elected.

15th. That in case of death of a Director, or his being unable to act as such, or his ceasing to be a Shareholder, the vacancy thereby created may be filled for the unexpired portion of the term by the Board from among the qualified Shareholders of the Company.

16th. That the Company shall have a corporate seal of such design as the Board may determine, which seal shall, whenever used, be authenticated by the signature of the President and Secretary.

17th. That the Board shall, from time to time, fix the salary or wages to be paid to officers of the Company.

18th. That the Board shall have power to collect through the courts any unpaid shares duly subscribed for on the Stock Lists, and to forfeit any instalment paid on shares upon which any call has remained unpaid for one year after it shall be due and payable, and such forfeit stock shall thereupon become the property of the Company.

19th. That certificates shall be issued when shares are fully paid up, and such certificates be authenticated by the signature of the President and Secretary and sealed with the Company's seal.

20th. That the Directors shall cause true accounts to be kept of the stock-in-trade of the Company, of the sums of money received and expended by the Company, and of the matter in respect of which such receipts and expenditure takes place, and of the credits and liabilities of the company.

21st. That once at least in every year the Directors shall lay before the Company, in general meeting, a statement of the income and expenditures for the past year.

22nd. That two auditors shall be appointed annually by the Shareholders at the annual general meeting, whose duty it shall be to examine all books, vouchers and accounts of the Company, and all documents having reference to the business thereof, and to prepare a balance sheet and abstract of the affairs of the Company, and to submit the

same to the Board as soon after the close of the financial year as possible, together with such suggestions or recommendations as they may think fit.

These By-Laws were submitted to the stockholders of the Company, clause by clause, and approved of at their first general meeting after incorporation, and I think that both the principle and the plan on which we work can be readily seen.

JOHN MCKEE,
President N. F. M. C. (Lim.)

SIR,—I saw in a late number of the FARMER'S ADVOCATE an enquiry from "Thorah Farmer," who wished information regarding farmers' mills. We have one in the Township of Nottawasaga. In the year 1890 a few farmers thought it better to own a mill of their own. To accomplish the desired end, public meetings were held in each division of the Township. The promoters desired to sell 400 shares at \$25 per share. Though the desired number of shares were not at first sold, the undertaking was proceeded with, a general meeting was held, directors elected, a charter procured, and a steam roller mill was erected and equipped with a capacity of 40 barrels per day. The machinery cost \$4,000, and the building \$3,000. The engine is a very strong one, so that chopping can be done at any time. Our mill has been running seventeen months. The customers are all well satisfied. The shareholders can grind all their wheat if they choose, and keep the bran and shorts for feed.

The first twelve months \$400 was cleared over all expenses. Next year the directors expect to do better, as they have gained much valuable experience. Some extra machinery was also put in the mill, which was paid for out of the first year's profit.

There is a water-power mill in the Township of Osprey, which was formerly a "stone mill;" farmers bought it and put in the roller process. It is also run by a joint stock company. The shares are \$25 each, payable in five annual payments of \$5 each. This company expect to clear \$1,500 per year. The cost of operating a water-power mill is about \$1,000 less per year than a steam mill. A great deal depends on the price of fuel.

Yours,
J. TAYLOR, Nottawa, Ont.

DEAR SIR,—In answer to your enquiries regarding farmers' mills, there is one at each of the following places in Ontario:—Stevensville, Brigiden, Hagersville, Leamington and Tupperville. They are all owned by joint stock companies composed of farmers. I will be glad to give full details to any one who may apply by letter or otherwise. The mill at Tupperville is 36x40, which contains the boiler and engine rooms and the office. The whole is well fitted up with suitable machinery, supplied by Ennis & Son, Toronto, Ont., who furnish to customers, free of charge, plans for mill buildings. The machinery for this mill, set up ready for use, cost \$5,849.50; building, fences and lot, \$3,300.00; total, \$9,149.50. The shares were sold at \$10.00 each, no person being allowed to buy more than twenty shares.

For each bushel of wheat weighing 60 lbs., 30 lbs. of flour, 10 lbs. of bran and 3 lbs. of shorts is allowed, or if the customer wishes to pay cash ten cents per bushel is charged, three pounds being deducted from each bushel for screenings.

Seven cents per bushel is charged for chopping. A corn sheller, with a capacity of sixty bushels per hour, forms part of the machinery. The founder and manager of this mill is Benjamin HERSHEY, Tupperville, Ont.

My advice to farmers is, put up your own mill and operate them. At Tupperville the mill is well patronized, being run to its full capacity, which is fifty barrels per day.

The building of a large mill at Thamesville is under consideration now. If built it is to cost from \$15,000 to \$20,000. It is said the C.P.R. has offered to subscribe \$1,000 toward the venture. Several thousand dollars has already been subscribed. I believe it will pay farmers to have their wheat ground at farmers' mills. By so doing they will save 1.10 lbs. of bran and 350 lbs. of shorts on each hundred bushels grounds. The flour can be sold for more than the wheat. It is well known that nearly all millers make three grades of flour, and it is claimed that many of the millers who belong to the Miller's Association receive from farmers No. 1 wheat and give in return No. 2 or 3 flour, and sell the No. 1 flour made from the farmers' wheat for 75 cents per hundredweight more than they ask for the No. 2 or 3 flour supplied the farmers. If this is a fact, it is as bad as highway robbery.

ALONZO WILCOX,
Thamesville, Ont.

Editor FARMER'S ADVOCATE.—Your letter of enquiry about farmers' mills to hand. Ours is a farmers' mill, managed by farmers, and built expressly to do farmers' work and no other. Since starting, the employees have been kept on the jump. We have been running all winter, as we are at present, day and night, which is sufficient recommendation as to quantity and quality of the flour that our customers receive. The reason for building this mill was that farmers in and round this locality felt that they were not getting justice at the hands of the Millers' Combine, but since starting this mill farmers can go to any of those other mills and get just as good if not a better return from them, as we at their own mill can give them, which means from 10 to 15 lbs. more per bushel than they formerly received. Would you believe it, that the majority of our farmers do not seem to understand the cause of the change? Now that they are getting ample and full justice, they would like to get a little more.

The capacity of our mill is 50 barrels per day. It has four set of double rollers, 6x20, and all necessary machinery, also one run of 4-foot stones for chopping, of which we do a large amount at 6 cents per 100 pounds. We exchange flour with our customers at the following rates, according to the weight of the wheat:—

For wheat testing 64 lbs., we give 40 lbs. flour, 10 lbs. bran, 3 lbs. shorts.
For wheat testing 62 lbs., we give 39 lbs. flour, 10 lbs. bran, 3 lbs. shorts.
For wheat testing 60 lbs., we give 38 lbs. flour, 10 lbs. bran, 3 lbs. shorts.
For wheat testing 58 lbs., we give 36 lbs. flour, 11 lbs. bran, 4 lbs. shorts.
For wheat testing 57 lbs., we give 34 lbs. flour, 13 lbs. bran, 4 lbs. shorts.
For wheat testing 56 lbs., we give 32 lbs. flour, 13 lbs. bran, 6 lbs. shorts.

In all cases we give back 51 lbs. out of each 60 lbs. Any steam mill doing this will do all that can be done and make a fair profit. We paid about \$6,000 for this mill, and have about \$500 yet to pay, which does not at all trouble us.

We are an incorporated body, chartered. The business is managed by a manager under the control of a board of directors. Our officers are a president, secretary and treasurer. Our capital stock is \$10,000, of which \$5,889 is subscribed. The plan we adopted to meet our obligations was by dividing the capital stock into one thousand shares of \$10 each. Each farmer could buy one or more shares. We have shareholders holding one share, others one hundred shares. Each shareholder is responsible only for as much as he subscribes. All interested in this mill have gained considerable information, which, had we known at the start, would have put many dollars in our pockets; but if "Thorah Farmer" or other of your readers wish any further information on this subject, they may write to me and I will give them all in my possession.

Manager Hemlock City Milling Co.,
Lochalsh, Ont.

DEAR SIR,—There is a farmers' grist mill in the township of Ashfield, county of Huron. It was built by the farmers of the section, and would not have been built but for the abuse they received from the surrounding millers. It cost \$5,680, exclusive of the steam-power; it was built by a Joint Stock Company, Limited. Three hundred shareholders (\$10.00 per share) built the mill and paid for it in two years. Two millers are kept all winter, and one in summer. The only fault it has is that it is too small—40 barrels per day being its capacity; it should be 75. One straight grade of flour is made—no low grade. Chopping is done at 5 cents per cwt. Outsiders and shareholders pay the same rates. At the time this mill was talked of the millers of the county hooted it down, and said it could not stand, as the farmers would quarrel among themselves. It has been a success, and has brought the millers' ring to its knees. The farmers have stuck together for once, and are likely to. I venture to say, there is not a farmer sorry that he invested his money in the mill. The mill is situated eight miles from Lucknow, G. T. R., seven miles from Ripley, G. W. R., sixteen miles from Kincardine, twenty miles from Goderich. The machinery, which is first-class in every respect, was put in by Mr. Gray, of Toronto. The flour produced is as good as any made in Canada.

JOHN MCINTYRE, Huron, Ont.

Healthy Homes.

BY W. A. HALE, SHERBROOKE, QUE.
(Continued from Page 126.)

In my last letter I concluded with a description of a four-inch galvanized iron pipe to lead from the ceiling of the cellar up through the house, and to enter the kitchen chimney near the ceiling of the first or second story, as the case may be. The importance of the healthy ventilation thus insured for the cellar cannot be over-estimated, preventing, as it does, not only the possible bad odors from ascending into the house, but also carrying off the damp air, which is more or less present in all cellars, and which is often the direct cause of so much trouble, particularly in throat and lungs. If a dry-earth closet is to be used, it can be most effectually ventilated from beneath the seat by a two-inch tin pipe connecting with the larger one, and by this means not only will any possibility of escaping odors be avoided, but a certain amount of constant ventilation be secured for the upstairs rooms as well. There are many patterns of good earth closets advertised (realy-made) which answer well, their weak points being, perhaps, insufficient storage room for dry earth, and the pails with which they are usually supplied being made of unsuitable material (tin), though light and clean, soon rust through. Zinc and galvanized iron corrode, making them rough inside and difficult to keep clean. Pails made of the so-called granite ware, though a little expensive at first, are in the long run the most satisfactory. When the closet is made at home, or made to order, it can be so constructed as to hold sufficient absorbents for two weeks or a month, and the best materials for

this purpose seem to be sifted coal ashes, dried swamp muck, or dried pulverized clay. Soils containing sand are of less value as absorbents in proportion to the amount of sand which is present in them. The two most dangerous conveniences about our homes are the privy vault and kitchen drain, not only as regards the possibility of poisoning the water we drink, but of contaminating the air we breathe as well. Where it is felt that a water closet cannot be afforded or a dry-earth closet attended to, and that a privy vault is necessary, it should be entirely cut off from the chance of any of its odors finding their way into the cellar, by having it built outside the foundation wall, and the wall so protected by cement mortar that rats cannot in any way make their burrows through from the cellar to the vault. In this vault should be a tight, movable box, well saturated when new with crude petroleum or coated inside and out with pitch, and large enough to last an ordinary family for three months. When full it can be drawn out with a horse, and by upsetting it on the manure pile the contents are easily and usefully disposed of. In this box, except in severe freezing weather in winter, dry earth should every day be thrown down, thereby carrying out the dry-earth closet system in a different way, and if properly attended to is very satisfactory and prevents any chance of soilage from this source into the spring or well. In constructing the kitchen sink and slop sink drain, glazed earthenware pipes are no doubt the most suitable, all things considered, and where no water closet is in use those of four-inch, inside diameter, are as large as need be. The outlet to this drain should, if possible, be into some running stream of sufficient volume at all times of the year, to prevent any large accumulation of sewage. Cesspools are expensive to build, difficult to keep properly clean, and apt not only to contaminate any springs that may be near them, but the air of the house as well. Failing a running stream, rather than resort to a cesspool, I should prefer bringing the mouth of the drain out upon the surface at a distance of 300 feet or more from the house, and there providing an open, shallow pit, into which from time to time earth and other absorbents should be placed, and the contents frequently removed and used as an enricher to the compost heap. When glazed earthenware pipes are difficult to procure, I should recommend the following, which I have had in constant use, without repairs, for over twenty years: Two-inch hemlock planks, twelve feet long, cut into three widths for each length. One plank eight inches wide is nailed to one six inches wide in such a way as to form an ordinary V shaped trough to be laid corner downwards in the trench, and covered with a ten-inch plank of the same material. If the soil is dry and sandy it would be best, if possible, to bed and cover this drain with clay, thereby preventing decay and doubling the period of its usefulness. The object in laying this form of drain is that no matter how small a stream may be running through it it is never so scattered as to leave any sediment or other accumulation behind it, and the dimensions given would provide a space inside of four inches in depth, which is really more than is ever likely to be required. A well painted wooden slop sink, under cover, and as convenient to the kitchen door as possible, should be so constructed as to empty through a two-inch lead pipe with a straight-down flow and a bend underground sufficient to make a water trap before entering the top of the drain. If at any time sand or sediment should here collect, by running down a pliable birch rod, and at the same time flushing the sink, it will all be carried away. The kitchen sink can be arranged in the same manner, and the convenience attending these two arrangements will far more than compensate for the time and trouble of putting them in. If at any time grease should accumulate in the waste lead pipes (it does not adhere to the wooden drain in the same way), by pouring down hot lye it will all dissolve and disappear. Into this drain also the waste water from the horse trough should run, and if from this trough the waste pipe runs straight into the top of the drain, it will provide sufficient ventilation for the drain, and so prevent any possibility of odors finding their way from it into the house. The best possible outlet to this house drain will be into the main land drain, if

such there be. In my own case there was at one time a small stream, always dry in warm weather when it was most needed, and causing many a swampy and waste piece of ground along its course. Taking this as the main outflow for all the system of land drains, I sank it from three to four feet deep in a hemlock plank box drain eight inches square inside; this main drain I carried below the bed of the old water course as far as it was necessary, to receive all the land drains, and where this large main drain ended, and in a ravine a small dry dam was built in order to catch any surface water which in heavy storms might now make head enough to cause washouts. A few feet above this dam two four-inch glazed clay pipes three feet long were set into the cover of the main drain, and extending six inches above the ground, but a foot below the top of the dam. When more rain falls than the small underdrains are able to take care of this dam fills rapidly, till the water rises to the top of the two drain pipes, down which it pours, and helps most effectually to flush the drain and carry off any sediment that may have collected. In conclusion, I would say to those who think that this matter of detail in looking after the sanitary conditions of their dwellings is beneath their notice, that a careful consideration of the following taken from one of the works of probably the best engineer of sanitary works of the present time, may convince them of the responsibility for the lives of their families which is laid upon them. Speaking of the kitchen drain, he says:—"When we consider its immediate proximity to the windows of the room in which the family of the average farmer pass most of their time, the kitchen drain probably heads the list of all the agents by which our ingenious people violate the universal sanitary law; and it doubtless carries more victims to the grave than do all other sources of defilement combined, for with an enormous majority of our population this one pipe still represents the whole drainage of the house."

Veterinary Questions.

ANSWERED BY W. A. DUNBAR, V. S., WINNIPEG.

Would you kindly inform me, through your valuable paper, if anything can be done to help a horse that was foundered some years ago, has gone over at the knees, and is very tender on his feet. He is in good condition, and apparently sound otherwise.

D. BROWN, St. Jean Baptiste, Man.

CHRONIC LAMINITIS.

The structural changes which have, no doubt, taken place in the feet of your horse will preclude the possibility of effecting a permanent cure, but palliative means may be beneficially employed. Keep the hoofs soft and elastic by poulticing frequently (two or three nights a week) with linseed meal or bran. Give a well-scalded bran mash, containing sulphate of magnesia, three ounces, and nitrate of potash, one drachm, three times a week. Do not feed more grain than is absolutely necessary. The horse should not be driven far nor fast on hard road, nor compelled to stand on bare plank when stabled. A moist earthen floor is the most suitable for such feet. If the feet are flat or "pumiced," they should be shod with shoes, bevelled so as to have no bearing on the soles, and with low calks.

I have a heifer whose teats are covered with very small warts. They also extend quite a way on the udder. Could you kindly tell me in the next issue (July number) the best way to get rid of them? They are too small to cut or to tie with horse-hair so as to stop circulation.

I remain yours truly,

B. J. SHEPARD, Rathwell.

Apply strong acetic acid three times a week; but before each application remove the pellicle that the previous application has produced. Continue till the warts disappear.

Trees, Fruits and Flowers

Address delivered by S. A. Bedford, Superintendent, Brandon Experimental Farm, before the Lansdowne Farmers' Institute at Bradwardine.

Specially reported for the Farmer's Advocate.

My earliest associations and recollections were of a beautiful farm in Kent, "the garden of England," with its fruit and flower gardens, its orchards and forests, while from my parents and grandparents I inherited a love for these beautiful productions of nature. It is, therefore, a pleasure for me to work along these lines and to talk a short time with you to-night on these subjects. A word first about our farm at Brandon. It is not a model farm in the strict sense of the term, but a farm for experimental purposes. We may do things there that we believe to be wrong, in order to attain certainty, and by "wasting" a little money, as some shortsighted individuals might say, in testing grains, flowers, fruit and ornamental trees, prevent the people of the country from wasting a great deal in varieties not adapted to the climate, but which they may be duped into buying by slick-tongued agents with gorgeous picture books. As indicating the extent of our work in this one direction, I may say we have on the farm at the present time 125,000 trees. The advantages of trees for ornament and shelter on our prairie farms are so obvious, that I need hardly enumerate them, but there is tree planting and tree planting.

APPLES.

I regret that I cannot report favorably regarding apple trees. We have tested about one thousand trees and over seventy-five different varieties, and have nothing left to show for it but useful experience which you may profit by.

CRAB APPLES.

You can risk these. The Transcendent is, so far, perfectly hardy, and I expect it to bear soon. Whitney's No. 20 and Hyslop are also safe, and Orange, Early Strawberry and Queen's Choice as well.

CHERRIES.

Not very successful, the upper branches killing back a good deal with the frost, and they shoot up from the roots. Osthelm and Early Richmond have proved hardiest.

PEARS

we hardly expect to live. Our imported Russian seedlings look very bad this spring.

PLUMS

are more promising. The native plum is very good, and can be procured in numerous parts of the country, and by selection and cultivation I believe can be much improved. The De Sota is a very hardy plum, and the Early Red promises well. Other varieties tested, very tender.

When we come to small fruits the outlook is much more hopeful, and there is no reason why large quantities should not be grown in every farm garden of nearly all varieties of currants, and a long list of berries. In starting a garden, or, for that matter, planting trees, the first thing is to construct a good strong fence to keep out live stock. In sixteen years, during which time I have travelled pretty much over this whole country, I never saw a good avenue of trees that was not protected by fences. In fact, where this is not done it were better not to plant trees at all, for it discourages the man and all who see the poor results. Small fruits propagate readily. Take cuttings in the fall, about eight inches long; cut near the bud; put in a box in layers, covering each with sand till the box is full, then

put in a cellar over winter. Spring cuttings will not live. Plant the cuttings in spring carefully; as the plants grow, trim them well up to the top. Red and white currants bear on two-year-old wood, and black ones on wood one year old. Bear this in mind in pruning. Of

BLACK CURRANTS,

Lee's Prolific and Black Champion are good; Fay's Prolific and Red Ruby Castle being best of the red varieties, and White Grape of the white sort. After testing some thirty varieties of

RASPBERRIES,

I have found the Philadelphia the hardiest, though the Red Turner is nearly as hardy, and of better quality. I can also recommend the Gairloch blackberry and the Hillborn Black Cap. Plant in straight rows and keep clean, using a horse cultivator or, if necessary, a plow occasionally to tear up the ground, then prune severely and remove the old dead wood. Of

GOOSEBERRIES,

besides the native, the Houghton has been found perfectly hardy and requires plenty of pruning. A young lady in the audience asked about the Industry gooseberry.

Mr. Bedford (continuing)—It is too tender for this climate, and the same may be said of Smith's Improved.

STRAWBERRIES,

Our young plants are looking well this season, but the old ones suffered severely during the past winter. The strawberry requires a good, rich soil, leaf-mold for top dressing being especially beneficial, and in winter the plants should be mulched with clean straw, which should be left on till May 24th, when danger will be past as a rule. When two crops have been taken off, a new plot should be ready to start the following season. The Crescent is an excellent berry, but must be planted with a variety bearing perfect flowers, such as the Wilson. The strawberry patch should be well sheltered, a good plan being to have it well surrounded by bluff.

ORNAMENTAL AND FLOWERING SHRUBS,

The Cut-leaved Weeping Birch and Laurel-leaved Willow are beautiful trees. Besides these we have a long list of easily grown flowering varieties, such as Lilacs (*Spirea*), ten kinds, the latter affording a profusion of beautiful bloom; *Cytisus capitatus* (the common and purple Berberry); Snowballs (common Virbarnum and Lantana), Snowberry, Rosa Rugosa, Southernwood, Flowering Currants, the Caragana or Siberian Locust (five or six varieties) and others. The Siberian Cornus, with its bright red bark, and Vornish Willow (yellow) are decidedly attractive. Growing together their bright colors form a fine contrast and catch the eye from a distance. The Laurel-leaved Willow has a green, shiny coat. A particularly hardy plant is the Rosa Rugosa, bearing an abundance of double flowers. Climbers, such as the Native Ivy or Virginia Creeper (*Lycium Europeanum*), also do well and add greatly to the beauty of the house, especially in autumn when their deep colors are out. What we want to do is to make our prairie homes home-like, so that the people (especially the young people) will come to appreciate the country, and, seeing the advantages it possesses over the city, remain there. I hold that the farmer is just as much in duty bound to provide a good garden—fenced, ploughed and worked—for his wife and daughter, as he is to grow wheat and oats; in fact, more so, for the mind and soul of man to which beauty ministers are more important than the stomach.

Every farm should not only have its field and vegetable garden, but its flower garden as well. Very early bloom, tulips, for example, are very easily grown from bulbs. We have now probably two hundred in blossom on the farm at Brandon, and it was a great treat to the eyes, peering up through the tall grass. There are Asters and Zinnias, though late in season, but well grown; also Sweet Williams, Double Delphinium, Flowering Flax, *Delphinium*, and *Delphinium*, which do splendidly; Verbena, *Delphinium*, *Delphinium*, Sweet Peas, *Delphinium*, and *Delphinium*. Manitoba is the natural home of the garden, and the unbroken prairie is a beautiful garden. I have counted in a drive of three or

six miles as many as thirty varieties of native flowers in blossom at one time, so that there is every encouragement if we will only but set ourselves about it.

I intended to have spoken more fully on forest trees, but time will only permit of my mentioning some of the varieties found (both hardy and rapid growers) in this climate. These are, first, Native Maple or Ash-Leaf Maple, Native Elm, Native Green Ash, White Birch, Native White Spruce, Russian Poplars (five varieties), Tamarac, Cottonwood (northern grown), Willows (four varieties). These are all hardy if grown from northern seeds or cuttings, but may all fail if from southern or south-eastern stock. We have illustrations of this all through our tree nursery, and care should be taken to procure only northern stock.

I would advise planting deep, and in rows so as to permit of horse cultivation. Cultivate on the surface often; allow no weeds to seed, and should any trees when planted in permanent locations die, have them replaced as quickly as possible, for nothing injures the appearance of an avenue as much as trees of all sizes and ages.

All the poplars and willows in this collection are propagated from cuttings made in the fall, and the balance are grown from seed, either naturally or in seed beds. We have already this spring distributed fifty thousand seedlings and cuttings from the Brandon Experimental Farm, and I shall only be too happy to afford any information or to supply cuttings of plants or trees in order to encourage this good work, knowing that these things will not only enhance the value of your farms by their beauty, but add much that mere dollars and cents cannot measure to the pleasure and comfort of your lives.

Mr. J. Parr—You made the remark that there was "tree planting" and "tree planting." What is the proper way?

Mr. Bedford—I have pointed out already the necessity for fencing out stock, which must be done at the outset. The ground should be clean and thoroughly prepared—after summerfallow or roots is best. Remove the cold subsoil from the bottom of the hole where the tree is to be set and fill in some good surface mould. By all means I would recommend nursery grown trees in preference to those from the bush, as they have a better root, more matted and fibrous. On the Experimental Farm we use little or no water in planting, but firm the earth solidly about the roots. Cultivate between the rows, and keep clean. By sowing in rows seeds of such trees as the Native Maple, any farmer can start in his garden a little nursery bed from which to transplant. Do not try to make a great show at first by setting out large trees. Trim the tops so as to correspond with the size of the roots.

A Creamery for Solsgrith.

An influential meeting was held on June 7th at Solsgrith to make final arrangements for the building of a creamery to be under the management of Mr. F. Tucker, a gentleman who has had considerable experience in buttermaking in England, Ireland, and New Zealand. The majority of the farmers in the district of Solsgrith purpose sending all their cream, they having come to the conclusion that thereby their profits will be greater than in exclusive wheat-growing. The following directors have been duly appointed:—Messrs. Geo. Porter, L. Ridout, Jas. Harrison, and Jno. Carson.

The cream from 200 cows was guaranteed, which, when the creamery is in working order, is expected to increase to 500. It was decided to call for tenders at so much per pound of butter for the drawing of the cream to the factory. Arrangements were made by the patrons to draw the material for building a concrete creamery, operations to commence without delay. Mr. L. Ridout has been appointed general secretary, and Mr. J. S. Anderson, treasurer.

Cattle Breeders' Association.

Mr. W. S. Lister, of Middlechurch, Secretary of the Pure-bred Cattle Breeders' Association of Manitoba and the Territories, has arranged for the annual meeting to be held in the City Hall, Winnipeg, on Thursday evening, July 23rd, at 8 o'clock—the week of the Industrial Exhibition.

Ensilage a Cheap Cattle Ration.

At a meeting of the Brandon Farmers' Institute during the past season, a statement was made by a gentleman who had visited Ontario, indicating that by the use of ensilage a well-known cattle breeder in that province had been able to reduce the cost of feeding yearlings and two-year-olds, if we remember aright, to a very low figure; in fact, it was disputed by one member of the Institute as being hardly credible, and we may state that he had himself used ensilage extensively in the east. The editor of the FARMER'S ADVOCATE, who was present on that occasion, at once wrote to the breeder in question, Mr. D. E. Smith, of Churchville, Ont., asking for a statement of the facts of the case. Mr. Smith in reply writes that at the Ontario Institute meeting where his statements were made, opportunity was always given for anyone to challenge them or to ask an explanation, but no one contradicted them or disbelieved his remarks. With regard to the result of his experience in growing corn and making ensilage, he gives the following:—

COST OF ENSILAGE (ONE ACRE.)

Plowing	1 50
Harrowing and rolling	1 50
Seeding and Planting	1 50
Cultivating four times	2 00
Hoing and weeding	2 00
Putting into silo	8 50
Total	\$17 00

"Per acre the corn yielded from 15 to 20 tons, so that the cost would be from \$1 to \$1.25 per ton. I stated that I did not take into consideration the rent of the land, the manure put on, and the manure obtained from the food from that acre, as farmers usually reckoned the cost when they had the land and the manure, and I followed their plan. That explanation was frequently given. I also took into consideration the manure and land cost, but did not find such a difference. The cost per ton was thus \$1, and our young cattle ate forty pounds per day, which would be two and one-quarter cents per day each. The other ration consisted of hay, bran and turnip, and cost us, according to market prices of these, eight cents each per day. There are farmers who are losing money every year in feeding, and no doubt intend to do so, for it would require an earthquake to convince them that ensilage was a good and cheap food. Such men had better follow the old way, they will be happier; but if we are to keep up with the procession, we must feed cheaply. Not only was there this great difference in cost in favor of good corn ensilage for food, but the young cattle fed at two and one-quarter cents per day came through the test in just as good condition as those fed at a cost of eight cents per day."

With regard to ensilage in Manitoba, the experience at the Brandon Experimental Farm last winter demonstrated its usefulness in the production of beef and milk. The management of silos, and the securing of suitable corn for the making of ensilage in Manitoba, is not so easy as in the province of Ontario. Mr. Bedford is greatly pleased with the early maturing qualities of North Dakota corn, and it will be thoroughly tested on a large scale this season. Immature, watery corn will produce low grade ensilage. There is another difficulty to be overcome in the construction of silos, and that is to prevent their contents from freezing during the severe winter weather, as ensilage will inevitably spoil if frozen. So, partly with this object in view, the FARMER'S ADVOCATE offered a prize of \$5 for the best plan of cattle barn with silo inside. Undoubtedly, to get the best results, either in beef or milk, from a ration of grain, hay, straw, etc., it is necessary to combine with it some such succulent food as ensilage. As far as the feeding tests at Brandon Experimental Farm last winter were concerned, roots did not appear to "fill the bill" as well. Though otherwise fed the same, when ensilage was removed from the ration the daily gain in beef and the milk yield of dairy cattle both fell off seriously, and when ensilage was re-stered the rate of gain was resumed in both cases.

Golden Bally 12159.

The accompanying illustration represents the handsome standard-bred stallion Golden Bally 12159. He was bred by Mr. H. C. Bowman, Burlington, Iowa, and is now the property of B. J. McConnell, M. D., C. M., Morden, Man. In color he is a beautiful chestnut with splendid mane and tail. He stands 16 hands high and weighs about 1,100 lbs., has exceptionally good feet and legs, and is of that useful form that is so much desired. His breeding runs in the most popular lines, being a combination of Hambletonian and Clay blood, among which are such names as Onward, 2:25 $\frac{1}{4}$; George Wilkes, 2:22; Kentucky Clay, Lakeland Abdallah. Golden Bally's sire was Balaklava 1853, by Onward, 2.25.

Manitoba agriculture, and with which ADVOCATE readers have been kept fully informed.

In view of the large yields of coarse grains that can be so cheaply grown, and the immense quantities of wheat which through being frozen, or, as in the past season, so damaged in stacks as to be unfit for making flour, he counselled its conversion into animal products, beef, pork, mutton, wool, and dairy products.

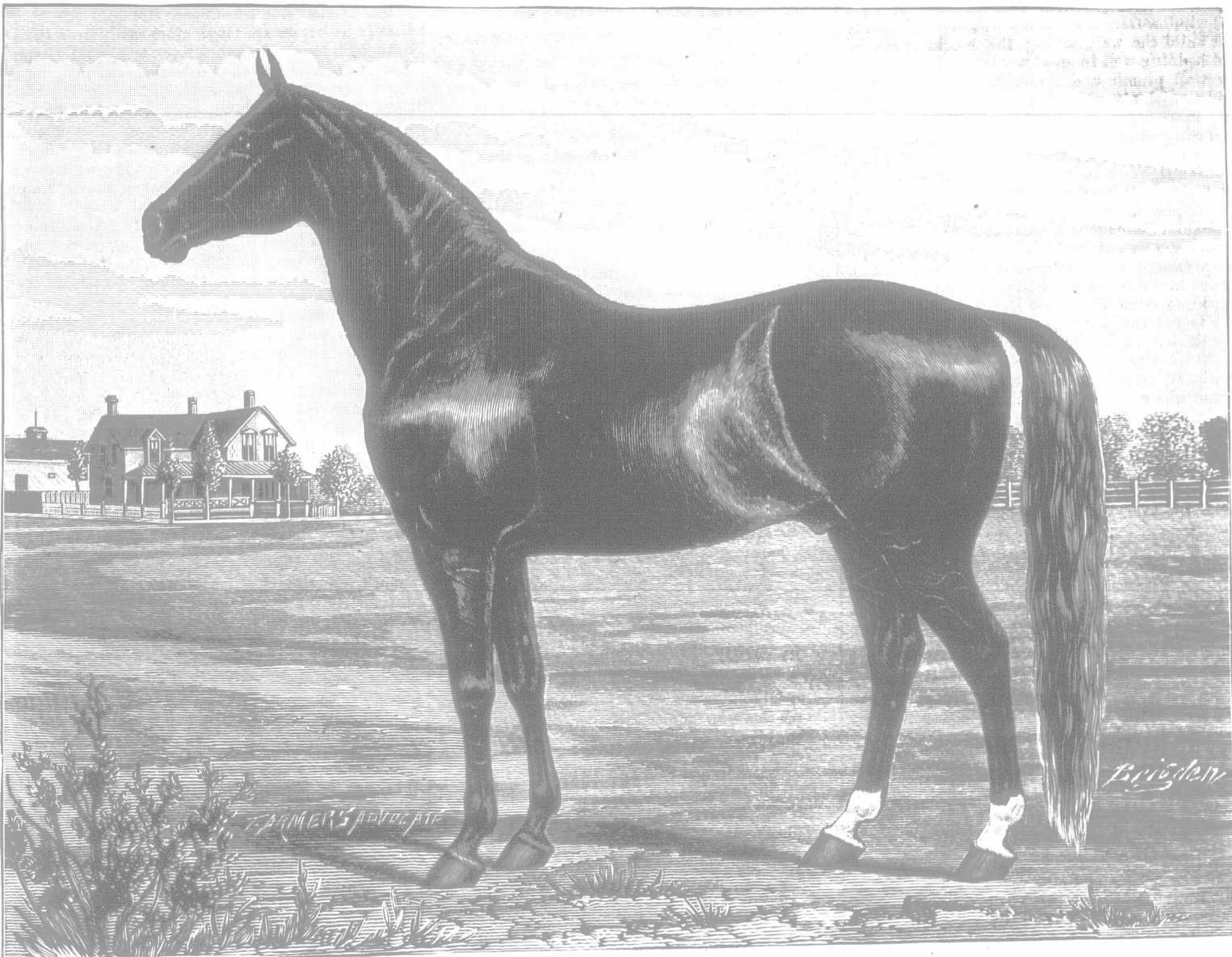
Constant cropping would inevitably deplete the soil of its fertility, to maintain which manure would be needed, and he held to the view that it would be found that proper applications would hasten the maturity of the grain. Instances had been reported to him where a light dressing had caused it to ripen four or five days earlier.

In suitable districts he did not counsel farmers

had a yellowish tinge, it made more bread than Fyfe flour, and tasted just as good.

At the Ottawa farm, Prof. Saunders had originated about 140 new sorts of wheat by crossing, and they were in hopes of getting a few really superior varieties in that way. For example, from a cross between Campbell's White Chaff and Ladoga they had secured a most promising sort named Abundance; and by crossing Ladoga and Fyfe it was hoped to combine the earliness of the former with the special excellencies of the latter. Of course, they were not yet ready to distribute samples of these varieties, but soon would be. Last year they sent out from the Experimental Farm free 16,000 grain samples, or about 24 tons.

By feeding to swine Manitoba wheat so badly frozen as to be unsaleable, they were able to



THE STANDARD-BRED STALLION GOLDEN BALLY 12159, THE PROPERTY OF DR. B. J. MCCONNELL, MORDEN, MAN.

His dam, Fanny B., was by Grandson 1192, he by Lakeland Abdallah, Fanny B's dam being Clara Jones, by Membrino Chief.

At the late Morden Spring Fair, Golden Bally won first prize amid keen competition.

"Economic Farming."

POINTS FROM THE ADDRESSES OF PROF. JAS. W. ROBERTSON BEFORE MANITOBA INSTITUTES.

The Dominion Dairy Commissioner, Prof. James W. Robertson, of Ottawa, who took a series of Farmers' Institute meetings in this province last month (June), was well received, and his addresses commanded the closest attention, beginning with the gathering at St. Jean Baptiste. He outlined the work which has been undertaken through the Central and Brandon Experimental Farms for the advancement of

to cease growing wheat, but a very great many of them should grow less area and better, securing a larger yield of superior quality. They should be in a position also when the contingency arose, as it often did, to convert grain into animal products.

In order to secure good crops, five conditions were requisite: Good soil, which the Manitoba farmers had; good seed, which they might have; good cultivation, which they could have; good management, which they ought to have; and good weather, which they did not always get,—but over the first four essentials they had control, and by means of that control might make themselves secure, despite the summer frosts.

Pure Ladoga wheat, he said, was a hard variety, and would ripen earlier than Fyfe. A carload from the Prince Albert district had been tested at Toronto for its milling qualities, and while it was found that the bread made from it

make a fraction over 16 lbs. of pork from every bushel of wheat, and sold at 5 $\frac{1}{2}$ ¢ per lb., live weight; so that they had got 84 cents per bushel for the wheat. The wheat was crushed and soaked before feeding. Wheat would make bacon with more lean in it than corn or barley. Winnipeg should become to the Province and Territories what Chicago is to the Western States in pork packing and bacon curing. Ground frozen wheat fed with ensilage proves their cheapest ration in steer fattening, and, besides, the beef proved to be of the very choicest flavor, color and texture.

In order to get the best results from a herd of dairy cows, they must be well-selected, properly stabled in the winter, be given succulent food, such as ensilage or roots, as well as grain and hay, and be milked ten months in the year, instead of five. The cow was an imitative animal. If her owner loafed around all winter and produced nothing, she would fall into the same unprofitable habits.

Building With Blocks.

BY E. PARKINSON, CYPRUS RIVER, MAN.

I think it has come to be a generally recognized fact that to make farming the success it should be in this country, we are going to have to go in for more stock, and not have so much frozen wheat to sell at 25 to 50 cents per bushel. One of the things most urgently needed in this country is some means of putting up better and cheaper buildings. I would like to put before your readers a plan I have been devising. I intended to try the plan of putting up a building this summer, if possible. My plan is this, take any kind of good, sound timber, from 3 to 4 inches in diameter upwards, and cut into blocks 10 inches long, and after being well seasoned and the bark all taken off, commence to build as follows: Lay a good foundation and set up a post, 10 inches square at each corner, bracing well to keep in position, also putting in door and window frames where needed; then commence and build the wall, laying the blocks crosswise and bedding well in good mortar. For keeping the wall plumb and straight, a line could be used as with stone or brick, or a board securely held in position, building the wall to it. The wall could then be painted or whitewashed both inside and out, and for a house, if desired, could be sided right on the wall outside and lathed and plastered inside. For outbuildings it might be a good plan to dip the ends of the blocks in boiling tar before putting up the wall. The timber of a building of this kind could be got anywhere where farmers can get firewood. Two men with a good saw would soon cut up enough blocks for a good sized building, and any farmer should be able to put the building up without the help of any skilled mechanic. A good plan for cutting the blocks even length would be to take three planks 12 or 14 feet long and nail them together like a common trough without any ends, take your saw and cut down the two side planks every 10 inches, then lay your log or pole in the trough and work the saw in the cuts. By doing this way the blocks will be all the same length. Of course, a circular saw and an engine would be faster, but everybody has not got these machines.

Pedigree in Wheat Culture.

BY JAMES DALE, GRUND, MAN.

As a farming community, one of the principal features of success is to raise as large a quantity as possible per acre, and as near No. 1 as we can get it. Wheat being our staple crop in Manitoba, it is of the greatest importance that it should be of as good quality as it is possible to raise, and free from smut.

In order to do this the seed should be at least sound and clean. A practice detrimental to a first-class article is selling the best and keeping the worst, or if this is not raised at home, buying from a neighbor who has either frozen grain or damaged in some other way, and from 15 to 20 cents per bushel cheaper than the good wheat, making a difference of from \$30 to \$40 on each 100 acres sown, allowing 2 bushels per acre for seed. Now, at 20 bushels per acre, and a loss of 5 cents per bushel for bad seed, on each 100 acres the loss will be \$100, or at 10 cents \$200. On the principle that the best produces the best, I have adopted the plan of selecting carefully the best seed I can obtain each year. To do this I generally take about 100 bushels of my best grain and screen out at least one-third, sowing the balance on either summer-fallow or backsetting, using this for seed the following year. I have followed this practice for the last seven years; have no smut, and in that time have used no preventive against smut.

I sow the White Fyfe almost exclusively. If I were to grow the Red I would use bluestone, as I think it more liable to smut than the white variety. In all cases smutted wheat for seed should be avoided if possible. Last year, as an experiment, I took 100 grains of good clean White Fyfe and rubbed it with smut, I also took 100 grains of the same wheat without smut, and as a result there was at least 25 per cent. of smut in the smutted grain; the other was free from smut.

Portage la Prairie Fair.

The directors of the Portage la Prairie and Lakeside Agricultural Society, like those of many other exhibitions in Manitoba, have adopted the summer show idea, and have selected Thursday and Friday, July 21st and 22nd as their dates. This will bring them between Brandon and Winnipeg in a circuit, and enable them to secure the presence of many live stock and other exhibitors whose presence otherwise could not be expected.

Horses, Galloways and Fertilizers.

BY J. WALTER WRIGHT, BEDEQUE, P. E. I.

At this time, when nearly all farmers are interested more or less in the fertilizer question, I thought it might not be amiss to give our experience in that line. Last spring we had some fertilizer books sent us, and testimonials recommended the stuff so highly that we thought we would try some. We purchased about 2 tons of "Clark's Bay State," "Imperial Superphosphate" and "Mapes' Potato Manure," all so-called complete fertilizers. The two former brands we applied to wheat, oats and fodder corn, about 250 lbs. (cost \$5.00) to the acre; we had to sow it by hand just before the last harrowing. It was a very dirty job, but we comforted ourselves with the thoughts of the great improvement there would be in the crops, but we were doomed to disappointment. In one piece of oats the crop was just as good where there was no fertilizer as where there was. In another field we thought we could detect a slight improvement in the crop where the fertilizer was sown, but could not tell by the crop where the fertilizer ended. In the corn it was impossible to tell to which rows the fertilizer had been applied.

The "Mapes" we applied to potato ground, 400 lbs. (cost \$12.00) on $\frac{1}{2}$ an acre, in connection with barnyard manure, and here we obtained the best results, but even then it is a question if the increase in crop paid for the increased cost. We consider these tests fair, as the land, though good, is not very rich. We have come to the conclusion that unless there is barnyard manure or humus in the soil in considerable quantities, the application of commercial fertilizers will result in a loss, and even when applied with barnyard manure the cost is so great that it swallows up all the profit.

I was much interested in the article in March number of ADVOCATE on Horse Improvement, which shows the writer to be well posted on the subject, but there is a point or two I do not understand. For instance, Mr. Wilson says, under "Draught Horses," "the great fault with our horses is the want of type and quality;" then, under English Coach horse, "light-legged horses are much easier bred than draught horses, because in the former it is type, quality and action, while in the latter it is size and weight." But to go back to the first of the article, Mr. Wilson says, in the large cities of the States "good-looking working horses, all in fine condition, weighing from ten to sixteen hundred pounds, are selling daily at prices from \$50 to \$100. Now, I would like to know what was the matter with those horses, or was there anything the matter, or is that all we can expect to get for draught horses? Surely they had size and weight enough.

In the same number, "Scotland Yet" has a long letter on Polled cattle. I have always heard they take so long to mature, and, not being so large, that there is more money in the Shorthorns. Is there more money in the cross between the Shorthorn and Poll than in the pure-bred Shorthorn? If not, what is the good of breeding Polled cattle at all? for money is the thing that must rule every time.

MR. WILSON'S REPLY.

In my article in the March number, there are several points Mr. J. Walter Wright does not understand. I will explain these as they appear in the article.

The cause of the low price paid for working horses in the United States is the over-production of those of medium and poor quality. Such a condition is not surprising to those who know the number of draught stallions that have been imported into the United States during the last fifteen years. Americans seem to have a craze for everything new. The draught horse craze has subsided, and at present the Hackneys are booming. This undesirable condition of things will exist until farmers are educated to know the different classes of horses used for hauling the various kinds of vehicles, and mate their mares so as to produce just the sort of animal required. There is no country in the world where there are so many nondescript horses reared as in America.

Under the English Coach Horse, I mention that light horses are much more easily bred than draught horses. I should have said good Coach Horses are much more easily produced from our light-legged mares than draught horses. The first cross from a highly-bred, typical English Coach horse, and a light-legged Canadian mare would be in ninety cases out of one hundred very satisfactory, but it would take four or five successive draught crosses on the produce of such a mare to produce a satisfactory draught horse. How few farmers have been continuously mating their mares with a horse of the same breed and type. Because they have not done this, we have to-day a vast number of nondescript and comparatively worthless horses.

Of the horses shipped from Canada to France last summer, the few that were of suitable type gave satisfaction, the fault being want of type and quality. They lacked this because they had not been continuously crossed in one line, and their sires had not been of one type. It is gratifying to know there is a strong demand in France and Great Britain for Canadian horses.

A. WILSON, Paris, Ont.

Galloway Cattle.

BY WM. KOUGH, OWEN SOUND, ONT.

In answer to Mr. J. Walter Wright's remark on the letter of "Scotland Yet," he states that "I have always heard that Polled cattle take so long to mature, and not being so large, that there is more money in Shorthorns," and then asks the question, "Is there more money in the cross between the Shorthorn and the Poll than in the pure-bred Shorthorn? If not, what is the good of breeding Polled cattle at all, for money is the thing that rules every time?" Now, sir, these are pertinent, the remark and the question, and in my reply to them I shall confine myself to my own experience in my own experiments in my own herd.

I have in my own herd of pure-bred pedigreed Polls (Galloways) heifers of 30 months old weighing over 1,450 pounds—last fall I showed the cow, Countess of Galloway 2nd (imp.) 4618 (10089), 5 years old, weighing 1,810 pounds—and bulls 3 years old, 2,400 pounds weight. I have sold Polled steers, the produce of a Galloway bull on small Shorthorn cows, grade cows and scrub cows, at 30 months old, from 1,600 to 1720 pounds weight, so the fact is shown that pure-bred Galloway Polls and Grade Galloway Polls mature as early and are as heavy as Shorthorns; and that there is more money in the Polls is shown by the fact that the Polls consume by preference a rougher and cheaper grade of food, I have seen them in a bullrush swamp eating the bullrushes and the coarse saw grass that no other cattle would touch although starving, and also that when killed they dress from 7 to 15 per cent. more than the Shorthorns; also, that the fat Polled beef is of a finer kind, bringing in the market from 1 to 2 cents more a pound live weight, not so coarse, and is well marked, the fat not being laid on in large uneatable masses that go to the grease tub, as in the Shorthorn. The taste of to-day has changed from what it was 20 years ago, and the excessive fat meat will neither sell nor be eaten.

In the question, "Is there more money in the cross between the Shorthorn and the Poll than

in the pure-bred Shorthorns? If not, what is the good of breeding Polled cattle at all, for money is the thing that rules every time?" I answer this question, "Yes, certainly; but there is more money for Mr. Wright in the Poll produce by the Galloway bull crossed on any cow he can get, for he can obtain for far less money a Galloway bull and a lot of horned cows, than a Shorthorn bull and a lot of Polled cows, for he will find the Polled cattle scarce and dear, and my experience tells me that I can produce the very best polled cattle by the use of a good Galloway bull and any kind of horned cows that can be picked up in any neighborhood in Canada. In using the pure Galloway bull I have used the best I could get of the improved heavyweight Galloway; not the hill Galloway, which is smaller and undomesticated."

The question of breeding for a certain purpose is surrounded by many clouds; the old breeders and improvers, such as Colling, Booth, Bate, Watson and McCombie, were thinkers, workers and experimenters, and have not left on record all their inmost thoughts or experiences on the subject. At least one of the above-named Shorthorn improvers used Galloway blood, to give his cattle constitution, and perhaps other qualities, and then bred the color out, after which his cattle brought large prices, and were known as the alloy.

For our cold winter, I am satisfied there are no beef cattle equal to the cross of the good Galloway bull on the common cows of the neighborhood, be they pedigreed Shorthorn, grade Shorthorn, or scrub cows. They will stand hardships, and if fed generously will make a better return in money than any other. I have experimented with cattle for twenty-five years; for 10 years with Galloways, and my farmer neighbors within twenty miles are at last coming to my way of thinking, and I have sold them some dozen or more bulls, and the fashion is spreading. The late bulletin on feeding steers at the Guelph college bears me out, as the following results show, on the losses and profits on eight steers, all sired by a pure-bred sire from a common cow, except the scrub, which was pure-bred.

On the Shorthorn fed on whole milk there was a loss of 21 cents.

On the Aberdeen Poll fed on whole milk there was a loss of \$5.06.

On the Holstein fed on whole milk there was a loss of \$8.22.

On the Scrub or Native fed on whole milk there was a loss of \$13.11.

On the Galloway fed on whole milk there was a profit of \$15.15.

On the Hereford fed on whole milk there was a profit of \$1.40.

On the Devon fed on whole milk there was a profit of 92 cents.

On the Shorthorn fed on skim-milk a profit of \$9.06.

The Galloway was bred at my farm from a scrub cow and a pure-bred Galloway bull, Royal of Brooke 3970, bred by me, and I believe the steer was entitled to a further sum of at least ten dollars as being superior in dressing per cent., as well as superior in quality of beef to all others.

Our Scottish Letter.

The month of May is one of the busiest in the whole year in respect of agricultural shows, and a detailed list of all of them would occupy much more space than the editor will be disposed to place at our disposal. Perhaps a general review of the whole situation may be of more interest to Canadian readers than a detailed account; and first in regard to the classes of Clydesdales, which were disappointing. To this category belongs the class of two-year-old colts at all the shows. Whatever be the cause, there is a distinct lowering of the average quality with which we have been familiar in recent years in this class. However it may arise, that which in 1891 was the strongest class, has so far in 1892 been the weakest. It is much more easy to state this fact than it is to account for it, and the difficulty is increased when the fact is stated that the class of two-year-old fillies is, without doubt, one of the best classes of the season. One

suggestion that occurs is that the horses which have proved so successful in breeding first-class fillies are not making the same reputation for themselves with colts, and I confess that for myself that is a view which gives rise to a good deal of reflection. Has there not been too much a tendency to favor qualities in male Clydesdales which are more peculiarly feminine? We have seen many colts which are not forward in the showyard, not because of any lack of merit, but because there is in them a lack of size and weight; and this leads us to conclude that the rage for beauty apart from weight and substance in males has spent itself. The two-year-old colts that are forward this season are, as a rule, big enough and of considerable weight, although there is a notable exception; and seeing that the home trade must be more and more dependent on the demand for work horses, this is a fact on which we may congratulate ourselves.

Yield mares are numerically a weak class, but the weakness does not extend beyond the matter of numbers. In every other respect the class is a peculiarly strong one. The champion mare at Glasgow, Mr. George Alston's Vanora, has been leading in this class, and is a really splendid animal. She is heavy, massive, well-colored, sound in foot and limb, and altogether a magnificent example of a Darnley mare. Taken all in all, I would be disposed to regard her as the best daughter of Darnley that has ever been shown. Her son Vanora's Prince, a gay horse, by Prince of Kyle, has been first at all the principal shows except Glasgow, where he was second.

A most gratifying feature has been the quality of the brood mares at all of the shows. The class has been numerically strong, and it has been even stronger in quality. Indeed, it is long since so many really high class mares have been shown as matrons in one season. Unfortunately there has been considerable difference of opinion amongst judges as to the relative positions which these mares should occupy, but possibly the very fact that the quality has been so uniformly high is largely accountable for this. Sunray's appearance at Kilmarnock was a revelation, Scottish Marchioness at Ayr was in capital bloom, Topsman's Princess at Maryhill looked a formidable opponent for one and all of her competitors, and the grey mare Rose of Banknock at Glasgow certainly left nothing to be desired in respect of weight and power.

Three-year-old fillies form what is generally regarded as the best class of the season. Mr. Robert Murdoch's black mare Duchess II. by Prince Lawrence, has held her own against all comers, and been first wherever shown up to this time. She is a mare of excellent quality, a good mover at all paces, with a first rate top, and altogether a mare not easily beaten. There may, probably, be new opponents for her at Inverness, but in the meantime she is *facile princeps* in her class. The cup-winner at Maryhill, Lady Lothian, owned by Mr. William Park, Brunstone, Portobello, was second at Glasgow. She was bred in Cumberland, and is an upstanding, gay and stylish mare of plenty of size and weight. Her sire, Lord Lothian 5998, is, I think, not unknown in Canada, whither a number of his stock has gone. He is a son of Top Gallant, of grand size and weight, and he has left first-class stock in Cumberland. Still another first-rate mare of this age is the third prize mare at Glasgow, Bridesmaid, owned by Mr. John Douglas, Braes o' Yett, Kirkintilloch. She was champion mare at Dumbarton, and was got by Druid Chief. This is a mare which is a great favorite with many, and high prices have been offered for her. The fourth prize mare of the same class at Glasgow was the well-known Mary Anderson, a daughter of Flashwood, and one of the first of three sisters that have done extra well in the show ring. These are four choice mares, and it is notable that the first three have been champion females at three very important shows this season—Duchess II. at Hamilton, Lady Lothian at Maryhill and Bridesmaid at Dumbarton.

Two-year-old fillies, as I have already hinted, are a first class lot of young Clydesdales. The

successful exhibits at Glasgow were all owned by gentlemen who have done much to enhance the value of the breed by their vigorous patronage. Mr. Lumsden, of Balmedie, was first with his splendid young mare Enchantress, winner of a similar honor last year. She was bred by himself, and was got by his own horse Royalist. There are not many mares of her class in the country. Mr. David Mitchell, of Millfield, was second with the superb mare Lillie Langtry, own sister to Mary Anderson referred to in the preceding class. This is a mare of much substance and beautiful quality. Her sire, Flashwood, is making a reputation for himself as a sire of a superior class of fillies. Mr. Mitchell was also third with his fine mare Maritana, by Excelsior, and Mr. R. Sinclair Scott was fourth with Scottish Ruby, by Prince Lawrence, the first prize-winner at Kilmarnock. Mr. Watson, of Earnock, was fifth with the Sirdar filly, Bell of Earnock. It is noteworthy that of these five fillies, four are got by sons of Darnley, and the fifth, Scottish Rubby, is out of a Darnley mare.

Yearling fillies are a capital lot of animals. Ellen Terry, owned by Mr. David Mitchell, and own sister to Mary Anderson and Lillie Langtry, was first. She is a filly of fine quality and power. The dam of these three fillies is Maritana 8406, a very useful, old-fashioned Clydesdale mare, by Premier Lyon 2323, out of a mare by Drumflower Farmer 286. An own brother to Maritana has been exhibited this season at all the leading shows in the aged gelding class. He is one of the grandest horses seen for many a day, and has never been beaten, so far as I know. This shows that the family is an uncommonly good one, and certainly Maritana and her daughters have done enough to make the reputation of any family. The remaining prize-winners amongst the yearling fillies were got by Gallant Prince, Prince Fortunatus, Royalist, Flashwood and Sir Everard. These sires are a guarantee that the youngsters were of considerable merit.

The show of three-year-old stallions was a very grand one. Mr. W. S. Park's Gallant Poteth, the Glasgow premium horse, was first. He keeps his form well, and is a popular horse. Mr. Riddell's horse Sir James, the Lesmahagow horse, was second. He was bred by Sir James Duke, Bart., and is a useful, well-colored horse. Crusader of Orchardmains was third. This is a capital horse. In Canada he would be invincible. He was bred by the Lords Cecil, and is now owned by Messrs. P. & W. Crawford, Eastfield House, Dumfries. Got by the fine horse Claymore, out of the celebrated Edith Plantagenet, and possessing many of the best qualities of his dam, Crusader is a horse not easily beaten. Mr. Johnston's William the Conqueror was fourth, Mr. Alex. Scott's Prince Wyben fifth, and the Balbirnie Prince of Scotland sixth. These three are sons of Prince of Wales.

The best two-year-old was Darnley Again 9182, a grand big horse owned by Mr. William Clark, and got by Darnley's Hero. He was also first at Maryhill, and is a horse of much grandeur and style.

The prize-winners in the class of yearling colts were got in order by Goldfinder, Prince Fortunatus, Earl of Glasnick, Prince of Kyle, Gallant Prince and Flashwood.

A very important sale of Clydesdales, Ayrshires and Border Leicester sheep was held at Tinwald House, Dumfries, on 17th May. Good prices were realized for the Clydesdales, the brood mare Tinwald Forest Flower 9527 realizing 400 gs. or £420. She was got by Macgregor, and was thus another example of the high value of his mares. It may safely be affirmed that no female Clydesdales sell to greater advantage than the daughters of Darnley and Macgregor. SCOTLAND YET.

A writer in Clark's Horse Review says:—"Three stallions have trotted in 2:10 or better. They are Nelson, 2:10, Allerton, 2:09½, and Palo Alto, 2:08½. Only one of them, Allerton, is bred according to the popular theories of the day, or in what would be called ultra-fashionable lines. Indeed, it is within a twelve-month a prominent breeder asserted he would not breed to Allerton, because he was not richly bred according to his ideas."

tern is the three-year-old horse Albion's Hero, a son of the Prince of Albion, whose sale for 3,000 guineas electrified the whole Clydesdale world and out of a mare by Lorne. Albion's Hero is a nice bay, with two white hind feet. He shows a great deal of quality, having nice, clean bone, together with good feet and pasterns—a thick, sweet horse all over, he should leave his mark in the Isle of Arran, where he goes this season. Mr. Taylor keeps some thirteen or fourteen mares breeding, among them being the get of such horses as Ivanhoe, St. Lawrence, Lord Beresford,—this last, a horse of unusual quality, having been purchased from Mr. Taylor by Mr. Thomas Knaggs, Vandecar, Ont. Besides his Clydsdales, Mr. Taylor keeps on hand a choice selection of Hackneys, of which breed he has sent more than one good one across the Atlantic, notably the horse Norfolk Swell, winner of first place at Toronto in 1890, and now owned by Mr. Asa Choate, of Port Hope; also Sunlight and Dereham Goldfinder, both sold to Messrs. Prouse & Williamson, Ingersoll, Ont. At the time of our visit Mr. Taylor's stock of Hackneys was very much reduced by recent sales, but he informed us he expected to have a few good ones on hand this summer for his American and Canadian customers.

HATTON BISHOPTON.

Few horses are better known in Clydesdale history as successful sires than Lord Erskine, whose sire, Boydston Boy, is now owned in Canada by Messrs. Sorby Bros., and the fact that Lord Erskine was bred at Hatton by Mr. Park, who still owns his dam, the famous old mare Hatton Bella, by Tim o' Day, is sufficient to make a visit to Hatton a *sine qua non* to Clydesdale fanciers when in Scotland. Mr. Park, who kindly met us at the station and drove us over to Hatton, has, to use his own words, "been breeding Clydesdales twenty years, and his father before him." The farm of Hatton consists of some 450 acres, and the stock kept are principally Clydesdales and Ayrshires. Of the former the mares in foal this year are ten in number, the get of such sires as Lord Erskine, Darnley, Top Gallant and Belted Knight, while the stallions used have been Prince Alexander and Prince of Albion, Gallant Poteath, Royal Signet, and Blythe Prince. Of these, it is needless to say anything about the first two, as their history is known to every Clydesdale man in Canada, except to point out that the Cawdor Cup fell this year to Prince Alexander, while of the other three Royal Signet and Blythe Prince are both by the old Prince of Wales, the latter's dam being Sunbeam, by Lord Lyon, also dam of that well-bred horse Royal Salute, now owned by Mr. T. W. Evans, Yelverton, Ontario. Gallant Poteath, winner of the three-year-old Glasgow Premium, is by Top Gallant, out of Tanny by Paisley Jock, and is consequently own brother to the celebrated prize mare Montrave Lady. He is a very promising colt, with grand legs and a good set of feet. Among the other young things we noticed a very useful light bay colt, Merlin, by Top Gallant, out of Hatton Beauty, by Darnley, g. dam Hatton Bella, by Tim o' Day; and a yearling colt out of the same mare by Prince of Albion. This last colt took our fancy very much, combining as he did size with quality, and having a beautiful set of feet and ankles.

Besides his Clydesdales, Mr. Park pays considerable attention to dairying, milking sixty cows, nearly all pedigreed Ayrshires. To describe them in detail would take too long here. Suffice, therefore, to say that a grander lot of dairy cows it would be hard to put together among them being a number of winners at the Highland Society and other shows, more especially the two cows Knockdown 2nd and Annie, the latter from the Duke of Buccleugh herd being winner of first at the H. S. Show at Melrose. The bull in use, Baron 3rd, of the light color now so much fancied among Scotch breeders, was a winner at Ayr; and Mr. Park has a choice lot of young things of both sexes for sale.

Among Mr. Park's sales last year we might mention that of the yearling colt Lord Coleman, by Prince Gallant, out of the dam of Lord Erskine, to Mrs. Simpson, St. Colman, Rothesay, for £1,300, and the filly by Prince Lawrence, out of Hatton Beauty, by Darnley, to Sinclair Scott, Greenock, for £300.

An English Stud of Hackneys and Shires.

In the pretty village of Needingworth, about three miles from the old town of St. Ives, in Huntingdonshire, right in the heart of a real agricultural country, is the Chestnuts, where is located the stud of Hackneys and Shires owned by Mr. W. G. Butcher, whose card will be found in another column. Mr. Butcher has been known for many years as not only an extensive breeder, but also as an exporter of both these classes of horses, representatives of his stud having found their way into some of the largest studs in America. At the head of this stud of Hackneys stands Needingworth Connaught, alias Melton (1519), a full brother to Connaught, the Islington champion of 1891, sire the famous Denmark, dam by Fireaway, g. dam by Bay Phenomenon, g. g. dam by Prickwillow; a chestnut with both hind and the nigh front pasterns white. Needingworth Connaught stands 15.3 hands high, and shows any quantity of bone and substance, while his action is all that could be desired—a long sweeping stride that covers the ground rapidly without punishing the horse. His breeding a glance will show to be superb, his sire having sired the champion mares at Islington four years running.

A very pretty mare, smooth and well finished, if a trifle small, is the bay Needingworth Lass, by Confidence, dam by Lord of the Manor, breeding that can hold its own in almost any company; while among the colts we especially noticed a pair of bay half-brothers, Needingworth Rifleman and Needingworth Tip Top, both two-year-olds, and both by Rifleman 2nd, who was afterwards sold for 500 guineas to go abroad, the first being out of a mare by Lord of the Manor, g. dam by Norfolk Swell, a sire well known through the Peterboro' neighborhood, while his companion is out of Flying Nell, by Hawkestone Shales, her dam by Quicksilver. Besides his Hackneys, which numbers some sixteen head, Mr. Butcher keeps on an average some twenty registered Shire mares for breeding, most of them the get of British Wonder (4903), Esquire (2774), a son of William the Conqueror, King Charles and other noted sires. At the head of the stud stands Ambition III. (6624), a thick, heavy horse with good feet and big flat joints, sired by Ambassador (3428), and out of a prize winning mare by Wonder (5433). The young horses were a thick, short-legged lot, showing plenty of shire character. Among them we noticed a two-year-old, Needingworth Heart of Oak (vol. xiv.), by Oak Post, dam by Esquire, grandam by Clark's Thumper, that promises to make a big horse—of the wide-as-a-waggon-kind, while Needingworth Charming (vol. xiv.), by My Charming 3rd, a year older, though not so big and massive a colt, shows a good deal of quality, with good bone and feet.

A horse that struck us as being just the kind for the American trade is Blagdon Fashion (vol. xiii.), by Warrior (2630), a son of old Lincolnshire Lad II. (1365), dam by Matchless (1528); this is a big, muscular, active looking horse, that if he breeds true to himself will prove a valuable sire. Besides those mentioned, Mr. Butcher has for sale a number of Hackney colts and fillies, including some very fine, promising ones by Lord of the Isles, and a few very good Shire colts by Thorney Tom, winner of 3rd place at Islington. Mr. Butcher is always glad to show his stock, and a visit to the Chestnuts will well repay a lover of horseflesh.

The Comparative Value of Turnips and Grain for Fattening Sheep.

This experiment was continued for sixty-three days, and its purpose was to test the comparative feeding value of turnips and grain. Many believe that a green food has a value not shown by the amount of dry matter it contains, and that such food is especially efficient in a ration for sheep. The mixed grain fed consisted of three parts gluten meal, two parts corn meal, and one part wheat bran. The grain contained 75 pounds of digestible dry matter per hundred, and the rutabagas 12.8 pounds, or the grain 6.9 times as much as the roots.

In the first period 5 pounds of grain were fed against 30 pounds of roots, and in the second period 4 pounds of grain against 30 pounds of roots.

FOOD AND GAIN OF SHEEP IN PERIOD 1.

	Lot 1. More Grain.	Lot 2. More Turnips.
No. of days fed.....	31	31
Weight of hay fed.....	620 lbs.	620 lbs.
Weight of mixed grain eaten.....	372 "	217 "
Weight of rutabagas eaten.....	620 "	1550 "
Weight of sheep at end of period.....	1222 "	1124 "
Weight of sheep at beginning of period.....	1125 "	1052 "
Gain in weight.....	97 lbs.	72 lbs.

FOOD AND GAIN OF SHEEP IN PERIOD 2.

	Lot 1. More Turnips.	Lot 2. More Grain.
No. of days fed.....	32	32
Weight of hay fed.....	640 lbs.	640 lbs.
Weight of mixed grain eaten.....	288 "	418 "
Weight of rutabagas eaten.....	1600 "	640 "
Weight of sheep at end of period.....	1346 "	1202 "
Weight of sheep at beginning of period.....	1222 "	1124 "
Gain in Weight.....	124 lbs.	138 lbs.

Gain of both lots of sheep eating more grain.....235 lbs.
Gain of both lots of sheep eating more turnips.....196 "
Difference in favor of ration containing more grain.....39 "

The results of the entire experiment, covering 63 days of feeding, may be summarized as follows:

One-half of the sheep ate during this time 1340 pounds of digestible material, and the other half ate 1338 pounds. The difference between the two rations was simply this: that one-half of the sheep received more of their food from roots than did the other half, the total amount of digestible material being practically the same in the two cases. One-half of the sheep ate 1260 pounds of roots, and the other half ate 3150, the difference in the amount of dry digestible organic material in the two quantities being 206 pounds. This 206 pounds of nutrients from the roots was offset by 208 pounds of nutrients from grain, a practically equivalent quantity. Notwithstanding this equivalence in the quantity of material in the two rations, the twelve sheep receiving the more grain gained during the 63 days 39 pounds more than did the other twelve. There seems to be no reason why this test is not a fair one, and it furnishes a weighty bit of evidence against the somewhat common opinion that the dry matter of roots has a special and peculiar value beyond the small quantity which it may be wise to feed for the purpose of giving variety to the ration.

Manitoba Studs, Herds and Flocks.

RIVERVIEW STOCK FARM.

A representative of the FARMER'S ADVOCATE enjoyed two or three hours at Mr. Jos. Sharman's stock farm, which is beautifully situated on the banks of the Birdtail Valley, and about eight miles from Solsgrith station on the M. & N. W. R. R.

Mr. Sharman's specialty is pure-bred Hereford cattle, 16 of which he imported direct from England, with the idea of raising pedigreed bulls for the western ranches. At the head of the herd is "Tom Wilton" (24975), bred by Jos. Sharman & Sons, Stratford, Ont.; sire the famous "Conqueror" (7510), bred at Windsor Castle, and purchased from the Royal Herd, for the Ontario School of Agriculture, in 1884, when four years old. At present there are about a dozen pedigreed bulls on the ranch, Mr. S. having sold 11 last year at a good figure. Among those on hand now will be found: "President Grant" (9044) 21966, "Secundus" 21968, "Daisy Prince" 24976, "Cleveland" 24978, "Prince Grant" 24979, "Comet" 24980, and "General" and "Major," the two last named having been recently sold. Then come 16 Hereford cows, having splendid pedigrees. Mr. S. imported these from England some seven years ago, the offspring being in every respect the equal of their dams in quality. Among those which attract special attention are the following: "Danson" (E. H. B. Vol. 15, p. 325), No. lost, "Clifton 7th" 21766, "Relic" 21964, "Constance 14th," "Lucy" 21967, "Gem 25th" 21960, "Yellow Girl," "Gem 26th" 21959, "Constance 15th" 21961, "Belle of Lelhampton" 21963, and six others, all of which were imported by Mr. S. from England. Fifteen prizes were taken by this herd in Winnipeg last fall. Mr. S. is going to sell by public auction in the course of a month or two. Notice of same will be given in a future number of the ADVOCATE. Mr. Sharman is a pioneer subscriber of the FARMER'S ADVOCATE, having begun with the first issue of the paper.

MESSRS. RIDOUT & PERCIVAL'S IMPROVED LARGE YORKSHIRES.

After leaving Mr. Jos. Sharman's ranch our representative enjoyed a look over the farms of Messrs. Ridout and Percival. Their places are close to each other, and they have entered into partnership, breeding Improved Large White Yorkshires. They have a good number of spring pigs yet for sale, got by their imported boar. Their farms are beautifully situated on the banks of the Birdtail Valley, and are about 3 miles from Solsgrith on the M. & N. W. R. R. They affirm that if the farmers would feed their frozen grain properly to live stock, that instead of only realizing 20c. or 25c. per bushel, they would make 40c. out of it. Most of their pigs under 12 months old weighed over 300 lbs. In addition to pigs, Messrs. R. & P. have a fine herd of well-graded Shorthorn cattle, having bought a good bull from the Binscarth Stock Farm. A large and well-kept garden is a very prominent feature on the farm. Some young crab apple trees planted last year are doing remarkably well.

PARK REGION STOCK FARM.

Without question, one of the choicest districts of farm land—remarkably well adapted both for grain growing and stock-raising—that this Province affords, lies in the vicinity of Bradwardine, about 15 miles north of Griswold on the C. P. R., and some 10 miles southward from Oak River, on the Great Northwest Central Railway. It is dotted here and there with bluffs, prevailing southerly in time of storm, and adding greatly to the beauty of the country. It is the spot that has given the name "Park Region," which Mr. Thomas Speers has used to designate his farm on, which he has the nucleus of herds of pure-bred Shorthorn cattle and Berkshire pigs, besides a lot of well-graded up animals of both classes. That pure-bred sires of high individual excellence

make their mark toward improvement is evident hereabouts, both in cattle and swine. How could it be otherwise? For example, with such a grand Shorthorn as the well-preserved "Heir Apparent" (imp.) (51380), now rising eight years old, but carrying himself with all the style of a well-developed two-year-old, his hide as mellow and his coat as sleek as ever. He was bred, as many ADVOCATE readers are aware, by J. W. Courtenay, Slackadale, Turriff, Aberdeen, Scotland; second owner Wm. Duthie, and imported in 1884 by Hon. M. H. Cochrane, of Hillhurst, Que. His sire was Juvenile (49794) and his dam Heires. The only other member of the herd indoors at the time of our visit was Jubilee Queen = 13877 = by Sunrise, dam Lucy Grey, a beautiful red, and though not of large size, displayed a rare lot of quality. At her side was a fine, large heifer calf by Heir Apparent. On the pasture were noted Barmaid 3rd = 8459 =, by Lord Aberdeen (4110), dam Barmaid = 8457 =, a beefy cow, though not extra fine in the hair; Queen of Park Region = 16486 =. May Beauty, Rosie 4th = 4659 =, Velvet of Binscarth, and some promising youngsters.

At the head of the Berkshires stood Royal Star [1425], farrowed April 5, 1890, bred by Snell, of Edmonton, Ont., sire Perry Lad [1354] dam Highclair (imp.) [1674], both grand prize winners. Royal Star and his get do them credit. There are three brood sows. Jessie [1718], bred by Snell, sire Rave Sovereign (imp.) [490], dam Moulford [935]; Jessie 2nd [1913], sire Jerry [1436], dam Jessie; and Ettie [1935], same sire and dam. A superior lot of young pigs were just coming on towards the weaning time.

"THE PIONEER HERD."

Nestling amid beautiful trees on the bank of a fine stream, four miles northward from Westbourne Station, on the line of the M. & N. W. R., is the home of Mr. Walter Lynch, one of the successful pioneer breeders of Shorthorns in Manitoba. A visit to this pleasant spot will be enjoyed by all lovers of nature, and especially by admirers of good stock. The herd consists of about forty head which exhibit the result of years of care, and reflect the intelligence and experience of their owner as a breeder. At the head of this herd the Duke of Colonus 6837, occupies a place which has been ably filled by this deep-chested, heavy and grandly proportioned animal, a fact fully established by an inspection of the younger portion of the herd, the individuals of which possess many excellent points, and a general uniformity which is seldom seen in a greater degree. The rival for the position of honor is Village Hero 14342, a grand bull, bred by Mr. Smith, of Hay, Ont., and one destined to take, if we are not mistaken, a place of note. His dam was Village Blossom, dam of Young Abbotsburg, the wonder of American prize rings; and his sire, Prince Albert, got by Old Hampton Hero. This tells the story in brief of his royal breeding. His development will be watched with interest. Lovers of choice stock will no doubt have the privilege of seeing this and other representatives from Mr. Lynch's herd at the Industrial Exhibition this month. Of a number of well-developed matrons, including Kitty 15817, Ruby 17568, Superba 17569, Imogene 17686, Silver Gem, etc., space will not permit individual detail. Sire is one, however, that will attract attention, and the three full sisters, Truth 17570, Faith 17653, and 2nd Rose of Totoyon 10677, with their three bull calves, are a sight that would be hard to duplicate, showing marked uniformity of type, with well-proportioned and pleasing appearance. Pussy 10428, the winner of numerous prizes, is a general favorite—rich roan in color, and combining more excellent features than is frequently met in one individual, while Mermaid 15818, in the strength and beauty of perfect condition, and at the age of fullest development bids high for the first place in the herd which the former has so worthily held. At the time of our visit the purchase of Mr. Hargrave, of Medicine Hat—a two-year-old, and two yearling bulls—was awaiting shipment to their western home. These three fine animals are an acquisition of the right sort, and one that Mr. Hargrave may well feel pleased at securing.

FIRST PRIZE ESSAY.**Summerfallowing.**

BY J. H. M'CLURE, BALMORAL, MAN.

There are a number of conditions that render summerfallowing desirable in this country. One of them, is when the soil has got weedy to a greater or less extent (and we all know that our fertile prairie soil is inclined to that), unless great care is taken in sowing nothing but clean seed, and then if your neighbors are not equally careful and allow weeds to grow and come to seed, they will drift with the snow and wind and settle on your land, and in time germinate; but man can by summerfallowing or tilling the soil, clean the ground of those weeds. This is essential to successful agriculture, and is implied in the edict that went forth to our race in the beginning, to till the ground, to overcome the thorns and thistle, the figurative representatives of all noxious weeds that infest the soil. Another condition that renders summerfallowing necessary is to renew the land by bringing a fresh supply of plant food into a state that it can be utilized by the growing crops; and I know of no other process that will bring plant food into that state, except growing roots, which would mean too much work for the number of acres that are cropped in this country. Another condition that may render it necessary to summerfallow, besides the above, is to drain the land. The fall is so short in this country that there is not much time for that purpose, and while one is summerfallowing all the low places can be drained, if in no other way, by taking the plow and scraper making surface drains, and thus improve the land to a large extent. Another great advantage in summerfallowing in this country where wheat is grown so extensively, is that one can put much land in good condition, for wheat let the fall be short or long, that is, if it is properly summerfallowed. I have seen land that I believe was very little better for being summerfallowed, if not worse. I do not know that I have the best system, but my plan would be to begin in time, the fall previous if possible, if not in the spring. As soon as you can spare the time, go over the land with a spring tooth harrow, if you have one, or any other harrow that will stir the surface of the soil, so as to start all weeds on the surface to germinate before they are plowed under. Now, if you want to manure the land, the kind of soil, or at least subsoil, will fix to a large extent the best time to apply the manure. If the subsoil is clay or heavy land, put on the manure before it is plowed at all; if it is gravelly bottom, so that the strength of the manure would leak away, top dress with manure after it is plowed; but to only plow once I find is the best for this country. Plow to a good depth, not less than five inches, more if possible, and plow it all; don't "cut and cover," that is, don't plow a sixteen-inch furrow with a fourteen-inch plow. Then harrow well, and if the weather is dry keep the roller going after the harrow to firm the land, so that it will retain the moisture, and thus start the weeds to germinate, and when you get them sprouted and up through the ground, do not wait until they get a good root, but go over the land again with the harrow and turn their roots up to the sun, and keep that process of harrowing up through the summer, and by the end of July you ought to have the most of the weeds destroyed to the depth of three inches at least. If there is a thistle patch in the fallow, that will need more than an ordinary harrow to kill them. They are something like a cat, they have a good many lives to live unless you keep them from getting breath, and as it is through their leaves they breathe you must never let them get their heads above ground. The way to manage that is to plow the patch over every time they show signs of coming up, or a cultivator that would cut all the ground would do as well, but you

must not let one get up to tell the tale, and I don't think you will have any more trouble with them. Then about the last of July sow with rape or greystone turnips, about three pounds to the acre, and you will have a nice juicy bite for your cattle in the fall when the frost has withered the grass, and the cattle will do the land good tramping over it after their feed, because the firmer the land is for a wheat crop the better, so long as you get enough to cover the seed.

Reasons for Summerfallowing.

Mr. Levi Thomson, of Ellisboro, N. W. T., very admirably sets forth the conditions that render summerfallowing desirable. He says:—

1st. When the land is exhausted by continued grain-growing.—Although summerfallowing may not in itself produce plant food, it undoubtedly makes the plant food available, so that the farmer may convert that food into something he can in time turn into cash. An attempt to raise a crop from land that has already grown grain several years in succession, is generally unprofitable unless in a very favorable year, while a well managed summerfallow will nearly always give good returns.

2nd. When the land is overrun with weeds.—Every farmer knows that it is very difficult to keep the ground clean with continued grain-growing. The weeds have plenty of time to seed each year, and the roots of any injurious vegetation that grows from the roots remain undisturbed, and strengthen themselves during the growing season; but by means of summerfallowing we can prevent this seeding and check the root growth. Moreover, it is not merely by keeping the weeds down during the season in which the work is done that a summerfallow will help to clean the land, but it gives an excellent opportunity to prepare a good seed-bed, so that the grain the following spring may grow vigorously and evenly. I find that a vigorous and even crop that gets a start of the weeds does wonders in cleaning the ground.

3rd. When the land has never yet been plowed deeply.—In this case it is difficult to go a little deeper at each successive plowing, so as to bring up some fresh earth every season, and it is questionable if there is any advantage in turning up any considerable depth of cold earth in the fall or spring, and sowing seed on it before it has been exposed to the warm summer sun, but by summerfallowing there will be ample time for the fresh earth to get into a proper state through the action of the sun, rain and frost, as well as cultivation.

4th. When so much grain is grown that there is not sufficient time in fall and spring to properly prepare all the land required for crop.—This is a very common state of affairs in our country, with its enormous wheat area. When it is not desired to break a considerable portion of prairie, it will be found that summerfallowing about one-third or one-fourth of the land required for crop the following year equalizes the work, and gives a much better opportunity to get the balance of the land in good order in fall and spring. By saving spring plowing it enables us to have crops sown in better time to avoid frosts.

Thistle-Killing in Summerfallowing.

In an excellent essay on "Summerfallowing", Mr. C. E. Parkdale, after describing his plan of operations, thus sets forth his way of dealing with Canada thistles:—

"The above-mentioned method is adapted to all lands that are not especially infested with Canada thistles. But, as there are some cases where they are becoming prevalent, it is necessary to offer some suggestions for their extermination in our fallows. The Canada thistle, when in small patches, can be dug out at the blooming time, for at this particular season only is the thistle checked. But, where the whole field is infested, the best of all plans is to leave the stubble field unplowed and uncultivated until the thistles are just coming into bloom, then plow shallow, using the chain as before directed, being ever watchful to cover every inch of growth, and after you are through plowing harrow down level with the lightest of harrows,

not seeking to bring anything to the surface but merely to level the ground. You will require to keep watch over your field, and when you see any thistle growth starting, set your disc harrow to work to cut off all surface rising. This is the most important part of your task. You have previously cut off the heads of your enemies at a time when they will almost bleed to death. And now you must watch for the next effort to maintain life, and immediately check it with your disc harrow until the frost puts an end to the season's growth. And the following year, if you would save your own reputation and your farm's from being again disgraced with such occupant's, go over your crop about the time thistles are coming into bloom, and cut just below the surface every itinerant vagabond."

Weeds.

BY J. HOYES PANTON, M. A., F. R. C. S.

(Continued from page 223.)

3. *Rhus Radicans* (Fig. 18), Climbing Poison Ivy.

This is much like the preceding, but climbs by tendrils, ascending trees as high as forty to fifty feet, or climbing over fences. The stem is quite woody, and sometimes attains a thickness of two inches. Some confound this with the Virginia Creeper, but the leaf clusters of the latter have five leaflets, while this has only three, much wider and more oval in outline. Flowers greenish, and fruit in dull white berries.

Views differ regarding the way in which the poison from these plants is communicated. Some maintain that actual contact is necessary; others that it is given off from the leaves during sunshine when wet by dew; some attribute it to the pollen, and others say that the plant gives off a gaseous vapor. Persons affected show redness about the eyelids, ears and throat. These parts soon show inflamed blotches rising in blisters, the whole face becomes so swollen that sometimes blindness is produced for days. In some cases the poison spreads over the arms and other parts of the body, and the patient suffers with fever and headache, or even becomes delirious. It is not uncommon for those once affected to experience attacks from year to year without coming in contact with the plant again. Remedies: (1) Apply a strong solution of bi-carbonate of soda (baking soda) to the pustules as soon as seen. This is highly commended. (2) Bathe affected parts with sulphate of soda (glauber salts). (3) Rub on a lather made from common potash soap with a shaving brush. (4) Make a paste of sweet cream and gunpowder and apply three times daily to the eruption with a soft feather. This remedy is unfailing and gives relief in a few applications.

These three comparatively common plants should be known by all, and always be destroyed wherever they are apt to be injurious.

LEGUMINOSÆ (Pulse Family).

An order of great economic value, supplying us with some valuable plants, such as beans, peas, clover, etc. The flowers are irregular and in some respects present a resemblance to a butterfly. There are usually ten stamens, nine united into a sort of tube, the remaining one detached from the rest; the seeds are generally borne in pod-like structures.

Trifolium arvense (Rabbit-foot Clover).

Stem erect, about one foot high and branching; whitish flowers, silky and soft; the calyx-teeth fringed with long, silky hairs, giving the head a sort of rabbit-foot appearance. Found in dry spots; very common in parts of Niagara district, especially along Lundy's Lane.



Tufted Vetch.

Vicia Cracca (Wild Tare) Fig. 19.

Resembles a tare, but has smaller seeds and finer foliage. It bears many bright blue flowers, the tendrils somewhat branched and the root-stock creeping and perennial. It requires thorough cultivation to get rid of it.

Medicago lupulina (Black Medick).

This plant is commonly called Yellow Clover, and is often sown as such. It is much the same as Yellow Clover in chemical composition, but in some parts it has usurped the land and become a weed. It can be distinguished from Yellow Clover by the form of its seed pods, which are kidney-shaped, and turn black when ripe.

Melilotus alba (Sweet-clover).

This rank species, 2-4 feet high, has become a weed in several places. It bears white flowers.



Common Yellow Melilot

M. officinalis (Fig. 20).

Much the same, but has yellow flowers; both forms are seen growing by the wayside. In Welland county the railway track is bordered with it. Where either variety reaches the field it soon disappears before thorough cultivation. The discovery within the last few years that plants in the order Leguminosæ possess the power

of aiding in fixing the free nitrogen of the air and rendering it fit for plant food will tend to raise the plants of this order, even as weeds, to a more exalted position than formerly.

Upon their roots small tubercles are found which afford a home for certain microbes, now known to be intimately connected with the fixation of nitrogen for plant food. This explains what practice long has discovered, that the use of nitrogenous manures is unnecessary to a great extent to plants of the pulse family. Consequently, even weeds in this order may yet become great factors in restoring fertility to the soil.

(Wild Peas)—A common name for several species in this order considered as weeds, especially in the eastern parts of Ontario. The writer has obtained the seeds of these, planted them with the hope of identifying the exact plants called by this general name. The seeds were obtained from different localities and four distinct kinds have been secured. Reference will be made to these on some future occasion.

UMBELLIFERAE (Parsley Family).

The stems of plants in this family are usually hollow furrowed, and the flowers in umbels (clusters) with stalks the same length. Here we find such plants as the carrot, parsnip, celery, parsley, and carraway.



Daucus Carota (Wild Carrot). Fig. 21.

A biennial, 2 1/2 feet high and resembles a carrot in many respects. Our common carrot is this naturalized; let us as a weed this species has become a great nuisance. Hand pulling and destroying it as it comes up, flowers will be abundant. Cutting it below the surface should be avoided.

Pastinaca maculatum (Parsnip). Stem spotted, 2 1/2 feet high; root fleshy. A biennial plant. Leaflets have a bluish tinge when bruised.

Pastinaca sativa (Worm Parsnip). A common parsnip of the garden. In this condition it is much diminished in size and taste and very poisonous. The flowers are large and yellow.

Handy Farm Contrivances.

BY "GEORDIE," GLADSTONE, MAN.

The request in recent issues of the ADVOCATE asking farmers for their experience, is in the right direction. Every intelligent farmer can tell us something. Little helps and aids, and their experience we shall all profit by. Your ADVOCATE is good now; but, as you say, everyone can help. I liked that article on tools which appeared in one or two numbers. If farmers would only save in this way, and stop the leaks, they would profit considerably. I have a few tools myself, and know their value, and the consequence is, when a break down occurs, I am ready to mend. Here is a description of a handy case I made for myself. I got a box at one of the stores 18 inches square, 12 inches deep. The bottom I divided into six compartments for nails of various sizes; these I keep filled. I then made a till about 5 inches deep with four compartments; one holds sewing materials (thread, awls, bristles, wax), another solder and resin, another chalk line and chalk, the fourth odd things, rivets, screws, tacks, etc. A lid is fitted on with leather hinges. Cost, nil. Neatness and comfort secured. I mentioned solder and resin. Now every farmer should get an iron—mine cost me a dollar, but they can be got for less—10 cents worth solder, and 5 cents resin will set him up. Now in this land of tinware where things will leak, such as milk pans or kettle, or the dozen and one things in the kitchen, he can save much vexation of spirit and loss of time in running to town, by learning how to use a soldering iron. Your tinsmith can show you. I picked up my knowledge by watching. A good way is to get a brick, heat your iron, file to a nice point while still hot, put some solder and resin on the brick, and rub your iron well into it till it is "tinned." Experience you will gain after attempting one or two small jobs. Last summer in taking a plow from field to field, my farm-hand dragged the tool, as many others do, to the detriment of the share and coulter. He only did it once. This is how I managed otherwise. I got a piece of poplar about 8 or 9 inches through, and made a big sabot or Dutch boot like this.

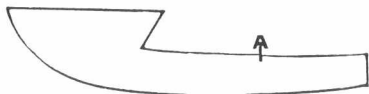


FIG. 1.

It was about 2 feet long, and you will notice I cut in slanting. Now put your plow point in this, resting the land side on A, and away you go. This is easier on the team, for the whiffletrees do not drag on their heels. Better for the plow? Why, certainly. Easier on the man? Of course. You don't break your back holding the plow handles. Cost, absolutely nothing. I like making helps of this kind; things run so much easier. There is a garden marker which I find after all is not original, still I did not know this at the time of making. I took a poplar pole about 4 inches through and 5 feet long. From this proceeded two handles or legs about 18 inches apart. These were fitted into the actual handles. See cut. The idea of using two legs was that the strain would be too great

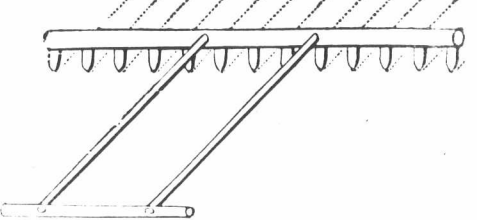


FIG. 2.

on one. Now I bored holes at 6-inch intervals, and made wooden pins to fit, which, of course, were movable. The holes were bored so that when the handle was held up the pins were perpendicular. Use any ordinary garden hoe, and shove the enter pin by it. At one stroke then you can make as many seed rows as you have handles. You can vary the width. For instance, by using two pins only 6 inches apart, you make a row for peas or beans. I pointed my hoe, which I never filled up, by running the

marker diagonally, and planted two seeds where the lines crossed. Mine was a success; cost, nil. If you haven't a watering can and can't afford to get one, do as I did. Get a wooden pail and bore an inch hole in the bottom, and fit a plug; then take a piece of tin or old stove pipe, and cut a little bigger than the bottom of the pail and tack on. All pails have about an inch space between the bottom and end of staves. You must perforate your tin, say with a nail. This did me two summers, and the pail is still in use as a swill pail. Cost, nil. You have to have a swill pail, anyway.

I should like to have a fling at your correspondent who says, haul the manure directly out onto your fields. Has he ever tried it? I know one who did and had the prettiest crop of weeds you ever saw. Of course, if it is only a feed patch, I suppose you could cut it before the weeds bloomed. But, as possession is nine points of the law, if the weeds ever got on your fields, you are going to have trouble to get rid of them, ride your table of how seeds accumulate.

Manitoba Central Farmers' Institute.

With the consent of the local Farmers' Institutes of the province, and under direction of the Executive of the central organization, Mr. Thompson, acting Secretary, arranged the dates of the annual meetings in June in five series, providing one outside speaker at least for each gathering, with a general "round up" at Portage la Prairie. Circumstances would not permit the attendance of all the speakers at all the institutes, and in order that the membership generally might have the benefit of all the principal addresses given, and discussion thereon, the idea of the "round up" of two lengthy sessions was adopted, a stenographic report of which, with all papers and addresses, in full, is to be issued in pamphlet or bulletin form, a copy to be sent to every institute member throughout the province. Secretaries have been requested to forward to the Department of Agriculture, Winnipeg, a full list of their members, in order that this bulletin may be mailed them as soon as possible. (Special reports of the principal addresses given during the series appear in this issue of the FARMER'S ADVOCATE.)

The speakers whose services the secretary of the Central Institute was enabled to arrange for were Prof. Jas. W. Robertson, Dominion Dairy Commissioner; his assistant in Manitoba and the Territories, Mr. Robt. Cornett, who not only delivered addresses, but gave exhibitions of buttermaking; Mr. S. A. Bedford, Supt. of the Experimental Farm at Brandon; Mr. James Elder, of Virden, President of the Central Institute; Mr. Richard Waugh, of Winnipeg, Secretary Thompson also aiding at a few of the meetings. The secretary also co-operated with the Dairy Commissioner in arranging an extended series of meetings on the travelling dairy plan, in July, for Mr. Cornett, over the M. & N. W. R., G. N. W. C. R., main line C. P. R. west of Brandon to Regina, and in Southern Manitoba as far as time would permit. Mr. Cornett will attend the Winnipeg Exhibition.

The annual meeting of the Central Institute is to be held at Brandon at the time of the Summer Fair, when it is hoped that delegates representing the local institutes will be present. Several speakers have been invited.

The Manitoba Department of Agriculture are this season distributing to the crop correspondents 100 copies of Sanders' work on Horse Breeding, 100 copies of Murray's "Cattle and their Diseases," and 100 copies of Warfield's "Cattle Breeding." Each correspondent was given his choice of one of the three works.

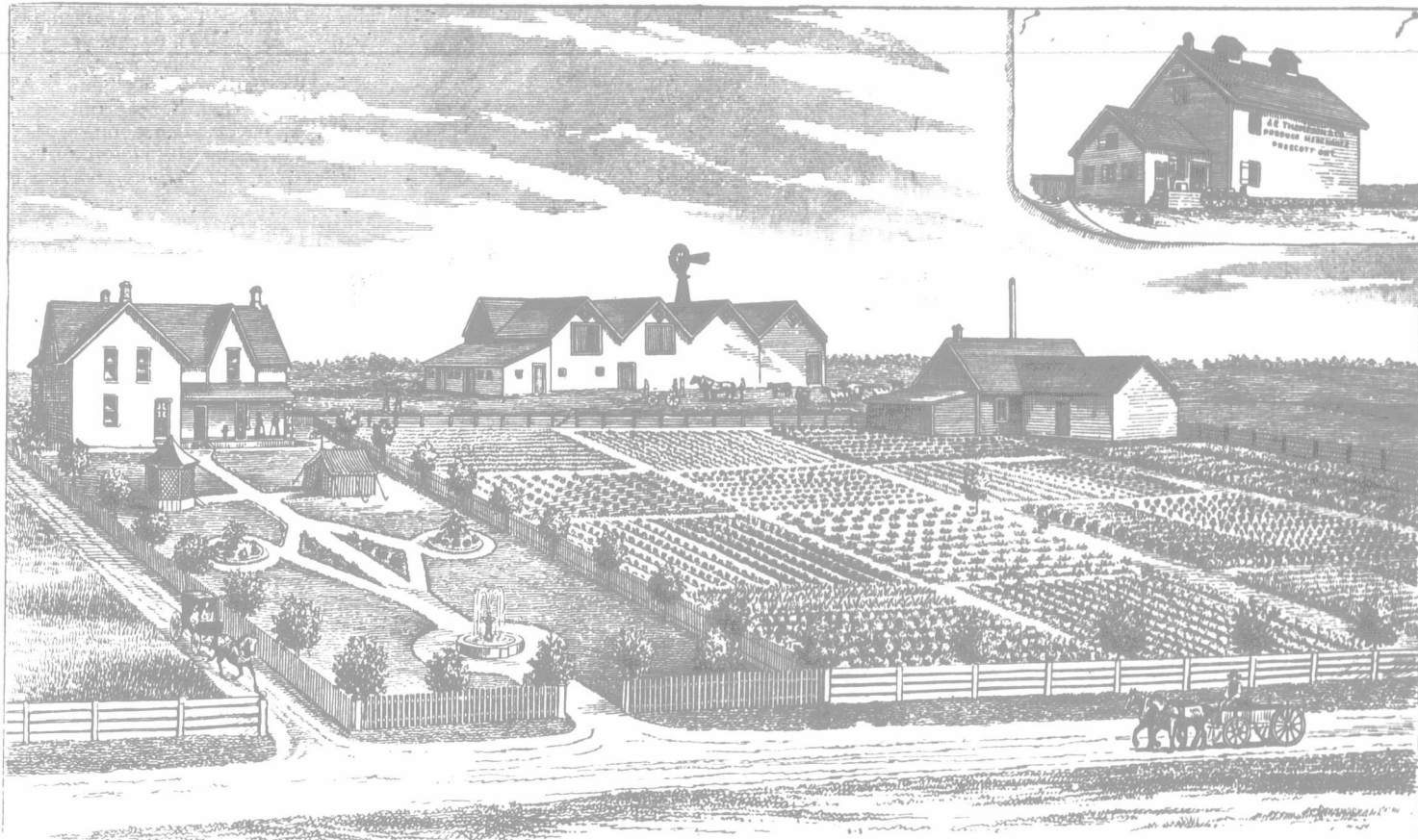
Fountain Farm, Emerson, Man.

Of the natural fertility of the Red River Valley soil it is not an easy matter to speak too highly. Throughout a great portion of it, also, there is the advantage of more or less bluff shelter, it has excellent railway facilities, and is within easy access of eastern markets. These, coupled with local advantages, were the main considerations which decided the location of Thompson Bros. at Fountain Farm, three miles from the town of Emerson, in the municipality of Franklin. When Mr. J. E. Thompson of the firm named put in an appearance in February, 1891, (about a year and a-half ago) the place, which embraces 1,040 acres in addition to a section and a-half leased, making over 1,800 in all, was, with the exception of an old house and odd patches of land that had been broken, unimproved. Last year the fine frame residence, costing some \$2,000, shown in our illustration, the barn 60 by 120 feet, capable of housing 100 head of cattle, over 20 horses and other live stock, with loft room for 100 tons of hay, and the cheese and butter factory building near by were all erected, which, with outside improvements now being made,

boring for an extra supply of water, at a depth of about 160 feet a salt spring was struck, which flows at the rate of over 1,000 gallons per hour, spurting into the air in fountain style, hence the name of the farm itself. The water is excessively salty to the taste, and is of a uniform temperature of about 45 degrees, making it exceedingly useful for setting milk, cooling milk in the cheese vat, etc., as by the means of iron pipes it can be carried in any direction, or to the height of 25 or 30 feet, if necessary. The supply of water for domestic purposes and for stock is drawn from ordinary wells, and is quite pure and sweet, besides being more abundant since the salt flow appeared above ground, the latter apparently filtering into them through the soil, leaving it free of saline qualities. A well inside the barn with wind-mill above, in conjunction with large tanks, provides water supply for stock summer and winter. The barn is double boarded and felted up to the loft, and when filled with stock effectually shuts out the frost. The build itself stands on blocks, and the floor is of double boards. The main building of the factory is 24 by 32 feet, and the wing 18 by 30 for curing room and ice. The make room contains space for two 5,000 lb. vats, and all

so that this bull represents an ancestry noted both for milk and butter. Then there are three imported cows (from Holland), Mina 2nd 2945, record 72 lbs. per day; Bankje L 5100, record 80 lbs. per day, and Doralice 8809, 66 lbs. per day. Calves from such cows as these should be exceedingly valuable. There are also younger ones, Doralice 4th 19871, Lora 4th 24464, Lora 5th 24465 (twins), three yearlings and several spring calves. Most of these cattle were received from the well-known firm of M. Cook & Son, Aultsville, Ont.

The other member of the firm is Mr. W. H. Thompson, of Prescott, Ont., where is located the large refrigerator warehouse, shown in the upper corner of the engraving, 40 x 80 feet, with basement, two flats, and loft above for the storage of cheese, butter, eggs and other farm products designed for export. Thompson Bros. rank among the large exporters of Eastern Canada, shipping to Great Britain as much as 50,000 boxes of cheese in a year, these boxes going to all the leading cities of England, and sent where the reputation of the firm stands deservedly high. Prior to the passage of the McKinley Bill, they carried on an export egg trade amounting to \$250,000 per year with the



FOUNTAIN FARM, EMERSON, MAN.

will leave the place as outlined in our engraving. The work was economically done, but well done. A quantity of wheat and coarse grains were also sown and harvested. This year there are 500 acres of choice land in wheat and 100 in oats and barley, and with the breaking being done this season, next year will see a wheat area of 1,000 acres. What wheat Mr. Thompson grew last year ripened ahead of the frost. About 200 acres are being fenced for pasturage. Besides this, a herd of about 90 dairy cows, six of which are pure-bred Holstein-Friesians, was got together, and cheese factory operations started, and enough hay and fodder grown or secured to winter them over. Mr. Thompson's purpose now is to reduce his herd in number, say to 50 (not including young stock), in such a way that, coupled with extra care, the average yield of milk would be very largely increased. Besides the foregoing the foundation was laid of herds of Yorkshire and Berkshire swine. To accomplish all this in so short a time bespeaks large enterprise, indomitable energy and an amount of industry that would practically compel success even under unfavorable circumstances. The dwelling and barns are located about a mile east of the Red River, and the Io, a tributary of the Red, runs past one corner of the farm. In

other requisite appliances, together with engine and De Lavel Cream Separator to be used in connection with late fall and winter butter-making. In addition to the usual outfit of implements, Mr. Thompson has a threshing machine and 12-horse power, used also for chopping grain, cutting straw, etc. The staple winter foods for cows on Fountain Farm are hay (native), straw, roots and sheaf oats, or chopped grain. Mr. Thompson, though a thorough believer in the merits of the silo and ensilage for Ontario farming, is not so sanguine of its success here, owing to the difficulty of properly maturing corn, and its interference with the wheat harvest. Besides, where hay can be secured for \$3.00 per ton and roots grown so cheaply, he is inclined to doubt the economy of ensilage. Some of these points are not yet thoroughly settled, however, we are disposed to add. At the head of Mr. Thompson's Holsteins, and also for the improvement of his "native" and grade cows, stands Aultsville 14842, calved March 18th, 1889. Sire Jennie B 3rd's Barrington; dam Hamming 3rd. Barrington was considered one of the finest bulls of the breed ever brought to the United States, and his dam had a record of 99 lbs. of milk in one day. The Jennie B's are also a famous family of performers,

States. But this business they have now found unsatisfactory. In Eastern Ontario and Quebec Province they operate some 20 large and successful cheese factories. They are also wholesale dealers in factory machinery, making a speciality of cheese factory furnishings. Mr. J. E. Thompson, of Emerson, last season shipped cheese to British Columbia, the local town and the city of Winnipeg taking his output of butter, the latter selling at a uniform price of 25 cents per pound. The firm have handled large quantities of hay in the east and shipping to American and Canadian cities, and have latterly embarked in the exportation of general purpose and draft horses to Scotland, which they hope to prove fairly remunerative. Like most successful business enterprisers, Thompson Bros. began in an humble way, both members of the firm working their way up step by step, and in the cheese business beginning 18 or 20 years ago as makers in the factory. With a thoroughly practical knowledge of farm operations, as well as the dairy and export business, down to the details, with industry, push and integrity, it is not to be wondered at that they have succeeded, and the FARMER'S ADVOCATE trusts that good results will be achieved in connection with the management of "Fountain Farm."

Our Flower Garden.

BY J. W. HUNTER.

Tuberose.—Started in the house, they may be transferred to the garden now, plunging the pot in the soil up to the rim; and if not in flower by the fall they can then be easily removed to the house.

Dahlias.—These should be staked, as they are in great danger of being broken off by heavy rain and wind storms; and if more than one stalk from each bulb, cut back leaving only one, thereby insuring more and better flowers.

Perennials.—This and next month is a good time to sow all kinds of perennial flower seeds, to be transplanted about October, ready for next season's blooming.

Chrysanthemum is our favorite fall flower, and some of our local florists are so enthusiastic over it, that they have this season grown and distributed free to the school children of the city over one thousand small plants, to be shown at the chrysanthemum show to be held in the fall, for which three valuable prizes will be offered. Give them plenty of moisture and good, rich earth. Pinch back for the last time, and do not give more than four or five hours of sunshine each day.

Annuals.—Stir the ground around them often, keep free from weeds and thin out soon as possible, giving them plenty of room to develop and show their beauty.

Cacti.—Plunge pot in a warm, sunny spot after they have bloomed, and they will complete their growth.

Antirrhinum (Snapdragon).—The flowers are borne in magnificent spikes and in the most glowing colors. Take a bed of these plants and they show us the most striking colors known to Flora's kingdom, and I can hardly conceive of anything finer. Plants propagated from seeds or cuttings make rapid growth. As pot plants, they are hardly surpassed. If you have plants in the garden, take some cuttings and start them now for winter flowering.

Verbenas, Petunias, etc.—To increase the growth and bloom of the above, it is necessary to *peg down*, by taking some of the strong branches to the ground, and fixing them there by using ordinary hair pins.

Cuttings.—For winter-blooming cuttings of geraniums, fuchsias, heliotropes, petunias, candytuft, etc., should be taken and started now.

Lilies.—Those in bloom need abundance of water.

THREE PRETTY CLIMBERS.

Clematis.—No flower has more rapidly advanced in popular favor than the clematis. Within a few years it has become the favorite climber of the world. It makes quick, rapid growth, and produces its beautiful showy flowers in the greatest profusion. For pillars, trellises, etc., the clematis cannot be excelled. The cut herewith is of Clematis Jackmanni, which has large, intense violet-purple flowers from four to six inches in diameter. This has proved itself to be the most hardy of all the varieties of the old plants, being literally covered with flowers.

Ampelopsis Veitchii.—This variety is also known as the Japan and Boston Ivy. It clings very firmly to the side of the house or wall, whether of wood, stone or brick, and will soon form a perfect mass of foliage. It is a most beautiful climber, and has become a great favorite. During the summer the leaves are a beautiful shade of green, overlapping each other with wonderful regularity, but it is nearly autumn when this unique plant assumes its greatest beauty, when the foliage gradually changes, until the whole plant is a glowing mass of the brightest shades of crimson, scarlet and orange.

Cobaea Scandens.—This is one of the most beautiful of our climbing annuals, on account of its large size, rapid growth and large bell-shaped flowers, almost an inch and a-half across, and two inches in length. The flowers are at first green, changing to a deep violet blue. Plants

commence to flower when quite young, and continue in bloom until killed by frost. They can be potted and removed to the house for winter flowering. Cobaeas set in a row two feet apart, supported by brush six feet high, make an elegant screen.

Poultry on the Farm.

BY IDA E. TILSON, WEST SALEM, WIS.

Whenever thinking of what cannot be eaten or drunk without danger, Mark Twain comes to mind, who says there are so many injurious substances, that he should stop eating entirely, were not the habit so strong. Why fowls will drink filthy, stagnant water, cannot be explained, except by supposing their scientific education has been neglected, and they have never heard of germs and microbes. Prevention meets this case better than philosophy does.

"Water, pure, cold water.
Sparkling and bright
With its liquid light."



CLEMATIS JACKMANNI.

in an accustomed place, ready mornings, when fowls first come forth seeking what they may devour, will thereby get a start of the mud-puddle. If that little red worm, most often seen in impure water, is not the only cause of gapes, it is an important one. The age when little chicks can have water for drink may range from a few days to two weeks, in accordance with vigor of brood, warmth of weather, and kind of food, but the three weeks set by some authorities seem rather extreme and unreasonable. Sweet milk is a perfect food and model drink for "men, women and things." If from a fresh cow, chicks may need it diluted; unlike the natural acid of fruit juice, a fermented sour is poisonous, hence sour milk needs scalding or a little soda dissolved with warm water then stirred in, lest bowel complaint be invited by its use. Thus corrected, old milk becomes a safe and valuable bone and muscle former. I have read of a poultry woman who, lacking pigs, threw her skim milk on the ground, not knowing what to do with it. Do you think the story could be true? City papers sometimes record cases of poisoning from decayed

milk, when milkmen neglected to wash their cans. Hens' milk dishes, as soon as emptied, need a soaking in cold water, and these, with water-dishes, should be well rubbed and rinsed out each time refilled, so no slime can collect at the water-line. A stiff, new cob, of course minus its corn, surpasses even an iron dishcloth. (Patent not applied for.) Rather than wooden troughs, I prefer iron and tin dishes, which can at night be dried and aired somewhat like milkpans. A pancake baker or flat-iron heater from an old cook stove is a fine drinking dish for small chicks, which must have a shallow one or perhaps drawn. They will perch on the rim of this and sip away like robins.

A little of most everything and not too much of anything, very well describes the fare required by chicks. Bread or cracker crumbs, bread and milk, custard, oatmeal, milk curd, or "Dutch cheese," are perfectly safe. Hard boiled eggs, sometimes recommended as sole food, may cause bowel complaint if fed oftener than once a day. I find them more digestible when boiled twenty minutes. Chopped, shells and all, with an equal quantity of bread crumbs, a fine supper is had. Boiled potatoes, raw onions, cooked lean meat, chopped together, is a Frenchified, salad-like dish, good once a day or every other day, and makes chicks frantic with delight. Wheat, gravel and bone meal are standards, as soon as they can be swallowed. It seems almost unnecessary to repeat what has so often been written on scalding corn meal and its combinations. The meal must swell, so one acquaintance thought by mixing with cold water some time ahead this process would be over before feeding, but the weather was warm, her meal soured and her chicks drooped. A chick is not of the pig family, and needs no sloppy pudding; this paradox is true, that food should be as dry as it can, and be moist. It is well to feed everything as fresh as possible, never cutting up vegetables, chopping boiled eggs, nor soaking bread in milk far ahead. The vegetables wilt or sour, the eggs' albumen hardens, and the bread becomes doughy. If food gets mixed with manure, and is not placed on clean sward, straw or boards, deleterious results follow. The right amount of food is just what experiment proves will be eaten up clean, and remember that only boa-constrictors can stuff and then fast; all other creatures like frequent, moderate and regular feeding. According to Gen. Sherman's biography, when a young officer on garrison duty he excelled as a chicken raiser, doubtless owing to soldier-like promptness and method.

If experience is the best teacher, the weeks as they pass are likely to develop a volume of instruction. Outside applications of water are no better than inside ones for small chicks. Dew and rain are their worst enemies. Fowls can readily be detained mornings till the dew disappears, and a well-mown range is favorable. But when

"The day is done, and the darkness
Falls from the wings of Night,
As a feather is wafted downward
From an eagle in its flight,"

some of our little birds will refuse to fold their wings, and with drabbed feathers continue to chase the moths just tantalizingly come out, patience, guidance, and a supper made the best meal of the day, will conquer. Whenever a shower is seen approaching, some appetizing food must hurry them into their coops, which, to avoid all anxiety in flooded times, can be set on an elevation. I have not doubled up broods to the extent many do, but put only so many with a hen as she can well cover. A good general direction for chicks is, keep their toes dry and their backs warm, for, as some wit has said, they will comb their own heads.

ADVICE.—Miss Candour (aged seven, to a lady who has been singing with a good deal of tremolo to her mother's guests)—"I gargle in the nursery."—Tit-Bits.

Butter-Making.

BY JOSEPH YUILL, CARLETON PLACE, ONT.

We are of the opinion that Canadian butter will not take the place in the British market that our cheese does until it is made in creameries. We would strongly recommend fitting up our cheese factories with the proper appliances for the manufacture of good butter; and if your patrons would have their cows come in in the fall, say November or December, they could have their milk made into butter in winter, and cheese in summer. If we have the right breed of cows, and feed them properly, they will milk well all winter and all summer too. There are four points essentially necessary for the manufacture of good butter. Two of these belong to the men, and two to the women. The two that belong to the men are: first, the right breed of cattle for the purpose intended; the second is the feed. The two points that belong to the women are attention and cleanliness. First select the breed of cattle best suited for the purpose you intend them for. This being done, next comes the feed. When I speak of food, I mean water as well as food. When cows are milking, feed nothing but sweet and wholesome food. Do not allow your cows to eat at the stable door. I do not mean to say that horses' bedding is bad for young cattle or cows that are not milking, but it is not fit for cows that are giving milk. Allow your cows to get nothing but the purest of water, and of that as much as they will drink, at least twice a day.

The milk from our common Canadian cows when on grass contains 87% water. The cow has no filter to purify water; if the water is impure, the impurity goes straight to the milk. If a cow drinks 100 lbs. impure water, 87% of the impurities of the water will be found in the milk. Never allow your cows to drink water you would not drink yourself. We will take it for granted that the man has done his part; that is, he has got the right breed of cattle and has fed and watered them properly.

Next comes the woman's part. The first is the milking, which should always be done with clean hands. The cow's udder should be either washed or wiped off clean before commencing to milk. Always milk into tin pails, then strain into can 8 inches in diameter and 20 inches deep as soon after milking as possible, then add enough warm water to bring it up to 90° Fah., place it into ice water sufficiently cold to bring it down to 40° Fah. In summer the cream will be all at the top in twelve hours; in winter it will require 24 hours. Skim with a tin cup. Put the cream into a crock or tin can; keep it below 55° Fah. until you have enough to churn. Twelve hours before you have enough of cream to make a churning, take a half gallon of cream, heat it to 60° Fah., keep in a warm place to ripen, warm all the cream you want to churn to 60° Fah., then add the half gallon of ripening cream, stir thoroughly, put on the cover until it is ripe enough for churning, which should be in less than twenty-four hours. Churn as soon as the cream is slightly acid. Never allow it to rise above 62°. If your cream has been taken off without any milk in it, add one-quarter water before churning. If your churn requires a higher temperature than 62°, raise it by adding hot water. Have a yard of best cheese cloth, run a wide hem in both ends of it, run wooden rod through the hems and hang over the mouth of your churn and strain the cream

through it. There can be no cast-iron rule laid down for the temperature at which you churn; that depends a great deal on the heat of the room you churn in and the time of year, and also the kind of churn you use. In summer we churn at 58° to 60°, in winter 62° to 64°. Churning should be done in from forty-five minutes to an hour. When the particles of butter are the size of a grain of wheat, or even smaller, draw off the buttermilk; let it pass through a fine strainer, to catch any small particles of butter that would otherwise escape. Then put the pin in, and put two pails of cold water into the churn, put on the cover and churn for a moment, draw off the water and repeat the water process, then put in two pails cold water with a pound of salt in it, and churn a little longer and draw it off. Then salt one ounce to every pound of butter, put on the cover and turn until the butter is formed into rolls. By this time the salt and butter will be thoroughly mixed. Lift the butter into a tub with a wooden ladle, and let it remain eight hours. The hand should never be allowed to touch the butter.

HOW TO PREPARE THE TENENTS.

Fill them with fresh buttermilk and let stand for twelve hours; empty out the buttermilk and wash with cold water, using a brush, then fill with boiling pickle, and let stand for twelve hours; scour with coarse salt, rinse with cold water, put in one-half teacupful of fine salt, two tablespoons saltpetre, and one tablespoon white sugar in the bottom, cover with a piece of cloth, then it is ready for the butter. When filling the tub, keep the butter high in the centre, so as to run the pickle to the outside of the tub, as that is where the butter spoils first. After the first churning is put in, cover with a cloth and put in an inch of salt over the cloth to exclude the air; when adding each churning, remove the cloth, and put it on again until the tub is full.

Fill it to within a quarter of an inch of the top, cover with two plies of cloth, press the cloth well down round the edge, cover with the following mixture: One pound salt, two ounces white sugar, one ounce saltpetre; wet with boiling water, then allow it to cool, and spread it over the top of the tenent—this will become perfectly hard and air-tight. Have a rough box in the milk room large enough to hold all the butter you will make in the season; as soon as a tenent is full put it into the box, and cover with coarse salt, to keep it from the air. In conclusion, let me say, if women would use a brush instead of a cloth to wash all dishes used around their milk and butter, they would find it much easier to keep the dishes sweet and clean. Although we tell how butter can be kept, we do not recommend keeping it after it is made.

The Adulteration of Butter.

Some idea of the extent to which foreign butter is still adulterated with margarine, in spite of the law passed to check such malpractices, is afforded by a report submitted to the British Home and Foreign Butter Exchange by Mr. Otto Hehner, President of the Society of Public Analysts. Out of 148 samples of so-called butter sent to him to be analysed, during twelve months, eighty-six were found to have been adulterated with margarine to an extent varying from 6 to 95 per cent. This must not be taken to represent the average condition of imported butter, as the samples were sent because they were regarded as suspicious; but the fact that so large a number of adulterations have been detected among samples submitted by the members of one association, indicates fraud on an extensive scale. Unfortunately, as Mr. Hehner points out, the improvement in the manufacture of margarine has been so great that mixtures containing 20 to 30 per cent. of it cannot easily be detected by the best judges without analysis. Moreover, he has every reason to believe that shippers regularly employ chemists to advise them as to the kind and percentage of adulteration which may with some degree of safety be practised. To what base uses is science prostituted, in order that grasping, avaricious men may defraud their fellows!

Dairy Notes and Comments.

A writer in one of the leading American dairy papers says: "The cow wants to see an improved breed of dairymen established." This is a very pithy sentence. There is no doubt room for a great improvement in the breed of dairymen, as well as in the breed of dairy cows. Unless the dairyman is well up in his business, and keeps himself posted, he will find that some one else who is well up will leave him behind.

We noticed when looking over the last report of Mr. John Dike, emigration agent at Liverpool, that the trade in Irish tinned butter continues to make rapid progress. Why cannot Canadians secure some of this trade? There is no reason why some of our best Canadian creameries could not make and put up quite as fine butter as that supplied by the Irish. Would it not be well for our Dairy Commissioner to look into this matter?

There is not sufficient value and importance attached to land plaster as an absorbent and disinfectant in the dairy stables. If used judiciously and carefully it will add many dollars to the value of the manure pile. If from a pint to a quart per day for each cow is used, it will impart a degree of sweetness to the stables not before known to the user. This quantity will absorb all the volatile ammonia, and this, for sanitary, if for no other reason, should not be lost sight of.

Every day the dairy appliances of the factory and creamery grow more and more intricate, which requires the factorymen to be good mechanics, so that the different machinery will do perfect work. The separator and other dairy appliances need and require a mind of a high intellectual type to manage and work them. The market each year is growing more and more exacting; only the very best goods find ready sale. A skilful manager will in the future play a most important part in the education of the patrons, and thus bring up the quality of the milk and cream. To this end he must be posted as to the character of the different foods and their effect on milk and butter. This requires a great amount of preparatory study, and practice as well. Every cheesemaker and buttermaker will do well to take these things into consideration and apply himself.

The Western Fair prize list is now before us. The dairy department is well to the front with some very valuable and important special prizes in addition to the regular prizes. We notice a Bankers' prize of \$100, also a special prize from D. H. Gowing, manufacturer of Arnold's Extract, another from D. H. Burrell & Co., manufacturers of Hansen's Extract and Annatto. There is also one from the Thatcher Manufacturing Co. who are manufacturing butter color, and one from Cornish, Curtis & Greene, who are among the largest manufacturers of dairy appliances in the United States. We also notice a very handsome prize will be given by R. A. Lister & Co., who are manufacturing the celebrated Alexandra Separator, J. S. Pearce & Co. being the Canadian agents for these machines. Our readers who are interested in this work, and have anything to exhibit at this fair, will do well to send for the prize list. Write the secretary, Mr. Thomas A. Browne, London, Ont.

The opinion is being advanced that it will not be many years before the future butter and cheesemakers of this country will have to be graduates of a dairy school. The majority of our butter and cheesemakers are not giving their duties the attention they should, and are not keeping themselves posted. They have learned a little about cheese or buttermaking while working as a second hand in some factory, rarely attend a convention, and they do not take a dairy paper. Some of them express the opinion that the Babcock test is of no use, and that inspectors are a nuisance, and sundry other remarks. Scores of those so-called cheesemakers have never had sufficient education to figure out the dividends for the patrons. They are annually handling thousands of dollars' worth of milk, and are liable at any time to incur heavy losses on account of their lack of knowledge. These so-called cheese and buttermakers will have to reform or quit the business. There will be a day of reckoning for such men.

While a great deal has been written and said about scientific methods in the cheese factory and creamery, the farmer's dairy has been completely lost sight of. The farmer's wife seems to be expected to make good butter without rule or any of the facilities which make possible the system of setting, churning, working and salting; but all is uncertain and haphazard. This should not be. Every farmer's wife should be provided with the proper appliances, from a good thermometer up to a first-class milk house or cellar. If she is not thus provided with these appliances, it is unreasonable and unfair to expect her to make first-class butter.

We like to read of and hear of progressive dairymen. A writer in Hoard's Dairyman tells the following story:—"It is not so very many years ago that one day when the rain was falling in torrents, a man who said his name was Mr. Strong, from Java, came to my house and for hours we talked dairy, silos, and fancy butter-making. The next we heard from him was as a "fancy" dairyman whose six cows had increased to twenty-five, one silo had become two, and the butter was so fine that the supply was not equal to the demand." Now the Dairyman credits him with three silos, forty Jersey cows, and a per head income of \$76 per annum. Dairying does not pay, does it?

At this season the question of bad water and bad odors in the milk will crop up and will be discussed with many cheesemakers. Foul water is an abominable thing and should not be tolerated by any dairyman. No man should allow his cows to drink water that he would not be willing to drink himself. About 87 pounds of every 100 pounds of milk is water. Milk is intended for human consumption, and if the water in the first place is not fit for man to drink, then the milk is not fit to drink or to be made into cheese. Every dairy farmer who has stagnant pools on his farm should be compelled to fence them in and put down a good well, and erect a wind-mill. This would improve the milk wonderfully, and would save the cheesemaker very many anxious days.

What is to hinder any dairy farmer who is desirous of so doing from stepping right into the current of good, pure dairy blood, and in a few years increasing the dairy performance of his cows very greatly. The road has been opened—it has already been travelled. There are farmers who have in this way brought up their herd from an average yield of 150 lbs. of butter per year per cow to 300 lbs. per cow. Let any practical dairyman figure up the profit and difference between the cow which yields 150 lbs. and the one that yields 300 or even 250 lbs. There are some dairymen who have brought their cows up to this degree of perfection, yet their example is lost on the majority of farmers. No practical improvement has been made in their cows since their grandfathers' days. Apparently these people seem to be desirous of hindering instead of helping the work on. Why cannot they move and do something along the lines of improvement? We sometimes wonder if a charge of dynamite would move them on.

Dairy schools and dairy instructors are now the order of the day in England. These schools are of the very highest order of merit, and are supported in part by private contributions. They are being held in nearly all the dairy districts of Great Britain. Every step in the handling of milk for the production of the finest butter is being discussed and exemplified, and the product is submitted to the judgment of experts in dairy markets. A class is made up from those attending who are interested in the practical work of the dairy. At one of these schools the committee in charge exemplified three systems of butter-making. One was the old Cornish system of milk scalding, another the Jersey Gravity Creamer, and the other the celebrated Alexandra Separator. In a two days' trial, from equal quantities of milk, the milk scalded produced 13 lbs. 2½ oz. of butter; the Jersey Creamer, 16 lbs. 8½ oz.; and the Separator, 19 lbs. 14½ oz. The three different samples of butter graded respectively in the Birmingham market as follows:—"Inferior," "fair," and "fine." This is another indication of what the Separator will do towards making fine butter.

Twenty-second Annual Meeting of the North American Bee-Keepers' Association.

The above convention was held in the Agricultural Hall, Albany, N. Y., U. S., December 9th and 10th.

G. M. Doolittle considered the bees, the location and the apiarist, the chief factors in bee-keeping. Bees, he stated, could not be produced without good queens. It took twenty-one days to develop the perfect worker from the eggs, and it took about sixteen days more before the bee commenced to store honey. From this the importance of having good queens bred early could be judged.

As to location, some could select their location, others had to take the location they were situated in; those that could select should make a careful choice before settling. A locality that had clover, basswood and fall flowers, was good. If he has two of these it was a fair locality; if only one, a poor location.

Basswood sometimes yielded only three days, and in such a case the necessity would be seen of being ready and having one's dish right side up. It was important to know one's location. Some claimed it was all in a good hive, but the hive was nothing if the right man was not with it.

The apiarist wanted to be a man who looked at the sun, not to see how soon it would go down, but how long it would remain up. Failing to have the bees, meant failure to get the honey. An extra push was required to get bees ready for white clover blossom.

He used to be an enthusiast in the spreading of brood, but it required a wise head to manage that; unless rightly done it had better be left alone. The brood combs should not be spread out, but their relative positions changed. Outside packing had much to do with facilitating building up strong colonies in spring.

The question was asked, Should bee-keeping be made a specialty? The majority appeared to favor combining bee-keeping with some other occupation.

Captain Hetherington, who has over 2,000 colonies of bees, and who has been extensively engaged in bee-keeping, said when he was about sixteen years of age he wrote to Mr. Quinby and asked him if he would advise a young man to make a specialty of bee-keeping, and he said Mr. Quinby advised to the contrary; a good many years later he asked Mr. Quinby if he had changed his mind, but Mr. Quinby said no. Captain Hetherington said he did not know if he was a specialist; he kept bees mainly. Looking back twenty years he thought there were few indeed who were specialists who had made a success of bee-keeping. Mr. Quinby has suggested connecting bee-keeping with dairying, manufacturing, school teaching, &c.

J. E. Crane said that bee-keeping as a specialty carefully carried out was all right. He knew the bee-keepers better in Vermont than any other State, and although not rich, he felt sure they compared very favorably with the farmers.

Captain Hetherington here made an excellent point. He said many bee-keepers he found had energy, they were intelligent, they know what is wanted, such as a good queen, that they should get ready for the honey flow, that they should have good worker comb, and stores enough. The failure lay in that they thought they had these conditions, but they were often mistaken; they should make a point of knowing. It would be well to pause and reflect over our own failures, and many of them can doubtless be

traced to this fault. We thought our bees had enough for winter, but when we came to pack them we found how mistaken we were. We thought the queen was young and prolific, but when spring came, the season when every day counts, and queens are scarce and expensive, we found but few eggs deposited in the hive. We thought there was plenty of room in the hive, when swarming awakens us to the fact the bees have been idle during the best of the honey season, and the hive has no more room in it. We thought the moths were not working in the combs, when we find that they have destroyed dollars' worth of them. We thought there was abundance of room in the can when the honey is running in it from the extractor, and we find the floor a sea of honey and dollars' worth of honey lost. The consensus of opinion appeared to be that bee-keeping should be started in a small way, and as experience and success warranted, the apiary enlarged.

A paper by W. F. Clarke next received attention. Mr. Clarke thought swarming was an abnormal condition of the hive. He had during the past summer given his bees plenty of room and only one out of six had swarmed. It was thought that in running for extracted honey it was a comparatively easy matter to prevent swarming by shading, ventilating and room, but the trouble came in when taking comb honey, because then the colony had to be crowded to a certain extent. Some had tried removing the queen just before the honey season; the objection was the labor and care required in getting the queen, and then reintroducing. There is no doubt this method is not one favorable to the farmer, as the less "tinkering" he does with his bees the better. For a man who does a great deal of work in the apiary and who has his attention strongly fixed on the bees, it may work. Some thought the black bees were less liable to swarm than other races, but this was solely because they were less energetic. Swarming was to a certain extent considered desirable, as the new swarm gave the best results in the taking of comb honey.

The plan of C. W. Ford was given. He has two scantlings crossing one another at right angles, and where they cross revolve on a post in the ground; on each end a swarm of bees is placed as they come from the cellar and the affair given a quarter of a turn each day. The flying bees all get into a new hive every day, and it is claimed will not swarm.

President Elwood, who has about 800 colonies of bees, thought that the strain of bees made quite a difference; some strains were less liable to swarm than others. We should breed for non-swarming strains. He practised breaking down queen cells. It would not do to examine combs with the bees on; they must be shaken off so as to expose every part of the combs and destroy every cell. When examining the bees, he destroyed all old queens and had them replaced by young later. If a young queen, a comb of brood and bees is taken out with her, and at the close of the honey season she is returned to her own hive.

TO BE CONTINUED.

Shropshire Sheep Record.

Through the courtesy of Mr. Mortimer Levering, the secretary, this office is in receipt of the seventh volume of the American Sheep Record. This book is more than a third larger than any of its predecessors, and contains the pedigrees of 11,076 sheep, or from No. 21,173 to 32,248 inclusive, together with indices of names and numbers of the sheep recorded in it, lists of members and their addresses, names and addresses of breeders, owners, and importers, also transfer of sales. The system of searching pedigrees is simple and convenient. To the efficient management by the secretary and editor, together with the systematic manner in which the record is kept, may be largely due the wonderful popularity this breed of sheep has attained.

Experience has proved that when cows are provided with shade and shelter from the hot sun for a few hours in midday when grazing they produce a much larger quantity of milk and not only a larger quantity, but it is of a much better quality.

"The Ideal Farmer."

SYNOPSIS OF AN ADDRESS DELIVERED BY MR. JAMES ELDER, OF VIRDEN, BEFORE THE SOUTHERN MANITOBA FARMERS' INSTITUTES.

However answers might differ to the question, What constitutes an "Ideal Farmer"? there is one point upon which all will agree, viz., he should make money. I do not intend to differ from those who give this answer, although I would remark that it is one thing to make money on, and quite a different thing to make money out of, a farm; and whilst the ideal farmer should make money, this should not be by any means his only aim. The ideal farmer should indeed be an ideal man, and he who lives only for accumulation of dollars is unworthy of that appellation. Every man should endeavor to leave the world better than he found it; and he who lives only to make money will not do much in this direction. In thinking over my subject, I found it much larger than I anticipated, and I can only touch upon some of the most prominent points, or run the risk of wearying you. I said that the ideal man should leave the world better than he found it, and so the ideal farmer should leave his farm as fertile as he found it. Any man can plow land, and sow wheat year after year, but what is to be the result in a few years? We will leave to our sons worn out, dirty farms, upon which they will grow discouraged, and quit the business in disgust. * * * In order to keep up the fertility of our farms, I believe we will have to go more into stock raising than has been our practice hitherto. The time will certainly come when we will think with regret of the immense straw piles which have been destroyed. The ideal farmer should keep his farm clean; and as year by year passes this becomes more difficult. Most of us had the idea that when we had our breaking backsetting done our work would be lessened, but, on the contrary, we find that our first years are the easiest. We find it easier to break and backset a new piece, than to clean an old piece which has become foul. Couch grass, which on heavy land is the greatest pest, requires a vast amount of work to eradicate it, and in wet seasons it seems almost impossible. As we pass through the country we see many fields of which couch grass has practically taken possession. I believe the day is not far distant when we will be compelled to cultivate less in proportion to our power. The ideal farmer should aim at neatness, both in his fields and around his buildings. In passing through the country we see on many fields large quantities of stone lying on the surface, constituting not only an eyesore, but a serious hindrance to the operations of the farm. In many cases we find the sloughs and scrub spots left unbroken, giving the farm a very tattered and slovenly appearance. Besides, if these spots were cleaned up and sown with hay seed they would be quite as profitable as any other part of the farm. Surely the man who keeps these spots lying unproductive and unpleasing, whilst drawing hay ten and twenty miles, cannot be called an ideal farmer. When we find the fields in this condition we find the same untidiness extends to the buildings and yards. Implements and machinery will be found lying around mixed with straw, manure and firewood, making it unsafe to pass through the yard after night. Of course it involves the expenditure of

a little time to keep the home surroundings tidy; but, after all, it becomes largely a matter of habit, and I believe that as a rule the tidy man gets through with nearly as much work as he who is slovenly. Besides, the influence upon the young people is far-reaching and important. I believe that as a rule the young men and women reared amid slovenly surroundings grow up rude and coarse. The young man acquires a sort of "what's the use" idea, which is reflected in his life and conduct. Show me the wide-mouthed, noisy, unmanly young man, whom respectable society simply tolerates, and in nine cases out of ten I can describe his home surroundings. With the same idea in view the home should be ornamented: 1st. By planting a grove around the house and barns—the larger the better. Not only does this give the place a cosy and home-like appearance, and relieve the monotony of the prairie, but it is a great advantage from a practical point of view in furnishing protection against the storms of winter.

2nd. By painting. Is it not wonderful what a transformation a little paint is capable of making in the appearance of the home? It changes the dreary, dungeon-like house into a light and cheery home, the very sight of which sends a thrill of pleasure to the hearts of the inhabitants as they return from town.

But, says one, "I can't afford to hire a painter." You don't need to. You can get prepared paints to buy, and nothing will please John or George better than to put it on if you will give them the time; and, depend upon it, you will find it well spent time and money. As to the inside, just make the same proposal to your wife or the girls, and I venture to say you will get no peace till you bring home the paints. Another says, "Mine is only a log house." Well, get it whitewashed. I will never forget the light, cheery appearance of the whitewashed log houses of the Bradwardine district, nestling in the shelter of the natural groves which abound in that beautiful district.

A farm is not complete without a garden—fruit, vegetable and flower. The fruit garden is so easily obtained that there is little excuse for the farmer's table not being supplied with small fruits. A sufficient quantity of vegetables should also be grown to supply the table, both in winter and summer. It is gratifying to see that so many are paying attention to these two departments; but the last named, the flower garden, is very much neglected. This is usually looked upon as a luxury, and it does seem hard for the ordinary farmer to spare sufficient time to attend to its cultivation, but certainly his farm cannot be called an "ideal" one unless he does.

The ideal farmer will keep his stock in good condition, and he will do so at his own expense. Throughout most of the province we have the Herd Law, which I for one thoroughly approve of, but even where the Herd Law is in force there are some who are so selfish and regardless of their neighbor's rights as to turn out their stock to take their chances, and expect their more orderly and less selfish neighbor to become herdsmen for both his own stock and theirs; and if, perhaps, their long suffering neighbor becomes exasperated, they will vote him an unneighborly crank, whereas, if they were to cast away the selfishness which constitutes them a nuisance, they would find no occasion for the remark which proves their ignorance. The ideal farmer will also keep his machinery and implements in good repair, housed, and painted. How often has the want of a five cent bolt caused a five dollar break and the loss of valuable time, and how often has a defect in the harness caused a runaway or a serious accident.

Let me describe a sight which we too often see, and then tell me if the man is an ideal farmer. A farmer comes into town with a load of grain. First of all, his horses are poor, with sore places on their shoulders. His harness is tied together with binder twine. In many places

the joints of his reins are ripped half the length. The straps are not put through the loops. One rein is about four feet longer than the other. His doubletree is a piece of a small tree flattened on two sides. Some of the whiffletree ends are put on wrong side out. The bottom of his box is full of holes. Every bag has a plug of straw in it, and every second one bears another man's name. If you saw such a one, would you expect to find his farm an "ideal" one.

A most important factor in securing good repairs is the carpenter and blacksmith shop, a thing without which no farm is complete in this country of long distances from town. These need not necessarily be either large or expensive, but a shop I look upon as an absolute necessity. If a man has a shop he will soon become handy, and will keep things in repair which he is not inclined to take to the mechanic.

The ideal farmer will avoid borrowing. It involves loss of time to the borrower himself, and he has no idea of the strain he sometimes puts upon the temper of his neighbor. It is not a circumstance calculated to sweeten relationships for a man when he wants a tool in a hurry (after losing some valuable time in looking for it) to be told by some of the hands, or to remember that Mr. B borrowed it some two weeks ago and has neglected to return, or perhaps to find that the tool or implement borrowed by Mr. C has been returned out of order, and that it will take half an hour to put it in order.

The borrower may not think of these things, because he only knows his own particular case, whereas he is probably one of a dozen whom the lender has to supply. The ideal farmer will keep himself ahead of the times by perusing the agricultural literature of the day. He should also be an active member of the Farmers' Institute; it is quite true there are some who think they know it all, although I very much doubt it; but if they do they should attend the institute meetings and give others the benefit of their knowledge.

I have only touched upon some of the points characteristic of the ideal farmer, and although I have already trespassed upon your time, I must ask your indulgence whilst I speak of the home, for

"Home is not merely four square walls,
Though with pictures hung and gilded;
Home is where affection calls
Filled with shrines the heart hath builded."

The farmer's home should be cheerful and happy, and in order to this end, it should be supplied with an abundant supply of wholesome literature, and the young people should be encouraged to engage in innocent games in the evenings. The time has come, too, when the musical instrument has become a necessity. Why should not our young girls, yes, and boys, too, learn and practice the art of music. There is hardly any thing which adds more to the harmony and pleasure of the home than music. I know that some purpose doing all this by-and-by, but did it ever occur to you, my friends, that your family is growing up, and some of them will soon be leaving you, and you will have failed to impress upon their minds what I think is very important, that home was the happiest place on earth.

Again, I am afraid that in a good many cases in this new province, whilst the pecuniary well-being of the family is being looked after, and in some cases the social, there are many in which the moral and religious interests are lost sight of, amid the hurry and bustle of farm work. This ought not to be.

If there is a man in the world whose thoughts should be led "through nature up to Nature's God," it is the farmer, and yet I fear that in some homes at least the "Great Giver of all Good" is not recognized in the family.

The home of the ideal farmer should have its family altar where all, children and servants, meet in worship. I care not though the master be a millionaire and the servant a penniless laborer, they should meet at the family altar to unitedly worship Him who looks not upon the outward appearance, but upon the heart, and in whose presence we hope to meet and mingle where the distinctions of earth are forgotten.

Family Circle.

THE SILVER SPOONS.

The Parish of Bathgate, in Linlithgowshire, ought to be reckoned among the classic spots of Scotland, inasmuch as it formed part of the dowry which Robert the Bruce bestowed on his eldest daughter, Margery, when she married Walter, the high steward of Scotland, and thus became the progenitrix of the royal and unlucky house of Stuart. Lying midway between Edinburgh and Glasgow, those rival queens of the east and west, but out of the common track of traffic and travel, it has been for ages a pastoral parish of small and rather backward farms.

Of late years coal has been found there, and steam and trade, which bid fair to leave the world no rustic corner, are rapidly turning it into a mining district, which nobody thought of about the time of the general peace, when Bathgate lived on its own oats and barley, wore its own hoddie gray and had but two subjects of interest—the corn market and the kirk session. Among its peaceable and industrious population there was one dame who, though neither the wealthiest nor the best born, stood in her own esteem above all but the laird and the minister, and her style and title was Widow Simpson. This lady valued herself, not on the farm left her by the good man who had departed this life some seven years before the commencement of our story, for its acres were few and they consisted of half reclaimed moorland; not on her grown up son Robin, though he was counted a thrifty housekeeper though it was known to be on the "tight screw" principle; but on the possession of a dozen silver teaspoons.

Her account of them was that they had belonged to the young chevalier, and had been bestowed upon her by her grandfather in return for entertaining that claimant to the British crown on his march from Culloden—in proof of which she was accustomed to point out a half obliterated crest and the initials C. S., with which they were marked. The widow's neighbors, however, had a different tale regarding their coming into the family. It was to the effect that her grandfather, who kept a small inn somewhere in Fife, had bought them from an ill-doing laird for three gallons of Highland's whiskey, and bestowed them on his granddaughter as the one of his family most likely to hold fast to such an important acquisition.

In the family resided in the capacity of "help" one Nancy Campbell, a girl about nineteen, who was suspected of having taken a fancy to Robin, who reciprocated the sentiment. Nothing however would soften the heart of the widow as regards a match, until at last the following event occurred and caused her to give way: About the haymaking time a distant and comparatively rich relation was expected to call and take tea one evening on his way to Linlithgow. It was not often that this superior relative honored her house with a visit, and Mrs. Simpson determined that nothing should be wanting to his entertainment, brought out the treasured spoons early in the forenoon, with many injunctions to Nancy touching the care she should take in brightening them up.

While this operation was being conducted in the kitchen, in the midst of one of those uncertain days which vary the northern June a sudden darkening of the sky announced the approach of heavy rain. The hay was dry and ready for housing. Robin and two farm men were busy gathering it in; but the great drops began to fall while a considerable portion yet remained in the field, and, with the instinct of crop preservation, forth rushed the widow, followed by Nancy, leaving the spoons half scoured on the kitchen table. In her rapid exit the girl had forgotten to latch the door. The weasel and the kite were the only depredators known about the moorland farm, but while they were all occupied in the hay field, who should come that way but Geordy Wilson.

Well, the kitchen door was open, and Geordy stepped in. He banged the kettle with his staff, he coughed, he hummed, he saluted the cat, which sat purring on the window seat, and at length discovered there was nobody within. Neither meal nor penny was to be expected that day; the rain was growing heavier, some of the hay must be wet, and Mrs. Simpson would return in bad humor. But two objects powerfully arrested Geordy's attention: one was the broth pot boiling on the fire and the other the silver spoons scattered on the table. Bending over the former, Geordy took a considerable sniff, gave the ingredients a stir with a pot stick, and muttered "Very thin." His proceeding with regard to the latter must remain unmentioned; but half an hour after, when he was safely ensconced in a farm-house a mile off and the family had been driven within doors by the increasing storm, they found everything as it had been left—the broth on the fire, the cat on the window seat, the whitening and flannel on the table—but not a spoon was there.

"What's the spoons?" cried Mrs. Simpson to the entire family, who stood by the fire drying their wet garments. Nobody could tell. Nancy had left them on the table when she ran to the hay. No one had been in the house, they were certain, for nothing was disturbed. The drawer was pulled out, and the empty stocking exhibited. Every shelf, every corner, was searched, but to no purpose; the spoons had disappeared and the state of the farm-house may be imagined. The widow ran through it like one distracted, questioning, scolding and searching. Robin, Nancy and the farm men were dispatched in different directions as soon as the rain abated, to inform the neighbors, under the supposition that some strolling

beggar or gypsy might have carried off the treasure, and would attempt to dispose of it in the parish. Nobody thought of Geordy Wilson. He had not been spied from the hay field; his circuits were wide; his visits to any house were not frequent; and if he avoided Widow Simpson's from the day of her loss, it was believed Geordy knew that neither her temper nor her liberality would be improved by that circumstance.

Lost the spoons were beyond a doubt, and the widow bade fair to lose her senses. The rich relation came at his appointed time, and had such a tea that he vowed never again to trust himself in the house of his entertainer. But the search went on; rabbits' holes were looked into for the missing silver and active boys were bribed to turn out magpies' nests. Wells and barns in the three nearest parishes explored. The cries of the three nearest parishes were employed to proclaim the loss; it was regularly advertised at kirk gate and market place, and Mrs. Simpson began to talk of getting a search warrant for the beggar's meal pouch. Bathgate was alarmed through all its borders concerning the spoons; but when almost a month had worn away and nothing could be heard of them, the widow's suspicions turned from beggars, barns and magpies to light on poor Nancy. She had been scouring the spoons, and had left the house last; silver could not leave the table without hands.

It was true that Nancy had always borne an unquestionable character, but such spoons were not to be met with every day, and Mrs. Simpson was determined to have them back in her stocking. After sundry hints of increasing breadth to Robin, who could not help thinking his mother was losing her judgment, she one day plumped the charge, to the utter astonishment and dismay of the poor girl, whose anxiety in the search had been inferior only to her own. Though poor and an orphan, Nancy had some honest pride; she immediately turned out the whole contents of her kist (box), unstrung her pocket in Mrs. Simpson's presence and ran with tears in her eyes to tell the minister.

As was then common in the country parishes of Scotland, difficulties and disputes which might have employed the writers and puzzled the magistrates were referred to his arbitration, and thus law suits or scandal prevented. The minister had heard—as who in Bathgate had not—of Mrs. Simpson's loss. Like the rest of the parish, he thought it rather strange; but Nancy Campbell was one of the most serious and exemplary girls in his congregation, and he could not believe that the charge preferred against her was true. Yet the peculiarities of the case demanded investigation.

With some difficulty the minister persuaded Nancy to return to her mistress, bearing a message to the effect that he and two of his elders who happened to reside in the neighborhood would come over the following evening, hear what could be said on both sides, and if possible clear up the mystery. The widow was well pleased to have the minister and his elders come to inquire after her spoons. She put on her best mitch—that is to say, cap—prepared her best speeches and enlisted some of the most serious and reliable of her neighbors to assist in the investigation.

Early in the evening of the following day—when the summer sun was wearing low and the field work was over—they were all assembled in the clean scoured kitchen, the minister, elders, and neighbors, soberly listening to Mrs. Simpson's testimony touching her lost silver. Nancy, Robin and the farm men sitting by until their turn came; when the door, which had been left half open to admit the breeze—for the evening was sultry—was quietly pushed aside. And in slid Geordy Wilson, with his usual accompaniments of staff and wallet.

"There's nae room for ye here, Geordy," said the widow; "we're on weighty business."

"Weel, me," said Geordy, turning to depart, "it's o' nae consequence. I only came to speak about your spoons."

"Hae ye heard o' them?" cried Mrs. Simpson, bouncing from her seat.

"I couldna miss bein' blessed wi' the precious gift of hearin', and what's better, I saw them," said Geordy.

"Saw them, Geordy? Whar are they? and here's a whole shillin' for ye," and Mrs. Simpson's purse, or rather an old glove used for that purpose, was instantly produced.

"Well," said Geordy, "I slipped in ae day, and seein' the seller unguarded I thought some ill-guided body might covet it, and jist laid it by, I may say, among the leaves o' the Bible, thinkin' ye would be sure to see the spoons when ye went to read."

Before Geordy had finished his revelation Nancy Campbell had brought down the proudly displayed but never opened Bible, and interspersed between its leaves lay the dozen of long sought spoons.

The minister of Bathgate could scarcely command his gravity while admonishing Geordy on the trouble and vexation his trick had caused. The assembled neighbors laughed outright when the daft man, pocketing the widow's shilling which he had clutched in the early part of his discourse, assured them all that he kenne'd Mrs. Simpson read her Bible so often the spoons would be certain to turn up. Geordy got many a basin of broth and many a luncheon of bread and cheese on account of that transaction, with which he amused all the fiesides of the parish. Mrs. Simpson was struck dumb even from scolding. The discovery put an end to her ostentatious professions, and, it may be hoped, making amends for her unjust imputations on Nancy Campbell, she consented to receive her as a daughter-in-law within the same year, and it is said there was peace ever after in the farm-house; but the good people of Bathgate, when discussing a character of more pretense than performance, still refer to Widow Simpson's spoons.

Minnie May's Dep't.

MY DEAR NIECES:—

There is nothing so adverse to the comfort of a household as discontent, and if we let the kill-joy grow, there will be no end to the destruction it will cause. The discontented woman thinks her neighbor's house far the prettier, though her own may be the larger and more comfortable; then her children are not as pretty nor as good as others she knows. Well; the more admired children are puny little creatures, with not enough of strength to romp and play as her's do. The dresses she has are not grand enough. Grandeur would not suit her surroundings or position. And her kind husband, like a sensible man, is laying by a little every year against the time when neither can work any more, to be enjoyed in their old age. Believe me, there is nothing lacking in your surroundings to prevent your home being the happiest on earth, your children the sweetest and dearest, and everything about you as lovely as Eden, except a little less selfishness and a little more self-respect. Only think how discouraging to a child never to do or say anything that pleases you! And who can wonder if the little one, tired of trying and thinking she may as well have the gain as the name, goes all wrong? A little encouragement does go so far towards making little people, as well as big ones, feel they have a place in the world, and spurs them on to higher and better things. The long-suffering husband, failing to please, gives up trying, and goes from bad to worse. If the discontented woman would think less of herself, or for herself, and more for those about her, she would make the most of her surroundings and find much to reconcile her to her lot. There is a great want of the proper pride about people who feel that the possessions of everybody else are better than their own. Now, the way to cure this bad habit is to continue trying to do and think for the comfort of others. Make your meals appetizing. Give more thought to the care of your house. Put out your best china sometimes; it is as easily washed as the everyday set. Say cheerful things; cease finding fault, and you will be surprised how soon the worried, fretted feeling passes away, and your efforts to please will be appreciated and returned to you fourfold in heartily expressed praise. MINNIE MAY.

P. S.—By way of variety this month I change the competition from essay-writing to handiwork, and offer a prize of \$2.00 for the prettiest pattern of crocheted lace edging in cotton, with directions for making the same. The work must be clean and evenly done. All samples must be in our office by the 10th of August. To simplify your work I give below a form of abbreviations for use in describing your pattern.

Abbreviations in Crocheting.—Ch, chain; a straight series of loops, each drawn with the hook, through the preceding one. Sl st, slip stitch; put hook through the work, thread over the hook, draw it through the stitch on the hook. Sc, single crochet; having a stitch on the hook, put hook through the work, draw the thread through the work and the stitch on the hook. Dc, double crochet; having the stitch on the hook, put the hook through the work, and draw a stitch through, making two on the hook; take up the thread again and draw it through both stitches. Tc, treble crochet; having a stitch on the hook, take up the thread as if for a stitch, put the needle through the work, and draw the thread through, making three on the hook; take up the thread and draw through two, then take up the thread and draw it through the two remaining. Stc, short treble crochet; like treble, except that when the three stitches are on the hook, instead of drawing the thread through two stitches twice, it is drawn through all three at once. Ltc, long treble crochet, like treble, except that the thread is thrown twice over the hook before inserting the latter in the work; the stitches are worked off two at a time, as in treble. Extra long stitches; twine the thread three times around the hook, work as the treble stitch, bring the thread through two loops four times. P, picot; made by working three chain, and one single crochet in first stitch of the chain.

Tired Travellers.

Poor monkey and poor traveller, wearied with their journey! Foreigners both, one from Italia's sunny shores by the blue Mediterranean, and the other from the groves of his eastern home, from whence the cocoanuts and the spices come. The hand-organ is laid aside, the music is still, the monkey rests from climbing over the difficulties presented by the givers of the cents, and sad enough he looks. Even in his antics, which are most amusing, there is something sad in a monkey, dressed in a red coat, earning his living with his antics, and travelling up and down over the country, suffering or rejoicing, as fortunes use him and his master. The climate is hard on them here, and their lives are far from being enjoyable. Most human are they in look and gesture, and very interesting, but somewhat mischievous, playing queer pranks on their owners, and on his pets, if he be foolish enough to have others after this one comes.

PRIZE ESSAY.
Travelling as an Educator.

BY EVELYN L. LONDON, ONT.

In no other form of education is the principle that "Whosoever hath, to him shall be given" more forcibly illustrated than in the subject before us. Many who travel, do so, figuratively speaking, with their eyes shut. Just in proportion as the powers of observation are developed, and the mind stored with the knowledge of past events, will travelling prove an educator.

The effects produced by it differ greatly with the countries visited. On the continent of Europe almost every foot of land, particularly in the southern and western portions, teems with historical associations; these in many cases being the chief attraction. The battles of ancient Greece and Rome seem almost to be present to our sight as we visit the fields where the clash and din of arms once resounded. Then with what different feelings do we view the Catacombs where the early Christians met together for their services of prayer and praise, and where they placed with loving care the earthly remains of those who yielded their lives for their faith. Passing through Spain, with its Moorish suggestions, and across sunny France, with its recollections of tottering powers and revolutionary cries, we cross the channel and come to that land which, next to our own, holds first place in our affections. Time and space do not permit that we should even mention the many places, both of natural beauty and historical interest, with which it is crowded, from the southern portion to the "land of the heather", whose beauties have been immortalized by the Great Wizard of the North, not forgetting the Emerald Isle, of which the poet Moore so sweetly sings. Travelling amongst these scenes in the old land brings the past before us with great vividness, and gives it a reality which mere reading could never do. It is upon exactly the same principle that we show a picture to a child, thus presenting to his mind ideas which it is doubtful if mere words could ever convey.

When we travel in the far East our thoughts must go back even to the birth of the human race, and the events recorded in Holy Writ, and we are at once impressed by the totally different conditions of life, manners and customs, which contrast so strongly with those to which we are accustomed in our western land.

Coming westward again to our own continent, we cannot fail to notice that life gathers momentum as it rolls toward the west, and that here the average man lives immeasurably faster than in the older countries. He crowds into his life, or, at least, endeavors to crowd into it, that which some years back no one person would ever think of attempting. In many of the cities on the continent of America the one object which seems to be considered worthy of effort to obtain

is wealth. Everything else is of secondary consideration, and must take a secondary place. Nothing is counted too dear to sacrifice in its attainment, and a man is considered successful only in so far as he becomes rich in worldly possessions.

Travelling in our own land, our broad Dominion, should surely educate us to appreciate more fully her boundless resources, her great natural beauties, her wonderful possibilities—should stir up within us a more patriotic spirit and a greater love for the broad, free land in which we dwell. We, as Canadians, are not half enthusiastic enough about our country, and only need to travel upon her great rivers and lakes, and amongst her mountains, rivaling in beauty and grandeur the famous Alps, crossing on our way the rolling prairie lands, rich and fertile, to give us a true sense of her greatness. Thinking of mountains recalls the introductory chapter in one of Charles Kingsley's novels, in which he remarks upon the number of heroes which have sprung from mountainous countries. It seems as if the courage and hardihood requisite for the dwellers there stand them in good stead in the battle of life. Even the traveller among mountain scenery must, for the time being, be lifted out of himself and brought nearer to the great Creator, whose hand hath formed both mountain and plain.



TIRED TRAVELLERS.

Then, again, there are other ways in which travelling educates. It brings us into contact with our fellow man, broadens our sympathies, and does away to a great extent with the petty localizing influences which surround us. We are so apt to be occupied with our own small affairs to such an extent that we have neither time nor inclination to look out into the world about us and see how others do. Travel must, to a large extent, do away with this and open our eyes to much that would otherwise never be known. That which we read never comes home to us with such force as that which we see and experience for ourselves.

All these ways in which travelling educates may be summed up under two heads. The grandeur and beauty of natural scenery should lead "from Nature up to Nature's God"; and as we are stirred by the remembrance of those who have passed away, but have left their impress upon the world's history, surely there should arise within us the desire so to live, that, even in some small degree, we may benefit our fellow man.

In the after part of the day, when the main business of life has been attended to, take recreation; thus resting the working faculties, while exercising those which have been idle; and so giving occupation each day for the whole man.

Humorlets.

A convict, however poor, can always have a watch and chain.

This is a glorious and favored land for the fellows who don't get left.

It's smitten at first, and it's mitten later on; yet there is a heap of difference.

Decollete boots show a low tied in the affairs of men.

There are a great many p's in pepper, but not half so many as there are in coffee.

There isn't so much atmospheric depression when a pie is formed as there is when a form is pied.

We hear of a man in Duluth whose breath is so strong he can't hold it more than ten seconds.

It is only the unsophisticated maiden who likes moonlight nights. The others prefer the dark, genuine article.

The most afflicted part of the house is the window. It is full of panes; and who has not seen more than one window blind?

"It's never too late to do good." Reckon that's why so many wait until they are going to die before they begin to do good.

It must be hard on a talkative woman to marry a barber. Whenever she'd think she had the last word, he'd be sure and have the "next."

"Lemmy, you're a pig!" said a father to his son, who was five years old. "Now, Lemmy," he continued, "do you know what a pig is?" "Yes, sir! A pig is a hog's little boy."

"What did Adam and Eve wear before they put on aprons?" asked the teacher. And after a moment's hesitation the new boy from Hardacre Crosslot said: "Nuthin' but bathin' suits."

One of the greatest puzzles to the observing spectator who watched the youngsters playing Copenhagen, was to know why those girls who fought so hard against being kissed played the game at all. They didn't have to.

The Cleveland Medical Society expelled a doctor for agreeing to take no pay if he did not effect a cure. The unanimous opinion expressed was that the establishment of such practice would fill the almshouses with physicians.

He sat on a log on the banks of the Arkansas creek, when a traveller came along and saluted:

"Good day, mister. Waiting for a rise?"

"That's just what I am waiting for," was the reply.

"Got a flat-boat up stream?"

"No, sir. I'm a government engineer. Congress has appropriated \$18,000 to improve the river, and I'm waiting for a rise so I can find the stream. How long since you saw anything of it?"

Silence is the fittest reply to folly.

Much learning shows how little mortals know. Every person has something about him to spoil him.

Troubles are like dogs; the smaller they are, the more they annoy you.

It does not take long for a man with a small mind "to make it up."

Gossip is defined as putting two and two together and making five out of them.

The road to ruin is always kept in good order, and those who travel it pay the expenses.

The first principles of economy are: Get only what you need, and don't waste what you get.

The shortest Parliament that ever sat, met in the reign of Edward I., and sat one day; and the longest was in the reign of Charles II., which met and sat for seventeen years.

All great things are done little by little. Atoms make worlds. The greatest fortunes consist of farthings. Life is made up of moments, and a succession of well-spent moments makes up a well-spent life.

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES:—

As I sit here in my old arm chair, looking over my spectacles, wondering what to write this time, the birds are singing all around, and the July sunlight is smiling on an earth full of beauty in foliage and flower. I see the school bags are hung up, and bare feet wade in the stream, and straw hats are sailing there too—just to get wet enough to cool the warm head from whence they came. The smell of clover is in the air, and already the mower is on its rounds, cutting the heads which stood so strong before, to wither in the same hot sun that called them first to life and gave them strength.

What a beautiful world this is! and as my hearty, healthy girls and boys enjoy the July days of rest from school, but with rake or hoe or spade, may they be the happiest of happy children. You ought to be, for where in this wide world shall we find boys and girls enjoying so many blessings? Not the least are good homes, good health, good food, fresh air, and this July sunshine. "It's too hot," you say. Yes, it is pretty hot as you hoe the turnips and hill up the potatoes, or cook the dinner, bake the bread, and bend over the frying pan, to make sure the meat is cooked just right. But then there are cool evenings on the verandah, fresh mornings, beautiful shade trees, nice spring water, cold milk from the creamer, cool lettuce, and radish, and parsley from the garden—yes, and onions, too, which look cool, and are very tasteful and healthful, and, if all the family eat them, not so very disagreeable. Then when the shutters are closed and the rooms are cool, how nice home seems after the heat and sun outside! How many ways there are to make a room cool! Fresh ferns and flowers from the woods in a basin of water almost make one feel cool to look at them. Another method you may find very useful in a sick room is to dip sheets or towels in clean, cold water, and cool the air, and refresh the fevered patient.

Some of my elder nieces have already gone to take up their work as nurses. To every one there comes a time when one is required to use all he or she knows in this line, and it is well if in boy or girl there are held in possession the strong nerve, the cool mind, the soft hand, the quiet step,—who knows, before the patient does, what is required next.

I need not tell Canadian boys and girls the name of the river and canal which joins the two largest in our chain of lakes of which we are so proud. Last month while passing through this canal, which has been made for the passage of boats from one lake to the other, a little dog jumped from the high perpendicular bank to gain the boat. It missed and fell in the water below, but swam bravely for some time. The side of the boat gave him no chance of getting up, neither did the stone wall on the bank side. It seemed as if he could but swim while strength remained and then drown. A man went down

with a rope, but could do nothing, and again the little creature swam, barking piteously as before. There were plenty watching, but all seemed helpless, and felt the little dog must go. Again a man went down, and he knew how he could succeed, and put his plan in execution, and soon the sailor lad in navy blue and brass buttons came carrying the little dog in his arms, climbing up the rope over the side. A cheer from the crowd, and the man was gone, while the wet dog stood rescued. In that crowd I wondered how many would rejoice over a rescued boy or girl—rescued from sin—free again after being in the depths. But I must close.

UNCLE TOM.

P. S.—This month W. J. Owens is the successful prize-winner, but I must congratulate all the writers. I am astonished at receiving so many good stories. The girls complain that the subjects I have given are only suitable for boys, so this month I will introduce a more amusing

PRIZE STORY.

A Hunter's Dilemma.

(Based on Illustration in May Number of the ADVOCATE.)

BY W. J. OWENS, FOREST, ONT.

"Good-by, wife! I'll be gone all day I think, unless I have good luck. I want to bring home nothing short of a moose hump this time, so I'll likely have a day's work before me, for they're none too plenty hereabouts."

"Good-by, John! Don't tramp too far: there'll be something ready for a hungry man when you come back," answered the wife, and she turned into the cabin.

John Carpenter was a backwoodsman, who had removed from Lower Canada, in order to better provide for his family in this more fertile province. His wife, named Marie, was of French extraction, and here they had for six months

been battling, not unpleasantly, with the stern duties of life. The season now was winter, and as breadstuffs were very scarce, the larder had regularly to be replenished by the fruits of the chase.

On this morning, as he leaves the door of his hastily-built cabin, let us glance at the man's appearance. We see a typical Canadian backwoodsman, of the early part of the nineteenth century—a farmer, lumberman, trapper, huntsman, and shall we include it in the same sentence, a staunch neighbor and a true friend.

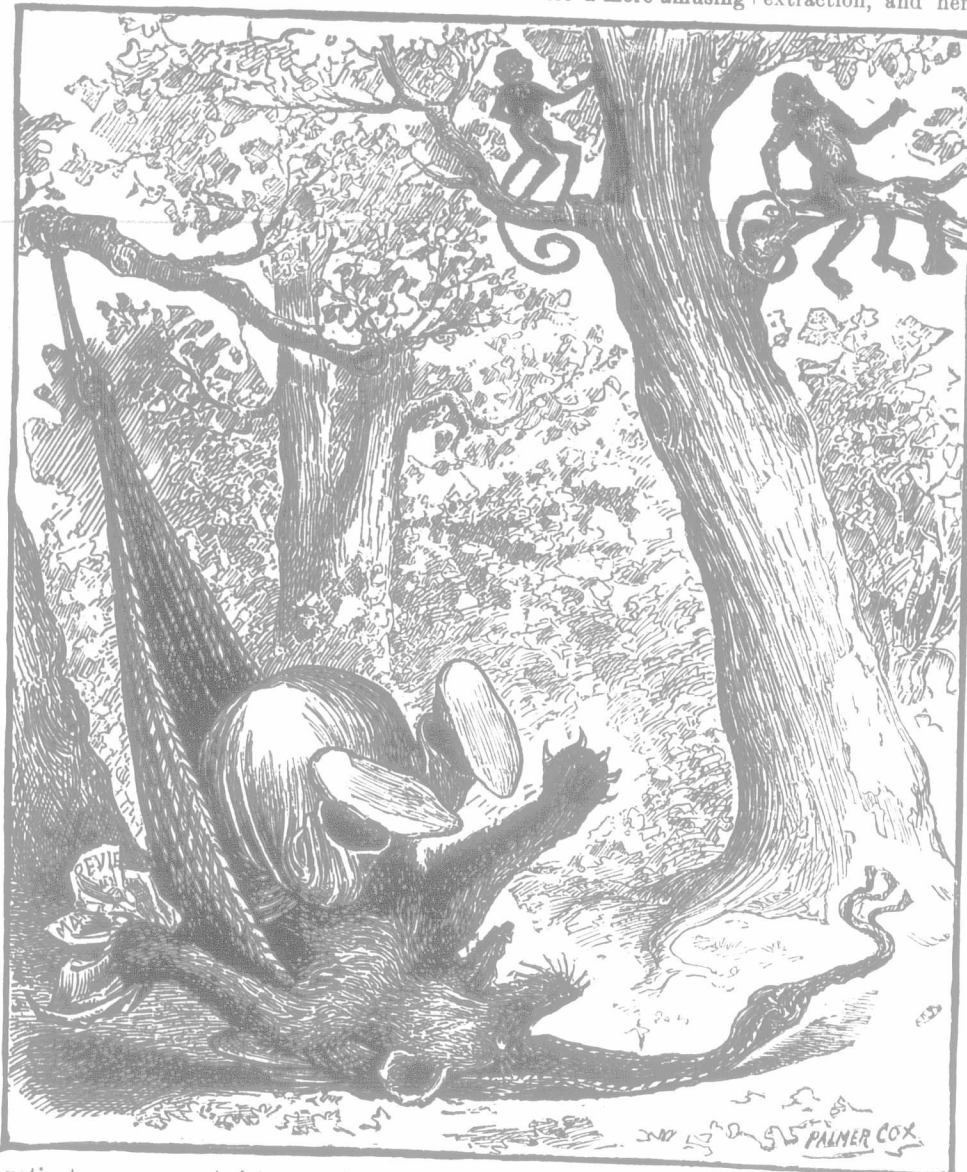
His dress is the common costume of the times—long boots of the hide of the deer and elk, belted coat of the same, pantaloons of corduroy, and hat of "true beaver." He stands upon the accustomed home-made snowshoes, and across the hollow of his left arm lies the long rifle. With the plaintive whistle of the Canadian voyageur, he moves lightly over the deep snow, and rapidly nears the forest.

Marie watched her husband until he disappeared over the brow of a neighboring hill, and then she turned into the hut where her morning work was awaiting her, and where the children, who had been sleeping during their parents' early meal, now demanded

attention.

John wended his way past clumps of scattered forest, and the steady tramp, tramp, of the snow followed each successive footfall. Out of the bushes scampered the rabbits, and an occasional partridge arose with a flapping boom and steered away for some distant bushes. But these did not draw John's attention. The rabbits' flight was not followed by the "ping" of the bullet, for the hunter was bent on securing larger game. Had he not promised his Marie an elk hump? and there was the Christmas dinner only two days ahead, the tongue and nose of some unlucky moose must then be on the table.

On he tramped over hill and valley, past stretches of some of the finest land in Ontario. The feeble sun was near the meridian, and the hunter had not seen the coveted game, although tracks were plentiful. He was just thinking of stalking a few red deer that were scratching away the snow and feeding in a depression about half



picture, and the boys had better look out, for I believe the girls will send the funniest stories. As usual, a prize of \$2 will be given for the best. All communications must be in our office by the 15th August.

Grains of Gold.

Be charitable and broad in all your judgments. A defeat suffered gracefully is half a victory. Think of others as you would have them think of you.

Poverty is in want of much; but avarice of everything.

The kindest heart is that which shrinks at its own inhumanity, rather than at another's.

That man is voted a bore who persists in talking about himself when you wish to talk about yourself.

A man with knowledge and without energy is a furnished house, but not inhabited; a man with energy, but no knowledge, is a house dwelt in, but not furnished.

a mile distant, when he struck fresh indications of moose. The track led past some rocks into a straggling bush, that grew in a rough, swampy place. He examined the priming of his rifle, for he knew he might at any moment come upon the deer. Just as he stepped out from behind an oak tree, he saw a young moose some distance ahead; it was rubbing its neck against the side of a young spruce, and thus presented a favorable shot; so placing his gun against the side of the oak, he took careful aim and fired.

To his joy the moose fell, and John, greatly elated at his success, sprang from his retreat, and, without taking the usual precaution to reload, started quickly toward the animal that lay motionless on the ground. He had not taken more than a dozen steps when a noise to the right attracted his attention. Imagine his surprise, when, a few rods distant, he saw a huge moose, bearing large pulmated horns, with mane erect, roaring as it made gigantic efforts to break through the brushwood and reach him.

Here he was with an unloaded gun in his hands and an infuriated animal within a few yards of him. What was he to do? At first he thought of drawing his hunting knife and standing his ground, but as this thought passed through his mind like a flash, he suddenly remembered a tree that had fallen from the top of a bank and lodged in the top of another tree that grew from the valley below. He was quite close to the spot, and, dropping his rifle, he sprang to reach it. The deer crept the ground very rapidly, while the hunter momentarily expected to be tossed or trampled upon. Suddenly the noise ceased, but John without turning to find out the cause of the silence, ran out on the horizontal surface and secured a safe place in the mangled tops of the trees.

Turning around, he saw the moose lying on the ground apparently in a fit, and the hunter fervently thanked Providence for giving the means of escape. Seeing his enemy prostrate, John started towards the animal, but before he reached the bank he saw that he was not yet done with that deer. (For truth of this peculiarity in moose, see Audubon's tales of animals.) Recovering from its paroxysm, it leaped up and made for the hunter again, but, of course, was unable to reach him. Like a sentry on guard, there it stood shaking its head, exhibiting unmistakable signs of offensive war, and John, who thought discretion in this case the better part of valor, perched himself comfortably among the branches, pulled off his snowshoes to ease his feet, and started disconsolately at the enemy. Hanging his snowshoes on a dead limb, and his coat and hat above them, he thought he might slide down the tree without aggravating the moose, but this proved a failure, so he again mounted his lofty seat, put on his coat and cap and prepared to sit it out.

What puzzled him most was the ferocity of the elk, which he had always found to be a timid animal that never showed fight unless severely wounded.

As he now had a chance to examine the animal closely, he could see blood dripping from the shoulder, and a long wound across the shoulder and neck. This explained the deer's actions. It had been shot, and maddened by the pain of the wound, had rushed upon the object which it discovered in its way.

After an hour of patient watching, the hunter was beginning to think that he would have to remain there until dark, but the sharp crack of a rifle near by dispelled this fear, and caused the moose to roll over and over as it fell and tumbled down the bank. John walked quickly along the tree and met his deliverer on the spot where the moose had stood.

The man was a brother hunter, and one of John's nearest neighbors, although they lived five miles apart. Will Bay had started out that morning also on a moose-hunting expedition, and wounded the deer (John's prosecutor) a short distance from home, and, following up the tracks, had come upon him in time to remove his neighbor from an awkward situation.

The hunters shouldered their pelt and meat and started for home, and one of them, at least, reached his cabin a great deal sooner than he had dared to hope when an anxious prisoner in the united tops of two Welland birch trees.

Puzzles.

1—CHARADE.

My first an exclamation is
Of pain—of pleasure too;
An organ of your body
My second brings to view;
To wind or writhe my third is;
Connect them if you can,
The whole makes the pen product
Of a celebrated man.

2.—CHARADE.

Into our mystic circle
New friends come every day,
But first of them just leave their cards
And straightway go away.
Perhaps because they do not win
An honored place first time,
They give it up for TOTAL
More lucrative than rhyme.
Now would you hear my story?
When I first tried to "pose"
My poor wee contributions went
Where—dear me! no one knows.
But any way I did not see
It in the ADVOCATE.
But some fine man has said that "all
Things come to him who waits,"
So like the well-known spider
That cheered poor Bruce's heart,
I waited but a moment
Then made another start.
Success has crowned my efforts,
The same your fate may be;
Then bear this disappointment
And try once more. You see
On that April illustration
A story I did write
(Of course I hoped to win the prize
I tell you, honor bright).
Now June arrives, the paper comes,
I look my name to see
As the successful writer;
But ah! Alas for me!
The "coal-man" had been there ahead—
The prize had taken in.
And I got left, with seventy more
Who like me, failed to win.
But I am not discouraged,
I mean to try once more.
Perhaps I may ("tis but "perhaps")
Do better than before.
Just one more LAST I'll tell you
Dear cousins, one and all,
Let "try again" your motto be,
And luck will sure befall.

ADA ARMAND.

3—WORD REBUS.

Come all ye people now who try,
The solving of this 'bus:
I've "set the value far too low,"
Now make it prosperous.
And when you've solved it (in your mind),
Just take a moment's time,
Send the solution to "Uncle Tom,"
You'll find it nice pastime.

FAIR BROTHER.

4—CHARADE.

My first's a ball of light,
My second is not night,
My whole's the day that's blessed
With heavenly peace and rest.

I. IRVINE DEVITT.

5—CHARADE.

I beg your pardon, cousin dear,
If I have said or done,
Aught that would hurt your feelings;
You know I was in fun.

But really now, you know that some
Aspiring to be Miss,
A lot of flirting doth at times,—
I don't count you in this.

You say I ought not tales to tell,
About a lady fair,
What constitutes a lady, pray?
Does flirting or false hair?

Does playing cards a lady make,
Or painting on the sly?
Some put it on their faces,
Then out of it would lie.

My ideal of a lady—now
Don't take offence, I pray—
Is one who dresses neatly, and
Not all PRIME display.

My "corn patch" oft needs hoeing,
But be careful how you hoe;
This maiden whom you speak about,
Too true, is all for show.

My confidence you've tried to LAST,
And now you've got it, say,
When writing letters to your friends,
COMPLETE me not, I pray.

FAIR BROTHER.

Answers to June Puzzles.

- 1. Catacomb. 2. Because. 3. Glass, Cass, Ass.
- 4. ONE NOT ERA IMPUTABLY NORTH ERLY PROTECTOR ERRL ALL AYE
- 5 Cowslip. Riddle—A. Ball.

Names of those who have Sent Correct Answers to June Puzzles.

Addison Snider, Oliver Snider, I. Irvine Devitt, Elsie Moore, Willie Morehead, Jessie Cumberland, A. R. Borrowman, Charlie S. Edwards, Geo. W. Blyth, Frank Elwell, Mary Marshall, H. C. Cox.

Our Library Table.

"Table Talk" for June; \$1; Philadelphia. Truly the women of Canada should be good cooks, housekeepers, and good women, with such guides as "Table Talk," for it contains all that is best worth knowing in the housekeeper's line.

Cassell's Family Magazine for June; \$1.50; New York. Our old favorite is quite up to the mark in the variety and quality of its reading matter, from fiction to miscellany.

Current History; \$1; Detroit: Is one of our most useful periodicals, and the contents of this number are well worthy of the reading. The Behring Sea dispute is treated from an anti-British point of view.

"The Housekeeper"; \$1; Minneapolis: Is a bright and welcome visitor—readable and instructive.

"Home Queen"; Philadelphia: Contains the usual amount of pretty fiction, poetry and fashions, and useful domestic recipes.

Domestic Monthly for June; New York: Is teeming with all subjects, from the closely written article on cats to the pages of illustrated fashions, and beautiful illustrations of the River St. Lawrence.

"Home Maker" for June; \$2; New York: Is just the magazine every home should possess, for it abounds in excellent reading matter, home hints, gardening, etc.

Ladies' Home Journal; Philadelphia: Is like the face of an old friend—always welcome with its well-filled pages.

Things not Generally Known.

The word "Rubric" implies a rule or direction. It is derived from the Latin word rubrica, which signifies red earth, and it is employed to designate the rules which are laid down in the Book of Common Prayer to direct the minister and people in the performance of divine worship. These rules were formerly printed in red letters to distinguish them from the prayers and other parts of the liturgy, which were printed in black letters.

"HEAR, HEAR."

This phrase, originally "hear him," was first used in parliament to remind members of the duty of attending to the discussion, but gradually became what it now is, a cry of admiration, acquiescence, indignation or decision.

"CONSERVATIVE."

This name originated with a Mr. Crocker in the year 1850. In a speech he says: "He is attached to what is called the Tory, and which might be more properly called the Conservative party."

Sorrow sobers us and makes the mind genial, and in sorrow we love and trust our friends more tenderly, and the dead become dearer to us, and just as the stars shine out in the night, so there are blessed faces that look at us in our grief, though their features were fading from our recollection.

The man who marries for mere worldly motives, without a spark of affection on the woman's part, may, nevertheless, get in every sense of the word a good wife; but when a woman is married for the sake of her fortune, the case is altered, and the chances are a hundred to one that she gets a villain.

There is a feeling of jealousy that seems to be innate in some natures. There are many persons who can look neither with pleasure nor approbation on the successful accomplishments of their neighbors, and if by honest worth one struggles to achieve an unblemished reputation, there are hundreds ever anxious and ready to pick flaws in both his personal character and business relations, their motive being prompted by no reasonable prejudice, but rather impelled by their inordinate selfishness and envy.

A Bunch of Shakespeare's Flowers.

Did you ever think how dearly Shakespeare loved flowers? He knew them all intimately, true child of Nature that he was; and none of their charms or peculiarities escaped his observing life. How quaintly and beautifully he links them with human nature, forever associating them in our minds; clothing the simple, common wayside flower with a poetic grace, which, like its own dew drop, it will always bear for us. Suppose we take a peep into his garden and meadows and see what blossoms we can gather. Where could we find a sweeter spring handfuf than these?

"Now, my fairest friend,
I would I had some flowers o' the spring that might
Become your time o' day; daffodils,
That come before the swallow dares; violets, dim,
But sweeter than the lids of Juno's eyes,
Or Cytherea's breath; late primroses, bold oxlips, and
The crown-imperial; lillies of all kinds,
The flower de luce being one."

(*Winter's Tale*, Act IV., Sc. III.)

And here is an ideal bower he has made for us—

"I know a bank whereon the wild thyme blows,
Where oxlips, and the nodding violet grows;
Quite over-canopied with luscious woodbine,
With sweet musk-roses, and with eglantine."

(*Mid. Night's Dream*, Act II., Sec. II.)

Listen to him as he sings of the time—

"When daisies pied, and violets blue,
And lady-smocks all silver-white,
And cuckoo-buds of yellow hue
Do paint the meadows with delight."

(*Love's Labor's Lost*, Act V., Sc. II.)

How appropriate his offerings are, and how gracefully bestowed—

"Here's flowers for you:—
Not lavender, mints, savory, marjorane;
The marigold that goes to bed with the sun,
And with him rises, weeping; these are flowers
Of middle summer, and I think they are given
To men of middle age; you are very welcome!"

(*Winter's Tale*, Act IV., Sc. III.)

And again—

"Give me those flowers, there, Doreas;
Reverend Sirs, for you there's rosmary and rue,
these keep
Seeming and savor all the winter long;
Grace and remembrance be with you both,
And welcome to our shearing!"

(*Winter's Tale*, Act IV., Sc. III.)

Here is a pretty picture of a young girl—

"Kate, like the hazel-twig
Is straight and slender; and as brown in hue
As hazel-nuts; and sweeter than the kernels."

(*Taming of the Shrew*, Act III., Sc. I.)

What could be more beautiful than his comparison of truth and fragrance?—

"O, how much more does beauty beauteous seem
By that sweet ornament which truth doth give!
The rose looks fair, but fairer we it deem
For that sweet odour which doth in it live."

(*Sonnet 54*.)

The Smallest People.

Skeletons of two Akkas, the pigmy people discovered by Schweinfurth in 1870, have been acquired by the British Museum, and show that this race is undoubtedly the most diminutive known. The stature of the male skeleton is about an inch below four feet, and that of the female about as much above. The few previous measurements recorded, indicate that these heights are rather below the average, though a living adult female of three feet ten inches is known. Prof. Flower finds that the Akkas belong to the black or Negroid branch of the human species, and that they are not allied to the Bushmen or Andaman Islanders, which tribes they most resemble in size,

The Fellow in Greasy Jeans.

Whew! How the drivers hammer!
We are late by an hour or more;
We sway and swerve on the ringing curve,
And the bridges reel and roar.

Look how the engine lurches—
And out of its window cranes,
With grey eyes wed to the track ahead,
A fellow in greasy jeans.

Scarcely looks like the fellow
To trust with so grave a care—
In that grimy face 'twere so hard to trace
The mettle that should be there.

Faster we roar and faster—
The hand at the throttle shows
Steady enough, if the face is rough—
And the landscape melts and flows.

Into the cut—and horror!
There death has the right of way!
The whistle wakes to a shriek for brakes;
And what does his swift brain say?

Jump, for Moll and the babies,
And for dear life's love supreme!
Jump from the doom of a crunching tomb
And the hell of the howling steam!

Stay, for the hero's duty,
The trust of a hundred lives!
Stay, for the sake of the hearts would break,
And for others' babes and wives!

He stays! with white teeth gritting,
And with hands that snatch amain,
The monster reels on reversing wheels,
And the air brake chokes the train.

We are safe with our scratches—
There's only the engine wrecked,
And the engineer! Oh, well, I fear
That's only what all expect.

And in the torn steel's chaos
I read what our life ordains,
And shivering pause—for von cinder was
The fellow in greasy jeans.

—Charles F. Lummis, in *Frank Leslie's*.

Philadelphia Wet Weather Sign.

Miss Chestnut—I guess it is true that Postmaster General Wanamaker is going to mitigate his temperance views, so to speak, and have wine on his table hereafter.

Miss Filbert—I don't believe he will. He isn't that kind of a man.

Miss Chestnut—May be so; but just the same, I bought a new patent corkscrew on the bargain counter to-day.

A Paisley minister was accosted once in the high street of that town by a poor looking man. "Excuse me sir," he said, "I was aince a coo-feeler in a guid way before the ploory broke oot among the kye, when I lost a'. Some o' my freends were thinkin' that, if I could jist get a beginnin' again, I wad dae weel, an' they hae been subscribng to buy me a coo. Wud ye mind helpin' me awee?" The minister gave the man two shillings. It was evidently more than he expect'ed; for, with an expression of great satisfaction on his face, he said: "I'm very much obliged to ye. Indeed, I'm extraordinary obliged to ye? Ye are the minister o' the Middle Kirk, are nae ye? Awel, I maun come up some time and gie ye a day's hearin'."

I never hear the term "old maid," but some thing within me stirs like a tiger in its sleep. When it shall be a reproach for green apples to ripen, for buds to blow, and for May weather to sweeten into June, then it shall be a disgrace for women to grow old. And when you shall find me a married woman who is never cranky and odd and queer, then you may say that it is a blight upon a woman's disposition to be unmarried. There are not many women who have not had the opportunity to marry if they would. Look about you and count the unhappy wives who would be unmarried if they could. Mated to a clown, a tyrant, or a knave, they spend their lives in turmoil and humiliation, and yet mark how they join in the jest and sneer at the expense of the "old maid." All glory to the woman who has independence enough to wear the badge of spinsterhood, rather than marry for a home as half the girls do, and the tenderest reverence for the woman who remains faithful to a grave, and plants no flowers of second love upon it. —*Domestic Monthly*.

It Broke His Heart.

"I declare, Tom," said the fond mother, "the baby is the very image of you!" And the papers next day chronicled a "mysterious disappearance."

But Time Flies.

Oh, every dog has its day."
"Probably that is the reason so much of our time goes to the dogs."

Don't Stay Long

Sniggerly (dreadfully in love)—Alice, I really must go. I've stayed three hours, you know.
Alice (also likewise)—And won't you come soon again?

Sniggerly—Yes, I'll be back in ten minutes.

At the Races.

They were at the Suburban, and the horses were at the post for the last event. He approached her hesitatingly.

"Mary," he said, "you will have to pay the car-fare home; I have had my pocket picked down there in that crowd again, confound it!"
"Oh, Ralph," she replied, "it's all my fault I knew that I made that inside pocket in your vest too large."

And Satan who was so well pleased with the incident that he went down and invited a defunct bootmaker who had been a friend of his to a boiled champagne supper.

Shifting the Responsibility.

The railway accident had been a terrible one, and one of the men who were carrying the thirty-seventh victim up the embankment said with strong feeling:

"Somebody will have to pay dearly for all this!"

The mangled passenger opened his eyes and glared at the speaker.

"The company is not to blame," he said, feebly, "this is a dispensation of Providence!"
He was the attorney for the road.

At best, life is not very long. A few more smiles, a few more tears, some pleasure, much pain, sunshine and song, clouds and darkness, hasty greetings, abrupt farewells, then our little play will be done, and injurer and injured will pass away.

New advice for treatment of the skin is continually appearing, and one's only way is to try the different methods until the right one is found for one's self, then to persevere in that. Changing does more harm than good, and much fussing with new soaps and applications is likely to ruin the skin beyond possibility of cure. The treatment a recent writer interested in the subject suggests, however, seems more innocent than many have given. Splash the face at night with lukewarm water in which a handful of oatmeal has stood long enough to make the water quite soft. In the morning bathe in cold water and apply gentle friction. To cleanse the face thoroughly apply cold cream; keep it on for five minutes, then rub it off, and you will be astonished at the amount of dirt that comes away with it. Keep a good digestion, and avoid rich cake, pastry and confectionery. Take a quick sponge bath every day, sometimes using a little ammonia or borax in the water. —*Domestic Monthly*.

The Evolution of a Dairy Cow.

PAPER READ BY WM. THOMPSON BEFORE THE
LANSDOWNE E. D. FARMERS' INSTITUTE.

A good cow is like a savings bank; she will return to the man who reposes his confidence in her his own with usury. Here is a stack of prairie hay, a pit of roots, or silage, bags of bran, and bins of coarse grains. What the dairy farmer wants is a cow that will take enough of that food supply to maintain herself in health and vigor, at the same time producing the greatest possible quantity of milk, of the best possible quality, at the lowest possible cost. The modern dairy cow is largely an artificial creature, highly developed by man, whose interests she is designed to serve in whatever special direction he sees fit to mould her. In the wild state, or when specially developed to a beef type, the cow barely yields sufficient milk for the rearing of her young; but moulded along dairy lines, she becomes a source of great profit to the dairy farmer, by converting coarse, cheap food into the more concentrated and valuable product—milk. A dairy cow, worthy the name, should give at least 5,000 pounds of milk per year, showing a percentage of from say 3.50 to 4 per cent. of butter fat, or if buttermaking exclusively be the object, the richer in butter fat the better. I have in mind the case of two neighbors whose farms were within a stone's throw of each other, and equally well adapted to dairying, and to a casual observer their herds of cows were about on a par. But what was the fact? One man from his herd of twenty cows did not receive through the summer cheese factory season as great a return as his neighbor did from fourteen, so that he virtually threw away the food and labor required for those six extra cows. Why? Either because he did not know a better way, or would not apply the knowledge lying all around him. He was one of the men who are forever crying out that dairying does not pay. That was simply an ordinary, every-day sample of good and poor cows, or rather good and bad management of a herd.

The good dairy cow should possess a strong constitution, to sustain the heavy drain that will be made upon her vitality, large powers of food assimilation and milk production. The practical question, therefore, for the dairy farmer is, How shall I get a good cow? Breed her—develop her; or as the scientist would put it, take advantage of the laws of heredity and environment. Beginning with the herd which he has on hand, the dairyman has three means of improvement, viz: 1. Selection; 2. Breeding; and 3. Feeding. Now, it is true, as Wm. Warfield, the veteran Shorthorn breeder and author, says: "There can be no accurate aim without the object aimed at is fully seen and clearly kept in view." We must, therefore, select according to purpose. Placed before the same manger of food, the Clydesdale will take from it ponderous weight and strength, the Thoroughbred horse, wonderful speed and endurance, and a blocky bullock, beef; but it is neither beef, nor weight, nor speed that the dairyman wants. Through the agency of the small boy and the dog there does seem to exist a well defined determination to develop a swift-moving cow. What the dairyman is after is milk; and having made a careful study of his situation, he must rally to his aid a herd of cows best suited to the particular line of dairying to be pursued, whether milk selling, buttermaking,

or a combination of summer cheese and winter butter production. How can this be done? By weighing the milk of each cow frequently through her whole milking period, in order to know what the total product is; and by means of suitable tests, such as the Babcock, determine its percentage of butter fat, or, with the churn, its actual butter yielding capacity. Then weed out the worthless cows. Careful investigations made in various places have shown that many so called "average dairy cows" have been kept at an actual loss of as much as \$5 and \$7, or even more, per year. Be not deceived with these "average" cows, whose mission it is to hurry their owner into the clutches of the sheriff.

In the selection of a male to head the herd, go in for individual merit and a pedigree, as a reasonable guarantee that his lineage contains the characteristics to be perpetuated. See that his dam and granddam yielded large quantities of rich milk, and that his sire's dam was also a good performer at the pail. Do not fool away time and money with a grade bull. Get pure blood.

"Individuality," it will thus be seen, is a most important study in the up-building of a dairy herd. This is true not only with regard to feeding and producing capacity, but in determining when the first milking period of the young cow should begin, as there is a tendency in some quarters to breed heifers before they have attained a sufficient degree of maturity and development in form, whereby their constitution and utility may be seriously impaired.

Having discarded the non-profitable members of the herd, or sent those that run to beef instead of milk to the block, the next point is to improve the residue, by care and feeding. Proper feeding and care will secure a larger quantity of milk throughout the year, and bring its quality up at least to what is styled by some "normal capacity" in fat percentage. Wm. Warfield, a man of nearly 50 years' experience, whom I have already quoted, says: "That one cow can be made to give as rich milk as another, may not be possible, but by proper feed a cow may be made to give richer milk than when fed on improper feed." Prof. E. W. Stewart, a scientific investigator and thoroughly practical dairy farmer, says: "The common understanding of all good feeders, that cows may be improved, both in quantity and quality (of their milk), by intelligent feeding to that end, has not been weakened by any just interpretation of any experiments, scientific or otherwise."

A creamery friend of mine, feeding a herd of 50 cows in winter, most of them being well advanced in lactation, on clover hay, wheat straw, ensilage, and oat sheaves, was making one pound of butter from 15½ pounds of milk, and on dropping the oat sheaves, found that it took about 18 pounds of milk to make a pound of butter, but when the oats were resumed the former average was restored.

To that extent at any rate, richness can be fed into milk, and I am inclined to believe that by careful and continued feeding the butter fat producing capacity may to a varying degree in different animals be slowly improved so as to become a fixed characteristic and be transmitted to the offspring. The young heifer calf destined to the dairy, I have usually left with the cow for a day or two, according to circumstances, learned it to drink fresh milk, feeding three times per day, in a few weeks sub-

stituting sweet skim-milk, improved with oil cake meal. At three months 6 or 7 quarts may be fed twice per day, but as to the quantity much depends on the calf, which the owner must study, guarding especially against over feeding on the one hand, and against anything like starvation on the other. The temptation to put on excessive fat should be guarded against, the object being to develop a good, substantial frame, fairly well covered with flesh, and a healthy stomach, capable of assimilating plenty of food in after life. A small box well supplied with fresh crushed oats, bran, and a little oil meal (whole oats have also been used to advantage), from day to day should be within access of the calf, along with a bite of sweet hay, and occasionally some sliced roots will be helpful. Give the youngsters pure air, a dry clean bed, and box stall to exercise in, though during and after feeding for a while they are better tied up, to prevent ear sucking. As time goes on, accustom them to drink water freely, and on no account, at any time, allow them to become stunted through neglect. I have seen two heifers side by side, equally well bred, but the one at two years old showing about equal development with the other at three years old. Virtually the younger would have a year's start in production; that lost time and feed can never be recovered. The first year is the most important year of its life.

I would like also to emphasize the folly of investing in high priced stock and giving it scrub treatment. As Prof. I. P. Roberts remarks:—"It is all nonsense to talk of infusing *butter blood* into a herd unless a man is disposed to infuse also *butter feed* into it." Do both. The heifer's first milking period should be continued as long as possible, in order to fix that tendency for life and make it transmittable. A good cow should not milk less than ten months of the year as a rule, though here again different cows vary greatly, it being almost impossible to dry some off. Always treat the growing heifers kindly, and accustom them to be handled, so that there will be no need of any "breaking in" or kicking straps. The farmer who calls out for a kicking strap for his cow probably needs one himself. A dairyman who kicks or clubs a cow or hurts her with a dog is not fit to own an animal with maternal instincts and nervous tendencies. The noble service she is capable of rendering deserves better things. But she will get even with her brutal owner by putting less milk of poorer quality into the pail, and probably both pail and owner will be kicked into the manure gutter, where he richly deserves to go.

On approaching parturition the cow, though not heavily grain fed, should be well nourished and cared for, for reasons that are obvious to all practical breeders. As far as practicable at all times she should be preserved from extremes of heat or cold, exposure to storms being especially detrimental to performance, and, when stabled, be provided with plenty of light, pure air, pure water, and absolute cleanliness, coupled, of course, with intelligent feeding. I cannot emphasize too strongly the importance of supplying plenty of pure water. When the fact is considered that milk itself contains about 87 per cent. of water, the reason is obvious, and also indicates that it is quite unnecessary for dairymen to supplement what the cow has done by means of the pump-handle.

It is also most important if the full return in milk is to be had from the coarse grain and fodder consumed, and the animal preserved in the best of health, especially during our long Manitoba winters, that an ample supply of succulent food, such as roots and ensilage, should be provided.

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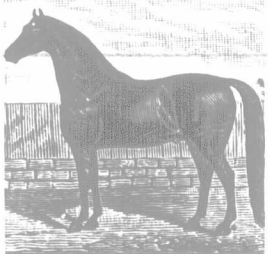
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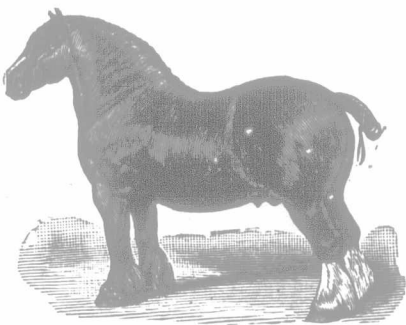
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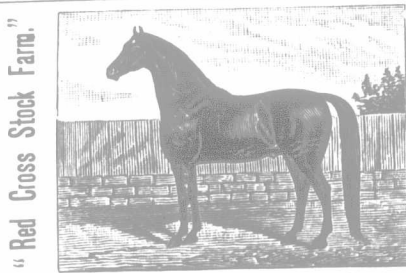
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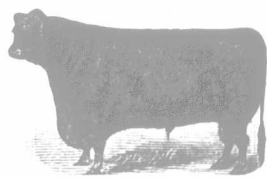
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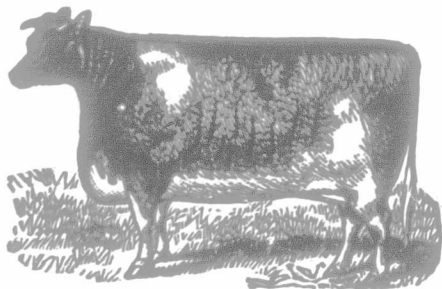
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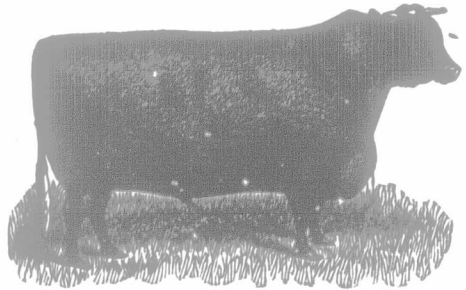


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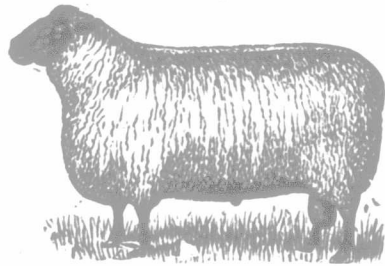
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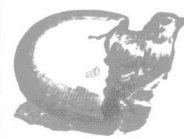
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 Pure-bred Holstein-Friesian
 Cattle for sale. Some fine
 young Bulls now ready.
 28-y-m

DR. W. R. TAYLOR,
VETERINARY SURGEON.
 Special Attention to Dentistry.
PORTAGE LA PRAIRIE, MANITOBA
 27-y-M Sess. Ave., near Roslin House.

The Veterinary Association of Manitoba


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

- | | |
|-------------------------|---------------------|
| Barr, John W. | Neepawa. |
| Coxe, Samuel A. | Brandon. |
| Dunbar, W. A. | Winnipeg. |
| Fisher, John Frederick | Brandon. |
| Henderson, Walter Scott | Carberry. |
| Hinman, Willet J. | Winnipeg. |
| Hopkins, Arthur George | Hartney. |
| Irwin, John James | Stonewall. |
| Karn, Leslie C. | Gladstone. |
| Little, Charles | Winnipeg. |
| Little, William | Pilot Mound. |
| Loughman, John | Winnipeg. |
| McFadden, D. H. | Emerson. |
| McMillan, Adam | Oak Lake. |
| McNaught David | Rapid City. |
| Morrison, Wm. McLeod | Glenboro. |
| Poole, John Wesley | Carman. |
| Roe, James S. | Neepawa. |
| Rutherford, John Gunion | Portage la Prairie. |
| Shoults, Wm. A. | Portage la Prairie. |
| Spiers, John | Viriden. |
| Taylor, William Ralph | Portage la Prairie. |
| Thompson, S. J. | Carberry. |
| Torrance, Frederick | Brandon. |
| Walker, J. St. Clair | Boissevain. |
| Young, Matthew | Manitou. |

The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable to prosecution.
J. G. RUTHERFORD,
 28-f-m REGISTRAR.

EGGS! EGGS!
 From Choice Birds, for Hatching.

S. C. B. and W. Leghorns, B. Cochins, L. Brahmas, G. S. Hamburgs, Pea Fowls, W. and B. China Geese, Toulouse and African Geese, Pekin Ducks and Bronze Turkeys. Also Canary Birds for sale. Write for what you want. Prices reasonable.
 27-y-M **ROBERT BLACK, Carberry, Man.**

Plymouth Rock Eggs

 Plymouth Rock Eggs sent carefully packed, \$2.00 per setting; also a few choice layers for sale.
 Address—
J. B. LOKIER, Dugald, Man.
 24-y-m

THE WHITE LEGHORN.
 We are disposed to bear part of the risk of late hatching by reducing the price of eggs. **YARD 1.**—Our Cockerel, Yellow Legs, imported this spring from Munger, pronounced by all a magnificent bird, mated with ten hens, the cream of the last two years hatches; only \$1.25. **YARD 2.**—Headed by the 2nd prize Cockerel, 75c. For sale now, two trios, also a few young hens. Apply to
J. MCCLURE,
 23-y-m 448 Carey Street, Winnipeg.

1892—"FORT ROUGE POULTRY YARDS."—1892
 Eggs for hatching from highest class Golden, Silver Laced and Black Wyandottes, Light Brahmas, Black Cochins, White and Barred Plymouth Rocks and Black Hamburgs, also Bronze Turkeys. Price, \$2 per setting. The above birds include upwards of twenty prize-winners at Winnipeg, and a first and second at Toronto Industrial. Eggs carefully packed and delivered at express office, Winnipeg. Write for circulars. Address—**S. LING, Winnipeg, Man.**
 30-tf-m

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JULY 25th to 29th, 1892.

\$15,000 Offered in Prizes.

Entries close on 14th July next. Prize Lists free on application.
 For Prize Lists and other information address the Secretary at Winnipeg.

Alex. Macdonald, J. K. Strachan,
 30-b-m President. Sec.-Treas.

FARMERS, ATTENTION. THE : ALPINE : SAFE

A Combination Safe, absolutely fire-proof, weight 500 pounds, for \$40, f.o.b. cars at Winnipeg. Every farmer and merchant should have one. Write for circulars and all particulars.

E. LEROY PELKEY, Sole Agent,
 Hargrave Block, 20-y-m Winnipeg, Man.

DRUGS. - THE MARKET DRUG STORE

Opposite Meat Market, WINNIPEG.


 We keep a full stock of fresh Patent Medicines, Pure Drugs, Toilet Articles, etc. Family receipts and dispensing medicines for all ailments of horses and cattle. Invincible Condition Powder; best in the market; a trial will convince you. For sale only at the Market Drug Store. Mail or
 31-y-m
 C. M. EDDINGTON, Pharmaceutist.

JAMES STEWART,
 DRUGGIST AND PHARMACEUTIST,

879 MAIN STREET, - WINNIPEG,

North of the C. P. R. Station, keeps constantly an assortment of Pure Drugs, Patent Medicines, Toilet Articles; also Cattle Medicines, which he is prepared to sell at reasonable prices. When visiting the city do not fail to call.
 20-y-M

DR. DALGLEISH
 SURGEON-DENTIST,

Teeth filled and extracted without pain. All kinds of fine plate work done. Repairs sent in by mail receives prompt attention and returned by first mail.
 31-y-M
OFFICE : 474 Main Street, Winnipeg, Man.

Graduated Prices. Pure Spring Water.
LELAND HOUSE,
 W. D. DOUGLAS & CO., -:- PROPRIETORS.
 The popular hotel of the Northwest. Corner City Hall Square, Main and Albert Sts.
City Hall Square, -:- Winnipeg, Man.
 Extensive repairs are being made. 315-y-OM

GOLD :-: HAWK Restaurant

555 Main Street, WINNIPEG

BOARD BY THE DAY OR WEEK.

Strangers Welcome and made to Feel at Home.

GOOD MEALS AT ALL HOURS.

MRS. R. FOWLER, Proprietress.
 31 a-m

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THE BRITISH DYE WORKS.

255 Main Street, Winnipeg.

Gent's suits Cleaned, Dyed and Repaired in first-class style. Ladies' dresses silks, satins, cashmeres, merinos and lace curtains cleaned. Feathers dyed and curled.
 21-y-M

KEIR & CO.

Farmers, here's something for your Wives & Daughters.

ASHLEY'S CORSET FACTORY,

Robert Block, cor. 2nd St. & 6th Ave., Nor. Winnipeg

LADIES' CORSETS MADE TO ORDER.

Repairing a specialty. Satisfaction guaranteed. Fitting room attached. Shoulder braces for men, women and children.
 21-y-M

SAM. HOOPER, SOULPTOR,
 AND DEALER IN
Marble : and : Granite : Monuments
 WINNIPEG, - MAN.
 Special designs furnished. 23-y-M

To Farmers, Agents, Contractors and Builders!

ROOFING! ROOFING!

Felt, pitch, and patent cement, pine coal, tar and gravel roofing. Painting, kalsomining and paper hanging.

OWEN DAVIES,

21-y-M 585 Balmoral street, Winnipeg.

IMPERIAL -:- BANK -:- OF -:- CANADA

Capital authorized, \$2,000,000; capital paid up, \$1,800,000; rest, \$200,000. Directors—H. S. Howland, President; T. R. Merritt, Vice-President. Head Office, Toronto. D. K. Wilkie, Cashier. Branches in the principal towns throughout Ontario. In the Northwest at—Winnipeg, Man.; Brandon, Man.; Portage la Prairie, Man.; Calgary, Alta.; Prince Albert, Sask.; Edmonton. A general banking business transacted. Bonds and debentures bought and sold. Interest allowed on deposits. Saving Bank Department.
 26-y-M C. S. HOARE, Manager, Winnipeg.

George Clements,

Merchant Tailor

480 Main Street, WINNIPEG.

IT WILL PAY YOU

TO SEE OUR

SUMMER SUITINGS.
 28-y-M

J. R. CAMERON,
Merchant
Tailor.



Ordered Suits of first-class goods very reasonable. Call and examine stock and get prices before purchasing elsewhere. It will pay you.

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Winnipeg.
30-y-m

ELECTRICITY is LIFE
Health, Wealth.

ELECTRIC APPLIANCES for all parts of the body. CURES Rheumatism, Dyspepsia, Sore Eyes, Sciatica, Lumbago, Kidney Trouble, Weak Lungs, Neuralgia, Catarrh, Headache, Asthma, Bronchitis, Chronic Colds, etc., etc.

General Agent, **R. B. THOMPSON,**
25-y-M WINNIPEG.

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IN ALL ITS BRANCHES
-AT-

MITCHELL'S
Photographic Art Studio,
566 MAIN STREET,
WINNIPEG, MAN.
29-f-m

W. G. FONSECA
705 Main Street,
WINNIPEG, - MAN.

Will furnish, in large or small quantities, to parties building, the celebrated

MICA ROOFING.

Cheaper than shingles; more durable than tin; water and fire proof; not effected by heat or cold, and quickly put on, making it the most economical roofing known. Enquiries regarding it promptly answered.
30-y-m

IMPORTANT NOTICE.

No town or village in the Northwest should be without some system of

"Fire Protection."

The trouble has been where to get the Information and Apparatus, but it is a pleasure to know that that difficulty has been overcome by

CAPTAIN W. O. McROBIE,

formerly of the Montreal and Winnipeg Fire Brigades, who devotes his entire time to organizing and equipping town and village fire brigades. Information and practical experience given in person by addressing
25-y-M **CAPT. W. O. McROBIE, Winnipeg.**

PUMPS

- SEE -

CURRIE'S
LARGE STOCK.

Best Material, Most Durable,
Finest Speed, Cheapest in Manitoba.
178 Rupert St., Winnipeg.
Send for circular. 21-y-M



OF BEST QUALITY
-AT-

LIVING - PRICES!

We guarantee satisfaction, our goods being made of best material under our personal direction and supervision. We have always on hand a good stock of harness, collars, saddles, whips, brushes, and all lines usually kept in a first-class establishment. Get our prices before you buy elsewhere. Call on or write to

WRIGHT & CO., - Winnipeg, Man.
29-f-m

PRIZE MEDAL!

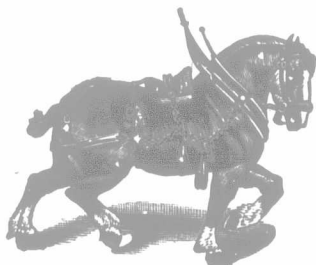
International Exhibition, London, England, 1885; International Exhibition, London, England, 1886; Exposition Universale, Paris, 1878.

W. A. PEIRCE,
PRACTICAL MANUFACTURER OF
Harness, Collars and Saddlery
STABLE REQUISITES,
278 James Street West, Winnipeg.

Style, quality, price,—the best. No machine or slop work. Goods marked in plain figures. Best market for Saddles, Harness, Collars, Whips, etc.

N.B.—We sell for Cash only at rock-bottom prices, consequently our customers do not have to pay other people's bad debts. We save cost of book-keeping, collecting, and the other expenses incident to a credit business, and so are able to give our customers the full benefit of lowest possible prices. Careful attention given to country orders. Send post-card for prices. Note the address,
PEIRCE, 278 James Street West, Winnipeg

25-y-M



FARMERS,

ATTENTION!

Who is Your Saddler?

If it is **E. F. HUTCHINGS,** of the Great Northwest Saddlery House, 519 Main Street, Winnipeg, then you are at the headquarters of the Harness and

Saddlery trade of Manitoba, the first business started in the Province, and the house that stood the test for the past twenty-two years, and to-day stands head and shoulders above all competitors. If **HUTCHINGS** is not your Saddler, then try him. He will sell you team Harness from Twenty Dollars (\$20.00) and upwards; single Harness at Nine Dollars (\$9.00) and upwards.

We manufacture all our goods, and guarantee them as represented. Our new Viscal Waterproof Finish will be put on all Harness, if desired, without charge.

We keep everything for the horse—Blankets, Bells, Whips, Trunks and Valises, &c., &c., at the lowest prices possible. Don't be deceived by importers of ready-made rubbish, but patronize home industry and the old reliable house where you know you will get the worth of your money.

Our Saddles have a world-wide reputation, and we are sure to please you. Mail orders promptly attended to. Don't forget the house.

E. F. HUTCHINGS,
519 Main St., Winnipeg, opposite City Hall, and
191 to 193 Market St., E. Winnipeg. 21-y-m

ROBERTSON, THOMPSON & CO.

Commission Merchants,
185 Notre Dame Street East, Winnipeg, Man.

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— WE CAN GET YOU GOOD PRICES FOR —
BUTTER, EGGS & POULTRY,
and you do not require to take the proceeds in "trade"—we send you the cash.

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20-y-M

WELLBAND'S

HORSE AND CATTLE CONDITION POWDERS
— CURE —

Coughs, Colds, Distemper, Hide Bound, Worms, Loss of Appetite, And is a genuine blood purifier. Sent everywhere on receipt of price, 25c. and 50c.

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Sold at Chas. Wellband's Boot and Shoe Store.
23-y-m

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ALLEN & BROWN,

Pork Packers, Provision Dealers & Sausage Manufacturers

Hams, Bacon, Lard, Cheese, Eggs, etc. Close prices to the trade. Satisfaction guaranteed. Correspondence solicited. Live or dressed hogs wanted.—70 McDermot St., Winnipeg. 21-y-M

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Auctioneer,
LIVE STOCK, Appraiser, &c.
REAL ESTATE,
MORTGAGE,
HOUSEHOLD,
FURNITURE, SALES
and TRADE

Conducted in city or country. Write for dates. Telephone 173. Office: 246 Portage Ave., Winnipeg.
29-y-m

STEAMSHIP TICKETS.

If you are going to the Old Country, or sending for your friends, apply to your nearest railway or ticket agent, who can supply outward and prepaid tickets at lowest rates. Steamers leave Halifax every Saturday.

ROBT. KERR,

Gen. Passenger Agent C.P.R.,
27-y-M WINNIPEG.

FRED. D. COOPER,
375 Main Street, [P. O. Box 1000] Winnipeg.
GENERAL AGENT FOR
MANITOBA AND THE NORTHWEST TERRITORIES

— FOR THE —
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Established in 1847. Good openings for active and intelligent agents. 318-y-om

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REAL ESTATE

And Financial Agents,
415 MAIN STREET, - WINNIPEG.

A large number of choice farms for sale on easy terms. City Lots and House Properties at great bargains.
309-y-om

BROWN & STEWART,
Real Estate Agents and Land Valuers.
Thousands of acres of improved and unimproved Farm Lands for sale near the city, and in the best parts of Manitoba. Terms to suit. Houses to rent. Rents collected. Money to loan. Properties managed for residents and non-residents. Ontario and Old Country farmers receive special attention.
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SAMUEL SPINK
Grain Exporter and Commission Merchant.
All kinds of Grain bought and sold. Careful attention given consignments, and highest market prices obtained. Liberal advances and prompt returns. Correspondence solicited. Office, 527 Main street Winnipeg. 22-y-M

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Printers and Paper Merchants.
Paper Bags, Wrapping Papers, Twines, Etc.
Commercial, Municipal and Book Printing.
WEDDING CARDS & SOCIETY PRINTING SPECIALTIES.
23-y-M LOMBARD ST., WINNIPEG.

G. F. STEPHENS & CO.,
— WHOLESALE —
Paints, Oils & Glass
Our Specialties are
Pure Liquid Paints, CARRIAGE COLORS and Enamels for Decorative Purposes.
For sale by all the principal dealers.
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FOR ROBES AND FURS.
MORTON, ALEXANDER & MORTON
Tanners and Boot Manufacturers,
171 and 173 King Street, Winnipeg.
Boots Wholesale and Retail. 20-y-M

W. C. KING,
TANNER AND DRESSER OF SKINS.
Wool Mats and Dusters a Specialty.
Skins retanned and renovated. All work done in first-class manner, and guaranteed, or money refunded.

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GIVE ME A TRIAL.
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GEORGE GRIEVE
Taxidermist,
251 Main Street, Winnipeg.
Highest Cash Price paid for
WHITE OWLS, ELK & MOOSE HEADS, Etc.
31-y-M

FOR CHOICE FRESH SEEDS,

SELECT FROM THE CATALOGUE OF
KEITH & CO.,
SEEDSMEN.
WINNIPEG, MANITOBA.
507 MAIN STREET, ADDRESS
—opposite— CITY HALL. 30-c-M Box 333.

GRAIN DEALERS AND COMMISSION MERCHANTS
All Kinds of Grain Bought and Sold.
SPECIAL FACILITIES FOR HANDLING SMUTTY WHEAT.
HIGHEST MARKET PRICES OBTAINED.
STEWART & HOARE,
435 Main St., Winnipeg. 26-y-M

NORTHERN PACIFIC R.R.
TIME CARD

Taking effect on Sunday, April 3, 1892, (Central or 90th Meridian Time).

NORTH BOUND.			SOUTH BOUND.		
Brandon Ex. Tues., Th. & Sat.	St. Paul Express, Daily.	Miles from Winnipeg.	STATIONS.	St. Paul Express, Daily.	Brandon Ex., Mon., Wed., Fri.
2.20p	4.25p	0	Winnipeg.....	11.10a	1.10p
2.10p	4.13p	3.0	Portage Junct.....	11.19a	1.20p
1.57p	3.58p	9.3	St. Norbert.....	11.33a	1.36p
1.45p	3.45p	15.3	Cartier.....	11.47a	1.49p
1.28p	3.26p	23.5	St. Agathe.....	12.00p	2.08p
1.20p	3.17p	27.4	Union Point.....	12.14p	2.17p
1.08p	3.05p	32.5	Silver Plains.....	12.26p	2.28p
12.50p	2.48p	40.4	Morris.....	14.45p	2.45p
	2.35p	46.8	St. Jean.....		1.00p
	2.13p	53.0	Letellier.....	1.24p	
	1.50p	58.0	Emerson.....	1.50p	
	1.35p	68.1	Pembina.....	2.00p	
	9.45a	168	Grand Forks.....	5.50p	
	5.25a	223	Winnipeg Junct.....	9.50p	
	8.35p	470	Minneapolis.....	6.30a	
	8.00p	481	St. Paul.....	7.05a	
	9.00a	683	Chicago.....	9.35a	

MORRIS-BRANDON BRANCH.

EAST BOUND.		WEST BOUND.	
Freight Wed. and Friday	Passenger Tu. Th. & Saturday.	Passenger Mon. Wed. and Friday	Freight Tu. Th. & Saturday
12.20p	2.20p	1.10p	3.00a
7.00p	12.40p	2.55p	8.45a
6.10p	12.15p	3.18p	9.30a
5.14p	11.48a	3.43p	10.19a
4.48p	11.37a	3.59p	10.39a
4.00p	11.18a	4.25p	11.13a
3.30p	11.03a	4.48p	11.50a
2.45p	10.40a	5.01p	12.38p
2.20p	10.28a	5.21p	1.05p
1.40p	10.08a	5.37p	1.45p
1.13p	9.53a	5.52p	2.17p
12.43p	9.37a	6.03p	2.48p
12.19p	9.26a	6.20p	3.12p
11.46a	9.10a	6.35p	3.45p
11.15a	8.53a	7.00p	4.18p
10.29a	8.30a	7.36p	5.07p
9.52a	8.12a	7.53p	5.45p
9.16a	7.57a	8.03p	6.25p
9.02a	7.47a	8.28p	6.38p
8.15a	7.24a	8.48p	7.27p
7.38a	7.04a	9.10p	8.05p
7.00a	6.45a		8.45p

West-bound passenger trains stop at Belmont for meals.

PORTAGE LA PRAIRIE BRANCH.

EAST BOUND.		WEST BOUND.	
Mixed Daily ex. Sunday.	Miles from Winnipeg.	Mixed Daily ex. Sunday.	
11.35a	0	4.30p	
11.15a	3	4.41p	
10.49a	11.5	5.13p	
10.41a	14.7	5.20p	
10.17a	21	5.45p	
9.29a	35.2	6.35p	
9.06a	42.1	6.50p	
8.25a	55.5	7.40p	

Passengers will be carried on all regular freight trains.
Pullman Palace Sleepers and Dining Cars on St. Paul and Minneapolis Express daily.
Connection at Winnipeg Junction with trains for all points in Montana, Washington, Oregon, British Columbia and California; also close connection at Chicago with eastern lines.
For further information apply to
CHAS. S. FEE, H. SWINFORD,
G. P. & T. A., St. Paul. Gen. Agt., Winnipeg.
H. J. BELCH, Ticket Agent.
486 Main Street, Winnipeg.

R. R. KEITH,
AUCTIONEER,
15 AND 17 JEMIMA STREET, WINNIPEG.
Live Stock Salesman.
Sales conducted in city or country. Register kept of stock for private sale. Prompt settlements. Satisfaction guaranteed. Correspondence solicited. 20-y-M

"FARM PRODUCE."

Highest Price for Butter, Eggs and Poultry.
J. G. CRASKE,
19-y-m 334 McWilliam-St. WINNIPEG.
- R. D. RORISON, -
P. O. Box 617. Office, 375 Main St. Telephone 571.
GRAIN DEALER, LAND BROKER, WINNIPEG, MAN.
Grain a Specialty. Correspondence solicited.



THE PALACE LIVERY STABLE
Geo. Currie, Proprietor, NEEPAWA, MAN
Good outfits at reasonable rates. Feed & sale stable in connection. Give us a Call. 31-y-m

NORTH-WESTERN HOTEL,
JOHN C. MCKAY, Proprietor,
NEEPAWA, MAN.
Convenient to Railway Station.
31-y-m Terms \$1 Per Day.

HUTCHINGS & BEMROSE.



Manufacturers and dealers in HARNESS, SADDLES, TRUNKS, VALISES, BRUSHES, CURRY COMBS, ETC., in fact, everything for the horse in the harness line. We sell at the very lowest prices for cash. Before purchasing elsewhere, call at the Beautiful Plains Harness Emporium,
Corner Mountain Ave. and Hamilton St.,
31-c-m Neepawa, Man.

CRADLE CHURN
JUST OUT.

Will revolutionize the CHURN -- TRADE.

Perfect in Construction -- AND -- EASE OF OPERATION
Churns with half the labor required with any Barrel Churn.



Will be exhibited at the Winnipeg Industrial Exhibition, July 25th to 30th.
B. R. HAMILTON & CO.,
Patentees and Sole Proprietors,
31-y-m Neepawa, Man.

NOTICES.

At the well-known photo studio of J. A. Brock & Co., Brandon, we have recently had the pleasure of seeing some finely finished photographs. To all visitors at the Brandon Summer Fair to be held this month, we would suggest that it will be an excellent chance to secure first-class photographs to send to friends or to present to associates.

When at Emerson recently we had the pleasure of calling at the new place of business of Messrs. McGirr & Hinton, in the Alexandria Block. Their fine stock of goods made a pleasing appearance, and we have to congratulate the people of Emerson and surrounding district that such a fine stock awaits the opportunity thus afforded them of making their selections.

Mr. J. F. Sangster, of the Kistleman Woven Wire Company, whose advertisement appears again in this issue, has had most encouraging success in introducing the same in Manitoba. In Brandon district alone he disposed of a right covering 36 townships of territory. In districts where cattle, sheep, etc., are kept it is taking remarkably well. Mr. Sangster will be at all the leading summer fairs, exhibiting the fence and the actual process of weaving it complete.

In another column may be seen a cut of "Swords Patent Siding," a new style of fitting the boards together to obtain good results and economize lumber. It has been well tested, and is highly recommended. This, with anything in the building line, can be procured at the well equipped lumber yard of Mr. L. J. Ashly, of Brandon. The proprietor will be pleased to have intending builders inspect his stock. We think those who do so will be well pleased with the result.

The Gold Hawk Restaurant, at 555 Main street, Winnipeg, under the able management of Mrs. R. Fowler, has been recently fitted up at great expense, and now has a neat and comfortable appearance, both outside and in. The pleasant and staking proprietress is now in a position to look after the comfort of her guests to their entire satisfaction, having secured additional room. We with pleasure recommend this home-like place to our friends, as it is conveniently situated. A nice meal can be had at any time, which we are sure will be highly appreciated by those visiting the summer fair, as well as the general public.

The beneficial effects of Wellband's Horse and Cattle Condition Powders are becoming better realized. We are informed that those who have used them are so well pleased that they are renewing their orders, which is the best proof of complete satisfaction. The proprietors have taken space and made arrangements to have a fine exhibit of their goods at the leading fairs, including Brandon, Portage la Prairie and Winnipeg, where those interested will be able to get any information required or secure packages whereby they may test their value on their various domestic animals.

Farmers, dairymen and others desirous of purchasing pure drugs will be pleased to learn that such may be had at the Market Drug Store, Winnipeg. The proprietor, C. M. Eddington, informs us that among the many other articles especially required at this season, such as chloride of lime, lime juice, insect powder, mosquito remedy, etc. He has also a very superior liquid extract of annatto and liquid rennet. He is sole agent in the province for "sanatoo." The convenience of location, opposite the market, good articles at reasonable prices, and the pleasant manner of the proprietor, who is determined to give satisfaction, must certainly result in a large increase of his now flourishing business. For further information see another column.

THE NEEPAWA PIONEER PLANING MILL AND PUMP FACTORY.

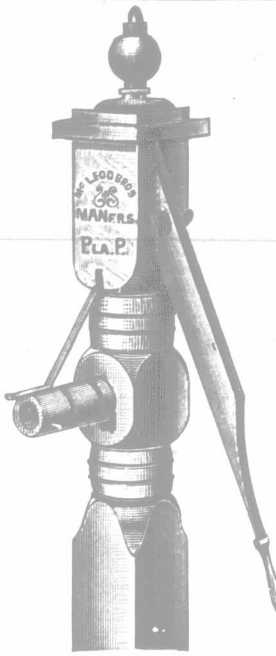


We manufacture and keep in stock a full line of MOULDINGS, SASH, DOORS and PUMPS. Satisfaction guaranteed. Write or call on us for what you want. 31-b-m
Wakefield & Kellington, Mountain Ave., Near Station, NEEPAWA, MAN.

ESTABLISHED 1860.
KIRKPATRICK & COOKSON,
Commission Merchants,
MONTREAL.
Grain, Flour, Butter, Etc.
Personal attention given to all consignments. 30-y-m

Grand Pacific Hotel,
PORTAGE LA PRAIRIE, MAN.
WM. LYONS, - PROP.

Newly opened with new furniture. Strictly first-class. Free omnibus. Large sample rooms for Commercial Travellers. 21-y-m



McLEOD BROS.
PORTAGE LA PRAIRIE
Manufacturers of
WOODEN
PUMPS

We guarantee our Pumps to give satisfaction. Orders by Mail or otherwise promptly attended to.
PRICES REASONABLE.
Address:
McLEOD BROS.,
Portage La Prairie, Man.
Gaddy St., east of Marlatt & Houser's Lumber Yard. 28-h-m

PALACE HOTEL!
COR OF 8TH ST. AND ROSSER AVE.,
Brandon, - Manitoba.

D. C. MCKINNON, PROP.
Extensive improvements now being made. Terms \$1.00 per day. 29-f-m

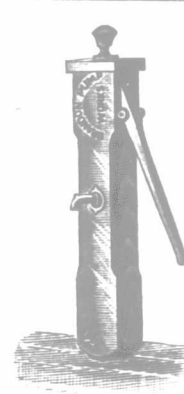
SIFTON & PHILP,
BARRISTERS, & C.,
BRANDON, MAN.,

Will furnish prices and terms for Manitoba Farm Lands in any part of the Province on application by letter or in person. 28-y-m

W. H. McINTYRE
6th Street, Brandon, Man.,
- MANUFACTURER OF -

Wooden Pumps,
- ALSO -
WOOD AND IRON PUMPS,
Force Pumps,
Tank Pumps with Hard Rubber Section Hose for threshers' use, and Pumping Windmills. Dealer in Garden Hose, Brass Nozzles, Gas Pipe, Iron Pump Cylinders and Barb and Plain Twist Fence Wire, etc.

Write for prices before purchasing elsewhere. Satisfaction guaranteed. P.O. Box 17. 29-f-m
ADVERTISE IN THE ADVOCATE.



BRANDON Pump Works

I. M. RIESBERRY,
PROPRIETOR.

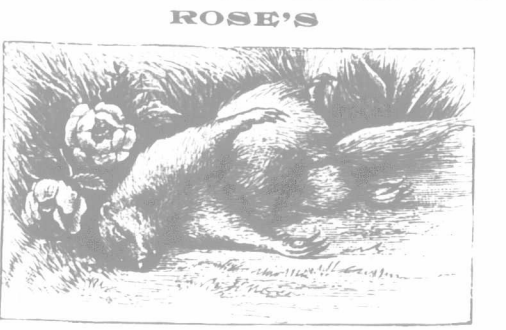
Manufacturer of all kinds of wood pumps. Porcelain lined pumps, polished iron cylinder, and pumpmakers' supplies shipped to any point in Manitoba and the Territories. Will supply pumps in car lots to dealers.

CORRESPONDENCE SOLICITED.

Send for Price List.
OFFICE AND FACTORY:
Cor. Eighth St. and Victoria Avenue
BRANDON.
28-y-m

FARMERS! FARMERS!
Buy your Goods where you can get the most for your money.

One of the largest and most complete
ASSORTMENTS OF STATIONERY,
- ETC., IS AT -
F. C. VANBUSKIRK'S, ROSSER AVE., BRANDON
21-y-M



(TRADE MARK.)
GOPHER-KILLER
took Diploma at Brandon Show, 1890. Endorsed by all who use it. A. H. KILFOYLE, 16, 11, 19, collected \$7.96 bounty; after using three bottles says he killed three times as many. This is one of a number of letters we have. **ROSE & CO.,** Rosser Ave., Brandon. Sent by mail, 50c. 28-y-m

McKENZIE & RUSSELL
BRANDON, - MAN.,

- MANUFACTURERS OF -
Fine Carriages
HORSE SHOERS
- AND -
GENERAL BLACKSMITHS.

: EXPERIENCED :
: WORKMEN :
: - - ONLY - - :
: EMPLOYED. - :

R. McKenzie. L. A. Russell.
20-y-M

STEVENS & BURNS,

MANUFACTURERS OF

Straw and Wood-Burning Portable and Stationery and Traction Engines, Ertel Victor Hay Presses, Threshers, J I C Agitator Separator, Saw Mill Machinery, Chaff Cutters, Engineers' Brass Goods & Fittings and Iron Pipes.

AND LAST, BUT NOT LEAST, **BOILERS.** SEND FOR CATALOGUE.

26-f-M

STEVENS & BURNS, Winnipeg, Man.

1839. **FROST & WOOD,** 1892.

—OF—

SMITH'S FALLS, ONT.,

—MANUFACTURERS OF AND DEALERS IN—

AGRICULTURAL -- IMPLEMENTS.

Order early and secure one of our

Celebrated Combined Champion Press Drills,

The greatest grain sowing drill yet introduced.

Spring Tooth Combined Seeders and Drills; Single Apron Binders; New Model Mowers and Tiger Rakes; Wagons and Sleighs; all kinds of Harrows; Full Line of Riding and Walking Plows.

Sole Agents for John Abell's Celebrated Threshing Machines.

Record: 3,300 bushels in 10 hours.

Agencies at all principal points in Manitoba. Full stock of Repairs always on hand at our agencies.

FROST & WOOD, 25-y-M WINNIPEG, Man.

WILKINS & ANDREWS, BRANDON

CASH BARGAINS IN

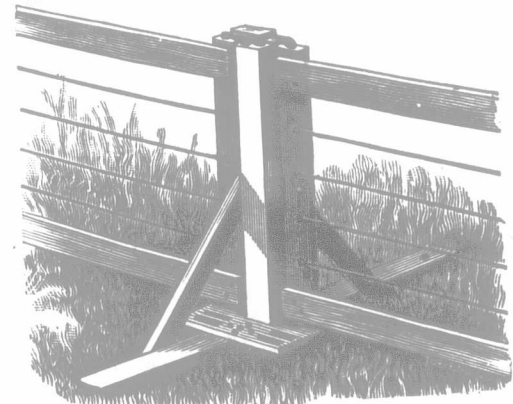
PANTS TO ORDER } Clothing, Furnishings, &c.
22-y-M] 4.00.

LIVERY, SALE AND FEED STABLE



First-class rigs, good horses, careful drivers and moderate charges. J. W. THOMPSON, Proprietor, opposite M. & N. W. Ry. Station, Minnedosa, Man. 31-y-m

G. E. HARRIS' PORTABLE FENCE.



Every farmer will find this to be the handiest and safest fence for yards, corrals, stacks, gardens, &c., that has ever been put on the market. Easily made and operated; cheap, strong and reliable, handy and safe. Can be opened and used as a gate at any point. You can have a clean corral in a few minutes, with very little work. The only complete and perfect portable attached fence in the market. A few good live agents wanted. Full instructions given with every right sold.—C. E. HARRIS, Patentee and Proprietor, BRANDON, MAN. 26-y-m

—THE CONSUMERS'—



Wholesale Supply House.

WE MAKE A SPECIALTY OF SELLING TO

FARMERS,

Country Merchants, Hotel-Keepers, and others buying

Groceries, Teas, Provisions,

CANNED GOODS,

FRUITS, ETC.,

in sufficient quantities or in club lots, at wholesale rates. For further particulars visit or write

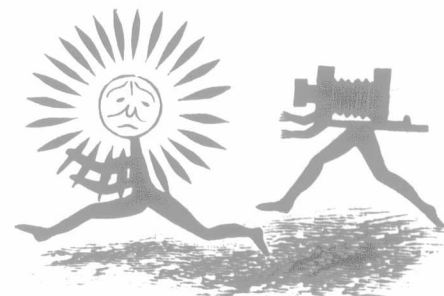
JOHN A. MONTGOMERY,

MONTGOMERY BLOCK, 9TH STREET,

BRANDON, MANITOBA

China Hall in connection.

29-y-m



RUSHING FOR

Brock & Co's. Photo. Studio, Brandon,
AT FAIR TIME. 31-y-m

CONBOY, THE JEWELLER,

For Watches, Clocks, Jewellery and Silverware. All kinds of first-class goods kept in stock and sold at the lowest possible prices for cash.

REPAIRING A SPECIALTY.

Between 9th and 10th Streets, Rosser Ave., Brandon. 22-y-M

J. A. BROCK & CO.,

The Leading Photographer

"FLEMING'S BLOCK,"

ROSSER AVENUE, 20-y-M BRANDON.

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

Note the advertisement of Messrs. Ridout & Percival, Solsgrith, who are devoting special attention to the breeding of improved Large Yorkshire pigs.

Messrs. Rea & Hickling, of Rapid City, have sold their beautiful imported thoroughbred stallion Canova to the Bow River Horse Rancho, also have sold their French stallion Jock O'Dink to Mr. Roderick Morrison, of Carberry. The purchasers of those two horses are to be congratulated.

The Port Arthur Daily Sentinel of May 9th says:—"Mr. M. Sullivan, butcher, received to-day a car load of cattle, and amongst them was a heifer weighing 1,820 lbs. This beast is only four years old, and is the largest heifer which has ever been brought to Port Arthur. The shipper is Mr. William Spiers, of Griswold, Man., the breeder being Mr. W. J. Hellwell, of Ralphton.

Mr. W. J. Young, of Emerson, Man., writes us that he has got his new stock bull, Poma 3rd's Clothide, out of quarantine. He is grandly bred, and a beauty in every respect. Mr. Young secured him from Gillet & Sons, Ravendale, Wis., the widely known Holstein-Friesian breeders, and they regarded him as one of the most promising young bulls in America.

Mr. Peter Stewart, of Rosebank, whose advertisement of Improved Large Yorkshire pigs has been running in the FARMER'S ADVOCATE reports very gratifying sales, among the latest being three sows to Mr. Chas. Lacock, of Miami; one boar to Mr. J. Parks, Miami; and five brood sows, one boar and about twenty youngsters to Mr. Byron Fraser, of Morden. The latter purchase in fact took Mr. Stewart's "outfit" complete; he will have to start afresh. Mr. Fraser has made a capital beginning.

Mr. Robt. Hall sold during the winter and spring from his Polled-Angus herd at Griswold, the cow Victoria A, to John A. Markie, of Birtle; bull calf Sir Richard to T. F. Patterson, of Birtle; the bull calf Black Prince to the Indian Department. His old stock bull Brandon Chief he sold to A. H. Speers, Griswold. The latter was only in fair condition, and he weighed immediately after walking five miles 2,030 pounds. The herd has wintered fairly well, and the calves have been coming all right.

Mr. H. O. Ayeerst, of De Clare, Man., has just received from the noted Shorthorn breeder Arthur Johnston, Greenwood, Ont., three head of young cattle of the popular strains of the day. Crimson Gem, a yearling heifer, got by the famous Indian Chief, imp., and out of Crimson Bud, by imported Eclipse. She is a magnificent heifer, and, as Mr. Johnston says, was by far the best he had in the yearling class. She tipped the scales at 1,120 lbs. after an eight days trip on the cars. The next, Crimson Queen, got by Warfare, imp., and out of the same cow is a most beautiful calf of seven months, and will, we think, almost, if not quite, equal her half sister. The third, Royal Burger, a bull calf of eight months, is a big, thrifty looking fellow; he was got by Warfare, imp., and out of Clara, imp., she bred by Sylvester Campbell, of Kinellar. Unfortunately he lost one of his horns on the trip, and this will somewhat disfigure him. The heifers will probably put in an appearance at the Industrial Exhibition.

JAS. S. GIBSON,
Wholesale and retail jobber in
CARRIAGES
Of every description. I carry the largest stock in Brandon. Don't buy before inspecting my large stock of 200 carriages. Also agent at this point for the Cockshutt Plow Co. FOR SALE—Georgia, No. 269, E. S. B., Imported Shire Mare, with foal at foot. I also handle horses. Fancy drivers a specialty.
CORNER 8th ST. AND PRINCESS AVE.,
OPPOSITE NEW CITY HALL,
BRANDON, 27-f-M MAN.

A. E. REA & CO.,
FLOUR and FEED
Wholesale and Retail Dealers in
GRAIN AND PRODUCE
of all kinds. Rapid City Flour always on hand.
Cor. 8th St. and Rosser Ave., Brandon.
20-y-M

W. H. SHILLINGLAW,
ARCHITECT.
Plans and Specifications prepared
for all kinds of buildings.
Schools and Churches a Specialty.
Brandon, - 24-y-M - Man.

SAMUEL SMOOT'S
-:- RESTAURANT, -:-
Corner 10th Street and Pacific Avenue, BRANDON.
(Immediately opposite C.P.R. Station.)
Meals at all hours. All kinds of canned meats kept in stock for the convenience of the travelling public. Call in and get what you want. 20-y-M

FLEMING'S
GOPHER
POISON.

Price 50c., postpaid to any address

PREPARED BY
FLEMING & SONS,
Brandon, - - - Man.
30-y-m

GEORGE V. FRASER

REAL ESTATE AGENT.

City and Farm Properties Bought and Sold.

PROPERTIES HANDLED ON COMMISSION.

DIRECTLY OPPOSITE POST OFFICE,
Rosser Avenue, - BRANDON, MAN.
Box 100. 29-y-m

W. H. HOOPER,
Auctioneer, Real Estate & Commission Agent
Cor. Rosser Ave. and 12th St., Brandon.

Buyer and seller Real Estate. Liberal advances made on consignments. High prices paid for Raw Furs. Ten years in the city, and am thoroughly posted as to value in Real Estate. I am a good judge of live stock, dry goods, groceries, hardware and new and used of any kind. Animals taken for sale and butchered and sold at the lowest possible rates.

W. H. HOOPER
24-y-M

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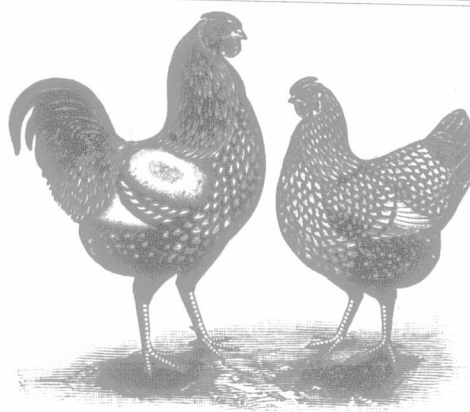
MANITOBA
FARM
LANDS!

A. J. BANNERMAN, REAL ESTATE & FINANCIAL BROKER,
435 Main St., WINNIPEG. **CHEAP LANDS.**

Near Stonewall.—S e ¼ and s ¼ n e ¼ 24, 14, 1, east; s e ¼ and e ¼ s w ¼ 5, 14, 2, east. Rosser.—N w ¼ and w ¼ n e ¼ 20; s e ¼ and e ¼ s w ¼ 14; all in 12, 1, east; s w ¼ and s ¼ n w ¼ 10, 12, 1, west. Terms—10 per cent. cash, balance in five annual instalments, with interest at 7 per cent. per annum. 314-y-om

WINNIPEG
CITY
PROPERTY!

M. A. WILSON & COMPANY, BANKRUPT STOCK DEALERS,
"Climax Store," Cor. of King and Market Streets, Winnipeg; "Glasgow Store," Portage la Prairie.
Fresh Goods at Wholesale Prices. Country Orders to Winnipeg or Portage la Prairie receive the best and prompt attention. Write for Lists.
31-a-M **P. O. BOX 796.**



SILVER LAGED AND WHITE WYANDOTTES,
BARRED P. ROCKS AND BRONZE TURKEYS

Have two choice breeding pens (laced), and two pairs and one trio White Wyandottes; all winners at Provincial Exhibition last fall, and sure winners at fall exhibitions. Also a fine lot of young birds, and one breeding pen of Barred Plymouth Rocks.

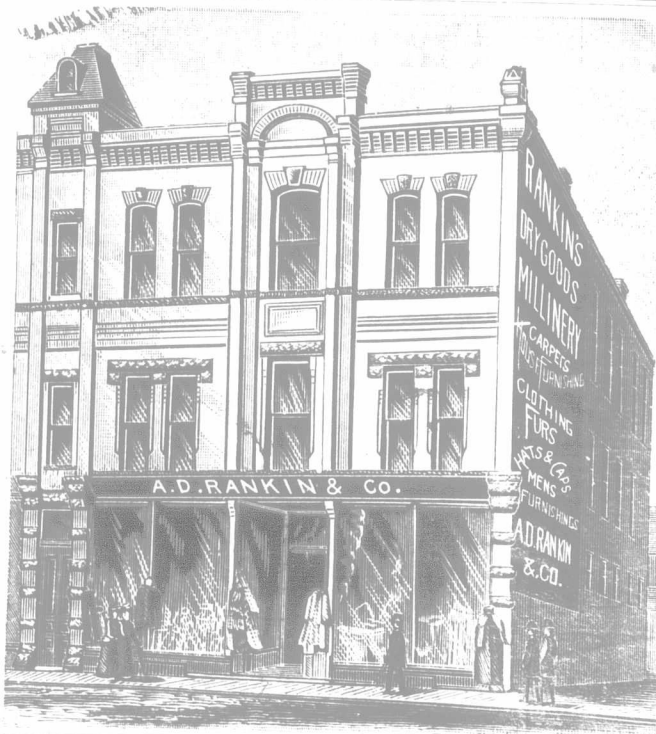
WRITE FOR WHAT YOU WANT.

M. MAW, Main St. North, WINNIPEG.
31-a-m

ESTABLISHED 1879.
WM. BELL | MAIN STREET 288 WINNIPEG, MAN.
(CORNER GRAHAM.)

DRY GOODS!

Ladies' and Gents' Furnishings always on hand. A full and varied stock of Staple and Fancy Goods. Orders by letter and in person from our country friends given special attention. We have everything in stock to suit the farming community. Our stock will be found complete, and in prices cannot be undersold.
26-y-m **WILLIAM BELL, 288 MAIN STREET.**



DRESS -:- GOODS!

PRINTS, -:-
-:- SATENS,
LINENS, -:-
-:- COTTONS,
SHEETINGS

The Latest, the Best at Lowest Prices

Flannels and Blankets, -:-
Carpets, Housefurnishings,
-:- Ready-Made Clothing.

We are at present offering special inducements. Many lines of excellent goods we are clearing at half price. Men's Furnishings, Hats & Caps. Beautiful assortment of the newest goods. Our motto: "Small profits, quick returns." Mail orders carefully attended to. When in town call on

A. D. RANKIN & CO.,
BRANDON, MAN.
Successors to F. NATION & CO.
30-d-m



BARBED WIRE

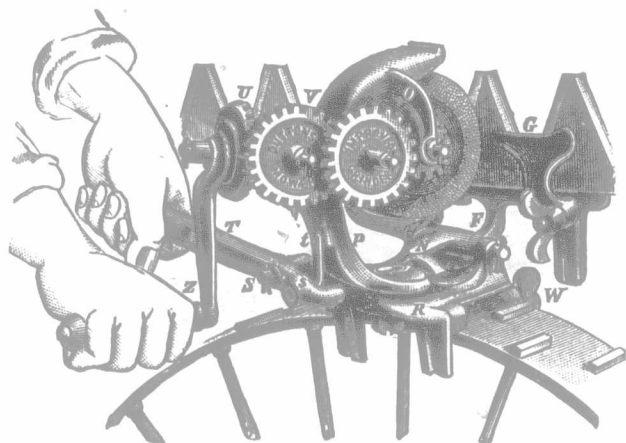
Having erected a large factory in this city and fitted it with the latest improved machinery, we are prepared to furnish

Barbed and Plain Twist Wire
AT LOWEST CURRENT PRICES.

Only the best quality of English Bessemer steel wire used. Every pound guaranteed. Ask for our Brand—which is superior to all others.

THE NORTH-WEST WIRE CO., Ltd.,
28-f-m **WINNIPEG, MAN.**

WATSON'S BINDER AND MOWER KNIFE GRINDER



— IF YOU USE A —

BINDER : OR : MOWER

You cannot afford to be without one.

Will pay for itself in one week. STONE always wet. No HEATING of the SECTIONS. Will keep bevel as good as new. SAVES STRAIN ON MACHINE AND TEAM.

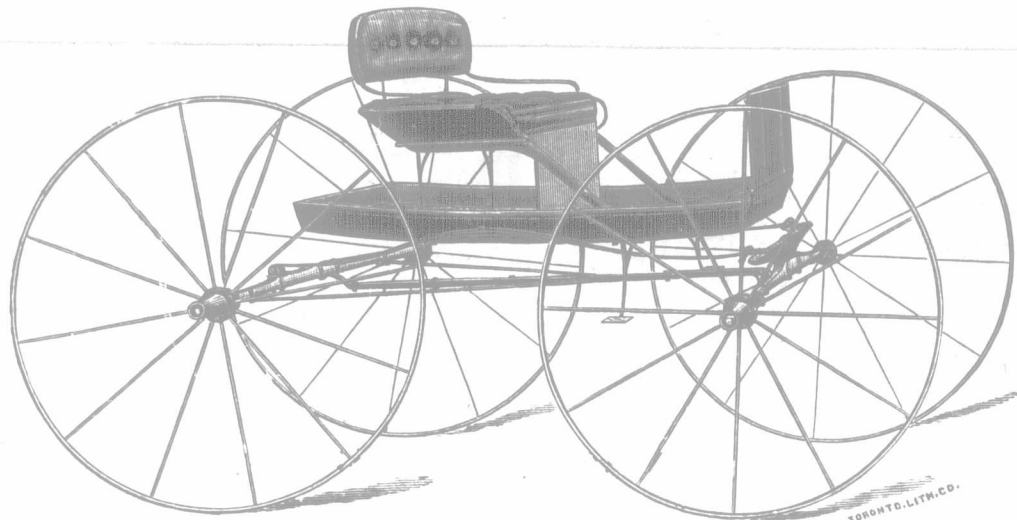
21,000 sold in 1891.

Write for special circular and prices. Its cheapness will surprise you.

FARMERS. When in want of any agricultural implement write us for prices, as we can save you money. Full line of repairs on hand. Address,

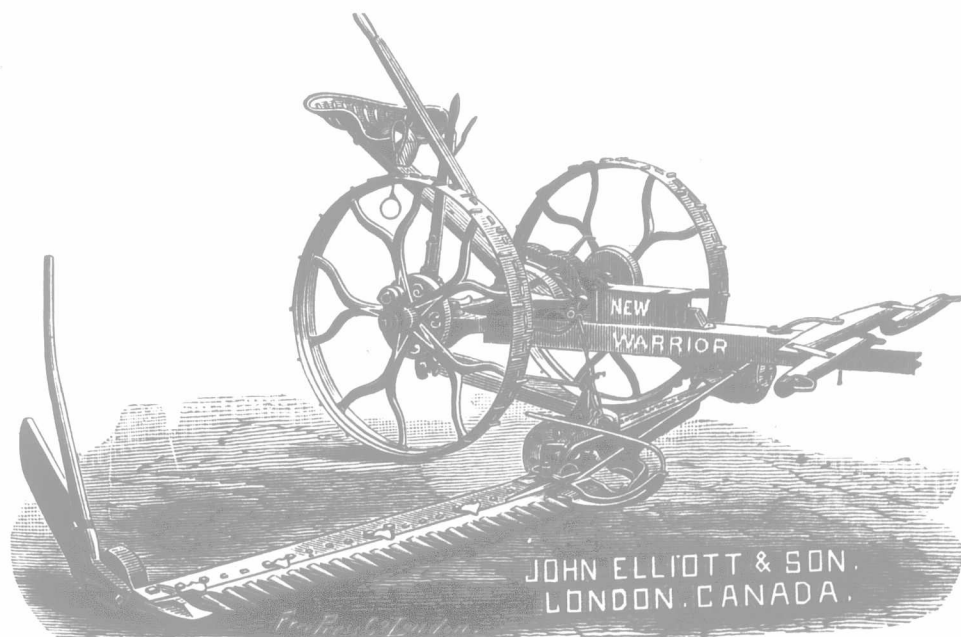
WATSON M'FG CO 'Y (Ltd.),
Market Square, WINNIPEG, MAN.
30-a-m

BOYCE'S CARRIAGE WORKS
James Street West, Winnipeg.



MANUFACTURER OF
FIRST - CLASS : VEHICLES : OF : ALL : KINDS.
We carry the largest assortment in Manitoba. Call and examine before buying. Send for Catalogue. 31 a-m

ANDERSON & CALVERT,
AGRICULTURAL :- IMPLEMENTS



The Only Genuine Warrior Mower Made by Elliott & Co., London. Full Stock of Repairs for Same.

MOODY'S TREAD POWERS AND THRESHERS,
Tiger Rakes, American Furford and Norwegian Plows, Rock Island Hay Loader, and full line of other goods. Send for catalogues and prices. 29-a m

OFFICE : 144 PRINCESS STREET, WINNIPEG, MANITOBA. P. O. BOX 1319.

FOR SALE :

ANGLO - AMERICAN HOTEL

Opposite Alexandria Block,

EMERSON, MANITOBA.

A good business at a low price. Proprietor retiring. Apply personally or by letter.

LOUIS DUENSING, PROPRIETOR

28-t f-m

C. J. ELHAM,

TEACHER OF

Music, Organ, Piano and Voice.

TERMS, \$7 PER 21 LESSONS.

Stonewall, - - Man.

21-v-m

NEWBERRY & WELLS

— Importers of and Dealers in—

Groceries, Crockery, Provisions, Etc.

DRY GOODS, CLOTHING, HATS, CAPS,
BOOTS AND SHOES.

Large stock of Choicest **TEAS** always on hand.
MELITA, MANITOBA. 29-c-m

FOR SALE!

A GOOD STORE AND BUSINESS

With TOWN WEIGH SCALES in connection in the live TOWN OF MELITA. Satisfactory reasons for selling. For particulars write to

29-tf-m **WESLEY JACKSON, Melita, Man.**

JOHN C. GIBBARD,

Rapid City.

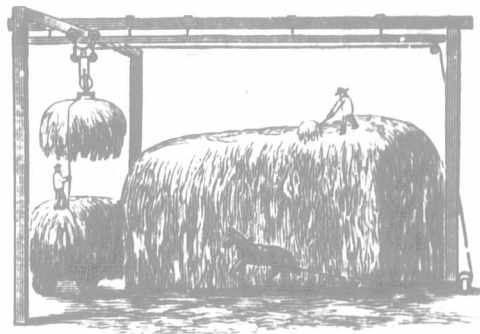
BOOTS : AND : SHOES.

Special lines in Men's Boots and Shoes; warranted to give good satisfaction. 28 y-m

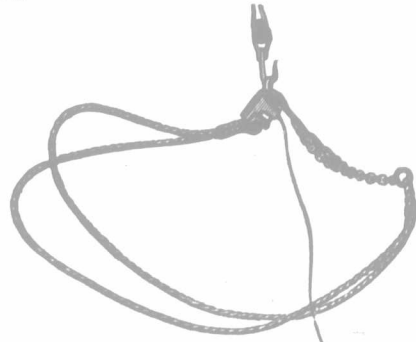
BUCHANAN'S

Malleable Improved Pitching Machine

For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without changing car. No climbing necessary. Malleable Iron Cars. Steel Forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction guaranteed.



THE COMMON-SENSE SHEAF LIFTER

Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for unloading sheaves. Leaves sheaves in the mow just as they come from the load.

Responsible Agents Wanted.
Circulars, Prices and Terms on application to
27-c-m **M. T. BUCHANAN, Ingersoll.**



FLEMING & SONS

CHEMISTS AND DRUGGISTS (Wholesale and Retail).
 Patent Medicines, Druggists' Sundries, etc. Pure Drugs. Our special preparations are: Fleming's Syrup of Tea and Wild Cherry; Fleming's No. IX. Tonic; Fleming's Diarrhoea Powders; Fleming's Pills; Fleming's Condition Powders; Fleming's Eye Water.

KELLY HOUSE.

Quiet and comfortable, good accommodation, all trains met, rigs furnished at reasonable rates. Terms \$1 per day.

JOHN KELLY, PROP.,
RAPID CITY, MAN.
 28-y-M

THE GREAT 'DOWSWELL' WASHER

11th YEAR.

Saves Labor, Health,
 Time, Money.

Washes without injury the finest and heaviest Fabrics.

Buy one from your hardware dealer or direct from



PEERLESS MANUFACTURING COMPANY,
 HAMILTON, CANADA. 24-y-M

ADVERTISE IN THE ADVOCATE.

CITY PLANING MILL AND LUMBER YARD

PORTAGE LA PRAIRIE, MANITOBA,

— WHOLESALE AND RETAIL IN ALL KINDS OF —

Lumber, Lath, Shingles, Lime and Building Paper, Sash, Doors, Mouldings, Bannisters, Newel Posts, Etc.

All kinds of shop work on short notice. Prices right. Mill Yard and Office, opposite M. & N. Depot, Main Street. Delivery to all parts of town FREE. Orders by mail promptly attended to.

PHONE 37. [28-h-m] Address—**J. M. TAYLOR,** Box 306, Portage la Prairie, Man.

LIFE INSURANCE AT ONE-HALF THE USUAL RATES!
 ASSESSMENT SYSTEM.

MUTUAL RESERVE FUND LIFE ASSOCIATION of New York
 E. B. HARPER, PRESIDENT.

Assets over \$5,000,000; Reserve Fund over \$3,000,000; Government Deposits, \$500,000. Furnishes life insurance at actual cost to its members. Insurance written in 1891, over fifty million of dollars; paid in death claims in 1891, \$2,289,000. Comparison of cost in the "Mutua Reserve" with the "Old-Time Level Premium" companies for the past ten years on a \$5,000 policy. Please NOTE carefully and CONSIDER:—

AGE.	COST IN MUTUAL RESERVE.	COST UNDER OLD SYSTEM.	AGE.	COST IN MUTUAL RESERVE.	COST UNDER OLD SYSTEM.
25	\$ 466.75	\$ 904.50	45	\$ 678.75	\$1,898.50
30	489.83	1,135.00	50	801.10	2,850.00
35	540.25	1,319.00	55	1,235.54	2,995.50
40	604.60	1,565.00	60	1,671.18	3,881.50

Why pay \$100 for your life insurance when you can secure the same protection in one of the strongest life insurance companies in the world for \$50? For further particulars, circulars, etc., apply to nearest agent, or address **A. R. MCNICHOLL,** General Manager for Northwest Canada, McIntyre Block, Winnipeg. AGENTS WANTED. Send for circular explaining our new 10-year distribution policy. 27-y-M

ESTABLISHED 1886.

BEAVER HALL CLOTHING HOUSE — THE FARMERS' EMPORIUM

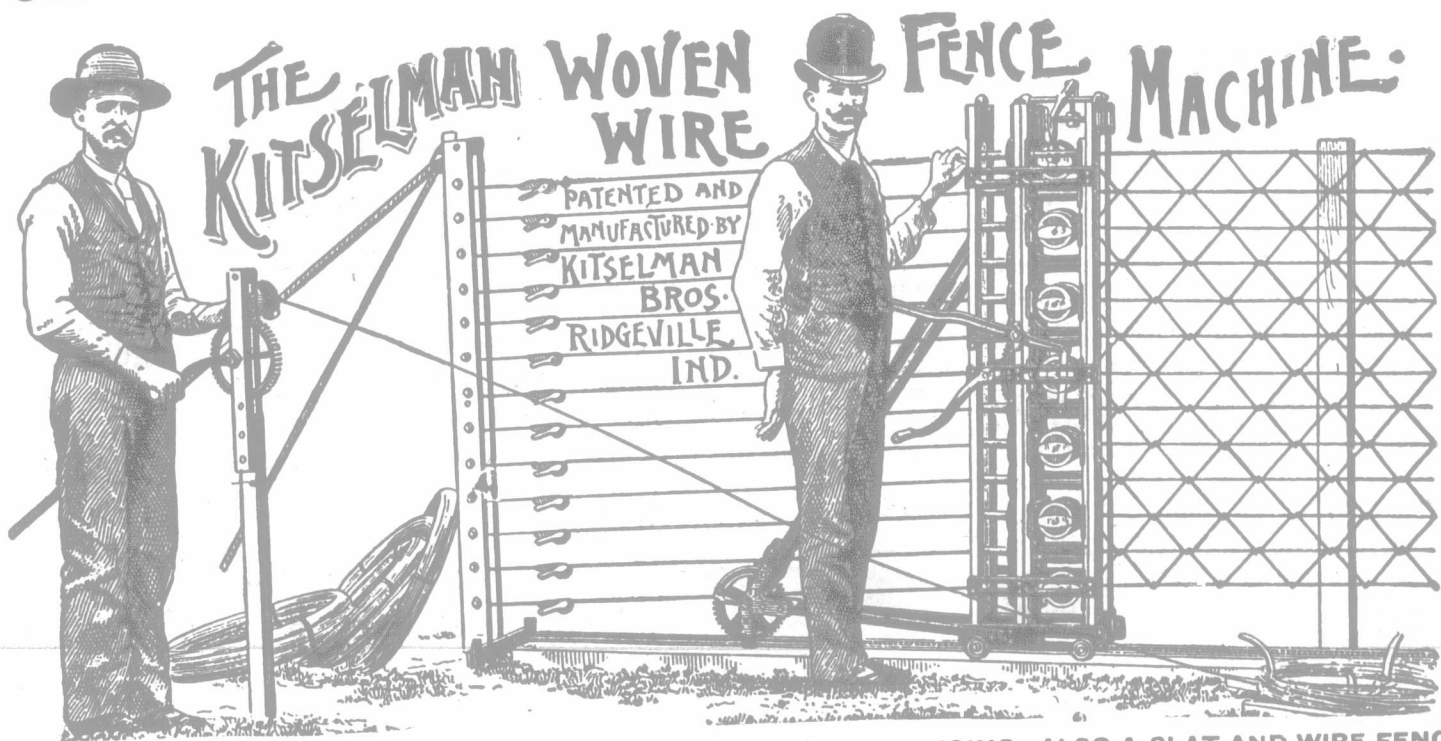
For Clothing, Furnishings and Fur Goods.

THE LARGEST STOCK AND BEST SELECTION IN THE CITY.

GOODS SOLD FOR CASH ONLY.

JOHN T. SOMERVILLE, BRANDON, MAN.

FORTUNE KNOCKS ONCE AT EVERY MAN'S DOOR!



WILL MAKE OVER TWENTY DIFFERENT STYLES OF WOVEN WIRE FENCING; ALSO A SLAT AND WIRE FENCE.

THE GREATEST INVENTION OF THE AGE.

Heretofore WOVEN WIRE FENCING has been a luxury, the price being so high that only the wealthy could afford to buy it. This machine brings it within the reach of all—so low indeed, that it will not pay to waste money on any other kind of a fence. This is the only machine on earth that you can take into the field and make a woven wire fence. A man to work the machine and a boy to spool the mesh wire, can make and put on the posts from forty to fifty rods per day. Over TWENTY different styles of fence can be made on this machine. IT IS VERY SIMPLE, AND DOES NOT REQUIRE A SKILLED PERSON TO RUN IT. The fence can be made light for yard or lawn, or if for a farm, and is desired, can be made strong enough to stand a breaking strain of 40,000 pounds. It takes up but little room, and is fire and wind proof. IT IS THE COMING FENCE. Mr. J. F. SANGSTER, a member of the Kitzelman Wire Fence Company, of St. Thomas, Ont., is now travelling in Manitoba, exhibiting this machine, fence, etc. If you have a fence to build, and desire to see the machine work and examine the fence, correspond with

J. F. SANGSTER, - - - **WINNIPEG.**
N. B.—Territorial, County, or Farm Privileges and Machines for Sale. 31-a-M

25 CENTS . . .
50 CENTS
ONE DOLLAR . . .

For the above amount you can get THE WINNIPEG WEEKLY TRIBUNE for three, six and twelve months respectively. It is the largest newspaper published in the Canadian Northwest; has all the news of the week; specially selected family reading and interesting serials. It is the champion of the people's interests; the popular paper with all classes.

The GREAT DOLLAR WEEKLY
THE TRIBUNE PUBLISHING COMPANY, WINNIPEG, MAN.
14-tf-M

GEO. McCULLOCH & CO.,
FLOUR & WOOLLEN MILLS
RAPID CITY, - MAN.,

Manufacturers of the Celebrated Rapid City Yarn, Blankets, Flannel, Kersey, Tweed, etc. The highest cash price for Wool. Extra inducement to farmers for Wool in exchange for goods. Samples on request. 28-y-m

—THE—
CLINTON ORGAN Co.

—SOLE MANUFACTURERS—

BLATCHFORD'S PATENT COMBINED

Resonant Chamber Organs.

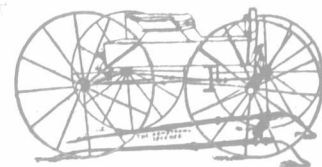
BEST TONED ORGANS MADE.

Elegant in Design. Superior in Finish.

None but the best materials used, and the most experienced and skilled workmen employed. These organs cost no more than any other. If we have no agent in your vicinity write for our illustrated catalogue and price list.

N. B.—Reliable agents wanted in Manitoba and N. W. T. 31-y-m

THE "ARMSTRONG" SPEEDER



Weight about 200 lbs. Furnished with Back on Seat when desired. Top can be used. There is safety in a short turn. This Job has that advantage. Handily entered. A nice Rider. Ask for them.

J. B. ARMSTRONG MANUFACTURING Co., Ltd.,
Guelph, Canada. 28-y-m

STOCK FOR SALE.

R. AUZIAS-TURENNE, General Manager. BARON EDEGRANCEY, Vice-Pres., PARIS, France. 30 St. James Street, MONTREAL, CANADA.

LA COMPAGNIE

DU HARAS NATIONAL



35 PRIZES AND DIPLOMAS IN 1891 FOR OUR NORMAN, PERCHERON, BRETON STALLIONS 315-y-OM FOR SALE OR TO LET.

HILLHURST -- HACKNEYS

Oldest Stud in America and largest in the Dominion.

All stock full registered and bred from the most fashionable and purest blood, direct from breeders in the heart of the Yorkshire Hackney breeding district.

STALLIONS.

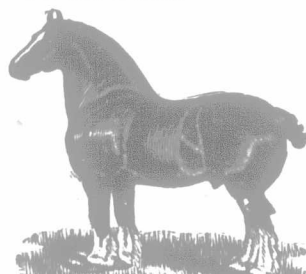
Fordham (287) 28, by Denmark (177): Maxwell (3143) 76, by Prince Alfred (1325), and Danesfort (3533) 77, by Danegelt (174). MARES by Matchless of Londesborough (1517), Danegelt (174), Wildfire (1224), Fordham (287), etc. Young stock for sale. Cobs, Saddle Horses and half-bred Fillies by Fordham. Standard-Bred Trotters - Electioneer, Almont, Happy Medium and Wilkes blood. Polled Aberdeen-Angus and Jersey Cattle, Shropshire Sheep and Yorkshire Pigs. For catalogues address M. H. COCHRANE, Hillhurst Station, P. Que. 310-y-om

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-IMPORTER AND BREEDER OF-

Yorkshire Coachers, French Coachers, Clydesdales, Clydesdale Mares, Shetlands, and Ayrshire Cattle.

The stock has taken more prizes than all importers and breeders combined in the province. I am prepared to sell at prices to suit the times. Give me a call. Canada Atlantic Ry. and G. T. R. on the farm. ROBERT NESS, Woodside Farm, Howick P.O., P.Q. 315-y-OM



MESSRS. JAS. GARDHOUSE & SONS, ROSEDALE FARM, HIGHFIELD P. O., ONT.

Have on hand and for sale at low figures, Draught Cobs and Fillies, both from imported and Canadian bred mares, and mostly sired by their sweepstakes horse "King of the Castle." These are all good ones, and will make very heavy mares and horses. Also Shorthorns and Leicesters of the choicest strains of blood. Write for prices or come and see us. Station and Telegrams: MALTON on G. T. R. 313-y-OM

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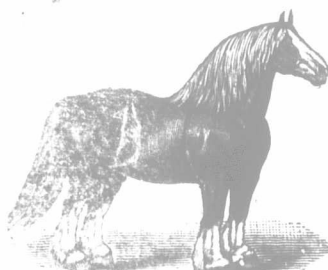
I can sell you an imported Clydesdale Stallion for less money than any other dealer. I handle none but sound, first-class stock, and sell at a small profit. I number among my customers such well-known horsemen as Enright Bros., Winnipeg, Man., and Dundas, Ont. - Also a few choice Shetland Ponies.

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BREEDERS AND IMPORTERS OF

FASHIONABLY BRED CLYDESDALES



Always have on hand a large stock of imported and home-bred Clydesdales (male and female) made of pure breeding and quality. We will sell at honest prices. Our stock are good and well-bred horses and suitable for all purposes. Come and see us or write for particulars. 313-y-OM

SHIRE HORSES.-A grand young imp. stallion for sale at a low figure.

IMPROVED YORKSHIRES.-Young stock of all ages at farmers' prices. WHITE HOLLAND and BRONZE TURKEYS.-Orders booked for young birds for fall delivery. Correspondence solicited. Prices on application. 318-y-om WM. MULLEN, Hillsburg, Ont.

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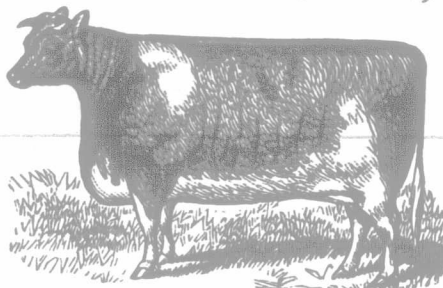
AT OTTER PARK, NORWICH, ONT.

Premier Stallion, Lexington Boy 2.23, by Egbert 1136, sire of Exthorne 2.12 1/4; Temple Bar 2.17 1/4, and forty-three others in thirty list. Other standard-bred Stallions in stud. For particulars send for announcement. 315-y-OM CORNWELL & COOKE, Proprietors.

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A FIRST-CLASS IMP. CLYDESDALE STALLION of Prince of Wales (673) blood. A grand stock horse and sure breeder. Price very low, breeding and quality considered. WM. AGNEW, V. S., 318-1f-om Langton, Ont.

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Has for sale, at MODERATE prices, an exceedingly good lot of young cows and heifers - all by imported sires and mostly from imported dams of the best strains to be had in Scotland.

A FEW YOUNG BULLS FIT FOR SERVICE also FOR SALE New Catalogues for 1892 now ready. Send for one; they are mailed free.

My motto is "No business, no harm." Greenwood P. O. and Telegraph Office, Claremont Station on the C. P. R., or Pickering Station on the G. T. R. Parties met at either station on shortest notice. Come and see my cattle. 311-y-OM

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Four Shorthorn Bulls and 8 Heifers, 80 Leicester and Southdown Ewes, and a number of Berkshire and Yorkshire Pigs. Good animals of good blood. Send for catalogue. 311-y-OM E. JEFFS & SON, Bondhead, Ont.

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I have for sale several fine young bulls and heifers - red and rich roan, low set, thick and stylish, and grandly bred, and at reasonable prices. Dams are either imported or daughters of imported cows. D. ALEXANDER 308-OM BRIGDEN, Ont.

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Plymouth Rocks, Bronze Turkeys. Write me for prices on the above. I have one of the finest show cows in Ontario for sale. Waterloo-Booth strain. H. Chisholm, Montrose Farm, Paris, Ont. 309-y-OM

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Maple Leaf Farm, Oriel, Ontario,

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If you want a well-bred Shorthorn Bull for use on Grade Cows, or a Heifer to start a herd with, at a price that your pocket can stand, write me, I can suit you. C. G. DAVIS, Woodlands Terrace Farm, Freeman P. O., Ont. 318-y-om

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My herd is headed by Daisy Chief = 13674 =; he by the famous Indian Chief = 11108 =. My stock is kept in breeding condition, and I have a few young bulls and heifers for sale at reasonable figures. Also a few good Berkshires and a few extra choice Leicesters and Mares, the get of Disraeli, Dalesman, etc. Write for prices, or come and see us. C. SHAW & SONS, Camden View Farm, Thamesville, Ontario, 318-y-om

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Our herd contains representatives of the best Scotch families. Village Blossoms, Queen of Beauties, Duchess of Glosters, etc. Prince Albert, by old Barmpton Hero, and the Cruickshank topped bull Blake, head the herd. H. & W. SMITH, Hay P.O., Ont. Exeter Station, 1/2 mile. 319-y-om

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Now ready for inspection - a choice lot of strong, fleshy young bulls, sired by the imp. Cruickshank bull Sussex (56625). Call or write for prices. Address JOHN DRYDEN, 314-y-OM BROOKLIN, ONT.

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Have always on hand and for Sale young Bulls and Females, which we offer at reasonable prices.

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And the Imported Cruickshank Bull ABERDEEN HERO, Their sire. Also some nice Young Heifers From one year old up. Prices to suit the times. 310-y-OM SHORE BROS., White Oak.

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at prices to suit the times. SEVERAL choice spring litters to select from; also a few sows fit for service. WM. COWAN, V. S., GALT. 313-y-om

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Shorthorns & Berkshires

My herd of Shorthorns are from select milking strains. Young animals at right prices. A few fine yearling bulls now ready. For particulars and pedigrees of stock address DAVID HAY, 309-y-OM ARKONA, ONT.

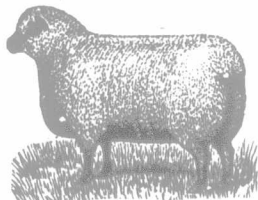
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Matchless, Mina and Village Girl strains, also a few very choice pigs, of both sexes, from an imported Spencer sow, at low prices. W. J. BIGGINS, Elmhurst Farm, Clinton, Ont. G. T. R. Station, 1/2 mile. 319-y-om

SCOTCH-BRED : SHORTHORN : BULLS,
Scotch-Bred Heifers,
Imported Shropshire Rams, Imported Ewes,
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FOR SALE,

in any number. All of very best quality, and at the lowest prices. We want 500 recorded rams for ranches. Correspondence solicited.



John Miller & Sons,
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The Briars Herd, the property of Dr. F. C. Sibbald, Sutton, Ont., is one of the largest in Canada—over 60 head of registered breeding stock. Young bulls always for sale. Address



F. C. SIBBALD,
The Briars,
Sutton West, Ont.
318-y-om

DEEP MILKING SHORTHORNS.

WM. GRAINGER, Londesboro', Ontario, offers for sale, a yearling bull and a three-year-old heifer in calf, of the best milking strain of Shorthorns in Canada; both registered and good colors; dams made 30 lbs. of butter in seven days on grass.

COME and SEE THEM. THEY are GOOD ONES.
319-y-om

SCOTCH SHORTHORNS.



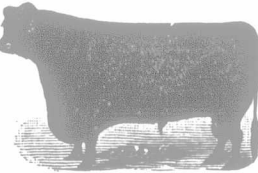
Imported Prince Royal and cows bred by S. Campbell, Kinnellar, and James Bruce, of Burnside, together with their descendants by imp. bulls. Seventy head to choose from; also Cotswold sheep. Farm close to station. J. & G. Taylor, Rockwood, Ont. 317-yom

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My herd won both the 1st and 2nd herd prizes at Toronto, Montreal and Ottawa, 1891, in competition with the largest herds in Canada. An unequalled record. Over forty head of the choicest breeding. Write me for prices, and mention this paper, if you want a bull of the grandest beef breed on earth. F. A. FLEMING, The Park, Weston, Ont., or 51 Wellington street, Toronto. 319-y-om

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Breeder and Importer of
choice Aberdeen-Angus
Polled Cattle, also
Shropshire Sheep from
the best blood of Eng-
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We have now much pleasure in telling our patrons that we have never been in better shape to meet their demands. We have not shown for three years, and all our stock have been on grass from May to December, and on swede turnips and rye hay from December to May. We can supply farmers with bulls to breed the best class of steers, besides settling once and for all the vexed dehorning question. Our strong point in the past has been the breeding and feeding of **Show Animals.** We are breeding them **NOW,** and can turn out herds fit to stand against the world at Chicago next year. Our prices will be found most reasonable, and we shall gladly welcome farmers and stockmen, whether on business or pleasure. Send postal card for private Sale List and give us a call before investing.

J. G. DAVIDSON,

Kinnone Park Stock Farm, 317-f-om
New Lowell, Ont. MANAGER.

Herefords, Leicesters, Imp. Yorkshires and Poland-Chinas.

Send in your orders now for Ram Lambs for fall delivery. Three really good Yorkshires Boars and one Sow, 7 months old, registered pedigrees, \$15 each if taken soon. DAN. REED, The Spruces, Glanford P. O., Ont. 318-y-om

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The undersigned offers for sale three grand bulls and a few heifers of the above breed. Also pigs of both sexes. Prices dead right.—**JOS. CAIENS,** CAMLACHIE, ONT., 14 miles from Sarnia. 313-y-OM

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None but the best are kept at
BROCKHOLME FARM, - Ancaster, Ont.
R. S. STEVENSON, Proprietor.

Write me for prices if you want first-class stock at moderate figures. Holsteins in the advanced registry; Yorkshires all recorded. 319-y-om

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Maple Grove Farm, Picton, Ont.

A grand opportunity for securing a number of this fine milking breed. Write or call on

E. H. FOSTER,

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We are making a specialty of breeding Holsteins of the following strains:—Aagies, Barringtons and Mercedes. Our last importation comprised nineteen head from one of the leading herds in the United States. Our herd now numbers close to 30 head. Young bulls and heifers for sale. Prices right and terms reasonable. E. M. S. & C. S. MOTT, The Gore Farm, Box 95, Norwich, Ont. 318-y-om

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SMITH BROS., Credit Valley Stock Farm,
CHURCHVILLE, PEEL COUNTY, ONT.,
(24 miles west of Toronto).

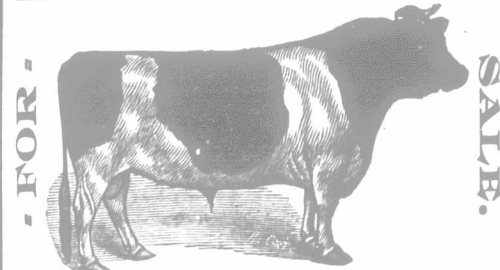


This is the place to get stock of best quality at reasonable prices. We have seventy-five head, including prize-takers; best strains, cows and heifers, with large milk and butter records; young bulls of superior quality. Send for catalogue. 316-y-OM

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The Choicest Herd in Canada.

A few rich-bred bulls left, fit for service for 1892, sired by our silver medal bull, and out of cows with large records. Will sell at a bargain in order to make room for young stock. Other stock of all ages and highest excellence for sale. Write at once for prices. Railway station, Petersburg on G. T. R.; New Dundee P. O., Waterloo Co., Ont. 318-y-om A. C. HALLMAN & CO.



A choice lot of thorough-bred Holsteins. We have on hand a large number of choice bull and heifer calves which we offer for sale at reasonable prices. They can be seen at Wyton, which is on the St. Mary's Branch of the Grand Trunk R. R. Before buying, give us a call. For further information apply to **W. B. SCATCHELD, Secretary,** Wyton, Ont. 312-y-OM

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RIDEAU STOCK FARM

KINGSTON, ONT.,

AND GET PRICES ON

Holstein Bull Calves

Calved since January 1st, 1892.

F. A. FOLGER,

315-y-om Proprietor, Box 579.



Holstein-Friesians

OF THE CHOICEST MILKING STRAINS.

Extra individuals of both sexes for sale.

J. W. JOHNSON,
313-y-OM SYLVAN P. O.

REGISTERED HOLSTEIN BULLS AND HEIFERS.

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My stock is selected from the leading herds. Choice young stock for sale. Before you buy elsewhere, write me for quotations.

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Mint Creek Farm, NORVAL, ONT. 310-y-OM
On main line G. T. R.

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Holstein-Friesians of the greatest individual excellence. The breeding for butter quality a specialty. Colanthus Abbekerk, the richest butter and milk bred bull in Canada, now at head of herd. Always something for sale at living prices.

Write for description and prices.

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JONATHAN CARPENTER

offers for sale at very reasonable figures a number of very fashionably bred Jerseys, bulls and heifers, of all ages; also standard-bred colts and fillies from such sires as Gen. Stanton, sire of thirteen in the 30 list, and Almont Wilkes, trial in 2.16. "Good individuals with gilt-edged pedigrees." Come and see them. 319-y-om

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Hillhurst, P. Q.

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The prize-winning herd of the Eastern Townships, headed by Rene of St. Lambert (20943), winner of 1st prize and sweepstakes wherever shown.

I make a specialty of pure St. Lambert blood, and breed none but the best.

Choice young stock for sale.

Terms, prices and pedigrees on application.

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BELVEDERE JERSEYS SERVICE BULLS ARE
 Canada's **Sir George**, { Canada's John Bull.
 Pure St. Lambert. } Allie of St. Lambert, 26 3/4
 lbs. butter a week; 56 lbs.
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Massena's Son { Hugo Chief of St. Ames, Pure St.
 Lambert.
 Massena, over 20 lbs. a week; 9,099
 lbs. milk, estimated to have made
 902 lbs. 2 oz. butter in 1 yr., 11 days.
Signal of Belvedere { Miss Satanelia (Signal cow),
 20 lbs. 6 oz. butter a week,
 on 2nd calf.
 Believed to be the three greatest living bulls.
 Silver cup at the Kellogg Combination Sale; Silver
 Tea Set (Farmer's Advocate) for milk test; over 20
 medals, gold, silver and bronze; over 300 prizes in
 money, also numerous diplomas, commendations
 and special prizes.
Special Offering Now.
 3 Sons of Canada's Sir George, (pure St. Lamberts).
 2 Sons of Massena's Son, from tested cows.
 Registered and express paid to any reasonable
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 Canada. 313-y-OM

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 Herd headed by Carlo of Glen Duart (13037), the
 champion bull of 1891, and Pussy's John Bull (21260),
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 Stud headed by Arklan (10331), a son of the
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I breed none but the best and keep no culls.
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 MERINO SHEEP AND FANCY FOWL.**
 We have the largest herd of Poland Chinas in
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 We breed from none but the best, and our aim is to
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DOMINION PRIZE HERD OF AYRSHIRES
 This herd has taken all the first prizes wherever
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 From imported stock. Young stock for sale at
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JAMES DRUMMOND & SONS,
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Prize-Winning Ayrshires for Sale

GURTA 4th
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 Mine is one of the largest and most successful
 show herds in Canada. They are finely bred and of
 great individual merit. Bulls, heifers and cows
 always on hand for sale; also a few good Leicester
 sheep. Correspondence solicited. Visitors well-
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THOMAS GUY,
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MAPLECLIFF STOCK FARM
Choice Ayrshire Cattle for Sale.
 We make a specialty of these grand dairy cattle,
 our stock consisting of very heavy milkers, and have
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 One mile from Ottawa.
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**PRIZE-WINNING AYRSHIRES
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 I have at pres-
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 largest & best
 herds in On-
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 has been very
 successful in
 the prize ring.
 They are deep
 milkers and of
 a large size.
 Bulls, cows and
 heifers for sale
 at a very low
 price.

**MAGGIE OF
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JAS. McCORMICK & SON,
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LINCOLN SHEEP.
 LAMBS AND SHEARLINGS
 of both sexes always for sale.
 Our last importation was
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 Hy. Dudding, Esq., of Great
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 pick of a flock numbering 1700
 head.
 If you want a ram or a few
 ewes send along your orders.
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W. WALKER, Ilderton, Ont.
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 Messrs. A. Telfer & Sons, Springfield Farm, Paris,
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 sale. 308-y-OM

**SHROPSHIRE, CLYDESDALES
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 Two imp. stallions, one yearling bull and eighty
 choice Shropshire rams and ewes of all ages. Prices
 reasonable. Write quick. All registered. **JAS.
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 Fifty head of Ewes and Lambs of the very best
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 John Campbell. Write for particulars.
Isaac Johnston,
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1881—SHROPSHIRE—1881.
 My flock is one of the oldest in Canada, my first
 importation being made in 1881. My present stock
 of ewes were imported direct from the flocks of
 Bradburne Bros. and H. Parker. Write for prices.
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 Clydesdales, Shropshires and
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 office, Innerkip. Farm, 3/4 miles
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 —TO PURCHASE, ABOUT—
**200 GOOD GRADE SHROPSHIRE
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 A choice lot of ram
 lambs sired by my imp.
 Thomas ram, and out
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 stone ewes, for sale at
 reasonable prices.
 Several of these are
 good enough to head
 pure-bred flocks. Also
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 Bull, by Mr Sheriff-
 Hutton bull The Premier. **WM. PETTIT, Freeman**
 P. O., Ontario, Burlington Station. 318-y-om

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 Imported and Home-bred
EWES, LAMBS
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SHEARLING EWES
 of best quality and lowest prices.
 ALSO
YOUNG YORKSHIRE PIGS.
 Come and see me before
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T. H. MEDCRAFT,
 Sparta P. O., Ont.,
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 I AM now ready to
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 coming summer, and
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 imp. ewes and lambs;
 a few shearing rams,
 with a fresh importa-
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 If you want size and
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**SHORTHORNS
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 I offer for sale at right
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 horns from the very
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 Write, or come and see them.
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 Wm. Thompson, Mt. Pleasant
 Farm, Uxbridge, Ont., Importer
 and Breeder, takes pleasure in
 intimating to the public that he
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Cotswold Sheep. The gold
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 established in 1854. All bred
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 Three imported Rams in use.
 Young stock for sale.
Berkshires. Herd established
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 Sows
 in far
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 and young stock for sale at all times. Spring Pigs
 now ready to ship. We ship to order, guarantee
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Jersey Cows, Heifers and Calves; registered;
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J. C. SNELL, EDMONTON, ONT.

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**T. W. HECTOR, IMPOR-
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 The oldest and largest
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 First Prize Toronto and
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 for flock. Sheep of all ages
 for sale. Ewes and rams
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 Jerseydale Farm, Uxbridge, Ont., Midland
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DORSET HORN SHEEP.
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 use and cheap, costing about a cent per head. A
 25 cent packet makes 100 gallons. Write for "Guide
 to Dipping" and pamphlet of three hundred testi-
 monials, just received from sheepmen on the
 American continent, mailed free. Agents:—G.
 Dudgeon, Guelph; Carey Drake, Compton, Que-
 bec; Bois, Wayne & Co., Winnipeg, Man.; F. A.
 Dixon, Wolfville, N.S.
 Proprietors, **WILLM. COOPER & NEPHEWS,**
 Galveston, Tex. 319-b-om

EUROPEAN ADVERTISEMENTS.



SHROPSHIRE SHEEP

DAVID BUTTAR,
Corston, Couper-Angus, N.B., Scotland

Has taken all the principal prizes in Scotland for several years. His sheep are of the purest blood, and carefully bred; every sheep eligible for registration. Pedigrees and prices on application. 294-y-OM

SHROPSHIRE SHEEP



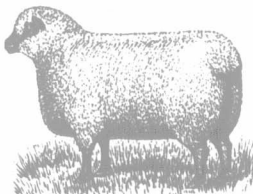
We handle none but the best. We sell at living prices. We have one of the most successful flocks in the show yard in England. We import direct from our English to our American flocks. Write for prices. We can suit you.

THONGER & BLAKE BROS.,

Wolf's Head Farm, Nesscliffe, Salop, Eng., 309-y-OM and GALESBURG, Mich., U. S. A.

BEAM : HOUSE : SHROPSHIRE SHEEP

WM. THOMAS
offers for sale
RAMS AND EWES

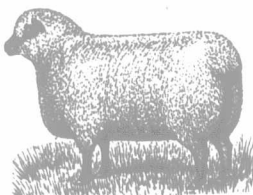


from his famous flock, which has sent so many winners to the leading shows. Address—

WM. THOMAS,

Beam House Farm, Montford Bridge, Salop, England, 7 miles from Shrewsbury. 316-y-om

Astwood Hill Shropshires, the most famous flock in England. We led in the show ring at the Royal and the Bath and West of England in 1891.



I. & S. BRADBURNE,
Astwood Hill, Redditch, Eng. 316-y-om

SHROPSHIRE SHEEP, :- SHORTHORNS and Yorkshires.

My Shropshire flock is founded on the best blood in England. My Shorthorns are of the deepest milking strains. American and Canadian visitors always welcome.



Young Stock always for sale at reasonable figures.

GEO. THOMPSON, Wroxall, Warwick, England. Station and Telegraph:—Hatton. Trains met by appointment. 316-y-om

SHROPSHIRE SHEEP

The Loughcrew flock has been very successful in England and Ireland wherever exhibited. It consists of 300 breeding ewes of the most fashionable appearance & blood, Eavens, Beach, Barrs, Coxon and Mansell. The Annual Sale first Wednesday in September.



EWES AND RAMS FOR SALE.

Apply to **J. DIXON,** Loughcrew, Oldcastle, Co. Meath, Ireland. 319-y-OM

ADVERTISE IN THE ADVOCATE

ALCESTER PARK SHROPSHIRE SHEEP.

It will pay Canadian buyers to visit the above flock, which is founded on the best strains in England. Rams and Ewes always for sale. ALSO IMPROVED YORKSHIRE PIGS.

H. PARKER,
The Park Farm, Alcester, Warwickshire, Eng. 316-y-om

DORSET HORN SHEEP

MY SPECIALTY. These sheep drop their lambs at all seasons of the year; are good mothers and most prolific. Devon Dairy Cattle, good milkers and grazers. Flock and Herd established nearly one hundred years. Also Shire Horses and Berkshire Pigs. Sheep, Horses and Pigs exported to America have given every satisfaction.

THOMAS CHICK,
Stratton, Dorchester, Dorset, England. 295-2y-OM

DORSET HORN SHEEP!

CULVERWELL BROS., Durligh Farm, Bridgewater, Somerset, Eng. Breeders and Exporters of Improved Dorset Horn Sheep. Sheep and wool from this flock have won many first prizes at all the leading shows in England and Canada. Flock registered in English record. For price, etc., in Canada and U. S. A., apply to— 315-y-OM

JOHN TAZEWELL, Uxbridge, Ont., G.T.R.

LINCOLN :- SHEEP

I always have for inspection and sale a large flock of pure Lincoln Longwool Sheep, including many prize-winners, having taken eighty prizes the last two years at the Royal and other shows, for both rams and ewes, also the first for the best collection of Lincoln fleeces of wool at the Royal Windsor show last year, which proves the character of this flock, which is most famous for their great size and 120 years' good breeding. Also breeder of

WHITE :- YORKSHIRE :- PIGS

Address—**HENRY DUDDING,**
Riby Grove, Gt. Grimsby, Lincolnshire, Eng. 307-y-OM

BLAIRTUMMOCK :- CLYDESDALES

Prof. McCall invites inspection of his Stud of Clydesdales, by American and Canadian buyers. Among the many good ones bred at Blairtummock may be mentioned Col. Holloway's renowned Cedric, acknowledged the greatest breeding horse in America. Address—

PROF. McCALL,
The Veterinary College, GLASGOW, SCOTLAND. 317-y-om

THE HOME OF SPRINGHILL DARNLEY. Clydesdale dealers when in Scotland should not fail to visit Messrs. R. & J. Findlay's Stud. Breeders and owners, amongst others, of the famous H. A. S. winner, Chrystal 5387. Address—**Springhill, Baillieston, Glasgow.** 317-y-om

THE HOME OF SIR EVERARD!

Wm. Taylor, Park Mains, Paisley, Scotland, calls the attention of American and Canadian buyers to the fact that his stud of Clydesdales and Hackneys is one of the best in Scotland. Inspection solicited. No trouble to show horses. 317-y-om

CLYDESDALES AND AYRSHIRES

Walter Park, Halton, Bishopton, Scotland, the breeder of the world-renowned "Lord Erskine," has always for sale a choice lot of Clydesdale Colts and Fillies; also pure-bred Ayrshires of the best milking strains. Visitors welcome. 317-y-om

HACKNEYS!

Duncan Jenkins, The Cross, Govan, Scotland, offers for sale Stallions and Fillies, the get of such sires as Danegelt, Ancones, Sir Gibbie, etc.; all registered, and of the very choicest quality. All American and Canadian buyers should visit this stud. 317-y-om

W. G. BUTCHER,

The Chestnuts, Needingworth, Hunts, England offers for sale a grand selection of **HACKNEY AND SHIRE-BRED COLT AND FILLIE** of the choicest breeding, and good individually. All registered. Visitors welcome. Station: St. Ives, Hunts. 317-y-om

CLYDESDALES AND AYRSHIRES.

Parties visiting Scotland to purchase the above should call on the undersigned, who always has a choice selection bred from the best strains of blood. **ROBT. WILSON,** Manswraes, Bridge o' Weir, Renfrewshire, Scotland. 317-y-om

2250 SHROPSHIRE SHEEP

Including most of the greatest winners, also Horses, Ponies, Cattle, Pigs and Sheep Of other breeds, exported during 1891, by **E. GOODWIN PREECE,** Live Stock Exporter, - SHREWSBURY, ENG.

Who has personal knowledge of the best flocks, herds and studs, experience in shipping, and the privilege of selecting the choicest specimens of any breed, either for exhibition or breeding. American buyers supplied at lowest rates, and those visiting England conducted round the best stocks, so as to compare merits and prices before buying, and assisted in buying and shipping, FREE OF CHARGE. All necessary documents furnished. Highest references. Information free. All importers should communicate. 318-y-om

NOTICES.

BINDER TWINE

is an article that most Canadian farmers will be very much interested in for the next few weeks, and doubtless many have already decided what sort they intend to use.

We have recently examined and tested a sample of pure. Sisal binder twine, that is begin sent out by Messrs. Stanley Mills & Co., Hamilton, Ont. To those that want a thoroughly reliable twine we have no hesitation in recommending it. The fibre is very long and strong, and the cord itself has been very evenly drawn and twisted. As a proof of its strength, a strand of this twine, taken at random from a ball, held up eighty pounds.

The twine is very light in color, and appears perfectly free from oil or other foreign matter.

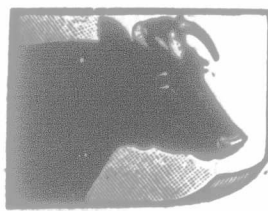
We are informed by Messrs. S. Mills & Co., that it is not encumbered by any combination. As they are endeavoring to build up a trade directly with farmers, they will sell this twine at \$11 per 100 lbs., for cash, for which price it is placed free on board the cars. See advertisement in another column.

We would draw attention to the "Common Sense" binder twine advertised in this issue by Messrs. Samuels, Benjamin & Co., Toronto. We bear very good reports of this twine from dealers who handled it last harvest.

MONTHLY PRIZES FOR BOYS AND GIRLS.—The "Sunlight" Soap Co., Toronto, offer the following prizes every month till further notice, to boys and girls under 16, residing in the Province of Ontario, who send the greatest number of "Sunlight" wrappers: 1st, \$10; 2nd, \$6; 3rd, \$3; 4th, \$1; 5th to 14th, a Handsome Book; and a pretty picture to those who send not less than 12 wrappers. Send wrappers to "Sunlight" Soap Office, 43 Scott street, Toronto, not later than 29th of each month, and marked "Competition"; also give full name, address, age, and number of wrappers. Winners' names will be published in the Toronto Mail on first Saturday in each month.

One railway company will advertise that it is a "short line to Omaha". A competing line then positively states that it is a "shorter line to Omaha than any other," and now the Chicago, Milwaukee & St. Paul Railway insists that it is the "shortest line to Omaha," and proves it. The Chicago, Milwaukee & St. Paul Railway Company also says that it is the "best line to St. Paul and Minneapolis," with "electric lighted trains" and reading lamps in each berth so that one can read all night long if he has a book and don't want to sleep. It brags about the "finest dining cars in the world," with the best of meals served on imported china by the most expert and civil of colored waiters, at twenty-five cents, while the lines east of Chicago charge a whole dollar. And, once more, the Chicago, Milwaukee & St. Paul Railway opens up a new through car line from Chicago to Denver, via Omaha and Lincoln, and it isn't long before the whole world says to itself that "shortest line to Omaha," that "best line to St. Paul and Minneapolis," and that "new route to Denver," must be the only first-class railroad in the western part of the United States, and what the whole world says must be true. All coupon ticket agents in the United States and Canada sell tickets via the Chicago, Milwaukee & St. Paul Railway. For information concerning the line, time tables, etc., address A. J. Taylor, Canadian Passenger Agent, 4 Palmer House Block, Toronto, Ont.

W. G. EDWARDS & CO.
IMPORTERS AND BREEDERS.



Pine Grove Stock Farm
ROCKLAND, ONT.

SCOTCH SHORTHORNS.

The imported Cruickshank bull **GRANDEUR** is at the head of this herd of imported and Home-bred Cows and Heifers of the most approved Scotch families.

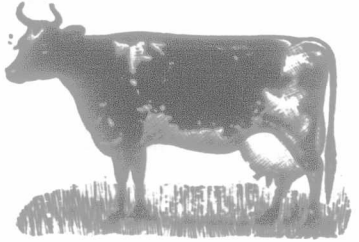
ALEX. NORRIE, Manager.

ELMHURST STOCK & DAIRY FARM
CLARENCE, ONT.
Shorthorns, Shropshires and Berkshires

Our flock is from the choicest English flocks, headed by the ram sent out by Mr. Thos. Dyke, also milking Shorthorns with imported bull **PIONEER** at the head of the herd.

HENRY SMITH, Manager.

Laurentian Stock
AND
Dairy Farm.
North Nation Mills, P. Q.



Ayrshires, Jerseys and Berkshires.

Imported **EMPEROR** at the head of a grand lot of imported and Canadian-bred Ayrshires; also St. Lambert Jerseys and imported Berkshires.

GEORGE CARSON, Manager. 316-y-OM

GLENHYRST.
50 acres, bordering on the City of Brantford.
JAMES MAXWELL, SUPT.
Shropshire Sheep.
Shetland Ponies.
Apples—(in quantity)—Plums.
Registered Stock, all ages, for sale.

JOSEPH STRATFORD, PROP.,

OAKWOOD FARM.
100 acres, bordering on the City of Brantford.
GEORGE WALTER, SUPT.
Have on the farm a modern wooden Silo. Capacity 250 tons. Dorset-Horned Sheep. Jerseys. A.J.C.C. Holsteins (Royal Aag-gie family). Advance Register. Chester White Pigs.

Three grand modernized stock farms under one management. [800-y-OM]

CEDARS FARM.
175 acres, eleven miles from City of Brantford.
ROBERT WALKER, SUPT.
Oxford-down Sheep.
Shorthorn Cattle.
Medium Yorkshire Pigs.

BRANTFORD P. O., CANADA.

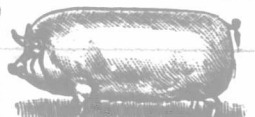
FOR SALE.

Three Grand Improved Yorkshire Sows, one of them imported; a 1st prize sow at Toronto and a grand show sow, also a young sow. All registered. Sole reason for selling, I have given up farming. No better brood sows in the country. Prices moderate.

J. Y. ORMSBY,

319-1f-om FARMER'S ADVOCATE, London, Ont.

Improved Large White Yorkshires, Pedigreed.

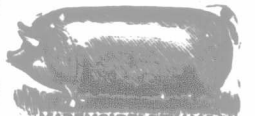


MAIDEN (1MR)

We have lately added to our herd, which are from the strains of Sanders Spencer, Charnock, and F. Walker-Jones, England. Young stock on hand at all times for sale. Apply to

Wm. Goodger & Son, 318-y-OM WOODSTOCK, ONT.

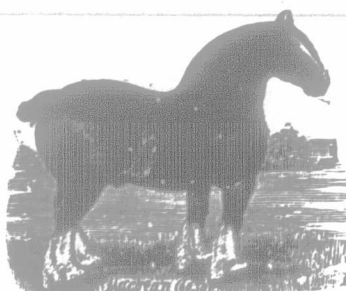
Improved Large (White) Yorkshire Pigs and Sooty Shorthorns.



MAIDEN (1MR)

Sweepstakes herd of Yorkshires wherever shown in 1891. The largest herd in Canada. Breeding stock selected from the most noted English breeders. All stock registered. Shipped to order and guaranteed to be as described.

J. E. BRETHOUR, Burford, Brant Co., Ont. 314-y-OM



IMPORTED AND REGISTERED
CLYDESDALE AND HACKNEY
STALLIONS AND MARES

CONSTANTLY ON HAND, AND FOR SALE AT REASONABLE PRICES

Our last importations comprise a large number of one, two, three and four-year-old registered stallions and mares, the gets of such sires as Macgregor (1487), Darnley (222), and Prince of Wales (673). Also a few choice SHETLAND PONIES. Correspondence solicited, and visitors always welcome.

GRAHAM BROTHERS

Twenty-five miles east of Toronto, on the C. P. R. 314-y-OM CLAREMONT ONT.

TO STOCKMEN AND BREEDERS.

LITTLE'S PATENT FLUID
NON-POISONOUS
SHEEP DIP AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy.

The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock:

"MAPLE SHADE" HERDS AND FLOCKS.

BROOKLIN, ONT., Sept. 4th, 1890.
DEAR SIR,—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested. I have ever tried it; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders.

Seventeen Gold, Silver and Bronze Prize Medals have been awarded to Little's Patent Fluid Dip in all parts of the world. Write for terms at 250, Woodstock, Ont. Special terms to Farmers, Breeders and others requiring large quantities. Ask your nearest druggist to obtain it, or write with me with pamphlets, etc.

ROBERT WRIGHTMAN, DRUGGIST, OWEN SOUND, Ont.
Sole Agent for the Dominion.

THE WARKHAM HERD, Locust Hill, Ont.
A grand herd of Improved Large Yorkshire, Berkshire and Sooty Pigs. Stock selected from the best in Canada. Am booking orders for the year 1892. LEVI PIKE, Locust Hill, Ont.

PURE-BRED BERKSHIRES.
A grand herd of pure-bred Berkshires, fit for service, also a few choice sows. A. D. ROBERTS, Walmer Lodge, Woodstock, Ont.

FOR SALE

A choice lot of young Berkshire pigs, from two to three months old, from imp. and prize-winning stock; also a few choice boars fit for service. I have also some Yorkshire pigs fit for show purposes, boars and sows from six weeks to six months old. Prices reasonable. Address H. J. DAVIS, Breeder of Berkshires, Yorkshires and Shorthorns, box 290, Woodstock. 318-y-OM



FOR SALE
COTSWOLDS

—AND—
BERKSHIRES.

We have for sale forty head of yearling Cotswold Rams; thirty head of yearling Cotswold Ewes, and a number of young Berkshire Sows, in farrow to imported boars. We are now getting young pigs, which will be ready to ship in April and May. Write us for prices.

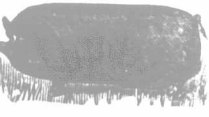


J. G. SNELL & BRO.,
EDMONTON, - - ONTARIO.

Brampton and Edmonton Stations. 310-y-OM

S. COXWORTH,
CLAREMONT, ONT.,

Breeder of Pure-Bred Berkshire Pigs and Feg. Cotswolds of the choicest strains. A few choice sows, six months old, for sale. Now is the time to order young pigs to be shipped in April and May. Nothing but choice stock shipped, and satisfaction guaranteed. Write for prices, or if convenient come and see my stock.—C. P. R. Station, Claremont, Ont. 316-y-om



REGISTERED BERKSHIRES FOR SALE:

Young Boars and Sows from two to eight months old. Also booking orders for spring pigs. Satisfaction guaranteed. E. E. MARTIN, Nithside Farm, Woodstock Station, Canning P.O., Ont. 308-y-om

IMPROVED PEDIGREED LARGE YORKSHIRES:
A few very choice young boars, between 3 and 4 months old, at \$10 each.—J. H. S. BARBOUR, Woodstock, Ont. 317-y-om

E. D. GEORGE

PUTNAM - - ONT.,

Importer and Breeder of Ohio Improved Chester White Swine



The largest and oldest established registered herd in Canada. I make this breed a specialty, and furnish a good pig at a fair price. Write for prices. 317-y

CHESTER WHITE SWINE AND DORSET HORNED SHEEP A SPECIALTY.

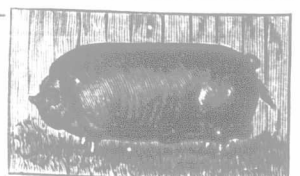
R. H. HARDING,

MAPLEVIEW FARM, THORNDALE, ONT.

Has young stock of the above breeds for sale at right prices. None but first-class stock shipped. Write for particulars. 310-y-om



Registered Poland-Chinas - Canadian Black Bess Herd. - Stock strictly of the Corwin, King, Butler and Black Bess blood. Choice stock of all ages for sale at reasonable prices. Imported at head of herd, assisted by Imported Boars Condit, Luck and Moorish King. Farm two miles south of G. T. R., C. P. R. and E. & H. R. stations. Correspondence and inspection of herd solicited. Reduced rates on shipment by express.—J. J. PAYNE, Chatbam, Ont. 314-y-OM



PURE-BRED TAMWORTH HOGS AND CLYDESDALES

JOHN BELL,

Clydesdale Farm, Amber P.O., Ontario.

Young Boars and Sows bred from registered stock, selected from the best herds in England. This famous breed of bacon pigs is recommended by the largest and best breeders in the world. Try them, it will pay you. I have several pair unrelated. Some AI bred sows, stallions kept for service. Imported and home-bred boars and fillies. 317-y-om

Ontario Agricultural College

WILL RE-OPEN ON THE 1st OCTOBER.

Full courses of lectures, with practical instruction, on

Agriculture, Live Stock, Dairying, Veterinary Science, Chemistry, Geology, Botany, and other subjects required by young men intending to be farmers.

For circular giving full information as to cost, terms of admission, etc., apply to

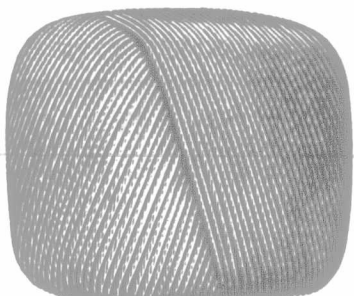
JAS. MILLS, M. A.,

Guelph, June, 92.

319-c-om

PRESIDENT.

Common Sense Binder Twine.



I ain't as pretty as manilla, but I get there just the same.

(TRADE MARK REGISTERED)

"Common Sense"

(DICK'S PROCESS—PATENT APPLIED FOR)

TAKE FROM THIS END.

Farmers are strongly advised to try this twine. If not procurable at their Hardware or General Store, write us, when we will inform them where procurable. "A handful of common sense is worth a bushel of learning." 319-b-om **M. & L. SAMUEL, BENJAMIN & CO., Toronto.**



Whites' Wood and Straw-Burning Boiler. Special Internal Arrangements for Burning Straw.

The Travelling Dairy use and recommend Butter Makers to use **CARVER'S BUTTER MOULDS & PRINTS**

AND **Davies' Parchment Butter Paper.** Send for circulars and samples.

WM. DAVIES & CO., 24 Queen St. West, Toronto 317-tf-om

\$50.00 FREE.

We offer in prizes as follows:—1st, \$30.00; 2nd, \$15.00; 4th, 1 Box C. B. S., value \$3.00; 4th, 1 Box C. W. C., value \$2.40, to parties sending most words made out of the word "Cottam's" and eleven capital letters in next column.

COTTAM'S

P. C.

B. B. W. B.

B. S. C. P. M.

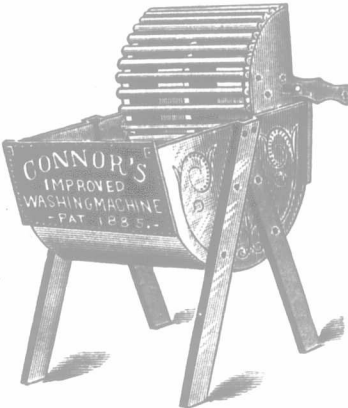
(Cottam's Patent Bird Bread.)
(Cottam's Bird Seed.)
(Cottam's Washing Compound.)
(Cottam's Baking Powder.)
(Cottam's Mustard.)

Old and young, everybody can compete. Mail 10c. for rules governing contest and we will send you a sample box of C. P. B. B., worth 10c. 316-l-om **BART. COTTAM, London, Can.**

ADVERTISE IN THE ADVOCATE.

CONNOR'S

I M P R O V E D



W A S H E R

Washes Clean! Washes Quickly! Washes Easily!
SOLD ON 30 DAYS TRIAL.

HAS THE LARGEST SALE IN CANADA. One energetic agent wanted in every county Terms liberal.

J. H. CONNOR,

OTTAWA, 315-y-om ONTARIO.

TAMWORTHS AND Improved Large Yorkshires.

Our stock is all imported from the very best herds in England, and every pig traces to the English Herd Book. We offer for sale at lowest figures Boars and Sows of the above breeds and of all ages. Write for prices, or give us a call and see our stock. Over forty head on hand.

JAS. L. GRANT & CO., Ingersoll, Ont. 317-y-0M

REGISTERED DUROC JERSEYS.

The Pioneer Herd of these famous American hogs has its headquarters in Essex County, Ont. Address, **PETER LAMARSH,** 310-y-0M WHEATLY, ONT.

TREES! Now in stock, a fine line of all kinds of nursery stock, including Roses, Shrubs, Fruit and Ornamental Trees. Best possible grade, and true to name. Salesmen wanted at once. Write for terms, quick.—**THOS. W. BOWMAN,** Peterborough, Ont., "The Rochester Star Nurseries." 314-y-0M

SMALL FRUITS. Raspberries, Strawberries, Grape Vines and reliable stock. Low prices. It will pay you to get my price list. **PLYMOUTH ROCKS,** Canada's best. Unsurpassed. Ed prize winners. Eggs only \$2 per 13. Catalogue free.—**C. W. ECKARDT,** Hazelton Fruit and Poultry Farm, Ridgville, Ont. 31-y-M

ALEX. STEWART,

MINNEDOSA, - - MANITOBA, Agent for sale of C. P. R. and Canada Northwest Land Company's lands, and of thousands of acres of other lands in the neighborhood of above town and along the little Saskatchewan River, where there is abundance of hay and first class water. No better part for mixed farming. Improved lands among the above. Enquiries promptly answered, and any information required will be cheerfully given. 313-y-om

NOTICES.

In writing to advertisers please mention the Farmer's Advocate.

It is very gratifying to note that the New England Conservatory of Music, the oldest and largest in America, has just completed one of the most successful years of its existence. The students in each department are admitted to all the free courses, which consist of many lectures and concerts of the highest type; they also have free access to the library, gymnasium and numerous other privileges maintained by this great institution.

The following is one of the many testimonials received by Mr. Manson Campbell of Chatham concerning his fanning mill: "I think the Chatham Mill is the Farmer's Delight. My neighbor has a Brantford, but he has to borrow mine when he wants to clean grain good, particularly clover seed. I can clean both red and Alsike clover to perfection with mine. Yours truly, J. FREDERICK JOHNSON."

STOCK GOSSIP.

The Department of Agriculture reports that according to the general census of 1890 the number of head of stock in the districts of Alberta and Assiniboine is:—Cattle, 215,078; horses, 55,419; sheep, 60,435. The same report shows that the number of head of stock in the district of Saskatchewan is as follows:—Cattle, 16,144; horses, 5,220; sheep, 4,487.

At the late Philadelphia Horse Show, Miss Rickell, sold by Messrs. R. & J. Belth, of Bowmanville, Ont., to Messrs. Twaddell & Sharpe, was an easy first in the Hackney brood mare class. This mare is a grand specimen of the breed; she is very strong, and yet full of quality, with good all-round action, and very fast, having won three first and two second prizes in trotting matches under saddle in England. Miss Rickell is a dark chestnut, sired by Brother of Danegelt 1723, her dam being Kilwick Lass 174, by Denmark 177.

Mr. Wm. Rolph, Glen Rouge, Markham, reports as follows:—"Since January 8th my sales have amounted to thirty head of bulls, cows and heifers, viz.: A. B. Cooper, Islington, Ont., two cows; T. Bacon, Wannoconda, Ill., one bull and two heifers; W. B. Hinman, Grafton, Ont., one bull; F. J. Lambert, Dunnington, Ind., three heifers; A. A. Wright, Renfrew, Ont., two heifers; John Carr, Brownsville, Ont., one bull calf; G. H. Reasnor, Three-Mile Bay, N. Y., two heifers; Jas. McClenaghan, Portage la Prairie, Man., two heifers; A. Potter, Boston, Mass., one bull and one heifer; H. Harrison, Cannington, Ont., one cow and two heifers; A. Griffith, Thorndale, Ont., one cow; J. Sharpless Worth, Coatsville, Penn., two heifers; P. C. Simpson, Indiana, one heifer; J. C. B. Suman, Valparaiso, Ind., one bull; T. Bacon, McHenry, Ill., one bull; G. A. Barker, Guelph, Ont., one bull; G. H. Cox, Porter Hill, Ont., one cow; W. H. Murray, Port Stanley, Ont., one cow." Mr. Rolph adds: "My cattle are looking well. My cows now number upwards of thirty. I find the ADVOCATE an unequalled medium for advertising. Since I placed my card my sales in Canada have largely increased."

THE NEW FODDER PLANT
Lathyrus :- Sylvestris.

When once planted will last without renewal 50 years. Yields eighteen tons per acre. Successfully grown in India, Africa, America, Russia, etc. For further particulars address

F. E. CLOTTEN,
316-y-om 58 High Holborn, London, Eng.

R. PARKER & CO.,
Dyers & Cleaners
TORONTO.

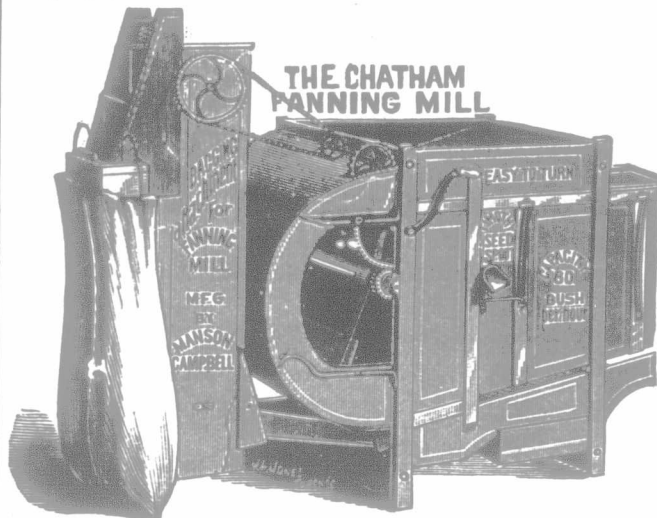
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Over 7,000 Bagging Attachments now in use.

Bagging Attachment is run with a chain belt that cannot slip. The elevator cups are also attached to endless chain belt that cannot slip nor clog.

The Mill is fitted with screens and riddles to clean and separate all kinds of grain and seed, and is sold with or without a bagger.

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w 1/2	13,	8,	21,	\$10 00	n. w. 1/4 24 and	9,	5, w.	\$ 5.00
n 1/2	13,	7,	21,	8 00	1/2 n. e. 1/4 23	5,		
s 1/2	24,	7,	21,	8 00	All	19,	5,	24,
se 1/4	19,	13,	21,	4 00	All	19,	5,	24,
All	3,	7,	22,	10 00	w 1/2	21,	5,	24,
n 1/4	13,	6,	22,	10 00	n 1/2	3,	9,	26,
n 1/2	23,	6,	22,	10 00	w 1/2	1,	10,	26,
e 1/2	33,	6,	22,	10 00	n w 1/4	35,	10,	26,
se 1/4	17,	6,	23,	15 00	e 1/2	3,	12,	27,
w 1/2	26,	4,	4, w.	10 00	n e 1/4	36,	18,	27,
w 1/2	30,	25,	3, w. 2nd.	6 50	All	12,	17,	12,
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320 acres, house, stabling, etc.; 75 acres in crop now; 100 more broken and backset. A first-class farm, four miles from Alexander, Manitoba, \$5,440; only \$1,500 cash

A gentleman's residence, with thirty acres adjoining City of St. Thomas, Ontario, with fine buildings, for sale, or exchange for Manitoba farm House, ten rooms. \$7,000. Easy terms if sold.

We have a large list of Manitoba land beside the above. We also have a list of Ontario Farm and City property, either of which we will forward to any address.

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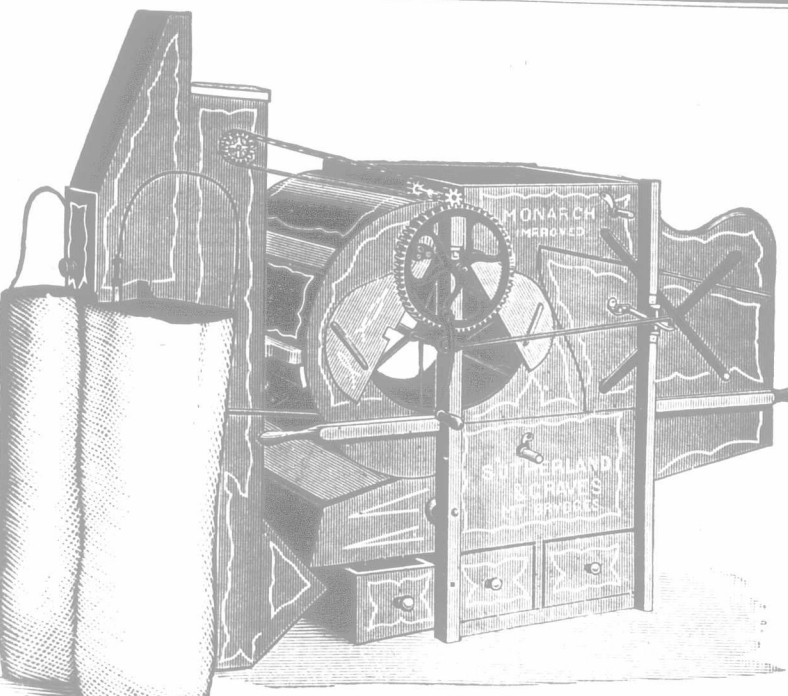
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CURES—Dyspepsia, Low Spirits, Loss of Appetite, Painful Digestion, Malaria, and gives tone and vigour to the whole system.

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Separates and grades oats, barley, wheat, rye, peas, beans, corn, clover and timothy. It screens all chaff and fowl seeds by one going through. Fastest and cleanest mill made. Note the bagging attachment; two men with the bagger does the work of three. The MONARCH is the most superior, durable, simple, efficient and easiest operated mill in America. Testimonials and prices on application.

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Enlarged Grounds. New Half-Mile Track.

New Grand Stand to Seat 15,000 Persons.

Increased Accommodation and Numerous Other Improvements.

\$30,000 in prizes, principally for Live Stock and Agricultural and Dairy Products.

ENTRIES for Live Stock positively close Aug. 16th, and for Agricultural Products Aug. 23rd.

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The construction of the Calgary & Edmonton Railway, and the Qu'Appelle, Long Lake and Saskatchewan Ry. has opened up for settlement two new districts of magnificent farming land, viz., that between the North and South Saskatchewan Rivers, and that between Calgary and Red Deer. Full information concerning these districts, maps, pamphlets, etc., free. Apply to

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BINDER -- TWINE.

Our American Pure Sisal White Binder Twine has struck all Canada like a cyclone. The farmers are delighted, and the manufacturers are demoralized. It is the best value by far ever offered in binder twine. This pure sisal is superior to every other white twine on the market in every respect. It has no oil to make it weigh heavy; it is perfectly even laid and has no lumps whatever. It runs as far as any other white twine to the pound. Every ball stands up until all run out, and we guarantee it to run without a break, or even a hitch, through every machine. It is a strong, long fibre, pure white twine of superior quality. Orders are fairly piling in on us. Our price is \$11 per 100 pounds, F. O. B. Hamilton, Ont. We make no difference in price for large orders. The price is right down now to the lowest profitable spot cash basis. We require the money with the order in every case. Sample ball will be sent by express on receipt of 50c. Circulars mailed free to any address. Our supplies for threshers are all now in stock. We give here prices of Rubber Drive Belts. We carry all these belts in stock, and can fill orders at a moment's notice. Send for our full price list of threshers' supplies. Leather Fly Nets for horses: Itusset, 60c. each; black, 75c. each, or by mail to any post office in Canada, 25c. extra.

RUBBER DRIVE BELTS.

100 ft. 6 in. 4 ply Extra Star Belt.....	\$25 00
100 " 6 " 4 " " " (endless).....	27 00
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110 " 5 " 4 " " " (endless).....	27 00
120 " 5 " 4 " " " (endless).....	30 00
110 " 6 " 4 extra heavy Star Belt (endless).....	36 00
110 ft. 6 in. 4 Forsythe seamless endless belt.....	43 00

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 36 KING STREET WEST,
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\$500 A YEAR
FOR 20 YEARS.

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We import the genuine STUDEBAKER TRUSS SKEIN, acknowledged to be the best in use. Not a breakage in the thousands we have used. Write for Catalogue and Price List, or see Agents.

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WOODSTOCK, ONTARIO

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Mica Roofing
 On all your Buildings.
 It is Cheaper than Shingles.
 Water Proof and Fire Proof.

MICA ROOFING
 FOR STEEP OR FLAT ROOFS

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Mica Paint
 To Repair Leaky Roofs.
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RAPIDLY TAKING THE PLACE OF SHINGLES.

Is put up in rolls of 108 square feet each, 36 feet long by 3 feet wide, and costs 2 1/4c. per square foot, thus affording a light, durable and inexpensive roofing suitable for buildings of every description, and can be laid by ordinary workmen. One man will lay ten square in a day, which brings the cost of Mica Roofing about 75c. per square cheaper than shingles. Special terms to dealers who buy our Mica Roofing to sell again. Orders and correspondence answered promptly.

HAMILTON MICA ROOFING CO.

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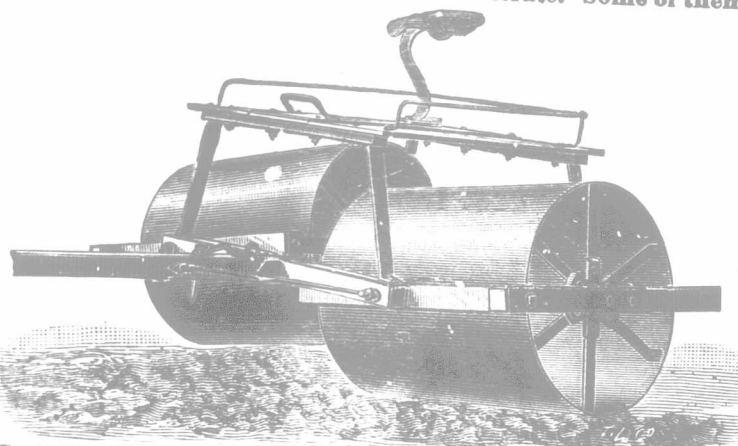
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A STEEL ROLLER, THE DRUMS OF WHICH OSCILLATE ON PIVOTS AND ADAPT THEMSELVES TO THE UNEVENNESS OF THE GROUND.

Its points of advantage are too many to enumerate. Some of them are:

The bearings are the only wearing parts and are guaranteed to last from Ten to Fifteen Years, and can be replaced at a nominal cost.



It rolls all the ground, no matter how rough. There is no axle shaft, no strain, and consequently no wear. It is easily rolled between the drums.

THE DEMAND IS STEADILY INCREASING. IT IS UNANIMOUSLY RECOMMENDED BY THOSE FARMERS WHO HAVE USED IT. Orders are now being booked for the fall trade. Description and price furnished on application to.

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