

MANITOBA AND WESTERN EDITION

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*
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A HAPPY FAMILY OF TAMWORTH SWINE,
THE PROPERTY OF JOHN BELL, AMBER, ONTARIO.

When buying a new machine it is well to procure one which is used to some extent in your neighborhood, rather than to experiment by bringing in something new. The implements now made by reliable firms will all do good work.

Dust white hellebore on the cabbage plants to prevent the attacks of the cabbage worm; or, what is not so dangerous, powdered pyrethrum. Use in dry form one part pyrethrum to five or eight of flour, or one ounce to three gallons of water.

At this season of the year, when the seeding is over and before haying begins, while the farmer is not rushed so much for time, it will be well for him to look carefully over his machinery and get it ready for work. If this has not been previously done, now is the time to send for any repairs necessary, that there will be no delay when the hurried season begins.

Tent caterpillars, canker worms and other leaf-eaters are not likely to give much trouble if the trees have been properly sprayed. Nevertheless, keep a sharp look out. If only a few are discovered, pull off the leaves or twigs and step on them; if more numerous, spray again with Paris green—one pound to two hundred or two hundred and fifty gallons of water.

"Six Thousand Miles Through Wonderland" is the title of a very handsome little publication, descriptive of the marvellous region traversed by the Northern Pacific Railroad; it is neatly gotten up, very prettily illustrated and well worth reading. Any of our readers who contemplate taking a summer trip should send for a copy to H. Swinford, General Passenger Agent, Winnipeg, Manitoba.

In consequence of the postponement of the World's Fair dog show from June 12th to Sept. 19-22, the exhibit of horses and cattle will have to be closed eleven days earlier than was originally announced. Horses and cattle must now be on the ground Monday, Aug. 21st, and will be released Saturday, Sept. 9th. The time of the exhibit of swine and sheep, Monday, Sept. 25th, to Saturday, Oct. 14th, is not affected by this change.

Mr. E. C. Critchfield, in a recent number of Hoard's Dairyman, advises all dairymen to sow their ensilage corn-fields to rye the last time they work them. He says that he has tried it three years and is well satisfied. The rye provides a certain amount of pasture in the fall, protects the land from washing in the fall and spring, and gives a good crop, which may be either plowed under as green manure for the next crop, or used for early spring feed.

Fruit growers are often advised to suspend lanterns over tubs of water or traps to catch the codling moth and other injurious insects, but experiments conducted at Cornell University show that this method is of doubtful benefit, for it was found that a number of beneficial insects were also caught, and of the whole number destroyed a very small per cent. were females. It would be interesting to know how this coincides with the experience of entomologists in this country.

Replying to a question in the British House of Commons, President Gardner, of the Board of Agriculture, made the important statement that out of over five thousand head of cattle received from Canada this spring, only one was suspected of being diseased, the lungs of which had been held for further examination, which, if favorable, will go a long way towards proving to Englishmen that Canada is entirely free from contagious cattle disease—a fact well-known to Canadians.

A Suggestion re the Horse Lien Act.

In your paper of April 20, you give a sketch of Dr. Rutherford's act for protecting stallion owners. I think the act should go a little further into the matter than only requiring the horses to have registered pedigrees; I think they should also require to be sound, as in my opinion a sound scrub is better than an unsound pedigreed horse. The five dollars for registration might be spent in paying a "vet." to examine horses before giving certificate.
D., Castleberry P. O.

Another Criticism.

We are in receipt of another communication from "Scrub," taking exception to "Invicta's" use of the word *ignorant* in referring to farm laborers. We feel sure Invicta did not use the word ignorant, as "Scrub" understands it, as an idiot or one fit only for an asylum, but merely in comparison with the generally understood meaning of the term educated. "Scrub" also objects to making fixed salaries for teachers, contending that the present keen competition keeps the incompetent and lazy from entering the profession. Does it in actual experience?

The Horn Fly.

In answer to a question asked by a subscriber, we give the following description of and remedies for this new enemy of the farmer, which appeared in many parts of the country for the first time last season, and has already begun its ravages this season. Because of the rapid propagation of its species, only taking two or three weeks from the egg to the perfect insect, farmers must stir themselves and make up their minds to fight it vigorously if they would keep it in subjection.

This fly, which is a native of Southern Europe, was introduced into the United States about 1886, and rapidly spread over this continent. In appearance it closely resembles the common fly, but is only about two-thirds the size; from the peculiar habit of settling upon the base of the horns to rest it has received the name of Horn Fly.

Contrary to the popular ideas, these flies do no injury to the horns nor are they directly the cause of the sores often seen on the backs, for these are produced by the animals rubbing against trees and fences in vain attempts to ease their sufferings.

By inserting their sharp, dagger-shaped trunks through the skin and sucking the blood, the flies cause such great irritation that the animals quickly fall off in flesh and milk. The eggs are never laid in these sores, as some have supposed, but in the fresh droppings of the animals, where the maggots feed upon the liquid substance of the dung.

At this early season of the year, doubtless the most successful practice will be to treat the dung so as to prevent their breeding. Leave no manure lying around the yard,—get it all under the ground as soon as possible, and then either spread out all the fresh droppings so they will dry out, or apply lime or wood ashes; even road dust or dry earth will answer the purpose by soaking up the moisture.

To protect the cattle from the mature insect almost any cheap oil will answer, as train oil, fish oil, tallow or axle grease. The addition of a little carbolic acid or oil of tar not only keeps the flies away, but also has a healing effect upon the sores. Use in proportion of one ounce (about a tablespoonful) to a half gallon of oil; rub a small quantity on the parts where the flies gather most thickly.

What is known as kerosene emulsion may be sprayed on the animals. Take two ounces of soap and boil in a quart of rain water, turn into two quarts of coal oil, churn with a force pump or stir for about five minutes, so as to mix thoroughly, and dilute with nine parts (twenty-seven quarts) of water; apply with a force pump or sponge.

If farmers would succeed they must combine in using all known remedies which will aid in reducing the numbers of this pest. For a fuller description and cuts of this insect we would refer our readers to the issue of the FARMER'S ADVOCATE of October, 1892.

When the sheep have been shorn the ticks will leave them, because of the little protection afforded by the closely clipped wool, and migrate to the lambs. Do not allow the latter to be stunted in their growth and lose flesh, when it can be easily prevented by taking a few hours to dip them. Many preparations are in the market, of which some are good, while others are injurious. Both Little's and Cooper's are highly spoken of by practical farmers, and will be found to give good results.

A little common sense is very convenient in every day life, and especially so when reading the glowing descriptions of certain novelties in seedmen's catalogues. These catalogues all contain a large amount of useful information and give an idea of the different varieties, but when an especially remarkable description is reached, it is well to read it with the proverbial grain of salt. The following appears in Sandelt & Son's catalogue as a satire upon such extravagant praise in advertising new varieties:—"We are getting up a picture of the Extravaganza cabbage, Munchausen stock, which, by comparison with other well-known objects purposely placed near it, will show that this cabbage is as big as a tobacco hoghead, and the description which will accompany the picture will prove, if words have any power, that its flavor is as sweet as sugar, its texture as fine as satin, and its habit exceedingly early or so rarely late, or so something else, as to eclipse every cabbage ever before known, and, above all, its freedom from the attacks of insects is phenomenally remarkable; indeed, an insect which simply flies over it falls dead within twenty yards. To the market gardener it is a boon, as it sells itself, its laughing face beaming with such benevolent expression as to win the admiration of every purchaser at once." We are informed that people even went so far as to send money for this wonderful cabbage.

The Summer Course for Teachers at the Ontario Agricultural College.

The Minister of Agriculture offers the teachers of Ontario a short summer course of lectures by the college staff on agriculture and the sciences most closely related thereto. The object of this course is to show how agriculture and kindred branches of knowledge may be taught by simple talks to pupils in rural schools, and also to furnish information that will serve as a basis for such talks, say the last hour of each Friday afternoon—geology and chemistry in the fall, live stock and dairying in the winter, botany and entomology in the spring. During this summer course at the college, the forenoons will be devoted to lectures on agriculture, dairying, agricultural chemistry, geology, botany and entomology, while the afternoons and Saturdays will be given up to geological and botanical excursions in charge of a professor, a certain amount of practical work in the laboratories, and observation trips in the gardens, fields and experimental plots.

The surroundings of the college are pleasant and of such a character that, in addition to the direct instruction gained by attendance at the lectures, much valuable information may be acquired by observation in the different departments of the institution—the farm, dairy, arboretum, gardens, greenhouses, laboratories, etc. The course will extend throughout the month of July, commencing on the 3rd. There will be no tuition fee. Teachers to the number of 50, male or female, will be provided with board in the college, for which there will be a charge of \$12, payable in advance to the Bursar. Washing will be done in the college laundry, and charged for at moderate rates. Sheets and towels, four of each, must be provided by applicants for admission. We would strongly advise all teachers to lose no time in making applications to the President.

The objection which has always been urged against the teaching of agriculture in the public schools has been chiefly that the teachers are not competent to give instruction. We are pleased to be able to state that this objection will soon be removed, and, in a short time, farmers will have it in their own hands to say whether they will have agriculture taught in their schools or not. The success of this undertaking depends upon the support which the yeomanry through their trustees give. It must be remembered that few teachers will take the trouble to attend these lectures unless they expect to gain an advantage by so doing.

We hope trustees in the rural sections will show their appreciation of this move by encouraging teachers to attend this summer course, and if encouragement is not sufficient, insist that they do so. Trustees should not neglect to help this work along by offering sufficient inducements in the way of a bonus or increase in salary, so that the teacher will feel that he or she has been amply rewarded for the slight expenditure of time and money.

Those in favor of teaching agriculture in public schools will do well to watch the progress of the experiment in Ontario and profit by the result. The interest in agricultural studies is growing rapidly in Western Canada. We expect to see it increased by the discussion on this subject which will take place shortly at the Central Farmers' Institute.

For circulars and additional information address the President, Dr. James Mills, O.A.C., Guelph, Ont.

Besides being a great source of annoyance to human beings, mosquitoes worry and irritate live stock to such an extent that in some localities the animals have to be housed regularly, or they will lose in flesh and young stock will be stunted in their growth. An experiment conducted by L. O. Howard, Assistant United States Entomologist, shows that kerosene can be successfully used as a destroyer of mosquito. He sprinkled four ounces on the surface of a pond containing sixty square feet, with the result that all aquatic larvæ, including those of the mosquito, were killed. The oil seemed to exercise no deterrent effect upon the female mosquitoes, for they still attempted to deposit their eggs, and in the attempt were destroyed. Several severe rainstorms occurred during the period of observation, and after the first of these the pond lost the glassy, iridescent surface effect given to it by the thin layer of kerosene; nevertheless, the insecticidal effect of the coal oil did not seem to be diminished, though no odor could be perceived. In larger ponds the presence of fish will usually prevent the multiplication of the mosquito; but the most favorable places for breeding are stagnant ponds, and these can be easily and cheaply treated in the above way. By the drainage of all swamp lands, the careful watching of all water barrels and tanks, and the use of kerosene, the mosquito plague can be greatly lessened.

Canadian Records Recognized.

The authorities of the Columbian World's Fair have decided to recognize the Canadian Sheep Record, also the Canadian Swine Record. Animals recorded in these records are eligible to compete at Chicago, and need not be registered in American records.

Mr. John Bell's Tamworths.

The illustration on the first page of this issue portrays three Tamworth swine, the property of Mr. John Bell, Amber, Ont. The combined weight of these animals is 2,500 lbs., yet they are smooth and attractive in appearance and very active. The female in the background is imported Sally Ann-1-3908, bred by Mr. John Norman, jr., Cliff House, Tamworth, Staffordshire, England. The other two large pigs are Scarboro Bell and Major of Willowdale, two of her first litter, sired by imported Norman's Pride. Each of these animals has been frequently shown at Canada's largest exhibitions, and in each case has been awarded first prize.

These are fair specimens of Mr. Bell's now famous herd. His present breeding stock consists of three aged boars and twelve sows; two of the boars and four of the sows were imported from England. Ten of the sows have farrowed recently, two will farrow soon. This spring nearly one hundred young pigs have first seen the light at this farm, many of which are now sold. Orders have been received from nearly every state in the American Union, and from Nova Scotia, New Brunswick, Prince Edward Island, Quebec, Manitoba, Assiniboia, British Columbia, and a great many from Ontario. At the time of our visit the pens contained a grand lot of breeding animals and young pigs; all were surprisingly smooth and had the appearance of being easily fed and calculated to produce the finest grade of bacon and hams. They were uniformly light in the neck, jowl and back, wonderfully deep in the sides, hams full, thick and well let down, while the shoulders were fine and smooth. To many Canadian farmers these pigs present a novel appearance; their heads are not dished, nor their backs broad, two qualities much admired by many, but of no intrinsic value—in fact, a broad, fat back is not wanted by any of the pork-packers to-day, because the consumers reject all such. Although the snouts worn by these swine are long, the head is very light, and the offal less than usual. This sort will doubtless win their way among the rent-paying farmers. We have never heard of a section where they have been introduced that they have not grown in public favor. They are said to be excellent grazers, easily fed, and very prolific.

Mr. Nicholas Awrey, Ontario Commissioner to the World's Columbian Exposition, instructed Mr. Bell to prepare a full class of this breed for competition at Chicago, but owing to the authorities of this great show refusing to give this breed a class, Mr. Bell has declined to make an exhibit. What are known in Canada as Improved Large Yorkshires and Middle Whites are also compelled to show in a sort of general class, or consolidation class, which will include animals of very different types—so different that it will be impossible for any man to make just awards. The Tamworths and Large Yorkshires should each have been given a class. We were given to understand at one time that this would be done, but recently some mysterious change has come over the American managers at Chicago; they have changed their mind without giving any explanations.

Mr. Bell breeds Shropshires as well as Clydesdales and Tamworths. At the head of his flock of Shropshires is a ram imported by John Miller & Sons, Brougham, Ont.; this sheep is the sire of a lot of good lambs, which are doing very well.

The famous Granite City is at the head of the Clydesdale stud; this noble horse is as fresh and good as he ever was, and is doing a satisfactory season, standing in his owner's stable. Among the Clydes owned by Mr. Bell is a very good yearling colt which will be shown at the Columbian Exposition.

The breeder and owner of this stock is one of Canada's best live stock judges, a man widely known and as widely respected. We recommend him and his stock to our readers.

The Poultry Association held a regular monthly meeting in the FARMER'S ADVOCATE office on the evening of June 5th. After disposing of routine business, a revision of the constitution was discussed. Several important changes being deemed necessary, it was decided to leave this matter over till the next meeting (first Monday of July), when it should receive full discussion before the annual meeting, which will be held during exhibition week and of which notice will be given later on.

Institute Work and What It Should Lead to.

[Read at the Farmers' Institute Meeting, at Hartney, by R. E. A. Leech, Secretary Manitoba Central Farmers' Institute.]

The object of the Farmers' Institutes, as set forth in the "Act respecting Farmers' Institutes," are "To encourage improvement in agriculture, horticulture, arboriculture, manufactures and the useful arts, (a) By holding meetings for the discussion of and hearing lectures on subjects connected with the theory and practice of improved husbandry or other industrial purposes," &c., but this should be sufficient text for an elaborate paper.

First, then, "To encourage improvement in agriculture." In this calling, more than in any other profession or business, we have opportunity to study art, literature and science, and apply the useful knowledge thus gained in helping nature produce her most bountiful rewards, and assist us in our daily labour. Ours is an age of advancement, and each succeeding year brings with it new and improved methods of husbandry, and those who keep abreast of the times have best returns for their labour and skill. For that purpose we have met here to-day. Let this gathering be a profitable one for us all, the knowledge we receive by communion one with another the means of developing new thoughts and better ways and means for our daily labour, and raise to a higher plane in the world's onward march this great pursuit, Agriculture. Agriculture is the foundation business of this country, and in many respects the very best in which a man can be engaged.

A Wisconsin Institute man thus describes one of their institutes (in the early days of Institutes in that State):—A small audience, a few progressive farmers in front, a few curious stragglers in the middle seats, and a few old farmers in the back seats, as dumb and cold as oysters, had come, firmly braced against the heresy of new ideas in farming. Few questions, few local papers, and little enthusiasm prevailed. Since then, however, he adds "things have changed;" instead of small meetings and no interest we now have large, enthusiastic audiences, and those who first "came to scoff, now remain to pray." The progressive farmer is now our best worker, the curious straggler is now our intent listener, the old farmer, now in the front seat, delights to tell his experiences. Best of all is a small army of bright young farmers, reading, thinking, talking, experimenting, testing and laying the foundation for intelligent work in the future—work that results in higher fertilization, more thorough preparation of the soil, better tillage, larger crops, finer stocks, improved dairies, and greater success in every way. He further adds that his county alone could pay every dollar expended for Institute work in the State of Wisconsin, and still have a balance in her favor. Farming is becoming more and more a scientific profession. Hence the demand for elementary science and manual instruction is becoming louder and more general. And as machines become more delicate and complex, as new processes decide the victory in this or that department, and as financial exactitude and foresight exert increasing influence over commerce, the demand in our profession for men of trained intelligence will become universal and imperative. The blunt workman must be turned into the skilled artisan. No sooner do we secure a forward movement than we set about asking how it may be improved, and it is well that it is so, because dropping into a rut is next thing to dropping into the grave. Farmers, as a class, are perhaps the most difficult to lead out of old and long travelled ruts, into a trial, even, of that which is new. We do not contribute largely to that changeful, restless element that would keep society in a constant ferment, and render the foundations of government even uncertain. If we are more persistently loyal to political and religious antecedents than most other classes, we are also slow to recognize those lines of thought and action that lead up to the better methods and conditions in our particular interests.

These peculiarities are largely attributable to the isolated character of our lives—to a failure to mingle in society, to assert our individuality, and to consult with the more successful and intelligent of our own class about mutual interests.

Occasionally we hear the objection, "Oh, experience is the best teacher; I will learn by my own observation." My friends, life is too short for some of us, and be we ever so capable we cannot learn it all alone. Experience is terribly expensive sometimes, and a useful fact about any branch of farming is no less valuable because it happens to be stated by a brother farmer on the floor of an Institute meeting. If it is worth knowing, the sooner it is acquired the better.

Our narrow view of life too often leads us to harbor feelings of distrust and jealousy to those around us, especially the more successful of our neighbours engaged in the same occupation as ourselves; while better methods better business habits and better education are regarded as delusions. But the star of a higher and better education beams upon us, and wise men, old and young, are turning that way for a new revelation. The gospel of good farming is being taught us in Institutes, experimental farms, bulletins, and reports. Our enterprising newspapers are taking up the glad refrain, and carrying it to every rural home. Under these favorable influences the live farmer sees that this is a progressive age—an age of invention, of steam, of electricity, of machinery, of manufacturing, of combinations and better business methods of all

classes. He realizes what a farmer should be in such an age—a man possessing good common sense, not brilliant but having judgment in ordinary matters; not necessarily highly educated, but well informed; not possessing great strength, but endurance; not having great self-esteem, but confidence in himself. He should understand political questions, without being a politician. He should understand law, without being a lawyer. He should be familiar with simple remedies, without being a doctor. He should study nature and her loving ways, without being a preacher. He should understand the soil he is working, and the best crops to grow. He should appreciate the value of manure, the necessity of saving the same, and the best way to apply. He must be familiar with the principles of the breeding of farm stock—the general form, characteristics and adaptation of the various breeds of the animals he handles. He must have an intelligent idea of the profits he should derive from the enterprise in which he engages. He should have well-defined ideas of the values and effects of feeds, that when combined they may produce required results; knowing how to feed, when to feed, and what to feed. He will be a buyer and seller, and should cultivate a ready and correct judgment. Instead of being controlled by circumstances, let him aim to be in a position to use them for his advancement. Institute work in this province is but in its infancy and requires nursing, and in many places much careful fostering. A live secretary is a positive necessity. But while an inefficient secretary never succeeds in getting a good meeting, an inefficient chairman or president is just as liable to spoil one. For those positions particularly, endeavor to secure active men of good executive ability and reasonable mental qualifications and attainments. Select subjects for discussion of most general interest, and endeavor to have one or two papers prepared by men who will be able to impart useful information, followed by questioning and a general experience meeting. Vary the proceedings; "variety is the spice of life." Mammoth picnics may be held in June or July, in connection with the various Institutes, when the matrons and maidens of the farm are present with their lunch baskets, in a beautiful grove on a lovely day. There is sure to be a crowd, whether of those who admire them, or of the hard-hearted stoic fraternity who professedly do not—but somehow they do get there, and thus an excellent opportunity is afforded of dispensing useful information, though it should be dealt out in tiny morsels in nice little speeches; and the chance is too good to lose of swelling the membership list on the principle of badge selling and badge wearing system. A few energetic ladies appointed by the Institute as membership or badge committee would do good service. Push membership list until it reaches one hundred names at least, because the Government bonuses the Institutes to the extent of fifty cents for each member up to that number. Always endeavor to have the "press" interested in and giving reports of your meetings. If there is no paper published in your vicinity, select one of your members to report to some paper generally taken in the locality.

The result of Institute work cannot probably be better summed up than was done by Mr. Thompson, of the FARMER'S ADVOCATE, at the Portage La Prairie "wind-up," last summer:—

1. Better farming, as a result of increased knowledge.
2. More faith and enthusiasm, which are worth a good deal to any enterprise.
3. Better returns for the farmer's toil and investment.
4. Fewer frauds and humbugs thriving.
5. Less isolation among farmers, and greater unity of action.
6. More comfortable homes.
7. Greater respect by himself and the community for the business of farming.
8. Development of the capacity to conduct public meetings and deal with public questions.
9. The young men of the country appreciating more than they do at present the advantages of an agricultural life.

At a regular council meeting of the Royal Agricultural Society of England, held recently, the veterinary committee reported that they had had the question of abortion in cattle under their careful consideration, and recommended asking the board of agriculture to undertake at as early a date as possible an exhaustive inquiry into the nature and causes of this disease. They had prepared a memorandum on the subject, which showed that although there are no official statistics showing the losses caused by abortion in cattle, such losses have now become exceedingly serious, and they are very widely spread amongst the herds of the country. The cause of the affection has never yet been definitely ascertained, and, consequently, there is no degree of certainty attaching to any of the remedies that may be applied. To show the difference of opinion which prevails as to the nature of the disease, it is only necessary to mention some of the various causes which have been assigned to it, such as ergoted grasses, unsuitable food, impure water, "sympathy," bad smells, disease in the bull, tendency to fatten, etc. That the disease is either contagious or infectious, practical men entertain no doubt, but the question as to the means whereby the contagion or infection is communicated still remains unsolved.

Breeding Grade Stock.

BY D. F. WILSON, BRANDON, MANITOBA.

Breeding animals, as practised by the breeders of pure-bred stock, is an art, but there are many farmers who believe in the improvement of their stock that have very vague ideas of the principles to be observed.

At one time a neighbor of mine was outlining his intentions with regard to his cattle. He was first going to use a Shorthorn bull, then on the progeny a bull of some other breed (I have forgotten which), and so on with four distinct breeds, fondly imagining that in the last cross he would have combined all the good qualities of the four breeds. Another farmer who heard him summed up pretty correctly by saying, "and by that time you will have a pure-bred mongrel". In such a case as this, where there was one cross of each of four breeds, all perhaps equally prepotent, two of the great laws of breeding—heredity and atavism—would be made directly antagonistic, and no idea could be formed beforehand what the progeny would be like. Now, instead of this being the case, a farmer should have an idea what the stock he breeds will be like, though

"The best laid schemes o' mice an' men gang aft a gley."

As a rule, when a farmer wants to improve his cattle, he buys a pure-bred bull that he believes will suit, and uses him in his herd for a couple of years, by which time he thinks he should get rid of him, as his own get are then coming back to him. He may then buy another, though, as is often the case when money is not very plentiful, he thinks he can scarcely afford to buy another pure-bred animal so soon, and therefore uses a calf of his last bull's get out of his best cow, or else obtains a good grade bull calf from one of his neighbors. If he buys a pure-bred animal again, he probably takes the first one he comes across, so as to save further trouble, or buys one because he is cheap. Now, if the farmer started right, he when purchasing his first pure-bred bull decided what he wanted to raise, and having settled this it would not be hard for him, by studying the characteristics of the different breeds, to decide which of them he should select from. In making this selection care should have been taken that the animal was a typical one, also that it was one likely to beget stock of the type desired. When after two or three years it is thought advisable to get a new bull, the first pedigreed animal that is to be had is not the one to buy, just because it is a pure-bred beast, as if that was all that was required. He should be carefully selected as being suitable to use on the young half-bred heifers—one who will correct in the progeny any faults of the mother rather than perpetuate them; in fact, as far as can be seen, an improvement on the former bull, but at the same time one of similar type, for be it remembered the first bull was bought with a fixed view, and if sight is lost of this we fall into the same error that the man spoken of who would make use of four different breeds would do, but to a lesser extent. Now, supposing the first bull has proved himself an exceptionally good one, begetting stock of a quality leaving little to be desired in a first cross, why part with him for another, and that an untried one? The second animal may to all appearance be a better beast than the first, but it does not follow that his stock will be better, for it is a well-known fact that many noted show animals have got but second-rate stock. It would, however, be unwise to disregard the law of heredity by breeding to an inferior animal because his get had proved to be good ones; it would probably be a case of atavism, and by the same law the bad qualities apparent in the bull might be expected to crop out in future generations, no matter how carefully bred. When, however, a farmer becomes possessed of a pure-bred bull that is a handsome animal and a good specimen of the breed, and begets uniformly good stock, he need not be afraid to use him on his own get, and he will be safer in doing so than if he bought a new bull whose qualities as a sire were unknown to him, and most decidedly better than if he used a grade, which, to say the least, would be a step backwards.

I am aware that any one advocating inbreeding is treading on dangerous ground, but no one can deny that to it we owe the present excellence of pure-bred cattle and sheep. The greatest breeders among those who brought the different breeds into prominence having practised it, we might almost say the closer the breeding the more successful the breeder. Why should not farmers follow their example to a certain extent? The early breeders inbred to set a type; the farmer also wants to set a type—he wants uniformity in his flocks and herds; it makes them worth more to him. When inbreeding was carried too far by some of the first breeders, it showed first in lack of fecundity; there is no need for the farmer to carry it to this extent with grade stock, but when a pure-bred male has been secured that has proved himself to be a good one, it is a great mistake to part with him, as is too often done.

The Southdowns of Mr. Henry Webb and Lord Polwarth's Border Leicesters are instances of the most successful breeding, in both of which cases no outside blood was introduced for nearly half a century.

When the progeny of related animals do not do well, or there is anything the matter with them, it is generally put down to the relationship of the parents, when in reality this may have nothing to do with the trouble. There is no reason why farmers should not breed grade stock in such a way as to give their animals an uniform appearance, and of the type which they find most profitable under their conditions, but this can not be done by using untried sires or those bred from stock of opposite types.

Which is the Best Breed of Sheep?

Read before the last meeting of the Sheep Breeders' Association by James Tolton, Walkerton, Ont.

To answer this question, defining the particular breed of sheep that is best, might appear on casual observation as treading on dangerous ground, and also might appear a little presumptuous on the part of the writer. It is true with sheep, as with other lines of live stock, that there are particular sorts that are better adapted than others to certain conditions and localities. For instance, the Clyde or Shire horse, with his large bone, great muscle, and heavy weight, is the most suitable for moving heavy loads; but if style, action and speed are required, we would not look among either of these breeds, but go to the blood or carriage horse with their fine style, splendid action, and clean bone. Or if we want a cow to make gilt-edged butter, we would likely find her among the so-called dairy breeds; or if we desired cattle more particularly for stall feeding or grazing for beef purposes, it is not at all probable we would find them among the "dairy breeds," but would get Shorthorns, Herefords, or Polled Angus. If Providence, aided by the skill of man, has created and perfected the horse for his multitudinous purposes, and the cow for her economic uses, the more useful animal, the sheep, has not been left in the rear. Among sheep, we have as many or more breeds than among the sorts above mentioned. We have the fine, medium, and coarse wool sheep, some producing wool suitable for the soft raiment of those who live in luxury, others from which are clipped wool suitable for making the coarser clothing of the toiler and wage earner. We have the light and nimble sheep that can glean more than its existence from the rocks and hills where the pasture is scant. Again there are sorts that are better adapted and more profitable in climates that are warmer than ours, and we have those breeds that are common to us and well adapted to our climate. We have those with white faces and legs, and some have brown faces, others with black faces. We have sheep that have horns, while some have none, and sheep that have what are commonly called foretops, others have bare faces, and so on almost without end.

It may be said that the question is not being answered, which is the best breed of sheep. It is not the purpose of this paper to name one particular breed as the best for every person who breeds or intends to breed sheep. But it would be passing strange indeed, if from the numerous breeds we have, with their varied qualities, a selection of the best breed for each individual breeder could not be made.

There should be good and valid reasons why any particular breed should be selected as the most suitable, and when selecting a breed it should be considered which sort under the circumstances would be most profitable and suit the conditions and surroundings best, or else be more pleasing to the eye and taste. It is true that there are several breeds that are common to us that may meet one or all of the requirements, so that after all every sheep breeder or person desirous of becoming one should answer the question for himself, after making due allowance for what may seem the popular demand.

When the selection of the best breed is made, what I would like to impress on the readers of this paper is not to attempt to keep sheep for the purpose of keeping weeds down on the summerfallow, or to run on the roadside to be chased by every passing dog in the summer, and just eke out an existence around a straw stack in the winter,—for by this method they will neither fill the pocket or please the eye; but, on the other hand, give them the attention that has been recommended many times by papers read at meetings of this Association. I do not know that there are any domestic animals that respond to kind, attentive and liberal treatment more readily than the sheep.

I may not have answered the title of this paper in the way some may have expected, but if by word or sentence I have assisted in drawing the attention of the general farmer to the importance of keeping more sheep, giving them better attention, and breeding to pure-bred sires, the object of this paper has been accomplished.

At a recent meeting of the Executive Committee of the American Shorthorn Breeders' Association the following resolution was moved by S. F. Lockridge, seconded by John Hope, and unanimously adopted: "That it is the sense of the committee that it is not practicable nor judicious to attempt to hold a convention of Shorthorn breeders during the World's Fair, but in case that there should be any considerable number of stockholders who shall insist that the former resolution be carried out, the Executive Committee hereby authorizes the president and secretary to fix a date and arrange a programme for the meetings."

Are Holsteins Profitable Cows for Winter Dairying?

(Read at the last annual meeting of the Holstein Breeders' Association by R. S. Stephenson, Ancaster.)

The subject which I have been allotted is one of great importance at the present time. As winter dairying is destined to become in a very short time one of the greatest sources of revenue for the Ontario farmers, it is, therefore, of the greatest importance that we should have the best cows for the purpose, as our success in the dairy business depends very largely on having a breed of cattle capable of consuming and turning into milk and butter profitably the large amounts of coarse grain and fodder we can raise on our farms. I will endeavor briefly to place before you some of the reasons why I believe the Holstein to be the best breed for the general farmer to keep, who makes dairying one of the chief branches of his business. First, the Holstein combines more desirable qualities than any other breed. The most valuable is the production of milk; for this purpose they have been bred for centuries, and are acknowledged to excel all other breeds. They mature early, coming into milk when about two years old, and hold out well through nearly the whole year. Their milk is not only abundant in quantity, but rich in quality. They are large, hardy and rapid growers, fattening readily when dry, and make a good quality of beef. Many people dispute the idea of a general purpose cow, and we are frequently reminded of the folly of feeding four or five hundred pounds of useless carcass for eight or ten years in the shape of a large milch cow, for the sake of getting an indifferent carcass of beef at the end. There might be some sense in this sort of argument if it were solely for milk that cows were usually kept, but as the general farmer, especially if he follows winter dairying, wants large, growthy calves that will make good veals or fine steers to feed, he certainly cannot get them from the small, ill-shaped cattle often seen in dairies, and the value of the little extra feed it takes to maintain the large, thrifty cow, such as the Holstein, is very much over-balanced by the value of the calves and the larger quantity of milk she will give. And when we find a breed of cattle that are capable of consuming and digesting large quantities of food and turning it into milk, and at the same time producing fine, growthy calves, like the Holstein, I claim that is the most profitable breed for winter dairying.

Chatty Stock Letter from the States.

Live stock men all feel that the World's Fair will not make an adequate show of live stock. The appointment of the chief of that department was so long delayed that it has been impossible to make proper arrangements. The show of horses and of the dairy breeds of cattle promises to be most satisfactory. The general agricultural display, however, no one can find fault with, and the exposition on the whole is beyond the power of most people to appreciate.

Fine cattle continue to sell fairly, but not up to old-fashioned prices.

Fancy light cattle and hogs are outselling the big, heavy drones. Early maturity pays. Many 1600 lb. cattle and 300 lb. hogs are selling lower than 1200 lb. steers and 200 lb. pigs.

The first five months of 1893 Chicago packers slaughtered 35,458 more cattle than during the corresponding period of 1892. The number handled here was nearly 900,000 head. The general feeling is, however, that the slaughtering at all points combined will show a large loss for the entire year.

A man interested in packing circles said all the hogs slaughtered in Chicago last month made 60c. per head. The fact remains, however, that hogs are very high, and that packers can do no more than hand-to-mouth business at such prices.

The lack of confidence in the financial world, due largely to the fear of flooding the country with silver and draining it of gold, has lately cut an important figure in the live stock business. The supplies of marketable stock have been moderate and the consumptive demand very strong, or prices would not be so much higher than a year ago, especially in hogs and cattle. Of course, the financial uneasiness has been used for all it was worth, and more, by the buying and slaughtering interests, and idle and sensational talk has, in some cases, caused much trouble. In the main the country is in good fix to stand a severe shock, and as a rule shocks do not come when they can be withstood. If there is anything like the shortage in cattle this year that is expected the markets ought to rule strong. Cattle feeders have not been overly joyful at the result of their work, but in the main they have obtained satisfactory results.

The calves are being drawn to market quite freely by the good prices for those in fair to good veal condition. "Native" calves have lately sold at \$4.50 @ \$6.00, and Texas calves at \$2.75 @ \$4.75. These prices tend to cut off future cattle supplies at quite a rapid rate.

We don't hear very much about dehorning nowadays, but an astonishing proportion of the best cattle come to market without their natural and useless head gear. At the prices for fine stock it is a shame that so many scrub sires are allowed to exist. Sheep are being marketed much more freely than last year and are selling at lower prices. However, producers of mutton have been fairly well remunerated. The extent of the Texas mutton crop so far this year has been quite unprecedented.

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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. See section 11 and four following in publisher's announcement above. Everyone interested in dairying should not only read, but study that instructive little book, "Dairying for Profit, or the Poor Man's Cow," which may be obtained from the author, Mrs. E. M. Jones, Brockville, Ont. Price, 30 cents. Over 62,000 copies have been sold, and in order to further stimulate its circulation, we will give two copies to every old subscriber sending in his own name (renewal) and that of one new yearly subscriber accompanied by two dollars. A prize of \$5.00 will be given for the best essay on "Haying;" stating time to cut and describing best and most profitable method of securing a crop of 50 tons or more. Essay to be in this office by July 5th. A prize of \$5.00 will be given for the best essay on "Harvesting;" describing best and most profitable method of cutting, stooking, stacking and threshing say 100 acres of crop. Essay to be in this office by Aug. 5th.

The Farmers and the Tariff.

BY D. F. WILSON, BRANDON.

Never before in the history of Canada have the farmers been so much of one mind as they are at present with regard to the demand for the modification of the tariff, and that it is a just demand no one of unbiased opinion will deny. It is the outcome of crop failure, coupled with low prices, together with other causes, for which the farmers have themselves to blame. Had the prices of the principal products kept up and fair crops been grown, nothing would have been heard of the trouble, except as a party cry. Nevertheless, the imposition exists, and farmers who were supporters of the present Government would have gone on bearing the burden, imagining that it was just the right thing, had not hard times caused the shoe to pinch, giving them cause to think when they found that while they were getting poorer some others at least were getting rich. This had the effect of causing farmers to hold meetings, when resolutions were passed and petitions signed, asking the Government to remove the duty on those manufactured goods which are necessities on the farm, and in this way enable them to produce farm products at a smaller cost. Meetings of farmers called for the purpose, Farmers' Institutes and the Patrons of Industry, which are some hundred thousand strong, might be said to be unanimous in their requests, and they could not, by any means, be called unreasonable. As an instance of the unanimity on this question, the petition circulated by the Brandon farmers' meeting, which obtained between four and five hundred signatures, but four of those asked to sign it refused, and but one of these was a farmer. Now, the Government has been asked to make these alterations in the tariff, just cause having been shown why they should do so, and that those engaged in the most important industry of Canada were suffering by the present arrangement. Why has the change not been made? Farmers want new machinery to carry on their farming operations this season; they want lumber to put up the necessary farm buildings; they want fencing material, in order that they may be enabled to go more into mixed farming, which is now acknowledged to be the only course by which Manitoba can become a prosperous country; and they want binding twine to tie up this year's crop. The duty not being removed on these articles means thousands upon thousands of dollars out of the farmers' pockets this year, of which but a small percentage goes to make up Canada's revenue, the bulk of it going into the hands of the manufacturers and middlemen. It is true half the duty has been taken off binding twine, but the farmers asked for the whole of it to be taken off.

The Finance Minister has promised that he and some of his colleagues will travel through the country and enquire into these matters. What bosh! He knows now what is wanted better than six months' travel would tell him, for it is not to be supposed that these gentlemen will travel "incog," and a progress through a country is not the way to find out the condition of its people.

Agriculture being the principal industry of Canada, it should be fostered before all other industries; and those engaged in it being unanimous in their requests, why is it they are not acceded to? We must suppose that those engaged in industries of less importance have been able to bring a very great influence to bear on the Government in order to have their high protective tariff retained. Firms that can afford to make presents of a hundred thousand dollars must be able to expend very large sums indeed where their interests are concerned, and money has a wonderful influence. Has the present Government so fostered the infant industries that they are now fostering the Government, to the detriment of the farmers and the general welfare of the country? Under such circumstances should not farmers be justified in losing confidence in the present or any other administration?

The Governments, both Dominion and Provincial, are spending public money to promote immigration, the class of immigrants wanted being those who can and will engage in agriculture. Can we expect such men, coming from free trade Britain, to be contented with their lot here, when they find that everything they have to buy to carry on their farming operations with costs so much on account of a protective tariff? I lately received a copy of the Liverpool Daily Post, a paper with an immense circulation, in which there was a letter entitled "Protection in Canada," evidently written by an Englishman farming in Manitoba. Such a letter in such a paper as the Post would do more to prevent emigration to Manitoba than a dozen agents would overcome. The farmers of Manitoba and the Territories want immigrants to come in, but of what use is it to get them here if they are not satisfied. They give the country a bad name, and the opinion of such men as we want carries weight. The endeavor should be to make each new settler an immigrant agent through his letters to his friends, and not have these letters have the

opposite effect. We expect most of our immigrants to engage in agriculture, then how ridiculous it is for the government to hamper the farmers with a "protective" tariff. Farmers have a right to blame the Government for the very large sum they collectively will have to pay extra this season for different articles they may require to carry on their business with, but they have themselves to blame for this large expenditure for many previous years. The root of the trouble really lies with the farmers themselves, and on this part of the subject I propose to give my views at some future time.

Timely Notes for June—No. 2.

ARE WE GOING TO THE WALL?

I am afraid, yes, if the number of chattel mortgages, suits, etc., registered during the past year are any guide. When we find the Portage la Prairie Board of Trade seriously, and with certainly no intention of belittling their section of country, presenting the solemn fact to Mr. Van Horn that there were 1,374 registrations in 1892 in that district of chattel mortgages, County Court and Queen's Bench suits, against 474 of the same in 1897, we must believe, however much our wishes may tend the other way, that the farmers are going down under their burdens. The towns in many instances are flourishing, but how many farmers are? The conditions are altogether too unequal under which they fight, and the farmers are not all fools. The tariff presses very unfairly upon the farmers, who chiefly buy heavily taxed articles; hardly any of their products can now be sold at a profit (or only at a very small one); being tied down to the land, they can not "turn round" and take up another calling, or even another branch of their own profession, with the same facilities that a grocer or a butcher could; their indebtedness is often of such a nature that it cannot be readily extinguished, or their assets, in the shape of buildings, land and stock, are such that they cannot be readily negotiated for loans. Let us look our troubles squarely in the face, and not be afraid to tell the present government what we need and demand in the way of tariff reform. Let us also insist that if the government desire protection with a big P, let us have it a "National Policy," and apply to the nation, and as the farmers are the major portion of the nation let the policy be largely in their favor. Tax cattle, horses, sheep, pigs, etc., coming into the country heavily, say as much as agricultural implements, also all grain, meats, butter, lard, and all other products that can be produced on the Canadian farm. If the Canadian manufacturer makes the Canadian farmer pay thirty-five or forty per cent. too much for his machinery, let the Canadian farmer compel the said manufacturer to pay four or five cents per pound more for his bacon and butter. I think we should soon have tariff reform then, and the first to squeal would be the "Red Parlor" monopolists. The farmers are slowly awakening to the stern fact that they are being taxed off the face of the earth, and they must have a change.

HOW MUCH DO YOU PAY FOR LOANS?

A great many of the farmers of Canada are carrying a heavy indebtedness in the shape of mortgages, chattel mortgages, etc. I think if some of them would only reckon the cost before borrowing money, they would never submit to such extortion. The usual rate on good security—that is, security upon security—is eight per cent. nominal. Let us see now what it is in reality. Suppose you want to borrow \$500 on your farm, worth even at the lender's valuation \$2000, you will be charged inspection fee, millage, drawing mortgage, registration fees, searches, etc., say \$20 on an average. Then you will probably be required to insure your buildings if worth anything, say for \$300 more, at probably three per cent.—also deducted from principal of loan. Say the loan is for three years, you would receive to commence with \$500—(\$20 + \$27 insurance) = \$453, on which you would, of course, have to pay eight per cent. on the \$500.

Table showing loan costs: So the first year you pay eight per cent. on \$500 = \$40; second year " " " " " " = 40; third year " " " " " " = 40; third year you repay \$500; third year you pay cost of discharge and register = 3.

Or in the three years you pay \$623 for the use of \$457; or \$166, or rather more than 121-5 per cent., for the use of the money for three years.

Even if you get off with the barest expenses you will still pay \$40 + \$40 + \$40 + \$500 + \$3 for the use of \$480 (being \$500 less \$20 expenses), or \$623 for the use of \$480 for three years = \$143, or nearly 10 per cent., instead of 8 per cent. you fondly imagined yourself to be paying. How much greater rates must those be paying who borrowed at 9 and 10 per cent. nominal? or those who have given chattel mortgages in addition, or are paying compound interest on arrears? The moral is: Keep away from all money lenders, whether incorporated into companies or individuals playing a "lone hand." It's hard enough to make a living on the farm when you are out of debt, and almost certain ruin if heavily in debt.

GENERAL.

Don't buy any binder yet, your crop may not be worth cutting—wait a little longer. Keep the hoe going where needed; you won't have much time after you begin haying. INVICTA.

Weeds.

BY J. HOYES PANTON, M. A., F. G. S.
GRAMINEÆ (Grass Family).

This is one of the most important orders among plants in providing forage and grain food, but it also contains some very troublesome weeds, among which are the following:—

Bromus secalinus (Chess).

Prof. Fletcher referred to this weed in a late issue of the ADVOCATE, and gave some interesting experiments he had tried, to show that it is not deteriorated wheat, but a genuine species of plant-producing seed, and from this seed chess can be invariably grown. I may here give some of the reasons that may be urged in favor of this view, and in contrast to the popular view regarding its origin:—

1. The plant is so completely different from wheat that botanists place it in another genus (*Bromus*), wheat being of the genus *Triticum*.
2. If chess is sown, it invariably yields chess. Degenerated wheat sown under favorable conditions should return to wheat, but this never does. The most devoted evolutionist would not expect to see develop in the space of a few months a plant so unlike, in structure form and habit, that from which it is said to be derived. It is only through long periods of time that changes can be effected, so as to get even a variety; but in this case one season and only a portion of it brings about such a remarkable change that the plant is ranked in another genus.
3. Farmers who are careful to sow clean seed seldom are troubled with chess.
4. Chess will mature seed under adverse conditions, though the plant be only two or three inches high, but if conditions are favorable it grows three feet high. This may account for its not being seen in good crops, and yet seeding the ground for a more suitable time when the wheat crop is injured by frosts. It then usurps the soil, and chess plants become quite visible to the farmer.
5. The conclusion of all men who make plant-life a special study is, that chess is a typical plant, produces seed yearly, which, if sown, results in a plant of the same character, and that wheat seed will not produce chess, nor can chess produce wheat.
6. Wheat is grown in some places where chess is not known, and the wheat is sometimes winter-killed without any appearance of chess.
7. Wheat is often winter-killed and not followed by chess. The remedy to get rid of chess is to be exceedingly careful to sow clean seed.



Couchgrass (*Triticum repens*)

Triticum repens (Couch Grass, Quach Grass).
Fig. 37.

This perennial with creeping root can boast of almost as many names as localities in which it grows. It can withstand the roughest of treatment and most adverse conditions. The cut represents this plant, so that it can be readily identified: the spikelets are arranged along the upper part of the stem in the opposite way to what we find in perennial rye, which closely resembles couch grass in form. In rye grass the spikelets are flat, and not edgewise as in couch grass.

The following methods have been followed successfully in destroying this weed:—

1. Plow deep about the first of June, and sow buckwheat at the rate of two bushels to the acre; when this is in full bloom plow it under and sow buckwheat again, and plow in this crop about the end of September. This will enrich the land and clean the field.
2. Manure in the fall and plow. In the spring cross-plow and harrow about the time the grass is starting to grow. When time to sow corn, plow and harrow, so as to prepare for corn. If the corn is planted about the first week in June, it will get a good start, and if thoroughly hoed the quach grass can be kept down and finally got rid of by another hoed crop.

3. Corn sown broadcast so as to cover the ground, harrowed and rolled, will smother out couch grass.

4. Plow early and deep in the spring. Throughout the summer stir up the ground frequently with a gang-plow. In the fall plow deep, and next year grow a hoed crop. Where the roots are numerous, they may be raked together and carted off. It is useless to work at couch grass in wet weather, for under such conditions every joint is likely to sprout.

Sataria glauca (Foxtail).

Common in stubble at the close of the season. *S. Viridis* is another variety; a comparatively harmless weed.

Panicum Crus-galli (Barnyard Grass).

A very coarse grass, usually growing in the barnyard or along lanes; it lies flat on the ground, has coarse stems, swollen joints, broad linear leaves, and the flower clusters in a dense mass. This annual seldom usurps ground occupied by useful plants.

P. capillare (Witch Grass).

The leaves are very hairy and the flowers very much spread, but forming a dense panicle. This grass usually appears in the latter part of summer. The flower stalks break up in the fall, and may be seen rolling over the fields, blown about by the wind, and finally collecting in the fence corners.



Avena Fatua (Wild Oat)

Avena fatua (Wild Oat). Fig. 38.

A very troublesome annual in some parts of the Province. It is very hardy; the seeds, oat-like in appearance, are quite hairy at one end, and bear a short awn at the other. The plant has a spreading habit of growth and ripens early, so that it soon seeds, unless a crop is grown which can be cut before the oats ripen.

To get rid of this pest the following methods may be adopted:—

1. Sow barley; this ripens before the oats, and thus prevents them from seeding. Follow by a crop well hoed.
2. Sow barley, and seed down with clover; this prevents the oats ripening for two years. The clover may be followed by fall wheat.
3. Barley sown, seeded down with clover, and this followed by turnips well hoed.
4. Gang-plow in the fall; after a short time plow well. Cultivate in the spring, so as to encourage oats to sprout; then cultivate, and sow barley. The great object is to keep the oats from seeding, for being annuals they must soon be overcome.

This ends a description of over one hundred weeds, which we shall present in tabulated form in our next communication.

Agricultural Records.

About the heaviest yield of Tasmanian wheat on record (says the *N. W. Post*) comes from the Don. Messrs. Jefferey & Henry, of the Seaview Estate, had two acres of wheat threshed recently, which gave the enormous return of 208 bushels, the grain being perfectly clean. This part of the estate has an unprecedented record for heavy yields, and about six years back, Mr. James Suckling obtained 1100 bushels of marketable potatoes from it, which he sold at 45c. per bushel of sixty pounds. Mr. William Henry states that the land has been allowed to lie idle for a couple of years, and after having been run with sheep was used as a fattening paddock for pigs, and the refuse, chiefly boiled peas, has turned out excellently as a manure.

Mr. T. Summers, remarks a costal journal in Tasmania, has just cut on his farm on the Morville road 2½ acres of oats, part of a paddock, from which he threshed 300 bushels. We believe that this is a record yield for Australasia, and perhaps for the world. The crop was six ft. 4 in. high. This fact is vouched for by Mr. Morey, in charge of the threshing machine, and several other gentlemen of unimpeachable veracity. We would be pleased to hear from Canadian farmers who have large yields to report.

Cultivation.

Under this term is included all working of the soil, both in the preparation of the seed bed and the after cultivation of the crop. The first part of the subject has already been dealt with in our columns this season, so we will content ourselves with the second, which is the summer cultivation of crops such as rape, turnips, potatoes, corn etc.

The first question which arises is, Why do we cultivate these crops at all? The answer which a person would naturally give would be to destroy weeds. This is quite true as far as it goes, but it does not go quite far enough. That the destruction of weeds holds a very important place all will admit, for if they were not kept under, the crop would soon be smothered out, but this is not the only value of cultivation. The working of the soil breaks the capillary tubes which draw the water from the subsoil to the surface, and forms a mulch of loose soil over the tops of them; thus the water is not allowed to be pumped directly upon the surface, where the heat of the sun would quickly evaporate it. Again this mulch prevents the earth being heated up to as great a depth as it would if the surface were hard. This loose material allows a certain amount of air to pass through it, and though it does not appear so, the air always contains more moisture on a hot day than on a cool one, owing to the more rapid evaporation of moisture from the ground, but this water is in such a fine vapor that we do not notice it. When the warm air reaches the cool soil it deposits the water which it had held in suspension as vapor. An example of this is seen when a tin pail of water is drawn from a cool well on a warm day; little drops of water will be deposited on the outside.

Cultivation allows advantage to be taken of the dews and every light shower, for were these to fall on a hard crusted surface they would merely wet the surface, and in about an hour after sunrise the ground would be as dry as ever. But this is not the case with the well-worked field; here the loose soil offers no opposition to the downward percolation of the water, which is all absorbed by the earth, and the mulch prevents its drying up. Hence we see that surface cultivation stores up for the use of the plant, water both from the subsoil and the sky. The next question to ask ourselves is: When should we cultivate? This depends to a great extent upon the nature of the crop, but a good general rule would be to cultivate sufficiently often to prevent the surface from becoming so firm that it will not act as a mulch, and also to prevent the capillary tubes from regaining their natural condition. Always stir the soil after a rain, for two reasons,—the first, to preserve the water which we know to be in the soil, and secondly, to break up the crust which forms to some extent on all soils but especially on heavy clay lands.

Corn and potatoes should be cultivated with a light harrow as they are coming up, and even before if the surface becomes encrusted; this treatment kills the weeds and stirs the soil at the same time; when the plants get too high for this style of working, start the scuffer.

Some make a mistake by cultivating too deeply. We have seen fields which had promised good crops nearly ruined, because the horse-hoe was allowed to run too close and deep, thus cutting the roots of the corn plants, and turning the potatoes out by the roots. A scuffer can be run much closer to the plants if it merely skims the ground, in this way greatly reducing the hand labor, for when thoroughly worked with the horse-hoe one hand weeding will often be all that is necessary. Some will say that if the scuffer does not run deep the weeds will not be cut. If the work has been neglected it will be necessary to go deep enough to cut the roots of the weeds, but it is a great mistake to allow a field to get ahead of the work in this way.

All the purposes for which we hoe will be accomplished better and with less labor by means of shallow and frequent cultivation. The draught being less a horse can cover much more ground in the course of a day than when the scuffer is run deeper.

As before mentioned, the destruction of weeds is a secondary consideration, for if the land is cultivated sufficiently to keep it in the proper condition, all weeds will be smothered out, for weeds, like human beings, cannot live without air. If a long period is allowed to intervene between the times of cultivation, the roots of the weeds will store up food, and thus be enabled to send up shoots at once when cut. Deep cultivation is injurious, for if the soil is stirred to a considerable depth the capillary tubes are broken at just that distance below the surface, and the subsoil water is deposited at too great a distance to be within the easy reach of the fine roots of the young plant. If the land be not cultivated at all, the water will be pumped to the surface, where it will be at once evaporated by the heat of the sun; or, as Professor Storer puts it, "The real desideratum is to maintain the best capillary connection between the lower layers of soil where the store of water is, and those layers in which the plant roots are growing. More than this is not wanted, and pains must consequently be taken to break up continually the connection between the surface and the root-bed, for it is much better for the water to go out by transpiration from the plants than by mere evaporation from the surface."

Experiments go to prove that sufficient water does not fall as rain to supply the requirements of the plants, and also that the evaporation from a soil hard and compact is much greater than from one which is cultivated, therefore the great need of stirring the soil so that the plants may take advantage of the natural soil water is readily seen, for in time of drought cultivation often means just the difference between success and failure.

Summerfallowing—Plowing Early and Pasturing Off Green Crops.

BY THOMAS RENWICK, MIAMI, MAN.

The absence at the present time, on a Manitoba farm, of any system of a rotation of crops, without which, or some alternative, the land would soon get into a very foul condition through the growth of weeds, gives rise to the necessity for summerfallowing, a practice now so commonly resorted to throughout the Province.

Besides destroying weeds we should also endeavor, whilst fallowing, to get the land more compact, especially when it has got into a loose and powdery condition through long cultivation; and if old, and perhaps getting a little exhausted, it will also be a good policy to try and put a little additional into it besides what it gains from the action of heat, air and moisture in changing part of its insoluble constituents into soluble, when lying turned up during the summer months. Let us see how these points may be to a certain extent accomplished.

When the land is still comparatively new and rich, and the object desired is simply to destroy weeds, to go fully into details of this work will only be to reiterate much of what has already appeared in the agricultural press on this subject. I will simply say that I believe strongly in plowing the fallow ground early, in order to give sufficient time for thorough cultivation before haying and harvest work begins, and for the destruction of weed seeds which this cultivation will bring near the surface and cause to sprout. If the plowing is delayed until just before haying starts, as is often the case, there is little time after this to give it much attention, consequently the weeds get such a firm hold of the ground that nothing short of another plowing will destroy them.

If the field to be fallowed is over-run with French weed, the object ought to be to clean only a few inches of the top soil; this is all that can possibly be done in one season, and this can only be done by early plowing, frequent cultivation to bring seed near the surface, and timely destruction of the young plants when just sprouted. Couch grass is another troublesome weed. I have had no experience of it here, but believe that if plowed up, harrowed to the surface, raked into heaps, and either hauled off or burned, it ought to be kept in subjection, as it is by this method in other countries where it is prevalent. I consider it a very unwise plan to sow turnips or rape broadcast on fallow land infested by French weed, couch grass or any similar bad weed; it will require the whole season to clean very dirty land, and if turnips are sown early enough to insure a crop worth anything, the chances are that weeds will be numerous amongst them, and will probably go to seed, with the almost certain prospect of a dirty grain crop the following season.

On the other hand, let us consider the case of land which may not be very dirty, but having been cropped frequently has become very loose, and might be benefitted considerably by something in the shape of manure. On such land, more especially when of a sandy nature, I know of no plan which will do better than sowing turnips or rape on the fallow land, which has been early plowed and harrowed several times at intervals so as to kill any weeds which may grow upon it.

Whilst I believe that this is the best method of treating land of this nature, still my experience is that there is such a thing as getting it packed too hard, although we have generally been led to suppose that this was quite impossible. A year ago last summer I sowed turnips on the fallow land, and turned a drove of cattle unto it in the fall. They stayed there day and night for weeks, and left the ground when the turnips were consumed as hard as a turnpike road. I had an idea that it ought to be lightly plowed before seeding, but finally resolved to give it only a little surface cultivation and see how it turned out, as solid packing of the fallow land was supposed to be the panacea for all the ills which sometimes befall crops on such land. Last spring it was gone over with the seeder so as to break up the surface a little, a heavy iron bar being fastened along top of hoes to make them go in. The seed was afterwards sown with the common drill, with the aforesaid iron fastened on top of hoes. The grain was put in about an inch deep and was well covered. Dry weather the following June appeared to affect the crop, the injury being caused, I suppose, from the want of a sufficient depth of loose surface soil, which would have prevented undue evaporation. The crop ripened earlier than any other wheat I had, but the yield was disappointing. I consider that this field was altogether too solid, and would not incline seeding on similar land again without first giving it a shallow plowing. This would make a good seed bed, and at the same time leave the soil below sufficiently firm for all purposes, besides burying the droppings of the cattle and the trampled turnip leaves and refuse, which would enrich the land for future crops.

I believe that future experiments will show that growing green crops of one kind or other, and plowing them under just before the stage of maturity is reached, will be a simple method of enriching more especially the lighter class of wheat lands, and in supplying them with the organic matter in which they are probably not so rich as are the heavy clays.

Professor Johnston, in his lectures on agricultural chemistry, when speaking of green manuring says: "In no other form can the same crop convey to the soil an equal amount of enriching matter as in that of green leaves and stems. Where the first object, therefore, in the farmer's practice is so to use his crops as to enrich his land, he will soonest effect it by plowing them in in the green state." And again he says: "Living plants contain in their substance not only all they have drawn up from the soil, but also a great part of what they have drawn down from the air. Plow in these living plants and you necessarily add to the soil more than was taken from it—in other words, you make it richer in organic matter." This method, practicable on a large scale, of maintaining, although perhaps not indefinitely, the fertility of the land, when recommended by such a well-known authority as the above professor, ought surely to be worthy of a few experiments in this country, where a good deal of land which has now been cropped for a long time will require before long some better form of treatment than the usual naked summerfallowing, if it is to continue to grow crops even at a small profit to its owner.

Winnipeg Industrial.

The prize list of the Winnipeg Industrial Exhibition, to be held July 17th to 22nd, has been issued, and a copy will be sent to any one sending their address to the secretary. Some five thousand copies have been sent out. The classes are very considerably increased, and the prizes offered are most liberal, amounting to \$15,000 in all. The time is a week earlier than last year, as it was found to interfere somewhat with the haying season. The C. P. R. again offer to carry exhibits to and from the show free of charge. We see no reason why this should not be by far the most successful exhibition ever held in Manitoba. The handsome prizes offered by the ADVOCATE, of which mention was made in our last issue, may now be seen in the window of Mr. R. W. Woodrooffe's jewelry store, 406 Main street, Winnipeg.

Agricultural Exhibitions.

Calgary, Alberta.....	June 20th to 23rd.
Moosomin.....	July 13th.
Winnipeg Industrial.....	July 17th to 22nd.
Brandon.....	July 25th to 28th.
Boissevain.....	August 3rd and 4th.
Meadow Lea.....	October 3rd.
Birdie.....	" 4th.
North Plympton.....	October 4th and 5th.
Virden.....	" 5th and 6th.
Battleford, N.W. T.....	" 12th and 13th.
Holland.....	13th.

N. B.—Secretaries of Agricultural Societies are requested to send us dates of holding their annual shows, so that we may have a complete list.

Institutes, Take Notice!

Word has just been received from the secretary of the Central Institute, stating "That arrangements have been made with the Northern Pacific, that all institute members going over their lines will be carried to Brandon and return for one fare and a-third, but only upon the following conditions: every one must pay full fare going, and take a receipt for their fare from the railroad agent. The secretary of the Central will give a certificate of attendance at the Convention, which together with the receipt will entitle them to a return ticket at one-third fare." It is expected similar arrangements will be made with the C. P. R. Every farmer should "strain a point" to be present at this FARMERS' Convention. There are many important agricultural subjects to be discussed in this new western land, where we are only beginning to understand many important factors that make for success in our calling. For instance, in our great wheat sections people are finding out that they cannot go on for ever taking wheat crop after wheat crop from the land without returning something to keep up its fertility; mixed farming and stock raising therefore become necessary, and more intensive farming will have to take the place of the slipshod methods of the past, in order to reduce the cost of production and leave some margin for profit in these times of over-production and low prices. It will be noticed by referring to the programme published in our last issue, that a variety of important topics are to be handled by well-qualified speakers. Agricultural education in the schools, than which there are few more important subjects, will be taken up; and freight rates will also come in for a full share of attention. It appears to us that this would be a most opportune time to obtain an united expression of opinion of the leading agriculturists of the province upon the trade question. It is understood that the Finance Minister is desirous of ascertaining the feeling of the rural classes on this all-important topic; therefore, if we have any opinion to offer surely we should be prepared to give intelligent and emphatic expression to that opinion, and we consider this is far too important a question to allow the intrusion of any paltry party feelings. In fact, at this critical period of our history no farmer with the best interests of his adopted land at heart should miss this Central Institute Convention.

Notes from England.

After one of the driest springs since the beginning of the century, the parched fields and pastures have been refreshed by a more or less copious rainfall. The first cut of meadow hay may be said to be entirely destroyed, but a good single cut, which will not be ready much before the second crop usually is, may be obtained. The rain has come too late to insure a good crop of clover, though the bulk of the crop will be considerably increased.

We must hope for a good aftermath, which can be made into hay or silage—the former from choice, as "hay will be hay" this season. Prices have advanced and are likely to go much higher, so that there will doubtless be a considerable profit made by exporters in sending bailed hay to this country.

The British Board of Agriculture have published the agricultural produce statistics of Great Britain for the past year. We notice that with the exception of oats and turnips the estimated total produce of every crop has fallen below the estimate for 1891. Hay is only estimated at 11,500,000 tons while even the bad year of 1891 the yield exceeded 12,500,000 tons. This reduction is due partly to the unfavorable weather, and also to the serious damage by blights, mildews and rusts.

The farmers and stock owners have presented a petition to the salemasters of Scotland, showing that the selling of cattle and other live stock by weight is the fairest method, and urging its adoption upon the dealers. They also ask for a sworn weigher to be appointed at each market, and that the weight be marked on a blackboard which will be visible to the buyers and sellers during the bidding.

A very serious outbreak of cattle plague has occurred over the Russian Steppes, stretching as far as the Caucasus. Regulations have been issued for the compulsory slaughter of diseased animals, and also of all animals in contact with those diseased. Owners will receive compensation for all animals killed.

Readers of English papers on your side of the Atlantic will regret to hear of the death of the Rev. Geo. Gilbert. He was a well-known contributor to a number of our agricultural papers.

Since the introduction of Indian rubber tires on the wheels of hansom cabs, on the streets of London, there have been so many accidents to pedestrians that the police have refused to license any cabs of this description unless they have bells attached to the harness or some part of the cab to give notice of their approach to the unwary foot-passenger.

The result of an experiment made by Dr. Royer upon the influence of sugar in the constitution of butter, by the addition of sugar in a ration of dairy cows, is found to be that it lowers the point of fusion of the butter. The action of the sugar is equally felt at the point of fusion of the fixed fatty fluids.

At a meeting of French agriculturists during the late Paris Cattle Show, a paper was read on animal tuberculosis, in which the statement was made that ten per cent. of the cattle suffered from this disease. They have a sure method of diagnosing tuberculosis even at its inception, by the employment of tuberculine. When injected into animals suffering from this disease it immediately raises the temperature of animals which had previously showed no signs of the disease. By this means the healthy animals could be separated from the diseased. A number of breeders have already tried this method, and report satisfactory results.

It will be interesting to many to learn how things were managed in the good old times. 1697 was a year of great depression, and many farmers were ruined. Whereupon Her Most Gracious Majesty Queen Bess did make an ordinance respecting the London companies who dealt with farm produce. And Billingsley, Lord Mayor of London, thus proclaimed on April 19th, in the 29th year of Elizabeth:—Item, this daye, accordyng to Her Majesty's commandment, signified to my Lord Mayor by the letters of the Right Honorable the Lords of H. M. Privy Council, purporting that during this summer season, in respecte of the presente scarcity and dearth all the severall companys of this city do from hensforth forbear to make any feasts in their halls or elsewhere for the avoiding of consumption of vittalls; and that one half of the charge—intended to be spent in such feasts—shall be paid in money, by such persons as are to be at charge, to ye handes of Thomas Ward and Richard Wright, collectors. And the same moneys so collected shall be from tyme to tyme employed by them toward the relief of ye pore." That is a livelier method of helping distressed agriculture than is the appointing a Royal Commission.

An interesting example of electricity as applied to farm work has been in operation for some time at Ardwell, Wigtownshire. The whole of the usual farm machinery—such as threshing, sawing, corn-crushing, and the like—is here driven by an electric motor. The electricity is generated by water-power, the turbine wheel which drives the dynamo being about a thousand yards from the farm. The electric current is conveyed by wires to the house and farm, in each of which a storage battery is placed. These supply the electric current for lighting and motive purposes when the machinery is not working. The whole of the mansion-house is lit with the electric light, and an electric motor is provided for pumping water for domestic purposes.

At the farm, which is also lit throughout with the electric light, there is a larger electric motor of 16 horse-power which is arranged to drive the farm machinery. This it does quite easily. This motor runs remarkably smoothly and quietly, and requires no governor, as the speed does not vary whatever the load may be. This is especially noticeable when sawing, the power required for which is constantly altering. Another feature of interest is ease and quickness in starting. There is no waiting to get up steam, as the motor is at once started by moving over the switch handle. There are many places in Scotland where water-power now running to waste could be utilised in a similar manner. When the distance is great it would be advisable to run the wires on poles overhead. The above work has been carried out by Mr. R. Frederick Yorke, A. I. E. E., electrical engineer, of Glasgow, under the instructions of Sir Mark Stewart, Bart., of Southwick, M. P.

The West Ross Farmers' Club has been deliberating on a scheme for the relief of old age, and passed a resolution declaring that everyone who has reached the age of 65 should have a pension five shillings a week.

Some time ago the Board of Railway Managers of this country withdrew all free passes for herdsmen and others in charge of live stock. A strong deputation of farmers and members of the leading agricultural societies laid the matter before the managers, showing that this act would prevent the exhibition of stock at the shows. The result of this consultation was that the board with becoming grace abandoned their position, and we hope that the right of men in charge of stock to passes will never again be questioned.

Large quantities of potatoes are leaving the Clyde for America, two steamers recently leaving with 944 tons, valued at £3620.

QUESTIONS AND ANSWERS.

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

Veterinary.

ANSWERED BY DR. MOLE, M. R. C. V. S., TORONTO.

BRONCHITIS AND SCAB IN SHEEP.

SAMUEL MACNIDER, Little Metz, Quebec:—"Our sheep are troubled with a discharge from the nostrils which goes down their mouths and causes them so much coughing as to nearly choke them. They also kept pulling their wool out during the last winter, and, on examination, we find the skin covered with a yellow, scurvy-like scab. Please state what the diseases are and prescribe for them."

Your sheep are suffering from a severe attack of bronchitis, due to the cold, wet spring combined with exposure, the increased secretion of mucus collecting in the bronchial tubes causing the distressed breathing. Treatment consists in removing the animals to a covered shed, where you have security from the chilly nights and cold draughts. If the patients are inclined to feed, you must be very cautious and feed sparingly; apply some stimulating liniment to the sides of chest, and give a teaspoonful of sweet spirits of nitre and whiskey in gruel; also allow some powdered nitre in the water to drink. Should these instructions be carried out, in most cases you may look forward to recovery in about a fortnight. Scab in sheep corresponds in every way to mange in dogs, horses, cattle, etc. Separate healthy from diseased animals, and employ some dipping mixture. There are so many that it would be unfair to offer any opinion respecting them; my experience favors "Little's Sheep Dip and Cattle Wash", used according to directions; but must not be used whilst the animals are unwell.

BARRENESS IN MARES.

ALBERT SALMON, Thorndale P. O., Ont.:—"I am a breeder of thoroughbred Suffolk horses, and have a young mare rising six years old. I started to breed her at four years old, and she missed. I tried her again last season to two different horses, and still she missed. I would be glad if you can give me some advice to get her in foal, as she is a valuable mare."

This is not uncommon in thoroughbred stock. For some reason (nature has not given any good explanation), as soon as you develop extra quality, the mares will not breed or the males are impotent. In some cases some trifling change of the mode of life, feeding, working, or the water will be the cause. In others a too lax condition of the Os uteri, or a too rigid one, will be the cause in a maiden mare. It may be due to a want of tone in the system. I would advise that you give some good nourishing diet, a dose of laxative medicine, and then a dose of uterine stimulant, which may be procured from any veterinary surgeon. Also at the time of covering use one of Lyford's impregnators, which have been successful in our land.

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

DEFORMED FOAL.

THOS. COPELAND, Saskatoon:—"I have a colt, fourteen days old, that is lame from birth in the left hind leg. At first it could not stand, and had to be held up to suck, but in two days it was able to rise and suck alone, although it scarcely used the left hind leg. It is in good condition and thriving well in every way, excepting that leg, which does not improve satisfactorily. When foaled, both hind legs were bent, the right outward and the left

inward, and the latter was not then, and is not now, so well developed as the former. The left leg appeared to be more bent inward than the right was outward. The right side is now pretty well straightened up, and the left side is not so bad as it was. I have been under the impression that the hip was dislocated. Is that likely? In short, can I do anything for the colt without the aid of a veterinary surgeon, as we are so far from one that it would not pay to bring him for the whole value of the colt?"

The deformity of the colt is doubtless due to its abnormal position in the womb. We have seen several similar cases, and in each of them the deformity entirely disappeared by the time the colt was three months old. Medical treatment or surgical appliances of any kind are useless. Leave the case altogether to nature, and we think that a satisfactory cure will be the result. The hip joint is not dislocated.

LAME OX.

ESTEVAN, Assa:—"Kindly answer, through the ADVOCATE, the following question: While plowing last fall my ox appeared to step on something and could not bear to put his foot to the ground; he then seemed to get better, putting his foot down with an effort and pointing the toe on the floor, but, as time wore on, that hip (high side) became considerably thinner than the other. He eats and works well; is still lame, but, if worked rapidly, loses lameness for a short time. What is the trouble and the cure?"

The shrinking of the muscles of the hip does not necessarily indicate that the seat of lameness is in that region, as that condition would likely occur even if the trouble was in the foot, or in some other remote part of the limb. Examine well the stifle, compare it with the other one, and if you can detect any difference, you may apply the following blister:—Biniodide of mercury and cantharides, of each two drachms; vaseline or lard, three ounces; rub into the part well with the fingers; let it remain for forty-eight hours; wash off, and apply lard to the blistered surface. Give the animal rest.

Miscellaneous.

DANDELION AND OX-EYE DAISIES.

C. B. MAYNE:—"Kindly inform me if dandelions and daisies are an indication of poor land. What should be done to eradicate them?"

These plants are not an indication of poor land. If they once get a foothold they are equally as bad on good land. We have never known the dandelion to give trouble in cultivated fields, or in meadows that are cut for hay. They are often troublesome in lawns and old pastures. Either break up the sod or take one or two crops of hay, which will usually smother them out. If only a few are present the spud may be used.

The ox-eye daisy is, however, a much more difficult plant to deal with, and is one of our worst weeds. We might almost say that it is the worst to get into pastures and meadows. It is a perennial with stems from one to two feet high, but when cut repeatedly it will flower within a few inches of the ground. If there are only a few over the fields carefully about the time they blossom, and pull, being sure to get all the roots. Do not neglect fence corners and waste places. A bare fallow or hoed crop with careful picking the following year will often be quite successful in destroying them, but if the land is badly infested it will be necessary the second year to plow in one or two crops of buckwheat, or grow a crop of green feed, such as rye or millet. The third year plant, rape, corn or turnips. If these crops are thoroughly cultivated the daisy will be entirely destroyed.

LEGAL QUESTIONS AND ANSWERS.

[Answers to legal questions of subscribers, by a practicing barrister and solicitor, are published for our subscribers free.]

LINE FENCE.

In 1890 A and B rented a quarter section from C, which was fenced on three sides, but only partly fenced on the fourth side, adjoining land owned by D. D refuses to build his share of the line fence, but makes use of the part already built by C, and wishes A and B to keep it in repair; this they do. Still D puts his dog on A and B's cattle, which is liable to cause them great damage. There was nothing regarding this matter in the lease between A and B and C. Now, is D liable for damage done the cattle by his dog? And who has to put up the line fence, A and B or C or D?" PORTAGE LA PRAIRIE.

[In the first place, A and B must certainly not allow their cattle to stray on to D's land. If they do, D has a right to chase them off, using a dog for the purpose if he chooses. In the next place, D's dog must not chase the cattle when they are not on D's land, and if the dog does so D would be liable for any damages done. In the next place, as to the line fence, C, as the owner of the land, has a right to build the line fence, and can compel D, as the owner of the adjoining land, to pay a proportion of the value of the line fence.]

DISPOSAL OF GOODS.

What is the penalty for disposing of goods held under chattel mortgage?

FARMER.

[There is no special penalty. It is generally provided in the mortgage, however, that if the mortgagor sells the goods the whole mortgage money shall at once become due and payable. Before saying what might be the penalty in any particular case, it would be necessary to see the mortgage.]

Rape and Flax.

BY R. BARCLAY.

These are two of the most useful articles in a mixed farming district, and consequently cannot be done without very well in Manitoba. I notice in your last issue, and the previous one, some useful and salutary information regarding the first as to its utility in clearing land and feeding sheep, and I would like to give you a few remarks upon the benefits to be derived from it for cattle and hogs.

We have one of the old-fashioned seasons this spring, with plenty of water, and wet spots on many farms that will not, under any circumstances, be in a fit state in time to sow any kind of grain, unless for cutting green; these places can be more profitably utilized by many of our farmers by sowing rape seed thereon. I had about an acre last season which was very wet—in fact, it was under water on Dominion Day and looked as if it would be no use; but it dried up considerably, and while it was damp and rather difficult to work, I seeded it down (broadcast) with rape in the middle of July. It succeeded magnificently, and without doubt was the best paying piece of land upon the farm. The best time for putting in this crop in this country is the first week of July, when you should plow your land moderately deep, harrow thoroughly, sow broadcast, and give only one run of the harrows after sowing. This treatment kills all weeds, and keeps your plants from becoming too rank or running to seed; if it is sown earlier in the season, especially if it should be caught by one of our June frosts, it will of a certainty go to seed and be next to useless. This vegetable occupies a position midway between the turnip and the cabbage, containing more of the character and properties of the latter, and therefore making it more serviceable for milch cows than turnips, and much cheaper than cabbage—the heaviest milk-producing vegetable we have. It comes in handy in the early fall, when the grass gets dried up; give it to your cattle in the pen when they come home in the evenings. This insures, not only a good and regular flow of milk, but also your herd being in their proper place over night. Begin by feeding gently at first, and increase by degrees, and when the grass is pretty well done up by frost turn your animals on to the rape field, which withstands a deal of frost, and makes good grazing when nothing else is to be had.

I never had any difficulty in getting the right seed when I ask for it correctly, and have had it from Keith & Co., of Winnipeg, several seasons, which has given satisfaction on every occasion. Before closing I may say to all who go in for hog raising, do not let another season go over your heads without having this commodity, as it is relished by the pigs, and when fed along with chop (dry) fattens more quickly, mollifies and sweetens the pork, and brings it to killing maturity faster than anything I ever tried. Rape is far ahead of potatoes for hogs, and can be (?) with much less trouble and expense.

FLAX.

Every farmer who has had any experience knows that if he has horses and cattle he should never be without this most useful and valuable grain, and allow me to tell that it can be raised a great deal cheaper than it can be purchased. If there is one thing more annoying than another it is, when you happen to be called out to assist a neighbor with a sick horse or cow and find that he has not what is required, viz: Linseed, and also that at the store he has to pay at the rate of from four to eight dollars per bushel for it. For years I have tried to persuade farmers as to the benefits to be derived from growing this crop, but as yet with a very small amount of success. Some object to it, as they say it is too hard upon the land—takes all the strength out of it; others say you must put a great deal of work upon it, and unless you have it exceptionally well filled you will have no crop. Now, while I admit that you are likely to have a heavier yield upon well-cultivated soil, I have seen many instances of from eight to sixteen bushels, aye, and even twenty to the acre upon breaking; and as to the first objection, there is no doubt whatever that flax draws a good deal of the strength out of the soil, but it pulverizes better than backsetting or anything else, and I have never in this country seen a poor crop come after it—in fact, the best wheat in the Mennonite settlement has invariably followed flax. Where the soil is very heavy it makes a fine cropper after summerfallow, to be followed by wheat, as very often the ground is too rich and would keep wheat, barley or oats growing until Xmas if not interfered with by frost. I hear great complaints against raising this crop on account of not being able to get it threshed; now, these might have had a little force some years ago, but every thrasher knows very well that all that is required to do it satisfactorily is to exercise a little care, reduce his speed and govern the windage, and if the thrasher will not bring about the desired result under these circumstances, pass it a second time through the machine, when it will come out as clean as a whistle—there is no use of leaving any grain in the straw, as it is utterly unfit for feed or anything else except smudges. Sow some time in June and harrow lightly, so as to keep the seed near the surface.

Poultry on the Farm.

BY MRS. IDA E. TILSON, WEST SALEM, WIS.

I was lately asked whether I would ever be "written out" on this poultry subject. Well, anyone who interestedly cares for a real, live, wide-awake flock, like mine, will find experience piling up every day faster than pen can tell. Then, too, experience begets observation. Those who have been "through the mill" and found our poultry business requires so much skill, science and patience, can never after get enough of observing how other poulterers are doing and coming out. When I was a little girl, I heard a showman at the door of his place say over and over, "This will go right on merrily all the time." So, whether merrily or not, poultry culture and poultry love do go right on. Our Ex-Secretary of Agriculture, Mr. Rusk, said in one of his later reports, the poultry industry could no longer be ignored, since it had risen from insignificance to national extent and importance.

We have now reached a sort of yearly "round up." Probably our chicks are all hatched, and discoursing as follows:—

"It's wonderful," said a chick,
 "That a small shell, not very thick,
 Held me, I'm such a big bird.
 No doubt it's untrue. Fool! Absurd!
 That shell, 'twas none the less true,
 Once held that chick, the old hen knew,
 Who did her young one advise,
 The day of small things not to despise."

Sustaining the vitality and growth of our chickens, sorting out and selling surplus cockerels and fathens, clearing up premises for the autumn and winter campaign, is now our work. Keep the grass run well-mowed, for it is thus tenderer eating and does not bedraggle chicks. My "bump" of caution prompts a word on the careful use of eyes and scythe. I have known a cat's leg nearly severed and of several narrow escapes by hens. Farm poultry ought to have the blessings of a large run. Plant a little more garden, allowing enough corn and tomatoes for both yourselves and fowls. We have always done so, and get sufficient garden stuff to bestow even on those who shut up their hens. For when brought up, from the first, around a garden, biddy is less likely to do damage than when allowed in only now and then, or getting there by chance, reminding us of the half-starved boy at a picnic. Biddy's main aim is extermination of bugs, and her injury to plants chiefly accidental and incidental. We thought our hens disposed of the currant worms and preserved some of the bushes alive without other remedy. An acquaintance tried, by dissecting a number of sick chickens, to learn the cause of some mysterious malady visiting her flock, and was surprised at the large number of familiar insects found in the crops even of those partially disabled individuals. Other poulterers take an opposite course from strict confinement, and think when grass grows well and chicks are a few weeks old, their whole flock can entirely shift for itself. I go, breakfast in hand, to unlock my houses mornings and feed my fowls before they scatter, thus preventing many from plunging into a wet bath, as hungry birds do, among rank, dewy weeds and grass. Supper served at the hen-house also calls fowls earlier out of the chilling night dew. If cockerels ready for early sale before the market is glutted and prices fall, if hens fit for the table without special fattening, and if precocious pullets are desired, all three classes must be well kept up. I had to stop writing at this point and make my remarks practical by washing and boiling a kettle of potatoes, what I had already provided having gone away faster than the morning dew. Potatoes are a little clogging, and not so good, of course, for very young chicks as for those half-grown and older. A ten-cent vegetable brush, or even a scrubbing one, hastens the work of preparation. When potatoes are cheap, I take larger ones, as they are easier washed and more wholesome, but if dear, small specimens do very well. I also continue my onion chopping quite into the summer, since some doctors rank raw onions among the best liver medicines going. An old saying is, "You can't eat your cake and have it too," but onions are different, and a lady who relishes my eggs very much said to me lately, "I am so glad you don't feed your hens onions." I told her I did and must provide them for the health of the fowls, but that I added so many other flavors, and seldom fed any strong thing two days running, that my patrons detected onions in neither flesh nor eggs. My "Dutch Cheese" is not rosy, but crumbly, and best when made slowly. I have an asbestos or "augite" stove-mat, on which I set a pan of clabber that then cooks without attention, and is turned into a pan perforated like a skimmer, for draining off the whey. Though we have grass, sunshine and fresh air now, bowel trouble is more frequent than in winter's nipping air, which kills every germ and vile thing. If bowel complaint comes, a little alum or lime in their drinking water, two or three days, will restore the sufferers. If you cannot guess how strong to make the solution, taste of it once or twice, as I have done. If you undertake to doctor a whole flock through their drinking water, every pool in the vicinity must be medicated, too, or covered. A reduced amount of pudding, and powdered charcoal in it, are good remedies. By the way, you can get a firmer hold of a large, round, wooden stirrer than of a spoon handle, and thus mix puddings easier. Corn is so cheap and handy, people often ask why they cannot feed it freely, as our forefathers did. They could if the modern hen had as much exercise

and as few demands upon her, and it is true to-day that our farm fowls stand more corn than confined, artificially-raised birds can. If hens get over-fat, reduce their grain ration of every kind, or they become lousy, not being active enough to rid themselves of pests; their feathers grow scanty on rear and breast, where the fat is thickest and body hottest, and occasional clots of blood in their eggs show some of the little internal blood vessels are probably breaking under such pressure. Before chickens come into market, the surplus of fat hens can be sold well without special fattening in a close, dark place, and cockerels, if sold or separated early from the pullets, need not undergo caponizing. The same butcher who took my fowls last year came to ask for them this year, and said he had never found a poor one among them. The home market always has room for the best.

As people become experienced, the wider they see the field of knowledge opening before them. Such realize that neither themselves nor others know and have tried everything. They "prove all things and hold fast that which is good." Comparison of experiences in their farm paper or an exclusive poultry paper, or suggestions from any kindly, courteous source, are welcome and helpful to them. A recent poultry paper contained a plaint from a person who, having read so much in it about oatmeal, had fed little chicks first and entirely on coarse, unhusked, domestic-ground oats, till many died. Although writers should be both accurate and explicit, I long ago studied out that table oatmeal was intended. So it would be difficult to recommend a faultless writer or a paper which had left nothing unsaid. I am reminded of that story about a small church that desired a learned, humble, brilliant, careful, and, in short, perfect minister. Their presiding elder wrote back they had better call good old Dr. Smith down from heaven, as there were none such on earth.

I have been weighing eggs, which is a rather interesting, profitable investigation, since those of the same size vary in density. I have heard those old enough to remember the ancient hen say our modern biddy is meatier and her eggs heavier, developed thus by continuous attention in feeding and breeding, a progress desirable when both poultry and eggs are sold by the pound, instead of by the fowl or the dozen. Probably many readers have noticed how much substance Plymouth Rock eggs give custards and cakes. An acquaintance told me she had customers who gave two cents a dozen more for them than for White Leghorn eggs. I have had buyers who much preferred the Plymouth Rocks at the same price, and many grocers sort their eggs into dark and light lots. Leghorn fowls compensate, I think, for any deficiency in matter by laying more eggs in number. This may be given as a sort of general rule, with exceptions, of course, that the more eggs a hen lays the less substance and vitality each egg can have. My hens are kept laying for all that is in them, since egg-production is my department, but I do not claim large hatches. An average of a little over seven chicks to a setting has been an almost yearly result, over one-half of which are cockerels in early broods. Later hatches usually give more pullets. Eggs where less of a forcing process is employed probably yield a larger number of chicks, but can hardly produce better layers in turn. I have learned not to be faithless concerning any setting, however much appearances may be against hope. One such this year—an exception, I am happy to say—was thrice left till cool, and placed under three successive hens in two different houses, but finally yielded five fine chicks, after searching so long for a suitable mother and a spot for the soles of their feet. So, those high-priced eggs we buy ought to stand some hanging by the expressman and do fairly at last. I am quite satisfied with my choice of pullets for setters and mothers. Josh Billings says, "When yer don't know what ter dew, don't dew it." A pullet proceeds on his plan. She moves about less and treads on fewer. An old bird is all a-fire to show those chicks she knows a thing or two, particularly those fine scratching places found last year, but usually runs with her brood a longer time, simply because she has less call to lay.

When patience and perseverance have done their best work on our birds, some may still "loaf around," as it were, idle and indifferent, yielding no eggs at all, neither large nor small. How shall we certainly know our paying hens? A good layer is always a well, lively hen, and a well, lively hen is usually a layer. The brightest combed, most self-helpful, independent, happy fowl, the strongest scratcher and loudest singer, usually produces eggs in proportion. Her musical lay seems particularly connected with that other kind of lay. Many hens lay characteristic eggs, that is, each one's eggs have a shape differing slightly from others. Frequent visits to poultry quarters will connect the hen, her nest and her product. By watching and catching biddy in the act, our best layers can be determined, and their eggs set to produce a laying strain.

The gathering and care of eggs, if there are any to gather, demand considerable attention. Several layers will successively choose one favorite nest, thereby continually reheating the first egg laid therein that day, which egg may also be the very one left over night, if artificial nest eggs are not used. It is said a fertile egg starts into life when raised to a temperature of 92°. Should this process begin and stop a few times, the embryo of the chick dies and decay follows. Some, therefore, recommend non-fertilization. But one year I sacrificed every

chanticleer, and hawks almost immediately discovered my feathered watchmen and detectives were gone. They could, for once, surprise and taste spring chicken. My uneasy hens also seemed to miss their advisers and peacemakers. The New York Experimental Station once decided that fertilized eggs keep as long as unfertilized, provided the former are never started into life. Gather your eggs often, whenever at poultry quarters bringing in what there are, then keep in a place of suitable temperature, and neither frozen eggs in winter, nor "chicks on the half shell" in summer, will be your reward. No egg testers will be required, and your fowls, like mine, can hardly get a chance to learn the vice of egg-eating, especially if, in addition, every egg-shell thrown out is first crushed out of all likeness to its former self. Any nest which shows traces of a breakage better be temporarily closed, and beginners will not know they can go elsewhere to do their wicked deed.

The Hawks and Owls of North America and Their Relation to Agriculture.

Bulletin No. 3 of the United States Department of Ornithology and Mammalogy describes the above birds and their value to the farmer. The statements made in this book regarding the foods consumed are based upon a critical examination of about 2,700 stomachs, thus showing the enormous amount of labor expended in compiling the work. The results prove beyond a doubt that a class of birds commonly looked upon as enemies of the farmer and destroyed whenever occasion offers, really ranks among his best friends, and, with a few exceptions, should be preserved and encouraged to take up their abode near his home. Only six of the seventy-three species of hawks and owls are injurious, and of these three are so rare that they need not be considered, and another, the Fish Hawk, is only indirectly injurious, leaving only two, the Sharp-shinned Hawk and Cooper's, or the true Chicken Hawk, that really need to be taken into account as enemies of agriculture. Omitting the species which feed largely upon poultry and game, 2212 stomachs were examined, of which 55 per cent. contained mice and other small mammals, 27 per cent. insects, and only 34 per cent. poultry or game birds. In view of this the folly of offering bounties for the destruction of hawks and owls, as has been done by several states, becomes apparent. When certain birds are known to be harmful, the farmer has a right to demand that the protection of the law be withdrawn.

At first sight it would seem an easy matter to divide birds into the two great classes of injurious and beneficial, but in fact there is no more difficult task, because their habits vary with the different locations and the different seasons of the year. For instance, the bobolink is one of the most highly prized visitors of the Northern States and Canada, but in the Southern States this same bobolink, there called the rice bird, annually damages the rice crop to the extent of a million dollars. The crow is considered one of the worst enemies of the corn field, but when the corn is past danger the crow changes from an obnoxious to an exemplary member of bird society, and wages war against the cut-worm and other insects.

In spite of the general opinion that these birds are injurious, the investigations go to show that owls are among the most beneficial of all birds, inflicting very little damage upon the poulterer, and conferring vast benefits upon the farmer; also that all hawks, with possibly one or two exceptions, are to some extent beneficial to the farmer.

This work divides hawks and owls into four classes; the first contains six wholly beneficial or harmless birds, of which the Rough Legged Hawk, or wrongly named Hen Hawk, is the best known. This hawk lives principally upon mice and other small rodents. The second class includes those which are mainly beneficial, and contains thirty-four varieties, of which the best known are the Sparrow Hawk, Barn Owl, Screech Owl, Hawk Owl and Snowy Owl. The third class includes those in which the good and evil balance each other. This class contains seven birds, of which the Golden Eagle, Bald Eagle, Pigeon Hawk and Great Horned Owl are well known. The fourth or injurious class has already been mentioned; Cooper's Hawk is a common species throughout the United States and Canada. Much of the ill-favor with which birds of prey are looked upon is due to the depredations of this true Chicken Hawk, together with its smaller congener, the Sharp-shinned Hawk. Unquestionably both species should be destroyed whenever and wherever possible.

It will be seen from this bulletin that of our birds of prey there are but two which deserve to be put upon the black list and pursued without mercy. The greater number pass their whole lives in the constant performance of acts of great benefit to man, or else make good any injury they may do poultry or insectivorous birds by destroying a greater number of animals known to be hostile to the farmer. This bulletin, which contains a description of nearly sixty varieties, with handsome colored plates of about twenty-five of them, was prepared under the direction of Dr. C. Hart Merriam, Chief of the Department, by A. K. Fisher, M. D., Assistant Ornithologist.

Active preparations are being made under the direction of Sir Charles Tupper for the proper representation of the agricultural resources of Canada at the show of the Royal Agricultural Society of England, which will be held in June.

The Importance of Attention to the Little Things in Dairying.

BY J. W. WHEATON, SECRETARY WESTERN DAIRYMEN'S ASSOCIATION.

The most successful man in any department of work is the man who looks well after the little things connected with his business. That old proverb: "Look after the pence and the pounds will take care of themselves," is a very apt one, and its logic will apply to nearly every variety of trade and business. Many men pride themselves on the comprehensive knowledge they have of their particular vocation, and theorize as to the best methods of doing certain lines of work, giving their attention to general principles more than to details, and afterwards wonder why the work has not been successful and returned a handsome profit. Many farmers neglect too often the little leaks on the farm and the waste places where the profits are gradually oozing out, and then complain of hard times and the unprofitableness of the business of farming at the present time.

To no other business will this golden rule apply so well as to the business of dairying. The man who provides himself with a dozen good cows, and feels that he is a successful dairyman because he has the machine by which to manufacture milk, will find that his venture will be an utter failure, unless he gives particular attention to the little details in connection with the handling of his cows and the proper care of the milk.

As the subject of dairying is a very wide one, we will confine ourselves in this article to some of the details that the patron should give particular attention to in furnishing milk to a cheese factory.

In the early history of cheesemaking in Canada, there was not much attention given to the care of milk. In fact, the cheesemaker would not return milk received at the factory unless it were thick or very sour. The quality of cheese required to meet the wants of the consumer in Great Britain was not so high as at the present time. Inferior goods could be disposed of quite readily at fairly remunerative prices, and hence the maker was not so particular about the quality of the milk received by him. But that day has gone by, and it is no longer profitable, nor is it possible, to dispose of inferior goods in the British markets, except at a sacrifice, and consequently the manufacturer must turn out a first-class article if he expects to get a first-class price, and in order to do so he must have a pure, sweet quality of milk. A great many patrons complain because their cheese maker is so particular about the flavor of the milk, and because it is returned when it has only a foul odor and is not thick or sour, and a few consider him not so capable as the maker of twenty years ago because he cannot make a first-class article of cheese out of an impure quality of milk. This has never been done, and cannot be done at the present time, for unless a cheesemaker has good, pure milk, he cannot be expected to manufacture a first-class article of cheese out of it.

We have a fairly comprehensive knowledge of the main principles of cheesemaking, and the only way to still further improve the quality of our Canadian cheese is to give particular attention to the little details both in connection with the process of making, and also in the handling of the cow and the proper care of the milk before it reaches the factory. The little things connected with the care of milk and the handling of the cows are entirely under the control of the patron of the cheese factory, and it is his duty to attend to these little details and to see that only good, pure milk is sent from his farm to his cheese maker.

The first essential in successful dairying is that the cow should have an ample supply of good, succulent food, an abundance of pure, fresh water, and a lick she cares to lick. Then it will always pay to treat the cow as kindly as possible. There is no animal kept on the farm that will repay for kind treatment and best of care as well as the cow. A first-class milch cow has a very fine and delicate nervous system, and if she is abused or handled roughly, this abuse and rough treatment will excite her nervous system and will react on the organs engaged in the elaboration of milk, thereby lessening the quantity and injuring the quality of the milk that she will give. Ex-Gov. Hoard tells of a visit he made some time ago to one of the Southern States to see a celebrated butter cow. When he arrived at the place and enquired if he might see this valuable cow, he was greatly disappointed on being told by the proprietor that he would not take \$1000 and allow a stranger to look upon that cow just then, as she was undergoing an important butter-producing test. The very fact of a stranger looking upon that cow at that time would excite her nerves and react upon the production of milk. This may be considered by many as an extreme case, but nevertheless it is the experience of a man who thoroughly understood the cow and knew what conditions and treatment were calculated to enable her to produce to her utmost capacity. Not long ago, in conversation with a lady in one of the leading dairy districts of Western Ontario, she told me that whenever she supervised the milking, their herd of twenty cows would always give twenty pounds more milk than when her husband looked after the milking. The lady would not allow any talking or any noise in the milking yard when the cows were being milked, while her husband was not so particular about it, and hence the increase in quantity of milk by giving attention to one of these little things.

One of the chief difficulties we have to contend with in our Canadian cheese is bad flavor. In comparison with the best British cheese, it lacks the fine, creamy, rosy flavor that the British cheese has. Now, the best way to overcome this difficulty is to take the best possible care of the milk, and supply only a pure article to the cheesemaker. There is no substance so susceptible to all foul odors and bad flavors as milk is. It seems to be the nature of milk to take in these impurities, if they are around, and milk seems to be a very suitable medium for the growth and development of the varied forms of bacteria that are constantly in the atmosphere, and consequently it is the duty of every patron to protect the milk and prevent these germs from developing in it. It has been found by actual experiment that nearly all the bad flavors and bad odors found in milk get into it after the milk has been taken from the cow. Milk has been taken from cows under such conditions, by sterilizing the milking utensils and preventing the air from coming in contact with it, so that it could be kept perfectly sweet for any length of time. Now, it is not possible for the dairyman to prevent the milk from coming in contact with the atmosphere, but, by giving particular attention to the following, he may be able to prevent so many of these germs from getting into the milk, and to overcome the evil results connected with them:—

1. See that the milking utensils, pails, etc., are in a perfectly clean condition, and that the seams and crevices are not harboring any of these foul germs because of not being properly cleansed and scalded.

2. Observe the strictest cleanliness when milking, and do not allow the dust and dirt from the udder to fall into the milk, but have the udder brushed or washed before beginning to milk. Cows can be milked in a more cleanly manner with dry hands than with wet ones, and just as easily when the habit is formed.

3. Have the same person milk the same cow as much as possible, and milk the cows at the same hour every day. They will become accustomed to this regularity, and will give their milk more readily and will give more of it.

4. Have the milking done in a place where the atmosphere is pure, and do not allow any cesspools, hog troughs, whey tanks, etc., near the milking yard, as the fresh, warm milk will quickly take in the impurities from them if they are around. In many of our factories, during the spring and fall, the cheesemakers have to contend with a disagreeable stable odor in the milk, due to the cows being milked in badly ventilated stables. Now I don't want to be considered as condemning the milking of cows in the stable, for I believe if the stable is properly ventilated and the atmosphere is pure, it is the proper place in which to milk cows, but let the stables be well ventilated and the atmosphere pure.

5. The milk should be strained in every case as soon as it is taken from the cow. Too many patrons neglect this, and think because the milk is strained at the factory, that is all that is necessary. It does not hurt milk to put it through the strainer if it is clean, and if there are any impurities in it, they should be taken out immediately.

6. Do not forget to thoroughly air the milk as soon as it is taken from the cow. This is one of the important things in caring for milk, and whatever else is neglected, do not forget to thoroughly stir and air it. By airing, the animal heat can be taken out, and if the cow has been drinking foul water, the evil results from it will not be so great. A large number of the bad odors in milk are produced by what are known as the alkaline ferments. Now, one peculiarity about these micro-organisms is that they grow better when not exposed to the atmosphere, and consequently airing the milk will put it in a condition to withstand the growth of these germs. Bad flavors in milk prevent the rennet from properly coagulating the milk and not so much curd can be got from it, and also, these bad flavors leave the curd in such a condition that there is more or less loss of butter-fat in the whey, and this may account for the large amount of fat found on many whey tanks, which so many patrons complain about.

7. If the milk has been stirred and aired for fifteen minutes after milking and put in a pure atmosphere to keep over night, and stirred occasionally during the evening, it will not be necessary to cool it to a very low temperature in order to preserve it over night. A temperature of 65° Fahr. will suffice. Do not let cooling take the place of airing.

8. Too much stress cannot be put upon the necessity of having the milk cans thoroughly scalded and cleansed, and especially where the sour whey is returned. The whey should be dumped out as soon as the can is returned from the factory, and the can thoroughly scalded and cleaned with boiling water and put in a place where it will get the benefit of the sun's purifying rays. It is much better not to allow the whey to go back in the cans, but to dispose of it at the factory, as the majority of our best factories are doing.

Too often the care of the milk is neglected because the patron feels that attention to these little details is unnecessary and unimportant, and consequently the quality of the milk is injured and the cheese is inferior. Now, if every patron of a factory would look upon attention to these little details as a necessary part of successful dairying, the work in connection with them would not be so irksome, as in doing it he would feel that he was enhancing

the value of the milk and improving the quality of the cheese at his factory.

I am sure every one connected with the dairy business is proud of the present reputation of our Canadian cheese and is anxious to still further improve its quality, so that our cheese will have no competitor in the British market. This can be done by giving particular attention to these little details in connection with the business, and supplying only pure, sweet milk to the cheese factory.

Cross-Breeding for Mutton.

BY D. M'CRÆE.

Sheep breeding for mutton has not had in Canada the attention it deserves. There has been in the past a good deal of haphazard grading and crossing, resulting in many cases in a very nondescript flock of varied quality and type. The bulk of Ontario flocks are still of the long-wooled breeds or of grades, many of which are of Leicester and Cotswold breeding, or a mixture of these. In some parts Shropshires are well represented, but none of the Down breeds have obtained such a footing as to give from our annual clip of wool any large percentage grading a Down quality. Our lambs are annually exported in large numbers to the United States for mutton, and too little attention has been given to the quality of our product. Breeders say that buyers are to blame to a large extent for this, as they will not give a specially good price for a carefully bred lot, but pay the same general average for any lot.

Sheep will pay for good, careful breeding as well as any other kind of live stock, and more attention should be paid to careful cross-breeding. If a flock of young long-wooled ewes be selected from which to breed, the best cross will probably be with one of the Down breeds. Select a pure-bred male of good individual merit and of good pedigree, the length of the pedigree not being of so much importance as the quality of the animals named in it. If a Shropshire ram be selected he should not be used more than two years, and should be followed by an animal of a different breed (say, an Oxford-Down or a South-down). If the ewes are a good, uniform lot, the produce will be a superior lot of lambs. These should all be fed for the market. Give the ewes after lambing plenty of good, nourishing food, and if they come early plenty of roots (either turnips or mangolds). The lambs may get a small ration of oats or oats and bran, and when weaned should have a nice bit of good pasture. These cross-bred lambs are good feeders, and make a superior quality of mutton. They should all be fed for mutton—none kept for breeding. It is objected to this plan that it requires a farmer to buy in his breeding ewes every few years, but this is considered to be a much better plan than that of breeding from cross-bred animals. This latter plan may be used in some cases with success, when another cross is desired for some special purpose. Where very early lambs are wanted for the spring market, it is claimed by some that by crossing a flock of grade Down ewes with a Dorset Horn ram the ewes of the produce will, if crossed with a Leicester ram, give a quick-feeding lamb that will bring a big price early in the season. There would be no special advantage in this plan of breeding, were we able to get grade or purely bred Dorset Horn ewes at an ordinary price. At present this can not be done, and the cross is suggested as giving a lot of breeding ewes at a low cost. The advantage claimed for the Dorset Horn breed is that they will mate at any time in the year, and that therefore the lambs can be dropped at any time desired. If it be, as claimed by some, that this property is inherited by the cross-bred ewes, it is a valuable point in breeding for early spring lamb. There is a large and increasing demand for such early lamb in all the large cities, both of Canada and the United States. At present it is a scarce commodity, and will bring a much higher price per pound than anything else in the line of food products that can be raised by the farmer. The earlier the lambs can be got ready for market the bigger price they will bring. Good, warm buildings are absolutely necessary for this trade, and careful feeding of the ewes and lambs with a variety of succulent food. These are already possessed by many farmers, while the lambs come at a season when there is plenty of time to give them extra care and attention. In both these branches of sheep breeding there is a good prospect of remunerative returns to the breeder and feeder.

Milk Preservatives.

To a correspondent who asks which is the best milk preservative, the *Jersey Bulletin* replies, cleanliness and coolness. A large number of substances, such as salt, sugar, soda, saltpetre, salicylic acid, and boracic acid, have been recommended, and all of the so-called preservatives contain more or less of one or more of these substances; but we know of not one that will be of any use in keeping the milk from souring that is not more or less injurious, if taken into the human stomach. Therefore we know of no milk preservative which we can recommend anyone to use. Really none of them will keep milk fresh for any considerable time.

THE QUIET HOUR.

Compensation.

BY FRANCIS RIDLEY HAVERGAL.

O the compensating springs! O the balance-wheels of life, Hidden away in the workings under the seeming strife!

How shall we gauge the whole who can only guess a part? How can we read the life, when we cannot spell the heart?

Even our present way is known to ourselves alone, Height and abyss and torrent, flower and thorn and stone;

How shall we judge their present, we who have never seen That which is past forever, and that which might have been?

Ah! If we knew it all, we should surely understand That the balance of sorrow and joy is held with an even hand,

The easy path in the lowland hath little of grand or new, But a fellsome ascent leads on to a wide and glorious view;

Launch on the foaming stream that bears you along like a dart, There is danger of rapid and rock, there is tension of muscle and heart;

O the sweetness that dwells in a harp of many strings, While each, all vocal with love, in tuneful harmony rings!

For rapture of love is linked with the pain or fear of loss, And the hand that takes the crown must ache with many a cross;

Only between the storms can the Alpine traveller know Transcendent glory of clearness, marvels of gleam and glow;

Who would dare the choice, neither or both to know, The finest quiver of joy or the agony-thrill of woe?

Great is the peril or toil if the glory or gain be great; Never an earthly gift without responsible weight;

For the swift is not the safe, and the sweet is not the strong; The smooth is not the short, and the keen is not the long;

Then hush! oh, hush! for the Father knows what thou knowest not, The seed and the thorn and the shadow linked with the fairest lot;

Hush! oh, hush! for the Father, whose ways are true and just, Knoweth and careth and loveth and waits for thy perfect trust;

Hush, oh, hush! for the Father hath fulness of joy in store, Treasures of power and wisdom, and pleasures for evermore;

Whatever your situation in life may be, lay down your plan of conduct for the day. The half-hours will then glide smoothly on without crossing or jostling each other.

We must never undervalue any person. The workman loves not that his work should be despised in his presence. Now, God is present everywhere, and every person is his work.

Sir Samuel Romilly said:—There is nothing by which I have through life more profited than by the just observation, the good opinion, and the gentle encouragement of amiable and sensible women.

Read not much at a time, but meditate as much as your time and capacity and disposition will give you leave, ever remembering that little reading and much thinking, little speaking and much hearing, is the best way to be wise.

When God intends to fill a soul, he first makes it empty; when he intends to enrich a soul, he first makes it poor; when he intends to exalt a soul, he first makes it humble; when he intends to save a soul, he first makes it sensible of its own miseries and nothingness.—[Flavel.

God's ways are not our ways; and we must try to see what His way and His will is, not be simply on carrying out our own. We must leave all with God; we must not be overanxious. The work is His, not ours, and He will carry it out as He sees best.

The great thing is to consecrate ourselves entirely to God's service; to live very close to Him, and to ask Him to sanctify us wholly. Then we shall be His instruments; then He will give us power from Himself; then He will use us, and we shall feel we are not our own but His.

FAMILY CIRCLE.

THE GENERAL.

The General was sixteen years old. She was a maid of all work, one of the unfortunate tribe specified as general servants, and her home was in a Bloomsbury lodging house, in a shabby-genteel street which abutted on a large square.

Melinda, the little maid who officiated at Mrs. Tilley's establishment in various useful capacities, was no poetic vision to the outward eye. She had no claims, to comeliness, being red-haired, pale-faced, with freckles large and distinct, though light in color, looking as if they had been bleached by long residence in cellars.

Notwithstanding her puny appearance and pale face—there was a considerable amount of vitality in her ways of speech, and, in spite of daily travellings up four flights of stairs and the arduous labors of boot blacking, her indomitable energy never abated.

This latter fact was especially agreeable to her sturdy spirit, and she promptly discarded the religious cloak which custom had compelled her to wear beneath the eyes of parish officials. In the beginning of her service she had earnestly assured her employer that she "didn't want no Sundays out, for she'd had prayers enough to last her a lifetime."

Melinda's tip-tilted nose, worn after the fashion of an arrogant terrier, sniffed a long time disdainfully at the poor curate who lodged on the top story of Mrs. Tilley's domicile, appearing to live chiefly on bread and butter with an occasional relish of bloaters or marmalade. The little General cherished a vast contempt for man comprehensively, for clerical man particularly.

Mrs. Tilley being a weak-minded matron, large, limp, and lachrymose, soon discovered her young subordinate's superior strength of character. Melinda was employed publicly in the service of lodgers and privately as a friendly confidant and recipient of tears.

The most frequent cause of the lady's lamentations was the errant ways of her partner, a gentleman referred to vaguely as "in business" when enquiries were pressed by prospective lodgers. So far as it could be discerned on the surface, the service consisted chiefly of tasting the taps of neighboring public-houses.

"But," wailed Mrs. Tilley, in the vain endeavor to defend her position, "I ain't had no mind of my own since I married him." "Anyone could 'ave told that, with them seven children on your 'ands," said Melinda severely, "but without any intention of broad sarcasm."

"He's took of my last half-sovereign which I hid in the teapot." Here Mrs. Tilley, with a fresh burst of tears, applied one eye to the spout of the much-battered britannia metal vessel which she had constituted her private bank.

"Bless me, I ain't got no patience. Who'd have a 'usband to allow of 'im to take of one's earnings!" Perhaps it was the extra touch of contempt in Melinda's voice, or it might have been some secondary prompting of nature which now induced Mrs. Tilley to turn upon her counsellor and defend the sinner.

There was now a goodly stock of young Tilleys on hand to aggravate Melinda's moral perceptions and to add to her labors. "All of 'em one wuss than t'other in the way of screechings and contrariness," said Melinda to the curate in a confidential moment.

General's yellow eyes flashed a quick glance at the little man. He had no voice to speak of, and very few chops and steaks found their way up to his quarters.

Coming one day, earlier than usual, to attend to the little man's needs, she found him still at his religious exercises with a Greek Testament in his hands. Her head was high aloft (this attitude was always significant of mental disturbance) and she sniffed vigorously in the course of laying the breakfast cloth and placing the tin of sardines in position.

"It ain't no cold," protested the maid, pausing with a fork in her hand, and puckering up her odd little face in a singular manner—a manner which completely extinguished her eyes.

"Is there anything the matter?" said the curate, not ignorant of such signs. He closed his book with a sigh and sat looking down at the clasp. There was always something the matter where he was concerned. Life had called very heavily on his capital of sympathy; the endeavor to rectify the mistakes and ignorance of others was yet his chief task.

"Matter enough," said Melinda, with a look that might have caused a hero to quail. Was she one to make such ado about nothing, that fiery glance seemed to say. "There's Mrs. Tilley been it again. Another new baby this blessed night."

"Really! I'm afraid it can't be helped," rejoined the little man with a heavy sigh, reflecting on the perilous problem of population.

"Who wants to 'elp of it? She'll never 'ave no more." Here Melinda choked.

"Then why do you cry?" "She's agoin' to die." The little General's head bowed itself over the sardines. The curate rose much perturbed. He pushed his spectacles up absently and his soul was visible in his mild eyes.

"She's took awful bad, and me to be left with all them children on my 'ands, not to speak of 'im." The supreme scorn on the final pronoun was distinctive and seemed to include a world of disaster. "He nigh frightened that poor sick critcher to death straight off, comin' in at 3 o'clock in the mornin' as drunk as any Saturday night scum, and flourishin' of a carving knife about like a wild Injun. This flourishin' version of Mr. Tilley's misdemeanors was only too true.

Was it possible there was a tone of anticipation in the curate's question? Melinda shook her head, in decided negative, and overcame by a second burst of sorrow threw her apron over her head and rushed from the room.

The little gentleman lingered longer than usual over his scanty meal, but he did not visibly resume any spiritual exercises. Perhaps they were going on at all times. An hour or so later he was sent for to minister words of consolation to the dying woman, who, after the way of her kind, sought at her last moments the spiritual counsel she had never heeded in the days of health.

The curate found her wildly frightened at the near approach of death, urging vain prayers that Heaven might yet spare her life. But in the short hour he spent with her he somehow found the key to rest and solace. Ah, how many remorseful and despairing deathbeds he had ministered at! How many times had he not gone down into the dark, deep waters with some struggling soul, and had carried them through the flood and nearer to the light by the might of his own faith!

When Melinda entered the sick room with some beef tea she quickly noticed the change. The poor, helpless mistress, amazed and fearful, full of terrible anguish and distress, lay calm and still, with a new dignity upon her brow. What had the curate said and done to work this change? Mrs. Tilley, peacefully smiling, looked at Melinda with other eyes. Alas, she was now beyond tears, approaching the borderland where all earthly considerations appear misty and of little consequence.

"Where's the baby, M'linda?" she said faintly, as if recalling some distant trouble. "Oh! don't you worrit now. I know how to manage of babies." "And him?" Melinda missed the customary burst of tears. "Him" was the familiar title of Mr. Tilley between mistress and maid.

"Oh! 'im. He's slep' it off." Melinda lifted her nose, not daring to give vent to more specific abuse. "Mrs. Tilley wishes to see her husband," interposed the curate gently. The woman turned her glance upon him with speechless thanks.

"That she shan't," said the General. "'E ain't ever done 'er no good as I've seed and now—" "And now," said the curate with a new assumption of authority, "she wants to forgive 'im."

"I don't believe in no forgiveness," came from Melinda's lips. "Ain't she been forgivin' of 'im all 'er life, and ain't 'e been the end of it now?"

Once more the curate lifted up his voice, and there was a tone in it that was not to be resisted. "Fetch 'im."

She flashed defiance from her red-rimmed eyes, and then her glance fell upon the woman, looking at them both. She was going out of life, peaceful, happy, because he, the little half-starved curate, had whispered the secret of eternal rest. Hitherto religious practices had appeared unavailing and without sincerity or meaning, but now the advantages did not appear so doubtful, inasmuch as they were able to bring comfort at the last to a frenzied soul. In that one short glance Melinda realized it all. Something in it there might be—yes, something in it after all, my friends.

With lowered head the girl passed out of the room on her mission. She found Mr. Tilley in an underground apartment, in a state of tremulous anticipation. He was dimly conscious that he had committed himself in some unpardonable way on the previous night, but he had fortified his nerves against the revelation of his misdeeds with the customary solace. He now remembered more clearly stumbling up to his wife's bed chamber, and being hustled out by Melinda with a savage burst of speech. Then came the vision of a doctor hurrying up the stairs, and the scared apparition of Louis, his eldest born, peering over the landing. His hand was out and plastered up, but he had no recollection of any accident to himself.

"You're to come," she said briefly. "Whatever do you mean now?" he said, with a maudlin assumption of dignity.

"She wants to forgive of yer." This benevolent promise appeared to have no great attraction for Mr. Tilley. He drew back with evident reluctance. But Melinda's eyes held him fast with a compelling power.

"Oh—ah," he writhed uneasily. "She's done of that before." The General restrained the torrent of reproach which rose to her lips, and backing slowly to the cupboard, locked it and placed the key in her pocket. This manoeuvre awakened a more lively sense of interest in the man's mind. "What is it?" he said in a vain endeavor to clear away the mental fog. The girl's action had set vague tremors in motion. The locking of that cupboard was a prerogative only attached to a wife.

"She's agoin' to die." Melinda's voice was husky. "You're to go up stairs and say good-bye." Still he tarried. Then she caught the coward by the shoulders, and with all her young might pushed him towards the open door. "Go! go!" she said more vehemently. And at last he went.

(TO BE CONTINUED.)

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES:—

"Come here's a glass to the owl and the ass,
The emblem of wisdom and patience so true."

What a life of trial and worry this life below is anyway; trials great and small beset us every day and we are supposed to summon fortitude to meet them, and how often we are enjoined to be patient? Now, while patience is well enough in its way, it is not always the right ingredient. Patience will never mend the hole in the roof where the rain comes in, nor mend the heel of Johnny's stocking. Prompt action and perseverance will do far more than patience. Patience and laziness are twin sisters, and it is only the name that distinguishes them. Patience and perseverance are said to accomplish much, but perseverance will do more alone. Why extol this so-called virtue when all nature scouts it? The brooks, the rolling waves, the winds, rain, snow, and thunder and lightning, all hurry and rush; even growth of the grass and trees all speak of hurry and perseverance. And let me tell my dear nieces that the woman who is the most patient is not the most successful after all. Never leave to time what you can do at once. Too many of the actual duties of life are slipped over or left neglected because of the exercise of patience, when we know it is only an expenditure of nerve force. The birds' nests will not build themselves if the intended occupants sit and look at the spot where they want them. No. They sensibly set to work and gather material and construct it. Give your trials just enough of thought to learn how to lessen them, then set about doing so, and you will find yourself a less long-suffering and enduring, if a less patient woman.

MINNIE MAY.

Fashion Notes.

Fabrics for dresses never were prettier nor cheaper than this season, and the styles in which they are made make them look prettier still. All colors are worn, all styles too, from the bell skirt and jaunty basque to the umbrella skirt and vest with Figaro jacket. Sleeves are large on all the dresses, the leg-o'-mutton being the prettiest, but many full sleeves end at the elbow, and a tight sleeve encloses the fore-arm, with a row of buttons on the outside. The necks are finished with standing collar, others with straight band, and others with a small turnover collar; these are usually made of another color or material to the dress, as all the costumes have two colors this season. The military cape with Derby collar is worn, if any additional warmth is needed.

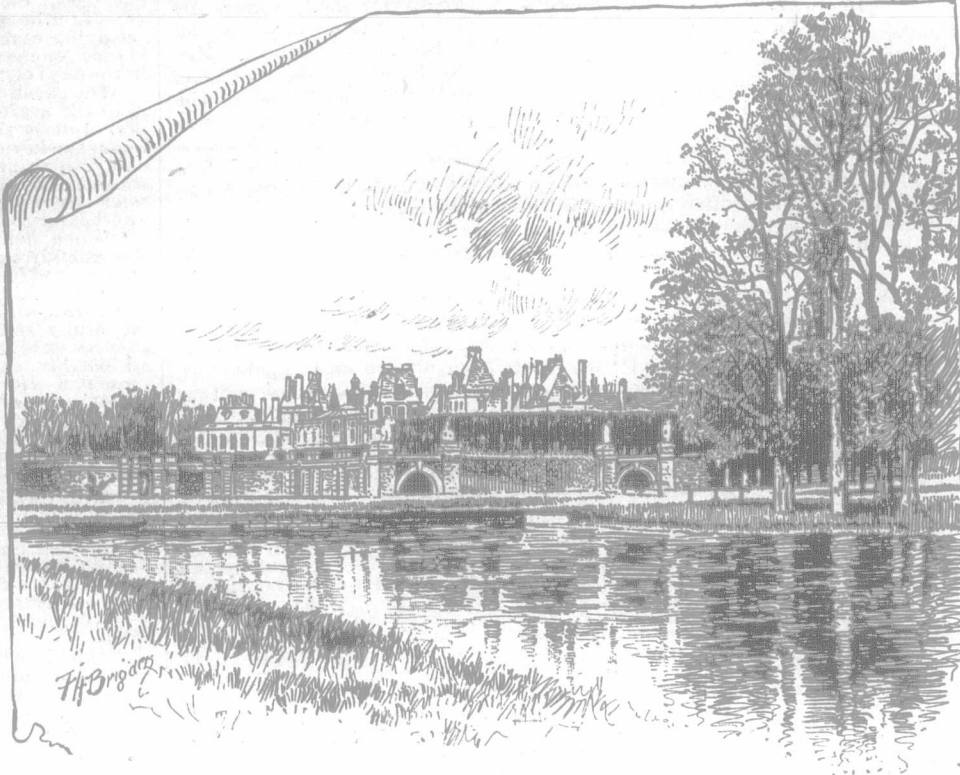
Hats are lovely dreams, suiting all faces, in all colors and in every style and at every price. Lace hats are prettiest, surmounted with a tall bunch of roses or nodding blossoms, as if they were just plucked and pinned there; veils are little worn on hats, except the Empire, but the faces look prettiest without them. Straw hats can be had in all colors to suit the costume, and no very strong colors are to be seen in the prettiest ones. Pale grey with pink, black and yellow, grey and green, green of two shades, brown and pink, are some of the most striking. Parasols and sun shades are flounced or plain just as the wearer can afford, for it is a mark of the good sense of women that they do not wear what they cannot afford, and they feel themselves well dressed in a print, if they cannot get a more expensive dress. Speaking of prints, they are just the dress for summer wear, clean and neat, as a young woman's dress should be, and pretty and dressy enough for any occasion; the patterns are exceedingly choice and the colors as dainty as chambrays.

No tan shoes are worn this year,—they never were in good taste, and girls were not slow to acknowledge it; they looked conspicuous on the foot and did not accord with any costume. Black silk petticoats are just the thing for hot summer wear; light and cool, and easily brushed from dust, the "rustler" must remain in favor. A waterproof should be a part of every girl's wardrobe, and they have appeared this year in such pretty styles and colors every taste can be suited, but do not make the mistake of buying a too expensive one; they last so long with such occasional wear that a cheaper one will answer every purpose, and can be changed in a year or two and the old one altered for the little sister, while you feel you are not guilty of extravagance in getting another.

Monday's child is sour and sad;
Tuesday's child is merry and glad;
Wednesday's child is full of grace;
Thursday's child is fair of face;
Friday's child is loving and giving;
Saturday's child must work for a living.
But the bairn that's born on the Sabbath Day,
Is good and bonnie and wise and gay.

The Palace of Fontainebleau.

Fontainebleau boasts of 9,700 inhabitants. There is a viaduct of thirty arches at the station. The exact time of the beginning to build the exquisite palace is quite uncertain. Some say the first stone was laid by King Robert, in the 11th century. The name is derived from a spring of water which existed where the town is now. It was so delicious and thought so much of by the thirsty hunters of Louis VII.'s Reign, that it was called Fontaine-Belle-Eau, and so on till it became in some years after merely Fontainebleau. Philippe Le Bel died there, and his tomb is in a church in a neighboring hamlet called Avoeu. The present palace was conceived in the 14th century, by Francis I. The principal events in French history took place there: Francis feted Charles V. of Germany, and Marechal-de-Biron was arrested there in 1602, and afterwards beheaded; Queen Cristine's favorite secretary was assassinated also there by her orders. The very saddest death also occurred there, that of the Dauphin son of Louis the 15th. The court soon after this death was transferred to Versailles, and Fontainebleau began to be neglected, and at the Revolution was stripped of all its furniture and valuable decorations, and fell into ruins. Napoleon partially restored it, and it once more became an eventful place. Charles of Spain, when dethroned by Bonaparte, was a prisoner for about twenty-eight days, and in 1809 Napoleon and Josephine were divorced, and again, shortly after this, Pope Pius the 7th became an inmate of the palace for one year and a-half—an unwilling one, too; also at



THE PALACE OF FONTAINEBLEAU.

Fontainebleau, Napoleon in 1814 signed his Abdication and bade good-bye to Imperialism. In 1834, Louis Philippe commenced its restoration, the best artists were employed, and everything restored in its original style, and the furniture renewed so that all became as it used to be. The chief entrance to the palace is by the "Cour des Adieux." There are four courts: Cour de Fontaine, Cour Ovale, Cour de Princes, and the first mentioned "Cour des Adieux"—this one was designed by an architect called Ierlic. The railway separating it from the Place-de-Ferraro was erected by Napoleon. This part of the chateau has five pavillons (I mean where the four courts are to be seen); there is a room in it, completely covered with mirrors, in which Napoleon signed his abdication (mentioned above). His writing desk is still there, and a small table covered with a glass case, on which the abdication rested. The panels and ceilings were all painted by Bouchier. From the ceiling of one room there hangs a magnificent lustre of rock crystal; this particular room was begun by Charles IX., and decorated by Louis XIII. and Louis XIV. The throne and draperies were added by Napoleon. I shall only add, that in another room the Empress Marie Louise's bed is still to be seen.

A Curious Puzzle.

Open a book at random, and select a word within the first ten lines, and within the tenth word from the end of the line; mark the word; now double the number of the page and multiply the sum by five; then add twenty; then add the number of the line you have selected; then add five; multiply the sum by ten; add the number of the word in the line; from this sum subtract two hundred and fifty, and the remainder will indicate in the unit column the number of the word, in the ten column the number of the line, and the remaining figures the number of the page.

Revised Whist Rules.

THOSE COMPILED BY A BROOKLYNITE ARE NOT IN ACCORD WITH POLE.

Among the many players of whist in Brooklyn, says the *Eagle*, is Henry Miller, of the Aurora Grata Club. He is not a drone in the hive by a long shot, and he has repaid whist for the pleasure it has given him by making a set of rules to boom the game. The rules are going the rounds of the Aurora Grata Club, and in their wake follows a wonderful revival in the pastime. The rules contain many things never heard about in connection with the sport before. Here they are, printed by consent of the author, who had them copyrighted in order that they might not go further and permanently cripple out-of-town amateurs. The rules are for professionals and are too strong medicine for lesser lights of the game.

RULES FOR PROFESSIONAL WHIST PLAYERS.

Rule 1—Never return your partner's lead; half the fun is in seeing him play against three.

Rule 2—If your partner calls for trumps, let him call, you just snicker.

Rule 3—Always trump your partner's trick. What right has he to take it? He takes it to humiliate you and show your insignificance in the game.

Rule 4—Always lead from a sneak and watch the look of contempt on your partner's countenance.

Rule 5—Always throw away from your long suit, so that your partner can't blame you for not trumping your opponent's trick.

Rule 6—Engage in conversation across the table and ascertain the high cards played in the suits.

Rule 7—Revoke occasionally, as it tends to shorten the game by giving your opponents three extra tricks.

Rule 8—Insist on looking at the last three tricks, and call your partner's attention to what has already been played.

Rule 9—After each hand is played get up a "post mortem," and show what might have happened if your partner had played differently.

Rule 10—As whist is supposed to be played in silence, be as hilarious as possible, so as to keep the minds of the players off the game.

Rule 11—If you have friends in the room, it is expected that they should look into the hands of your opponents and prompt you what to play.

Rule 12—In dealing, wet your thumb in your mouth as often as possible, so you can enjoy the feelings of the more cleanly players.

Rule 13—If you have ace and queen only, always play out your ace first. It is only good for one trick and your adversaries ought to be allowed to take a trick with their king.

Rule 14—Play second hand high on first round, and if you lose the trick be thankful you are rid of a doubtful card.

Rule 15—Always assist your adversaries in getting up a "see-saw"; it is fun to see them scoop in the tricks.

Rule 16—If your partner is strong in trumps, weaken his hand by forcing him to trump. He won't take as many tricks as he expected.

Rule 17—Any mistake that is made by your partner should be treated as downright stupidity; while your errors are only errors of judgment.

The above rules are becoming more popular every day. Professionals wishing to become amateurs can do so by consulting any of the standard authorities on whist.

Mr. Miller is a firm believer in the old-fashioned game, and has a scorn and horror of conventional signals and new-fangled methods. He contemplates preparing a new edition of his rules, amplifying and extending them so that the lead desired will be reduced to an absolute certainty. He suggests, for example, that when you desire clubs led, touch your left ear; when you want diamonds, close your right eye, and a similar kind of signal for each of the other suits.

Three volleys are fired over the grave of a soldier in honor of the Holy Trinity, just as in baptism people are baptised in the name of the Father, Son and Holy Ghost. The volleys are first after the solemn words—"Earth to earth, ashes to ashes, dust to dust."

UNCLE TOM'S DEPARTMENT.

Cow Bells.

With klinge, klangie, klingie,
Way down the dusty dingle,
The cows are coming home.
How sweet and clear, and faint, and low,
The airy tinklings come and go,
Like chimings from some far-off tower,
Or patterings of an April shower
That makes the daisies grow.

Ko-ling, ko-lang,
Ko-ling, ko-lang, kolingle-lingie,
Way down the darkening dingle,
The cows come slowly home;
And old-time friends and twilight plays,
And starry nights and sunny days,
Come trooping up the misty ways,
When the cows come home.

With jingle, jangle, jingle,
Soft tones that sweetly mingle,
The cows are coming home.
Walvine, and Pearl, and Florimel,
De Kamp, Kedrose, and Gretchen Schell,
Queen Bess, and Syrah, and Sprangled Sue—
Across the fields I hear loo-oo,
And clang her silver bell.

Go-ling, go-lang,
Go-ling, go-lang, golvingie-lingie,
With faint, far sounds that mingle,
The cows come slowly home.
And mother's songs of long-gone years,
And baby joys, and childish tears,
And youthful hopes, and youthful fears,
When the cows come home.

With tingle, tangle, tingle,
Through fern and periwinkle,
The cows are coming home;
A-joltering in the checkered stream,
Where the sun-rays glance and gleam;
Clarine, Peachbloom, and Phoebe Phyllis
Stand knee deep in the creamy lilies,
In a drowsy dream.

To-link, to-lank,
To-link, to-lank, tolinkle-linkle,
O'er banks with buttercup a twinkle,
The cows come slowly home.
And up through memory's deep ravine
Come the brook's old song, and its old time sheen,
And the crescent of the silver queen,
When the cows come home.

With klinge, klangie, klingie,
With loo-oo, and moo-oo, and jingle,
The cows are coming home.
And over there on Merlin Hill
Hear the plaintive cry of whip-poor-will;
The dew-drops lie on the tangled vines,
And over the poplars Venus shines,
And over the silent mill.

Ko-ling, ko-lang, kolingle-lingie,
With a ting-a-ling and jingle,
The cows come slowly home.
Let down the bars, let in the train
Of long-gone songs, and flowers, and rain,
For dear old times come back again,
When the cows come home.

—Mrs. Agnes E. Mitchell

Puzzles.

1—CHARADE.
Dear cousins, I have left my home
And friends in New Carlisle so dear;
Last Monday I sailed up the bay
And came to Bathurst in the C. P. R.
I cannot just now say how long
My sojourn here will be;
But I expect to hear of you PRIME each month,
And to have the paper forwarded me.
So, I must now my letter close,
Lest it be too late for the mail;
WHOLE I have been transported,
You may hear from me again.

LILY DAY.

2—SQUARE WORD.
I am an "opaque substance,"
And sought for in a mine;
My second is "to elevate
In thoughts" almost divine.
My third shows "style in choosing,"
My fourth "a garret" is;
Now "the border of a sloping sail,"
Then go about your biz.

FAIR BROTHER.

3—RIDDLE.
I'm first in all sorrow, all sobbing and sighing,
But I always clear out before people start crying;
And though I'm in misery pray do not doubt me,
Neither pleasure nor happiness can live without me.
I'm in music and every sweet sound of our speech,
Yet I end in a hiss and delight in a screech;
I'm really quite useful, in fact it is said,
You can't answer a puzzle unless you've my aid.

ADA ARMAND.

4—CHARADE.
"Will you me wed?" said handsome Fred,
To pretty Nettie Ray;
"I'm LAST to keep you FIRST fine style,
If you the word but say."
"No, thanks," said she, "I'll SECOND not
My present state so sweet,
So you may woo some other maid,
My answer is COMPLETE."

ADA ARMAND.

5—BEHEADING.
Oh! Monarch Fair Brother,
With thy tantrums we will bear;
Take kindly to thy kingly gist, dear sir,
For we know you have been taking western air.
To your queries thus I do reply:
No government sit have I;
Nor a Sunday evening's honey.
I'm only a farmer's boy; that's not funny.
Whom did I think I was addressing?
Truly that is no guessing;
To you alone those honors and titles are due,
And we all know you to be a king true.
Your word is my law, my dear king,
Young Devitt, sir, bowed, sir;
And your majesty now I sue
To give Miss Scott a place in SECOND canoe.
This advice to you I freely give:
Do not get a FIRST-temper,
But a life of gentleness and virtue live—
That you are H. R. H. King F. B. always remember.
H. REEVE.

6—TRANSPOSITION.
Fair Canada, my native home,
Though wandering from thee now;
My thoughts quite often doth revert,
To "ye olden time," I trow.
I've left thee, though 'tis not for good,
With "Uncle Sam" to dwell;
Pray ask me not, wherefore, or why,
Or what did me impel.

Forsooth I am a rolling stone,
A rover by the way;
I roam about from place to place,
And give myself full sway.

Of me my friends cannot keep track,
I'm hard to find, 'tis true;
I'm here to-day, to-morrow where?
For thee I have no clew.

Oh! Canada, Dominion fair,
Some day, if spared, I will
Return to thee, and PRIME abide,
My heart is with thee still.

One happy thought I've cherished long,
Last cheers I cry with ease,
For "The flag that's braved a thousand years
The battle and the breeze."

FAIR BROTHER.

St. Paul, Minn.

Answers to 15th May Puzzles.

- | | | |
|--------------|-------------|--------------------|
| 1—Welcome. | 6—C A R A T | 7—Monarch. |
| 2—Parasol. | A D A G E | 8—Procrastination. |
| 3—Inanimate. | R A V E N | 9—Garden, ranged. |
| 4—Injury. | A G E N T | 10—Your, our. |
| 5—A Gate. | T E N T S | |

Names of Those Who Have Sent Correct Answers to 15th May Puzzles.

Addison and Oliver Snider, A. R. Borrowman, Geo. W. Blyth, Morley Smithson, Geo. Rogers, Ada Smithson, Edith Fair Brother, Thos. W. Banks, I. Irvine Devitt, Lily Day, Henry Reeve, Minnie Morrison.

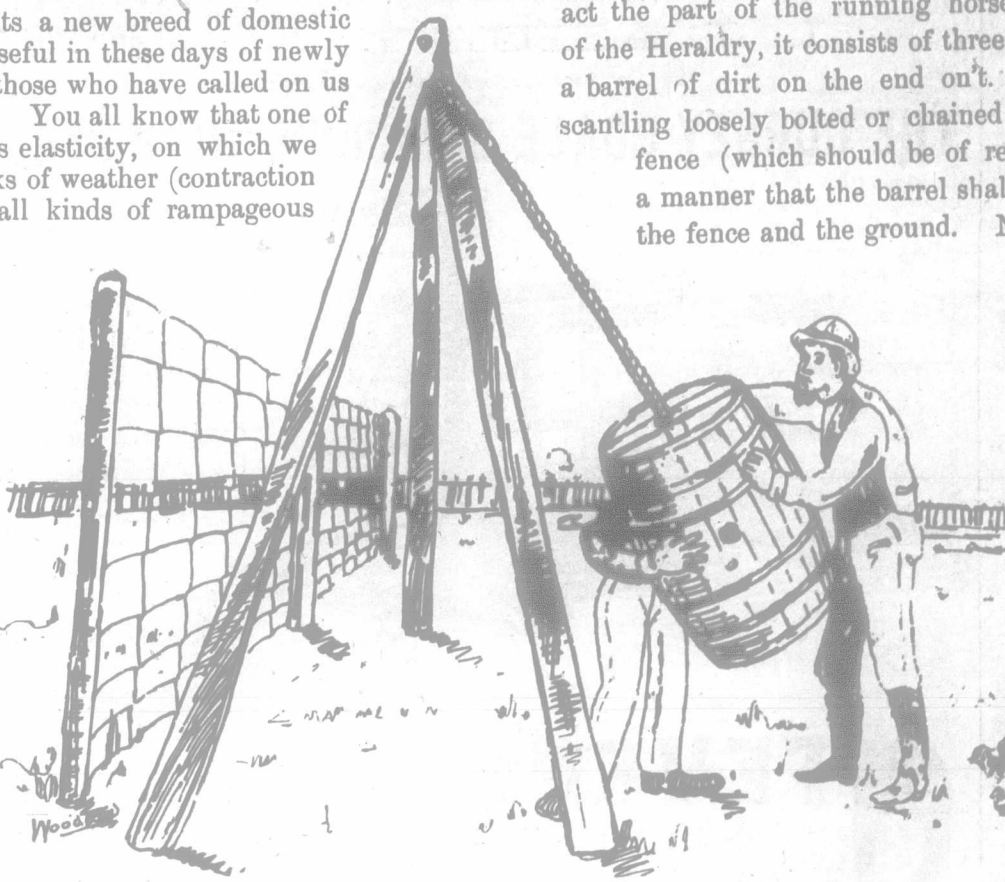
Consideration for the Little Ones.

How much is expected of little children in the way of politeness, when none is ever shown them. Their little legs carry them on many an errand for you, and never a "Thank you, dear," for encouragement, when the poor little heart longs to hear it, for it is so human in us all to want approbation. Think of your little ones oftener, mothers. You are their all; they turn to you for their wants, and are often disappointed. Some children's souls and hearts are starved for want of kindness. Try what a little bribe will do instead of punishments. More sugar on their lunch at school, or a slice of cake promised for more perseverance, or reward for efforts to do better. A very small piece of money will make the heart of many a child joyful for a long time. Try to study their natures more. All children cannot be managed alike any more than grown persons. And the present of a pet—a puppy dog or a rabbit—will make a good child often, when punishment fails. Love the little ones more, they have their rights, and ought to be respected as well as yours, but a child's feelings are rarely consulted. You constitute yourself the judge of what is best for it, and it has to submit. Try and learn to get the sympathy of your children, and all will go smoothly, and no savage memories will ever be cherished against the "Old Folks at Home."

The ROYAL BUNTER

The accompanying cut represents a new breed of domestic animals which will be found very useful in these days of newly invented fences. Our agents, and those who have called on us at the fairs, will recognize it at once. You all know that one of the main features of our fence is its elasticity, on which we depend for defense against the attacks of weather (contraction and expansion) as well as against all kinds of rampageous animals. Well, you cannot assert this any stronger than the next man who has a fence with no more spring than a stone wall, and the only way you can satisfy the inquirer is to prove it. Now, most animals seem to dislike a practical joke as much as their human brethren, and after being "revolutionized" by a collision with our fence, they object to repeating the game. By the way, this is an exception to the saying that "revolutions never go backwards," as they do, with us, unless it is the low fence, when comes the danger of a somersault, or perhaps a broken neck.

But, to return to the Royal Bunter (which was devised to



act the part of the running horse). If described after the manner of the Heraldry, it consists of three legs rampant, a chain pendant, and a barrel of dirt on the end on't. The legs may be of twenty-foot scantling loosely bolted or chained together, and astride the panel of fence (which should be of regular lengths of two rods), in such a manner that the barrel shall, when at rest, hang quite free from the fence and the ground. Now draw the weighted barrel as far

away as possible and push it into the fence as hard as you please. This can be repeated "until it has the desired effect," that is, prove that no amount of hammering or contraction even when concentrated on a single panel, will cause the fence to exhibit "that tired feeling" or seem to hang down on the posts. You can freely invite any other fence man to make the test. The Royal B. will soon prove whether his claims for "adjustable tension" and "self-regulating are well founded or not.—Coiled Spring Hustler.

PAGE FENCE LEADS.

Each year there are more miles of Page Fence used by the farmers of the United States and Canada than there are of any two other smooth wire fences. Page Fence which has been in use eight years is as good now as when first put up.

IS READY MADE.

We furnish the fence ready to be put on the posts and made with eleven horizontal steel wires tied by a cross wire every foot. Each wire is coiled into a perfect spring its entire length, which keeps the fence from sagging and adds to its strength.

NEEDS FEW POSTS.

Our five-foot farm fence needs but three posts to the hundred feet, and will not sag nor draw together between. It will turn every kind of farm stock, and stop everything but wind and snow. Including posts, it can be built at less cost than that of any other stock-proof fence.

THE HUSTLER.

The above article is from our illustrated monthly paper, which will be sent free to all interested in fences. Send us your name on a post card, and we will mail the paper and a price list of fencing. Address,

PAGE WIRE FENCE COMPANY OF ONTARIO (Limited),
WALKERVILLE, - 336-a-om - ONTARIO.

BINDER TWINE!

Pure White Unrolled Stanley Sisal Binder Twine for only 10 cents per lb. This excellent Twine is a first quality article in every respect. It is a far better working Twine than pure manilla. We guarantee it to go through every machine without a stop or hitch of any kind. There is no oil and no lumps in this twine. Our price is 10c. per lb. It is put up in 60-lb. sacks, and on any order of not less than 120 lbs. we will prepay the freight to any station in Ontario. Our terms are cash with the order. Order as early as convenient. Our machine oil is 93c. per gallon in barrels of 45 gallons, or 30c. per gallon in barrels of 25 gallons, and on all orders of \$10 and upwards we will prepay the freight to any station in Ontario, on and after June 15th.

Terms always cash with the order.

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STANLEY MILLS & CO'Y,

WHOLESALE HARDWAREMEN,

HAMILTON, 336-a-om ONTARIO.

CHOICE MANITOBA FARMS FOR SALE

Apply to **JOHN WELD,**
London, Ont.

THE THOROUGHbred STALLION,

"H-E-M-L-O-O-K,"
(Sire Hindoo or Imp. Billet); dam Mattie Amelia, by King Alfonso; 2nd dam, Amy Farley, by Planet; 3rd dam, Lulu Horton, by (Imp.) Albion; winner of diploma at Brandon in 1892, will stand the season at Sec. 34, 21, 1 w., 2nd Meridian. Mares herded at reasonable rates. Nearest station, Churchbridge, M. & N. W. R. R. N. W. C BAUGH, Chamber P. O., Assa. 48-a-m

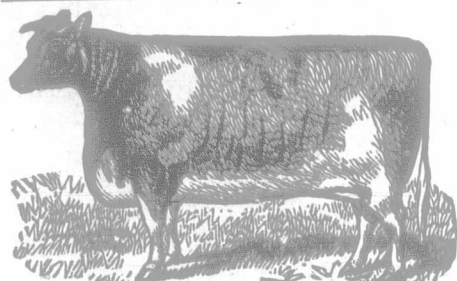
"ROSEDALE" STOCK FARM,
MANITOU,

R. D. FOLEY, Proprietor,
BREEDER OF
Clydesdale Horses,
Shorthorn Cattle, &c.
Banner Oats for sale.
35-2-y-m Correspondence solicited.

FOR SALE
4 Choice Stallions.

"GROVE SLASHER"—Shire.
"WILD BOY"—Clydesdale.
"LANDDOWN"—Blood.
"ADVANCEMENT"—Cleveland Bay.

All the above are registered, and will be sold right. For pedigrees and particulars address—
T. W. PARADINE,
31-2-y-m BINS-CARTH, MAN.

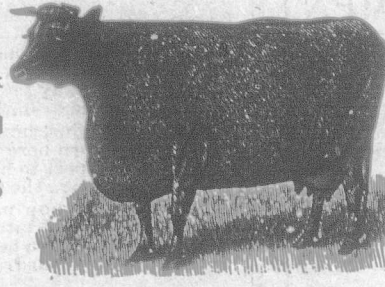


PIONEER HERD OF SHORTHORNS
WALTER LYNCH, Prop., Westbourne, Man.
Fifteen first and one second herd prizes in sixteen years. A choice lot of young bulls for sale. 46-2-y-m

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—IN THE—
FARMER'S ADVOCATE
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HOME MAGAZINE.

JOHN E. SMITH,

Beresford Stock Farm,
Has now, in the CITY OF BRANDON, at his new Stock Emporium,
SHORTHORN and HEREFORD BULLS, also COWS and HEIFERS of BOTH BREEDS.
Clydesdale Stallions, Mares & Fillies
Prices low and terms easy. Write or wire.
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THRESHERMEN OF THE PRAIRIE PROVINCE!

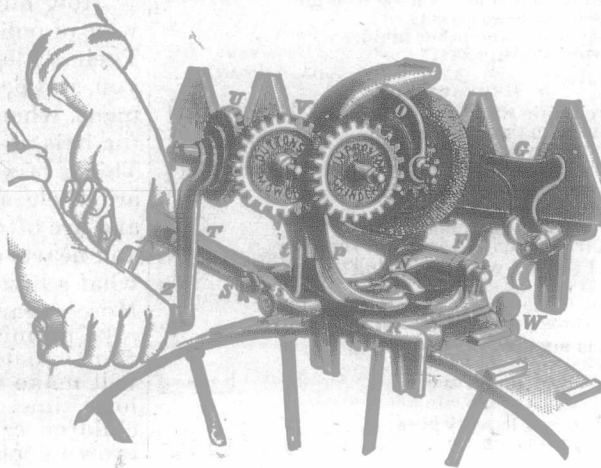
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JOHN ABELL, ENGINE AND MACHINE WORKS, TORONTO,

Orders taken by FROST & WOOD, Winnipeg, and G. H. SMITH, Brandon. 45-j-m



THE NEW DUTTON
Mower and Binder Knife Grinder

Stone Always Wet.
No Heating of Sections.

Keeps bevel as good as new.
Fastens to any mower wheel.

To introduce machines will sell a limited number at wholesale price to farmers. For descriptive circular and price write the

WATSON MFG. CO., Ltd.

WINNIPEG, MANITOBA,
Sole Manufacturers for the Dominion of Canada. 48-y m

IF YOU INTEND BUILDING

CALL AT

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BEFORE YOU BUY YOUR

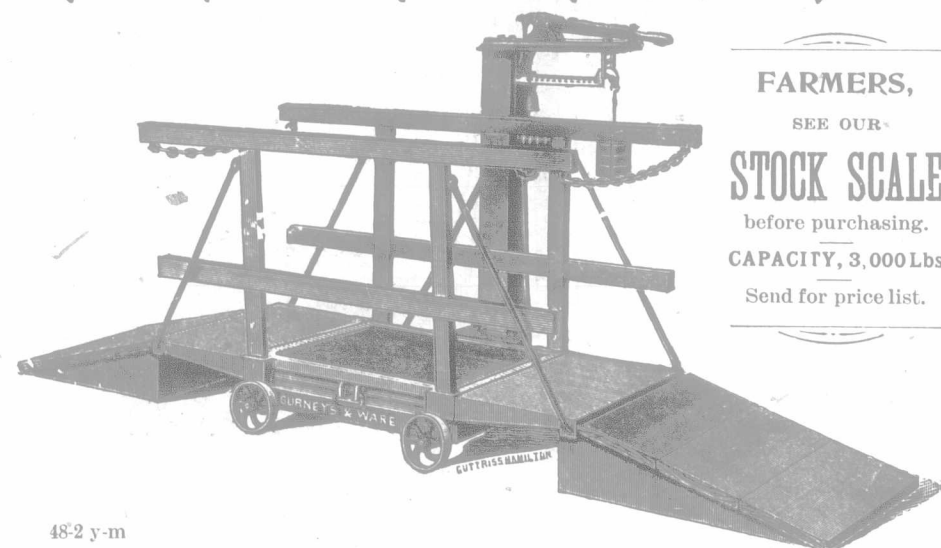
Lumber, Lath, Shingles, Lime, Hair, Brick, Mouldings, Sash, Doors, Frames, Etc., and Get His Prices.

His expenses are low, and he is therefore in a position to quote close figures. Liberal discounts for cash. OFFICE AND YARD: Corner 8th Street and Pacific Avenue. For information write to

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Box 97, Brandon, Man.

THE GURNEY SCALE COMPANY, WINNIPEG



FARMERS,

SEE OUR

STOCK SCALE

before purchasing.

CAPACITY, 3,000 Lbs

Send for price list.

48-2-y-m

STEVENS

MANUFACTURERS OF TRACTION AND PLAIN ENGINES

WITH IMPROVED

STRAW-BURNER. It is pronounced by experts to be AT THE HEAD OF THE LIST.

POWERFUL in Operation and Duration.

BURNS FUEL most economically.

OUR IMPROVED IRONCLAD J. I. C. AGITATOR

SEPARATOR has no equal.

BEFORE buying any other, see our new catalogue. PRINCESS AVENUE, WINNIPEG. 48-y-m

SELLING - SHORTHORNS.

ENTIRE HERD OF PURE-BRED BATES
40-HEAD-40
PURE DUCHESS BULL
DUKE OF LYNDALE =13660=
HEAD OF HERD.
GREIG BROS.,
KINGSWOOD FARM,
48-c-m OTTERBURNE, MAN.



MAPLE GROVE STOCK FARM.
The celebrated Holstein Bull Tempest's Captain Columbus 17430, recently advertised in ADVOCATE, is now offered to the highest bidder over \$100. Was two years old on 15th of July last. First prize winner at both exhibitions in Winnipeg; weight fully 1800 lbs., handsome in appearance, gentle as a cow, well broken to handle, sure calf getter. Bids received up till 1st June; must be sold. A chance for some one to get a well-bred, splendidly developed bull at a very low price. Reason for sale, to avoid inbreeding.
44-y-m Apply to W. J. YOUNG, Emerson.

R. J. PHIN, Shorthorn - Breeder.

A few choice young Bulls for sale.

MOOSOMIN, 33-2-y-m ASSINIBOIA

GALLOWAY BULL

FOR SALE.

Sire, Lord Stanley; dam, Duchess Louisa. Sixteen months old. Eligible for registration.

Write **W. G. SMITH,**

48-tf-m PORTAGE LA PRAIRIE.

J. A. S. MACMILLAN, Box 183, Brandon, Man.,

IMPORTER AND BREEDER OF

PURE-BRED SHROPSHIRE SHEEP

My stock of Breeding Ewes consists of two hundred selected from the best flock in England. The pen of Shearing Ewes that won the champion prize over all England were out of a flock of forty that I bought from Mrs. Barr, of Odstone Hall. My Rams are by the same sire as the Champion Ram, and out of ewes sisters of the dam of the Champion. I have spared neither time nor money to put together the best flock of sheep I could buy in England, and for size, quality of wool and uniformity of character, cannot be surpassed. Ram Lambs and Ewes for sale at moderate prices. 33-2-y-m

Willow Brook Stock Farm,
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Young Large Yorkshire Pigs, not akin, from imported sows, (prize-winners at London Exhibition and leading Ontario shows) from the herd of J. E. Brethour, Burford, Ont. Prices right. Satisfaction guaranteed. Ohio Chester Whites \$10.00 pair, from prize winning sows. Clydesdale Stallions for sale. 34-2-y-m

COLEY'S
Guaranteed to cure after 2 or 3 dressings; 50c. per bottle. Hoost Cure for Lambs and Calves; 50c. and \$1 bottles. Address, A. Coley, box 203, Winnipeg. 48-f-m

IMPROVED LARGE YORKSHIRES

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For sale, from imported Boar. Prices away down. Correspondence solicited.
RIDOUT & PERCIVAL,
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IMPROVED LARGE YORKSHIRES.

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for sale from imported stock. Prices away down. Write for prices.
ENOCH WINKLER,
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Breeder and Importer of High Class Poultry. STOCK FOR SALE. 30-2-y-m **H. W. DAYTON, Virden.**

EGGS FOR HATCHING

\$2.00 PER SETTING. Silver, Gold Laced, Black and White Wyandottes; Barred P. Rocks; L. Brahmas; Black Cochins; Langshans; Black Hamburgs; M.B. Turkeys. For first-class setting of fertile eggs write S. LING, Fort Rouge Poultry Yards. A few choice fowls for sale.

R. W. CASWELL, SASKATOON, SASK., N.W.T. Breeder of W. Wyandottes, R. C. W. Leghorns, Cornish Indian Games & Pekin Ducks. Stock and eggs for sale. Eggs, \$2.25 per 15, or \$4.00 per 30. Duck Eggs, \$2.00 per 9. Won first, second and third on Leghorns at Industrial, Winnipeg, 1892. Wyandotte yard is headed by Snowflake, winner of first at Provincial, 1891, as best Cockerel in exhibition, and second at Provincial, 1892, in strong competition, being beaten by his sire. Games second to none.

EGGS FOR HATCHING. From the Duke of York Light Brahmas, Black Minorcas, \$1.00 per 13. Cornish Indian Game, \$2.50 per 13. Bronze Turkeys, \$4.00 per 13. Warranted fresh. H. K. ZAVITZ, CARBERRY, MAN.

EGGS. PLYMOUTH ROCKS a specialty. Eggs for hatching from choice birds on shortest notice. EGGS, \$2.00 PER SETTING. Write J. B. LOKIER, Springfield P. O., Man.

H. A. CHADWICK, St. James, Man.

Light and Dark Brahmas, Buff and Partridge Cochins, Barred Plymouth Rocks, Black Langshan, Black Spanish, Pit Game, Guinea Fowls and Black African Bantams, Silver Grey Dorkings and Pekin Ducks. A few Fowls for sale of each variety. I won 14 first prizes out of 16 entries in 1891, and 10 firsts, 7 seconds and 1 third in 1892, at Winnipeg Industrial Exhibition. Send stamp for catalogue and price list.

BRANDON Agricultural Society WILL HOLD THEIR ANNUAL Summer Fair TUESDAY & WEDNESDAY, JULY 25th & 26th 1893. S. A. BEDFORD, President. THOS. HARKNESS, Secretary.



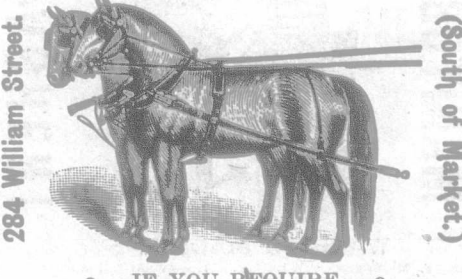
ROSE'S GOPHER KILLER took Diploma at Brandon Show, 1890. Endorsed by all who use it. A. H. KILFOYLE, 16, 11, 19, collected \$7.96 bounty; after using three bottles says he killed three times as many. This is one of a number of letters we have. ROSE & CO., Rosser Ave., Brandon. Sent by mail, 50c.

A. WHITE, James St., Winnipeg. LIVERY, FEED AND SALE STABLE. Importer of and dealer in DRAFT, CARRIAGE AND DRIVING HORSES. Stock Always on Hand to Choose From.



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Count from letter "A" as No. 1, and these figures will give you a motto. It will pay you to think it over. PEIRCE'S HARNESS MANUFACTORY 278 James St., Winni. eg. Cheapest House in Manitoba.

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Veterinary Surgeons in Manitoba and N. W. T. S. A. COXE, Veterinarian, DENTISTRY AND SURGERY SPECIALTIES. Office and Infirmary: 34-2-y-m BEAUBIEN STABLES, BRANDON, MAN.

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CANADIAN PACIFIC RY. QUICKEST ROUTE TO The World's Fair

Direct and cheapest route to Toronto, Montreal, New York, and all eastern cities; also to Kootenay Mining Country, Spokane Falls, and the PACIFIC COAST. C. P. R. LAKE ROUTE Sailing from Fort William. "Athabasca," Thursday, May 25th "Alberta," Saturday, May 27th "Manitoba," Tuesday, May 30th And every Tuesday, Friday and Sunday thereafter. Connecting trains leave Winnipeg Wednesday, Friday and Monday.

EXCURSION TICKETS TO BANFF, TO EUROPE From Montreal every Wednesday and Saturday; from New York every Wednesday, Thursday and Saturday.

AUSTRALIA From Vancouver to Honolulu and Sydney. SS. Miowena, June 14 SS. Warrimoo, July 14 And every month thereafter.

CHINA AND JAPAN From Vancouver to Yokohama and Hong Kong Empress of India, June 5th Empress of Japan, June 26th Empress of China, July 17th And every three weeks thereafter.

For full information apply to Wm. McLeod, City Passenger Agent, 471 Main street; J. S. Carter, Depot Ticket Agent, or to Robert Kerr, General Passenger Agent.

The Things We Prize Most are not the gewgaws and gimcracks we gather about us. Every life, of course, has its sacred tinselled treasures, but in this practical work-a-day world man is prone to value most those things which serve him best. Not much sentiment in this, perhaps, but some sense all the same. The McCormick Machine of Steel takes first rank the world over. Hundreds of thousands of grain growers call it the best harvester and binder that ever went into a grain field, and they prize it accordingly. It isn't sentiment with them—it's just plain, old-fashioned common sense. They like it best because it serves them best. It costs more money than some harvesters, but that's because it's more valuable. Its advantages more than offset the added cost. The "Machine of Steel" is built to harvest the grain crop of the world, and to do it better than any other machine. Perhaps you may care to know more about this harvester. Our catalogue will interest you. McCormick Harvesting Machine Co. CHICAGO, ILL. H. J. CARLTON, Gen. Agent, Winnipeg.

STOCK GOSSIP.

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

The American Jersey Cattle Club are spending \$25,000 to promote the interests of their breed in connection with the World's Fair dairy trials.

A copy of the prize list of the Calgary Midsummer Fair, to be held on June 20, 21, 22 and 23, has just come to hand. Very liberal prizes are offered in the horse and cattle classes. The Hudson's Bay Company offer a \$50.00 silver cup as a sweepstake for heavy draught stallions, and specials are also offered by J. and A. Turner, Rawlinson Bros., and W. Bell Irving, in classes in which they are specially interested.

Mr. Alexander Macdonald, farmer, Balranald, North West, and of Edenwood, Cupar, Fife, shipped from Lochmaddy, in May, sixteen head of two-year-old Highland cattle for Canada. This is the only shipment of cattle for a number of years for a foreign port by a farmer from this district.—(Scottish Farmer).

Mr. Coley informs us that his Foot Rot Fluid has been used with eminent success by many of the largest flockmasters in England for many years. For hoost in calves and sheep, Coley's Hoost Cure will also be found a great boon, and will supply a want long felt. The introduction into this country of reliable stock remedies, that have been so extensively used and favorably known in Great Britain, will be highly beneficial and no doubt fully appreciated. Each bottle is accompanied by full directions. For particulars, see advertisement in another column.

NOTICES.

WESTERN FARM LANDS. A pamphlet descriptive of the farm lands of Nebraska, Northwestern Kansas and Eastern Colorado will be mailed free to any address on application to P. S. Eustis, General Passenger Agent, C. B. & Q. R., Chicago. Send for one and give names and addresses of your friends.

We have received a practical little work of 160 pages, entitled "Sheep Farming," a treatise on sheep, their management and diseases. This book contains a short history and illustrations of all the different breeds. A chapter on their management describes and gives the remedy for all the common diseases of sheep. Mr. Cooper and Nephews, Galveston, Texas, are the publishers.

One of the leading life insurance companies is the Mutual Reserve Fund Life Association, which does business on the instalment plan, and thereby claims a great saving in the cost of insurance to its policy holders. This Company has been fortunate in securing the services of Mr. James Thompson, late member for Emerson in the Manitoba Legislature, as their manager in the Northwest Territories, who is meeting with well-deserved success, and will, we trust, greatly extend the Company's already large business. For information regarding their system, write to A. R. McNicol, general manager, Winnipeg, or to James Thompson, Calgary.

Capt. W. O. McRobie has not only paid much attention to the best methods of extinguishing fire, but also to its prevention. As a result he has invented and patented a combined soot door and ventilator, which can also be used as a check draft. This complete and useful little combination should at once commend itself to all who see it, more especially to those who realize the number of fires that originate in chimneys, and to those who appreciate the value of thorough ventilation. An illustration of this soot door may be seen in our advertising columns. Full information as to cost, etc., will be furnished by applying to Capt. McRobie 44 Dagmar street, Winnipeg.

The Grand Central Railroad Station, Chicago, has been fitted for hotel purposes during the World's Fair. This magnificent, fire-proof structure, located at the corner of Harrison street, and Fifth avenue, in the very heart of the city, will devote the third, fourth and sixth floors to this purpose. It will be run on the European plan. Each room will have hot and cold water, electric lights, and be steam-heated. The office and ladies' parlors, etc., will be located on the third floor, and the building will be supplied with all modern conveniences. There will be from one hundred to two hundred rooms for guests. This acquisition to the hotel facilities of Chicago will be appreciated by those who wish to be safely housed in a fire-proof building, conveniently located in the city itself. Those desiring accommodations can secure them by addressing Mr. T. C. Clifford, the manager, at Chicago, Ill. The hotel was opened May 16th, 1893. The Grand Central Station is the Chicago Depot of the Northern Pacific Railroad, Wisconsin Central Division, and by taking this through car line to the World's Fair city, visitors will avoid the discomforts of transfer through the city. From this station trains run direct to the World's Fair grounds at intervals during the day.

THE GARRETT FENCE MACHINE.

Garrett's Fence Machine is cheap, simple and durable. It is stoutly constructed, and none of the parts will get out of repair readily. It works so easy that any boy who is tall enough to reach the handle can turn it. Any kind of pickets can be used and of all sizes. The boards of old board fences can be sawed up and woven in without splitting if desired. The young growth of willow, or any other timber cut and seasoned, makes a good and durable fence. It weaves the fence in the field from post to post, thus saving much time and expense. In this way the fence is made much tighter and more evenly than it is possible to stretch the web. Any size wire can be used. It will make a fence over rough and uneven ground; or up and down hill alike, making as good a fence as on level, even ground; the machine being adjustable, pickets are always woven plumb. The fences made by this machine will turn all kinds of stock, and is much stronger than any barb wire fence, and completely obviates all danger of injury to stock. It is just as easy to fence against dogs and rabbits as against sheep, and the strongest animal cannot break through it. Descriptive circulars, testimonials and prices will be cheerfully furnished by S. H. Garrett, Mansfield, O., U. S. A.

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NORTHERN PACIFIC R.R.

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

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Brandon Ex. Tues. & Sat.	St. Paul Express, Daily.	Miles from Winnipeg.		St. Paul Express, Daily.	Brandon Ex. Mon. & Wed., Fri.
2.55p	4.10p	0	Winnipeg	11.45a	1.00p
2.45p	4.00p	3.0	Portage Junc.	11.54a	1.10p
2.30p	3.45p	9.3	St. Norbert.	12.09p	1.24p
2.17p	3.31p	15.3	Cartier	12.23p	1.37p
1.59p	3.13p	23.4	St. Agathe	12.41p	1.55p
1.50p	3.04p	27.4	Union Point	12.49p	2.02p
1.30p	2.51p	32.5	Silver Plains	1.01p	2.18p
1.20p	2.35p	40.4	Morris	1.20p	2.30p
	2.18p	46.8	St. Jean	1.35p	
	1.57p	56.0	Letellier	1.57p	
	1.25p	65.0	Emerson	2.15p	
	1.15p	68.1	Pembina	2.25p	
	9.35a	102	Grand Forks	8.00p	
	5.35a	123	Winnipeg Junc.	8.55p	
	8.35p	170	Minneapolis	8.30p	
	8.00p	181	St. Paul	7.05a	
	9.00a	283	Chicago	9.35a	

MORRIS-BRANDON BRANCH.

EAST BOUND.		STATIONS.		WEST BOUND.	
Freight Mon. Wed. & Friday	Passenger Tu. Thu. & Saturday	Miles from Morris.		Passenger Mon. Wed. & Friday	Freight Tu. Thu. & Saturday
11.40a	2.55p	0	Winnipeg	1.00p	3.00a
7.30p	1.15p	10	Morris	2.30p	7.30a
6.40p	12.35p	10	Low Farm	3.05p	8.15a
5.40p	12.37p	21.2	Myrtle	3.31p	9.05a
5.24p	12.15p	25.9	Roland	3.45p	9.25a
4.40p	11.57a	33.5	Rosebank	4.02p	9.58a
4.10p	11.43a	39.6	Miami	4.15p	10.25a
3.25p	11.20a	49.0	Deerwood	4.35p	11.15a
2.55p	10.05a	54.1	Alamont	4.50p	11.48a
2.15p	10.40a	62.1	Somerset	5.10p	12.28p
1.45p	10.33a	68.4	Swan Lake	5.24p	1.00p
1.17p	10.19a	74.6	Indian Springs	5.39p	1.30p
12.55p	10.07a	79.4	Maricapolis	5.50p	1.55p
12.22p	9.50a	86.1	Greenway	6.06p	2.28p
11.51a	9.35a	92.3	Balder	6.21p	3.00p
11.04a	9.12a	102.0	Belmont	6.45p	3.50p
10.26a	8.55a	109.7	Hilton	7.21p	4.29p
9.49a	8.40a	117.1	Ashdown	7.37p	5.03p
9.35a	8.30a	120.0	Wawaness	7.47p	5.16p
8.48a	8.06a	130.5	Rounthwaite	8.14p	6.09p
8.10a	7.48a	137.2	Martinville	8.35p	6.48p
7.30a	7.30a	144.1	Brandon	8.55p	7.30p

West-bound passenger trains stop at Belmont for meals.

PORTAGE LA PRAIRIE BRANCH.

EAST BOUND.		STATIONS.		WEST BOUND.	
Mixed Daily, ex. Sunday.	Ex. Sunday.	Miles from Winnipeg.		Mixed Daily, ex. Sunday.	Ex. Sunday.
12.10p		0	Winnipeg	3.40p	
11.50a		3	Portage Junction	3.55p	
11.18a		11.5	St. Charles	4.20p	
11.08a		14.7	Headingley	4.35p	
10.40a		21	White Plains	5.00p	
9.45a		35.2	Eustace	5.49p	
9.18a		42.1	Oakville	6.13p	
8.25a		55.5	Portage la Prairie	7.00p	

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. S. SWINFORD, G.P. & T.A., St. Paul. Gen. Agt., Winnipeg. H. J. BELCH, Ticket Agent, 486 Main Street, Winnipeg.

COMMERCIAL BANK OF MANITOBA.

Authorized Capital—\$2,000,000. Head Office, Winnipeg. Branches in Portage la Prairie, Morden, Minnedosa, Boissevain, Carberry, Virden, Fort William and Souris. DIRECTORS:—Duncan, MacArthur, President; I. M. Ross, Vice-Pres.; E. F. Hutchings, G. H. Strevell, Alex. Logan, N. Matheson. Deposits received and interest allowed. Collections promptly made. Drafts issued available in all parts of the Dominion. Sterling and American Exchange bought and sold. 44-2-y-m

FARMERS' AGENCY

Send for price list of Groceries, Crockery and Hardware, wholesale. Dry Goods, Boots and Shoes 8% off regular cash prices. A 1 Ash Butter Tubs in nests of 3, 95c.; 30 lb. tubs, 25c.; Blue-stone, 5c. per lb.; pure Dairy Salt, 75c. per 56 lbs.; Hansen's Danish Bottle Color, usually sold at 25c. per bottle, 20c., 2 bottles for 35c. All kinds of business transacted for farmers. All kinds of farm produce handled on commission. Auction sales conducted in any part of the province. References—R. P. Roblin, Ex. M. P. P., Hon. D. H. McMillan, D. McArthur, Manager Commercial Bank of Manitoba; Munroe, West and Mather, Solicitors.

JAMES PENROSE, Agt., Cor. Market Square and William Street, WINNIPEG, 34-2-y-m MANITOBA.

WINNIPEG EXHIBITION

WHEN VISITING THE ABOVE, DON'T FORGET THE FACT THAT

Royal Greenhouses

Will be one of the leading features of the week. They are situated in the centre of the city, and can be easily found from any part. The electric car on the loop line passes the door every fifteen minutes. A transfer ticket from any part of the city will take you to the door. The Greenhouses will be illuminated every night by incandescent lights. The sight will be something to remember. Don't miss it. No charge for admission.

PLANTS, FLOWERS, FISH AND BIRDS.

My Catalogue (the handomest ever issued in Winnipeg) still sent free to all applicants.

Address, RICHARD ALSTON, FLORIST AND SEEDSMAN, ROYAL GREENHOUSES, WINNIPEG, MAN. 48-b-m

A. BOWERMAN, 241 Portage Ave., Winnipeg, VEGETABLE PLANTS AND SEEDS.

Flowers for house or garden. Select varieties. Good values. Call or write for what you want. 48-i-m

FORT ROUCE GREENHOUSES WINNIPEG.

Braxton & Dowyer, Props. All kinds of choice bedding out plants. Cut flowers & funeral designs at short notice. Best kinds well-grown vegetable plants. Tomato, Cabbage, Cauliflower, Celery, Etc. Country orders promptly attended to. Free Catalogue. 48-a-m

M. CONWAY, AUCTIONEER

Pure-Bred & Other Stock REGULAR SALES

If you have pure-bred or other stock for sale, communicate with me at 262 Portage Avenue, - Winnipeg.

P.S.—Write for dates of country sales. 33-2-y-m

LOOK AT THIS OFFER.

Teas at Wholesale Prices: Black Teas from 25c. to 50c. per lb. Japan Teas from 25c. to 45c. per lb. Choice Indian and Ceylon. 30c., 40c., 45c., and 60c. per lb. Our whole attention is given to the tea business, therefore can give best values obtainable. FREIGHT PAID on all orders of 25 lbs. Send for free sample and test for yourself.

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GRIEVE & PHIPPEN
TAXIDERMISTS,
251 Main Street, Winnipeg.
Highest Cash Price paid for
WHITE OWLS,
ELK AND MOOSE
HEADS, ETC.
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R. W. Woodroffe,
JEWELLER,
406 MAIN STREET, WINNIPEG,
—IMPORTER OF—
WATCHES, DIAMONDS, SILVERWARE, ETC.
THE LARGEST STOCK OF SPECTACLES AND OPTICAL GOODS IN THE PROVINCE.
Letter Orders and Watch Repairs carefully attended to.
48-n-m

MANITOBA WASHERS!
WASHING MADE EASY.
MR. T. McCROSSAN'S WASHER A WONDERFUL INVENTION—EXHIBITION YESTERDAY AFTERNOON. A number of people took the opportunity of witnessing an exhibition of Mr. McCrossan's Washer yesterday afternoon in the Bijou opera house. The fair sex were well represented. They seemed interested in the work-appeal and in matters of detail since the last trial. The cylinder on which the clothes are put in is about 30 inches in diameter and 14 inches wide. By bars, placed in the interior, three cavities are made, and as it revolves the clothes are carried to the top, when they fall down in the next cell. Each time the cylinder makes a revolution the clothes make three plunges. It is worked by a lever which has connection with a cog wheel, and so easy in the work that a small boy can turn it with one hand with ease. The exhibition commenced at 3 o'clock. Twenty pieces of white clothes, including sheets, towels, cuffs and collars were put in, and after the machine had been in motion seven and a-half minutes they were put through a rinsing. Then a dozen pieces of overalls and smocks of the dirtiest kind, such as used by firemen, were put in. The cylinder was put in motion and the dirt fairly rolled out. The water had to be changed several times. After eleven minutes the garments were taken out and pronounced by the spectators as being satisfactorily washed. To give a fair trial the dirty clothes should have been soaked. Mr. McCrossan's machine turns work into play. Winnipeg Tribune, Nov. 12, 1892.

McCROSSAN & CO.,
42-y-om 566 Main Street, WINNIPEG.

PRINTING!
Stock Catalogues, : : Thirty-
Horse Bills, : : : five hands
Letterheads, : : busy at this
Business : : work. Write for
Cards, estimates for good
Etc. work.
R. D. RICHARDSON,
Cor. opposite Post Office, WINNIPEG.
42-f-m

THERE'S NOTHING NEW UNDER THE SUN
SAID SOLOMON,
but that was before Dame Fashion ruled the world, and men and women kept pace with the civilizing forces of the age in the matter of dress.
Spring is Now Here,
and the thousands of patterns of the choicest imported fabrics shown by Geo. Clements, the Winnipeg Tailor, simply testify to their harmony with the civilization of the day.
GEO. CLEMENTS,
MERCHANT TAILOR,
480 Main Street Winnipeg, Man.
44-2-y-m

ARE YOU BUILDING?
If so, economy in fuel, comfort, convenience and fire protection are important considerations. The McRobie Soot Door Ventilator and Check Draft is approved of by architects and recommended by contractors as the most useful combination for the purpose in the market. It should be in every building. For full particulars, prices, etc., see your local merchant, or address
CAPT. W. O. McROBIE,
12-f-m 44 Dagmar St., Winnipeg, Man.

R. R. KEITH,
AUCTIONEER,
Cor. William and Market Sts., Winnipeg,
LIVE STOCK SALESMAN.
Sales conducted in city or country. Register kept of stock for private sale. Prompt settlements. Satisfaction guaranteed. Correspondence solicited. 32-2-y-m

CRADLE CHURN
JUST OUT! Will revolutionize the Churn Trade. Perfect in construction and ease of operation. Churns with half the labor required by any other Churn.
CRADLE CHURN.
PAT. NOV. 28, 1892.
B. R. HAMILTON & CO., Patentees & Sole Proprietors.
31-2-y-m NEEPAWA, MAN.

THE BEST IS ALWAYS THE CHEAPEST
The Halladay Standard Wind-mill as improved for 1893.
It has stood the test for over forty years, which is a record no other mill can claim. We still guarantee it to be more reliable in storms than any other wind-mill made. We make several other styles both for pumping water and driving machinery. It will pay you to write us for large descriptive catalogue before purchasing elsewhere.
ONTARIO PUMP CO., LD., (IN LIQ.),
Toronto, Ontario. 336-tr-om

ROBERT NESS,
WOODSIDE FARM,
Importer & Breeder of Yorkshire Coachers, French Coachers, Clydesdales, Shetlands and Ayrshire Cattle. Prices to suit the times. ROBERT NESS, Woodside Farm, Howick P.O., P.Q. 329-y-om

D. & O. SORBY, GUELPH, ONTARIO,
—BREEDERS AND IMPORTERS OF—
FASHIONABLY BRED CLYDESDALES
We always have on hand a large number of imported and home-bred Clydesdales (male & female) of good breeding & quality, which we will sell at honest prices. Our specialties are good & well-bred horses and square dealing. Come and see us or write for particulars. 330-2-y-om

SCOTCH-BRED SHORTHORN BULLS
Scotch-Bred Heifers, Imported Shropshire Rams, Imported Ewes, Home-bred Rams, Home-bred Ewes.
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
Brougham, Ont. 306-2-y
Claremont Station, C. P. R., 22 miles east of Toronto.

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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. 319-2-y-om

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Deep Milking Shorthorns

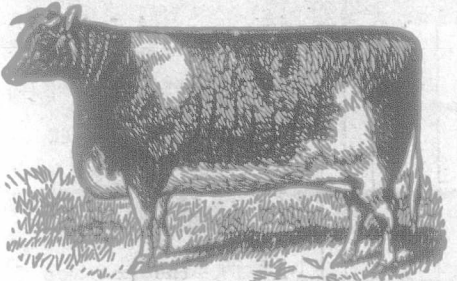
MR. GRAINGER, Lonsdale, Ont., offers for sale some exceedingly good cows and heifers. (Fair Maid of Hullett 2nd, now at test at Chicago, is only a fair specimen.) Dams made thirty pounds of butter in seven days. Come and see them; they are good ones. 338-2-y-om

MAPLE SHADE Stock Farm.

I now offer superior young SHORTHORN BULLS at reasonable prices. For full particulars address,

JOHN DRYDEN,
314-2-y-om Brooklin, Ont.

New Importation!
ARTHUR JOHNSTON, Greenwood, Ont.



Reports his recently imported Cruickshank-bred safely at home, seven young bulls and six females, all of which will be sold at moderate prices. I have also exceedingly good young bulls and heifers of my own breeding for sale. Send for Catalogue. 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. 323-2-y-om

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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. 321-2-y-om

Shorthorns, Coach Horses and Berkshires. Our herd is headed by Daisy Chief=11108=, and was highly successful in the various Western Ontario fairs of the past season. A few choice young Bulls and Heifers for sale. Also registered Berkshires and a few extra choice Cleveland Bay mares and fillies, the get of Disraeli, Dalesman, etc. Write for prices, or come and see us. A. J. C. SEAW & SONS, Camden View Farm, Thamesville. 318-2-y-om

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Some good, thrifty young stock of both sexes on hand for sale. Write for prices. 321-2-y-om JNO. RACEY, Jr., Lennoxville, P.Q.

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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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SCOTCH-BRED SHORTHORNS FOR SALE

6 Choice Young Bulls

And the Imported Cruickshank Bull

ABERDEEN HERO,
Their sire. Also some nice

Young Heifers,
From one year old up. Prices to suit times. 322-2-y-om

SHORE BROS., White Oak.

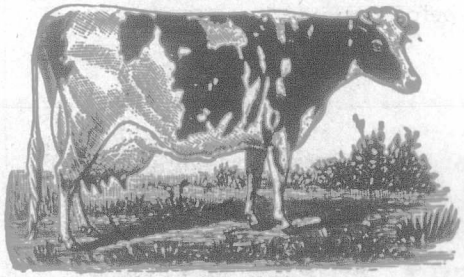
NONE BUT THE VERY BEST ARE KEPT AT ISALEIGH GRANGE.

This is what we claim and our customers endorse. **GUERNSEYS, SHROPSHIRE AND IMPROVED LARGE YORKSHIRES.** Seventy-five beautiful ewes in lamb to our imported rams, winners at England's greatest shows. In Yorkshires we imported last year the cream of the English winners at the Royal, the Liverpool and Manchester, and the Royal Cornwall and other large shows, including the first-prize boar at the Royal. Do not forget that like produces like, and send in your orders for young pigs early. Address, 333-y-om **J. Y. ORMSBY, Manager Isaleigh Grange Farm, Danville, P.Q.**

SHORTHORN CATTLE—A few good, useful, young bulls for sale.
PLYMOUTH ROCK FOWLS—Pilgrim strain; choice cockerels and pullets at moderate prices. Also registered Berkshires.
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THE GREAT MILK AND BUTTER HERD OF HOLSTEIN-FRIESIANS.

SMITH BROS., Credit Valley Stock Farm, CHURCHVILLE, PEEL COUNTY, ONT., (2 1/2 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. 333-2-y-om

Holstein-Friesians
OF THE CHOICEST MILKING STRAINS.
Extra individuals of both sexes for sale.
J. W. JOHNSON,
326-2-f-om SYLVAN, P. O.

HOLSTEIN-FRIESIAN CATTLE
Netherland, Aagle and Artis blood, along with others all of the best strains of producing blood. Write for particulars. Young Bulls and Heifers of the above tribes on hand. A grandson of Netherland Prince now for sale.
G. W. CLEMONS,
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Holstein-Friesians.
Owing to an important change in business, our herd will be reduced one-half. Stock the choicest and prices the lowest. All young stock bred from Silver Medal and First Prize-winning stock. Send for our new catalogue.
New Dundee P. O., Ontario.
A. C. HALLMAN & CO.
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HOLSTEINS & YORKSHIRES
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. 319-2-y-om

Prize-Winning AYRSHIRES FOR SALE.

I have at present one of the largest and best herds in Ontario, which has been very successful in the prize ring. They are deep milkers and of a large size. Bulls, cows and heifers for sale always on hand.
JAS. McCORMICK & SON,
ROCKTON, ONT. 323-2-y-om

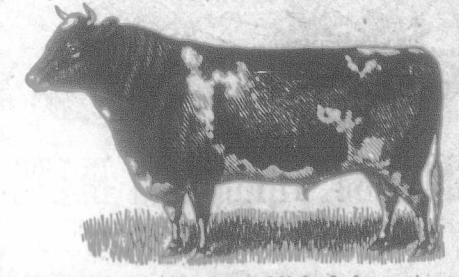
PRIZE-WINNING AYRSHIRES FOR SALE



GURTA 4th (1181)
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 welcome. Address
THOMAS GUY,
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WM. ROLPH, Glen Rouge Farm, Markham, Ont., offers for sale Jerseys of all ages from his famous herd. The world-renowned St. Lambert blood a speciality. Also registered Clydesdale Horses. 331-2-y-om

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We have the oldest established, largest and best herd of Ayrshires in Canada. Choice young stock for sale at liberal prices. Satisfaction guaranteed. **JAMES DRUMMOND & SONS, P.O. Cote, Montreal, P.Q.** 332-2-y-om

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Breeders of AYRSHIRE CATTLE. A grand litter of young BERKSHIRE Pigs for sale.
E. REID & CO., Hintonburg, Ont.
One mile from Ottawa. 324-2-y-om

THE PARK HERFORDS!

Won more prizes in 1891 and 1892 than any others in Toronto, Montreal and Ottawa, and both years were awarded first and second prizes for herds at the above places. These are the ONLY HERFORDS chosen to represent Ontario at the World's Fair.
F. A. FLEMING, Proprietor,
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HERFORDS, STANDARD-BREDS AND YORKSHIRES.—Headquarters for the famous Tushingham blood. Tushingham (19450) sold for \$5,000. Also standard-bred colts and fillies and pedigreed Yorkshires.
321-2-y-om J. W. N. VERNON, Waterville, P.Q.

Ingleside :-: Herefords.

Herd headed by the Medal Bull of Canada, Young Tushingham 2nd (32399). All stock registered and from prize-winners, combining the desirable blood of
HORACE ANXIETY,
THE GROVE 3rd, BRADWARDINE.

Choice young stock of the above strains for sale at reasonable prices.

IMPORTED CLYDESDALES.

Prince of Wales and Darnley strains. Saddle horses and stylish drivers for sale.
Station, **H. D. SMITH,** Ingleside Farm, COMPTON, Que. 321-2-y-om

MAPLE GROVE FARM.

Cotswold and Leicester Sheep, also Improved Large Yorkshire Swine, are my specialties.
C. W. Neville,
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SHROPSHIRE, CLYDESDALES AND POLLED-ANGUS CATTLE.

Two imp. stallions, one yearling bull and eighty choice Shropshire rams and ewes of all ages. Prices reasonable. Write quick. All registered. **JAS. McFARLANE & SON,** 319-2-y-om CLINTON, ONT. G.T.R. Station 1/2 mile.

Having reduced my flock by recent sales I intend visiting Great Britain early in the spring to bring out my annual importation, when I shall endeavor to select the best, size and quality combined

W. S. HAWKSHAW,
Glanworth Post Office.
326-y-om

THE GLEN STOCK FARM.

Clydesdales, Shropshires and Berkshires.—Choice young registered stock for sale. Telegraph office, Innerkip. Farm 1/2 mile from Innerkip Station on C.P.R., and 6 miles from Woodstock, G.T.R. **WHITESIDE BROS., Innerkip, Oxford Co., Ont.** 333-2-y-om

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Shropshires, Shorthorns, Shire Horses, Yorkshires

The Ruyton-11-Towns flock always winning at R. A. S. E. and other shows. Last win:—The Champion Cup at the Royal Liverpool, Manchester and North Lancashire Show for the best ram, all ages and all breeds. Shorthorns:—Winning at R. A. S. E., etc., etc. Herd established over 50 years. Yorkshire Pigs of good pedigrees. Easy distance from Liverpool. Meet trains at Baschurch, G. W. R., by appointment. Address

Telegrams: **RICHARD BROWN,** Ruyton-11-Towns, Shropshire, Eng. 322-2-y-om

LINCOLN SHEEP

I always have for inspection and sale a large flock of pure Lincoln Long wool Sheep, including many prize-winners, having taken 80 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. 319-2-y-om

To Stockmen & 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 is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders. JOHN DRYDEN, Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to **ROBERT WICHTMAN, DRUGGIST, OWEN SOUND, Ont.** Sole Agent for the Dominion. 330-2-y-om

OXFORD-DOWN SHEEP

HENRY ARKELL,
Farnham Farm, Arkell P.O., Ont.,
Importer, Breeder & Dealer in High-class

OXFORD-DOWN: SHEEP

First importation in 1881. An Minnie Miles importation expected in July. 5115 winner Stock for sale at all times. of silver cup 1892, Detroit Exposition, overall breeds. 324-2-y-om

DORSET HORN AND SHROPSHIRE SHEEP,

Jersey and Holstein Cattle, SHETLAND PONIES, CHESTER FIGS. ALL THOROUGHBREDS.
JOSEPH STRATFORD,
G. T. R., Brantford, Ont. 325-2-y-om

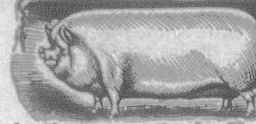
IMPORTED SHROPSHIRE

My stock was selected by myself, and consists of Shearling Ewes and Ewe Lambs from the leading flocks of England, and of the highest quality and breeding. Stock of all ages for sale.
C. W. GURNEY,
Paris, Ontario. 327-y-om

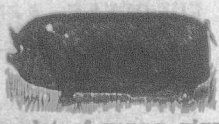
1881—SHROPSHIRE—1881

My flock is established since 1881. All my ewes are imported and selected in person from the most noted English flocks. A choice lot of shearlings and lambs sired by a Bradburn ram. Write for prices to **JAMES COOPER,** Kippen, Ont. 338-2-y-om

H. J. DAVIS, Woodstock, Ont., Breeder of High-class Large Berkshire and Imp. Large White Yorkshire Swine, Short-horn Cattle. — A grand



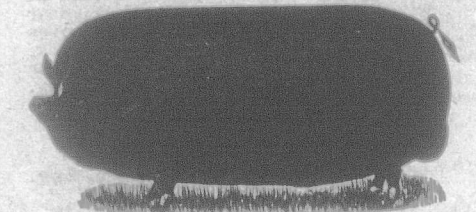
lot of young pigs ready for shipment of both breeds; also boars fit for service from prize-winning stock. — Stock shipped to order. Satisfaction guaranteed. Young Bulls generally on hand. 332-y-om



lot of young pigs ready for shipment of both breeds; also boars fit for service from prize-winning stock. — Stock shipped to order. Satisfaction guaranteed. Young Bulls generally on hand. 332-y-om

S. COXWORTH, CLAREMONT, ONT., Breeder and Importer of Berkshire Hogs. Young stock of different ages constantly on hand. Pairs supplied not skin. Stock won at leading shows in 1893-18 first, 11 second, 7 third, including Toronto, Montreal and Ottawa. Prices moderate. Satisfaction guaranteed. Station and Telegram Office — CLAREMONT, C. P. R. 332-y-om

J. C. SNELL, Edmonton, Ontario.



Most of our best sows now have fine litters of young pigs sired by first-class imported boars. Three imported boars were used, so we can supply pairs and trios not skin. We have a few young sows in farrow to come due in April and May. Also young boars of fall litters now fit for service, and young sows of same age not skin. We are now booking orders for spring pigs. Jersey Cows, Heifers and Calves for sale at reasonable prices. Stock shipped to order. Satisfaction guaranteed. Write for prices. 332-y-om

ISRAEL CRESSMAN, New Dundee, Ont., Breeder of Large English Berkshires. Young Hogs always on hand; got by imported stock. 332-y-om

FARMERS, READ THIS

We will pay extra for fat pigs bred from Tamworth and Improved Yorkshire boars, as they are worth more money to us. We have imported a large stock of these pigs, and have on hand a choice selection of imported and home-bred boars and sows. Write us for prices, which are as low as they can be made, this being a business entirely of a secondary consideration with us, our first object being to supply the trade with an A 1 article in bacon, and we are satisfied that these are the breeds that pay both the feeder and the packer. Send in your orders quick and get a good in-pig sow, or a boar to use on grade sows.

JAS. L. GRANT & CO., Ingersoll, Ont. 330-2-y-om

TAMWORTH SWINE, SHROPSHIRE, CLYDESDALES AND SHORTHORNS.

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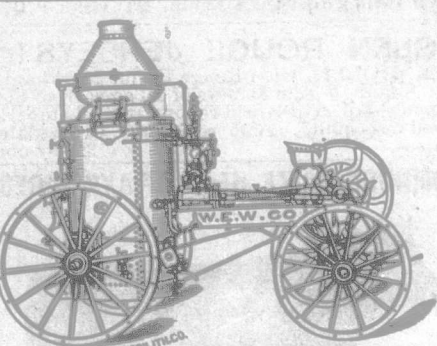
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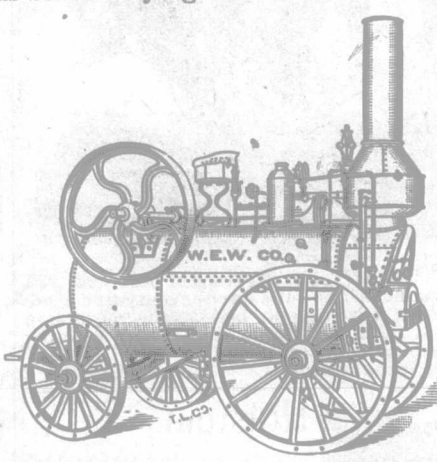
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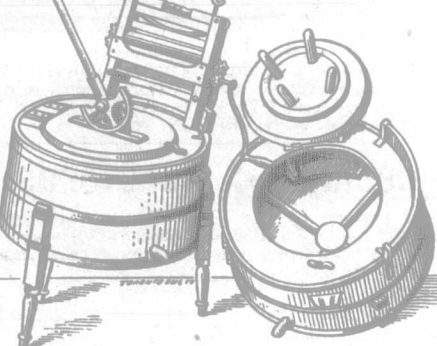
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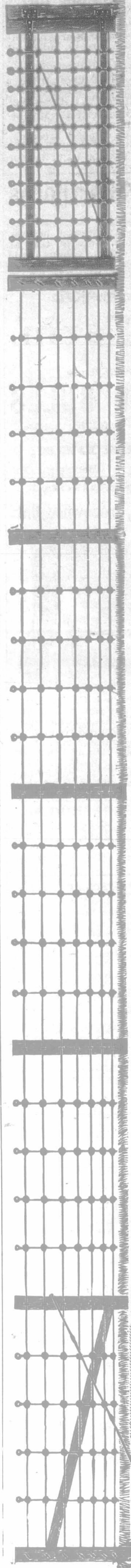
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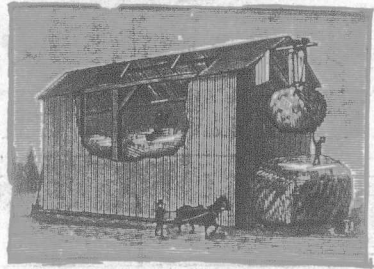
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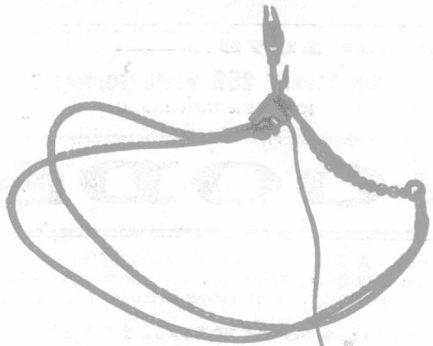
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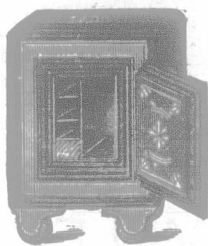
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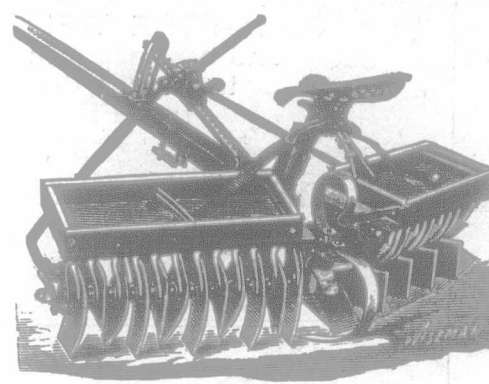
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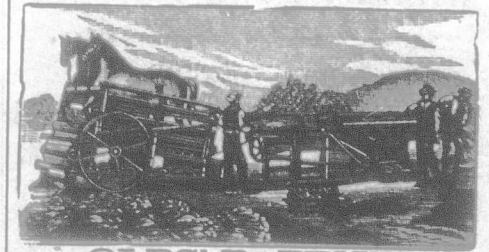
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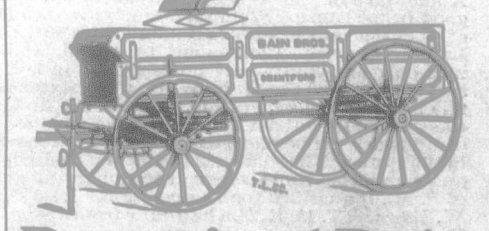
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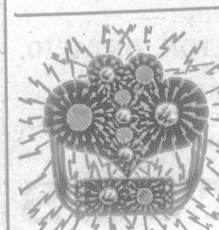
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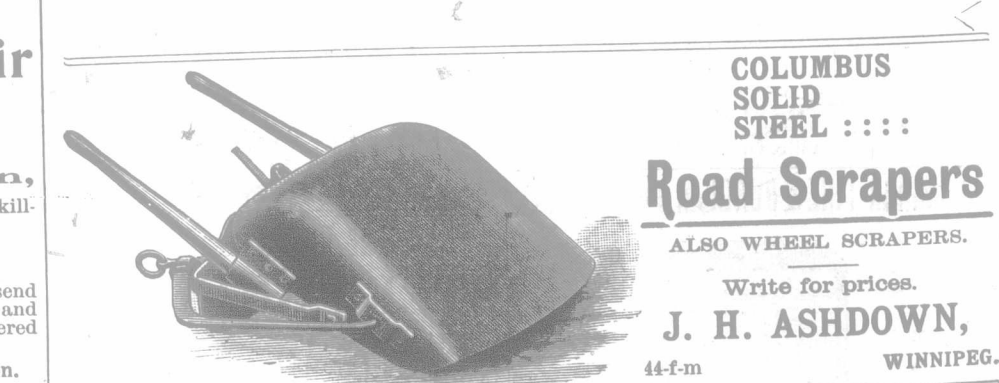
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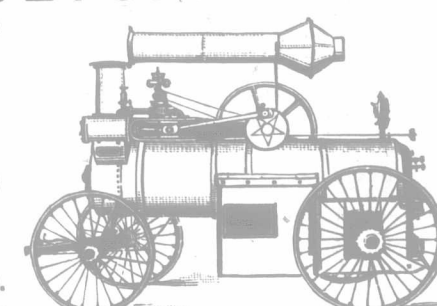


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