



Farmer's Advocate and Home Journal

WESTERN CANADA'S AGRICULTURAL WEEKLY

REGISTERED IN ACCORDANCE WITH COPYRIGHT ACT 1875

Vol. XLVI

WINNIPEG, CANADA, JUNE 8, 1910

No. 924

WHY THE CAPITAL GETS 999/1000 OF ALL THE CREAM!

IN order to realize just why The Capital Cream Separator gets more cream from a given quality of milk than any other type of separator anywhere—why its loss of butter-fat is less than one-fifth the average loss of machines of all other makes—one has only to study the wonderful wing-cylinder skimming device of The Capital, as against the comparatively crude mechanisms of other types.

This wonderful wing-cylinder is really a very simple affair when you come to look at it—so simple, in fact, that the only wonder is it was not invented long ago. It is merely a number of curved wings of thin, tough steel, all heavily tinned and with all the flanges locked to one central ring.

Think of the simplicity of washing it! Now, there are two important things to remember about this wing-cylinder; first, that it gets 999/1000 of all the butter-fat; second, that after the butter-fat is once extracted, it is never re-mixed with the skim.

The way The Capital gets all the butter-fat is this: As the whole milk enters the revolving bowl, it is instantly whirled between the wings in a perfect multitude of exceedingly thin films; centrifugal force at once sends the lighter contents of the milk—the cream or butter-fat—to the

upper edges of the wings, whence it is led direct to the point of exit; the heavier skim milk, freed of all the butter-fat that any process can get out of it, falls, naturally, to the wings' lower edges, flows thence to the bowl's wall, and from there travels in a straight line to the discharge spout.

Notice how directly both the cream and the skim leave the machine as soon as they are separated. The whole process is complete in one, single operation—a statement that can be made only of The Capital Cream Separator. This statement can be made of no hollow-bowl machine—of no machine that uses perforated cones, regardless of their size or number. There is no re-mixing and re-separating with The Capital.

What this means in labor is easy to calculate—just as it is easy to understand the cream it saves. The difference in favor of The Capital is the difference between a loss of 4 1/2 ounces of butter in every 500 lbs. of whole milk, and a loss of only 8-10 of one ounce in the same quantity of whole milk.

But this is only a single point about The Capital. There are other facts, fully as important, which we will be glad to tell you if you will only ask us. Will you WRITE us about it?

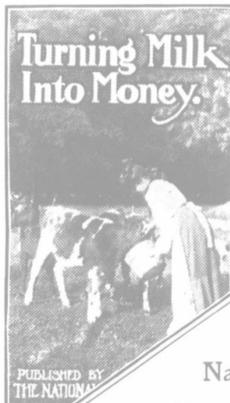


The above illustration shows the wing-cylinder Capital Cream Separator—the separator that gets 999/1000 of all the butter-fat.

THIS book, "Turning Milk Into Money," is worth money—stands for dollars in the pocket—to any man who is in the business of dairy farming for profit. The aim of this book is to point out to the intelligent dairyman the methods by which he can realize as high a percentage of profit as possible upon his fixed capital. The story of The Capital is told in the book, of course. But it is told only from the standpoint of increased revenue—in the light of helping to make your business a payer of greater dividends. We believe that if we can make more farmers realize how great are the profits of the dairying business, when it is worked right, that more farmers will go into dairy farming, and that we will have a wider market. And it is with the object of making the practical, level-headed man realize these facts, that "Turning Milk Into Money" was written. Do you want to read it?

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Wit and Humor

Mr. Edison is still busy with his new storage battery which he claims will solve the traction question. In his experiments with these batteries Mr. Edison has had men at work for years with a patience unparalleled. More than half a ton of reports on experiments with batteries have been made. Two of his best men had to give up the work because of its unending monotony to save themselves from a nervous breakdown.

The work was continued night and day for more than three years, and more than 9,000 experiments were made without obtaining the result which Mr. Edison wanted.

A visitor to whom this was told exclaimed: "Then all those experiments were practically wasted." "Not at all," said Mr. Edison. "I now know 9,000 things not to do."

The young ter had been constant to the nursery, and strict injunction had been laid upon them to "play a nice, quiet game." But a new member, however, found a "considerable" amount with a dash of "factory" in it, and from the room and noisier in bed.

"Mercy on a shabby!" he exclaimed. "Wherever are you going? You must not make any more noise!"

"But, mamma," explained one of the darlings, "we are only playing theatre."

"Theatre?"

"Yes, the scene is a storm at sea, and all of us except Tommy are shipwrecked people calling for help."

Mamma's attention was thus directed to Tommy, who, crouched in the corner, emitted doleful howls.

"And what is Tommy doing?" she asked.

"Tommy's the scenery."

"The scenery?"

"Yes, he is the ocean shrieking in the teeth of the storm." Tit-bits.

A Hereford gentleman met an eccentric old squire of his acquaintance riding with only one spur.

"What have you done with the other spur, squire?" he asked.

"Why, what would be the use of the other?" said the squire; "if one side of the horse goes, the other can't stand still."

An Irishman travelling in France was challenged by a Frenchman to fight a duel, to which he readily consented, and suggested shillalals as weapons.

"That won't do," said the Frenchman, "I want a sword."

"I'll give you a sword," said the Irishman, "but you must give me a reason why I should give you a sword."

"I don't know," replied the Irishman, "but I'll give you a sword if you give me a reason why I should give you a sword."

"Very well," said the Irishman, "I'll give you a sword if you give me a reason why I should give you a sword."

A London caddy, on looking into his cab to see that all was in perfect order, discovered a dead cat on one of the seats.

In his anger and rage he was about to throw the carcass into the street, when he espied a police constable, and the following dialogue took place:

Constable: "What are you up to there?"

Caddy (holding up the cat): "This is how I am insulted. What am I to do with it?"

Constable: "Surely you know what to do with it. Take it straight to Scotland Yard, and if it is not claimed within three months it becomes your property."

A story is told of a new cook who was helping her mistress to prepare the dinner. All went well until the macaroni was brought out.

The cook looked with surprise as she beheld the long white sticks. But when they were carefully placed in the water, she gave a choking gasp.

"Did you say, missus," she said, in an awed voice, "that you were going to eat that?"

"Yes, Jane," was the reply, "that is what I intend to do. But you seem surprised. Have you never seen macaroni cooked before?"

"No, ma'am," answered the cook, "I ain't. The last place I was at they used their things to light the gas with."

THE COLD SPARE BED

When you have a friend to visit you, in she be a welcome guest, and you will try to make her happy, and you'll give her of your best; you'll tell her all the stor of your varied household cares, and relate in picturesque details all your own affairs. But whatever else you do, don't for mercy's sake let her To put that helpless woman in the cold spare bed!

You may tell her of your troubles with your numerous hired girls, and what "she said," and what "I said," till her understanding whirls. You may talk of the servant question till the setting moon's last gleam, and begin next morning on the same old tiresome theme; But whatever else you do, don't for mercy's sake, let her To put that helpless woman in the cold spare bed!

You may tell her of your pains and aches, and what the doctor said, that time you came near dying with neuralgia in your head; of how you poured down bottles, and drops and patent pills. When you caught the dread malaria, and had such awful chills; You may love her, on ma, wear; her, till she wishes she were dead. But for mercy's sake, don't put her in the cold spare bed!

New England Farmer

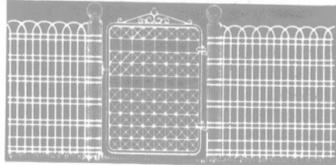
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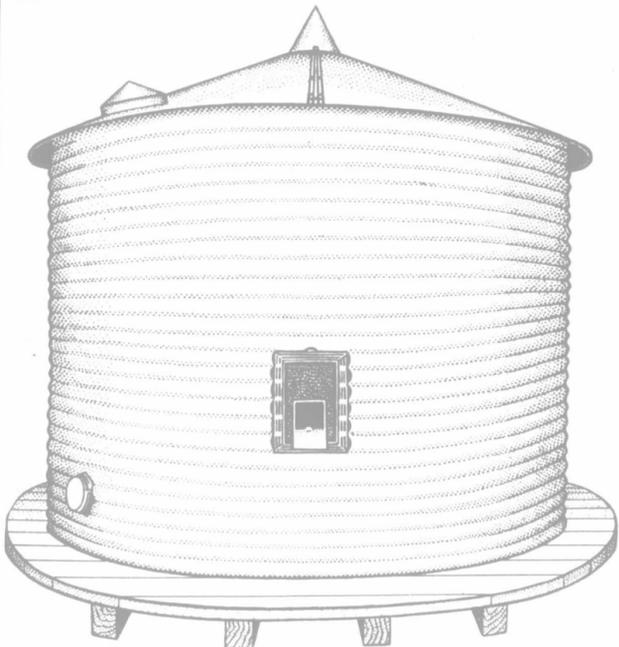
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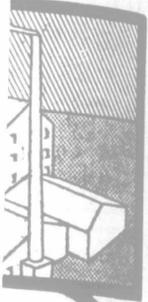
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faith. As a rule, they hold office for a term of years and retire only when the public, or those under them in office, have been injured beyond remedy.

The trouble is that the mass of the people have not always a say in appointments in which they are largely interested. Perhaps it is well that this is so. However, it is also true that sufficient care is not taken in appointing men to high offices.

There are too many small frogs in big puddles—and they frequently make themselves offensive to those under them, who have infinitely greater talents, to say nothing of their effect as drags on the wheels of progress and the injury to the country.

what grain would be worth per bushel marketed in the form of \$10.75 per hundred live pork. It is calculated that 472 pounds of oats, 452 pounds of wheat or 418 pounds of barley will produce 100 pounds of pork.

Our Untapped Resources

English newspapers have had interesting comments on what they consider to be an order of the Canadian government, stating that no assisted emigrant may land in Canada, unless he is suited for farm work and has a farm job procured for him. Some of these comments have been rather caustic; others very reasonable.

The *Daily News* of London says:

"Canada is an immense country, with immense untapped resources, but neither Canada nor any other immense and resourceful British colony can swallow artisan immigrants at an unlimited rate. Primarily, Canada is an agricultural country, and a large agricultural development is the necessary preliminary to any other large development of her population.

"It is not for us to teach the Canadian government its business. The fault is, indeed, not a little on our side. What is wrong is a policy of permitting social evils to grow at home in the confident expectation that we can dump their results on the colonies. . . . Those who exaggerate the possibilities of immigration forget that the colonies are each of them nations with ends of their own to keep up."

Stick to the Hog

"Stop my advertisement. I'm all sold out of pigs; in fact, I think I'm oversold," writes a prominent swine breeder in Saskatchewan. "Never had such demand for stock since I went into the hog business," writes a breeder in Manitoba. And it was only a year and a half ago that a breeder in one of these provinces told us he was going to shoot off his breeding stock and quit the business, because purebred hogs were in no demand, and he couldn't get better than pork prices for what he was raising. So he went out of business, and now in a bare eighteen months purebred hogs are in such demand that breeders are hard pressed to supply it. All of which proves more than that it doesn't pay to shoot breeding stock merely because pork prices are a little low. It is the man who sticks that wins.

This fact holds. It is because a lot of farmers sold off their breeding stock that purebred hogs are in such active demand at present. When enough of those who quit the hog business in disgust a few years ago are back into it again, and pork production is again on a normal basis, pork values will naturally

Figure Out the Hog Business

Hogs weighed off cars sold at Winnipeg last week for \$11.00 per hundred; one or two loads went at this figure; 426 out of about 700 received sold at \$10.75; some two hundred odd sold at \$10.50; the light ones, culls, stags and old sows shaded down to lower values. At Toronto the same week, top prices for hogs off cars was \$9.90; at Montreal, \$10.00; at Chicago, \$9.25 to \$9.55.

These figures illustrate two facts: Hog supplies are short here, shorter than in any other section of the continent; buyers are meeting sellers in a spirit of fairness and so far as hogs are concerned the Winnipeg market is an open and competitive one.

High hog prices have been the order for some time, but it is doubtful if, up to the present, these record-making prices have stimulated very much increased interest in hog production. Hogs have been high for more than a year now, and seemingly as large a proportion of brood sows are finding their way to market as was the case in periods of price depression, when the general cry was "Get out of hogs!" To add to the probable future shortage, there has been a high mortality in this spring's litters. With the brood sows being sold as formerly and large numbers of young pigs dying off, where is next year's supply of pork to come from?

This question is worth pondering. This country has sold itself short of hogs and apparently doesn't know it. The time for the producer to act in the matter is now. Keep the brood sows; turn some females of good type into the breeding ranks; use a pure-bred boar of recognized merit, and remember that at present prices for grain, hogs may be produced at a cost of 5 cents per pound live weight, while the spring litters, if proper provision is made for summer pasturage, should be raised at considerably lower cost than if the ration were all grain.

Figure out this hog business; find out

EDITORIAL

Cleaning Up

A garden rake and a few matches can be of great service in spring and early summer in getting rid of unsightly rubbish that has accrued during the preceding ten or twelve months. The man who is proud of his home takes every precaution to clean up at as early a date as possible every spring. He also keeps things tidy throughout the season.

This periodic clean-up does much to improve the home surroundings. It also assists in avoiding weed pests in so far as the best possible opportunity is afforded to get rid of weeds before they have gone to seed.

Gather with the rake and use a match.

Small Frogs in Big Puddles

Last week's reference to "big frogs in small puddles" naturally causes the mind to drift to the thought that there are also too many small frogs in big puddles—and it must be admitted that although the latter are perhaps less plentiful they are considerably more dangerous. The big frog in a small puddle as a rule deceives only himself, but the small frog in the big puddle, posing, as he does, as a leader of men, and one whose advice should be followed, is a menace to society.

Agriculture today is troubled with a superabundance of these impostors. Some of them find their way, by hook or by crook, into the most prominent and the most responsible offices in the gift of the state. Some of them are so small that they do not realize their own littleness. They therefore pose as captains of agriculture, and the average individual, not being acquainted with all the facts, accepts their suggestions and advice in good



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decline some, though it is difficult to see how they may be reduced to the level of the last low price era. It may be expected then that the same performance will be indulged in, farmers selling off their brood sows and breeders talking about shooting off their purebreds. All because a little overproduction has unsettled values. And again the man who sticks will be the one to win. It has been the history of hog raising in this country that those who stick to it make money, but those who are out one year and in the next are seldom any further ahead. For when they are going out, others are similarly minded, and their going in again usually coincides with a general stampede for breeding stock. Consequently they are buying at the top and selling at the bottom all the time. No wonder there isn't any money in hogs for them. Stick to the hog business. It pays in the long run.

Money Wasted on Roads

A perusal of letters that appeared in these columns recently, dealing with the construction of satisfactory road-beds across sloughs, gave some idea as to how road building should be managed or supervised. To many, the thought of wasted time at statute labor returns. There are few localities in which, at one time or another, men have not simply "put in time." Those who have not worked at half speed have been engaged at more or less useless work—many have experienced both.

This lack of satisfactory results in road building or road repairing may not be caused by the adoption of the statute labor system. It is, however, due to the fact that seldom is a capable road superintendent available. Too many forget that work on highways is a science and that it requires more than the annual expenditure of the time of a given number of men and teams. In many instances more time is allotted for statute labor than is called for by the condition of the road.

It is evident, therefore, to anyone who has given the matter careful thought that all road construction and maintenance should be under the supervision of a district superintendent, who in turn should act according to suggestions from a provincial road commissioner. Not only will he be able to do more satisfactory work, but also he will use men and teams to advantage.

HORSE

Observations on Horse Subjects

Several Toronto newspapers are in trouble because they have been publishing results of the horse races pulled off from day to day on the various tracks in America, and after Mr. Miller, of anti-gambling bill fame, had succeeded in inducing parliament to substitute in part for section 235 of the criminal code, the following: "Everyone is guilty of an indictable offence, and liable to one year's imprisonment and to a fine not exceeding one thousand dollars, who advertises, prints, publishes, posts up, sells or supplies, or offers to sell or supply, any information intended to assist in or intended for use in connection with book-making, pool-selling, betting or wagering upon any horse race or other race, fight, game or sport, whether at the time of advertising, printing, publishing, exhibiting, posting up or supplying such news or information, such horse race or other race, fight, game or sport, has or has not taken place." In enforcing the measure right to the letter those behind the anti-racing movement are certainly within their rights, but it seems to us that it would be the part of wisdom not to be overzealous in the enforcing of certain parts of the Miller Bill. That measure went through parliament with public opinion pretty nearly equally divided with respect to its merits. In the form in which the Commons adopted it it contains many excellent provisions. It should put a stop to many of the flagrant abuses that have grown up around horse-racing in recent years. But to be efficient it has to win public confidence and support. The better class of the Canadian people will stand behind Mr. Miller and his confederates in their endeavors to make the racing sport clean, but we are not so certain the people are as ready to back them up if they attempt to use the powers given in these amendments to the criminal code, to the end that news and information on horse-racing may not be published in the newspapers. Miller Bill enthusiasts and those who have at heart the weeding out of evils in connection with horse-racing would be wise not to let their enthusiasm run away with their reason. There are plenty of evils surrounding horse-racing, which they could direct their energies in putting a stop to, under the provisions of this anti-gambling bill, and if Mr. Miller's measure is to secure the results expected of it those who charge themselves with enforcing it should steer as clear as they can of any semblance of seeming to dictate moral conduct to the public. The public will stand for most of the provisions of the Miller Bill, but they will not stand for its being made a nuisance of.

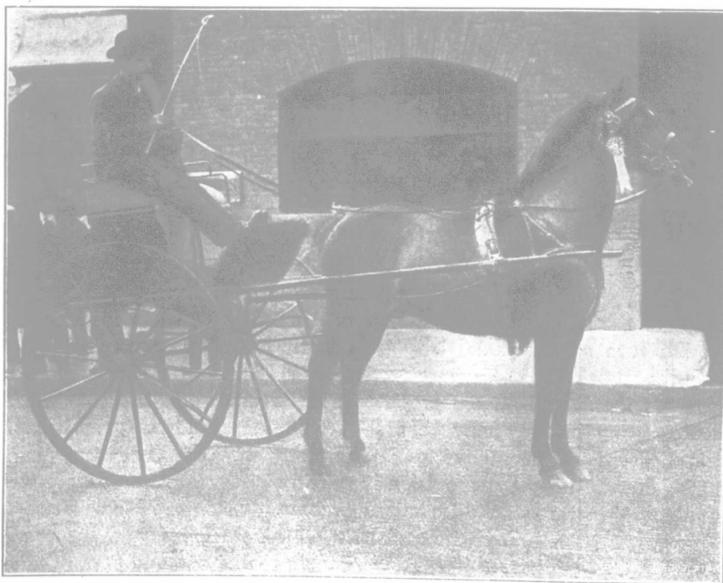
Practitioner is correct in stating that McGill

University closed out her veterinary department some years ago. It was the institution's sister university in Montreal that we had in mind when penning our observations of a few weeks since. Practitioner evidently knows something of the opportunities to win worldly wealth and social position afforded by the veterinary profession—knows or imagines he knows, probably the latter. A good many veterinary college graduates are ready to accept government positions at less than postmen's salaries, for reasons that seem good and sufficient to themselves; reasons very similar to those that force graduates of agricultural colleges to go in for some line of work in which the remuneration is meagre as compared with what they should earn were they to apply their ability and training to practical agriculture; reasons similar to those that force a doctor of dentistry or of medicine to work for a wage little better than a postman's salary, sometimes not as good. It takes money, nerve and some business ability to establish a practice in any line of professional work, and if a man is short on any one or on all three he will have to make what he can of his talents, even sell them to the government to be employed in inspecting carcasses in a slaughter house for seventy-five dollars a month. All of which is no proof that there is no money in the veterinary profession, any more than the fact that a dentist starts working in another practitioner's office for twenty dollars a week is proof that there is no money in dentistry, or that the fact that an agricultural college graduate hires himself out for about the same wage is proof that there is no money in farming. Men in all lines of work do these things because they have to, or because they would rather work on small salary than try to establish a business or practice of their own.

Why veterinarians should hanker after government jobs and give up lucrative practices for the privilege of occupying an official position is rather more difficult to explain. We doubt if some who have gone through the experience could explain exactly why they did it. However, that is no proof either that money is not to be made in the practice of veterinary medicine; nor is it any reason why a man should not consider this as a line of work. There are opportunities in the veterinary profession for any young man who will go in for it unobsessed with the idea that his work will be a sort of pink-tea affair most of the time. As to the social status of the veterinarian, that is hardly worth considering. There always has been, and probably always will be, a lot of snobbery in the world, and one man will always consider that his work in life entitles him to social preferment that is denied another; but neither Practitioner, if he has the individual qualities that make his social recognition worth while, nor any other member of the profession similarly qualified, need pass sleepless nights worrying over the fact that their business bars them from participation in the frivolities of what society fondly terms the elite. It isn't worth while. The man who goes into the veterinary profession with qualities that will win success and habits of life that are decent need have no fears of making either a financial or social failure. If he hasn't got them he is wise to choose work that earns even less than postman's wages.

EQUITANT.

An English breeder writing in the *London Live Stock Journal* states that his experience has proved that Shire fillies, which have been thoroughly well fed and cared for, may be put to the stallion at two years old with very satisfactory results, as instances of winners breeding winners could be mentioned. Owing to the growth of the show system the young stock of most breeders are fed with a view to getting big animals, consequently the two-year-olds of to-day are bigger and more developed than the three-year-olds of twenty years ago and quite as well able to breed. There is, however, one precaution which he considers necessary to take before a three-year-old gets heavy with her first foal, and that is to see that she learns to work, or she may become difficult to manage.

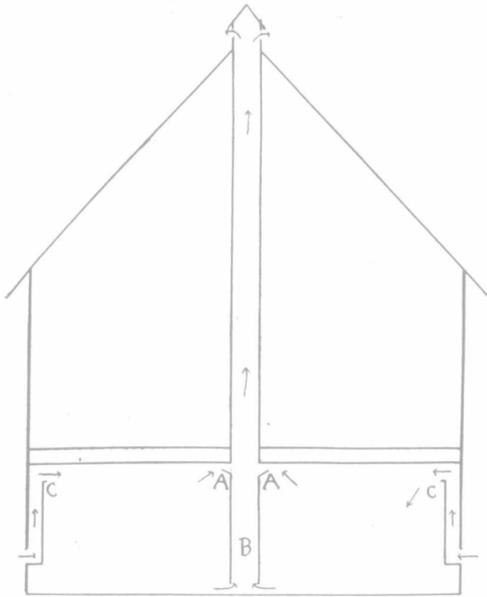


HARNEY STALLION IN HARNESS

Ventilating Horse Stable

EDITOR FARMER'S ADVOCATE:

Enclosed find a rough sketch of the end view of my stable. It is to be lined up inside with tongue-and-grooved material. I intend cutting holes at each corner on the outside close to the ground and leave an opening above, close to the joists. Would it be better to have outlet shaft run up the side from within two feet of the ground floor, and out through the roof above the eave, or have a center shaft as shown in cut.



A SIMPLE FORM OF THE KING VENTILATOR

Kindly give the views of any person on the system of ventilating and oblige.

Sask. HARRY DUCIE.

The accompanying sketch, adapted from the drawing sent in, shows the most simple method of ventilating a horse stable along the line of your own suggestion. B is the outlet shaft, the most important part in any system of ventilation. It should extend from within a foot of the ground floor to above the peak of the roof. Do not run it up the side and out at the eave. The outlet shaft serves the same function in a ventilation system as a chimney does in a heating system. It has to draw off the impure air, and the chimney draws off the products of combustion. To work best it should be constructed similarly to a chimney, with walls as nearly air-tight possible, and carried out at the highest point of the building on which it is located. The longer the outlet shaft, and the more tightly it is constructed, the greater will be the draft, and the more effective the system. In up-to-date systems of ventilation it is usual to line this shaft with galvanized iron. Another way to make the shaft as nearly air-tight as possible is to construct it of two-ply matched lumber with building paper between. Make it as nearly square as possible, for a shaft square or round offers the minimum friction to the upward passage of the air. Have the shaft of uniform size from top to bottom and carry it out above the peak. If the stable is any size you will need two outlets; for a small stable, one is sufficient. The size of the stable and the number of animals it is to accommodate, not being given, it is impossible to estimate the size of the shaft. But figure the area of the cross-section of the outlet equal to the combined areas of the cross-sections of the inlet shafts and you will have the correct balance between the two. Outtakes and intakes should provide 30 square inches per head when the outtake has a height of 30 feet. If the outtake is shorter, the area should be greater; if higher it may be less. This will give a fairly accurate rule to follow, though it must be remembered that the rate of inflow and outflow of air is affected by the range between inside and outside temperatures, as well as by the wind. On a calm warm day no system of ventilation the operation of which depends on temperature

differences and the velocity of the wind, will be as effective as on a cold, windy day.

The traps marked A A in the sketch are openings into the outtake shaft at the ceiling to permit of the warm upper air being drawn off. These may be used to advantage in summer, but it will probably be found best to keep them closed in winter, leaving the outtake open at the bottom, only, to draw the cooler, fouler air from near the floor.

The intake flues, C, C, may be built into the wall in the manner shown, or direct openings may be left at the ceiling, if a stone or brick wall, openings being left just below the joists to admit the fresh air. Drain tiles set in the walls make a convenient inlet for the fresh air, but the system shown is to be preferred, for the reason that the warm air near the ceiling cannot be drawn out through the inlet flues when they are arranged in the manner shown. Have the outside opening at least three and one-half or four feet lower than the opening on the inside, and two feet or so above the surface of the ground. The inlet flues do not need to be as tightly built as the outtake, their function being merely to permit the cooler outside air to pass into the stable under the force produced by the difference in temperature between outside and inside.

The above is a brief description of the King system of ventilation, as it might be applied in this case. The system may be modified to suit individual circumstances, but from the idea conveyed in the sketch submitted this style will probably meet your requirements. You might, if you wished, have the inlet flues discharge near the center and run the outtake from the side walls, either carrying it up under the roof to the peak or running it straight up from the eaves, to above the ridge board. Have the outtake discharge at the peak, if it is at all possible to do so, and do not think the system can be made effective by having the outlet at the eaves.

cluded this was unprofitable. It was concluded that something must be done to fit the stock for a long rail shipment. Outside feeding was the remedy adopted. His feeding yard has timber protection and running streams. Where these conditions are not available Mr. Cook advises sheds for shelter.

Chester White Pigs

Last week a reader with a desire to try his hand at raising hogs, enquired where he could purchase Chester Whites. This is simply another evidence that stockmen do not make sufficient use of agricultural papers in telling brother farmers what they have for sale. If you have Chester Whites or any other breed for sale it pays to advertise.

Fitting Sheep for Exhibition

EDITOR FARMER'S ADVOCATE:

As soon as we begin to discuss live stock the question of "Heredity vs. Environment" comes up. In this letter we will substitute two words. Perhaps they are not quite as comprehensive, but they nearly fill the bill. The words are breed and feed.

Let the intending exhibitor remember that it is necessary to start with an animal that comes reasonably well up to the standard of type expected in the class in which it is to be shown. In other words, no matter how you feed, if your animal has not got breed you will be disappointed in the show-ring. There are culls and scrubs, even in purebred animals, and it occasionally happens that an animal with long pedigree and good individual ancestry is not up to the mark itself. On the other hand, let the exhibitor remember that no matter how pure the breed, how good the individual merit, there will be disappointment in the show-ring unless there has been proper care and feed for some time prior to show day.

It is well for the amateur exhibitor to bear in mind that, like charity, fat "hideth a multitude of deficiencies." On the other hand, remember that with breeding stock it is possible to get so much fat as to lessen the chances of success in breeding.

The sheep, to win at the summer show, must be kept in fair condition during the winter, fed some grain during spring till grass is good, and if a ewe suckling a lamb it is well to continue the grain, even if the grass is good, though often they do not care for grain for some time after the grass comes. In winter I feed oat sheaf, or oats and bran. I am not in favor of feeding barley or wheat to breeding ewes. My experience is that it may be alright for the ewes, but the lambs will not be so strong or thrifty. Teach the lambs to eat a little oats and bran. They will soon learn if a corner is fenced off, leaving small openings that will allow them to pass through while preventing the old ones. If a shelf or shallow trough is set about a foot from the ground with a little grain sprinkled on it they will soon find it. I have never found a lamb injure itself by eating too much oats or bran.

It will be an advantage to bring the sheep in at night for a month or more before exhibition

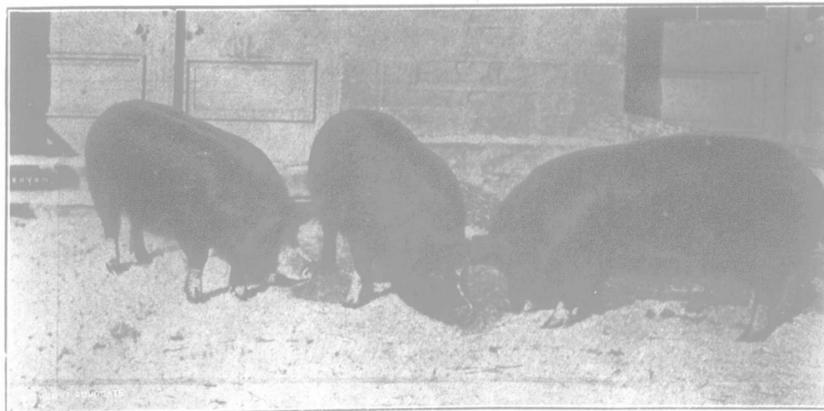
STOCK

Almost One Hundred Steers

For 15 years J. L. Cook, of the Newdale district, has been recognized in Manitoba as a successful cattle feeder. In that time he never had less than 70 animals for winter feeding. During the winter just gone he fed 95. This lot included 82 steers and 13 heifers, most of them of Shorthorn breeding. Some were bought last October in Winnipeg Stock Yards, and others near Saltcoats, Sask.

Feeding began November 1, and the animals were sold March 17. In the 137 days the average weight increased from 1,125 to 1,358 pounds. The selling price was \$5.60 per hundredweight at point of shipment. It does not require a shrewd financier to figure out a handsome profit on the deal.

For four years in the beginning of Mr. Cook's cattle feeding experience in the West he kept the animals tied in a stable. However, he con-



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time, so as to have them take their grain; and it is well to keep them in part of the day as exhibition time draws near, thus training them to eat more dry feed, so the change will not be so sudden when they are taken away from home and also that the flesh will be hardened; otherwise they will fail when taken away.

If one has time and patience and the lambs come early, prizes may be taken with the ewe and also with her lamb; but if she is a good milker you must crowd her near the danger point, must force her so that she will be in proper order, and often it would be the wiser plan to dry her early and give the lamb to a foster-mother.

The appearance of sheep in the ring depends a good deal on how they are trimmed. It is best to trim some weeks before the exhibition. I consider a half-pint of oats twice a day good grain rations for a sheep—a pint twice a day, heavy feed.

Man.

T. R. Todd.

Our Scottish Letter

Only one subject at this date (May 14th) engages men's thoughts here—the death of King Edward VII. The end came so suddenly that few quite realized the fact, and only now, as new arrangements are being made, do we begin to know how great the loss has been. King Edward had many kingly qualifications. His occupancy of the throne was comparatively short. Scarcely one decade was given to him whose august mother held the seat for six decades. Hers was a wonderful reign in respect of all that was crowded into it of advance in science, art, trade, politics and religion. The Victorian era, like the Elizabethan era, in British history, was a time of phenomenal progress and striking national growth. Names among the greatest in all departments of human knowledge flourished in these reigns, and he would be bold who would seek to appraise the value of the two eras to the human race. But during his short reign of scarce ten years Edward VII. did much. He added fresh lustre to the British throne by his liberal interpretation of the meaning of "constitutional monarchy." He was essentially a democratic ruler, and it would be interesting to trace the influences which went to the making of his character in that regard. The fact that he favored Gladstone and Campbell-Bannerman, and disliked Salisbury, among statesmen, is suggestive. He had a keen sense of justice and equity, and was as far as possible removed from the attitude of the French monarch who, when asked about the people, said: "Let them eat grass." It is reported that when the Boer war was nearing its sad close, he said: "The Boers are gentlemen—let us treat them as such." His commanding characteristic was tact, and in respect of consideration for those under him, King Edward VII. was in the best sense of the term a thorough gentleman.

But those engaged in agriculture had a special interest in the late monarch. From both his

father and mother he inherited a love of rural pursuits. The lamented Prince Consort, husband of Queen Victoria, was a farmer—far in advance of his time; a stock-breeder, and a patron of agricultural development in every form. Queen Victoria's grandfather, old George III., was known as Farmer George, and the late King Edward VII. was thus, as it were, born in the agricultural purple. He was interested in agriculture in all its branches, and his visits to show-yards, like those of the Royal, the Highland, and the Smithfield Club, were not mere perfunctory outings. He looked at everything, and asked about everything. On his last visit to the Smithfield Club Show, in December, 1909, he did what no royal visitor had ever before attempted; he ascended the stairs and inspected the implement and produce stands which crowd the galleries. His own successes with cattle, horses, sheep and pigs were always pleasant to him. He never won when he did not deserve to win, and he always delighted to be fairly beaten. His Shorthorn herd at Windsor would rank next to that at Collynie in respect of the quality of the stock bred and reared there. The royal family were splendidly served by their stewards. The late Henry Tait, an Angus man, was appointed by the Prince Consort to manage the Shaw and Flemish farms at Windsor. He was succeeded by his son, William Tait, who only died a few years ago, leaving no one of his own family to succeed him. King Edward VII. appointed to the honorable post a young Scotsman, William McWilliam, son of J. McWilliam, Stonycroft, Keith and Garbity, Fochabers, and under his skillful management the royal farms and herds have continued to hold their own against all-comers. At these farms the King bred Shorthorns, Herefords and Devons. At his own seat, Sandringham, in Norfolk, he bred Shorthorns, Southdowns, Thoroughbreds, Shires and Hackneys. He always had a large collection of Highlanders in the parks and policies at Sandringham, and at his Aberdeenshire farm of Abergeldie Mains, in the Ballater district, he bred Aberdeen-Angus cattle and Clydesdales. The Prince Consort founded a Clydesdale stud at Windsor, and Clydesdales have always been kept there. Of the royal successes on the turf, enough will be said by others. King Edward VII. was a thorough Englishman in his love for racing, and it is said one of the proudest moments of his life was when he led in Persimmon after he had won the Derby. The owner of four such racing notables as Florizel, Diamond Jubilee, Persimmon and Minoru had no reason to be dissatisfied with his luck on the turf. Doubtless, the proletariat loved King Edward VII. because of his sporting proclivities. It made them feel that he was human like themselves.

CROPPING CONDITIONS

The weather has been a trying problem during the past month. March gave us one of the best seed-times on record. April seemed to have

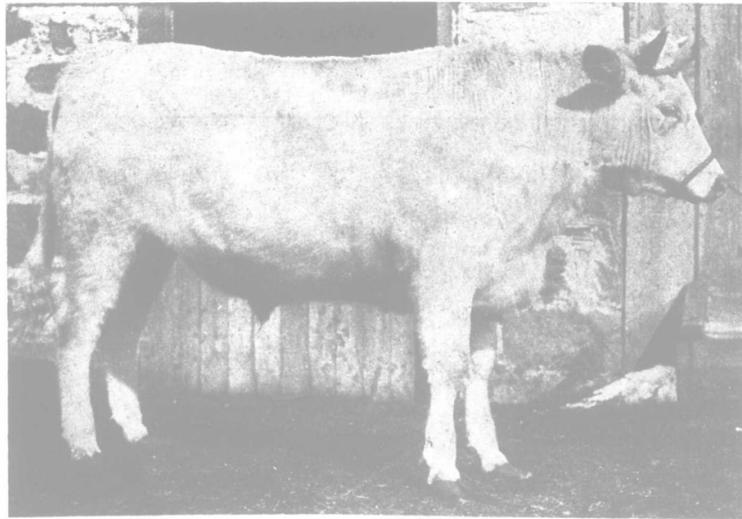
changed places with March, and between cold east winds, heavy rains, snowstorms, frosts and what not, it was difficult to believe that the year was not a month younger than the calendar proved it to be. Now we have had about a fortnight of a May to whose lap winter has undoubtedly lingered. One day we have had of delightful summer weather, but generally it has been cold and most ungenial. I see you have had frosts in Alberta, with threatened, if not realized, loss of winter wheat. This will be an unfortunate experience for the new settlers, and some of them may lament the change they made. However, all will come right in time, and we will see good harvests and plenty of food for man and beast.

The export trade in Clydesdale horses and Ayrshire cattle is unusually brisk. Seldom have so many horses been exported at this early season of the year. Ayrshires, with the advent of publicly-kept milk records, are coming to their own, and Robert R. Ness, of Howick, Quebec, has taken away a most valuable shipment, while other purchasers have been much in evidence. Nothing has done more to deepen the belief of the Canadian farmer in the Ayrshire than the system of public milk records. The class of cow most likely to build up a milk record has been more in favor this year at the spring shows. At Kilmarnock, Ayr and Glasgow we had first-rate displays of dairy cattle—big, roomy cows, with bags and teats that suggested quantity of milk and easy extraction of the same. The championship at Kilmarnock for the best female Ayrshire was awarded to the first prize two-year-old heifer. This was an unprecedented result, and those responsible for it are to be congratulated on their courage. A few years ago such an award would have been impossible.

So far as Clydesdales are concerned, this has been a year of triumph for young stock. At Kilmarnock the female championship went to a yearling filly by Baron o' Buchlyvie (11263), the stallion concerning whose ownership a case is pending in the courts. He is breeding splendid stock, and is quite easily the best breeding horse of the day, apart, possibly, from his sire, Baron's Pride and Hiawatha. It is dangerous to prophesy what the finals may be; the present would indicate possible supremacy for Baron o' Buchlyvie against all-comers. The weight of years is beginning to tell on the older sires, and a good return may be looked for in favor of the younger horses. Mr. Kilpatrick's Oyama, a Cawdor-cup winner, is promising well, and Scottish Crest, the champion as a two-year-old at the H. & A. S. Show at Peebles in 1906, is promising to rank among the foremost. He is a son of Baron's Pride, and his own brother is somewhere in Canada.

PROSPERITY IN IRELAND

Ireland is flourishing agriculturally. The annual spring show at Dublin was this year an unqualified success. There was a very large entry of Shorthorns, but the greatest advance in quality was seen in the Aberdeen-Angus cattle. The Hereford is bred in some parts of Ireland, and in grazing cattle they are not easily beaten. Shorthorns, however, hold the field, and throughout the length and breadth of the island they hold sway. A great improvement has taken place in the average merit of Irish cattle during the past decade. The system of distributing premium bulls has been a notable influence for good in this direction. The quality of the stock has impressed the British feeder, who finds himself now in possession of cattle which respond more rapidly than used to be the case to the better "keep" bestowed upon them in Great Britain. Irish cattle are not too kindly treated on their way to the British market. They have to submit to much hard usage, and often bear marks of severe handling, as they are driven from fair to fair, until they are shipped at the numerous ports which dot the coasts of Ireland. The chief ports for the Clyde and Mersey are Dublin, Belfast and Derry. Cattle are also shipped from Limerick, on the Shannon, and Cork, on the Lea, and the traffic between Great Britain and Ireland can best be estimated by those who watch the sailing of the great channel steamers every night from Belfast and Dublin. Eight or nine of these are constantly on the move, and there can be no doubt that all this indicates



BROUGHT OVER \$100 AT 12 MONTHS

This grade Shorthorn steer on Toronto market brought 105 cents. His weight at 12 months of age was 1120 pounds and he dressed out 65 per cent.

FARM

Topics for Discussion

In recognition of the fact that valuable hints always are obtained from men engaged in actual farm work THE FARMER'S ADVOCATE has adopted the "Topics for Discussion" column, in order that our readers may see an open channel through which they may inform their brother farmers as to practices that are worth adopting and warn them against methods that prove unprofitable. Not only do we wish our readers to discuss the topics announced for the various issues, but also we desire that they suggest practical subjects on which it would be well to have discussion.

This notice appears under the "Farm" department, but the questions dealt with cover all branches of the farming industry. Letters should not exceed 600 words and should reach this office 10 days previous to the date of issue. They are read carefully and a first prize of \$3.00 and a second prize of \$2.00 awarded each week. Other letters used will be paid for at regular rates to contributors.

June 15.—Give directions for handling a flock of hens in summer when it is necessary to close them in to avoid damage to crops.

June 22.—Describe how to build an implement shed. Particularize as to dimensions of a building to house the implements on an average sized farm; state where you would locate it, how you would build it, and what would be the probable cost.

June 29.—What do you consider to be the farmer's place in politics? How can he best use his influence for the good of agriculturists in particular and the people in general? Please do not discuss the parties now striving for power or the relationships of certain organizations to the policies of either party.

July 6.—What advice have you to offer on cutting and curing hay? At what stage of maturity do you advise cutting grasses or clovers with which you have had experience, and how can they best be made ready for and put into stack or mow?

Building Farm Fences

Some good practical points in fence-building are offered in the articles that follow. The necessity for good fences is every year becoming more pressing on Western farms, and we are gradually drawing away from the era of barbed wire. However, in awarding the prizes in this competition we have felt that despite the fact that the one standing first is a description of barbed wire fence-building, the amount of general information it contains warrants us placing it in first place, although we are not by any means agreed that the barb wire fence is the fence for the Western farm. Barb wire is the fence of the first generation of farmers, but those who follow should find it necessary to construct more permanent, more useful, and less dangerous kinds of fence. As to whether it is cheaper to buy woven fencing or stretch wire on the posts

and weave in uprights after, that is a matter on which opinion is divided, but we believe the majority of farmers would find the factory-made woven fence better than anything they could weave on their own posts, and in our experience quite as easily put up as the single wire stretched and woven on the posts. It may require something of a pull to stretch sixty or a hundred rods of woven fencing, say six or eight wires high, but stretchers can be procured that will tighten up the whole length, with the application of such power as can be applied to a lever with one hand.

Fence-Making Suggestions

EDITOR FARMER'S ADVOCATE :

To build a suitable fence for the prairie first strike out your line; second, plant the corner posts in their respective places, always bearing in mind that a well planted corner is half the fence.

To make a good corner set the post at least two feet eight inches deep. Pack it in with stone from the bottom of the hole to surface of ground. The second post should be set as carefully as first and thirteen feet from it. All first and second posts should be not less than six inches in diameter.

Brace the first post by running a brace at least 4 x 4 from the top of the end post to the second post at the surface of the ground. The brace should be about 14 feet in length. A six-inch tamarac pole makes a good brace, if one can be secured. Twist a double wire from the top of the second post to the ground line on the first and the corner is complete. Always build an end post at least every half mile.

After the corners are all planted, load the wire into the wagon, placing three reels on a bar which is chained across the very hind end of the wagon box. Loosen the end of the wire from one reel, fastening the end to the first post, 48 inches from the ground. Fasten the wire from the second reel in like manner 33 inches from the ground. Fasten the wire from the third reel 18 inches from the ground, all wire to be fastened to the end post securely.

Drive the team in a direct line to the second corner, and, as you go, you will string your three wires along the fence row. At the second corner tighten the top wire and fasten its corner at the same height from the ground as on the first post. I use a block and tackle stretcher and can stretch one-half mile at a time. The short end, from the stretcher to the post, I stretch with a claw hammer. Stretch and space the second in a like manner, and fasten the lower wire last of all.

Now build a three-legged stand or table three feet in height with each leg 2½ feet apart, to drive posts from. String the posts along the line one every 16 feet, and with an iron bar, punch a hole in the ground every sixteen feet close to wire, and fill these holes with water as you make them, then drive the posts, which have been pointed, one in each hole. Drive the posts 2½ feet deep. Space the posts with chalk the same distance from ground as first corner mentioned.

considerable prosperity in the Emerald Isle. Advanced agriculture is receiving increased attention on both sides of the Atlantic. The increasing number of training colleges and farms, and the extended equipment of these point to a great advance in knowledge on the part of the next generation of farmers.

The report of the Macdonald College at Ste. Anne de Bellevue, Que., has just come to hand. As one reads of its many-sided activities he marvels whereunto this thing will grow. Training in the family seems almost at a discount, and one wonders whether, with it all, the next generation will be better mothers than those whom we have known. I cherish a wholesome skepticism on the point, because I do not think any training so develops the intellect as moral training. The old Scots' idea of education was: "Train the moral nature, and you cannot but train the intellect." The modern theory is: "Train the eye, the brain, the head; let the conscience go as it pleases." The end of this may be a smart race; it will not be a strong race. The only race that abides is the race that is strong in the moral virtues, and all the deftness of hand that one may acquire will never educate the conscience. My ideas may be out-of-date, but let me give them vogue: Educate the conscience, gentlemen. Show the youth of Canada the significance and greatness of moral distinctions, and the brain will be educated in the process. The most nimble race in Europe is the least moral, and its greatest teachers are declaring its descent into the abyss.

Here we are receiving from politicians many things that we never asked. We are to be developed agriculturally by gentlemen who are called Development Commissioners, and a new authority has been constituted to look after our highways. Its title is the Road Board. The chief end of this board is to demonstrate and provide for the supremacy on our public highways of the motor-car and motor traffic of every kind. The purpose is to make roads safe and comfortable for the motorists. The man in charge of cattle and sheep must look after himself. In all probability he will be condemned to send one in front with a red lamp, so as to prevent his sheep being maimed by the modern Juggernaut car. The agriculturist does not count for much in the road battle. He pays his taxes, his road rates, and everything that is charged against him. He is an obedient and subservient ass, and has the reward which usually falls to that patient and useful animal. It is not easy to say what the end of all these changes will be, but meantime the prospect is that the farmer will have a heavier share of rates to pay than hitherto.

"SCOTLAND YET."

* * *

Serenity, undisturbed by fretful restlessness, are characteristics of a good brood sow. Any breeder of experience will know just what is meant when it is said that a sow is "motherly," but the exact meaning is difficult to set down in words. This maternal manifestation has an important bearing on success with a litter, and the dam's promise in this regard should have weight in her purchase. In making a selection the teats should be examined to discover that there are a dozen, well-formed, not too small or obscure, and giving indications of supplying abundant milk.—From Coburn's *Swine in America*.

* * *

Swine offer a greater opportunity for improvement and up-grading than any other class of live stock. There is no reason why any farmer raising hogs should have a herd of scrubs and inferior individuals. Starting with a pure-bred sire and continuing to use a sire of the same breed, but a few years are required to establish, at little expense, a grade herd equal to purebreds in every way for pork production. No class of animals increases so rapidly and none so readily retains acquired characteristics. Even when starting with an inferior lot of sows, a uniform herd can be developed, by using a good boar and each succeeding year rejecting all inferior animals from the breeding herd.



SURFACE PACKER AT WORK ON FARM OF ISAAC YORK IN THE NEEPAWA DISTRICT

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Staple the top wire on post; then wire the center wire, and the bottom last. Fasten all three wires as you go along.

The posts should be at least four inches in diameter. If you are so situated that you cannot get hard wood or tamarac, use poplar or Balm of Gilead. These soft woods will last as long as the best oak, provided you peel them and treat them with the creosote treatment, the formula of which can be obtained from the government experimental stations.

The above will make an A1 cattle fence. If for sheep, use a band of 26-inch wire at the bottom with five No. 12 gauge crimped smooth wires above, finishing with a hog barbed wire on top, making it fifty-two inches high, and you will have a fence that will keep your sheep in as well as keep the coyotes out. To make such a fence stiff, it should have three uprights between each post. In building always fasten the top wire first and so in order down to the woven wire. Place the bottom of woven wire within one inch of the ground.

Alta.

A. L. DICKENS.

Has No Use For Barb Wire

EDITOR FARMER'S ADVOCATE :

The most important point in fence building is the proper setting and bracing of the corner and end posts. A corner or end post should be 9 feet long, and not less than 6 inches in diameter at the top end, set four feet in the

ground, with a cross piece morticed into the back of the post about 6 inches from the bottom end, and one on the front side just under surface of the ground. This one is better not morticed, as it would tend to weaken the post. The second post should be set not more than 10 feet from the end post. If set further away the brace will spring on account of its extra length, and let the corner out of line. The brace should be set about 18 inches below the top of the first post and at the ground on the second post, with a wire twisted from the bottom of the first post to top of the second.

I prefer single wires stretched and woven after being put up, as single wires are much easier handled by the average farmer, and the fence looks better after it is up if on rolling land, as the stay wires will be straight, whereas in the ready-made fence they are on a slant, and as it requires about 800 pounds of a pull to tighten a No. 11 wire, it can readily be seen the enormous amount of strength it takes to properly stretch a ready-made fence.

As regards cost, unless one is putting on more than 100 rods the ready-made would be the cheaper, but if fencing a farm, the fence made in the posts is the cheapest and best, and it also

has the advantage of the other that one can put up a fence that will turn cattle or horses for half the amount of cash, and if he needs a better fence all he needs to do is put on more wires and weave the stay wires at his convenience. The posts of a woven fence need not be less than 35 feet apart, nor set more than 2½ feet in the ground. As for barbed wire, I have no use for it.

Alta.

B. RAYMER.

Makes Grade Sixteen Feet

EDITOR FARMER'S ADVOCATE :

Five years as a local improvement district councillor entitles me, I think, to give an opinion of road building across sloughs. Whether it is the best way or not is a matter of opinion. At any rate I have had good results, and that is what counts. The provincial government's department of public works in Saskatchewan have certain rules and regulations for making such roads, which are hard to beat. If their plans were always carried out there would be better roads throughout the country.

The best piece of road that I have had built was made four years ago, and it has given great satisfaction. This was through a deep slough, with sloping banks, which generally held water the greater part of the summer. We got at it in a dry period late in summer, when there was but little water in it, but it was rather sticky in the centre. In the first place sufficient green willows and poplar were cut and laid across the

rounding off the centre of the grade and levelling it generally, we had a pretty firm embankment. I had this grade stoned on the sides and fenced, as it was a favorite watering spot for cattle and horses.

No grade should be made less than 14 feet across top, though 16 feet is much better. This gives plenty of room, and the sides are not pressed out by heavy loads in wet weather, which is invariably the case with a narrow grade, tearing a deep rut on each side, which fills at the first rain, softening the whole road bed.

Culverts should be topped, if at all possible, with 3-inch plank and braces made of nothing less than 2 x 6, no matter how small the culvert. No less than five of these and more according to the length of culvert. I have never tried them, but I think that cement tile or metal culverts will soon take the place of the wooden box and be a great deal cheaper in the end.

As to handling men and teams circumstances vary according to the localities. I think that if a competent foreman can be procured, who will hire his teams and gang for the time in full in which he has to do his work, it would do away with the stopping and changing of farmers' teams coming on and going off irregularly. In this way the best show of work for the amount of money expended can be made.

DRAG HARROW.

Five or Six-Inch Plowing

EDITOR FARMER'S ADVOCATE :

In summerfallowing disk the stubble as soon as possible after harvest to start growth of weeds and grain that has shelled. In order to make the best job, enough power should be put on the disks to haul two sections of lever harrows behind the disks, thus saving the maximum of moisture and time. Lever harrow permits of such slope of teeth that they are self-cleaning, and also help to pack the ground by their downward pressure. I find a six-horse team abreast is about the best for this work. Two horses walk on the plowed land and are changed to suit. Patches of grass should be plowed immediately after seeding, being careful to get well outside of the grass, turning the furrows to the right and thus avoiding burying any rootstock. Plow in any direction to suit the shape of the grass patch. Watch the weather for a dry spell and endeavor to plow just deep enough to get all the roots and turn them up on top, where the sun and wind will dry them. No harrow should be used here, the object being to dry out the soil and kill the grass. It will prevent the grass from seeding, which it does about July. I find this a very effective method of killing grass.

I prefer to plow five to six inches deep, with lever harrow drawing from frame of the gang plow. This gives a double stroke, the harrows being four feet wide. A packer should be used as soon as possible. Plowing eight to nine inches takes too much firming, is much heavier work and gives too rank growth. The grain is therefore too late in ripening.

There is only one time in which to destroy weeds on plowed fallow. This is when they are just coming out of the ground, and are threadlike and tender; a double stroke of the drag harrow will destroy them. If the weeds are neglected and allowed to establish themselves you will have a "Hobson's choice" of either allowing the weeds to re-seed your land or of plowing again and wasting your moisture. Biennials need the cultivator to uproot them, and if a thin crust of frost can be taken advantage of it is most effective in assisting the cultivator in its work. If for any reason the weed should grow too long (before fallowing is finished) to be covered at the ends of the furrow where the plow comes out, mow one swath across each end of the field and no seed ends of weeds will be left to curl up and ripen. Four feet of boiling wire put on a chain about a foot from the end or middle of moldboard will catch and bury all weeds that escape from the chain.

Sask.

JOHN PARKER.



CEMENT IS USED FOR MANY PURPOSES. FOR FLOORING, STALLS AND MANGERS IT IS VERY DESIRABLE

ground, with a cross piece morticed into the back of the post about 6 inches from the bottom end, and one on the front side just under surface of the ground. This one is better not morticed, as it would tend to weaken the post. The second post should be set not more than 10 feet from the end post. If set further away the brace will spring on account of its extra length, and let the corner out of line. The brace should be set about 18 inches below the top of the first post and at the ground on the second post, with a wire twisted from the bottom of the first post to top of the second.

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slough as a foundation, with tops lapping. This did not seem to please some of the teamsters and they did not go far enough, as it was certainly soft and sticky in the centre. We sent for several loads of straw and put it about two feet deep on top of the brush. This with a little care in the first few dumps, soon remedied the trouble and the men had no more excuse for kicking. It is a curious thing how a little mud or water bothers some farmers when doing road-work. Yet I have often seen some men drive their horses in a slough to save pumping a little water, and try to draw wheat when the wagon sank to the hub. But, of course, there is a difference, as they say, between *work*, and *just road work*.

The bottom of that grade was made 24 feet wide, sloping to a little better than a 16-foot top. We used the sticky clay from the sides of the slough occasionally, mixing a few dumps of dry earth from the banks at each end outside the slough for the foundation, and gave it lots of tramping. No team was allowed to turn over the shies after we had made a good start, but went right on limping their dumps alternately from each end. This gave the road bed lots of tramping and made it good and solid, and after

Founded 1866

Money Wasted on Roads

EDITOR FARMER'S ADVOCATE:

I have been in a new country where roads have been hard to build on account of so many sloughs to cross, and I have seen much money spent where it has been of very little account. Why? Because our council men go out to build roads and don't know how. This thing of spending money on the dry land and leaving the low wet places is no good. In this kind of work the dry hills should be left alone and the low places filled up. Why not make a ditch through the hill and draw the dirt in the low place, making the ditch in the low places no deeper than was demanded by the dry places. When the ditch is deeper in the low land it leaves a very nasty place and causes a soakage through the grade. This is the reason there are so many bad places on our roads to-day, and money is spent year after year with little or no benefit.

Another fault with road-making is making the culvert too small. It freezes in the winter. The water can't get through in the spring, and this causes a big washout, which takes money to put in repair. If the wet place is too soft to put a team through I find this a very good plan: Draw some brush, if it can be gotten; fill in a passage wide enough to let the horse through; let one horse take the scraper through alone, as there is not so much danger of getting him down in the soft mud. After a start is made there is no trouble in finishing the grade.

A road grader is of no use in places like this. As a rule the bad place is only short, and it is only loss of time and very hard on horses, and besides it makes only a narrow grade and leaves the ditch too near the center of the road. If there is much water it washes the grade away.

The ditch should only be one rod from the fence. This gives most of the road to work on. The grade should be not less than eleven feet on top, so teams can pass. If it is too narrow the grade will continually spread, leaving it very rough after rains. I built three-quarters of a mile of road through a very bad place. People thought I could not make wages, but I planned my work right, filled in the very wet places with brush and made \$40 over wages. The work passed inspection so good that I got five cents a rod more than my contract called for.

Man.

WM. E. MABLEY.

Harrowing Grain After It Is Up

EDITOR FARMER'S ADVOCATE:

The practice of harrowing grain after it is sown in my mind requires a certain amount of judgment. My experience indicates that if it is done at the proper time it is very beneficial to the crop of wheat; while on the other hand if it is not done properly, and at the right time, it will prove detrimental. Having tried it on a small scale in past years on about 25 acres of wheat sown on summerfallowed land, and as the cropped land showed weeds coming up in millions (of course, which should not have been), I waited till the wheat stood about 3 to 4 inches high and then put on a light team and a set of dull harrows and harrowed it the same way as it was drilled. It looked at the time as if I was harrowing out too much, but as the weeds I thought would get the advantage and the land was badly crusted I finished the piece. It left the surface in fine shape, and the day being warm and dry, killed the weeds. To look at it that evening it did not seem very promising, but in a week the difference was astonishing. It came right along and when threshed in the fall yielded over 40 bushels to the acre. A portion of the field adjoining this piece and sown under the same conditions, but not harrowed after the grain was up yielded only a little over 30 bushels. The difference is striking, and I consider harrowing made the difference.

I also tried the harrows on a piece of land plowed in the spring, and sowed to wheat. It appeared weedy, I gave it a like treatment, and found also that it gave good results, but I must say that it thinned it out very much. This I attribute to the looseness of the soil from spring plowing,

whereas the summerfallowed land was firmer, and therefore the harrow teeth do not sink so deeply.

Coming to the detrimental part I find that by harrowing just as the grain is coming through the ground, and especially if the harrows are at all sharp, it is almost ruinous. I think it breaks off the sprout as the blade is appearing above ground and the plant is not strong enough to stand such treatment. Therefore, I would advise harrowing wheat when it is about three to four inches high and on a dry day with dull or slanting harrows, especially if it is at all weedy, and to harrow the way it is drilled. The land, of course, must be dry to get good results. I have not adopted it as a fixed practice, but would do so if I always had the time and suitable weather. Even if there were no weeds it puts the land in perfect shape.

Sask.

FREDERICK G. WHITING.

Rape on Summerfallow

I have a piece of land about 25 acres that I want to summerfallow and sow to rape for pasture. What is the best way to prepare the land, and what is the latest date that rape can be sown? By sowing rape and pasturing it, is it as good as summerfallowing alone?

Sask.

C. S. T.

Ans.—A great deal depends on the nature of

summerfallowing is to provide moisture for succeeding crops. This can best be achieved by the bare fallow. A rape crop is a lavish user of moisture.

From these suggestions perhaps you can arrive at a decision as to what is preferable in your case.

Beef-Ring Near Red Deer

EDITOR FARMER'S ADVOCATE:

Some farmers to the east of Red Deer decided in the winter of 1906, to try to organize a beef-ring. It was uphill work at first to get enough people interested, but by staying with the idea and working, and several members agreeing to take two shares each to get the ring started, a beginning was made. Officers, consisting of president and secretary-treasurer, were elected and a butcher chosen. Rules were adopted, which have been amended as time has gone on. The principal rules at present are:

1. That only animals between 2 and 5 years, dressing between 400 and 650 pounds, be taken, stags and diseased animals of every description to be barred.

2. Three persons in different parts of the district appointed inspectors, one of whom is to examine all animals as to their suitability for killing at least three weeks before date set to slaughter.



THE SPRING TOOTH CULTIVATOR IS VALUABLE FOR MAINTAINING A SURFACE MULCH AND KILLING WEEDS

the soil and the condition of the soil last season. We therefore, assume that it is the average clay or clay loam of the prairie, and that it has been under crop for some time. This being the case, and provided it is not completely overrun with foul weeds, there should be no difficulty in getting a fair crop of rape by plowing as early as possible after seeding. If disk harrow or spring-tooth cultivator were used last fall, immediately after the crop was removed, so much the better. In fact, shallow plowing at that time is still more desirable.

With thorough plowing this spring early in June and a judicious use of drag harrow and disks or spring-tooth cultivator, a satisfactory seed-bed easily can be prepared. For best results, it is well to have rape seed in before July comes—June 15 to 20 is a good time. However, if there is sufficient moisture in the soil a good crop will result from later sowing. Some have had excellent crops from sowing July 15, or later, by putting the seed in just before a rain or as soon after as it was safe to go on the land.

Whether or not pasturing a rape crop is as good as bare summerfallow depends on conditions. If the land is loose and comparatively free from weeds, rape growing may be the better. Even if there are weeds it is safe to sow to rape, provided you have a flock of sheep. Of course, in many parts of the West the prime object of

3. Butcher at \$3.00 per head (to be paid spot cash by owner of animal who receives back the skin, tongue and liver) which \$3.00 is to include slaughtering, cutting up, keeping accounts, wrapping meat in heavy brown paper, and supplying his own slaughtering materials.

4. Each member is charged 6 cents per pound for all the meat he takes out, and credited 6 cents per pound for what his animal dresses.

5. The secretary-treasurer is paid 50 cents per member for a whole share and 25 cents for half a share for trouble and expenses in connection with beef-ring, these amounts being charged to member at end of season.

The ring has 20 whole shares, a whole share going about 25 pounds of meat a week (about one-half roast, one-half boil). People for whom this amount of meat is too great, take a share with a neighbor, getting a roast one week and a boil the next week, the boil always having 2 to 5 pounds of steak with it. We start the ring about June 1st, and 20 weeks only brings us to October 12, too early for farmers to kill themselves. We then buy three or four steers and sell the dressed meat to members at actual cost, plus cost of killing.

The slaughter-house and corral are built at the butcher's place. Then materials cost about \$30.00, which was charged up to members, \$1.50 per whole share and 75 cents per half share.

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JOHN PARKER.

The labor for putting up slaughter-house and building corral was given by members.

The order of supplying animals was settled by ballot and a record of names and members kept. The second year the order is 10 to 20 and 9 to 1; third year, 4 to 1 and 5 to 20; fourth year, 15 to 20 and 14 to 1. When several members live along the same trail they take turns to deliver one another's meat. We had one ring for two years, but had two in 1909, and it looks as if there would be four this year in the Red Deer district. All members sign at the beginning of each season to pay up anything they may owe to the beef-ring, at the annual meeting held one month after the last steer is killed, and failing this to pay \$5.00 to Red Deer Memorial Hospital and costs of collection.

Balance sheets showing full particulars for every member every week are kept. Last year the average weight of animals slaughtered was 538 pounds. The heaviest steer was 679 pounds and the lightest 456 pounds.

Many farmers who were confirmed salt pork eaters cannot now get along without their fresh meat once a week. The rings have given great satisfaction, only one member having dropped out. He had a half share and said where he came from (more is the pity) in Ontario, that half shares were always roasts. As the Northwest cattle unfortunately have legs and necks we were not able to fix him up, and as there were several people only too glad to take his place he has gone and we don't mourn for him.

The principal features that mean success with a beef-ring are a good conscientious butcher; for all members to try to realize that a steer has four shanks, and for each member to put in the very best animal possible.

We hope before long to purchase a bunch of sheep and kill one or two each week along with the beef animals, to enable farmers to have one more of their many rights that are good as any in the land.

Alta. C. A. JULIAN SHARMAN.

Care of Root Field

EDITOR FARMER'S ADVOCATE:

In regard to field roots I find it much easier to produce them than to take care of them in the fall, as at that time help is scarce, wages high and frost uncertain. If the land has been well prepared by applying manure and plowing the previous fall, the main thing is to keep them well cultivated, say once a week, so as not to let the weeds get above the ground, as cultivating and hoeing are more easily done when there are no weeds. The cultivation also promotes growth. The plants should be singled out to, say fourteen or fifteen inches apart in the rows, as they will grow much larger and yield more to the acre. Besides they can be harvested more quickly.

Man. H. HANCOX.

New Concrete Silo

Silos are rapidly growing in favor in all dairy districts where corn is grown. A new concrete silo of an interesting type has recently been erected in Wisconsin. The silo has a steel framework of slotted steel studding and metal lath, plastered on both sides with cement mortar, making hollow walls of concrete. No wooden forms were used. The steel frame reinforcement consists of galvanized steel studding or channels 2½ inches wide, spaced 12 inches apart. These studs are made from steel hoops and have an interlocking tongue cut out of the center of each upright piece of studding. This tongue is thrown out at right angles and attached to the next stud, forming a horizontal line of braces at intervals of every 17 inches in the height of the silo. Expanded metal lath is attached to the studs on both sides of the wall. A waterproofing compound was used on the cement plaster.

The steel framework was put up complete in one day. An additional day was required to plaster the walls. The plastering was done in two courses. The silo was filled on the fifth day with corn. The walls have a compressive strength of 10,000 lbs. per sq. in. and the steel is galvanized to prevent rust. The cost is said to

be only a little above the cost of a stave silo.

The ventilating facilities are operated from the ground on the outside of the silo by an ingenious device, and the structure is provided with the usual doors and entrance on the side and roof. The makers claim that the silo is quite indestructible, free from the danger of fire and will always maintain a uniform temperature.

Alfalfa Winter-killed

EDITOR FARMER'S ADVOCATE:

Some time last summer you asked for a report on my experiment with alfalfa. At that time I sent you a short report, being the second summer I had tried it. I am sorry to have to report that the alfalfa was completely winter-killed, not a spear being left. The snow lay on the field during winter and I had half of the plot mulched with coarse manure. I cannot understand what killed it. The roots are decayed a foot down.

I thought I had discovered the way to secure a crop. Last spring I plowed a portion of the plot and it came up on what I had plowed, and grew very rank. What I cut from a yard square weighed 2½ pounds, which was double the weight on what was second crop. I am sending for more seed, as I consider alfalfa hay very rich food for all kinds of stock. Hogs and poultry seem to like the green hay very much. Perhaps some reader will be able to tell me what caused last winter's damage.

Sask. A. J. YOUNG.

Milling Quality of Wheat

Conditions that threaten to lower the milling quality of Western Canadian wheat were dealt with by J. A. Mooney at the convention held at Regina last January as follows:

We hear of the wealth of Cobalt, the yellow gold from the Yukon, and we stare at the figures, but the great mineral centers are making a few wealthy, while the others bemoan the phantom opportunities that have passed them. But let us take stock of the situation here. We note that our great mine, the rich prairie, gave a return last year of 90,155,000 bushels of golden wheat, which, at an average price of 84c, netted us \$75,780,600; and in addition it gave us 117,746,700 bushels of oats, barley and flax. This wealth has been garnered by 81,300 farmers from about 12% of the arable land of the south half of our province. For next year we have about 1½ million acres of breaking, and also 1½ million of summer-fallow prepared. With this wealth coming from our soil and King Wheat demonstrating to us that the wealth of our plains is as unlimited as our plains are fertile and boundless, we find a rush of immigration coming to take possession, railroads forming a net over it in order to gather in our products, new towns and countless homes springing up in a season. Surely we can hardly conceive the mighty part played by wheat in the making of our province and our nation.

The great value of this wheat lies in its quality, which places it in the foremost place in competition with the world's best. But at present we hear of wheat from other lands bringing higher prices than ours, and we ask why it is. We must know the truth. Have we in any way been careless of this wealth producer? Let us stop and consider.

Who is interested in the quality of our wheat, and who can maintain its standard? First, the farmer who produces it; second, the dealer; third, the miller; fourth, the baker, and fifth, the consumer. All are interested in its quality, but only the first can maintain that quality. The consumer is the first to be considered. He demands a white bread of good texture and general appearance. In this he follows custom possibly more than taste. The baker demands a flour that will make the largest number of loaves of the greatest weight. This he gets by buying a flour that is rich in gluten of a high quality. Thus he is able to produce a large loaf and one of good appearance which satisfies his customers. To satisfy the baker, the miller wants a wheat that will yield a large amount of flour of strength and quality. This is a flour that will give the desired large loaf of choice quality. In order to get the best results this wheat must be clean, free from weeds, free from other kinds of grain

and pure as to variety. It should be uniformly hard or glutinous, and that gluten should be of good quality. In order to get the above qualities the miller selects a grain that is uniform, and with a small berry because he has found from experience that a large berry has a thick bran and more fibre, and, therefore, gives a smaller percentage of flour. Before he mills his wheat he tempers it with either steam of water so as to toughen the bran. If he has a mixture it is impossible to get good results because some varieties owing to their outer covering being either thick or thin will absorb moisture or resist it more than others.

Now let us see what part the farmer plays in this great process. Our wheat in the past has created a market in foreign countries, partly because of its hardness, but principally because of its suitability to blend with other softer milling varieties which can be purchased so cheaply in those markets. In this desire to grow wheat the farmer has been looking for yield and earliness more than for quality, and today he has to answer to the charge of growing a mixture of varieties, mixed not only as to variety but with weed seeds as well. The result is a mixture so low in milling value that he is not getting the best returns for his labor. He is also trying to grow wheat in districts that do not give the highest quality and where it is liable to be frozen, so that today we find a lower percentage of wheat of a high quality being marketed. Weed seeds and other useless impurities are doing much to lower our standard. New varieties which appear good to the eye and are early have been grown to such an extent that when we come to know their true value we see that we have done considerable harm in lowering our standard. The less desirable varieties might be handled to good advantage if they were shipped in whole cargoes, but at present where the identity of our wheat is lost at the lake front it is impossible to keep them from being mixed. It is interesting to note that it is not merely hardness in wheat that gives the best flour or satisfies the trade; it is the blending of qualities that are found in no other variety in such degree as in the old standby "Red Fife."

Some of the large mills have a chemical laboratory for analyzing wheat so that they may reject any that would lower their standard of flour. This grain is in turn exported to the foreign markets where our prices are made, and our reputation and our pocket book is in danger.

Western Canada can grow Red Fife wheat that cannot be surpassed by the product of any other country in the world. Let us therefore grow a wheat of whose qualities there is no doubt, and not engage in a useless attempt to surpass in the growing of less desirable wheats other countries which grow them better than we can. The time has already come when all the different varieties of wheat should be judged on their real value at our seed fairs. Varieties should take their place according to their individual quality, and each district should compete on even ground. If our fairs are to be instrumental in educating our people to produce the wheat that is in demand we must make quality our standard, not variety. The great danger of not knowing the true value before grown extensively is illustrated in our experience with the Ladoga. This wheat was brought over from near a lake of that name in the northern part of Russia. Its fine appearance and its early ripening qualities made for it many friends when introduced. We have the different boards of trade at Winnipeg, Toronto and Montreal booming it as being the most valuable wheat for the West. In the year '87 enough of this variety was grown to get a carload collected and shipped to Toronto, where it was milled and baked by two of the best bakers in the city, whose customers were of one accord in condemning the bread from this flour. As a consequence, today this variety is scarcely to be found in a pure state in the Western provinces.

With such examples before us it is time for us to consider if it is not a poor policy for us to continue growing any but the best. Let "quality" be our watchword in the future.

* * *

A report from Maymont, Sask., says that winter wheat has been badly killed out.

* * *

"THE FARMER'S ADVOCATE is our most interesting and valuable farm paper."—T. W. DIKE, Alberta.

DAIRY

It Pays To Test

Are you sure that each cow in your herd pays you a profit? If you do not know this, by actually weighing each animal's product through at least one lactation period and keeping careful records of her feed. Bulletin No. 322 of the agricultural experiment station at Geneva, N. Y., has a lesson for you.

In the good herd of the station, the result of careful breeding and selection for years, great differences were found between individual cows. The best cow of the herd, who held her place for four years, gave three times as much milk as the poorest cow in each of three seasons; and it cost only one-tenth more to feed the good cow than to feed each poor one. Similar, or worse, conditions exist in many herds. Even the poorest cow in this herd probably paid for her feed; for she produced butter fat at from 25 to 33 cents a pound; but the station has records of herds in the state that average only 80 pounds of butter-fat per cow, bringing in a gross return of \$26 a head. How much it cost to feed those herds probably no one knows, but the least the station could carry any cow through a year on, for feed alone, was \$47.50. If these poor herds gave an average of only \$26 worth of product in a year, \$20 less than it cost the station to keep its lightest-cost cow how much did the poor cows of those herds lose their owners? Any cow-keeper will be interested in this bulletin, for it gives very accurate data for production and food cost of that production, of 19 cows yearly for three years.

The station herd consists of Jerseys and Jersey grades, and has been built up at small cost, just as any farmer could build up his own herd, until it averages more than 6,000 pounds yearly per cow, of 5½ per cent. milk.

Water in Cow Stable

EDITOR FARMER'S ADVOCATE:

I intend to build a modern cow barn for about 80 milk cows—cement floor, iron partitions, well, with windmill in the center of the stable. Now, the question is, how to water the cows: Whether to have individual water basins, or one basin for two cows; or, have a trough the whole length of the manger? In the latter case, will the trough not interfere with the feeding, and will it not be difficult to let the water run off in winter time? As for water tanks, would it be better to place it in the loft, or on a foundation just a little higher than the troughs? How large has the reservoir to be? One tank, or several tanks to be recommended? I should be very thankful if you could let me know your experience on this subject, as it is one of the most important things in a cow barn.

Man. MAX MEINCKE.

The individual drinking basin is undoubtedly the most modern and sanitary system of supplying water to cows in the stable, but it costs considerably more than a simple galvanized iron trough, placed in front of the mangers, and at such height that the feed may be conveniently placed in the manger and the cow not be required to reach up to get at the water supply. The top of the trough should be nearly level with the cow's muzzle when she is standing in a natural position. As connections in the individual or double basin systems are by pipes, you will have to consider first whether there is likely to be trouble from freezing. If the stable is warm, and you wish to equip it with the best water supply system available, we would advise the basins—single basin for each cow.

Watering from a trough is convenient, and the system is in use in many up-to-date dairy stables. Roughly, the top of the trough should be two feet above the manger. It should be about seven inches wide at the top, four to six inches deep, and four inches wide at the bottom. It should be made of heavy galvanized iron. Set it to slant towards one end, allowing just enough fall for the water to drain out readily—two inches in the

length of the stable will be sufficient. Have a plug at one end which may be removed when cleaning the trough, which should be done daily. If water is let into the trough from the supply tank two or three times per day, the cows will always have it before them. There should be no difficulty in letting the water run off in winter.

As a rule, the supply tank is located in the loft above the stable, though in this country it is frequently placed in the stable on a foundation raised just high enough to permit of the water flowing; or, if the tank is not a very large one, it may be attached to the joists by iron straps. There would not be much freezing in a tank large enough to contain a water supply for 80 cows, if located in the loft. The fresh water pumped into it daily would keep the temperature above freezing, even if it were zero, or lower outside.

You will have to figure on a tank large enough to hold a supply of water for the stock for two days, if you are depending on a windmill to pump. The quantity of water drunk by a cow runs from 60 to 100 pounds per day, depending on the ration. Figuring at 100 pounds per day, to be safe, you will need a tank that will contain 1,600 gallons to carry a two days' supply. One tank is preferable to several.

Netherlands Churns

Trade and Commerce Weekly Report recently had the following from Consul W. A. Churchill, of Amsterdam:

The churns employed in butter-making in this district are principally of the Holstein pattern, consisting of a slightly conical vat, suspended between iron supports, in which a vertical spindle is made to revolve. Butter-making by individuals is rapidly disappearing and large steam dairies are gradually being substituted. In these steam dairies an American pattern of churn is coming into use, consisting of a horizontal cylindrical vat, which is supplied with one or two sets of rollers to work the butter in the churn. Individual farmers frequently experience difficulty in hot weather, but the steam dairies are usually supplied with ice, or have a refrigerating plant, without which they could not produce a durable article. The temperature of churning varies considerably, according to the time of the year and the process adopted to ripen the cream. Churning operations are usually carried out in the early morning, when the cream, ripened overnight, is brought to the proper temperature. This varies from 50° to 60° Fahr., according to the churns in use and the individual ideas of the dairy director. The use of the large, horizontal American churns, in which quantities up to 2,600 pints of cream can be churned in on operation, has greatly facilitated and expedited the manufacture of butter. With the old Holstein pattern of churns mentioned above no more than 350 to 500 pints could be worked in one operation; in the cases of farms having large quantities to deal with, churning would last until the

afternoon. Butter made from the milk of sheep and goats is only made by laborers and small farmers, and is consumed locally. The only part of the Netherlands where sheep's-milk butter is made and exported is the Island of Texel in years when the lambing season is particularly good. The same patterns of churns used for cow's-milk butter are employed for making butter from the milk of sheep and goats.

FIELD NOTES

Dates to Keep in Mind

Alberta Provincial Exhibition, at Calgary, June 30 to July 7.
Portage la Prairie Exhibition, July 11 to 14.
Winnipeg Industrial Exhibition, at Winnipeg, July 13 to 23.
Inter-Provincial Exhibition at Brandon, July 25 to 29.
Saskatchewan Provincial Exhibition, at Regina, August 2 to 5.
Stock Show and Race Meet, Edmonton, August 23 to 26.
Canadian National Exhibition, at Toronto, August 27 to Sept. 10.
Dominion Exhibition at St. John, N. B., Sept. 5 to 15.
Western Fair, at London, Sept. 9 to 17.
Central Canada Exhibition, at Ottawa, Sept. 9 to 17.
Provincial Exhibition, New Westminster, B. C., October 4 to 8.

Alberta Weed Inspector

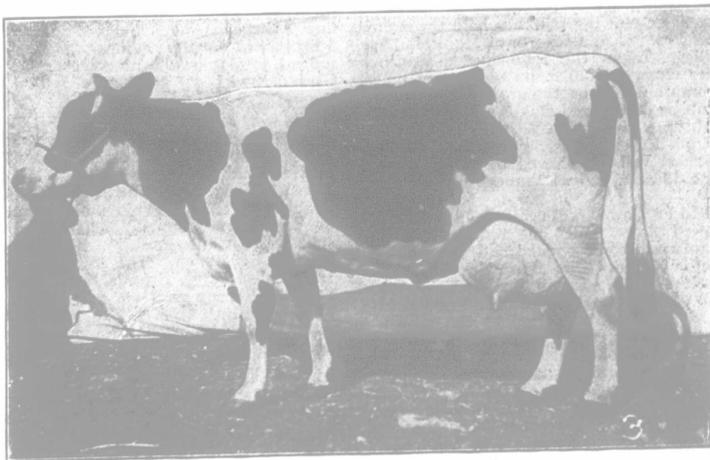
The Alberta department of agriculture has appointed C. E. Lewis, B.S.A., chief weed inspector for the province. Mr. Lewis is a 1908 graduate of Ontario Agricultural College, and since then has been engaged in agricultural high school work as assistant in the Essex, Ont., high school. He assumed his new duties during the last week in May.

Lacombe Sale of Bulls

The bull sale at Lacombe last week, under the auspices of the Alberta Live Stock Association, was a success. Shorthorns averaged about \$95. One animal sold for \$200, another for \$175, and several others ranged between \$150 and \$160. Few Herefords offered. The good ones brought about \$125 and some poorer ones between \$50 and \$60. Angus, too, were not in brisk demand. Two good ones brought about \$120 each. There were a few Shorthorn and Angus females, and also half a dozen Ayrshire bulls. The average price realized for 58 sold was \$88.90. About 70 animals were offered altogether. The sale was held in one of the agricultural society's barns.

* * *

A survey is to be immediately commenced to ascertain the possibility of making a navigable route between Edmonton and Winnipeg by way of the North Saskatchewan river and Lake Winnipeg. Explorers have reported that a six or eight foot waterway can be established on this route at comparatively low cost with few locks, as the river has a deep and broad channel for nearly the whole distance. A vote of \$10,000 was made by parliament last session to defray the cost of a survey. The survey will be made under the direction of L. R. Boligny, who was one of the sub-chiefs on the Georgian Bay canal survey. Five parties will go in and carry on surveying operations on as many sections of the route. It is expected that the work will be finished this summer.



COLANTHA 4TH'S JOHANNA, RECORD FOR ONE YEAR 72,432 POUNDS OF MILK AND 1,164.64 POUNDS BUTTER

Good Roads Convention

Arrangements are being made for a provincial good roads convention to be held in Winnipeg during the Industrial Exhibition. The date selected is July 20. A. W. Campbell, deputy minister of railways and canals at Ottawa, and formerly deputy minister of public works for Ontario, has promised to be present and deliver an address. While connected with the Ontario department Mr. Campbell did more than any other man to further the interests of good roads. He is a recognized authority on road construction, and in the East is frequently spoken of as "Good Roads" Campbell.

The convention to be held at Winnipeg should be largely attended. Everyone is interested in improved roads. Valuable information will be offered in addresses and discussions.

Dr. Koch Dead

Dr. Robert Koch, the most eminent bacteriologist of the age, died at Baden, Germany, on May 26, at the age of 67 years. Dr. Koch's contributions to medical science were numerous and valuable. He discovered the antitoxin for diphtheria, a remedy that has rendered that disease harmless in the hands of a competent physician who understands the administration of the serum. He studied the sleeping sickness in Central Africa, one of the most fatal diseases to natives in certain sections of that continent, and his research work there and the exposures subjected to are said to have hastened his death. Dr. Koch was the discoverer of the tuberculin test, a test by means of which tuberculosis can be detected in cattle within a few hours after application. A few years ago he was the object of much criticism by insisting that bovine tuberculosis is not transmissible to man. The majority of scientists hold a contrary opinion, although the matter has not yet been definitely settled.

Good Farming Competitions

It is expected that this year's good farming competitions in Manitoba will be even more successful than those of recent years. Already there are entries from several agricultural societies. There will also be a competition in fields of standing grain. There must be at least five entries in the former and three in the latter before the department of agriculture will agree to give support or send judges.

Entries for these contests must be forwarded by agricultural societies interested on or before June 11 to the managing director of agricultural societies, Manitoba Agricultural College, Winnipeg. Before June 20 the names and locations of all competitors must be submitted. Farms are required to be entered with the society whose chief place of business is located closest to them.

Judging will be done according to the following points: General appearance, house and surroundings, outbuildings and yards, water supply, wind-breaks and hedges, farm crops, live stock, machinery and management.

Rules governing the standing grain competitions are:

The competition will be limited to one crop, selected by the society as the crop of most importance to farmers of that district.

Selection must be made from the following crops, viz., spring wheat, fall wheat, oats or barley.

Fields entered for competition shall consist of at least ten acres in a block, and must be staked out or otherwise plainly separated previous to the judges' arrival.

Competition will be limited to those individuals taking part in the "Good Farming" competition.

Each competitor shall be allowed to make one entry only and no one shall be allowed to enter more than one such competition.

Rules for Plowing Matches

Realizing the desirability of having uniform rules and score cards at plowing matches held throughout the province, Prof. S. A. Bedford, of Manitoba Agricultural College, offers the following suggestions:

1. Entries close at 9.30 a. m. on day of match.

2. Plowman must be on the ground at 9.30 a. m. when lots will be drawn and stakes set. To start on signal at 10.30 a. m.; plowing to continue until 12.00, and from 1.30 to 4.00 p. m.

3. No person will be allowed to accompany the plowman or aid him in any way except in the setting of stakes.

4. Land to be plowed will not exceed one acre for single furrowed plows, gangs one and one-half acres.

5. All lands must be opened and all weeds cut; no sole furrow lifted. The finish furrow may be turned on either side. Depth five inches. Width, according to plow. One strike out and one finish.

6. Ten visible furrows complete the crown for single furrowed plows, twenty for gangs. The first two furrows, next adjoining land, not judged. Each number must be replaced as soon as crown is finished.

7. No pulling or covering of weeds with either hand or foot or tramping of land with feet will be allowed. A man for each class will see that every plowman conforms to this rule. Any one not conforming to the rule will be reduced one point for each offence.

8. Gauge wheels, skimmers, etc., will be allowed.

9. Judges shall have the right to withhold a prize if they think the work is deficient in merit.

10. Any person receiving a bonus either from a company or an individual to use a certain plow will be disqualified.

11. All protests must be in writing and lodged with the secretary before 5 p. m. on the day of match. The score card proposed is:

	Points
Straightness.....	15
Feering.....	13
In and out at end.....	5
Depth and width of furrow.....	15
Evenness on top of land.....	10
Finish.....	12
Covering weeds.....	30
Total.....	100

Dates arranged for matches in Manitoba for this year include: Birds' Hill, Thursday, June 9; Carroll, Wednesday, June 15; Roland, Thursday, June 16; Carman, Friday, June 17; Hartney, Wednesday, June 22. Nothing has yet been definitely arranged for the provincial plowing match, but the custom has been to hold it wherever the championship cup stands.

Dairy Special Dates

The schedule for Manitoba's dairy special has been arranged. Dairy information will be given by Prof. J. W. Mitchell and his assistants, W. J. Crowe and E. H. Farrell. Other speakers include Prof. S. A. Bedford, Prof. W. H. Peters and L. A. Gibson.

Following is the schedule:

Plum Coulee, June 13, 10 a. m.
 Rosenfeld, June 13, 2.30 p. m.
 Morden, June 14, 10.45 a. m.
 Winkler, June 14, 2.30 p. m.
 Manitou, June 15, 9.30 a. m.
 La Riviere, June 15, 2.30 p. m.
 Darlingford, June 16, 9.30 a. m.
 Crystal City, June 16, 2.30 p. m.
 Cartwright, June 17, 10 a. m.
 Boissevain, June 17, 3.30 p. m.
 Killarney, June 18, 10 a. m.
 Deloraine, June 18, 7.30 p. m.
 Napinka, June 20, 10 a. m.
 Souris, June 20, 7.30 p. m.
 Treeshbank, June 21, 10 a. m.
 Carroll, June 21, 3 p. m.
 Cypress River, June 22, 10 a. m.
 Glenboro, June 22, 2.30 p. m.
 Treherne, June 23, 10 a. m.
 Holland, June 23, 2.30 p. m.
 Elm Creek, June 24, 9 p. m.
 Rathwell, June 24, 2.30 p. m.
 Roland, June 27, 1 p. m.
 Morris, June 27, 7.30 a. m.
 Altamont, June 28, 12.45 p. m.
 Miami, June 28, 2.30 p. m.
 Mariapolis, June 29, 2.15 p. m.
 Belmont, June 29, 7.30 a. m.
 Greenway, June 30, 10.30 a. m.
 Somerset, June 30, 2.30 p. m.
 Swan Lake, June 30, 7.30 p. m.
 Sperling, July 1, 7.30 p. m.
 Carman, July 2, 1 p. m.

Manitoba Cattle Sale

The average price for 34 pure bred offered at the 6th annual sale held under the auspices of the Manitoba Cattle Breeders' Association last week in Brandon was \$137.50. This figure is over \$35 above last year's average. The top price was \$255.00. General quality was much superior to that in evidence at previous sales and the few inferior specimens that were brought out were soon recognized as such by those who had intentions of buying.

The number of animals catalogued was below that of 1909, being only 38. Four less were led into the ring and all were disposed of. They included four Aberdeen Angus bulls, 25 Shorthorn bulls and 5 Shorthorn females. Andrew Graham, of Pomeroy, judged the lot in the morning and T. C. Norris, of Griswold, wielded the hammer to advantage after the noon hour.

The four Angus bulls sold at \$85, \$80, \$85 and \$65 or an average of \$78.75. Five Shorthorn bulls brought \$200 each or better. Lloyd George, owned by J. Crawford, was taken by K. Murchison at \$255. Meteor's King, offered by J. Mansfield, went to C. G. Graham at \$225. Three bulls, owned by Sir Wm. C. Van Horne, brought \$200, \$195 and \$110 respectively, while Paul M. Bredt had a pair that brought \$195 each. The 25 bulls averaged \$150.60. In females, P. M. Bredt's Roan Matchless went to Stephen Benson at \$165, and Belle's Heroine to A. M. Crandall at \$155. The average for the five females was \$117. This brought the Shorthorn average to \$145.

The new premier of Alberta has announced the personnel of his cabinet: Hon. A. L. Sifton, president of the council, provincial treasurer and minister of public works; Judge C. R. Mitchell, attorney-general and minister of education; J. A. McLean, provincial secretary; Hon. Duncan Marshall, minister of agriculture.

Events of the Week

An English aviator has accomplished the unprecedented feat of flying across the English channel twice without stopping.

J. Lockie Wilson, of the Department of Agriculture, Toronto, Ont., has gone on a tour to England in quest of information and immigrants.

Winnipeg voted Thursday on a by-law authorizing a grant of five hundred thousand dollars to the Centennial Exhibition. The by-law carried by a large majority.

Manitoba University is to have a president. Hon. G. R. Coldwell and Archbishop Matheson have been commissioned to find and recommend to the council a suitable man for this position.

The greatest sale of school lands ever held in the West has just closed at Medicine Hat, 76,000 acres were sold. The price ranged from \$7 to \$30 an acre, the average being \$13.22. Most of the land was purchased by farmers in the districts where it is located.

Theodore Roosevelt was made a freeman of London last week and delivered an address in the famous Guildhall, at which were leaders in many lines of activity. Mr. Roosevelt apparently did not mind his words any and called a spade a spade in his references to Britain's rule in Egypt.

The customs revenue continues to portray the trade expansion of the Dominion. The receipts for the month of May were \$5,779,326.51, as against \$4,296,660.10; an increase of \$1,482,666.41. For the two months of the fiscal year to date, the receipts have been \$10,834,097.27; an increase of \$2,575,758.94.

English charitable institutions are protesting against what is termed the undue severity of Canadian immigration regulations. The particular complaint is against the requirement that every immigrant other than those destined for agricultural employment, must have at least \$25 in cash in his possession and a ticket through to his destination. It is held by the government, however, that this requirement is in the best interests of the emigrants themselves, as it prevents them landing in a penniless condition in a new country, and gives them an opportunity to seek out the best place for finding employment instead of settling down at once in one of the congested centers, and becoming a burden on a municipality.

During April immigrants poured into Canada at the record rate of 1,600 per day. Of the daily influx the average number from the United States was nearly 700. The total immigration for the month was 48,267, an increase of 24,300, or 99 per cent. over April, 1909. Last month April's high record was again beaten, although definite figures will not be available for some time. For the first four months of 1910 the total immigration was 98,132, as compared with 49,568 for the first quarter of 1909. The arrivals from the United States during April totalled 20,443, an increase of 8,834, or 62 per cent. over April of last year. The arrivals via ocean ports, of whom over 75 per cent. were English-speaking, totalled 27,824, an increase of 16,196, or 139 per cent., as compared with the corresponding month of last year.

The act of Union of the British Colonies in South Africa, became effective June 1, and Viscount Gladstone, better known as Herbert Gladstone, eldest son of Britain's famous commoner, as governor-general, called on Louis Botha, one of the most persistent Boer leaders in the late war, to assume the premiership and form a cabinet. The confederation comprises Transvaal, Orange Free State, Zululand, Natal and Cape Colony, and has an area of 666,629 square miles. There are 5,471,490 persons in the South African states. Of these 1,188,570 are white, and 4,282,920 are colored. They are distributed thus: Natal, including Zululand, 95,440 white and 1,072,000 colored; Transvaal, 325,250 white and 1,024,200 colored; Orange River Colony, 157,200 white and 289,000 colored.

The Manitoba government have announced that a commission will be appointed to take up the question of technical education in the province. The commission will be formed from delegates from trades and labor organizations, the manufacturers' association, school boards, agricultural college and other organized bodies interested in this line of work. The commission will deal with the whole question of technical education in Manitoba, and is expected to recommend to the government a scheme for proceeding with this work. Almost coinciding with this announcement it is reported that the Dominion government have named a royal commission and empowered it to pursue investigations in Canada, the United States and Europe with the object of gaining all information possible to guide the government in developing a system of technical education for the Dominion. This commission will enter on its labors early in July.

OUR WEEKLY MARKET REVIEW

Grain markets were erratic all week and trending lower. It looks very much as if they would go lower still. Old Country quotations show less strength than our own, and went lower under bear bombardment than did the markets of the Dominion or the United States. There is a stronger feeling among buyers, and notion seems to be gathering support that wheat prices next fall will rule 20 or 25 per cent. lower than they did last year. Coarse grains have slumped in about the same proportion as wheat.

Live stock are on about last week's basis. Outside Canadian markets are rated stronger. American markets are figured some easier.

Money is getting light in America, and particularly in the Dominion banks have been raising their rates on call loans on stocks, and this has had a depressing influence on stock markets. During the past few months a large number of enterprises have been launched in this country, many of them built on the future to an unreasonable extent. Money has been in demand for this work, and these demands have reduced the sum total of the funds available for loaning on collaterals. Consequently less stock speculation should be in order, and the price of stocks should decline. All of which should mean a lowering of prices all around. It is probable, however, that this financial stringency is a local one, and that within a few weeks cheaper money will flow in from abroad.

GRAIN

Wheat has continued on the downward way made for it by the collapse of the corner in Chicago. On Monday there was a slump at Winnipeg of 2½ cents in July wheat, following a weaker tone in the markets of Europe. The American exchanges were closed for a national holiday, so that values made did not reflect the general situation. The bear side of the market continues the favorite one, though Chicago speculators seem inclined, some of them, to think that this side will prove less inviting, once the effects of the May deal have disappeared.

Shipments from the chief outside shipping countries continue liberal. Russia is forwarding and offering wheat freely. Shipments from India are on the increase, and the Argentine is offering more grain than usual. Argentine shipments of wheat for the week were 560,000, last week 1,968,000, last year 1,705,000. Visible supply in chief ports: Wheat, 880,000, last week 1,248,000, last year 1,080,000; corn, 3,910,000, last week 1,785,000, last year 4,063,000. The Argentine wheat market is irregular and nervous with a small demand.

CONDITIONS IN THE UNITED STATES

The *Modern Miller* publishes an estimate of winter wheat conditions in the United States on June 1, compared with the government figures up to May 1. Winter wheat is thought to have improved in most of the large producing states. The largest gains are in Nebraska and Kansas, where the crop is estimated to have nearly recovered from the effects of the winter. In the spring wheat country weather conditions have been favorable. Plenty of moisture has fallen in the Northwest, and while the season has been backward in growth, the crop is in good shape to come on rapidly when warmer weather breaks. The outlook, generally, in the United States is bearish.

CANADIAN CONDITIONS

Unofficial estimates of conditions in the Northwest provinces are favorable. Growth has not been rapid, but no serious setback has been given the crop by the backwardness of the season. Wheat is not as far advanced in growth as it was this season a year ago, but well up to the average. There is plenty of moisture in the soil, and warm weather will bring the plant along in quick order. A large increase is estimated in the acreage sown. Condition of winter wheat in Ontario, noted in another column of this issue, is better than was expected. The East will probably harvest a heavier winter wheat crop this season than last.

EUROPEAN OUTLOOK FAVORABLE

Reports from Europe continue favorable for bear movements. Practically nothing unfavorable of wheat has been reported from Europe this season. Some suspicions exist that the crop in the southwest is not up to average, but in the chief wheat producing sections the outlook continues favorable for a better than average crop.

STOCKS IN TERMINALS

Total wheat in store, Fort William and Port Arthur, on May 27, was 4,532,603.30, as against 4,914,232.40 last week, 3,518,949.30 last year, and 4,841,552.40 two years ago. Total shipments for the week were 1,134,861, last year 1,440,584. The amount of each grade was:

	1910.	1909.
No. 1 hard	32,633	5,873
No. 1 northern	1,768,667	943,943
No. 2 northern	1,324,162	565,585
No. 3 northern	318,718	561,818
No. 4	205,628	443,031
No. 5	56,723	176,337
Other grades	826,069	822,370
Stocks of oats—		
No. 1 extra	1,993	
No. 1 white C. W.	288,432	

No. 2 C. W.	2,591,477
No. 3 white C. W.	450,207
Mixed	8,948
Other grades	222,865

Total this week	3,563,925
Total last week	4,126,596
Barley	554,990
Flax	229,290

SHIPMENTS	
Oats	757,024
Barley	51,082
Flax	85,728

CANADIAN VISIBLE		
Wheat.		Oats.
Fort William	2,422,016	1,762,658
Port Arthur	2,110,587	1,801,267
Meaford	22,931	8,601
Midland, Tiffin	678,648	556,521
Collingwood	15,574	1,529
Owen Sound	115,000	491,000
Goderich	84,195	268,959
Sarnia, Pt. Edward	45,852	87,609
Pt. Colborne	100,000	131,000
Kingston	121,626	118,115
Montreal	639,650	868,145
Quebec	1,500	59,500

Total visible	6,357,579	6,154,941	921,542
Last week	7,828,400	6,057,428	918,659
Last year	5,146,062	3,001,912	405,426

LOWER VALUES PROBABLE

The outlook at present is all for lower values. Wheat shows every indication of shrinking away below going values long before the crop of 1910 can be marketed. Large depreciations in the outlook in any quarter of the world have a strengthening effect, but at the moment the outlook is all favorable. The conditions in the United States, which have been strong price-making factors in the wheat market for some months, appear to be improving, and indicate much over-rating of the damage done to the winter crop. The winter crop was damaged to some extent, but the increased acreage planted to spring wheat will more than offset losses in the winter wheat country.

CLOSING OPTION PRICES, WINNIPEG					
Wheat.	Mon.	Tues.	Wed.	Thurs.	Fri.
June	86½	87½	88½	87½	88½
July	86½	88	89½	88½	89½
October	84½	85½	87½	85½	86
Oats.					
June	29½	29½	30½	30½	30½
July	30½	30	31½	30½	31½
October	31½	31½	32½	32½	32½
Flax.					
June	175	150	150	160	160
July	165	150	150	160	155
October	151	152	152	154	156

CASH PRICES					
No. 1 Nor	86	86½	88½	87½	88½
No. 2 Nor	83½	84½	86½	85½	86½
No. 3 Nor	82	82½	84½	83½	84½
Oats.					
No. 2 white	29½	29½	30½	30	30½

LIVERPOOL					
No. 1 Nor.	99	99	99	100½	99½
No. 2 Nor	95½	95½	96	97½	98½
No. 3 Nor	90	90½	91½	91½	93½
July	86	86½	91½	93½	92½
October	90	90½	93½	95½	94½

AMERICAN OPTIONS					
Chicago.					
July	93½	94½	92½	92½	93½
September	91½	92½	90½	90½	90½
December		91½	89½	89½	89½
Minneapolis.					
July	102½	104½	103	103	103½
September	91½	93½	91½	90½	91½
New York.					
July	100	101½	101½	99½	100
September	96½	98½	96½	96½	96½
December		99		96	96½
Duluth		102	104½	103	103
September		92½	94½	92½	91½

DULUTH FLAX					
July	210	207	205	205	
September	167½	169	168½	168½	
October	158	159	159	158½	

LIVESTOCK

Cattle receipts at Winnipeg were ordinary in numbers and quality. Baxter-Reed Co., Olds, Alta., had in 123 head of Herefords, which were among the best quality that have been received here for some time. They sold for \$6.00, freight assumed and averaged around 1,400.

Killing cattle were not plentiful; sheep and lambs, non-offering; hogs in fair numbers and at last week's prices.

There is a suspicion gaining ground that there are not as many cattle to come out of the Western country this year as last. Buyers from Winnipeg who have been up and down the country between here and Lethbridge and Edmonton, do not report a bearish outlook, and with the backward season, it is probable that deliveries from the range country will

be a little slow. This as well as the fact that local demand all through the Western country is greater this season than ever before, makes probable lighter receipts or grass cattle this season than last.

Quality is the outstanding thing in making price for beef cattle, quality and quantity of meat. It would be an object lesson worth millions of dollars to this country if every live stock producer could be afforded a chance to size the stock one week with another at the Winnipeg stock yards, see what kind of stock buyers are willing to pay top prices for, and see to what class the ordinary skin-and-bone class is relegated to, and know what price they sell for. The trouble with our cheapest kind of cattle is that they are not the kind that would make their owners any money, even if the feed was shoveled into them. The low-priced stock hasn't got the breeding. That is their fundamental defect.

It is encouraging to note that demand for good beef breeding stock is improving. At the annual sale of the Manitoba Live Stock Breeders' Association, at Brandon the other day, demand for breeding stock was far in excess of supply and unusually good prices were realized. Shorthorn bulls were in particularly good demand, and averaged \$150 each. The same brisk demand was noticeable for females, the five Shorthorns sold making an average of \$117. This indicates that the country is trying to get into stock, and we can repeat the counsel tendered on this page frequently of late, don't sell the beef type heifers.

MARKET QUOTATIONS

Receipts of cattle for the last week were fairly liberal, and quality fair to good. The market was steady this week on all classes of good killing cattle. Few grass cattle are arriving, with lower market on this kind. Hog receipts were fairly liberal, with quality fair to good, and market steady. Very few sheep or lambs are arriving. Calves are coming more freely.

Choice export steers, freight assumed	\$5.75	to	\$6.00
Good export steers, freight assumed	5.50	to	5.75
Choice export heifers, freight assumed	5.50	to	5.75
Choice butcher steers and heifers, delivered	5.50	to	6.00
Good butcher cows and heifers	4.50	to	5.00
Medium mixed butcher cattle	3.50	to	4.00
Choice hogs	10.50	to	10.75
" lambs	7.00	to	7.50
" sheep	6.50	to	7.00
" calves	5.00	to	5.75
Medium calves	4.00	to	4.50

REPRESENTATIVE PURCHASES

No. 1 Hogs.	Ave. Weight.	Price.
118 Medium hogs	240	\$10.85
20 " "	235	10.80
276 " "	201	10.75
2 " "	200	10.60
100 " "	255	10.50
1 Heavy hog	300	9.50
1 Sow	420	8.50
Cattle.		
72 Steers and cattle	1242	6.40
41 " "	1031	6.00
30 " "	1031	5.90
16 " "	1125	5.50
5 Cows	1037	5.25
1 Cow	680	4.50
2 Bulls	1810	5.75
2 " "	1550	5.00
5 " "	1332	4.50
1 " "	1520	3.75
1 " "	1815	6.00
1 Steer	950	4.50
25 Calves	164	6.00
20 " "	112	5.85
2 " "	307	5.75
35 Lambs	38	12.00
28 " "	49	9.45

Steers, \$4.00 to \$5.00; cows, \$3.50 to \$4.00; hogs, \$9.50; sheep, \$5.50 to \$6.00. Butter is quoted, wholesale, at 15c. to 25c. per pound, and eggs, per case, \$7.00.

TORONTO

Prices are uniformly stronger than a week ago. Deliveries were good, but demand was exceptionally keen. Stockers and feeders are in good inquiry, but the butcher market is the most active. Prices are as follows: Choice export cattle, \$6.75 to \$7.50; choice butcher cattle, \$6.00 to \$7.00; good butchers; \$5.00 to \$6.25; cows, \$4.00 to \$4.50; bulls, \$4.00 to \$5.80; hogs, fed and watered, \$9.50 to \$9.65.

CHICAGO

Steers, \$6.00 to \$8.60; cows, \$3.00 to \$6.75; heifers, \$4.50 to \$7.00; bulls, \$4.50 to \$6.00; calves, \$6.00 to \$8.50; feeders, \$5.65 to \$6.50; stockers, \$4.00 to \$5.75; hogs, \$9.50 to \$9.65; sheep, \$4.75 to \$5.50.

Theodore Roosevelt received from the University of Cambridge the honorary degree of doctor of laws.

Home Journal

People and Things the World Over

A raven in the London Zoological Gardens recently was operated on for cataract and provided with spectacles, fastened to its head with a sort of hood.

Quotations made from memory cannot do justice to Mark Twain's charm, but here is a specimen passage in which he describes his visit to the tomb of Adam:

"The tomb of Adam! How touching it was, here in the land of strangers, far away from home and friends! True, he was a blood relation—though a distant one, still a relation. The unerring instinct of nature thrilled its recognition. The fountain of my filial affections was stirred to its profoundest depths, and I gave way to tumultuous emotion. I leaned upon the pillar and burst into tears. I deem it no shame to have wept over the grave of my poor dead relation. Let him who would sneer at my emotion close this volume. Noble old man—he did not live to see his child; I—I, alas! did not live to see him. Weighed down by sorrow and disappointment, he died before I was born—six thousand brief summers before I was born. But let us try to bear it with fortitude. Let us trust he is better off where he is. Let us take comfort in the thought that his loss is our eternal gain.

A little girl in Pennsylvania once wrote to Whittier, enquiring about his childhood on the farm. These are passages from his reply:

"I think at the age of which thy note enquires I found about equal satisfaction in an old rural home, with the shifting panorama of the seasons, in reading the few books within my reach, and dreaming of something wonderful and grand somewhere in the future. Neither change or loss had then made me realize the uncertainty of all earthly things. I felt secure of my mother's love, and dreamed of losing nothing and gaining much. . . . I had at that time a great thirst for knowledge and little means to gratify it. The beauty of outward nature early impressed me, and the moral and spiritual beauty of the holy lives I read of in the Bible and other good books also affected me with a sense of my falling short and longing for a better state."

Mr. J. J. Kelso, of Toronto, who has done much philanthropic work in behalf of dependent and neglected children in Ontario, says:

"There is only one way of reforming a boy and that is by securing his friendship, his goodwill, his co-operation. To reform a boy who is determined not to be reformed is about as impossible as attempting to drive water up a hill. He may be kept for months or for years in the institution and go through prescribed routine with apparent obedience and yet at the end of it all come out a far worse boy than when he entered. But get into friendly sympathetic relationship with the same boy, learn his wishes and aspirations, at the right psychological moment, place him out amid good surroundings, show that you trust and believe in him, visit and encourage him from time to time, and if he fails to respond you can put it down that he is deficient and that his proper place is in the asylum for the feeble-minded. Normal boys like to be regarded as rational human beings and they have a great depth of loyalty for the man who knows how to treat them right and to rely upon their honor."

Aid for the Stupid

A new word has been added to the English language since most of us have bought a dictionary. It is "paidology," and it stands for a new idea, though it is from the Greek, meaning the "science of the care of children." Its special modern application is to the care of backward and seemingly mentally defective children. Once all children were classified as good or bad, clever or stupid, healthy or delicate, and there were no grades between these extremes, and they had no connection with one another. Now, it is almost an established fact that the bad child is not the result of bad morals, but of bad physique, and the stupid one is not defective in mind so much as in body.

The actual working out of the new science began not with the parents of backward children, but with the school teachers. Every teacher whether in graded city schools or in the "little old red schoolhouse" in the country, has struggled with the child who could not be taught anything, and who in the press of the curriculum was finally left to his own devices, and thanks given if he could be kept quiet for the sake

do not look like that and shift here and there for the other pupils. A case came under my personal observation where a girl of ten could read fairly well, speak and hear plainly, but her writing was undecipherable. It looked like nothing on earth, but she could read it herself with no more of hesitation than the other children of her age displayed in reading their own hand-writing. By chance I found that the whole thing was inverted as in a mirror, she even wrote from right to left.

The ordinary blackboard in the ordinary, badly-lighted school house is responsible for some of this bad sight and aggravates cases which were established before school was entered.

Defective hearing explains the lagging behind of more children than you would think possible. Adenoid growths in throat and nose, which lead to much childish deafness and indistinct speech, also interfere with that proper breathing which is essential to perfect physical and mental development. The removal of adenoids is so simple and inexpensive that it is criminal to make a child a life-long sufferer by neglecting them.

Lack of proper and sufficient nourishment is one of the very prevalent causes of backwardness in children. In New York there are 6,000 children going to school every day with no breakfast, or worse than none. Fortunately, this cannot be considered a factor in Western Canada. But the imperfect nerve control of the body's muscles accounts for many cases of arrested development. Hands and feet cannot be made to do what the mind wants them to do, the tongue fails to express the idea that has been correctly thought. Manual training has done much for this class. Pitching quoits, simple gymnastics that produce quick results in muscle control, are all helpful. An instance given in *Hampton's*, drawn from a public school in New York, where this work is undertaken, will illustrate some ways of teaching control. "Spinal meningitis had reduced Anna L.—to a pitiful state of helplessness. She could not walk or even stand on her feet unassisted. She had little control of her arms, and much of the time her head rolled and her eyes moved restlessly, because of her affliction, Anna was petted, indulged, and waited on by the entire family. She became exceedingly bad-tempered, unreasonable and exacting. The slightest crossing of her will provoked fits of screaming and fighting. One day a school supervisor heard of Anna, and she straightway called on the mother. She described the ungraded classes and begged to be allowed to try their effect on Anna's case. After much persuasion the mother consented.

"The first thing they did with Anna was to teach her to walk. The teacher drew two long parallel chalk lines on the floor. 'Now, Anna, this is a brook and you are going to walk in it. Be careful and don't get out of the water.'

"Then, with a teacher and assistant on either side holding the child by her arms, they coaxed her to exert herself to walk. Up and down the 'brook' they led the child, all the time telling a succession of alluring stories about woods and meadows and all the beautiful things that flourish in and around brooks. At the end of a week or two Anna was actually walking in the brook all by herself.

Next a long wooden scantling was brought in and Anna was promoted to 'walking the fence.' At the end of the year she could walk the fence by herself. She could march to music with the other children. Now, two years later, she can sew, embroider, write and many other manual tasks. She is a lovable, reasonable child, a blessing instead of a nuisance in the family circle."

THE FRONTIERSMAN

The suns of summer seared his skin;
The cold his blood congealed;
The forest giants blocked his way;
The stubborn acres' yield
He wrenched from them by dint of arm.
And grim old Solitude
Broke bread with him and shared his cot
Within the cabin rude.
The grey rocks gnarled his massive hands;
The north wind shook his frame;
The wolf of hunger bit him oft;
The world forgot his name;
But 'mid the lurch and crash of trees,
Within the clearing's span
Where now the bursting wheat-heads dip.
The Fates turned out—a man!
—RICHARD WIGHTMAN, in *Hampton's Magazine*.

of the others. We are just beginning to find out that all these cases are not hopeless; in fact, that very few of them are. A very small percentage of them are insane, epileptic or actually imbecile to a degree where no improvement can be made. The place for these is in institutions established and maintained for just such cases. But there is as big a gap between the imbecile and the feeble-minded as there is between the feeble-minded and the backward, and much greater than between the backward and the normal child.

That something should be done for them is plain when we remember that in America at present there are between 120,000 and 150,000 feeble-minded adults, whose presence is a menace to public morals and the health of the nations. Not one person in ten thousand realizes the detriment to society of the presence of the unprotected feeble-minded woman.

But many of these apparently lack-brained children are suffering from physical defect that could be put right with comparative ease. The eyesight is a fruitful source of trouble. To many a child the blurred and twisted things he can dimly see on the blackboard mean nothing, and yet he has had no chance to know that they

AN ANGEL OR THUNDER!

The people . . . said that it thundered: Others said: An angel spake to Him.—S. John xii.: 29.

Our Lord had spoken aloud to His Father in heaven, and the answer was audible to the people who stood around—they heard the sound and some said: "An angel spake to Him," while others thought it was only a peal of thunder. It is much the same in these days. An unexpected blessing comes to one man and he looks up and thanks his Father for the gift, while another person would only say: "That was a wonderful bit of luck for me."

Perhaps both alike offer earnest prayers for the recovery of a sick friend—sick in body or soul. The friend recovers, and one looks up to thank the Good Physician, while another gives the earthly doctor all the praise.

Yesterday I received a letter from a lady in England, who had read the Canadian edition of "The Vision of His Face," and thought the book could only be bought in Canada. She was passing through Old London, and thought she would inquire at Elliot Stock's shop—on the chance that it might be found there. She went in, and was surprised to find a pile of copies near the door—the English edition was just out, and she had "happened" on the publisher. Was it merely a remarkable coincidence that she had picked out the only shop in London where it could have been found that day? If it was only a coincidence, then it is strange indeed that my prayers should so often be followed by such coincidences. The child and nurse—in the poem given below—would have seen God's answer to prayer in such an event. The hospital surgeon would have called it "a chance." So it is always. God pours blessings of prosperity on some of us, and we are apt to take them without a word of acknowledgment. Perhaps He sends the blessings of adversity, to help our souls to grow, and we only grumble at our hard fate. If we want to have ears and eyes open to spiritual things, we must accustom ourselves to see God's hand in His everyday gifts. Let us look up and thank Him for the night's sleep, or for the sleeplessness through which He tried to catch our attention. Let us thank Him for daily strength, or for the weakness which forces us to press close to His side. Let us thank Him for an easy, peaceful life, or for the difficulties which are intended to make us grow strong and brave. Whatever comes to us is a gift from our Father. Let us listen for His voice always, and then we shall never fancy that "fate" tosses each day's events to our feet. Let us expect pleasant gifts from God, and accept them with some expression of thankfulness.

DORA FARNCOMB.

A CITY TALE

I heard a story the other day, and I've shaped it into a rhyme, With the simple thoughts that occurred to me as I heard it at the time. 'Tis only a childish incident, but it taught a lesson to me, And you know the greatest Teacher taught with a baby upon His knee.

It happened, you know, in that dingy part at the eastern end of the town, Where sickened humanity loses its heart, and nature seems always to frown; Where the black smuts fall from the chimneys tall, And the engines of toil never rest, And it's only in dreams that they think of the beams that shine in the golden west.

'Mid the twilight gloom of an upper room, Like flowers laid out in a row, Ere the gardener Death bound them into a wreath for the Bride of the King, you know, Some children were lying, and tossing, and sighing, and nightly there passed away, A baby's soul from the world's control, to the regions of endless day.

On one little bed lay an aching head that tossed to and fro on the pillow, Like a toy boat on the waves aloft, who rocked by an angry billow; And his shining eyes seemed to peer

Hope's Quiet Hour

through the skies, just as lamps on a good ship's breast. Seem to look, as they shine through the mist and the brine, for a haven of safety and rest.

He was only a wild, neglected child, a waif of the city grim, Whose mother was dead, the nurses said, and whose father cared nothing for him

And the pain that he bore, he bore it alone, for no one had taught him to pray, Though at times in a dream he would say he had seen "a land that was far away."

And they heard him talking, one afternoon (so one of the nurses said), Of an angel of light who came down in the night, and passed at the foot of the bed;

And his little voice trembled, his little frame shook, as he said in words broken and slow, "He goes to the other boys' beds every time, but he never comes near little Joe.

"I wonder, suppose if I turn down the clothes, and watch till he comes, by and by,

preacher, how clearly he points to the skies. More than all our fine colleges, systems and "ologies," mystical, learned and wise.

Oh, thank God, when we're weary with doubt and with theory, and scales seem to cover the sight, Still in tiny wee fingers this simple faith lingers, and baby hands lead us to light.

Oh, 'tis strange how we older ones blunder and fight with the fancies that get in our way; We bar up the windows while praying for light, draw the curtains while crying for day.

We sorrow and weep, and we stumble and creep, when there's nought between us and the joy. But the shadows we throw on the path of ourselves—would a baby do so with a toy?

Oh, you who have asked the Levite's help, who to Jew or to priest have cried; Our Lord never saw a hand upraised and passed on the other side; And He's walking the wards of the hospital still, while mankind is groaning in pain;

JOSES, BROTHER OF JESUS.

"Is not this the Carpenter's Son?"—Matthew.

Jose, the brother of Jesus, plodded from day to day, With never a vision within him to glorify his clay; Jose, the brother of Jesus, was one with the heavy clod, But Christ was the soul of rapture, and soared, like a lark, with God; Jose, the brother of Jesus, was only a worker in wood, And he never could see the glory that Jesus, his brother, could. "Why stays he not in the workshop?" he often used to complain; "Sawing the Lebanon cedar, imparting to woods their stain? Why must he go thus roaming, forsaking my father's trade, While hammers are busily sounding and there is a gain to be made?" Thus ran the mind of Jose, apt with plummet and rule, And deeming whoever surpassed him either a knave or a fool, For he never walked with the prophets in God's great garden of bliss; And of all the mistakes of the ages, the saddest, methinks, was this: To have such a brother as Jesus, to speak with him day by day, But never to catch the vision which glorified his clay. —The Independent.

And beckon him near, will he come to me here?" And he finished the words with a sigh.

But a smile came over his pale, wan face, at the thought of his fancy borne; And he longed for the night with the feverish might that he'd hitherto longed for the dawn.

The shades of evening deepened fast o'er the city's soot and grime, Till there boomed over all, from the bell of St. Paul, the old day's funeral chime;

And the new day breaking, the good nurse waking, arose with the twilight gray, And passed down the room, 'mid the slackening gloom, to the spot where the little boy lay.

And she started, amazed, and then lingering gazed, for a wondrous sight met her view, Which brought tears to her eyes, as of joy and surprise, as well it might bring them to you:

A little hand reaching in action beseeching, a figure half raised in a bed, Two little eyes closing as softly reposing, and all of it stiffened and dead.

For the angel of light had come down in the night, and passed up the ward to and fro, Till the beckoning finger had caused him to linger at the bedside of poor little Joe.

And before he could mutter the prayer he would utter, the small silver cord had been riven, And the angel had said, as he turned from the bed: "Of such is the Kingdom of Heaven."

Oh, mighty the teacher, tho' infant the

And there never was one that e'er beckoned His aid, that ever has beckoned in vain.

Well, I told you 'twas only a childish tale, but it gave me so much delight, That I thought I'd just fashion it into rhyme, and tell it to you to-night, Its simple annals of childish faith may well excite sympathy's tears,

Although there are those in the world, I suppose, who could hear of them only with sneers

So the hospital surgeon he laughed, "Ha! ha!" It seemed a ridiculous thing; But the angels in heaven they shouted a psalm to the triumph of Christ the King.

A. H. MILES.

MANITOBA SCHOOL SYSTEM

EDITOR FARMER'S ADVOCATE: I have been pleased to notice in recent issues of your paper several articles dealing with education in rural districts. We have in these days organizations dealing with nearly every kind of society—Friends, Societies, Churches, Sunday Schools, Temperance, Single Tax Municipalities, Grain Growers, etc., etc.—and the columns of the press are filled with reports and discussions; but to my mind one of the most important questions is rural education as in force to-day in Manitoba, and what can be done to improve it. The subject is a big one. There are about 1,300 rural schools in Manitoba to-day, taught in nearly every instance by ladies, and some shall I say, mere girls. Mr. McIntyre told the Trustees' Convention, recently held in Winnipeg, that the average age of lady teachers was

gradually getting more youthful. His figures were, if my memory serves me, for the last five years, an average from 23 to 18 years, and as regards male graduates of Manitoba, they were getting cleaned out completely. The principal of the normal school appeared to think that this was very serious, and urged the trustees to think over it and be ready to face what is undoubtedly a difficult problem. Everyone must admit that, but results cannot be looked for from a majority of teachers, youthful and lacking teaching and any other experience. I believe myself that part of the trouble arises from the fact that the new Western provinces of Saskatchewan and Alberta draw our experienced and old teachers by offering better salaries and more up-to-date school buildings and equipment. As one illustration, I saw a letter the other day from a lady teaching in a country school in Saskatchewan. Listen to what she says: "The school house is the best and has the best equipment I have ever seen in any country. All the buildings are in excellent shape, all almost new; there is a full set of maps, a clock, new organ, bookcase, with the beginnings of a library; in fact, everything, even to wash basin, towel and soap. They have an order in for a shipment of framed pictures and there is a grant of \$16.50 for me to invest in books for the library. The enrollment has reached fourteen and I expect it will be in the neighborhood of twenty. My salary is \$72.00 a month, if I stay more than four months, as I expect to do. Otherwise it is \$60.00 per month."

Now, how many rural schools in Manitoba approach that for equipment? Trustees, do not all speak at once. I have now been in the country districts for eight years and must regretfully state I have yet to see such a rural school. I have always maintained that up-to-date school buildings, surroundings and equipments is the first step to holding a good teacher, and children, too, for that matter. To see some of the dingy, dirty, woebegone looking buildings is enough to scare a good teacher away and can certainly not tend to give the children an uplift for better things. Then as regards salaries, the lady referred to above taught in two of our best Manitoba towns in graded schools and the salary did not exceed what she is now getting in a rural school in Saskatchewan, so you see the first step is to pay better salaries. This rule holds good in nearly every occupation. You can generally get what you want if you will pay for it. Then we want more attention to school buildings, fences, grounds and equipment, but with your permission I will return again to the subject, as I believe a radical change in the trustee system is necessary before we can expect the improvement desired.

Man. JOHN R. DUTTON.

ENGLISH EDITION

A copy of the English edition of Miss Farncomb's "Vision of His Face" has reached this office, a volume somewhat different in appearance from the Canadian edition, but with the same dedication, so interesting, etc., to many of our readers: "To my true and loyal friend, Mary Weld, without whose encouragement I should not have ventured into the great sea of literature." Miss Weld will be affectionately remembered by many of our readers as the "Minnie May" and "Mollie" who once contributed largely to the pages of THE FARMER'S ADVOCATE.

HOME IDEAS AND ECONOMIES

To turn the hem on new table napkins, put the napkins through the narrow hemmer of an unthreaded sewing machine. This makes a more narrow and more even hem than can be turned by hand.

A buttonhole worked in the corner of the dishcloth will be found better than a loop by which to hang it up, because a buttonhole will last as long as the cloth itself, whereas a loop often gets pulled off.

When putting away woollen clothes in the spring it is a good plan to wrap each article in newspaper, separately. Moths will not bother anything put away in this manner, as they do not like newspapers.

HOW SHE STARTED

Yes, she's started to clean house,
And she must have curtains new;
Yes, she's started to clean house,
And the parlor rug won't do,
And the chairs are out of date,
And the couch, she grieves to state,
Must be covered with new leather—
Real leather would be great.

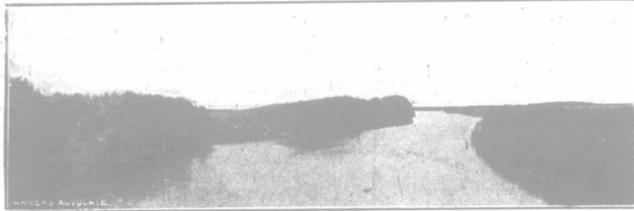
Yes, she's started to clean house,
And she wants a rocker new;
Yes, she's started to clean house,
And our old buffet won't do,
And our bedroom suite's a sight,
And our carpets far from bright,
And our dining table really
Is a veritable fright.

Yes, she's started to clean house,
She must have new draperies,
Yes, she's started to clean house,
Naught we own will longer please,
Only one thing that will do,
That she'd not supplant with new;
'Tis her hubby; but at times
I believe she'd swap me, too.

FROM AN OLD FRIEND

Dear Dame Durden:—I see Alberta Gipsy tells you that skim-milk is good for stiffening and renewing dark garments such as black lawn, linen, etc. I have never tried it, but have always used "gum arabic." Get it at the druggists and use it like starch. I forget if one requires it hot or cold, or only cool. I should think a drug clerk would know.

I have a white geranium which has ten bunches of blossoms on at one time, and now, before they are withered, another lot are formed and will soon open. It is lovely on the Cypress Hills now, but very dry everywhere, and folks say that unless we have rain and in plenty there will be a dearth of hay.



A TYPICAL WESTERN RIVER SCENE

That would be awfully hard on lots of ranchers, would it not?

We are planning to sell out and go to British Columbia. The winters here are too severe for my health. Since I underwent that awful operation in 1907, I have been a shut-in. We have five hundred acres here and the east and west forks of Ross Creek run through our pasture land. There is a fine well and a twenty-acre lake quite close to the house, so we do not suffer for water. But we are eighteen miles from town—a long way to go for a spool of cotton, eh, Dame Durden?

Please forgive the poor paper and the scribbling. With all good wishes for the dear old ADVOCATE.

WILLING-TO-LEARN.

(We are glad to have you with us gain.—D. D.)

FOLLY NOT LOVE

Dear Chatterers:—Have you all finished housecleaning? I'm all through and glad to get it done once more. I thought most of us must have been busy at it on account of the few letters there were in the Ingle Nook. It isn't so very long since I was here before but hope there will be a welcome for me.

I don't get very much time to read, but happened to pick up a paper telling how two men committed suicide by jumping off a bridge across the Red river. It seemed they both loved the same woman in Belgium and neither of them could bear the idea of the other having her and leaving him to bear it alone.

Isn't that the queer thing? Neither of them seem to have considered the woman at all. Supposing she had loved one of the fellows, she must now bear the grief of the other's death. They never thought of that. It is nearly likely she loved them both, but there is a possibility which doesn't seem to have occurred to their bright wits, that she

didn't love either of them and would have told them so if they had asked her, and then they could have remained alive and comforted one another. It doesn't look to me like love or devotion, just plain foolishness.

I haven't any ideas to share with the members except one about floors, which may help someone who has to put up with a poor floor. To fill up cracks make a paste of half a pound of flour to three quarts of water and half a pound of alum all mixed together and boiled for a few minutes. Tear a newspaper into small bits and soak it in the paste till the whole thing is about as stiff as soft putty. Fill the cracks as full as they will hold with the mixture and let it harden before wetting the floor.

BLUNDERBUSS.

(They are, my dear; they are! I read a story once where some women were pondering on the queerness of 'em, and an old, old woman made excuse on the ground that men aren't "exactly persons." For one thing the really likeable man never grows up—there always remains some child in him; and the kind that do grow up entirely are usually unendurable. So, what is to be done about it?—D. D.)

DRUG HABIT ALARMING

In its effort to protect the innocent public against the insidious effects of preparations containing drugs injurious to health, the United States Department of Agriculture has issued another

farmers' bulletin treating on the subject so nearly connected with public health.

Farmers' Bulletin No. 377, The Harmfulness of Headache Mixtures, was issued in September, 1909, and 70,000 copies have been distributed to those interested in the subject. Now Farmers' Bulletin No. 393, Habit-Forming Agents: Their Indiscriminate Sale and Use a Menace to the Public Welfare, giving the results of recent investigations by the department, has just been issued as a warning to mothers, invalids and users of medicated soft drinks, of the dangerous contents of many of the infant syrups, so-called remedies and soft drinks containing cocaine, caffeine, etc.

It is almost unbelievable that anyone for the sake of a few dollars would concoct for infant use a pernicious mixture containing cocaine, but several such mixtures have been found and their names published, together with a list of remedies intended for infants and containing morphin, codein opium, cannabis indica, heroin, which are widely advertised, and are accompanied by the assertion that they "contain nothing injurious to the youngest babe," and that "mothers need not fear giving them, as no bad effects come from their continued use," while as a matter of fact, numerous instances are on record, of babies being put to sleep never to wake again, or, where they did not succumb, the more serious effect of infant drug addiction was produced.

Yet the majority of mothers, ignorant of these facts, continue the use of these poisons, which at least must undoubtedly leave their impression on the delicate organisms of infants and induce tendencies which may develop into the evil habit of drug addiction.

The bulletin contains a list with a photograph of the "original packages"

of some of the soft drinks containing caffeine and cola leaf extracts, to which it is not uncommon to find persons addicted. It also mentions some of the harmful nostrums advertised as cures for asthma, catarrh, cold, coughs, consumption, epilepsy, and the tobacco habit, and states that some physicians in their prescriptions in treating these diseases and in attempting to cure the "drug habit" itself, often prescribed the very remedies that have produced the conditions which it is proposed to relieve.

This bulletin can be secured by writing to the secretary of agriculture, Washington, D. C., to any senator, representative, or delegate in congress, or it can be purchased from the superintendent of documents, government printing office, Washington, D. C., at five cents per copy.

FIRELESS COOKING SIMPLIFIED

Dear Dame Durden:—A friend sent me an account of how the Dutch do their fireless cooking, and as it is very simple I thought some of your readers might like to try it. I have not tried it myself yet. The article to be cooked is prepared as usual on the fire in a kettle with a close-fitting lid. A pile of ten papers is spread on which the kettle is placed, the papers are then folded one by one over it. It is then placed in a warm place on a piece of carpet or blanket and another piece thrown over it. The great thing is to fold the papers quickly and well so as to prevent the loss of heat.

NORA CREINA.

(A very short visit this time but we're glad to have it, for it shows you have not forgotten us. A happy summer to you.—D. D.)

MORE WILD FRUIT

Dear Dame Durden:—I have been a silent reader of the Ingle Nook for a long time, and received so much help that now I will try to help a little, as it is getting near fruit time, by sending a few more ways of doing up wild fruit.

JUNE BERRIES OR SASKATOONS.—Put half berries and half rhubarb and add to each gallon, one pint vinegar, one pint water, one teaspoon cinnamon. Boil all together for five or ten minutes and seal while hot.

(Doesn't this recipe require any sugar?—D. D.)

DEWBERRY JELLY.—Put them in a saucepan with a little water and boil until soft. Strain, and to each pint of juice add half a pound of sugar. Boil five minutes, put into glasses and set in the sun for a few hours before covering.

SPICED BLUEBERRIES.—To five pound of berries allow three pounds of white sugar, one pint vinegar, three table-spoonsful ground cinnamon and half as much cloves. Dissolve the sugar in the vinegar and skim clean. Put in the spices tied in a bag, then the blueberries. Let heat gradually and cook slowly for ten minutes after boiling begins. If the berries are not quite ripe it should be quite like a jelly. Do not mash the berries in cooking.

PRESERVED BLUEBERRIES.—Use three-quarters pound of sugar to each pound of fruit and the juice of one lemon. Heat the berries and sugar together. They will need little water after washing to keep them from burning when thoroughly cooked, which will be in five or ten minutes. Add the lemon juice, let boil up once and then seal.

JUGGED BLUEBERRIES.—Wash, pick over carefully and drain a peck of blueberries. The easiest way is to put the fruit in more than enough water to cover, then move them about carefully with the hand and pick out all leaves, green or poor berries that are seen at once. Then look over a few at a time and put in a colander to drain. By the time it is partly filled the water will have drained off pretty well if one is working alone. Pick all the berries over before beginning to cook them. Take a large preserving kettle and put

in a cupful of water, fill the kettle with fruit, cover, and set over a moderate fire. Do any stirring very carefully so as not to break the berries. When well scalded fill wide-mouth jugs, holding from two quarts to a gallon. The jugs should be heated in boiling water, filled full with fruit and juice poured in up to the cork. The cork should be soaked in hot water, forced into the mouth of the jug and sealed with wax or resin. Continue in this way until all the berries are used. If any syrup is left it may be bottled or made into syrup for winter use.

Now, dear Dame Durden, this is such a long letter that you will get tired if I do not stop. But I hope this will help some of the members as, they have helped me in lots of things.

PEARL.

(It was good of you to take so much trouble and your information is sure to be of use.—D. D.)

WHAT THERE'S TIME FOR

Lots of time for lots of things
Though it's said that time has wings;
There is always time to find
Ways of being sweet and kind,
There is always time to share
Smiles and goodness everywhere;
Time to send the frowns away,
Time a gentle word to say,
Time for helpfulness and time,
To assist the weak to climb;
Time to give a little flower,
Time for friendship any hour;
But there is no time to spare
For unkindness anywhere.

THE LATEST FASHIONS FROM OUR DESIGNERS

Price ten cents for each pattern. Order by number, give size, name and address.

Allow from ten days to two weeks to fill the orders.

Send to Fashion Department, Farmer's Advocate, Winnipeg, Man.



6652 Sailor Blouse or Shirt Waist for Misses and Small Women. 14, 16 and 18 years.



6627 Tunic Skirt with Five Gored Upper Portion. 22 to 30 waist.

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6649 Boy's Blouse. 12 to 16 years.



6643 Boy's Sailor Blouse Suit. 8 to 12 years.

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4, 16 and 18 years.



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Portion,
22 to 30 waist.



6643 Boy's Sailor
Blouse Suit,
8 to 12 years.



**The Western
Wigwam**

OVER THE BORDER

Dear Cousin Dorothy:—This is my first letter to your charming club. Papa takes THE ADVOCATE and thinks it a fine paper. I enjoy reading the letters of the Wigwam. I am nine year old and in grade four. I go to school every day; our school is three-fourths of a mile from our place. We have not been in Canada long; we came from the United States last spring. My papa is a farmer and we have eleven head of horses, one hundred and ten chickens. I have one sister and two brothers.

FREDA HALFORD.

A COMPLIMENT FOR THE BOYS' CLUB

Dear Cousin Dorothy:—This is my second letter to your club. I saw my first letter in print long ago but the paper didn't come so I did not write again. I read the letters in the Boys' Club, too. The boys seem to be getting very smart now, for they were always behind time about writing to any other club. I have a nice big dog and I call him Bob. I am twelve years old and in grade 4. I have gone to school for about three years and a half.

There were nine or ten prairie fires all around us two days ago, but a big rain came and put them all out.

FANNIE McDERMOT.

(Thank you for the pretty card.—C. D.)

A CRUEL ACT

Dear Cousin Dorothy:—This is my first letter to your Club. We get THE FARMER'S ADVOCATE weekly and we enjoy reading the letters, so I thought I would like to become a member also and try and give you a letter. I am at school here in Sinclair. It is not a big place but it has two elevators, a grocery store and hardware, also a drug store. We go to school regularly but our school is getting too small for the number of pupils, so they are building a new and larger one this summer.

We lost our pet dog here the other week. Some person laid poison and a good few dogs were the victims. It was a very cruel deed to do. Our dog's name was Noble and he rightly deserved the name. He was so faithful and so attached to us children and are all so sorry and we miss him greatly. The person who was mean enough to do this cowardly act has much need to change his nature and principle, and for the future spare the feelings of children and others by the thoughtless and cruel manner they removed their pets.

Man. JOHANNA CAMERON (8).

A CALL TO THE WIGS

Dear Cousin Dorothy:—This is my third letter to the "Western Wigwam." I think that the corner is getting more interesting every week. But where are all the old members? The new members write interesting but short letters; they seem to think that because it is their first letter it does not need to be long. I say, all you Indians, we will have to be pretty smart, or the "Boys' Club" will be getting ahead of us! I have read every letter and they are all good ones. So if we want to keep ahead we must write better and longer letters.

Cousin Dorothy, what would you do with a brother who will never do anything for you? I asked my brother to make me a small stand some time ago. He said that he would make one for me; but I have not seen it yet.

At our school the boys have a baseball team, and the girls a basket-ball team. I am in the basket-ball team. I am having a week's holidays, as my teacher is away at teachers' convention. I do most of the housework, so that mother can get some sewing done. As my letter is getting pretty long I will close, wishing the "Western Wigwam" success. The next time I write I will send a drawing, or a story.

Alta. IGNORAMOUS. (14)

(Very glad to hear from you again, I, too, miss the old members. Is that brother of yours a member of the Boys' Club? Tell him from me that I think it would be a fine idea to build your stand for you and then write to the Boys' Club, telling the rest of the boys how he did it.—C. D.)

NEEDED RAIN

Dear Cousin Dorothy:—I wrote to the Western Wigwam about six weeks ago, but did not see my letter in print. I am afraid it did not escape the W.P.B. We have had a lot of rain lately, but we are very pleased to get the rain, as the crops needed it. I am going to school now and am in the second reader. Our teacher's name is Miss S—. We live half a mile from the school. We had a holiday on Arbor Day. We have a little colt; its name is Diamond. I like to hear the little birds sing. I have two cats and one dog. Her name is Tiny.

MAUD MITCHELL.

(Your penname had been chosen before, so you will have to think up another.—C. D.)



A SHACK BUILT ON THE HEXAGON.

PROUD OF THE SCHOOL

Dear Cousin Dorothy:—For several years I have been a silent reader of the Western Wigwam. I think it is very nice to have such a wigwam, but I would not like to be called a "Wig." The boys, at any rate my two brothers, think it very nice to have a Boys' Club, and I think it is but right that the girls should have a club too.

My home is in the Ellison district, in the Okanagan Valley, ten miles from the city of Kelowna. I go to the Ellison school. I don't know whether it is right or not, but I am very proud of it. Our teacher's name is Mrs. S., and we like her very much. My studies are reading, writing, arithmetic, grammar, geography, singing, drawing, painting and music. I think I like painting best. I am in the fourth reader.

We have many pets and most of them know some tricks. We have a dog whom we drive in a wagon, not a big wagon, of course, but a small one. Although I am twelve years old I play with dolls, but I suppose I will stop when I reach my teens.

B. C. NELLIE HERRERON.

A STORY BY BOOKWORM

Dear Cousin Dorothy:—It is quite a while since I have written. I had a letter ready to send, when I read your request for no more for a while, so I complied with it. Last summer holidays we moved into Winnipeg; next summer holidays we move out to a farm down on the Red River. It is lovely down there, but miles from a neighbor. So you see I could not stand the city long, being country-bred.

The city is all right in the winter, but in the summer, it is awful—and the country is nice. On hot days in here, there isn't a shady place except the crowded parks. I will be sorry to leave the school here. It is much nicer than country schools. On our Red River farm an old lame Indian named Bush-ax and his blind wife live. He gave my brother a real Indian bow-and-arrow. I am so glad that the wild flowers are out now. We have found violets and buttercups even in the city.

I am sending you an original story of my own, which I wrote at school for composition. My teacher said it was good enough to print. I am eleven years old, and am in Grade VI. I won't go through the list of my studies, as is usual. Hoping I have not taken up too much space. BOOKWORM.

FORGOT STAMP FIRST TIME

Dear Cousin Dorothy:—I wrote to this club once before but did not get a button. Perhaps I did not send a stamp. But I will be sure to send one this time. Papa has taken the ADVOCATE for a long time and we like it very much. A lot of the school girls have got the buttons from another club, but I thought I would get a prettier one, so I wrote to this paper. The gophers are very plentiful around here, but as catching them is not a girl's work, I do not catch any. I would like to correspond with a boy or girl of my own age, twelve.

MARIE MORTON.

THE PEACE RIVER COUNTRY

Dear Cousin Dorothy:—I will write to the Wigwam once more. We went to Blackfalds the 24th of May for the celebration. It is raining to-day, but it will make things grow. I like to hunt and trap. A great number of people went north last winter to the Peace River country. The seeding is all done in this part. The fall wheat is not much this year. I will now give some riddles for the Wigs to guess;

1. It can't go up the chimney up, but it can go up the chimney down. It can't go down the chimney up but it can go down the chimney o'er.

2. As I was going o'er London bridge I met a cart full of fingers and thumbs.

Alta. GEORGE W. JOHNSTON.

THE SICK NEIGHBOR

Dear Wigs:—It has been nearly a year since I wrote to the "Wigwam" last. That time I forgot to give my address, so Cousin Dorothy couldn't send my badge that time, but I am enclosing a two cent stamp, for which, Cousin Dorothy, please send me one of the buttons to remember the charming club by.

I think we have a very nice design at the head of our page. I have a cow, two heifers, and a pig of my own. I think I will sell them and buy a horse.

Our old cat has got eight little kittens. Our neighbor is sick, and my two largest sisters and my next to smallest brother are at school, while I am at home with my two little sisters and my little brother, tending to them while my parents are over to the neighbors. There are seven of us children, four girls and three boys. Our school is three-quarters of a mile away. There are twenty-seven scholars in our school—pretty good attendance for a country school, isn't it, Cousin Dorothy?

Gladiolus brought it up that the boys didn't support the Western Wigwam very good. She couldn't expect us to support it as good now, as we have a club of our own, which is something the girls haven't. I am sure we supported the Wigwam just as good at first.

Hoping every success falls on the Indian children and Cousin Dorothy. COWBOY.

A BIG FARM

Dear Cousin Dorothy:—This is my first letter to your club. We live on the farm four miles from Tenore. We have twenty-one horses and one little colt, thirteen cattle and two little calves, sixty hens and nine pigs.

I go to school every day, and our teacher's name is Miss McN—. I like her fine. I am in the third reader and my studies are arithmetic, reading, spelling, geography, composition and writing. We live three miles from school.

We have a nice-sized house and barn. We have a section of land with about 290 acres of wheat in, and 90 acres of oats. We are going to plant 40 acres of barley.

Man. MYRTLE DRYDEN (10).

WHAT DO YOU LIKE TO DO?

Dear Cousin Dorothy:—This is my first letter to the Western Wigwam. I wanted to write before, but my mother said I was not old enough. I am going to school every day. I drive when papa is not using the pony. My brother and I have a pony of our own, but he is not broken in single yet. We call him Mac. We are thinking of trading him to papa for a yearling colt. I am eight years old. To-night I walked for the cows but I did not like it. I do not like watering the chicks or carrying in wood to the house. We have three geese and twenty-four horses and fifteen cows.

Man. MAC.

COMING TO THE POW-WOW

Dear Wigs:—I'm coming to the pow-wow, too. I want a button also. Can I have one, please? I read the letters in the Wigwam every time. They are so interesting, but I think the Boys' Club will beat the girls, if they don't hurry up. Don't you think so, Cousin Dorothy? I have a little garden. We had a lot of rain yesterday and to-day. One of our chicks died. There were a good many of them sick but they are better now. I'm afraid my letter will have to be called short; I can't think of any more to say.

RACHEL MARSDEN.

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A flavor used the same as lemon or vanilla. By dissolving granulated sugar in water and adding Mapleine, a delicious syrup is made and a syrup better than maple. Mapleine is sold by grocers. If not send 50c. for 2 oz. bottle and recipe book. Crescent Mfg. Co., Seattle, Wn.

AGRICULTURAL MOTORS

We note a further step forward in the agricultural motors, and also a determination to make agricultural motors suited to the needs of farmers on small areas as well as those who cultivate a section or more. Saunderson's agricultural motors, so well known in England, being the holders of the Royal Agricultural Society's special medal for these machines, are being introduced into this country by a company who are about to erect works and a depot in Saskatoon.

These motors are already largely on sale in Australia, Africa and the Argentine Republic, and have found their way into every agricultural country in the world. They are celebrated for their great output of power, combined with small weights, and handiness, which enables them not only to break slow or thresh, but to be equally useful for reaping, mowing, seeding, disking, or hauling, their light weight not packing the land as do heavier engines. These machines should never be idle, as they can take the place of the horse at all times for anything that is wanted on or off the farm. The new "Little Universal" will be a mine of resource to the small farmer. It covers the ground at a good speed, and is offered at a price easily within reach of the average farmer. See the advertisement on another page and write the firm for particulars.

POPULAR HORSE REMEDY

A very trivial thing oftentimes causes a horse to go lame, such as a slight wrench, a sprain, a cut, etc. These are things to be expected. They are liable to happen to any horse at any time. The lameness may cause inconvenience, but it is not otherwise serious. All that is necessary in many cases is to be ready to treat promptly with some efficient remedy. In this connection it is a suggestive thought that for over a score of years one could hardly speak or think of a horse remedy without calling to mind Kendall's Spavin Cure. Perhaps no other single horse remedy has ever been so generally used or had so great a reputation. Almost everybody who owns a horse has heard of it. Its popularity has not been confined to one locality or province. It is national, even world-wide. It is found on the shelves of well posted horse owners in many countries.

It is worth while to remember that Kendall's Spavin Cure has been in use for nearly half a century, and its popularity is greater now than ever before. If it had not stood the test it would have been out of mind long ago. This old favorite horse liniment is on sale at drug stores and general stores everywhere. The excellent horse book, entitled "A Treatise on the Horse and His Diseases," can also be had free at drug stores, or by writing for it to the Dr. B. J. Kendall Co., at Enosburg Falls, Vt.

PIG MANURE VS. HORSE MANURE

Will you please say whether pig manure has the highest percentage of fertilizing matter, and which soil each is suitable for?—D. C.

Ans.—Hog manure is much richer than horse manure, and is suitable for any soil in which it is not especially desirable to set up active fermentation.

Questions & Answers

GENERAL

Questions of general interest to farmers are answered through our columns without charge to bona-fide subscribers. Details must be clearly stated as briefly as possible, only one side of the paper being written on. Full name and address of the enquirer must accompany each query as an evidence of good faith but not necessarily for publication. When a reply is required by mail one dollar (\$1.00) must be enclosed.

CEMENT FOUNDATION

Would a cement foundation under a barn on sandy soil be any better to be put down in a trench, or just the surface taken off?—R. K.

Ans.—A foundation trench, considerably wider at the bottom than the thickness of the wall, had better be dug below the frost line.

TRAINING HORNS

Have a bull, 13 months old, whose horns are not growing in a shape to suit me. How should I treat them to cause them to grow downward and inward? Have been told to scrape on the opposite side to which they are wanted to grow.—J. H.

Ans.—If you scrape at all, it should be done on the side to which it is desired to have horns turn. Probably as the bull gets older, the horns will assume a more correct shape. Horns can be drawn together by applying a device which exerts a constant pull by means of a screw or by twisted wire.

FIGHTING WILD OATS

The land I propose summerfallowing is badly infested with wild oats. Can you give me any helpful suggestions regarding the best way of treating it?—H. J., Sask.

Ans.—The wild oats problem is somewhat difficult to solve. Wild oats can only be eradicated by constant endeavor in many directions. Clean seed is most important. The land should be disked or lightly plowed in the fall, and again in the spring after the weed seeds have germinated. The wild oat is deep rooted and fallows should be cultivated during the summer with a broad-share cultivator, and a regular rotation of crops adopted. The constant growing of wheat greatly assists in the spreading of this very noxious weed.

M. A. C. S. A. BEDFORD.

SEIZING THE FOAL

A had a registered pedigree stallion, which he travelled last season. Terms: single service, for season, or when proven in foal. B bred all his mares, but sold out in the winter and left the country, saying nothing about the stud's fee. C bought a mare B said was bred, but was not in foal, but she proved to be in foal. Can A compel C to pay, or can A claim the foal?—C. D., Alta.

Ans.—Within twelve months after service the owner of the horse may file a lien as per section 10 Horse Breeders' Ordinance, 1903. If the lien is filed as provided, and the debt is not paid on or before January 1st, after service is effected, the colt may be taken and sold for debt and costs.

PLOWING COMPETITION

We are having a plowing match near here, and I am thinking of competing. Can you give me any suggestions that will help me in preparing for the match?—R. H., Manitoba.

Ans.—I would suggest that you practice plowing as much as possible between now and the time of the contest. Accustom yourself to plow a uniform depth and width of furrow; above all take pains to start and finish the land to the best advantage. Use only a team of horses that you have been well accustomed to and that are used to your manner and voice. Learn to keep cool and quiet when plowing. It is seldom that a fussy or noisy plowman succeeds in winning a prize. His horses become too much excited for good work. Have your harness and plow clean and in perfect condition.

M. A. C. S. A. BEDFORD.

A clever advertisement may induce you to purchase very poor tea. If you buy



you run no risk, as your grocer will refund your money if you are not entirely satisfied with it.

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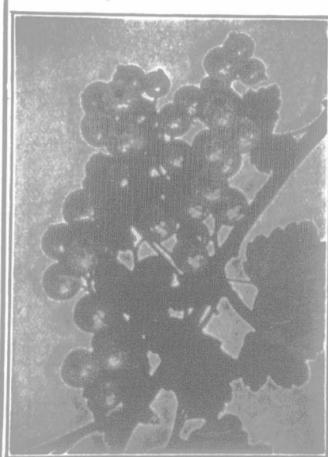
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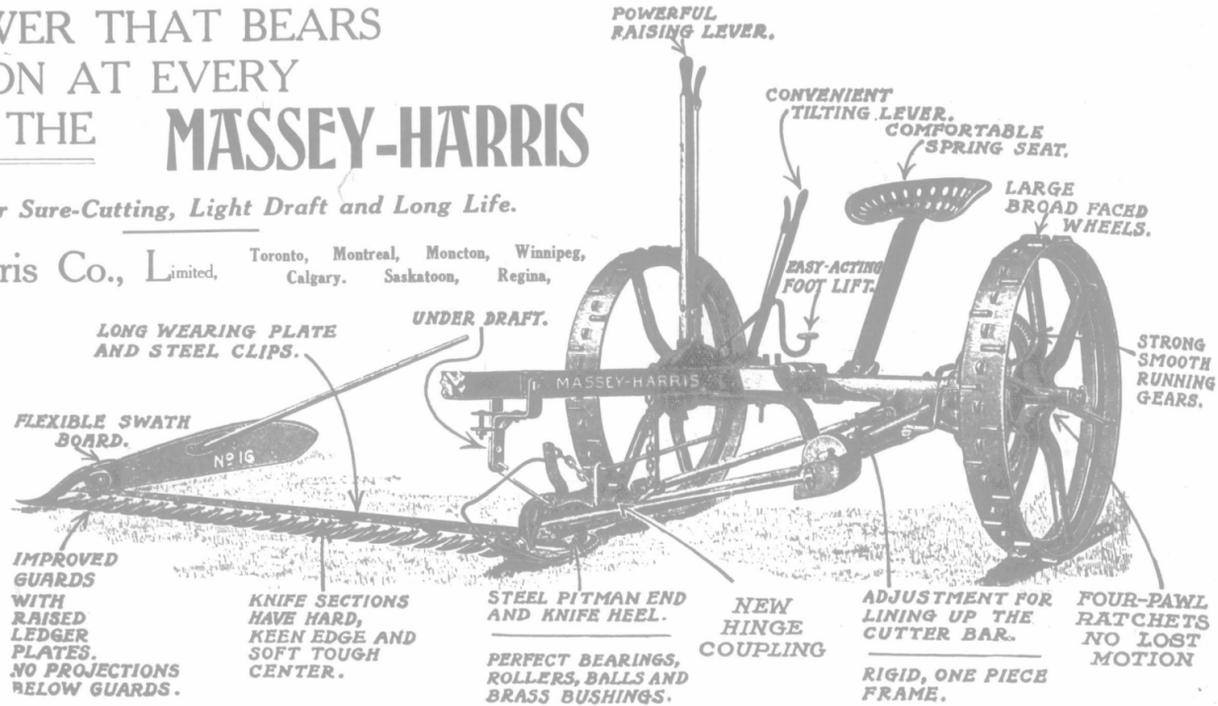
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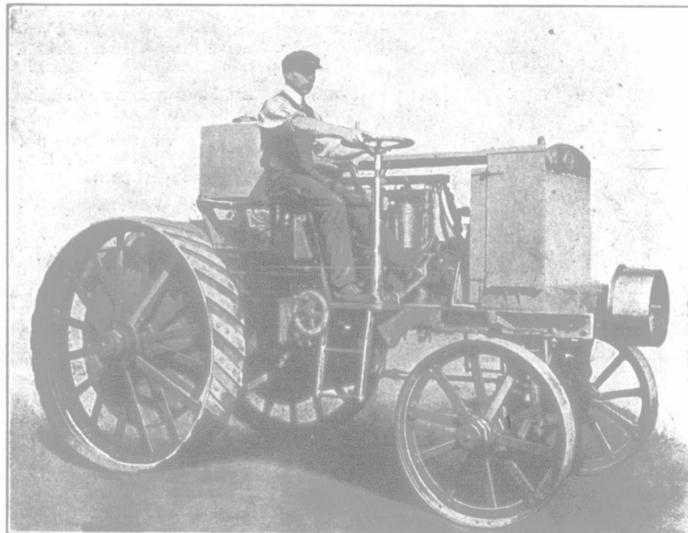
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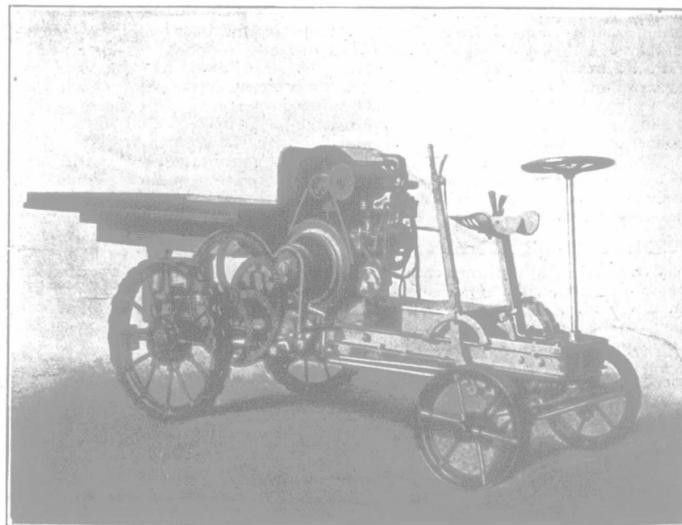
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No. 1, designed for large farms; will plow 15 to 20 acres per day; pull three binders, mowers or seeders; haul 12 tons on the road. Four-cylinder engine, fitted with three speeds—2½, 3½ and 7 miles per hour—forward and reverse. Self-starting magneto ignition; fitted with steel cable for grubbing and road-making; carries fuel and water for one day's work. Extension wheels for soft ground. Made in two sizes, 22 h.-p., and No. 2, 14 h.-p.



No. 4, 2½ h.-p.—Handiest and cheapest machine on the market. Designed for small farms. Will plow two acres per day. Only one man required, who operates his plow from driving seat. Will pull a mower, harrow or disc, etc. Will haul 1½ to 2 tons on the road. Carries a saw bench, grinder or pump, etc., which it operates where required. One air-cooled cylinder, fitted with three speeds, 2½, 3½ and 7 miles per hour; forward and reverse.
No. 3, 6 h.-p.—A larger size of the above, fitted with 2 water-cooled cylinders and three speeds. Has three plows, operated from driver's seat, as in No. 4, and will pull one eight-foot binder and drive a small thresher. Carries fuel and water for a day's work, and drives small machines, same as No. 4.
All our machines are fitted with self-starting magnetoes, and require no batteries, repairs and spares at depot.

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Questions & Answers

VETERINARY
Enquiries dealing with matters of a veterinary nature are answered through our columns by a competent veterinarian free of charge to bona-fide subscribers. Details and symptoms must be fully and clearly stated on only one side of the paper. Full name and address of the writer must accompany each query, as a guarantee of good faith, but not necessarily for publication. When a reply is required by mail one dollar (\$1.00) must be enclosed.

BLIND STAGGERS

Will you give me information as regards blind staggers in horses, causes and treatment? H. G. H.

Ans.—Blind staggers, or vertigo, is a condition generally brought about from an overloaded stomach—indigestion. The symptoms are the result of either the absorption of the gases and ptomaines generated from the decomposing food in the stomach, or from reflex nervous action. There are many other causes of vertigo, among them being compression of the jugular veins by a too tight collar, or by a check rein, which draws the chin towards the breast, or by a throat latch buckled too tightly. Disease of the valves of the heart, disease of the lungs, disease of the eye, the ear, or of the brain will

cause staggers, or vertigo. The treatment varies with the cause. The diagnosis of the cause is therefore quite necessary for successful treatment. In the overfed animal a reduction of the allowance of feed and daily exercise, or work will often suffice; but it is generally necessary to remove the irritating intestinal contents and deplete the system with an active purgative. If the trouble is due to mechanical interference with the flow of blood, from the collar or bridle being too tight, these should be corrected. If from other diseased organs, only the skilled veterinarian is competent to treat the case.

TUMOR BETWEEN CLAWS OF OX

Ox has a hard growth between the toes of one of his hind feet. It is hard, like a corn on the outside and is very sore. It does not show any signs of breaking and is getting larger. I have put tar, oil and lard on it several times, and also washed it with hot water. That seems to take the soreness away, but when he is worked a while he becomes quite lame again. Otherwise the animal is in fine condition. Is this called hoof-rot?—A. R. P.

Ans.—The only advice we can give is that you consult a veterinary surgeon, as the growth will in all probability have to be removed surgically.

COW HAS COUGH

Cow three years old, giving milk, has a cough, and has had ever since I got her, three weeks after calving. She has been fed on oat sheaves and bran mash and is in good condition and milking well. Would the milk from this cow be liable to be harmful to young children?—F. H.

Ans.—You should have the tuberculin test applied to this cow. The cough may be due to tuberculosis. We advise you not to use the milk until she proves to be free from tuberculosis. Frequently cows cough while in the stable, but in many cases the cough is not tubercular, but caused by dusty or musty feed, and the vitiated air of the stable. In the latter case when the cow is turned out on grass the cough soon leaves her.

STALLION HAS DISTEMPER

Have a three-year-old stallion with distemper. He is swollen under the jaw, and is running from the nose. He eats and drinks well, but still keeps thin. He does not seem to be getting any better or worse. What treatment would you advise?—M. W.

Ans.—Syringe out the cavities several times a day with a 2 per cent. solution of hysol, and keep the surrounding parts clean with the same solution. Internally give mixed with slightly damp feed, three times a day a level teaspoonful of each of the following: Calcium sulphide, powdered sulphate of iron and powdered cinchona. Turn him on pasture, in a paddock, but feed him grain twice a day.

GOSSIP

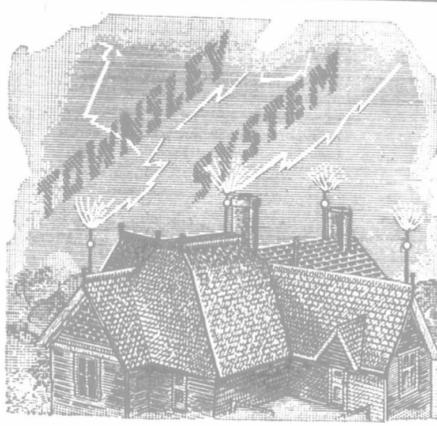
AGRICULTURE BY CORRESPONDENCE.

The State College of Agriculture of South Dakota, is entering a new field of educational activity, having just issued advance announcement of a course of home study in agriculture, which is to start at once and through which the college expects to reach the thousands who have not the opportunity of attending a regular classroom course. The subjects offered relate chiefly to agriculture, home economics and nature study. A text-book will be selected or lessons will be prepared for each course of study. Reference books and bulletins will be recommended. Lists of questions on each chapter or division of a subject will be forwarded to the student to answer. The answers carefully written, will be forwarded by the home student to the Director of College Extension. These papers, after careful criticism and correction, will be returned to the student. The student will also have the privilege of asking questions relative to the subjects in the courses of study and these inquiries will receive the special attention of the instructors in charge of the courses.

The cost of the courses, including text-books, runs from one dollar up to about four dollars, being merely the publisher's price for the text-book, plus a small sum to cover cost of stationery and postage.

AN EMPIRE IN THE NORTH

To stand at a nation's crossing, nearly five hundred miles north of the provincial capital—almost as far north of Toronto as Chicago is West—and look south a hundred and forty miles to the lower apex of a twenty-million-acre V-shaped area of good level agricultural land (broken occasionally by outcroppings of rock, but comprehending many vast areas without a stone to throw at a bird), with the greatest



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Some Interesting Facts About Overlands

Our 800 dealers now are selling over \$200,000 worth of Overlands daily. That's a far larger sale than was ever attained by any other car in the world.

Some of the Users

The Government is one of the Overland users. For a year and a half some of these cars have been used in carrying the mails. For 500 days they have made their regular trips, winter and summer, without a moment's delay. Each of these cars has done the work of three horse-drawn vehicles.

The J. I. Case Threshing Machine Company some time ago supplied 25 Overland cars to their country salesmen. They report that one man with one of these cars can do two salesmen's work.

The Altman & Taylor Machine Co. have also begun to supply Overlands to their salesmen.

We have recently built delivery car bodies on 900 Overlands for the use of storekeepers who want them for use as light delivery cars.

All Due to Simplicity

All these new uses for Overlands are due to their utter simplicity. A novice can run one as well as an expert.

The operation of the car is by pedal control. One goes forward or backward, fast or slow, by simply pushing pedals. The hands have nothing to do but steer.

Overlands are almost trouble-proof. The usual complexities have been avoided. One of these cars has been run 7,000 miles, night and day, without stopping the engine.

A child can master the car in ten minutes. Any member of the family can run it. And a car that

is relied on to carry the mails is the car which will always keep going.

\$3,000,000 Plants

Over \$3,000,000 has been invested to produce Overland cars in a perfect and economical way. The cars are made—as watches are made—by modern, automatic machinery. Thus we get exactness to the one-thousandth part of an inch. And thus every part is made exactly like every other similar part. All parts are interchangeable.

Because of this machinery and our enormous production we are able to make cars for less than anyone else.

This year we are selling a 25-horsepower car, with 102-inch wheel base, for \$1,000. We are selling a 40 horsepower Overland, with 112-inch wheel base, for \$1,250. And these prices include all lamps and magneto.

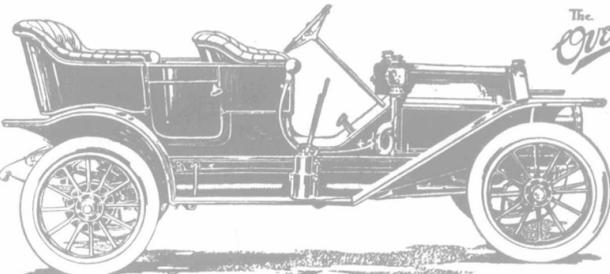
During the past year alone we have cut the cost of Overlands 20 per cent. by multiplied production and this labor-saving machinery.

10,000 Tests

The various parts of each Overland car are subjected to 10,000 rigid inspections. Then every car, before it goes out, is given a long trial run on rough roads. One of our test roads includes the worst hill in Ohio.

Thus we know that each Overland is a perfect car before it leaves the shop. There are no mistakes.

Those are part of the reasons why Overlands have now come to outsell all other cars that are made. You will want the car which others want when you learn the facts. If you will send us this coupon we will mail you our catalog. We will also tell you the nearest place where you can see the cars.



The 25-horsepower Overland costs from \$1,000 to \$1,100, according to style of body. The wheel base is 102 ins. The 40-horsepower Overland costs from \$1,250 to \$1,500. All prices include five lamps and magneto.



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SASK.

CLAWS OF OX growth between the 1 feet. It is hard, outside and is very how any signs of ng larger. I have on it several times, with hot water. the soreness away. red a while he be- again. Otherwise condition. Is this R. P. dvice we can give veterinary surgeon, in all probability urgically.

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There is no risk whatever in ordering your twine now. Our broad guarantee protects you fully.

If your crop is destroyed through hail, frost, rust or excessive rain, or if the twine is unsatisfactory in any way, return it to us at our expense and we will refund your money in full and any charges you have paid.

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GOLDEN MANILLA 550 feet to the lb.	\$8.59	\$8.70	\$8.92	\$9.02	\$9.23	\$9.23
EATON STANDARD 500 feet to the lb.	\$8.09	\$8.20	\$8.42	\$8.52	\$8.73	\$8.73

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If you have recently come to this country and are unacquainted with the Eaton progressive method you could not do a wiser deed than to write at once for your name to be put on our mailing list. We endeavor to keep in stock everything that is needed for the home, the farm and the family.

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The Guarantee a man or a firm gives the purchaser shows to what extent they are prepared to stand behind the goods they sell. We guarantee satisfaction with every dollar's worth of goods purchased from us. If the goods fail to please, return them at our expense and we will promptly return your money and any charges you have paid.

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Address all orders to **Farmer's Advocate** of WINNIPEG Limited

silver camp in the world eight miles beyond it, at Cobalt and neighboring points, and the greatest nickel mines in the world southwest, at Sudbury, the whole covered with immense pulpwood forests, and with some of the most exquisite primeval scenery contiguous to the rough mining regions; to turn, then, westward, and ride thirty-five miles along a new transcontinental railroad, across noble rivers, through level clay and muskeg country, which only needs clearing and drainage to make it fit for tillage; to look north towards Hudson's Bay, with its whale fisheries and large possibilities of pleasure-seeking and commerce; then to turn eastward and look out across more of the good level land, continuing irregularly into the hinder part of another province; to see at one's feet a new town (Cochrane), eighteen months old, beautifully situated beside a lovely lake, at the junction point of a provincial government road, tapping the rich areas of old Ontario, and providing access for its commerce to a national transcontinental railroad, soon to link Atlantic and Pacific with another band of steel, remarkable for its direct route and wonderfully easy grades and curves; to realize that one stands in the midst of a nascent empire of tremendous potentialities, where pathfinders are already busy blazing the way, and to know that a fringe of scattered provinces is being broadened and consolidated into a magnificent nation—such was the privilege of one hundred and thirty editors last week, who took advantage of the Canadian Press Association's excursion to New Ontario.

The excursion, following the convention of the Press Association, had been arranged by the executive in co-operation with the Grand Trunk Pacific Railway, the Ontario Government, and the Temiskaming & Northern Ontario Railway Commission, at a merely nominal expense to the members. The party, which left Toronto Wednesday evening in a special train of Pullman's, and returned Sunday morning, was royally entertained, banqueted and dined along the trip by the railroads, the town and mines of Cobalt, by Haileybury, New Liskeard, Cochrane, the construction companies on the National Transcontinental, and finally, on the return trip, by the town of North Bay, the southern terminus, and headquarters of the provincial government railroad. At the mines, and again at the railroad construction camp, thirty-five miles west of Cochrane, the journalists are in the workingmen's camps, partaking of pot-luck, which was by no means bad, even if it was eaten off tin plates and out of tin basins. That board in such camps is far ahead of what it used to be, is apparent from the bill of fare at, say, the mining camp, which included first-class meats, salads, pies, puddings, fresh strawberries and cream, and several other items. At the construction camp it was much the same. At New Liskeard, situated at the head of the beautiful sheet of water known as Lake Temiskaming, and just within the apex of the great clay belt aforementioned, some of the party had a drive through the settled portion of the district, and those who experienced it pronounced this THE revelation in a trip of revelations. Splendid farming country, admirably situated as to drainage, showing already creditable improvements, well-cleared fields, with every evidence of good crops and prosperity, reminded the visitors of Oxford and Woodstock. The whitish clay underlying the varying stratum of vegetable mold, has proven its productivity, and also the fact that it is easy to work, crumbling easily under the influence of tillage, sun and moisture. Indeed, the term clay, as commonly understood, is a misnomer, for it is no more like the clay of Haldimand, Kent, and some other sections of old Ontario than lime is like flint. Prices for farm produce are good, as indicated by such quotations as twenty dollars a ton for hay; and now that the two thousand or so of bona-fide settlers in the clay are settling down to their legitimate business of clearing the land and farming, after a fever of prospecting and mining, the district shows evidence of entering upon an era of steady, solid and encouraging progress.

The climate? Excellent, one would infer. True, the days in midwinter are

three or four hours shorter than at the front, but in summer they are that much longer, which accounts for the incredibly rapid growth of vegetation. The winters are steady, without the deep snow that falls farther south, in the Muskoka and Parry Sound districts. Summer frosts are not particularly troublesome for a new country, and with settlement and drainage will become still less so. At the new Government Experimental Farm at Driftwood, now called Monteith, within thirty-five miles from the National Transcontinental, fall wheat, sown on September 18th, had struggled through, and was making a fair showing on May 20th. Gardens were grown very successfully at the camps along the Transcontinental last summer, and on May 21st the writer pulled up, at Matheson, along the T. & N. O. R., a tuft of timothy with blades over a foot long.—London *Farmer's Advocate*.

MORE CLYDESDALES

James Urquhart, Calgary, Alta., purchased recently a lot of fine Clydesdales in the Old Country. The importation contains nine fillies and two stallions. One of the stallions is the noted Star of Cowal, a big horse, got by Hiawatha (10067), out of one of the Killellan mares closely related to Sir Everard (5353). The fillies are of different ages, but mostly four-year-olds, three-year-olds, and two-year-olds. A four-year-old mare was got by Marcellus Blend (12669), and is descended from a famous race of mares at Moutrave. Among the three-year-old fillies one is by General Hunter (12161); a second is by Blackhand (11623); a third is by Gay Edward (12586) out of a mare by Gallant Prince (10552). There are two two-year-old fillies, got respectively by Cock of the North (12102), and by Silver Cup (11841), from a mare by Garty Squire (10350).

ONTARIO CROPS AND LIVESTOCK

Bulletin No. 104, of the Ontario Department of Agriculture summarizes crop conditions in the province. Field operations have been the earliest for many years. Most of the plowing had been done in the fall, and owing to the mild winter but little frost remained in the ground after the snow went away early in March. The latter part of that month and the first two weeks of April were open and comparatively warm, and an immense amount of sowing was then done, in some districts everything being practically completed but the getting in of peas, corn and roots. The seed bed for spring grains, generally speaking, was excellent, the catch was unusually good, and the new crops were making a very early and most promising showing as correspondents wrote. The latter part of April, however, turned out to be almost continuously wet, the rain-fall being about double that of the normal, while the temperature remained so low during that period as almost to check growth. But even with this setback spring sowing is about a month earlier than last season, and a week or two ahead of the average year. Fall wheat is well forward and presenting a good appearance. Fruit blossomed about a fortnight earlier than usual. It is unknown what fruit prospects really are since the severe, wet weather may have interfered some with the "setting." There has been more planting of new orchards, including apples, peaches, cherries and other fruits than has taken place for several years past.

All classes of livestock are at a premium. Prices for horses are high and firm, attributed by some to the great demand from the provinces. Their general health has been good, except for an influenza which slightly attacked many, but in some cases assumed a fatal form of strangles. Cattle have been remarkably free from disease, but are rather thin in flesh owing to somewhat close feeding. Milk cows are fewer in number than usual, but in both dairy and beef-raising sections more calves are being kept. Fat cattle are very scarce, and stockers are harder to procure than in former years; even local butchers find it difficult to procure suitable animals. As a consequence a good deal of inferior beef has been disposed of at good prices. Sheep are doing well, lambs coming strong and plentiful in proportion to the number of dams. High prices for these also

Farmers Take Right Stand

Canadian farmers rightly insist that a cream separator which contains neither disks nor other contraptions, and yet produces twice the skimming force of common, complicated machines, must be most modern. They believe such a separator has made complicated machines out-of-date. This is common sense and explains why Canadian farmers are buying simple

Sharples Dairy Tubular Cream Separators



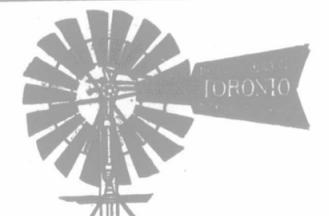
Dairy Tubular Bowl. Made right. No disks needed. in preference to disk filled or other common, complicated machines. The illustration shows all there is to the Sharples Dairy Tubular bowl. It contains neither disks nor other contraptions, produces twice the skimming force, skims faster, skims twice as clean, wears a lifetime and is several times easier to clean than common separators.

The World's Best. The manufacture of Tubulars is one of Canada's leading industries. Sales easily exceed most, if not all, others combined. Probably replace more common separators than any one maker of such machines

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like hungry wolves at all seasons if you use FISH LURE. It keeps you busy pulling them out. Write today and get a box and complete Fishing Outfit to help introduce it. Enclose 2c stamp. Michigan Fish Bait Co., Dept. 13, Port Huron, Michigan.

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In hitching several horses it is wise to have eveners that are reliable. Heider eveners are made for 2, 3, 4, 5 or 6 horses. The 4-horse plow evener works 4 horses abreast on gang, sulky or disc plow, one horse in furrow, 3 on land. There is no side draft and it is easily attached. They make devices to attach their eveners to all plows. They also manufacture 3-horse wagon eveners, wagon doubletrees, singletrees, neck-yokes, etc. In eveners insist on getting Heider's if you want the best. If your dealer can't supply you, write the factory at once. Their address is Heider Mfg. Co., Dept. 35, Carroll, Iowa.

prevail. A correspondent very suggestively remarks that the rabies among dogs has been a boon to sheep. Swine are not so plentiful as in former years, as they have been rushed to market at prices characterized by one correspondent as "sky high." In fact, there are complaints of too hasty marketing. Brood sows are in less numbers than the brisk market conditions call for. While a few large litters are reported, more frequent mention is made of heavy losses at birth.

POLLED HEREFORDS

The Mossom Boyd Company, proprietors of the Red Deer Hill Stock Farm in Saskatchewan, have succeeded fairly well in perpetuating polled animals in their herd of Herefords. A few years ago two polled bulls out of six located on the American continent were purchased. Since then as many as 100 head of Polled Herefords have been on the ranch at one time. A few years ago a car load was sent to Chicago and sold by auction. Although arriving late and being offered the week following a big sale of Angus and Herefords the Polled Herefords were disposed of at prices averaging over \$100 better than those paid for horned Herefords at the big sale. Mr. Boyd hopes in a few years to have a fully established strain of Polled Herefords.

ALBERTA FAIR DATES

Following is a list of fair dates in Alberta for the year 1910:

Calgary	July	1 to 7
Okotoks	"	12, 13
Innisfail	"	14, 15
Macleod	Aug.	3, 4, 5
Lethbridge	"	9, 10, 11
Claresholm	"	15, 16
Medicine Hat	"	17, 18, 19
Edmonton	"	23, 24, 25, 26
Raymond	Sept.	19, 20, 21
Magrath	"	22, 23
Pincher Creek	"	27
Taber	"	28
Cardston	"	29, 30
Lloydminster	Oct.	4
Vermilion	"	5
Innisfree	"	6, 7
Mannville	"	11
Vegreville	"	12
St. Albert	Sept.	16
Daysland	"	20
Sedgewick	"	21
Camrose	"	22, 23
Wetaskiwin	"	27, 28
Bowden	"	28
Lacombe	"	29, 30
Red Deer	Oct.	4, 5
Stettler	"	5, 6
Alix	"	7
Milnerton	"	11
Leduc	Sept.	13
Olds	"	14, 15
Three Hills	"	20
Wabamun	"	22, 23
Rexboro	"	27, 28
Holden	"	29
Viking	"	30
Ft. Saskatchewan	Oct.	4
Ponoka	"	5, 6
Didsbury	"	6, 7
Gleichen	"	11, 12
Priddis	"	12
High River	"	13, 14
Tofield	Sept.	22
Cressfield	June 28	
Nanton	Sept.	15, 16
Cockrane District	"	15, 16

Dates are not yet set for Staveley, Strome-Killam, Trochu, Irvine, Irma and Airdrie.

ONTARIO FAIR RULES

It has been decided to recommend to district fair boards in Ontario a uniform scale for horses of the different classes as follows:

Draft horses, 1,600 pounds and over;
agricultural, 1,400 to 1,600 pounds;
general-purpose, 1,200 to 1,400 pounds;
carriage, over 15½ hands; roadster, 15½ hands and under.

Other suggestions, such as that every fair should have parade of prize animals, that hall exhibits should be of current year's manufacture, and that school-children's parades be encouraged, have been discussed. District conferences also, it is claimed, would tend to greater harmony of action among fair boards, and to improved methods of management.

CLYDESDALES

AND

HACKNEYS

I have just arrived from Scotland with one of the most select shipments of **CLYDESDALES AND HACKNEYS** that has ever been imported into the West. Among the lot is the great Hackney Stallion

"BRENTHAM PIONEER"

This is undoubtedly the greatest Hackney ever imported into the West. Among his winnings are

1st AND RESERVE CHAMPION

at the Highland at Aberdeen and 1st at Kilmarnock, beating some of the greatest Hackneys alive. Besides being a great show horse he has proved himself a very sure and excellent breeder, gets by him winning at all the principal shows in Scotland for two or three years.

The Clydesdales are a lot of big sized quality fillies and stallions capable of winning in the best of company. They are sired by such well known horses as

"ROYAL FAVOURITE" "ROYAL SIGNED" "FLASHPLATE" "BARONSON" AND "BADEN POWELL"

the latter being the sire of Mr. Marshall's great horse, "Momento."

As I purchased this shipment myself in Scotland direct from the breeders, and have no commission men to pay on this side, I can sell cheaper than any man in the trade. Breeders will do well to look over these horses before buying elsewhere.

Now is the time to buy as purebred horses are gradually going up in price.

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CALGARY, ALBERTA

WANTS AND FOR SALE

TERMS—Two cents per word per insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FARM HELP of every description supplied. Mrs. Johnson-Mexter, 215 Logan Ave., Winnipeg, Phone 7752.

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SOUTH AFRICAN WARRANTS—I will sell two at bottom price. I will buy any number at market prices, subject to confirmation. E. B. McDermid, Nelson, B. C.

FARMERS—Write me for prices on fence posts in car lots, delivered at your station. Get the best direct from the bush. Fruit land for sale. J. H. Johnson, Malakwa, B. C.

VANCOUVER ISLAND OFFERS—sunshiny, mild climate; good profits for ambitious men with small capital in business, professions, fruit-growing, poultry, farming, manufacturing, lands, timber, mining, railroads, navigation, fisheries, new towns; no thunderstorms, no mosquitoes, no malaria. For authentic information, free booklets, write Vancouver Island Development League, Room A, 34 Broughton St., Victoria, B. C.

WE CAN SELL YOUR PROPERTY. Send description. Northwestern Business Agency, Minneapolis.

FOR SALE—Several good sections of finest wheat land in Sunny Southern Alberta at \$11 to \$18 per acre. Easy terms. Also improved farms. Write at once for full particulars. First class investment. Freeman MacLeod Company, Dept. 24, Box 679, Lethbridge, Alberta.

SABLE COLLIE PUPS for sale, from good working parents, \$5.00 each. G. E. Goddard, Cochrane, Alta.

ENGINES FOR SALE—We have on hand ready for delivery a number of Portable and Traction Engines, simple and compound, from sixteen to thirty horse-power, rebuilt and in first-class order, which we will sell much below their value. Address P. O. Box 41, or the John Abell Engine and Machine Co., Ltd., 76 Main Street, Winnipeg, Man.

C. McG. SANDERS, Fortier, Man., breeder of Yorkshire hogs and Pekin ducks. Young stock for sale. Eggs, \$1.50 per setting.

EXCHANGE OR SALE—Good second-hand traction, steam threshing and plowing outfit, near Winnipeg. Want land or registered cattle or draft mares and a stallion. Address Box 14, Lake Wilson, Murray County, Minnesota.

WANTED—Nation's Custard Powder, now sold by all grocers: 5-cent packets, 1 lb. and 1 lb. patent measure tins, wholesale. W. H. Escott, Winnipeg.

WESTERN RYE GRASS SEED for sale at 8 cents per lb in bran sacks, f. o. b. Virden. W. Dillon, Box 657, Virden.

FOR SALE—Pure bred Cocker Spaniel Pups. Best playmate for a child. Keenest hunting mate for a man. For particulars address: Box 73, Yellow Grass, Sask.

FOR SALE—Pure-bred Herefords; also one Clyde Stallion, one Cleveland Bay Stallion and about 20 Geldings. R. M. Palmer, Roper Ranch, Cherry Creek, Box 185, Kamloops, B. C.

WANTED—Persons to grow mushrooms for us. Waste space in cellars, gardens and out-houses can be made yield \$15 to \$25 per week. Mushroom beds bear every month in the year. Illustrated booklet free. Montreal Supply Co., Montreal.

Lost, Strayed or Impounded

This department is for the benefit of paid-up subscribers to the FARMER'S ADVOCATE, each of whom is entitled to one free insertion of a notice not exceeding five lines. Over this two cents per word.

STRAYED—Since April 17th, grey mare, aged; about 1300 lbs.; goes a little stiff; small sore under jaw; collar marks; hollow back. S. Fulcher, Maryfield, Sask.

POULTRY AND EGGS

RATES—Two cents per word each insertion; cash with order. No advertisement taken less than fifty cents.

EGGS FROM PUREBRED—I won 2 firsts, 2 seconds, 1 third at Regina, 1910. Partridge Cochins, \$3.00 per 15. Buff Orpingtons, Buff Rocks and White Leghorns, \$2.00 per 15; \$10.00 per 100. Barred Rock, \$1.50 per 15; \$7.00 per 100. R. Bigsworth, Chaplin, Sask.

WHITE PLYMOUTH ROCKS EXCLUSIVELY—Winnipeg at Winnipeg Poultry Show on six entries, five firsts, one second and all specials offered. Birds and eggs for sale. Correspondence solicited. W. J. Currie, Lauder.

S. C. BLACK MINORCA EGGS \$1.50 per 13, \$3.00 per 30. Also Collie Pups and Yorkshire Pigs for sale. R. D. Laing, Stonewall, Man.

BARRED ROCK EGGS—\$1.50 for two settings. J. A. Surprenant, St. Pierre, Man.

E. P. EDWARDS—South Salt Springs, B. C. Now is your time to buy Cockerels for next spring. Buff Rocks, Rhode Island Reds, Black Minorcas, Blue Andalusians, Speckled Hamburgs; also a few early pullets.

ROYAL WHITE WYANDOTTES—The best strain in Western Canada. Eggs, \$2.00 for 15; \$5.00 for 45; \$10.00 for 100. F. W. Goodeve, Stonewall, Man.

BARRED ROCKS—Bred to lay, \$1.50 and \$2.00 for 15 eggs. Mrs. Montague Vialoux, Littlecote Poultry Yards, Sturgeon Creek, Man.

WANTED—New laid eggs and butter in any quantities. Highest cash prices paid. Cash sent on receipt of each lot. T. Hill, dealer in new eggs, poultry and dairy butter, Saskatoon, Sask.

BREEDERS' DIRECTORY

Breeders' name, post office address and class of stock kept will be inserted under this heading at \$4.00 per line per year. Terms cash, strictly in advance. No card to be less than two lines.

D. SMITH, Gladstone, Man., Shires, Jerseys and Shorthorns, Yorkshire hogs and Pekin ducks.

GUS WIGHT, Evergreen Stock Farm, Napinka, Man. Clydesdales, Shorthorns and Berks. Write for prices.

W. J. TREGILLUS, Calgary, Alta., breeder and importer of Holstein-Friesian cattle.

McKIEBY EGGS, Mount Pleasant Stock Farm, Napinka, Man., breeders and importers of Clydesdales and Shorthorns. Stock for sale.

D. P. WOODRUFF, Caldwell, Alta., breeder of Hereford Shorthorns, young registered stallions of best breeding for sale.

E. C. GRAYMAN, 1330 10th, Alta., Shorthorns, Jersey Cows and Yorkshire hogs for sale.

HEREFORDS—Pioneer prize herd of the West. Good for both milk and beef. **SHEETLAND PONIES**, pony vehicles, harness saddles. J. E. Marples, Poplar Park Farm, Hartney, Man.

BROWN BROS., Ellisboro, Sask., breeders of Polled-Angus cattle. Stock for sale.

J. MORRISON BRUCE—Tighnduin Stock Farm, Lashburn, Sask., breeder of Clydesdales and milking Shorthorns.

K. McIVER, VIRDEN, MAN.—Shorthorns, a few two and three-year-old heifers for sale at a little over beef price. Three-year-olds in calf or calved. Write for particulars.

H. W. BEVAN, Dumans, Vancouver Island, B. C., breeds the best strains of registered Jerseys. Young stock for sale.

C. G. BULSTRODE, Mount Farm, South Qu'App. Sask. Breeder of Berkshire Swine.

IT PAYS TO BUY A GOOD SLING OUTFIT

One that will not give trouble in the top of the barn where it is hard to get at.

One that will stand up when heavily loaded.

One that will not destroy the draft rope.

One that will work with a large sized rope.

One that will lift easily.

THE "BT" SLING CAR

ALWAYS WORKS

It is the simplest in construction—no springs or complications to get out of order. Every car is carefully tested before it leaves the factory. It is the heaviest Sling Car and all parts are made of malleable. It is guaranteed to take off the largest load in two lifts. It never injures the rope and will work equally well with 1/2, 1 or 1 1/2 in. rope. It has the largest draft wheel and puts the easiest bend in the draft rope of any sling car and so lifts more easily.

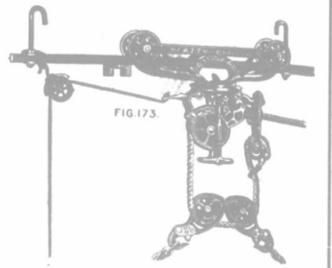
IT PAYS TO BUY A "BT" SLING OUTFIT

WRITE TO-DAY TO

BEATTY BROS.

BRANDON, MAN.

The "BT" Line also includes Steel Stalls and Stanchions, Feed and Litter Carriers
Head Office and Factory, Fergus, Ont.



Manitoba Elevator Commission

D. W. McQUAIG,
Commissioner

W. C. GRAHAM,
Commissioner

F. B. MACLENNAN,
Commissioner

Head Office: 279 Garry St., WINNIPEG

P.O. Box 2971

THE Commissioners wish to announce to the farmers of Manitoba that they have secured permanent offices for the transaction of their business, and all communications should be sent to the Commissioners at the above address. Petition forms and all information needed by farmers in order to secure elevators at their points will be mailed upon application. The Commissioners solicit the co-operation of the farmers of Manitoba in the work of establishing a system of public owned storage elevators in the province.

CONCRETE FENCE POSTS

Concrete—cement, sand, gravel and water combined in proper proportions—has become one of the leading building materials of the day. It has shown its worth as a substitute for wood; houses are built entirely of cement, the trimming and supports of wood being merely for decorative effect; it is used by the government, by railroads, by farmers, in hundreds of ways, either alone or reinforced; and has been found to produce even good fence posts. Its moderate cost, its durability, the ease with which it is handled, the wide distribution of the sand, gravel and stone of which it is composed, commend it to the consideration of all builders.

As a material for fence posts concrete has been found to possess but few of the disadvantages of wood, to have practically all its advantages, and to be superior in some respects to timber. Of course, the first cost may be more or less than the best wooden posts, but that depends on local conditions—the timber supply, the deposits of sand, gravel and rock and the skill of the workman. If manufactured as usual and cured for three months concrete posts are as good as the best wood. After three years wooden posts possess only one-third to one-half of their original strength, whereas concrete grows stronger with age and needs no repairs, as neither weather nor fire injures it. Under ordinary circumstances concrete posts will last forever; and even if in the course of years a few should be broken by unusual strain, it is cheaper to replace them than to replace an entire fence of decayed posts with a material with the same lack of durability.

Concrete posts are attractive in appearance, because of their uniform size and color, and can be made either square, triangular, or round, either straight or tapering towards the top. They can be purchased from dealers

The Monitor Rotary Lawn Clothes Dryer

No more soiled clothes from dirty lines or dragging on ground. No more weary the yard snow, carrying basket. The lines everyone is within easy reach.

The "MONITOR" is easily handled, opens automatically when set up and closes by simply pulling the cord. It is so light that any woman can set it up or take it down and put it away in two minutes and is strong enough to stand the hardest gales.

The rotary motion makes the clothes dry quicker too. If your dealer does not handle it, write us.

Commer-Dowsell Limited, - Hamilton, Ont.

To CURE Any Headache

in shortest possible time, and in such a way as to help and not injure the health use "Mathieu's Nerve Powders." They are Safe, Simple, Sure. Sold by all dealers 25c. per box—box contains 18 powders. 1-5-0

SEAL OF ALBERTA THE FAULTLESS FLOUR

This advertisement on the inside front cover of this issue first appeared, slightly altered, in November, 1909.

or made at home, and this latter plan together with suggestions as to the construction of the fence after the post, are made and cured, is the theme of

OUTFIT



Get out of order. Sling Car and all ad in two lifts. It has the largest so lifts more easily.

OUTFIT

Litter Carriers

mission

AGLENNAN, mmissioner NIPEG

ie farmers of offices for the communications press. Petition rder to secure lication. The rs of Manitoba owned storage

ry Lawn clothes Dryer



walks around through wet clothes come to you and easy reach. easily handled, opens auto- and closes by simply pulling away in two minutes and is the hardest gales. takes the clothes dry quicker not handle it, write us. 60 limited. - Hamilton, Ont.

Any Headache

ime, and in such a way injure the health use 'Powders.' They are Sold by all dealers 25c. ns 18 powders. 1-5 0

ALBERTA

BLESS FLOUR mt on the inside front issue first appeared, in November, 1909

and this latter plans gestions as to the con- fidence after the post. rred, is the theme of

PROVINCIAL EXHIBITION

CALGARY

June 30th to July 7th, 1910

LARGE PRIZE LIST

All freight refunded on exhibits originating in Alberta. Over \$1000 offered for grain competition, including Acre Yield Competition.

Milking machine demonstration and lectures

Magnificent art and china display

Best music and attractions, including The Navassar Ladies' Band

Grand Fireworks Display

Alber's Ten Snow White Polar Bears

Herzog's Six Trained Stallions

The Six Abdallahs Brothers marvellous acrobats

Ramza and Arno, clever comedians

Al. G. Barnes' trained wild animal shows

Reproduction of the making of the Blackfoot Indian Treaty, illuminated with Fireworks

For Prize List and Entry forms, write

I. S. G. VAN WART, E. L. RICHARDSON, President Manager

CHANGE OF TIME



RAILWAY

JUNE 5, 1910

WHEALLER & OARLE

ENGINEERS BRAZERS MACHINISTS

Machine and Foundry Work of Every Description

If you have trouble in replacing broken castings, send them to us and have them repaired. We operate the only

CAST IRON BRAZING

Plant in Western Canada, and make a specialty of this class of work.

153 Lombard St. Winnipeg, Man.

Send your Remittance by

Dominion Express Money Orders

and

Foreign Drafts

Payable everywhere

Rates for Money Orders

Table with 2 columns: Amount, Rate. \$5.00 and under . . . 3c, Over \$5.00 to \$10.00 . . . 5c, \$10.00 to \$30.00 . . . 10c, \$30.00 to \$50.00 . . . 15c

Money sent by

Telegraph and Cable

Issued in all Stations of the Canadian Pacific Railway Co.

Farmers' Bulletin No. 403, recently issued by the United States department of agriculture. The author takes up in detail the selection of sand, gravel, crushed rock and cement; the choice of molds, either steel or wooden, and if wooden, the proper way to make square or triangular molds. Reinforcement, the insertion of steel rods or wire in the molds when making the posts, is discussed as to the principle involved and the kinds of re-inforcement best suited to certain needs. The work of mixing, molding and curing is explained with minuteness, and the variety of styles which can be produced described. Under "fence building" is given instruction as to setting the posts, attaching the wire, stretching the fencing and the use of line anchors. Nine illustrations give detailed drawings of molds, methods and results. The pamphlet closes with a warning to persons intending to buy post molds, either steel or wooden, to beware of travelling agents who are selling molds or rights for the sale or use of their respective molds. No dealings should be had with these agents except when fully satisfied through reports from one's banker or lawyer that the company represented by the agent is reliable and that the agent is their authorized representative. Patents have been issued on special types of re-inforcement, and they can not be generally used without danger of infringing patent rights; but none of the simple forms described in the bulletin are patented or patentable, and they are just as good as the special forms advertised and recommended by the agents. No one need hesitate to use the simple form of construction recommended, for it has been in common use in all countries for a number of years, and all claims that the general use of re-inforced concrete fence posts is controlled by patent rights are unjustified and untrue.

HEMP CULTURE

The blue grass region of Kentucky, in the centre of which lies Lexington, raises about 20,000 acres of *Cannabis sativa*, from which hemp is procured. The acreage devoted to hemp in other parts of the United States is very small, perhaps 600 acres around Lincoln, Neb., and an equal number in the lower Sacramento Valley in California, with small experimental plantings in Indiana, Pennsylvania, Wisconsin, Michigan, Minnesota, Iowa and Arkansas.

Russia produces more for export than all other countries, but Italy, Austria-Hungary, Germany, France, Belgium, Turkey, China and Japan grow it commercially for fibre. All the hemp fibre produced in the United States is used in American mills, and as increasing quantities are being imported, a market for a larger home production is offered.

TORONTO EXHIBITION

The prize list of the Canadian National Exhibition, August 27th to September 12th, shows a liberal list of premiums for exhibits from the farm, the garden, the home and the public schools. The list calls for the distribution of \$50,000.00 to live stock, dairy products, women's work, horticulture, educational exhibits and similar lines of Canadian industry. The amount given to horses alone is \$12,000, every class from the pony to the draught horse receiving recognition, while cattle, sheep and pigs are liberally dealt with. Particular attention is being paid to the encouragement of public school work, and there are liberal prizes for sewing by children, penmanship, drawing, etc.

That the attraction end of the exhibition is not being neglected is evidenced by the announcement that one of the musical attractions will be the Grenadier Guards Band, of England, the Empire's finest military band.

CLYDESDALES AT GLASGOW

At the Glasgow Spring Show, May 3rd and 4th, the display of Clydesdale mares and fillies was specially good, the stallions, none older than three years old, being classed, were not up to as high a standard. Three-year-old stallions were numerous. First prize went to Wm. Taylor, for Sir Winston, by Hiawatha; second to Matthew Marshall, for Marathon, by Marcellus; third to Wm. Barr, for Sir Galahad, by Baron of Buchlyvie. He served ten mares

last year, and left ten foals; a good record.

Two-year-old colts were a small class. Wm. Dunlop's Dunure Footprint was first. Wm. Taylor was second with the Sir Hugo colt which stood first at Kilmarnock, and John Pollock was third, with Ruby Blacon, by Ruby Pride.

Yearling colts were a strong class, led by Mr. Kilpatrick's brown colt, by Everlasting. Wm. Dunlop was second, with Dunure Amos, by Hiawatha.

The male championship went to Dunure Footprint. The female championship went to Stephen Mitchell's four-year-old mare, Boquhan Lady Peggie. The reserve was Wm. Dunlop's first prize yearling filly, Dunure Myrene.

Three-year-old mares were led by J. Ernest Kerr's Perelith, by Royal Favorite. Two-year-olds were a very interesting class, and here David Douglas was first, with the big, handsome filly, Lady Douglas, by Revelanta, and Stephen Mitchell had second, with Sweet Melody, by Hiawatha. In a big class of yearlings, Mr. Dunlop's Myrene repeated her victories.

NEW HERD OF RED POLLS

A choice herd of Red Polled cattle is being established by E. Henderson, of Victoria, B. C. He has procured choice animals, selected as follows: Sweet Rose, champion and grand champion in Washington; Glossy, a fine ten-and-one-half-months specimen, out of Miss Davy, a first prize winner as a two-year-old at Chicago, and by the grand stock bull, Master (11915). From J. T. Maynard he bought the champion bull, Sir Ross; the silver cup yearling heifer, and the first prize two-year-old. All these animals are in good shape. Mr. Henderson purposes attending the principal exhibitions, and hopes to have a herd of winners for the big Centennial at Winnipeg in 1914.

DODDERS ON LEGUMES

Particulars regarding the various kinds of dodder sometimes found in clovers and alfalfa are given as follows in a press bulletin recently prepared by G. M. Frier, of the Indiana Experiment Station:

1. *Clover Dodder*.—This infests clovers and alfalfas. It is found in Europe and other foreign countries producing clover, also in the states east of the Mississippi and in the northern Pacific states. The seed is in general, grey to brown, nearly round, or somewhat flattened; the surface is finely pitted. It is from 1.30 to 1.24 of an inch in diameter.

2. *Large-Seeded Alfalfa Dodder*.—This occurs commonly in Western alfalfa growing states, and is being found in the Western alfalfa seed used in Indiana. The larger seeds of this dodder are about the size of the smaller alfalfa seed, and are therefore hard to clean out thoroughly. On the other hand they are smaller than the larger seeded red clover, and should be quite easy to clean from it. The size and shape of the seed is variable, the larger seeds, however, are nearly circular, and are gray to brown in color, sometimes having a slight pinkish cast. The surface is seen, under a lens, to be very rough.

3. *Small-Seeded Alfalfa Dodder*.—This is very common and destructive in the Western states, and has been found in samples examined in the seed laboratory here. This is to be expected, as Indiana imports much Western-grown alfalfa seed. It does little or no damage to other clovers. The seeds are very small, oval, and owing to compression in the pod, have two flattened faces; the surface is roughened; color, usually yellowish, which may have a tinge of green or purple.

4. *Field Dodder*.—This is apt to appear in either clover or alfalfa, whether grown east or west of the Mississippi, and is extremely destructive. Field Dodder seeds are larger than those of clover dodder, or of small-seeded alfalfa dodder, notched at the scar, rounded on one side, and variously flattened, angled, or grooved, on the other. They vary in size from 1-24 to 1-16 of an inch in diameter, and are variable in color, being yellowish, purplish, dusty or grayish brown with a decided pink or flesh cast.

The seeds of all the dodders men-

tioned are more or less rough, while clover and alfalfa seed is smooth with a slight gloss. The scar on the dodder seed is much less evident than is that on the clover seeds. Dodder seeds are generally smaller than good red clover seed or alfalfa seed. All who use or handle the smaller farm seeds are urged to procure a good magnifying glass. Such a glass is indispensable in the examination of seed for dodder and other impurities. A tripod lens, costing about 50 cents, seems to be as convenient a form of lens as any on the market. As a further means of identifying dodder seed, soak the latter in water a few hours, then with needles pick a seed apart, and with the aid of the lens find the embryo, or undeveloped plant within. In dodder the tiny plant within the seed, will be found to be slender, threadlike and coiled.

CLYDESDALES FOR PORTAGE

The *Scottish Farmer* reports shipment of a fair-sized consignment of Clydesdales. James Carruth, Portage la Prairie, and Robt. Ness, Howick, Quebec, owned thirteen and eleven head respectively. The former had a three-year-old filly, by Ruby Pride (12344), out of a mare by Prince of Carruchan (8151); a two-year-old filly by Sir Hugo (10924), out of a mare by Pride of Airies (11454); a three-year-old filly by Montrave Ronald (11121), and out of a mare by Gallant Prince (10552); a two-year-old filly by Sir Hugo (10924), out of a mare by Baron o' Dee (10264); a three-year-old filly by Montrave Ronald (11121), out of a mare by Prince Alick (11100); a two-year-old filly by Hiawatha (10067), out of a mare by Sir Hugo (10924), and descended from the mare, Flower of the Forest; a three-year-old filly by Stalwart (12380), a son of Hiawatha, and out of a mare by Sir Everard (5353), the sire of Baron's Pride; a two-year-old filly by Enigma (10729), out of a mare by the Hiawatha horse, Michaboe (11434), and her grandam is again by Sir Everard, and descended from Flower of the Forest; a two-year-old filly by Benedict (10315), out of a mare by Macgregor (1487), and two three-year-old fillies—one a Hiawatha (10067), and the other by British Chief (12500). Two colts go along with these fillies, one being a two-year-old, by Choice (13165), out of a mare by Baron's Pride (9122), and the other a yearling, by Nether Barns (13639), out of a mare by Newtonairds (4564), a son of Macgregor (1487).

JUDGING A DAIRY COW

A dairy cow is often judged by the scale of points of the breed to which she belongs. Another method is to rate her according to her general appearance and the external indications of milking powers. Appearances are sometimes deceitful. Recently a farmer near Ormstown, Que., sold five cows at \$25 each, saying they were no good as dairy cows. The purchaser found to his great satisfaction that one gave him 10,000 pounds milk, and another 13,000 pounds. Sometimes a cow is valued because she is easy to keep, or she is a docile family pet. Coming nearer to the practical test, a farmer may judge his best cow to be the one that daily gives a couple of pails full of milk in June. Though she may quickly decrease in flow, the remembrance of that big yield sticks in her owner's mind and she is undeservedly ranked too high. Or she may have earned a wide local reputation just by one isolated test for fat very likely higher than normal. On the other hand, a cow that gives only a moderate yield but attends strictly to business for a reasonably long milking period will probably prove the most valuable. Again there may be some general idea of production, but totals that are only estimated are generally in excess of the actual yield.

The positive proof of value is certainty of the cow's ability to produce milk and fat economically; the generous-minded, unselfish, real dairy cow, independent of strikes and lockouts, works full time, and returns a handsome margin of profit above the computed cost of feed. The most valuable test is a record of the production of each cow for the full period of lactation. Don't accept a cow on the head, ascertain that each cow has a specialist.

C. F. W.

His Friend Said

"If They Don't Help or
Cure You I Will Stand
The Price."

Mr. J. B. Rusk, Orangeville, Ont., writes: "I had been troubled with Dyspepsia and Liver Complaint and tried many different remedies, but obtained little or no benefit. A friend advised me to give your Laxa-Liver Pills a trial, but I told him I had tried so many 'cure alls' that I was tired paying out money for things giving me no benefit. He said, 'If they don't help, or cure you, I will stand the price.' So seeing his faith in the Pills, I bought two vials, and I was not deceived, for they were the best I ever used. They gave relief which has had a more lasting effect than any medicine I have ever used, and the beauty about them is, they are small and easy to take. I believe them to be the best medicine for Liver Trouble there is to be found." Price 25 cents a vial or 5 for \$1.00, at all dealers, or will be sent direct by mail on receipt of price.

The T. Milburn Co., Limited, Toronto, Ont.

CHURCH BELLS CHIMES AND PEALS

MEMORIAL BELLS A SPECIALTY
FULLY WARRANTED
McSHANE BELL FOUNDRY CO.,
BALTIMORE, Md., U. S. A.
Established 1866



STANDARD NINE SIZES IN ONE

(Is the only EARTH AUGER that Really Bore)

NINE POINTS OF ADVANTAGE
1—Enters hard earth. 2—Has Expansion blade. 3—Folds fine, dry sand. 4—Does not bind in hole. 5—Opens to discharge contents. 6—Bore all conditions of earth. 7—Double "V" point cutting blades. 8—Saves half of the time and effort. 9—Nine sizes in one. Price \$2.50 to \$5.00. If sent at Dealers, we deliver. Send for Catalog No. 11 Standard Earth Auger Co., 1129 Newport Ave., Chicago, U. S. A.

SLOCAN PARK

The Choicest Fruit Land in the
KOOTENAYS

New Map now ready giving particulars of

IMPROVEMENTS

New prices and Terms

Many Lots all ready for the Spring work. Trees growing. Write for particulars to

**THE KOOTENAY-SLOCAN
FRUIT CO., Ltd.**

NELSON B. C.

STAMMERERS

The methods employed at the Arnott Institute are the only logical methods for the cure of stammering. They treat the CAUSE, not merely the habit, and insure NATURAL Speech. If you have the slightest impediment in your speech don't hesitate to write us. Cured pupils everywhere. Pamphlet, particulars and references sent on request.

THE ARNOTT INSTITUTE
Berlin, Ont., Can.

ELEMENTS IN THE SOIL

Relationships of carbon, phosphorus and nitrogen in soils have been fully discussed in a bulletin recently prepared by Professor Robert Stewart, of the Agricultural Experiment Station in Illinois. Details are given in Bulletin 145. A thorough treatment of the quantitative relationships of these elements is given.

Following are the conclusions arrived at by the professor:

1. The phosphorus-nitrogen ratio in the surface soil of the brown silt loam soils is 1:13.5, while the same ratio in the black clay loam soils is 1:11.4.
2. Under normal conditions the nitrogen-carbon ratio of the soil has a tendency to become narrower as the age of the organic material increases; the ratio, however, never becomes narrower or even equal to the ratio of the more common proteins contained in the humus-producing materials.
3. The nitrogen-carbon ratios of the ordinary brown silt loam soils of Illinois are 1:12.1, 1:11.5 and 1:8.9 in the surface, sub-surface, and subsoil respectively. The ratios in the black clay loam soils are 1:11.7, 1:11.9 and 1:9 in the surface, subsurface, and subsoil respectively.
4. The phosphorus-carbon ratio in the surface soil of the brown silt loam is 1:165.2, while the ratio in the surface soil of the black clay loam soils is 1:163.6.
5. The calculation method for determining organic phosphorus is very conservative in character and can be relied upon in drawing broad general conclusions.
6. The evaporation on the water bath of the ammoniacal solution, in the preparation of the *matiere noire* in quantity for analysis, causes a hydrolysis of the organic phosphorus compounds.
7. The determination of the phosphorus, associated with the precipitated *matiere noire*, is not a quantitative method for the determination of the total organic phosphorus of the soil. It should be regarded only as a good qualitative evidence of the existence of organic phosphorus in the soil.
8. The contention of Fraps that, "There is no evidence that the phosphoric acid in the filtrate is in organic combination" and that, "It is probably derived from the iron and aluminium phosphates" is entirely untenable.

MILKING RECORDS

During the period from May 12th to May 15th, 1910, records for 239 cows have been accepted for entry in the Holstein-Friesian Advanced Register; five of which were begun not less than eight months after the freshening of the cows making them, and nine of which were semi-official yearly or lactation records. Of the 225 ordinary records, twenty-five were extended to thirty days. The averages by ages or classes were as follows:

Sixty-six full aged cows averaged: age, 7 years, 1 month, 29 days; days from calving, 19; milk, 493.6 lbs.; per cent. fat, 3.62; fat, 17.857 lbs. Fourteen senior four-year-olds averaged: age, 4 years, 10 months, 17 days; days from calving, 23; milk, 455.6 lbs.; per cent. fat, 3.76; fat, 17.143 lbs. Fourteen junior four-year-olds averaged: age, 4 years, 2 months, 3 days; days from calving, 13; milk, 454.7 lbs.; per cent. fat, 3.66; fat, 16.637 lbs. Sixteen senior three-year-olds averaged: age, 3 years, 9 months, 9 days; days from calving, 26; milk, 406.6 lbs.; per cent. fat, 3.67; fat, 14.924 lbs. Thirty-two junior three-year-olds averaged: age, 3 years, 2 months, 28 days; days from calving, 17; milk, 393.7 lbs.; per cent. fat, 3.68; fat, 14.481 lbs. Twelve senior two-year-olds averaged: age, 2 years, 8 months, 17 days; days from calving, 44; milk, 359.1 lbs.; per cent. fat, 3.52; fat, 12.635 lbs. Seventy-two junior two-year-olds averaged: age, 2 years, 1 month, 26 days; days from calving, 28; milk, 323.1 lbs.; per cent. fat, 3.61; fat, 11.759 lbs. This herd of 226 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days 920,000.8 lbs. of milk containing 3,351,971 lbs. of butter-fat; thus showing an average of 3.61 per

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AND YOUR

NEIGHBOR NEEDS THE FARMER'S ADVOCATE

New subscriptions are what we want and we are willing to give away, free and postpaid, any of these splendid books in order to obtain them.

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cent. fat. The average production for each animal was 407.1 lbs. of milk containing 14.842 lbs. of butter-fat; equivalent to 58.2 lbs. or 28 quarts of milk per day, and 17½ lbs. of the best of commercial butter per week. These averages approach the phenomenal, even for a Holstein-Friesian herd.

During the period from April 30th to May 11th, records for 168 cows have been accepted, four of which were extended to fourteen days, thirteen to thirty days. The averages by ages or classes were as follows:

Forty-two full aged cows average: age, 6 years, 11 months, 18 days; days from calving, 27; milk, 468.5 lbs.; per cent. fat, 3.50; fat, 16.405 lbs. Twelve senior four-year-olds averaged: age, 4 years, 10 months, 3 days; days from calving, 13, milk 468.8 lbs.; per cent. fat, 3.53; fat, 17.199 lbs. Thirteen junior four-year-olds averaged: age, 4 years, 2 months, 12 days; days from calving, 13; milk, 444.5 lbs.; per cent. fat, 3.54; fat, 15.735 lbs. Sixteen senior three-year-olds averaged: age, 3 years, 9 months, 14 days; days from calving, 20; milk, 429 lbs.; per cent. fat, 3.46; fat, 14.832 lbs. Seventeen junior three-year-olds averaged: age, 3 years, 3 months, 12 days; days from calving, 15; milk, 408.7 lbs.; per cent. fat, 3.52; fat, 14.405 lbs. Nineteen senior two-year-olds averaged: age, 2 years, 9 months, 8 days; days from calving, 31; milk, 380.4 lbs.; per cent. fat, 3.57; fat, 13.583 lbs. Forty-nine junior two-year-olds averaged: age, 2 years, 1 month, 11 days; days from calving, 26; milk, 334.3 lbs.; per cent. fat, 3.53; fat, 11.804 lbs.

This herd of 168 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days 68,718 lbs. of milk containing 2,414.216 lbs. of butter-fat; thus showing an average of 3.51 per cent. fat. The average production for each animal was 409 lbs. of milk containing 14.37 lbs. of butter-fat; equivalent to 58.4 lbs. or 28 quarts of milk per day, and over 16½ lbs. of the best commercial butter per week.

M. H. GARDNER.

AYRSHIRE RECORDS

According to a report from W. F. Stephen, secretary of the Canadian Ayrshire Association, eighty-nine cows and heifers were registered in the record of performance test up to May 1, 1910. Thirty-two mature cows averaged 10,851 pounds of milk and 401.80 pounds of butterfat; eight four-year-olds averaged 9,570 pounds of milk and 365.80 pounds of butterfat; eighteen three-year-olds averaged 8,164 pounds of milk and 346.5 pounds of butterfat and thirty-seven two-year-olds averaged 7,056 pounds of milk and 297.65 pounds of butterfat.

The figures for tests conducted in 1909 show some creditable records. In the mature class Annie Laurie heads the list, with 15,134 pounds of milk and 598.4 pounds of butterfat. In a class of fifteen the totals range down to 8,629 pounds of milk and 378.12 pounds of butterfat, or 9,037 pounds of milk and 353.94 pounds of butterfat. Seven records are given in the four-year-old class ranging from 11,268 down to 8,005 pounds of milk. Eleven three-year-olds gave quantities running from 11,377 to 7,158 pounds of milk. In two-year-olds the best was Jerunna of Springbank, with 8,839 pounds of milk and 395.33 pounds of butterfat. In a class of fifteen, the lowest was 5,782 pounds of milk and 259.29 pounds of butterfat.

CROP REPORTING

Methods of crop reporting in the leading countries of the world are discussed in a pamphlet recently issued by Ernest H. Godfrey, F.S.S., of the Census and Statistics office, Ottawa, Ont. It formed a paper given at the meeting of the British Association for the advancement of science at Winnipeg, last summer. Dealing with Canada he says:

"The present organization for the collection of agricultural statistics in the Dominion of Canada dates from 1905, when the Census and Statistics office of the Department of Agriculture was re-organized in permanent form by Act of the Dominion Parliament on the basis of the Census Act of 1870. The office is charged with the duty of taking the decennial census of the Do-

minion, this census embracing not only the enumeration and classification of the people, but also a comprehensive account of the whole of the productive resources of the country. A quinquennial census of population and agriculture is held for the three rapidly developing Northwest provinces of Manitoba, Saskatchewan and Alberta. In addition, the Census and Statistics office undertakes intercensal statistical inquiries relating to agriculture, manufactures, or specific industries, as ordered from time to time by the minister of agriculture, and collects and publishes also the annual criminal statistics of the Dominion.

In 1908, under the powers conferred by the Act of 1905, the Census and Statistics office began a system of monthly reports on the crops and live stock of Canada, under which in future annual agricultural statistical estimates for the Dominion will be available during the intercensal periods. These new statistics cover the areas and yields of the principal agricultural crops, the numbers of live stock, and monthly reports on condition and progress during the season of growth. Previously to the commencement of this system in 1908, there existed no arrangements for the collection and publication annually, under the authority of the Dominion Government, of agricultural statistics for the whole of Canada.

In undertaking this work the first step was the selection and appointment of a body of practical agricultural correspondents throughout Canada to fill up and return the schedules of questions addressed to them monthly from the

of crop areas for Canada obtained in this way were published for the first time in July, 1908, and are now available for the years 1907, 1908 and 1909.

For the purpose of expressing the condition of crops during growth the numerical method of the United States Department of Agriculture already described has been taken as a model and adapted to Canadian conditions. That is to say, the condition is expressed by a numerical percentage above or below a standard condition which is represented as 100. The term "standard condition" denotes a full crop of good quality, which may be above the average of the district, but yet not equal to the maximum under specially favorable circumstances. The grades of condition are divided into five, viz., "full crop," denoted by 100 or over; "good," represented by any figure from 75 to 99; "average," from 50 to 74; "fair," from 25 to 49; and "poor," below 25. This method of ranging the percentage numbers into grades has the advantage of presenting a more definite idea to the mind of the correspondent who, if he cannot, especially at first, accustom himself to the representation of values by percentage numbers, may easily classify the crops he reports on under the corresponding terms "full crop," "good," "average," "fair" or "poor." In addition to their use in conveying a clear and definite idea of the present condition of growing crops the numbers employed lend themselves usefully to purposes of comparison with previous periods.

In September, upon completion of the harvest and commencement of



OXEN ARE USED TO ADVANTAGE IN BREAKING PRAIRIE SOIL.

Census and Statistics office. The number of correspondents is at present between 2,500 and 3,000, and their services are entirely voluntary.

The crop reports are concerned with (1) the ascertainment of the areas under each of the principal agricultural crops throughout Canada; (2) their condition and progress during growth; (3) the quality, yield per acre, and total yield of each crop by approximate estimates before harvest and by definite estimates after threshing; and (4) ascertainment of the numbers of the different descriptions of live stock, their condition for work (horses and oxen), for milk and beef (cows and cattle), for mutton and wool (sheep), and for pork (pigs). Incidentally inquiries are made, and the results are published, respecting the values of products, the prices of fodder, the wages of farm help, and the stocks of grain in farmers' hands.

For the estimation of crop areas correspondents are requested to enter on the schedules supplied the estimated percentage which each crop occupies above or below its area in the previous year. The area of the previous year, when fresh in the mind of the correspondent, he estimates whether the area under wheat, for instance, is 5, 10 or 15 per cent. above or below that figure. If he considers that the wheat area is 10 per cent. larger, he enters 110 in the column provided; if 5 per cent. less, he enters 95. The area for each crop taken as the original datum line is taken from the next decennial census, taken from the best sources of information available, and may in some cases be based upon the figures published by the provincial agricultural department or, as in the northwest provinces, on the census of 1906, or on the figures of the recent special census of 1907, for the eastern provinces. The statistics

threshing, when the crops are beyond the problematic stage, schedules are issued to correspondents for the purpose of recording the numerical percentage of a standard of quality under the four grades as previously defined, the basis of comparison being a standard of 100, which represents a crop unaffected to any appreciable extent by frost, rust, smut, etc.

In 1908 three preliminary estimates were made as to the expected yields of the principal cereal crops, viz., on July 31, August 31 and September 30. To arrive at these, correspondents were requested to enter the anticipated yield per acre of each crop in their districts, and the resulting averages per acre multiplied by the number of acres gave the total production for each province and for all Canada. Under this plan the total wheat crop on July 31, 1908, was estimated to yield 130.26 million bushels (excluding at this date the Maritime provinces and British Columbia, where, however, wheat is not a very large crop); the second estimate on August 31, gave 124.69 million bushels and the third estimate on September 30, 115.65 million bushels. Drought or frost during these months caused continued diminution of yield, which is reflected in these preliminary forecasts. Finally a careful definitive estimate of yield, based upon actual threshing results, was made on November 30, and this in the case of wheat amounted to 112.43 million bushels. In making this final estimate each correspondent was requested to state the yield for each crop (a) upon his own farm and (b) on the farms in his neighborhood, both sets of figures being taken into consideration before finally striking the averages for districts, provinces and for the whole of Canada. The total yields are obtained by multiplying the acreage of

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ANY person who is sole head of a family or any male over eighteen years old, may homestead a quarter-section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-agency for the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties.—Six months' residence upon, and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing may pre-empt a quarter-section along side of his homestead. Price \$3.00 per acre. Duties.—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may take a purchased homestead in certain districts. Price \$3.00 per acre. Duties.—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

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The Bad Effects of CONSTIPATION

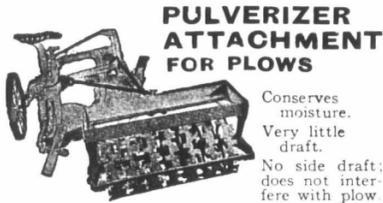
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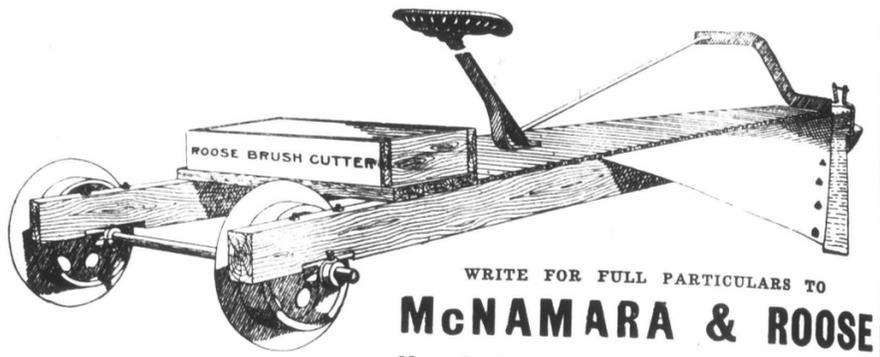
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each crop by the average yield per acre, which is in all cases extended to two places of decimals. The production is expressed in bushels for all crops excepting clover and grasses, fodder corn and sugar beet, these being given in short tons of 2,000-lb. The same percentage principle of computation is applied to the enumeration of live stock, the numbers for 1908 and 1909 being calculated from the average percentages above or below the numbers of the previous year. Monthly reports on the condition of farm animals are made upon the same numerical principle, the number 100 representing a healthy and thrifty state.

In Bulletin 98, of a Maine Experiment Station, is described an experiment in which sawdust was used in addition to the chemicals. By this addition of an absorbent, the kaint and acid phosphate could then be used with excellent results. Using their results as a basis for calculation, the weekly droppings of a flock of 25 hens, when scraped from the roosting platforms, should be mixed with about 8 pounds of kaint or acid phosphate and a half peck of sawdust. If one desires a balanced fertilizer for corn and other hoed crops, a mixture of equal parts of kaint and acid phosphate could be used instead of either alone. Good, dry meadow muck, or peat, would be equally as good as sawdust, if not better, to use as an absorbent.

In the experiment mentioned more than half of the ammonia was lost in hen manure without chemicals, when compared with that which had been mixed with them. Fresh poultry manure at the present values of fertilizers would be worth 60 cents per hundred pounds. Figures from different experiment stations would give the product of 25 hens for the winter season of six months as 375 pounds from the roost droppings only.

Poultry manure is especially as a top dressing for grass because of its high content of nitrogen in the form of ammonia compounds, which are nearly as quick in their effect as nitrate of soda. A ton of the manure preserved with sawdust and chemicals would be sufficient for an acre, when compared with a chemical formula for top dressing.

On the same basis of comparison, 100 fowls running at large on an acre should in a summer season of six months have added to its fertility the equivalent of at least 200 pounds of sulphate ammonia, 100 pounds of high-grade acid phosphate, and 60 pounds of kaint.



POULTRY

COLOR OF MINORCAS

Do Black Minorcas have white feathers? Some of mine have white feathers in the wing.—SUBSCRIBER.

Ans.—According to American Standard of Perfection Black Minorcas are disqualified if pure white is found in any part of the plumage, extending more than half an inch, or if two or more feathers are tipped or edged with positive white. Of course, there are White Minorcas, in which no appearance of color other than white is allowed.

POULTRY MANURE

A brief summary of information dealing with the preservation and value of poultry manure is given by Prof. F. W. Morse, of New Hampshire Agricultural Experiment Station, in bulletin form. He says:

As is well known, when the poultry droppings accumulate under the roosts and when they are left in barrels there is a strong odor of ammonia noticeable. The development of such an odor is a sure sign that gaseous ammonia is escaping into the air to be lost for the present. How to prevent such a loss is to prevent the development of the odor. Several chemicals of more or less fertilizing value in themselves may be added to the droppings from time to time with good effect, both in stopping waste and in making the atmosphere of the henhouse more wholesome.

The best materials for this purpose are sulphuric acid, lime plaster, acid phosphate and kaint, a cheap potash salt. Each of these chemicals has the power of combining with the ammonia, preventing its escape into the atmosphere. Wood shavings, sawdust, and other absorbent materials are also valuable for this purpose. When the droppings are mixed with these materials, the ammonia is absorbed and the odor is prevented. The materials should be added to the droppings as they are being collected, and the mixture should be stored in a covered place until it is ready for use as a fertilizer.

FEEDING CHICKS ON RANGE

Poultry management at the Maine Agricultural Experiment Station is recognized as being successful. In a bulletin discussing methods of handling the flocks chicken feeding on the range is treated as follows:

By the middle of June the chickens that were hatched in April are being fed on cracked corn, wheat, and the mash. At about that time the portable houses containing the chickens are drawn from their winter locations out to an open hayfield where the crop has been harvested and the grass is short and green. If not too much worn, the same field may be used a second season for chickens, but this is not recommended. A new, clean piece of turf land should be used each year. Two acres should be allowed for each 1,000 chickens.

When the chickens are moved to the range, the sexes are separated. The methods of feeding the cockerels and pullets differ, and there has been a gradual change in the methods of feeding. Each method has given good results. The changes have been introduced to save labor. After the chickens are moved to the range they were fed in the morning and evening with a mixed mixture of cornmeal, middlings and wheat bran, to which one-fourth as much beef scrap was added.



LEASING OF LANDS

The company is prepared to lease for hay and grazing purposes all reserved quarters or half sections. For particulars apply the Land Department, Hudson's Bay Company, Winnipeg.

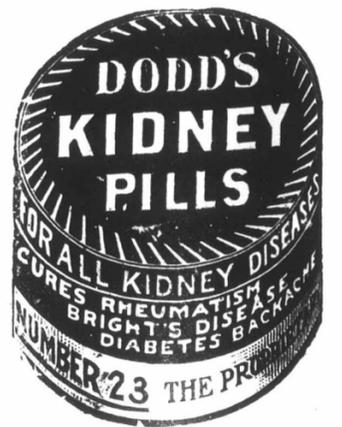


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The other two feeds were of wheat and cracked corn.

In 1904, a change was made in the manner of feeding 1,400 female chickens by omitting the moist mash and keeping in separate slatted troughs cracked corn, wheat, beef scrap, cracked bone, oyster shell, and grit where they could help themselves whenever they desired to do so. Grit, bone, oyster shell, and clean water were always supplied. There were no regular hours for feeding, but care was taken that the troughs were never empty.

In 1905, another trough containing a dry mash consisting of 1 part wheat bran, 2 parts cornmeal, 1 part middlings, and 1 part beef scrap was used in addition to those containing the grains. The results were satisfactory. The labor of feeding was far less than that required by any other method tried. The birds did not hand around the troughs and overeat, but helped themselves, a little at a time, and ranged off, hunting or playing, and coming back again to the food supply at the troughs when so inclined. There was no rushing or crowding about the attendant, as is usual at feeding time, where large numbers are kept together. While the birds liked the beef scrap, they did not overeat of it. During the range season, from June to the close of October, the birds ate just about 1 pound of the crap to 10 pounds of the cracked corn and wheat. This is practically the proportion eaten when the moist mash was used.



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The difficulty of keeping the feed clean and dry during continued exposure is nearly overcome by using troughs with slatted sides and broad, detachable roofs. The troughs are from 6 to 10 feet long, with the sides 5 inches high. The lath slats are 2 inches apart, and the troughs are 16 inches high from floor to roof. The roofs project about 2 inches at the sides and effectually keep out the rain except when high winds prevail.

The roof is very easily removed by lifting one end and sliding it endwise on the opposite gable end on which it rests. The trough can then be filled and the roof drawn back into place without lifting it. This arrangement is economical of feed, keeping it in good condition and avoiding waste. When dry mash is used there may be considerable waste by the finer parts being blown away, and on this account the dry-mash trough should be put in a sheltered place out of the reach of wind.

INCUBATOR MERITS

EDITOR FARMER'S ADVOCATE: In relation to incubators, I consider the great merit of incubators lies in the fact that they will hatch chickens with greater certainty in the early spring than hens are likely to. If it happens that a couple of hens become broody early in March, the likelihood is that a cool spell of weather may come and they will forsake the nest and you lose the eggs, to say nothing of the trouble. Further, the incubator can be attended to in the house by the farmer's wife, and is much more convenient and

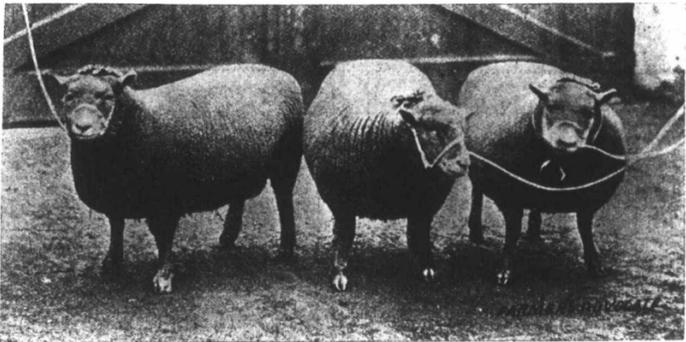
incubator on a large scale, but you can make a large payment for the season unless he has become accustomed to running an incubator.

I do not think incubators are so difficult to raise as many imagine. A good outdoor brooder will house as many as hens. I have found the incubator chicken thrive and grow and come to maturity just as soon as chicks hatched and mothered by hens. Perhaps they entail a little more work and require more attention at the early stage of their existence. I do not believe in putting too many in one brooder. I think fifty to sixty enough to do well in 100 size brooder. The other chicks I give to broody hens and they generally take them very well.

Sask. ROSAMOND GRAHAM.

MARKETING EGGS

With the increasing demand for quality in food stuffs the question of the condition in which eggs are placed on the market becomes one of growing importance. In certain States in the United States legislation is being considered to compel the selling of eggs by weight. In the Old Country egg buyers are insisting more and more on large sizes, so that there is growing up in the egg trade two insistent demands, both emanating from egg consumers: The first that a better quality of eggs as regards condition shall be sold; second, that eggs shall be sold by weight, for between a dozen small eggs and a dozen large ones there is a difference in value to the consumer that is never indicated by any difference in price. Quality,



THE PRAIRIE PROVINCES CAN STAND MORE OF THESE.

come-at-able than the sitting hen in the poultry house or stable. Then there is not the chance for pig, dog or stray animal to disturb the hatch. Every one who has tried hatching by hens knows how very disappointing it is to find the nest of eggs disturbed or broken up just before hatching time.

Best of all the incubator enables a man to keep a flock of hens that are all for laying and that do not become broody so quickly and often. The incubator is therefore, in my opinion, very much the best for hatching purposes. I believe the 100 to 120 egg machine to be the best size and anyone having a flock of fifty hens will find it to his advantage to invest in an incubator this size, as by this means he can largely increase the flock in one year and by breaking up the broody hens can secure a lot more eggs from the fifty hens than he could possibly do under other circumstances. An incubator should be on every farm in the Northwest; as the cool spring weather makes them a necessity and they are both interesting and profitable. A brother-in-law in England wrote to say he was running his incubator in February, but I think it not advisable to start a hatch in this country until the middle of March.

Adhere faithfully to the directions sent with the machine and then I don't see how failure can result. Although I hear of some that have such experience. A poultryman who had been in the habit of hatching with a machine of one make last year got one of another make as well (the same as I use) and he filled it with his punched eggs. I don't know if he ran it according to the manufacturer's directions, anyhow the result was he only got one chick the first hatch. Another farmer borrowed an incubator of the same make from a neighbor and at the end of the first hatch he had no chick at all. So it seems to me that a man who buys an

however, is of the largest importance in the egg trade, quality meaning the outward appearance of the egg, its age and the flavor and condition of the contents of the shell.

The poultry-keeper, to make a profit on egg production, must keep the most prolific breeds, and that is of more importance to him than color of shell or mere size. The value of an egg does not depend upon either, and sooner or later the public will be educated up to that point.

Let anyone in doubt take two eggs, the very largest and the very smallest in the basket, break them into two saucers, and examine the yolks. It will be found that the size of the shell bears little or no relation to the size of the yolk—in fact, the smaller egg often has the larger one. If a hen lays a 2-oz. egg, that is large enough for marketing, and if she commences as a pullet with an egg 1 1/2 oz. there is nothing the matter. I am convinced not only that the nutrition of an egg is not in relation to the size, but that the chickens are not quite so strong from the very largest. For this reason I never set them, but only those of medium size or a trifle over. There is no doubt that we could by selection build up a race of fowls to lay 3-oz. eggs, but no student of Nature's laws will believe that we can get such a gain without a loss in some other direction. That it would seriously impair the vitality of the strain and would lead to decreased number of eggs seems to me certain.

COLOR OF SHELL

There is no relationship between color of shell and quality of egg, indeed, of those marketed, the white ones are to be preferred. The reason for this is simple. Most eggs are produced by farm and home flocks of the heavier breeds—the Wyatts and their descendants, but those from the Leghorns

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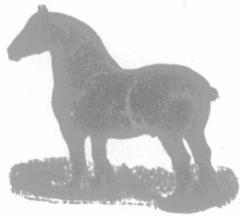
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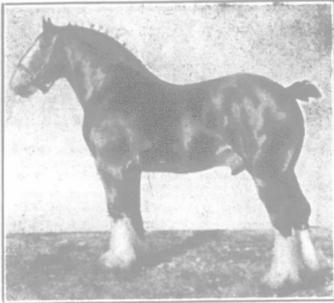
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400 acres of good land, 16 miles east of Cranbrook. The Crow's Nest Pass Railway forms the northern boundary, and a station is on the land. The soil is a gravel loam, well suited for fruit growing. All merchantable timber has been removed, and apart from a few stumps scattered over the land, it is ready for breaking. 100 acres can be put under cultivation at once. Price \$10 per acre, on easy terms.

BEALE & ELWELL, CRANBROOK, B. C.

and other Mediterraneans lay white ones. The lighter and more active fowls wander farther from home and pick up more animal and insect food, hence the eggs are richer than those from the stay-at-homes. I have bred over sixty varieties, and when they were in pens, all fed alike, could not detect any difference in the quality.

Birds in confined runs, not too well looked after, often lay pale-yolked eggs of poor quality. This is due to poverty of the blood, and the anemia is quickly cured by a dose of carbonate or citrate of iron and the addition of meat and greens to the food.

NECESSITY FOR ALBUMINOIDS.

An egg is one of the most nitrogenous things in nature, the white being nearly pure albumen. The yolk of egg contains albuminoids 16 per cent., fat 30 per cent., salts 1 per cent., and the white has albuminoids 12 per cent., fat 2 per cent., salts a little over 1 per cent. As an egg is largely composed of water—53 per cent. in the yolk and 85 per cent. (nearly) in the white—it will be seen that out of the total dry matter the yolk contains about one-third albuminoids and the white about four-fifths. To meet this grain alone is not sufficient. Taking dry weight of wheat grain we find that only about one-seventh consists of albuminoids, whilst of lean horse meat from which all water has been eliminated more than four-fifths is albuminoids.

To get quality in eggs, then, we must

keep the cock, and it is equally certain that fertile eggs do not keep so well as the unfertile ones where every care is taken, apart from the risk of such eggs being absolutely spoiled by being accidentally sat upon for a few days.

In studying to preserve the highest quality, it would seem the safer course to keep no cockerels except in the breeding pens. If the eggs are collected frequently they should in dry weather be clean enough to market, but when the land is muddy dirt will be carried to the nests on the hens' feet. Such eggs should be washed, and if very stained may lie for a quarter of an hour in water in which a little vinegar has been poured. An egg, however, never has quite the perfect bloom after washing as before, so it is better to keep the nests clean and avoid it when possible. In markets where brown eggs command a higher price than white ones they should be sorted out, but, if not, mixed colored ones are more attractive.

SUFFICIENT GRADING

can usually be done by keeping the largest and smallest for home consumption, but where large quantities are dealt with they should certainly be graded. Eggs about of one size will always pass muster, but when large and small are together the small ones are sure to be found fault with. In the large depots wood-wool is used for packing—excellent, soft, cleanly material.

Eggs should be marketed twice a week, especially in warm weather. An



FINE TYPE OF GALLOWAY, A CHAMPION AT THE ROYAL.

see that birds in confined runs get a plentiful supply of meat and green food. For the former beef scraps minced or boiled, bacon rind, gristle, and any meat waste from the house, bones cut whilst fresh, butchers' scraps, and boiled paunches, will serve admirably; and for the latter almost any roots: turnips, mangels, cooked carrots, parsnips, potato parings, green cabbage of any kind, clover, grass, vetches, green-pea, dandelion, cress, lettuce, in fact, almost anything we eat ourselves is suitable.

MARKETING.

Having secured the quality, the next thing is to keep it. We are not particular enough about putting our goods upon the market in the most attractive manner, and poultry-keepers are no exception to this rule. Few realize how quickly an egg takes a taint from anything with which it comes in contact. If it has touched anything of the nature of creosote or petroleum the flavor is distinctly perceptible. When it has lain on manure or musty hay there is an objectionable taste, even if not decided enough for one to be able to say exactly what it is. If only to save washing the eggs, the nests should be kept clean and the straw (short cavings being best) renewed frequently. Some writers have been raising a question recently that most of us thought was settled—whether hens kept alone lay as many eggs as those which have males with them? The fact that most practical poultrymen only use cocks where eggs are required for setting, and keep on doing so year after year, seems to point to their being no perceptible difference. It is certain that each hen would have to lay 5 per cent. more to

egg is at its best for eating at about the second to third day, and if we only market once a week the foreigner can put his eggs on in better condition than we do. With due care as to the quality of the contents and the cleanliness of the shell, combined with prompt marketing, we have nothing to fear, and the English egg will maintain and be worth a higher price than anything which comes from abroad.

G. A. PALMER.



HORTICULTURE

ONION SEED IN ONTARIO

Vegetable growers in Ontario have ambitions to grow their own seed. The Vegetable Growers' Association last year conducted experiments to demonstrate that this seed could be produced in the province. A. McMeans, of Ontario Agricultural College, has investigated the onion industry in Ontario and also in some of the States of the American Union. He gives the following in the report of the Ontario Agricultural and Experimental Union: This work was done for the Ontario Department of Agriculture, at the re-

Where Grown	Number of Bulbs Planted.	Weight of Bulbs Planted. (Pounds)	Length of Row Planted. (Feet)	Date of			Number of Seed Heads Harvested.
				Planting.	First Bloom.	First Harvest.	
Leamington	109	30	50	May 15	July 4	Aug. 30	98
Guelph	102	25	60	" 17	Aug. 14	Sept. 21	210
Clarkson	100	25	50	" "	July 20	Sept. 1	148
Humber Bay	114	28½	60	" 13	June 29	Aug. 28	160
Simcoe	120	30	120	" 7	July 20	Sept. 4	345
Scotland	134	35	64	" 5	July 20	Aug. 25	327

Where Grown.	Weight of seed harvested. (Ounces).	Rate of seed production per acre. (Pounds).	Ounces of seed per bushel of bulbs planted.	Number of heads to produce an ounce of seed.	Weather conditions		Soil and Remarks.
					1st half.	2nd half.	
Leamington	5	90	8½	19.6	Cool & moist.	Dry	Sandy loam.
Guelph	13½	206	27½	15.41	Too wet.	Very dry.	Clay loam needs drainage.
Clarkson	12	216	24	12.33	Very poor.	Very dry.	Sandy loam, exposed to wind, lots of seed heads broken.
Humber Bay	16½	250	29½	9.69	Very wet.	Very dry.	Clay loam, facing northeast.
Simcoe	40	300	66½	8.62	Wet & cold.	Very dry.	Sandy loam, clay subsoil.
Scotland	24	340	342 2-7	13.62	Too wet.	Very dry.	Heavy sand loam, southern exposure.

quest of the Vegetable Growers' Association, and in making the investigation, I also touched on the seed question. In looking up full information on that point, I found that onion seed was handled by the American Seed Trade Association to the extent of upwards of one million pounds of seed annually. About 70 per cent. of this seed is grown in California, with the exception of the Bermuda and Italian varieties, in the states of Connecticut, Pennsylvania, Ohio, Michigan, and a little in Oregon. In my investigation through Michigan and Ohio, I found several men who were growing onion seed extensively, and the thought remained with me: "Why not make an effort to produce onion seed in Ontario?" Onion seed generally sells for \$1 a pound, and the crop would amount to a comfortable sum of money if we could produce it in the province of Ontario. With that idea in mind I selected very carefully, onion bulbs that were grown at the college, and they were sent to ten other places in Ontario, extending from the county of Huron on the west, as far east as Prince Edward county. While it is a little early to give complete results of what was produced, and I may say the season was very unfavorable all over Ontario, still we have complete reports from six of the experiments sent out.

Seed growers look at and size up the yield of onion seed in three ways: first, the yield per acre; second, the yield of seed per bushel of bulbs planted, and third, the number of seed heads it takes to produce an ounce of seed. As this experiment is in its infancy, it was thought advisable to prepare a table enumerating not only the points mentioned above, but other points of perhaps minor but important detail.

It is the intention to test out samples of the above mentioned seed at different places throughout Ontario to see if it is possible to find out what part of this province can grow the best seed, and to also see if any change takes place by having the seed grown in one district and the crop from that seed grown in another. To give you an instance of what I mean, I will tell you what I gleaned from a California seed grower from a conversation I had with him this fall. He informed me that although California produced 70 per cent. of the onion seed sold in America, yet it was necessary for them to import onion seed from the New England States every year to produce the bulbs, which, when planted, gives them their crop of seed. If they planted their own grown seed to produce the bulbs for their seed crop, the onions from that seed crop would be much lighter in color and later in maturity.

This is the first year with this experiment, and we are only beginning the growing of onion seed in Ontario.

WHITE PINE SCALE

I enclose sprigs taken from my spruce trees. Last year I had worms on them and white spots seem to be eggs. I know the worms will kill trees in two years, if left alone. What should I do to protect the trees?—A. E.

Ans.—The insect on these spruce leaves is the White Pine Scale. The eggs have been laid under the white scale and they will hatch out about the second week in June, after which the young scale insects will spread rapidly to adjoining trees.

As a remedy, the trees should be sprayed about the time that the eggs hatch, or very shortly after. For this use kerosene emulsion, made as follows:



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 I have for sale some great, thick, robust, young stock bulls and some grand young heifers ready to breed. I can supply ranchers with bulls of a serviceable age at very reasonable prices. My herd won many prizes at the leading exhibitions in Alberta last season. Imported Baron's Voucher, a champion bull in Scotland, heads my herd. Write me for prices.
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 12 November sows, when bred, \$25.00 each; 20 April pigs \$12.00 each. This stock is descended from the sow Snowflake, first at Dominion Exhibition, Winnipeg, 1907, and from an excellent sow bred by D. C. Platt. These prices are f. o. b. Neepawa. Can ship via C. N. R. or C. P. R. Write for further particulars.
S. BENSON **NEEPAWA, MAN.**

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 Imported Spanish and mammoth American Jacks, at reasonable prices. I have also on hand some imported Percheron, Belgian and Clydesdale stallions, a number of prize-winners.
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IN CANADA
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 A fresh importation will reach Carberry the first week of May, mostly mares, and I will be pleased to hear from my old or new customers contemplating buying such. They will be up to the usual high standard.
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Men with small, flabby muscles, thin-chested, dull-eyed, short of breath, without endurance, courage, ambition, sand or grit in their make-up, are WEAK MEN. If they were not born weak I can make physical giants of them.

I am not performing miracles. I have only discovered that what makes all this strength, this steam, this FORCE in a man, is his Animal Electricity. That is what makes muscles and heart strong. When I find a man who has lost that power and feels only half a man, I want to give it back to him, and I can do it, for I have done it for thousands.

There are men in every town in this country now who thank me for making them feel once more like the greatest of God's creatures—MAN. YOU RUN NO RISK IN USING MY BELT. I TAKE ALL CHANCES.



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Dear Sir,—I now write you and do what I should have done before. I never found anything to do as much good before as your Belt did for me, and I think there is nothing can do any better. I have gained ten pounds in two months, and I think every man should have one of your Belts. I give your Belt the very best of praise for the good it has done me, and I will recommend it wherever and whenever I can.—JAMES H. FERGUSON, Box 84, Neepawa, Man.

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Dissolve 1-lb. good finely chipped castile soap in 1 gallon of hot soft water. To this add 2 gallons of coal oil and churn together until an emulsion is formed. Take one part of this emulsion to 12 parts of water and spray the affected trees, and others in the vicinity might be sprayed as a preventive.
M. A. C. C. H. LEE.

INSTRUCTION IN BEEKEEPING--VIII

To keep bees from swarming, and get the best results, one must study them pretty carefully. They should get some sort of examination every week. If possible, a special day should be set apart for the apiary. If Wednesday is "Apiary Day," nothing but the most serious reasons should interfere with its observance. System goes a long way towards success in anything.

Careful study has shown the following to be the most important causes of swarming:

(a) The super is crowded with honey; there is still plenty of nectar in the flowers, but the bees have no comb space in which to store it.

(b) The colony has a queen with great egg-laying powers, but the brood-chamber is too small for her, or has become crowded with honey and pollen. She has an egg or larva in every cell, and the young bees are not hatching rapidly enough to give her room to lay. The constant inflow of honey from the fields stimulates her to lay, yet she must be idle, or seek a new home with a wider field of usefulness.

(c) The secretion of nectar in the flowers is continuous, but slow. The queen is constantly stimulated by the incoming sweet to lay, while the demands of the harvest are so light that the workers live much longer than is usual in a heavy harvest. The hive becomes over-populated and crowded.

(d) The hive is poorly ventilated, or sits in the hot sun.

(e) Bees often swarm when they are superseding an old queen.

The preparations for swarming are as follows:

(a) Drone brood started.

(b) Queen-cell cups built in convenient places.

(c) Eggs in some of the cell-cups.

(d) Larvae in some of the cell-cups.

(e) Capped queen-cells.

The swarm comes almost immediately after that.

Queen-cells do not cause swarming; they are a part of the swarming operation. Simply cutting them out after they are built does not remove the cause, and seldom does more than delay the swarm for a few days. In the meantime, it makes the bees discontented, and seriously checks honey-gathering. The successful prevention of swarming, then, is not cutting out queen-cells, as many suppose. It is a careful study of conditions in each individual hive, to see whether any cause for swarming is present. The "preparations" above named are the barometer of the nervous condition of the hive in this respect.

When cell-cups appear in any hive, it is time to give the queen more room. You may think she has plenty, but she needs more. Remove a comb from the outside of the brood chamber, and put a frame of wired foundation in the middle of the brood nest. If the colony is quite strong, it may be given two such frames. If any cell-cups have eggs, destroy all such, and give three frames of foundation. To miss destroying even one may mean failure. Every comb of brood must be examined carefully. In every case, alternate frames of foundation with board.

In removing combs from the brood-chamber, follow this order: First, empty combs and combs of honey till they are all out, then sealed brood. If the empties are clean, and the honey white, place them in the extracting supers of the same hive (if they will fit); also the brood, unless it is needed for making increase or building up weak colonies.

The essentials for swarm-control are ample room for brood and honey, given in time; good ventilation and shade. An ounce of prevention is worth a ton of cure.

As the strength of the colony increases, enlarge the entrance gradually, until, about June 1st, when all except weaklings should be given an entrance the full width of the hive, and an inch and a quarter deep. At the opening of clover bloom, every colony should have

To Really Cure Sick Kidneys

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a super, and before it is half-filled with honey, another placed between it and the brood-chamber. Adopt some system of upward ventilation. It will not hurt for weaker colonies to have more room than they will use. Years of experience with one's bees and locality will give an idea of what average yield per colony to expect. It is well to get super room to that capacity on each hive almost at the start. Then watch that the extra-strong ones do not get at all crowded.

This method is for use when running for extracted honey. With some variations it could be applied to comb honey production. But the latter is more difficult, and should be left until this is mastered.

Ontario. MORLEY PETTIT.

WHAT NEGLECT DID FOR HIM

Jas. E. Brant Suffered Torments From Kidney Diseases.

Then He used Dodd's Kidney Pills and Became a Well Man—His Experience a Lesson for You.

Athabasca Landing, Alta., June 6—(Special)—That Kidney Disease, neglected in its earlier stages, leads to the most terrible suffering, if not death itself, and that the one sure cure for it in all stages is Dodd's Kidney Pills, is the experience of Mr. James E. Brant, a farmer residing near here.

Mr. Brant contracted Kidney Disease, when a young man, from a strain, and, like hosts of others, neglected it, expecting it to go away itself.

But it kept gradually growing worse, till after thirty years of increasing suffering the climax came, and he found himself so crippled that at times he could not turn in bed, and for two weeks at a time it was impossible for him to rise from a chair without putting his hands on his knees.

He could not button his clothes. He was troubled with Lumbago, Gravel and Backache, and tried medicines for each and all of them without getting relief, till good luck turned him to Dodd's Kidney Pills.

Dodd's Kidney Pills started at the cause of his troubles and cured his Kidneys. With cured Kidneys his other troubles speedily disappeared, and to-day he is a well man.

If you cure your Kidneys with Dodd's Kidney Pills you will never have Lumbago, Rheumatism, Heart Disease, Dropsy or Bright's Disease.

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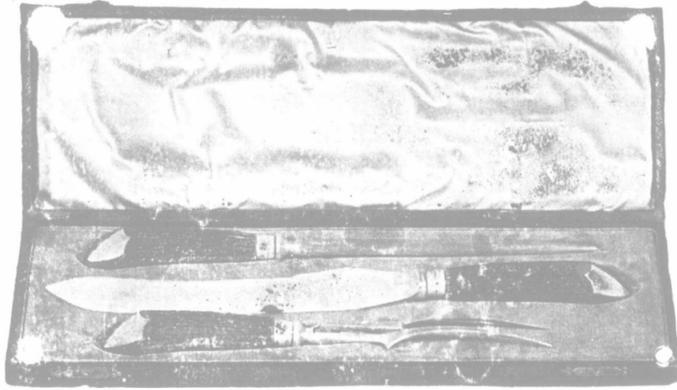
Alta., June 6—
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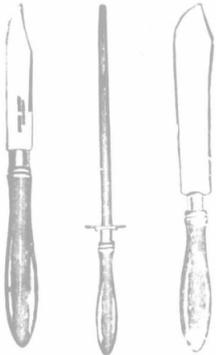
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INTO VALUE**



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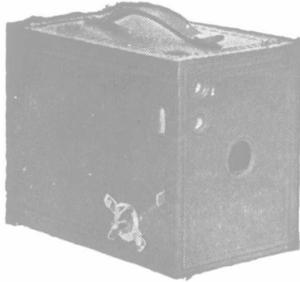
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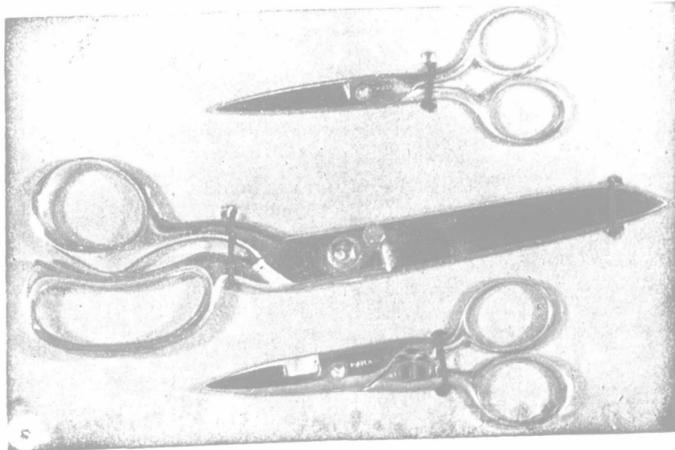
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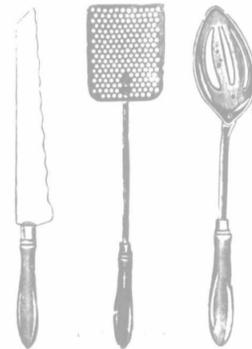


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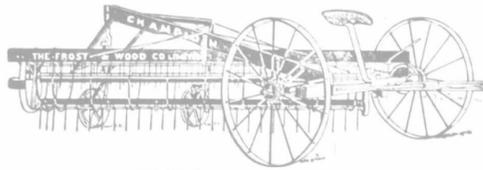
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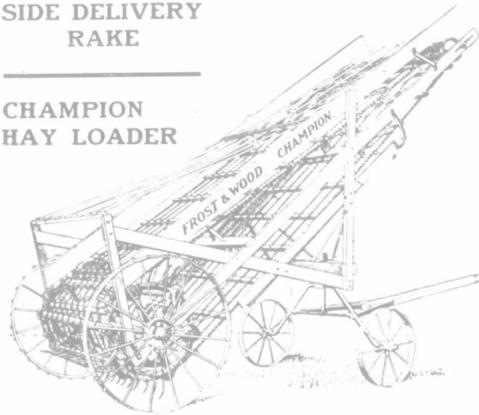
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Get Ready for Harvest



SIDE DELIVERY RAKE

CHAMPION HAY LOADER



FROST AND WOOD

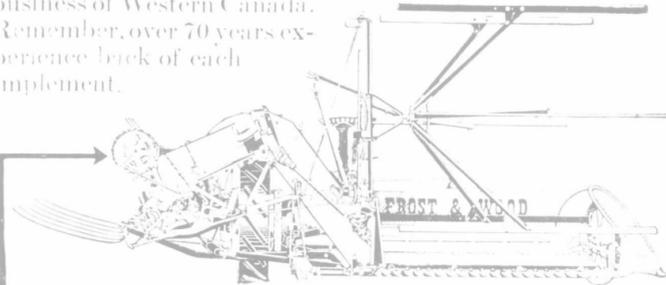
Champion Hay Loader

and Side Delivery Rakes

The Rake The top illustration shows our Side Delivery Rake which is chiefly used with our "Champion" Hay Loader. The Rake makes windrows best suited to the proper working of a loader. The operator simply drives round the field—he doesn't have to give any attention to the working of the machine—the action of the three sets of teeth leaves the hay in the best possible condition for curing—loose and bulky. Light or heavy crops are all the same to this Rake—it is built for hard work. The Castor Wheels at the rear ensure perfect work under all conditions. This

machine is made of the finest quality of materials, is well braced and strongly built.

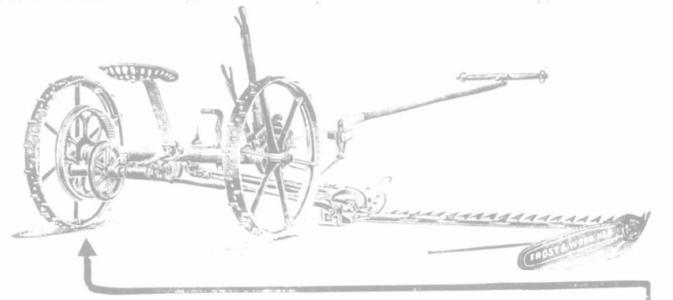
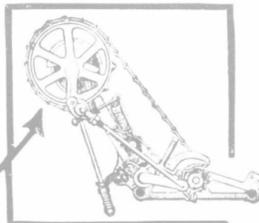
The Loader The "Champion" can load at the rate of two tons in ten minutes—think that over for a few minutes. It has six tooth bars each containing twelve properly shaped malleable teeth. The Apron consists of the finest quality of straight grained slats, tough rope and steel chain. The "Champion" is provided with heavy wind slats to prevent high winds from blowing the hay off the carriers when the machine is in operation. You can't realize the time, labor and money saving qualities of these two machines until you have actually tried them in the field. Write for our fine illustrated Catalogue—it gives you a full list of harvesting machinery which is absorbing the whole business of Western Canada. Remember, over 70 years experience back of each implement.



FROST and WOOD BINDERS

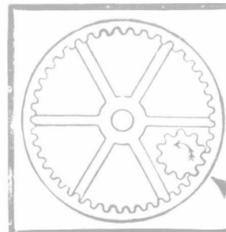
This binder is positively in a class of its own—far ahead of any other machine on the market. We haven't room to detail all its many excellent merits here, but we do want you to consider one important feature—our Eccentric Sprocket-Wheel.

Notice that there are **three long** spokes and three short ones—based on the old leverage idea, the longer the bar, the greater the power. When the grain is being compressed and tied, the packer arms require all the power they can get to make nice tight sheaves and the chain which drives the Eccentric Sprocket is then pulling over the long arms of the wheel, exerting a steady powerful draw. After the bundles are compressed and tied the chain has reached the short arms of the Eccentric Sprocket and must therefore travel faster, thus the bundles are discharged quickly and everything is ready again for another bundle to be compressed, tied and discharged. In short, the long arms develop **power**, the short arms **speed**. But get our Catalogue and go into the whole details carefully yourself.



FROST and WOOD No. 8 MOWER

Here's another case where space prevents us giving all the good points, so we urge you to write for our Catalogue if you are thinking of buying a reliable Mower. Ours are built in various sizes from 3 ft. 6 in. cut to a 7 ft. cut. You will notice that the small gear wheel is inside the large one on what is called the **Internal Gear** principle. Both these wheels travel in the same direction. Now, on most Mowers the gears are arranged exactly opposite, the small gear wheel being on the outside. This is a decidedly bad feature, because the wheels work one **against** the other, causing a great amount of friction, wearing down the cogs and eventually a loose connection. You can easily prove the superiority of the Internal Gear principle for as soon as you drop the bar and start the team the knives begin cutting. There is no lost motion, no jerks, no backing up—the action is immediate. Our Mower is liberally supplied with Roller Bearings—ensuring long life and light draft. It is made of first-class materials and put together by expert workmen. Let us send you the whole story to read at home free.



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