

Farmer's Advocate and Home Journal

WESTERN CANADA'S AGRICULTURAL WEEKLY

REGISTERED IN ACCORDANCE WITH COPYRIGHT ACT 1875

Vol. XLV

Winnipeg, Canada, August 31, 1910

No. 936

THIS IS THE STORY OF HOW THE CAPITAL SAVES YOUR TIME AND SAVES ITSELF

THE SECRET of any separator's ability to save time is, naturally, in the separating. And it is in the separating that The Capital saves time—for The Capital separates the butterfat from the whole milk in one single operation—separates it and discharges each separately and at once.

Of other types of separators, some are faster than others, but no hollow-bowl machine—no machine that uses perforated cones, regardless of their size or number—can separate whole milk without again re-mixing and re-separating it, over and over, before it finally leaves the machine.

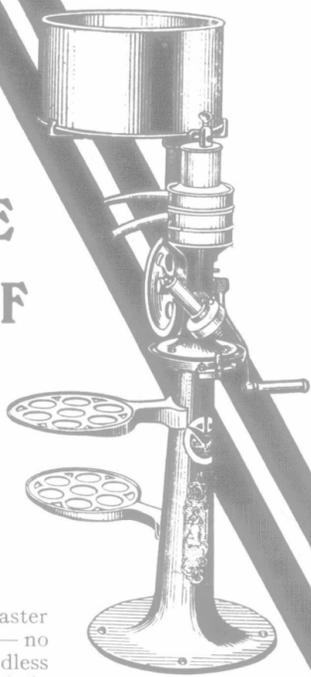
IN The Capital the whole separation process is complete in one operation. As the whole milk enters the revolving bowl of the wing-cylinder Capital, it is whirled between the wings in a multitude of thin films and the lighter contents—the butterfat—is forced by centrifugal action to the upper edges of the wings, whence it travels to the point of exit. The heavier skim-milk drops to the bottom and is carried off at once.

The wing-cylinder Capital does not mix back one drop of the cream that has been once extracted; its constant whirling is continually extracting the rich butterfat, drop by drop, and removing it at once from the skim residue. There is, consequently, no waste of power, labor, butterfat or money.

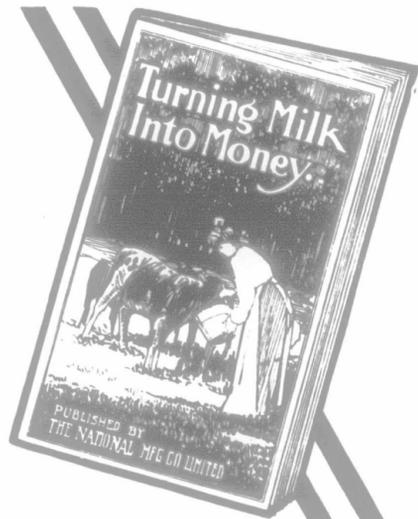
And incidentally, The Capital gets 999-1,000 of all the cream—saves over five times the average waste of other types of separators. Another time-saving feature of The Capital is in washing up. The moment you drop the handle, an ingenious clutch drops and the bowl comes to a stop—ready to be cleaned without waiting for it to "run-down," and with no time for the milk to harden so that it is hard to wash away.

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"Turning Milk Into Money" contains a story of more intensive methods of dairy farming, which ought to mean money in the pocket of every aggressive dairyman. This book has been written with the idea of attracting the attention of capable farmers toward dairying and to show them what can be done, provided the right methods of doing it are used. The story of The Capital Cream Separator is told in the book also—told from this viewpoint—the viewpoint of more cream from the same milk—the viewpoint of greater dividends. Wouldn't you like to read it? All you have to do is to send us your name and address and the book goes to you FREE and postage paid.

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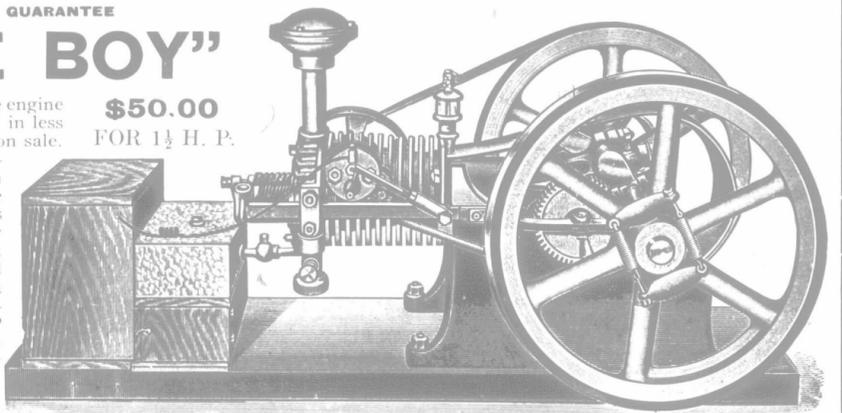
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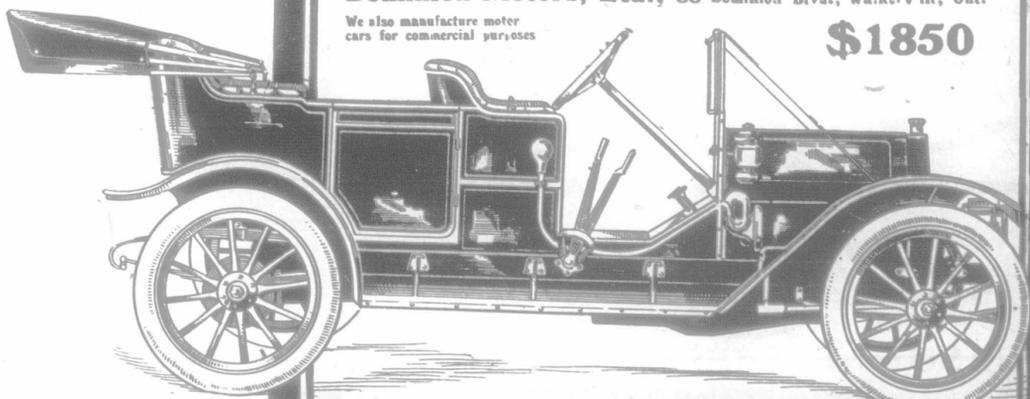
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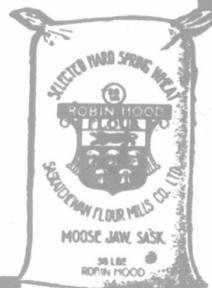
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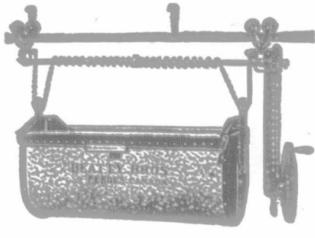
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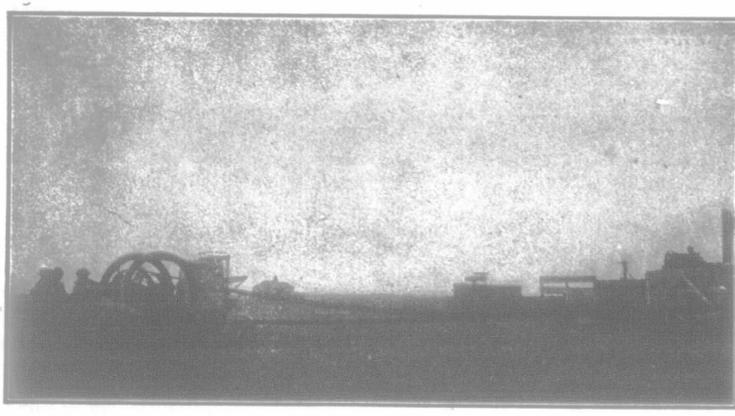
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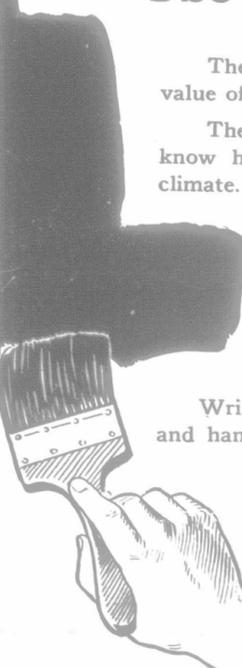
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FARMER'S ADVOCATE

AND HOME JOURNAL

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Vol. XLV.

Winnipeg, Canada, August 31, 1910

No. 936

FARMER'S ADVOCATE AND HOME JOURNAL

ESTABLISHED 1866

Canada's Foremost Agricultural Journal
Published Every Wednesday.

SUBSCRIPTION PRICE

Canada and Great Britain, per annum, in advance, \$1.50
(if in arrears), 2.00
United States and Foreign countries, in advance, 2.50
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EDITORIAL

Look After the Straw

Reports indicate a shortage in the hay crop. Number one timothy is quoted in Winnipeg at \$17.00 per ton. Prairie hay is quoted at from \$11.00 to \$14.00. Both will be higher before the crop of 1911 is cut. This is a short crop year in hay, and farmers would do well to keep this point in mind and husband well their straw. It will be needed in the towns, as well as on the farms. There has seldom been a year when straw—and especially oat straw—has been so greatly needed for feed as it will be during the coming winter. Farmers will be tempted by large apparent profits to sell all the hay they can possibly spare. Hence they will find a great advantage in feeding their straw, as far as possible, as a substitute for hay on the farm. The weather has been favorable for stacking grain, and the straw ought to be fresh and bright. When the grain is threshed, a little care will preserve the straw in good condition for fodder.

Motor Contests

The interest taken in the motor contests at Winnipeg for three years past is sufficient to warrant the exhibition management in continuing this feature. Crowds gazed upon these mighty power producers undergoing the brake tests, where none but skilled engineers knew what was going on save that it was a "brake test." Hundreds also made their way seven miles or more into the country to see these engines demonstrate their abilities to turn over virgin prairie, from which the sun had pumped practically every drop of moisture. The engines did their work, and the crowd said it was wonderful.

It has been amply shown that motor contests are an attractive feature. They also serve well as an advertisement for Winnipeg and Western Canada. There is scarcely a

corner of the globe in which something is not said or written about the big motor contest at Winnipeg, Canada. Attention is called to the number of engines that competed and the great field for operations that lies before this form of power on the prairies of Canada. The West, the city and the exhibition board should see that it is not discontinued.

Banish the Horse!

A recent issue of *Popular Electricity* says: "There is absolutely no reason why horses should be allowed within the city limits, for between the gasoline and electric car no room is left for them. A higher public ideal of health and cleanliness is working toward such banishment swiftly; then we shall have decent streets instead of stables made of cobblestones bordered by sidewalks."

This sounds idealistic. It is to be hoped, however, that for many, many years to come horses will continue to give life to the streets of the city, as well as to the fields and highways of the country.

What scientifically inclined men find possible is not always desirable. Science is working wonders, both for city and country. No doubt marvellous revelations are in store for the future. However, this does not ensure the banishment of our friend, the horse, from city streets because he leaves dirt of a kind that differs from that of the motor car. There is a field of usefulness for the automobile, but it is to be hoped that there always will be horse lovers in every city in sufficient numbers to keep the streets alive with this noble animal.

Traction Engines in the West

So great has been the increase in demand for traction engines in the Canadian West during the past five years that manufacturers have scarcely been able to provide a supply. A strong indication of the bright outlook for the future of this form of power is the eagerness of the manufacturers to introduce their engines and keep them before the people. They realize that it is well to establish a reputation while the country is young and while only a small percentage of the arable land of the prairie parts of Canada are under cultivation.

Naturally, there are differences in opinion as to what conditions warrant the purchase of a traction engine. However, it has been fairly established that a man with a half-section of land or more can find good use for this form of power. In the breaking of virgin prairie, particularly, an engine is a great saving on horse-power. In capable hands, too, it can do as much work as several men and four-horse teams—and do it well.

There is a great future ahead of the engine

trade in the Canadian West. As greater perfection is reached and as they are adapted to the various operations on the well-kept farm even the owner of a quarter-section will be easily induced to make a purchase. The continued high price of horses and the assurance of a scarcity of horse power for years to come make it necessary to adopt the engine. The individual will have to make a selection from steam, gasoline, kerosene and other forms that are offered.

Outlook in Cattle Prices

Reliable reports from Great Britain indicate that cattle are being killed off to such an extent that there is likely to be a shortage next year. For months past the United States has talked of a shortage there, and Canadians in touch with live stock supplies realize that our farms are not overstocked. Coming home to Western Canada it is found that the hot dry summer has induced many, through prospects of scanty feed supply, to dispose of animals that otherwise would have been fed to market condition. On top of this we have the annual decrease in ranching stock because of ranch areas being given over to farming.

Everything considered, therefore, it is reasonable to count on fair prices for beef cattle in 1911. Conditions warrant a forecast of high prices. However, all that any man can ask is a fairly remunerative figure and that seems assured unless unexpected supplies turn up.

The lesson is, then, for those who have stock or are in position to prepare stock for the markets of the near future. The world will eat beef as long as beef can be bought. Market conditions in the Canadian West have improved and fair treatment at the hands of buyers is almost assured. There is at least no danger of any man losing money on cattle that are in prime condition if he is equipped for preparing them for the market.

Entries to Homestead

Homestead entries for the first five months of 1910 in the four Western provinces of Canada are numerous enough to furnish after a few years an increased population of over 100,000 people, figuring an average of five to a family. The entries reached 23,354, over 10,000 more than for the same months a year ago. This is a fair indication of the growth of this young country.

A study of the figures that make up the total is interesting. By provinces, the entries were: Manitoba, 1,120; Saskatchewan, 12,718; Alberta, 9,414; British Columbia, 102. The question naturally arises: Why should Manitoba entries be so low, compared

with the other two prairie provinces? This seems to be due largely to the fact that for some reason or other the impression has gone abroad that Manitoba, being the older province, has not satisfactory lands available for homesteading. Many, too, are induced to go further west because they can purchase land near the homestead at a lower figure per acre.

Without at all discrediting Saskatchewan and Alberta, it is only fair to suggest that Manitoba lands deserve greater attention at the hands of homesteaders. There are yet thousands of choice homesteads available. It would seem that some steps should be taken by those in charge to see that prospective homesteaders know particulars about Manitoba as well as about sister provinces to the west.

MY OPINION ON SOME MATTERS NUMBER 11

I SEE SOME FARM GARDENS THAT MAKE ME THINK OF EASTERN HOMES

As I have gone about this last few weeks I cannot but feel sorry for the hundreds of farmers in all parts of the Canadian West who have been satisfied with their lot without a nice garden to which they might go every day and get something fresh, appetizing and healthful for the table spread. I realize that a hard-working man wants substantial food rather than delicacies that so often ruin the systems of town and city folk. However, I have yet to run across the hard-worked man who did not relish a variety of home-grown vegetables. It is only natural that he should, and his system demands them. Those who have studied the animal make-up know that a variety in diet is essential to keeping the system of man or beast in proper order.

I recognize the fact that in order to grow a great variety of vegetables and fruits a windbreak is needed—or, better, a shelter belt. But I have seen choice vegetables and some fruits where no shelter of any kind, not even a fence, was provided. The soil simply can't help giving a crop if it is given half a chance. Think of the fancy dishes of radish, lettuce, onions, beets, carrots, parsnips, turnips, cabbage and cucumbers that can be grown on a plot of ground 40 feet square. Double that area and the return will be enough to supply table needs for an ordinary family for a great part of the year. Plant a windbreak, add manure and take four times this area and you will be surprised at the tasty messes provided.

The trouble is that few take the trouble to leave a small area free from grain. No provision is made for garden until it is near time a start was made at planting, and then there is something else to do. Overcome this within the next six weeks by putting up a fence, or at least setting stakes. Then get busy and add a good coat of manure and plow. If seed is put in with any degree of intelligence next spring you will not be sorry for your pains.

There are others who would have a garden if it required no attention. They are satisfied to put in seed, but they object to fighting weeds with a hoe or by hand pulling. They have spent too many years growing wheat and other crops where hoes are not called into requisition and where hand pulling is of little avail. If there are children of ten years or over in the home this is easily overcome. Nature has so constructed the youngsters that they delight in doing this kind of work. If older people do not spoil them in their early years they will do most of the weeding, because it is a pleasure to them. I know there is much work on the farm for all who are of a working age, but the man who cannot allow his children freedom from other duties in order to have his garden in good

shape deserves a diet of bread and water with some salt pork for dinners.

By all means have a garden in 1911. I have seen many good ones this year under adverse conditions. Every family should have vegetables in their own garden.

"AIRCHIE McCCLURE."

HORSE

Do We Need Laws Regulating The Public Service of Stallions?

Do you consider that the present laws governing the licensing of stallions for public service are stringent enough? Would it be advisable to have laws disqualifying for public service stallions with hereditary unsoundnesses, making it compulsory for stallion owners to have their horses examined each year, and requiring that a certificate, good for one year, describing the stallion's breeding and testifying as to his soundness, be issued by the provincial departments of agriculture, without which certificate or license no stallion could stand for public service?

This question will be discussed in these columns during the next few months, and in the mean-

to follow the wrong policy. This is one reason we oppose the introduction of dash races for trotters. Our trotters have been developed under the severe endurance test of heat races, with the result that they can both go fast and stay. Let them be bred to go short distances, and one of their most useful, and consequently most valuable, characteristics will be sacrificed to mere speed. Their physical structure will slowly change, and their usefulness off the track will diminish. Bottom is as valuable as speed—more valuable to most people who use horses.—*National Stockman and Farmer.*

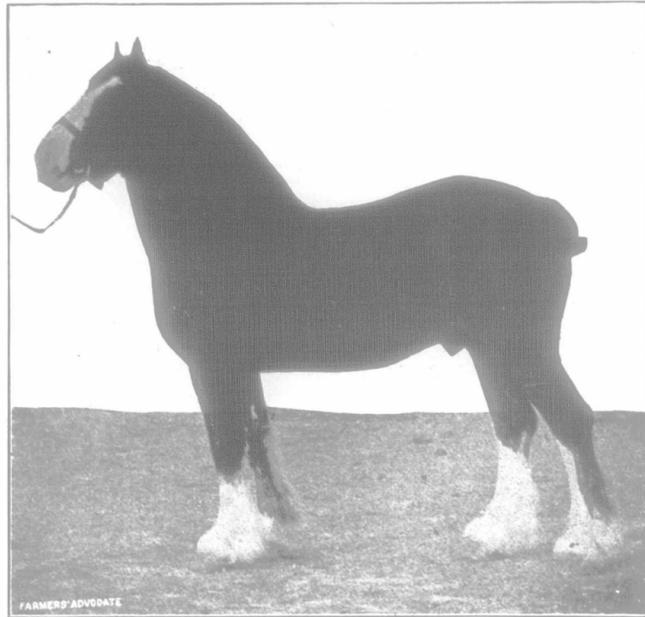
Shoeing for Corns

A reader has a horse troubled with corns and wants to know how to shoe to get rid of the corns without interfering with the work of the horse.

A British veterinary surgeon and horse shoer writing recently in one of our old country exchanges, has this to say of shoeing for corns:

Corns are caused by bruising of the membrane which secretes the horny sole which covers the ground surface of the horse's foot. Some feet are so formed that corns occur without the animal having been shod. I have seen them in unshod horses, but the feet have had a conformation which specially predisposed them to corns. It is often said that corns are never cured.

This again is not my experience. I once had a horse of my own that I failed to cure, but a great many have quite outgrown the trouble when shod to relieve the parts from all pressure. Some swear by the three-quarter shoe, and others swear at it. The former mean a shoe that falls short of being a three-quarter, but is carried so far round on the sound side as to give a safe foothold, while relieving the corn of all pressure, unless by a loose stone being picked up. Many horses under observation of the writer have quite outgrown corns when so shod, but it has been regularly done, and the shoes never left on long enough to be grown over by the hoof, or allowed to wear thin. If the corn has been pared down until a drop of blood shows, the



PRIZE CLYDESDALE STALLION TROJAN, OWNED BY PAUL M. BRETT & SONS

time it is requested that those interested in horse breeding and in the use of sound, pure-bred sires, as well as those who believe our present laws adequate, will contribute their opinions as a basis on which public sentiment may be gauged. Write down what you think and send it in.

Do Our Thoroughbreds Lack Stamina?

An English turf authority asserts that the Thoroughbreds of America lack stamina and are unable to compete with English horses in long-distance races. Lack of ability to stay is to be expected in the American Thoroughbred. If it has not come, it will come as a natural and inevitable result of our system of testing these horses in races. Our Thoroughbreds are raced over short distances, most races less than a mile and a few over that. Turf supremacy here means ability to go fast over a short course, and the policy is to breed to the winners. Ultimately the breed will be adapted to the purpose for which it is most useful, and the racing policy pursued must result in a breed of horses that are built to run fast for a short distance, rather than to stay. When our public tests called for heat races, and often heats of more than a mile, our Thoroughbreds were more useful than they are today. Breeding for sprinters will never produce stayers, and our racing compels breeders

shoe then put on and the animal sent at once to work there is every opportunity afforded of grit getting in and a festering or suppuration following. The seat of the corn should in each case be painted with spirit of tar, or a few drops of butyr of antimony, or compound tincture of myrrh applied, and a day or two allowed for a film of new horn to form. If the parts can be left exposed to the air the new horn grows of a healthier character and harder than if covered, and we have then a choice of evils between the greater risk of bruising by a loose stone on the road, or by balling on clay soils; or, on the other hand, of covering up with a leather which will protect from outside injury while hindering that evaporation which makes for hardness and healthy horn. Under a leather we can put a pledget of tow dipped in tar ointment. It needs more frequent renewal than most horse owners are willing to afford. With a corn on the inside of the foot and the horse a close goer who would brush if allowed a shoe that was the least over, we cannot do as we would with a wide-chested animal with feet well apart. With the latter we may keep outside to some extent and ensure weight bearing solely upon the crust for a longer time, if seated out and the shoe is stout enough not to bend, but this is what a laid-off shoe generally does do. It gets down on the parts it is meant to have no bearing on.

STOCK

Why Not More Sheep?

Before the days of the American tariff on sheep and wool a flourishing business was done with sheep through the greater part of Eastern Canada. The breeder of pure-breds is still in the business, duties not interfering with his export trade; but on the farms of the mutton-producer, even the old sheep shed has disappeared; farmers themselves have forgotten the flavor of mutton chops, or leg of lamb, else surely there could be found a small flock somewhere on the farms; and the children have to adopt a pig for pet, and wear factory-knit stockings and mittens. It was not always so.

It is not well that the sheep have gone from so many of our farms. They are splendid gleaners; at least eighty per cent. of the weeds in a pasture will be eradicated by sheep, very few weeds seeds, if any, escaping destruction. They get much in a pasture that all other stock refuse. In winter, they are splendid consumers of coarse roughages, as pea straw, and barley and oat straw. They do not demand painstaking care, save at yearning time. Thus, they are a sort of inexpensive accessory, gathering up the loose waste ends, and converting them into a cash surplus.

The dispersion of farm flocks all over older Canada has an economic reason. Other reasons are frequently given, but they are inadequate. The cur dog is a nuisance; sheep surely will go through poorly-built wire fences, if large flocks are maintained on small pastures; other stock prefer not to graze after sheep; but these reasons are insufficient. If sheep were paying relatively, as they did formerly, they would not have been thus abandoned. When sheep were in their zenith, dairying had scarcely appeared above the horizon, beefmaking had so frequently and irregularly partial or total eclipse, that many men felt they could not rely upon it as their guiding star, and pork-production oscillated then as now. Now dairying and beefmaking are considered more reliably profitable; pork production also returns bigger profits and the trade is more stable. But no such improvement can be noted in mutton production. The business stands too much where it did in the long ago. Lambs dropped in the spring are retained all summer and sold in the fall or early winter, when they are not especially desired. There is not a sufficient profit in the business, handled after this fashion, to continue its prosecution. This is the quasi economic reason of the decline in popularity of sheep in Canada.

But there is money, more money, in sheep and lambs than ever before, if the methods of procedure were adapted to the present demands. What is wanted particularly is lamb, not mutton. The market wants Christmas lamb, Easter lamb, spring lamb, early summer lamb. This trade is almost as easily met, and is highly profitable. The producer must plan his crop for the market he wishes to suit. If for Christmas and the post-Christmas trade they must be fall lambs; for Easter, they must be January lambs, and soon. What misses for January will sell later on almost as good a market. But always the lambs

must be forced, and brought to market at from two to three months. At two months, the lambs can be brought to about forty pounds, and at three months sixty-five; the latter weight is getting rather heavy. For these fancy markets, the lambs at from two to three months will bring from seven and a half to ten dollars. A spring lamb, kept all summer, and marketed in the fall at 90 to 100 pounds, for five or six cents a pound, will bring no more.

It is true here, as elsewhere, that the wool produced by most sheep will pay for their keep. They are worth much as gleaners; they are worth much as a source of wool and meat sup-

not the price paid for the sow, but what she can do, that determines her value as an investment. A good sow should be retained as long as she does good work. The selection and development of a good breeding herd is a matter of time. With due attention to the points named, the hog-raiser will eventually find himself the possessor of sows that are reliable as prolific producers of high-class stock.—PROF. D. A. GAUMNITZ.

* * *

The boar of eight months or older will do better if kept by himself. He should be kept in a comfortable pen, with a lot of pasture adjoining, and supplied with a variety of nutritious food, which means something more than dry corn with an occasional drink of diluted dish-water. The permanent quarters should be provided with a view to furnish sunlight, exercise, dry warmth and cleanliness. These should be so located that the sows may be conveniently brought to him for service.

* * *

Rommel has compiled from records of the Poland-China and Duroc-Jersey Associations a fund of figures showing the fecundity of such a great number of sows of these breeds as to make their summing up thoroughly representative. Observations of 14,703 Poland-China litters in the five years, 1882-86 inclusive, disclosed an average of 7.04 pigs per litter. Observations of 39,812 litters of the same breed in the years 1898-1902 showed an average of 7.52 pigs. This was an increase in the latter five years of .48, or nearly one half pig per litter, a percentage of 6.81. From 1893 to 1897 inclusive, 3,762 Duroc-Jersey sows averaged 9.22 pigs each. From 1898 to 1902 inclusive, 17,890 Duroc-Jersey sows averaged 9.27 pigs each, or an increase of .054 per cent. Of the more than 76,000 sows of both breeds as under observation one Poland-China farrowed 20 pigs, and two Duroc-Jerseys a like number.



TYPE OF POLAND CHINA EXHIBITED BY F. H. WIENERE
This photograph shows the smooth plump shoulders and back of his champion sow. She is 23 months old and carries her third litter

ply to farms; they are a delight to have about the farm-home, and they will pay, and pay well to those men who will adapt them to the market demands.

The Brood Sow

The sow chosen for breeding should be selected from the best animals in the best available herd in the farmer's neighborhood. The first of all considerations is that she should be of the best type for meat; thick, wide and growthy. If she is the progeny of a mother known to be prolific, with a litter of eight at a time, regular in her "coming in" season, a good nurse and a good mother, it is altogether probable that she has inherited these qualities. An active rather than a sluggish animal is to be desired, since the pasture is to furnish a large portion of her food. It is

reported

FARM

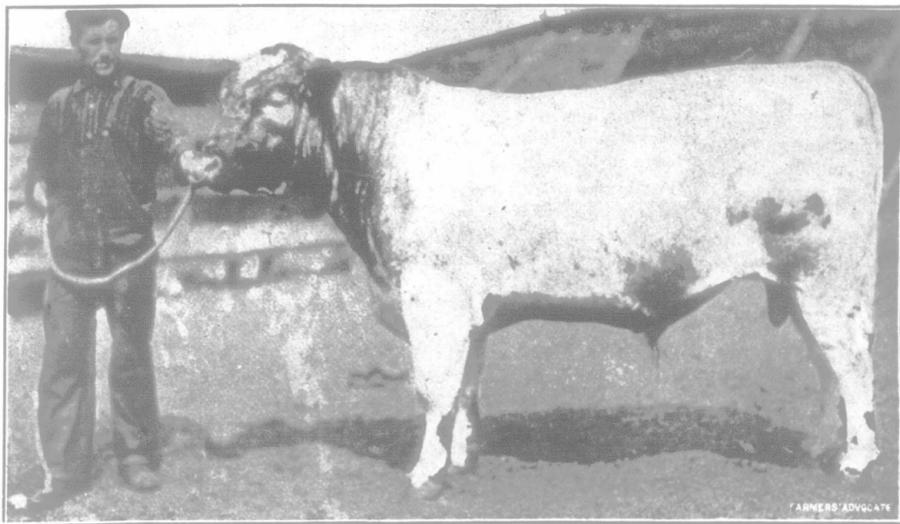
Topics for Discussion

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 a regular rates to contributors.

September 7—Give suggestions on exhibiting filed



JUNIOR CHAMPION SHORTHORN BULL AT WINNIPEG AND BRANDON
This Stock Bull, Boqihan Hero, owned by Sir Wm. C. Van Horne, was a popular winner

roots and garden vegetables at local fairs. Many exhibitors pay little or no attention to making their display attractive. What have you to suggest on collection of specimens and their preparation at the show table?

September 14.—Give suggestions on preparing poultry for market. Discuss specifically the fitting and marketing of old birds and this year's stock.

September 21.—What is the best means of tying cattle in the stable? Would you advise a man building a new stable to equip it with stanchions or chains?

September 28.—Do you consider that a duty on wool would be in the interests of sheep-raisers? Do you think that a reasonable import duty on wool would stimulate interest in the sheep industry?

The Farm Library

Two letters are published below in answer to the question for discussion in this issue, viz.: "What do you consider the average farmer should have as a library, to which to refer from time to time?" The letters are printed in the order in which the prizes are awarded.

Reading for Farmers

EDITOR FARMER'S ADVOCATE:

I will state first what I consider constitutes a fair collection of books on agriculture and farm subjects generally. My own collection consists

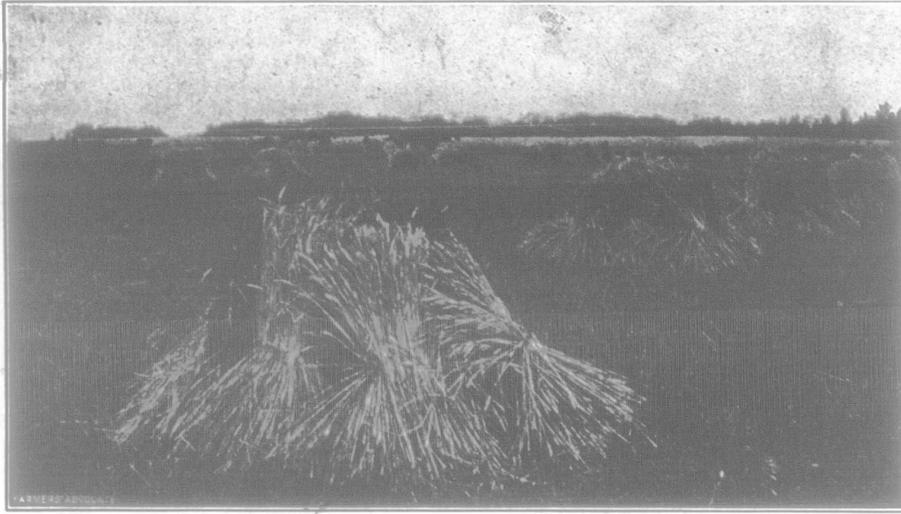
board boxes arranged on a shelf, each box marked on the outside with the subject its contents deals with. The clippings cover such subjects as "farm contrivances," "buildings," "diseases of hogs," "bees," "buttermaking," "farm houses," "horses," "cattle," "poultry," "engines," "machinery," "grains," "crop data," etc. I find them convenient to refer to and handier to get at than if piles of all the papers were kept and the matter dug from them as required.

In general literature I have such books as I prefer to read. These need not be enumerated, as what I like to read may not be much of a guide to others. A man should gather about him some volumes on such subjects as he prefers to read in. What those are a man's own personal inclinations will decide.

More important than books in these days is the current literature that comes into the home. A farmer should subscribe to a good magazine or two, a woman's paper, a daily newspaper if he can reach the postoffice every day, a weekly or two and his local papers. These, without mentioning the farm papers, of which one at least should be taken and several if a man has time to read them, or if the members of his family find interest therein. I have yet to find the farmer who hasn't time to read a whole lot more than he does. The trouble with most of us is that we do not read enough.

Sask.

W. C. GRAHAM.



MANY PARTS OF THE CANADIAN WEST HAVE A BUMPER CROP OF WHEAT

of some bulletins issued by our own and the American department of agriculture, experimental farm reports and clippings from agricultural papers. In addition to these I have a few general works, first of which are the two excellent volumes Cyclopaedia of Agriculture and Cyclopaedia of Livestock, edited by Wilcox and Smith and compiled from experimental data gathered from the various stations of United States, Canada and Europe. Both I consider invaluable works. I have two very good veterinary works, one of them "The Farmer's Veterinarian," frequently advertised in your paper; a work dealing with the the breeds, history, management and training of the horse; King's Physics of Agriculture; Dondlinger's "Book on Wheat," Campbell's book on "Dry Farming," and an odd work or two dealing with general farm subjects. These general farm books, however, are not much use. From this on I intend, in adding to my collection, to get books dealing with special subjects, for in these days a man needs to know more about certain particular departments of his business than can be contained in a general work.

The most valuable part of my collection of printed matter bearing upon farm work, livestock and subjects pertaining thereto is made up of clippings taken from time to time from the agricultural papers. At first I kept these in large envelopes, on which was written the subject referred to. Latterly I have pasted the clippings onto sheets of paper about three columns wide and ten inches long. These are kept in paste-

What to Read

EDITOR FARMER'S ADVOCATE:

If a young man, at the beginning of his independent life, finds that he has need of more education than he ever had an opportunity as a boy of obtaining, he need not despair. If he can read even a little, it is in his power, and will be greatly to his advantage to spend his spare time in mastering various branches of book-learning. He should have a fair understanding of the English language, so that he can read any book intelligently. He should have a thorough knowledge of elementary arithmetic, for that science is so useful in every branch of farming.

For books of reference he should have a good arithmetic, a book containing all common business forms, a book on mensuration, agricultural works, dealing with soils and their treatment, rotation of crops, conservation of moisture, and such subjects should be found in the library. Weeds need careful study.

Good stock books, also treating of the various breeds of farm animals, and their care in every way. Medical works, giving the simple home treatment of diseases of horses, cattle, sheep, swine and poultry, must not be forgotten, though they should not be allowed to usurp the place of a veterinary surgeon in severe cases. So much machinery is in use on every well-managed farm nowadays that a book of mechanics will not come amiss. Probably in this connection a book on

engineering, and one on physical science, will be read with interest by many farmers.

For the busy, practical, up-to-date farmer, the bulletins and reports issued from time to time by the government and by agricultural and horticultural societies, poultry associations and the breeding associations, will be found beneficial. These reports and bulletins read intelligently, and the information obtained from them used with an equal quantity of good, sound common (or uncommon) sense, applied to special individual cases, will help many a man to better things. In many cases information obtained from bulletins is more easily read and more practical, and therefore better suited to the average farmer's time and ability to assimilate than more exhaustive works.

Periodicals must not be neglected. As many good agricultural papers should be subscribed for as the farmer thinks he can afford and make use of. One or two newspapers, giving the news of the world and of the province in which he lives, should be taken. I would recommend the selection of some that do not fill all their space with a violent discussion of party politics. There is a vast difference between a statesmanlike discussion of the needs of a country and the back-biting and quarrelling between parties.

In conclusion, I would say that money spent in good books, whether scientific works, story books, poetical works, or good literature of any kind, is not money thrown away. A farmer cannot have too large a library, if that library is composed of books that are either useful in the various branches of farm work, or are selected for their standing amongst the good literature of the world.

Sask.

E. Dow.

Advices Stacking Grain

EDITOR FARMER'S ADVOCATE:

It has been my practice to stack grain because it seems to be the most methodical way of doing things. I am able to have the fields cleared in reasonable time to get fall work done. I also have the crop comparatively safe from bad weather and am ready for the threshers at any time. In the past I have not been troubled with unfavorable weather in the fall, but it is well to be prepared in case broken weather comes when threshing is in progress. Then there is less delay than in stook threshing and one has the threshing outfit a shorter time to provide for. I have seen fields covered with stooks to be stook-threshed till near the freeze-up.

Moreover, I can see that if help is scarce, one might have to fall back on stook threshing working with neighbors in order to take off a large crop. I cannot speak from result of my own observation as to the improvement in the grade of the grain said to result from stook threshing. I frequently see wheat that takes prizes in strong competition from stook-threshed crop, but it is not cut until real ripe and generally also is the second crop in succession from the land. It may be that it had been cut on the green side; sweating in the stack would have improved the quality. The best barley produced then was stacked, but that may not have been due to the stacking.

Alta.

A. D. SHORE.

Wheat Yields

A reader asks for the wheat yields in the leading wheat-producing countries for the last two years. Here are figures given in a recent issue of *Census and Statistics Monthly*, published at Ottawa:

Country	1909		1908	
	Bushels		Bushels	
Russia	786,472,363	568,713,494		
United States	713,286,923	648,510,328		
France	361,050,500	317,602,964		
British India	253,592,377	204,065,358		
Canada	166,744,000	112,434,000		
Italy	155,711,230	154,199,584		
Spain	144,511,581	120,316,725		
Germany	138,309,277	138,742,214		
Argentina	135,581,000	156,515,669		

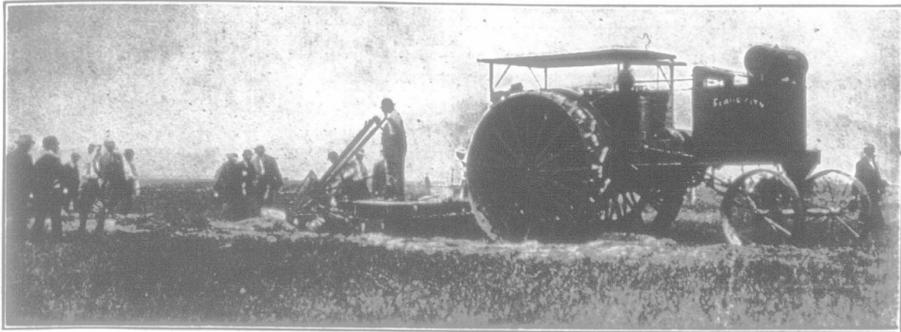
RESULTS OF RECENT BIG MOTOR CONTEST

WAS the great motor contest held under the auspices of the Winnipeg Industrial Exhibition, in July, a success? From the standpoint of creating an interest in steam and gasoline power, *yes*. From the standpoint of pleasing all competitors, *no*. But was there ever a great com-

tractors: Class A, 20-brake horse power and under; Class B, 21 to 30-brake horse power; Class C, Over 30-brake horse power. Steam tractors; Class D, 60-brake horse power and under; Class E, 60 to 90-brake horse power; Class F, 90-brake horse power and over. There were 18 entries as follows:

Following are the official awards and scores as signed by Professors Greig and Smith:

Class	Points
A. International Harvester Co., 15 H.P.	306.7
Avery Tractor	275.3
B. International Harvester	329.3
Goold, Shapley & Muir Co., 20 H.P. made	292.2
but developed 34.15 H.P., consequently was disqualified for this class.	
Birrell Motor did not complete tests.	
C. Gas Tractor, Minneapolis	354.4
International Harvester	350.1
Gas Tractor, Winnipeg	334.0
Goold, Shapley & Muir	274.6
Kinnard-Haines did not complete plowing test.	
D. J. I. Case	267.6
E. Avery scored 269.3 and Case	297.0
developed over the 90 H.P., consequently were disqualified for this class.	
F. J. I. Case	356.1
Avery Co.	291.9
Rumley Co.	280.8



THE "FLOUR CITY," WINNER OF GOLD MEDAL, 1908-9

petition for prizes in which all the contestants were pleased, or even considered they had been treated fairly? Go further. Was there ever keen competition in a big class where judges did not make mistakes and where another set of judges would have handed out a different placing? In stock classes how many times do judges place second prize ribbons on what are admittedly first prize animals? Why the mistake? In most cases simply because the groom was experienced—he was competent and knew the tricks of the judging ring. A careful consideration of the results of the motor contest will lead most unprejudiced persons to conclude that awards were made according to what could be calculated from the performances of the engines under test. There are, however, evidences that in the case of maximum brake horse power development the shrewd engineer who understands his business can win points for his engine. And can you blame him? Those who are personally acquainted with the engineers in charge and the judges will give them credit for doing their best to place the awards where they should be.

But after all is not too great prominence given to the making of points on the elaborate schedule mapped out for each engine? What the prairie farmer wants is an engine of as few pounds dead weight as possible that will do his work for him economically. Furthermore, he wants one that will continue to do work for months and years. He knows that no reputable firm is going to palm off a 15 horse power engine as a 25 horse power one. He is therefore most concerned about the time, the fuel and the water required to do a given work. He can then select an engine of a working capacity to suit his conditions.

MEN IN CHARGE OF THE CONTEST

The contest was run under the Exhibition Association, of which Dr. A. W. Bell is manager. Prof. A. R. Greig, of Saskatchewan College of Agriculture, Saskatoon, and Prof. L. J. Smith, of Manitoba Agricultural College, Winnipeg, were the engineers in charge. The judges were: Wm. Cross, ex-superintendent of motive power, C.P.R.; Prof. J. B. Davidson, professor of farm mechanics, Ames Agricultural College, and Prof. L. W. Chase, professor of farm mechanics, University of Nebraska. Other assistants were: W. J. Brooks, of the American Abell Engine and Thresher Co.; D. J. O'Hara, of the Canadian Fairbanks Co.; Prof. H. H. Musselman, of the Michigan Agricultural College, and A. C. Frith, of the C.P.R. Students from the Manitoba Agricultural College also assisted in various details of the work.

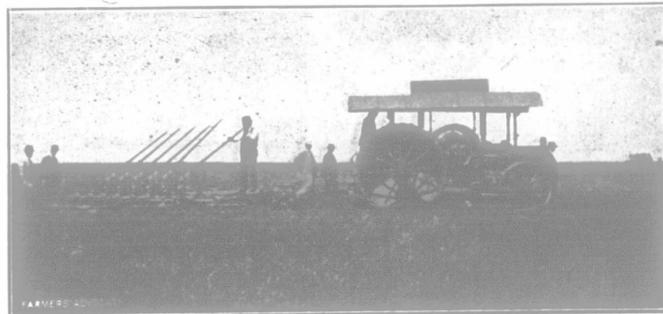
The actual plowing tests were judged by Angus McKay, superintendent of the Indian Head Experimental Farm; James Murray, superintendent of the Brandon Experimental Farm, and Prof. S. A. Bedford, of Manitoba Agricultural College. The classes designated were as follows: Gas

International Harvester Co., one 15 horse power gas tractor, one 20 horse power gas tractor, one 45 horse power gas tractor; Avery Co., one 12 horse power gas tractor, one 25 horse power gas tractor, one 20 horse power steam tractor and one 30 horse power steam tractor; Goold, Shapley & Muir, one 20 horse power gas tractor, one 30 horse power gas tractor; M. Rumley Co., one 23 horse power kerosene tractor (the Oil Pull) and one 36 horse power steam tractor; J. I. Case Threshing Machine Co., one 12 horse power steam tractor, one 25 horse power steam tractor and one 32 horse power steam tractor; Gas Traction Co., Winnipeg, one 25 horse power gas tractor; Gas Traction Co., Minneapolis, one 30 horse power gas tractor; Kinnard Haines Co., one 40 horse power gas tractor; Burrill Motor Plow Co., one 22 horse power gas tractor.

Before the tests on the brake were completed it was found that some of the engines were not eligible for the class in which they were entered, because of the fact that they were capable of developing greater horse power than their entry indicated.

Here is the score sheet used by the judges:

BRAKE TEST	
Horse power hours per unit of fuel	100
Water used, in gallons, per carrying capacity of engine	10
M.H.P.	10
Steadiness of running, vibration, condition of engine, etc.	10
Horse power hours per 100 gallons water	20
Draw bar h.p.	20
Brake h.p.	20
PLOW TEST	
Fuel per draw bar h.p. hour	90
Water per draw bar h.p. hour	30
Acres per brake h.p.	20
Quality of plowing	10
Distance travelled per fuel capacity of engine	15
General condition of engine, stops, etc.	15
Design and construction	50
Total	400



GOOLD, SHAPLEY & MUIR'S 45 BRAKE GASOLINE ENGINE PULLING 6 FURROW COCKSHUTT ENGINE GANG

The following figures show how the manufacturer's statement of horse power, the economy load and the maximum load compared:

	Specified Brake	Economy Load	Maximum Load
Class A, under 20 b. h.p.—			
Int. Harv. Co.	18	15.28	15.5
Avery Mfg. Co.	36	14.16	19.2
Class B, 21 to 30 b. h.p.—			
Int. Harv. Co.	23	22.11	22.6
Birrell Motor Plow Co.	45	27.21	29.1
Goold, Shapley & Muir	28	28.13	34.15
Class C, over 30 b. h.p.—			
Gas Traction Co., Wpg.	45	34.66	35.10
Goold, Shapley & Muir	45	34.86	38.80
Int. Harv. Co.	55	46.49	47.8
Kinnard-Haines Co.	60	49.76	50.2
Gas Traction Co., Minneapolis	60	51.84	53.9
Rumley	50	46.80	49.2
Class D, (Steam) 60 H.P.— and under—			
J. I. Case	36	44.25	60.0
Class E, 60 to 90 H.P.—			
Avery Co.	60	66.79	96.6
J. I. Case	75	61.69	94.3
Class F, over 90 H.P.—			
Avery Co.	90	97.08	124.4
J. I. Case	110	98.61	129.0
Rumely Co.	120	105.86	135.8

It should be noted that the Goold, Shapley & Muir engine in Class B and the Avery and Case engines in Class E developed so much power as to throw them out of their classes, and, therefore disqualify them. These engines, while on the economy test for two hours, ran nicely within the limit, but on the half-hour run to ascertain their maximum capacities it was found that they could develop considerably more. This is one point that caused trouble in the contest. The question is: Can the judges know when the man

in charge of an engine is pushing her to a maximum? When the official table shows that practically the same power was developed by one or more engines on the two-hour economical test as was registered in the half-hour maximum test, it is natural to ask the question: Can an engine do its most economical work running full power capacity? But these fine points on

handling engines are for skilled engineers to solve. The table furnished by the experts in charge of the contest indicates that gasoline engines at least can do economical work at or near their maximum brake horse-power. In case engines of greater capacity are in the same class, what handicap should it be in the eyes of a practical purchaser? The man who knows enough to buy a traction engine, generally knows enough to consider weight and mechanism.

ENGINES AT THE PLOWING TEST

This year it was considered wise to do away with the hauling test so that when all was completed on the brake testing outfits the contesting engines were taken some seven miles north of the city where a large tract of prairie land, a large part of which is genuine gumbo, was secured for the chief test that appealed to the practical man. Great crowds visited this field on the two days of the test to see what the engines could do. All were convinced that for large areas at least and for breaking tough sod the traction engine provides ideal power. Each engine was allotted three-fourths of an acre per maximum brake horse-power.

The contest was not without mishaps. A few engines fell down. Stockmen know all about choice animals going sick at the critical moment and not being able to do what they are called upon to do by the judges. So with the engines. As has been noted some had been knocked out of their class for developing too much power. The Rumley Co. and the Hart-Parr Co. withdrew their engines that used a cheap grade of kerosene, because of the basis on which this fuel was charged against them. The rules called for a charge at 18 cents a gallon. Finally the Rumley engine undertook the test on a basis of 11 cents, but the Hart-Parr Co. contented themselves with a series of demonstrations. The most serious mishap of all happened to the Kinnard-Haines Co. Oil collected around the cork inserts on the clutch and gave so much trouble that they were obliged to withdraw. The 50 horse-power engine of the Gould, Shapley & Muir Co. also had to be withdrawn because of overheating. This was regrettable because this and another engine had done good work, and special interest was manifested in them because they were designed and manufactured in Canada. Many also were interested in the Gas Traction Company's entries because this company has a factory in Winnipeg. The steam engines were obliged to cease operations once or twice on account of lack of water. However, they completed their work.

The results of the various tests show that American manufacturers have not much of a lead on Canadian-made engines. It was demonstrated that all are capable of doing good work. Details given in the table showing engine data, two hours brake test, half hour brake test and plowing test give those interested an opportunity of comparing the work done by the contestants.

FOR NEXT YEAR'S CONTEST

These motor contests have been of great educational value. It has not been demonstrated that any one engine is inferior. Low scores have developed where there were mishaps, but it does not require a serious deficiency or miscalculation on the part of the operators to give a margin of a few points in a total of 400.

However, farmers have been interested in traction power and that is the chief object of the contest. Manufacturers spend sums totalling \$500 to \$1,000 or more in order to show to the world what their engines are capable of doing, and they know that whatever attracts the attention of those who have a use for such power outfits increases the business of all. It is to be hoped that next year's contest will be bigger than ever. If more features of a practical nature can be introduced so much the better. To the lay-farmer there are other things besides brake tests and plowing prairie sod that are interesting when engines are talked of. He wants to know something of what an engine can do hauling disks, seeders, harrows in the field or wagons on the road. However, it can be left to the exhibition management and the men placed in charge of the contest to work out details.

Following is a table showing details regarding the engines in the motor contest that are of greatest interest to those who purpose making a purchase.

CLASS	Entry Number	MAKER'S NAME	ENGINE DATA			TWO HOUR BRAKE TEST				HALF HOUR MAXIMUM BRAKE TEST				PLOWING TEST				Total Points Allowed in Judging Engines.																												
			Cylinders	H. P.	Speed in M. per hour.	Total Weight in Pounds	H.P. Developed	R.P.M. Eng. Pulley	Gal. Water Used	Per cent. Water used	Fuel Used, Lbs.	H.P. Hrs. per Unit Fuel	Total Running Time	Lbs. Water Evaporated	H.P. Hrs. per 100 gal. Water.	H.P. Developed	R.P.M. Eng. Pulley		Gal. Water Used	Per cent. Water used	Fuel Used, Lbs.	H.P. Hrs. per Unit Fuel	Total Running Time	Number	Width	Miles Traveled	Acres Plowed	Time, minutes	Lbs. used per acre	Water Used per Acre, Gallons	Fuel Used, gals. per Acre	Drawbar H.P.														
A. Internal Combustion 20 B. H.P. and under.	1	International Har. Co.	1	8	14	15	18	2.10	1.75	10,500	15.28	249	7.8	26	21.5	90.7	9.94	2 hrs.	3.03	391	15.5	247	2.75	6.1	8.67	30 min	6.14	12.49	3.61	299	22.58	7.72	3.23	11.39	306.7											
	5	Avery Co.	4	4 1/2	5	12	30	10	2.0	2.0	6,000	14.16	11.27	4.3	57.3	35.5	26.7	5.68	2 hrs.	1.21	656	19.2	1173	1.15	11.75	5.7	30 min	3.14	7.14	3.20	255	23.59	1.13	3.37	8.87	275.3										
B. Internal Combustion 21 to 30 B. H.P.	2	Avery Co.	1	12	18	25	3	3	12,000	20.69	254	4.5	13.5	35.5	17.6	5.71	1.24	2 hrs.	1.27	644	20.69	254	4.5	13.5	35.5	17.6	5.71	1.24	2 hrs.	3.03	391	15.5	247	2.75	6.1	8.67	30 min	6.14	12.49	3.61	299	22.58	7.72	3.23	11.39	306.7
	3	Gould, Shapley & Muir Co.	2	7 1/2	10	20	28	2.5	2	11,000	28.13	350	1.1	3.05	40.5	14.5	9.48	1.57	2 hrs.	0.27	4015	34.15	363	1	7	7.9	14 min	6.12	8.92	6.65	399	22.93	8.13	28.12	5.8	292.2										
C. Internal Combustion Over 30 B. H.P.	4	International Har. Co.	1	8 1/2	15	20	23	2.10	1.75	14,200	22.11	235	10.0	22.7	28.5	17.2	10.86	2 hrs.	3.51	442	22.6	240	2.75	9.5	8.35	30 min	4.14	8.92	5.00	222	15.3	6.00	2.19	15.75	329.3											
	6	Shred Motor Plow Co.	4	8 1/2	10	22	45	2.5	2.5	22,000	27.21	203	3.1	2.4	65	23.5	5.86	2 hrs.	0.48	1755	29.1	109	2.7	17.5	5.8	30 min	1.14	3.57	2.73	159	34.00	3.66	4.86	.....	.....									
D. Steam, 60 B. H.P. and under	7	Gas Traction Co., Winnipeg.	4	6	8	25	45	2	14	.....	34.66	597	0	0	70	22.0	6.93	2 hrs.	0	.....	35.1	616	0	23	5.3	30 min	6.14	12.49	10.6	375	16.93	0	2.42	24.24	334.0									
	8	Gould, Shapley & Muir Co.	2	9 1/2	13	30	45	2.1	2	17,730	34.86	304	4.4	4.3	77	22.5	6.34	2 hrs.	0.57	1584	38.8	335	1.2	24.5	5.5	30 min	6.14	10.70	8.82	390	27.26	60	3.89	18.44	274.6											
E. Steam 60 to 90 Brake H.P.	9	International Har. Co.	2	9	14	45	55	2.2	2.1	20,990	46.49	344	15.0	13.3	55.1	20.3	11.78	2 hrs.	2.71	620	47.8	345	4.0	19.25	8.7	30 min	10.14	12.49	17.69	416	14.78	6.76	2.11	35.30	350.1											
	10	Kinnard Haines	4	7 1/2	8	40	60	2.25	2.25	19,000	49.76	297	0	0	64	23.4	10.88	2 hrs.	0	.....	50.2	302	12.3	12.0	14.6	30 min	6.14	12.49	12.43	408	16.05	.....	2.20	26.44	354.4									
F. Steam 91 and above Brake H.P.	18	Gas Traction Co., Minneapolis	4	6 1/2	8	20	60	3	2	17,500	51.84	493	0	0	67	18.8	10.83	2 hrs.	0	.....	53.9	489	0	20.5	9.2	30 min	7.14	12.49	12.43	408	16.05	.....	2.20	26.44	354.4									
	11	Rumley Co.	2	10	12	25	50	1.9	1.9	26,700	46.8	378	8.6	7.67	100k	132.5	6.88	2 hrs.	80	.....	49.2	372	3.4	11.8	5.49	30 min	8.14	10.70	12.01	356	27.64	2.3	3.49	26.45	Not scored										
E. Steam 60 to 90 Brake H.P.	12	I. I. Case, 36 B. H.P.	1	8 1/2	10	30	36	2.4	2.4	17,475	44.25	264	252.3	176	3.50	34.1	25.28	2 hrs.	7.2	35.1	60.0	268	99.7	171	17.5	30 min	4.14	16.05	8.98	412	158.1	96.21	.....	22.31	267.6										
	13	Avery Co., 60 B. H.P.	2	6	10	20	60	1.5	4	26,000	66.79	256	398.7	132	5.56	39.6	24.02	2 hrs.	7.17	33.5	96.6	276	149.5	238	20.3	30 min	8.14	5.35	6.06	170	147.2	136.7	.....	34.74	269.3										
F. Steam 91 and above Brake H.P.	14	I. I. Case, 75 B. H.P.	1	11	11	.....	75	2.6	2.6	25,800	61.09	265	394.5	168	4.43	32.5	27.85	2 hrs.	8.22	33.8	94.3	255	143.3	192	24.6	30 min	8.14	17.84	20.17	413	120.6	92.6	.....	47.34	297									
	15	Avery Co., 60 B. H.P.	2	7	10	30	90	1.5	4.5	36,000	97.08	265	611.2	165	7.01	100	27.66	2 hrs.	8.71	31.7	124.4	240	275.4	517	12.0	30 min	12.14	7.14	12.16	201	149.6	107.6	.....	65.36	291.9										
F. Steam 91 and above Brake H.P.	16	I. I. Case, 110 B. H.P.	1	12	12	.....	110	2.37	2.37	40,400	98.61	233	604	108	6.06	28.4	32.54	2 hrs.	9.07	32.6	129.0	225	227.4	278	23.4	30 min	12.14	21.45	33.08	497	99.20	82.01	.....	74.92	356.1									
	17	Rumley Co., 120 B. H.P.	2	7 1/2	14	36	120	2.03	2.03	46,480	105.86	247	623	125	8.61	56.6	24.56	2 hrs.	7.24	34.0	132.07	135.8	243	320.8	511	17.6	30 min	14.14	12.48	24.07	381	120.8	93.22	56.08	280.8										

SELECTION OF TRACTORS AND EQUIPMENT

GRANTING the practicability of traction plowing, the selection of equipment, and especially of the tractor, is a vital point. Plows for this work are in the main satisfactory and, being confined to comparatively few makes, are more easily investigated. However, the large and rapidly growing number of traction engines offered for sale makes selection difficult. To be practicable the tractor must be powerful, durable, economical,

of fuel which can be used to advantage. Steam engines use a wide variety of fuels with little difference in efficiency and are consequently less dependent on limited sources of supply.

Aside from the foregoing considerations, the essentials are practically the same for both types. Strength must be a prime feature of a successful farm motor. This applies particularly to frame and traction gearing. The latter should be of steel or semi-steel, wide in face and bearing, and

made in the last six years in the development of both steam and gasoline tractors has been remarkable and that the concentration of capital and thought upon the problem of supplying practicable farm motors gives promise of even more rapid progress in the next decade. When it is considered that during the long era of development of farm machinery no radical improvement has been effected in the animal as a source of motive power, it is not surprising that the early history of plowing by mechanical prime movers does not show a general advantage in economy over ordinary methods. The animal as a motor has many advantages which must be overcome before the universal introduction of mechanical substitutes, and the latter is not imminent. However, the increasing purchase and use of smaller tractors by Western farmers, not only in grain-growing sections but on larger farms in the corn belt, indicate that practical men are finding profitable employment for a general-purpose farm engine. So long as large areas of prairie remain to be broken there will be a field for the large plowing engine developed for that purpose alone, but the activity displayed by inventors and manufacturers justifies the expectation of dependable farm motors, varying in type and size, adapted to a much greater variety of work than that in which they have hitherto been chiefly employed.



THE CASE ENGINE PLOUGHS A GOOD STRETCH EVERY ROUND

and simple, with emphasis on all four points. It must draw a profitable load continuously while at work and that without excessive depreciation and repair charges. It must be economical of fuel and labor and not so complicated as to require skill not readily acquired by the average farmer. In addition to serviceability in plowing it should be adapted to a wide range of usefulness in order to compete seriously with the horse as a source of motive power.

As to size, it may be said that for plowing alone and where work is abundant and delays few, the largest engines are the most economical, as the cost of labor and the interest and depreciation may be distributed over a larger acreage. However, the larger the outfit the longer the period of delay occasioned by wet weather and the more limited the sphere of usefulness. A larger acreage must be provided to utilize the plowing capacity of the engine, and in other work, such as threshing, hauling, disking, harrowing, seeding, etc., frequently economical use cannot be made of the power of the largest engines. The smaller engines are less economical of fuel and labor, but being better adapted to a variety of purposes reduce the overhead charges through increasing the days of service rendered.

Both steam and gasoline tractors have their advantages for this work. The former are more advanced as a class and are built in larger units, and hence are popular where conditions demand great power, as in breaking large acreages. On the other hand, gasoline tractors, possibly on account of size, can usually transform into effective pull a larger percentage of the power actually developed than can steam tractors. A greater weight of supplies must be carried by steam engines, this, of course, adding nothing to their strength. Gasoline engines are usually capable of longer runs without replenishing supplies and less time is therefore lost on this account. They have the advantage in being quickly started and in not consuming fuel when not at work. The matter of supplying fuel is simpler and the expensive process of supplying water is reduced to a minimum. Internal-combustion engines as a class convert into work a much greater proportion of the thermal units in fuel than do steam engines, but present types are restricted in the kinds

of the best workmanship. The gearing should be absolutely protected from dust, as should all bearing surfaces. The gears probably more than any other parts are subject to wear and breakage and should receive great attention from both manufacturers and purchasers. They should be in perfect alignment at all times to prevent unequal wear, followed by strain and breakage. Rigidity of frame and wide bearings tend to effect this alignment, yet in so far as is possible flexibility should be allowed in order to minimize the effect of rough ground. Jolting should be transmitted as little as possible to moving parts mounted on the boiler frame. Perfect lubrication is necessary, and all parts of the engine should be easily and instantly accessible for repairs or adjustment.

The traction wheel is a fundamental point. One authority states that in building a tractor he would first build the wheel and then the engine. The wheel must be either wide enough or

Care of the Binder

Considering the high price of binders, together with their comparatively short life and the short time they are used each year, few better investments can be made by a farmer than that of providing adequate shelter. Before binders are put away after a season's work they should be gone over with the same care that a good engineer would bestow on his engine. All old grease and dirt should be removed from the surface as well as from the bearings. This can be done with kerosene and waste. The binder should be carefully oiled and all bright parts greased to prevent rusting. After the season's work is over is also the proper time to repair and overhaul a binder for next year. At this time the operator knows, or should know, all the defects of the machine and what it needs in the line of extras, and repairs to refit it for the next season's work. If the machine is put away, on the other hand, without being given a second thought until needed again, the operator, if he still remains on the place, will have forgotten what the machine most needed. The result is that the binder is, perhaps, given a hasty inspection, which in a majority of cases fails to reveal anything, and brought out into the



TWENTY AUTOMOBILES LOADED WITH AMERICAN FARMERS LOOKING FOR FARM LAND AT SCOTT, SASK., AND AN AMERICAN ABELL PLOWING OUTFIT STARTING TO WORK.

high enough to support the weight of the engine on soft ground and to distribute it under all circumstances without undue packing of the soil. Some tractors already rival the horse in the matter of weight per unit of bearing surface. Besides width and height there must be a proper arrangement of lugs on the surface of the wheel in order that it may grip the soil firmly and still not clog. Great loss of power may occur in this simple point of application. Types of wheel composed of independent pedals are being developed, with a view to reducing the loss through slippage.

In general it may be said that the progress

field with numerous small defects that could have been repaired at a nominal expenditure of time and money. If the farmer is too busy to attend to repairs immediately after the season's work is completed he should at least find time to do the next best thing, which is to make a thorough note of all defects of the machine with a view to remedying them when time is more plentiful.

* * *

Every successful and progressive farmer in the Canadian West does more or less dry farming every year.

DAIRY

Milking Hints

Before milking the cow's udder should always be brushed or wiped with a clean, wet towel and cow's udders that are very dirty washed with soap and water. Both the hands and clothes of the milker should be perfectly clean. A great mistake which is often made is to lean the head and weight of the milker's body against the cow.

Abstraction of the milk from the udder depends upon suction. Take hold of the teat and squeeze with the fingers, starting from the top downwards. The fore teat and one hind teat should be milked at the same time. The hind quarter gives a little more milk than the fore quarter. Care should be taken to milk quickly and thoroughly, for if any milk is left in the udder the cow will gradually dry off.

Streak Milking.—This consists in drawing milk from the udder by means of streaking the teat, or drawing the teat between the thumb and first finger or two fingers. This is not a good method, as it is liable to make the cows difficult for others to milk afterwards and may cause sore teats.

If the hands are wet the advantage is (some believe) that the fat in the milk makes the hands slip more easily over the teat, and therefore the process of milking can be got through quicker, but it is an old fashioned and dirty method, about which the less said perhaps the better.

The essentials of good milking are: That the process should be performed (1) quickly, (2) quietly, (3) thoroughly.

Advantage of Silage Over Other Feeds

There are several points which every cow owner would do well to consider if he is to get the best milk yield and reap the greatest profits from his herd. In the first place, a cheap ration must be provided, one that can be raised upon the farm; secondly, it must be well adapted to milk production and fed liberally.

As a rule, the greater portion of the feed can be raised at home, which always lessens the cost of production. For that reason corn silage has come to be recognized by nearly all stockmen as the most economical feed the farmer can raise. To show this more clearly we will figure the actual cost of feeding an average herd of ten cows from the time the pastures fail in the fall till grass comes in the spring, or a period of some 240 days.

The amount of silage necessary for 10 cows for the given period, allowing an average feed of 40 pounds to each cow per day, would require 48 tons. The average yield of green corn per acre in North Dakota is close to 8 tons. At this rate, 6 acres of corn would furnish a sufficient amount. The United States department of agriculture estimates the average cost of raising an acre of corn to be \$11.07, and reliable authorities figure the cost of putting corn with the silo to average about 75c. per ton. Then we may arrive at the actual cost of the feed as follows:

Cost of raising 6 acres of corn	\$ 66.42
Cost of harvesting 6 acres of corn.....	36.00
Total	\$102.42
Cost of silage for 10 cows, 240 days.....	\$102.42
Cost of silage for 1 cow, 240 days	10.24
Cost of silage for 1 cow, one day .....	.43

According to the best authorities on animal feeding, the leaves and the stalks contain about 37% of the food value in the corn plant, which is practically a total loss if the ears only are fed. One hundred pounds of silage contains 13% or 13 pounds of food material, at which rate 48 tons would contain close to 11,480 pounds. If this amount of food material were furnished in the form of:

Prairie hay, would require 11 tons at \$12, would cost	\$132
Timothy hay, would require 12 tons at \$18, would cost	216
Oats would require 11 tons at \$15, would cost	165

The economy of feeding ensilage is even more striking when we compare the cost of a ration made up largely of grain and one where a part of the oats, corn and bran are replaced by corn silage.

GRAIN RATION		Pounds food Material Used.	Cost per day.
10 pounds	prairie hay	4.7	6c.
2 "	oat	1.2	3c.
6 "	bran	3.3	6c.
4 "	corn	3.2	5c.
1 "	linseed meal	6.9	2c.
23 pounds.	Total	19.3	22c.
SILAGE RATION		Pounds food Material Used.	Cost per day.
40 pounds	silage	5.2	4c.
10 "	prairie hay	4.7	6c.
4 "	bran	2.2	4c.
1 "	linseed meal	6.9	2c.
55 pounds.	Total	19.0	16c.

The above rations are figured for the average dairy cow and each contain practically the same amount of food material. It is noted that there is an actual saving of 6c. per cow per day. With a herd of 10 cows, this represents a saving of 60c. per day, or for 8 months, the average time a dairy cow would be fed, would mean a saving of \$144 in cost of grain, or \$14.40 per cow.—S. L. MARTIN, N. D. Agricultural College.

[NOTE.—These interesting figures are supplied by an expert. In the Canadian West few stockmen grow corn, and still fewer have silos. Those who have provided corn fodder in any form for winter feeding have been satisfied with results. The figures given above indicate that it will be wise to select a suitable piece of land on which to grow some corn next season.—Editor.]

B. C. Dairymen Meet

The British Columbia Dairymen's Association held a conference during the Vancouver exhibition at which several questions of importance to the dairy interests were discussed. Prominent among those was the consideration of an alleged failure on the part of the railway companies to give speedy transportation of their products and a quick return of empty receptacles.

The result of the discussion was that the newly-appointed secretary of the association, M. A. Jull, was instructed to take the matter up with the officials of the road and ask for similar shipping facilities as are in force upon railroads of Manitoba.

In connection with the various dairy competitions held in all parts of the province, the association decided to issue gold, silver and bronze medals as awards for the best kept dairies. Another award provided for was a silver cup which will be competed for yearly until won three times

in succession by any one dairyman. P. H. Moore, provincial dairy expert, was appointed judge of the competitions. Mr. Bishop, of Victoria, will co-operate with Mr. Moore in August, and Mr. Mackie, of Eburne, taking his place during the month of November, when the heaviest work will be done.

President W. E. Buckingham, of Eburne, was in the chair. Other officers present were: Vice-President Shannon, of Cloverdale, and 2nd Vice-President F. Bishop, of Victoria. Mr. W. E. Scott, deputy minister of agriculture, was also present and gave valuable advice with reference to several of the subjects under discussion.

Estimating Value of Cows

In a recent issue of *Hoard's Dairyman*, a correspondent discusses the profits of production, showing the net profits resulting from cows producing 200, 300, 400 and 500 pounds of butterfat annually. The butterfat is valued at 27 cents per pound. Other items counted on the side of production are the value of the calf, which runs from \$3.00 with the 200-pound cow to \$40.00 with the cow that produces 500 pounds butterfat per year; skim milk running in value from \$14.00 to \$36.00; manure running from \$20.00 to \$28.50, and one-eighth the final value of the cow, which in all four cases is taken to be \$3.00 per year, \$24.00 being judged the final value of the cow to the butcher.

The result can be stated as follows:

	Receipts.	Expenditures.	Profit.
200-pound cow.	\$ 94.40	\$ 82.30	\$12.10
300-pound cow.	136.10	105.50	30.60
400-pound cow.	184.80	137.50	47.50
500-pound cow.	242.50	169.50	73.00

In the matter of expenditures there is charged against the cow such items as feed, labor, interest on barns and the value of the cow, insurance, depreciation in value, medical attention, taxes, risk and service fee. Where cows are raised and valued according to their actual cost of production, the net profits are higher than is shown in the above table, especially for the higher producers, as witness in the following table:

	ANNUAL BUTTERFAT PRODUCTION			
	200 lbs.	300 lbs.	400 lbs.	500 lbs.
Net profit when cow is bought	\$12.40	\$30.60	\$47.30	\$73.00
Net profit when cow is raised	12.40	44.45	82.17	129.00

The higher net profits from cows raised upon the farm are due to their lower cost to the dairymen, reducing the following expenses based upon the cost of the cow: risk, taxes, interest and depreciation.



JOSEPHINE TEAKE SIR DEKOL, FIRST PRIZE TWO-YEAR-OLD HOLSTEIN BULL, WINNIPEG, 1910. OWNER W. M. GIBSON, 159 ALEXANDER AVE., WINNIPEG

FIELD NOTES

Brandon Horticultural and Forestry Society

The annual exhibition of the Brandon Horticultural and Forestry Society was held last week at Brandon. The exhibit of vegetables, flowers and outdoor plants was a large and creditable one. Vegetables were a fine display, potatoes especially. The Experimental Farm made one of the best displays on record, showing splendid collections of flowers, vegetables and fruits. E. Sanderson, Dauphin, had a fine collection in the professional class. Amateurs were well represented in all lines. The show was the most successful yet held under the auspices of the Horticultural and Forestry Society.

Serious Forest Fires

Forest fires have been raging for the past two weeks in parts of Montana and Idaho. Towns and villages have been wiped out, scores of people killed and thousands rendered homeless. The fires are supposed to be of incendiary origin and are the worst that have occurred in the United States in years. The smoke cloud from the burning timber is said to have spread hundreds of miles from the scene of the conflagration, ashes falling as far north as the Canadian boundaries. Troops and fire fighters from all the Western States have been battling the flames, but their efforts to check the fires were almost without avail. Millions of feet of timber have been destroyed.

Saskatchewan Crop Report

The Saskatchewan department of agriculture have issued the final estimate of the yield of the four leading grain crops, based on reports from crop correspondents in the various districts. The total grain crop is estimated at 161,912,790 bushels, divided as follows:

Wheat	4,642,000	14.7	68,416,000
Oats	2,103,000	39.7	83,500,000
Barley	237,100	26.1	6,199,200
Flax	393,100	9.66	3,797,590

No reduction in acreage has been made for the area of crop plowed under. The estimated yield per acre is for the area sown and not for the area that will be harvested.

The crop of 1910 is, generally speaking, one that will be harvested economically, as the proportion of grain to straw is high and the grain will be of an usually high average quality. Harvesting was general throughout the province on August 16th, the date in different parts varying from August 11th in the southwest to August 21st in the northeast. Crops steadily improved during the four weeks preceding the commencement of harvesting operations.

Robert Meighen on Wheat Situation

In THE FARMER'S ADVOCATE of September 9, 1909, was published an interview with Robert Meighen, managing director of the Lake of the Woods Milling Company, in which he advised farmers to sell their wheat carefully and not break the market. He predicted then that wheat would sell at higher prices before the spring of 1910, and the forecast was well in line with the happenings of the market.

Mr. Meighen, on August 22, summed up his opinion of the outlook for the present season and in view of his position and the close watch that must necessarily be kept on the movement of grain, the opinion is worth considering. Mr. Meighen says: I am a strong believer that the farmer is at present in the same, if not in a stronger, position than he was at the corresponding period last season. He again holds the key of the position. The crucial point is simply if he delivers his wheat in large volume as soon as

threshed, and rushes it forward, having the tendency to congest the market, unquestionably values will recede for the time being.

I firmly believe that it is not necessary for the farmer to strive to deliver all his wheat before navigation closes. History will in all probability repeat itself this season, as it did last, when the grower realized a higher value after close of navigation than before. The farmer has from the present time up to, say, the first of March or beginning of April to deliver his wheat. I do not advise the farmer to hold his entire crop to deliver at any specified period, but would advise moderate deliveries. The ultimate result to him will, in my opinion, be more satisfactory.

We are short on this continent. The outturn of the present crop will be at least 150 million bushels short of last year's. I believe it is generally admitted that France will be at least 50 millions short for domestic consumption. Instead of being an exporter France this year will be an importer.

If the farmers of the United States, the Canadian Northwest and the province of Ontario (which, I believe, has a bumper crop this year of first-class quality) rush their wheat to market as soon as threshed, as I have mentioned already, prices may recede for the time being. On the contrary, if they moderate their deliveries they will, in my opinion, receive more satisfactory results later on.

Ontario Fruit Crop Short

According to the report of government inspectors the fruit crop in the Niagara peninsula will not be fifty per cent. of what it was last year. The plum crop will not be twenty per cent. of the crop of last year, grapes will be fairly abundant, the peach crop will be medium, and apples will be by no means plentiful. The result will be that fruit will be higher in price and especially in outside markets.

The government inspectors attribute the smallness of the crop to the neglect of many farmers in spraying, to the continued cold rains about the time of blossoming, and to the curled leaf, a fungus disease which attacked the trees in the early part of the season. In some orchards where the curled leaf was prevalent in the beginning of the year there will be no peach crop at all. Elbertas and Crawfords, the principal varieties of fall peaches, will be much lighter than last year, when there was a full crop.

Plums in a great many orchards are reported as a total failure. The European and American varieties will yield about half a crop, and the Gneis, the Quackenboss, the Lombards and the Niagaras will be very light. There are prospects of a fair crop of apples, but, of course, the fruitgrowers of the district are not nearly so much interested in apple-raising as in peach and grape raising. Most of the varieties of grapes are showing up fairly well, and there are prospects for a fairly good-sized crop.

Prof. John A. Craig Dead

Word comes from San Antonio, Texas, of the death of John A. Craig, one of the best known authorities in America on livestock and agricultural affairs. Professor Craig died after a very brief illness, his death being altogether unexpected.

The late professor was a Canadian by birth and gained his first knowledge of agriculture on this side of the boundary line, though for years he has been engaged in agricultural college work in the United States. He was first known to Canadians as editor of the *Canadian Livestock Journal*, published at Toronto. Severing his connection with that paper he went to the United States and has filled the position of professor of animal husbandry and vice-director of the Iowa Agricultural College; professor of animal husbandry in the University of Wisconsin, and dean and director of Texas Agricultural College. Two years ago Professor Craig was forced by ill-health to give up college work and acquired a farm at San Antonio. Since then he has taken up teaching, serving for a time at the Oklahoma Agricultural College, from which he retired recently to his farm.

He was slated to assume charge of livestock investigation work at the Iowa College this fall.

Professor Craig is best known to many of our readers by his writings. He was the author of the book "Livestock Judging," used as a textbook in judging in all colleges in America, a valued contributor to the agricultural press and a trained stockman.

Weather for July

The *Census and Statistics Monthly* for August gives the highest, lowest and mean (average) temperatures at the experimental farms in the West for July. At Brandon the highest temperature recorded was 104.5; lowest 41, mean 66.9. The average temperature at Brandon in the previous twenty years has been about 64.6 degrees. Rainfall at the same point for July is usually about 2.33 inches. This year it was 2.0 inches. At Indian Head the highest temperature was 94.0, lowest 43.0, mean 66.43; average temperature in 20 years previous 68.1; rainfall for July 86; average for previous twenty years, 2.97 inches. At Agassiz, B. C., the highest temperature for the month was 94.0, lowest, 44.0; mean, 69.0; average for previous twenty years, 65.5; precipitation for July, 1.16 inches; average for preceding years, 2.07. At Lacombe highest temperature was 85.1; lowest, 32.4; mean, 58.69; at Lethbridge, highest, 98.9; lowest, 33.5; mean, 66.25.

Events of the Week

A serious rear end collision occurred on the Grand Trunk near Durand, Mich., on August 24, when the Chicago to Montreal express was wrecked, a sleeper smashed and the passengers in it killed or injured. The number of dead is placed at twelve. The wreck was due to the neglect of the crew to properly protect their train from the rear, whilst lying on the track for temporary repairs.

Colonel Roosevelt is looming large in American newspapers these days because of his supposed desertion of what Taft and his element in the Republican party are supposed to stand for, that is the organization before everything else. The colonel has started on a speaking tour of the country and some thousands anxious politicians have their ears to the ground to catch the public effect of his utterances.

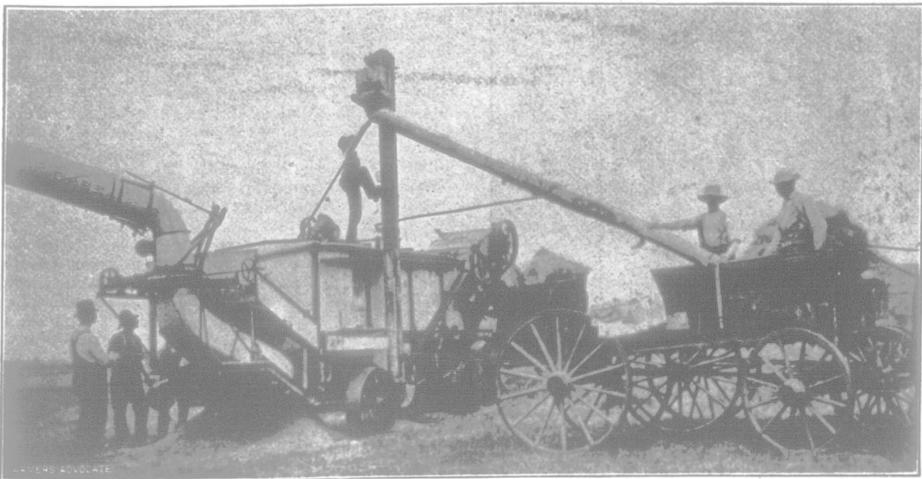
The Korean dynasty, which has lasted 518 years, came to an end last week, when Japan absorbed the kingdom which will henceforth be a part of the Japanese dominions. Korea contains a territory as large as England and a population of twelve millions. While the country has been practically governed by Japan for the past five years, it has not been a part of the Empire. The recent action gives the Japanese a strong footing in Asia.

Masons and bricklayers in Winnipeg, to the number of five or six hundred, went on strike last week, and building is almost at a standstill in consequence. Because a firm employing masons in Winnipeg, was having trouble with its men in Montreal, a strike was called by the International Union, having headquarters in the United States, and the masons quit work, not because they had any grievance but merely because someone higher up ordered. It looks at present as though the strike might spread and involve other building trades.

Immigration into Canada is holding up to an extent which surprises railway men who have to take care of new arrivals and see that they are placed in the West. In fact, it is stated there is apparently no dull season coming, and that the figures for the present period, which in years past used to be considered a quiet spell, will show that new settlers are coming at a rate which a few years ago would constitute records for the busiest time. The continuance of the immigration season now is largely due to the easing up of restrictions placed upon new settlers by the government, especially in the waiving of the \$25 rules.

Britain's newest and greatest battleship was launched on August 20. She is named the Orion. Compared with the armored cruiser Lion, of 26,350 tons, just launched, the Orion will displace only 22,500 tons, but her ten 13.5-inch guns and her new deadly equipment of torpedoes render her by far the most powerful battleship afloat. The new torpedo to be carried weighs nearly a ton, and its range will exceed 17,000 yards at a speed of forty knots. The torpedo carries a charge of guncotton weighing 250 pounds. The ship will have a speed of twenty-one knots and will carry 4,000 tons of fuel, giving her an unusually wide radius of action.

The German Emperor attracted the world's attention to himself last week by an aggressive speech in which he repeated his belief in the medieval idea that kings rule by divine right and that crowns are bestowed by the Almighty and not by parliaments or popular assemblies. The speech has aroused considerable comment from the German press, and is the political sensation of the hour in the fatherland. It seems hardly creditable that monarchs in Europe in these days should cling to a belief that was supposed to have been exploded some centuries ago. Trouble is expected in the next German parliament as a result of the Kaiser's assertion of the divine mandate by which he rules.



THE MODERN THRESHER HAS BAGGER AND BLOWER ATTACHMENTS AND WEIGHS THE GRAIN AS IT COMES OUT

INTER-PROVINCIAL CONFERENCE AT COAST

FOR the establishment of closer trade relations between the provinces of British Columbia and Alberta, and for the purpose of securing a reduction in the existing freight rates between the prairie provinces and points in British Columbia, a conference between the directors of the United Farmers of Alberta and the representatives of local boards of trade in British Columbia was held in Vancouver, August 18 and 19. One of the chief results of the conference was the resolution adopted, holding that the existing rates are discriminating, and that they tend to retard the commercial development of both provinces.

Some eighteen representatives from Alberta attended the conference, which was largely composed of the members of the board of trade of Vancouver and a number of representatives from various points throughout British Columbia as well as the farmers of Alberta are vitally interested in better trade relations, and, no doubt, combined effort shall bring forth desired results. In addition to the rate question, and the matter of greater commercial intercourse between the provinces, other matters of vital interest came before the convention. The matter of public slaughter houses, of licensing commission men, of standard inspection of hay, of government controlled terminal elevators, and other topics of general importance were discussed.

It was readily admitted that British Columbia and Alberta each produced products that the other consumed, but at the present time existing conditions prevented the securing of such products from each other.

At the opening session Jas. Bower, Red Deer, Alta., president of the Alberta Farmers' Association, was elected chairman of the meetings. Among those from Vancouver who attended and took part in the discussions were: E. Buchan, president of the Vancouver board of trade; H. A. Stone, chairman of the Vancouver freight rates committee; Captain Worsnop, of the Canadian-Mexican line; J. E. Hall, of the Vancouver Milling Company; W. J. McMillan, of the Vancouver board of trade, and others prominently connected with trade advancement.

FREIGHT RATES QUESTION

The question of discriminating freight rates was the most important before the convention. A. Burnett, Vancouver, formerly an Alberta farmer, and now the owner of a grain elevator in Vancouver,

pointed out that although the distance from Calgary to Fort William was about double that from Calgary to Vancouver, nevertheless the freight charges on wheat to Fort William was 24 cents a hundred, while for the haul to Vancouver they had to pay 32½ cents, unless the wheat was for foreign shipment in which case they had to pay 20 cents per hundred.

The need for improvement in the rates on other things besides wheat was also pointed out, especially on lumber, as the Alberta farmer wanted much lumber.

Fruit was another product of British Columbia that should receive better treatment from the railway. After much discussion the following resolutions were adopted:

That this meeting composed of the directors of the United Farmers of Alberta, representatives of the farmers of British Columbia, the board of trade of Vancouver, and members of various other commercial organizations of both provinces, express its deep conviction that excessive freight rates between Alberta and British Columbia are seriously hindering and diminishing the interchange of products under present conditions, and retarding future development in both these provinces. And it is further the conviction of this meeting that the time has now arrived when a substantial reduction in rates should be effected, which will not only be of the greatest importance and benefit to the producers and consumers of these provinces, but to the railway companies as well.

That copies of the above resolution be forwarded to the presidents of the C. P. R., Great Northern, C. N. R. and G. T. R., and to Mr. Whyte, requesting that a meeting be arranged at a date to be agreed upon by duly appointed representatives of both parties.

That a standing committee composed of representatives of both Alberta and British Columbia be appointed to work out the details of a plan for better trade relations between the two provinces.

That this meeting recommend the establishment in both provinces of a system of public abattoirs, either by the municipalities or by the provincial governments under government inspection.

That copies of this resolution be submitted to the agricultural departments of the governments of the two provinces and that their active co-operation be requested in this matter.

That the provincial governments of British Colum-

bia and Alberta be permitted to enact a uniform law licensing and bonding all commission merchants handling any kind of farm products, the provision of same to be along the line laid down in the Manitoba Grain Act for the licensing and bonding of grain commission merchants.

GRADING AND INSPECTION OF HAY

The grading and inspection of hay was a question that received much attention and discussion. Geo. Harcourt, deputy minister of agriculture for Alberta, had considerable to say on this subject. He advised that it was useless to approach any but the Dominion government on this question, as it was already partly covered by the Dominion act. He also gave it as his opinion that it would be necessary to decide on one system of grading for the whole West, as otherwise he was sure the government would have nothing to do with a multitude of local systems. The following resolution respecting this question was accordingly moved and passed: That representations be made to the Dominion government pointing out the unsuitability of the present standards of hay for Alberta and British Columbia, and the necessity of a suitable standard of quality for hay, if the hay industry is to reach its highest state of development, such standards to give grades for timothy, clover, alfalfa, brome, wild native hay, and other varieties which are necessary for the business of the West; and that competent inspectors be appointed to carry out the provisions of the Inspection and Sales Act in regard to the inspection of hay.

Further that a committee consisting of the representatives of the United Farmers of Alberta, British Columbia farmers and hay commission merchants be appointed to draft the proposed grades of hay, and if same are suitable, that the government be requested to add same to the Inspection and Sales Act.

Further, that the department of agriculture for British Columbia and Alberta be requested to give their assistance in securing these amendments to the act. That the committee appointed consult the hay interests of Saskatchewan and Manitoba in preparing the proposed grades of hay.

THE GRAIN QUESTION

The grain question, other than its connection with freight rates came up for considerable discussion. Captain Worsnop, of the Canadian-Mexican Steamship Company, gave the meeting his opinions

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Vancouver Association Holds First Big Exhibition

THE first exhibition of the Vancouver Exhibition Association now stands a matter of history. The West coast city has reason to congratulate itself upon its latest achievement, the success of its first fair. Sir Wilfrid Laurier officially opened the exhibition, which, indeed, was a happy augury.

Were one to judge the success of the exhibition by the standards already achieved by other exhibition associations, the Vancouver show this year could not be noted as being an outstanding success, but considering that this is its initial fair, that the citizens had to be interested, the grounds bought, the buildings erected, and so much missionary work done, it is only right that the management and directors should be congratulated on their first efforts. The grounds where the fair was held lies eastward from the center of the city, overlooking the inlet that divides that portion from North Vancouver. The location is ideal and picturesque.

From an agricultural standpoint the exhibition was not a real success. Aside from the light horse exhibit, the live-stock showing was not a strong feature. The display of agricultural products was not of an overwhelming nature, perhaps owing to the earliness of the season. However, there were numberless commendable features about the first exhibition.

The light horse show, the dog and the poultry show were striking features. The attendance was the most striking evidence of the popularity of the exhibition. There was a long race programme, and the side attractions were numerous. Down the midway the barkers awakened such echoes among the trees as have surely never drifted that way before. And some of those gigantic cedars and firs must have felt dizzy-headed after witnessing the whirls of the merry-go-round machines. There was much attraction for the city folk, and real enjoyment for visitors. Manager Roy performed his task well, and the Vancouver Exhibition Association may look forward to bigger and better things next year.

LIVE-STOCK EXHIBIT

It could hardly be expected that the live-stock men would turn out in large numbers, as it was uncertain what accommodation awaited them. However, those who did show up were not disappointed, for ample provision was made for the comfort of all. There was an excellent showing of light horses, but in the rest of the horse classes the entry was not large. The

cattle and swine exhibitors were not numerous, while on the other hand the competition in the sheep classes was much more interesting, both as to numbers and as to quality. The dog and poultry fanciers had much to interest their enthusiasm, for there was a long entry in the feathered and canine classes.

The judges in the various classes of live stock were: Light horses, Dr. J. L. Oille, Toronto; heavy horses,

Andrew Graham, Pomeroy, Man.; cattle, sheep and swine, Jas. Bray, Portage la Prairie; poultry, Sharp Butterfield, Windsor, Ontario.

HORSE EXHIBIT

The competition was found to be the greatest in the light horse classes, and especially among the harness entry. A number of exhibitors from Vancouver and Victoria were found in the Standardbred and Thoroughbred classes. W. Nicholl, T. J. Smith, and J. T. and J. H. Wilkinson, all of Vancouver, were the largest exhibitors in the standardbred classes.

The exhibit of Hackneys was an interesting feature. D. C. McGregor, Vancouver, was perhaps the largest Hackney exhibitor, and in the female classes he won most of the ribbons. Silpho Sensation, exhibited by Malcolm Stewart, Vancouver, was the winning stallion in the aged class. Sky Pilot, owned by Jas. Bethwell, Vancouver, was second. In the class for stallion under 15.2 hands, General of Cornwall, exhibited by W. Gyldenfeldt, Seattle, was first. This horse received the stallion championship ribbon. Brilliant of Chanque, owned by H. M. Fleming, Vancouver, stood second in this class.

In the female Hackney class, Warwick Dora, exhibited by D. C. McGregor, Vancouver, won the championship prize and first in the aged mare class. Culraven Extravagant Queen, shown by D. & T. Stewart, Calgary, Alta., was second in this class and reserve female champion.

S. R. O'Neal, Vancouver, was the largest exhibitor of Clydesdales. He was the owner of the first and second Clydesdale stallions in the aged class, they being Rosendale and Crusoe. The former horse was given the championship prize. Royal Citizen, exhibited by the Inverholm Stock Farm, Ladner, stood third. But one other stallion was shown and that was Dunure Wallace, owned by J. O. Trethewey, Abbotsford. He stood alone in the three-year-old class. The Inverholm Stock Farm had a few entries of Clydesdale females, they winning the championship ribbons in lone competition. Charlie, exhibited by Macdonald, Marpole Co., Vancouver, was the champion gelding. P. Burns & Co., Vancouver, won the team prize with a pair of bay geldings, George and Chief.

CATTLE

The cattle exhibit could not be rated as a good one for there were but slim entries found in the various classes of the breeds that were represented. The

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MORLEY A. JULL, B.S.A.
Poultry Expert for British Columbia and Secretary-Treasurer of the B. C. Poultry Association, organized during the Vancouver Exhibition

THE EDMONTON FAIR BREAKS ALL RECORDS

THE Edmonton Exhibition Association held their big livestock show and race meet from August 23rd to the 26th. Heavy rains that lasted for three days previous to the opening of the exhibition, to a certain extent marred the success it might have attained. As it was it came to a very successful termination. The new grounds when fully completed promise to be the best in Western Canada. The buildings are elaborate and neatly constructed and planned to accommodate an exhibition of an extensive nature. Manager A. G. Harrison has planned wisely and the success of this exhibition was largely due to his efforts. A combination of many unique features places this year's exhibition on record as being the most successful yet held by the association.

The livestock show was the leading feature. The new stables were well-filled with animals of the various classes and breeds. Notable herds were there from all parts of the West and large crowds of spectators followed the progress of the judging with great interest and evidenced admiration for the superb animals as they were shown in the ring.

HORSES

It is no exaggeration to state that there was at the Edmonton exhibition this year the best showing of horses ever witnessed in northern Alberta. In the light horse classes the entry was large and the competition keen, while in the heavy breeds no spectator ever guessed that the entries would be so numerous as they were. Every class in the Clydesdale breed brought out a crowded ring, and the judge had to first select a number of the best animals and stable the others in order to allow him sufficient space to make the final placings. There was rather a strong entry of the French draft horses. The number of Percherons shown clearly define the growing demand for this breed. The Suffolk horse ranch of Lamerton, Alta., made the showing for the Suffolk breed with a fine entry of Suffolk stallions. Mr. Neil Smith, of Brampton, Ontario, awarded the prizes in the heavy horse classes and Dr. Rutledge, of London, Ontario, judged the light horses.

CLYDESDALES

It has been questioned why the Clydesdale breed is usually given first prominence in the report of an exhibition. The answer is often given that the Clydesdale breed usually puts up the best showing. Whether or not such argument will always stand investigation matters not. But at the Edmonton exhibition this year the Clydesdale was much in advance, especially as to numbers, and it thus seems fair to give them first prominence. There were eighteen entries in the first-class that was called, and in each and every succeeding class there was strong competition. Mr. Neil Smith, of Brampton, made the awards and every time the winning animal possessed the size. Good feet and good limbs he gave consideration, but this found limitation in the quest for substance. Noted breeders from Manitoba and Saskatchewan competed with those from Alberta for honors. The main exhibitors in Clydesdales were: Colquhoun & Beattie, Brandon, Manitoba; Vanstone & Rogers, Wawanessa, Manitoba; W. E. Butler, Ingersoll, Ontario; Clark Bros., Gleichen, Alta.; Osborne & Scott; Moosomin, Sask.; J. M. Bruce, Lashburn, Sask.; T. L. Wibray, New Norway, Alta.; Jas. Rye & Sons, Edmonton; Major Langman, Strome, Alta.; Jno. McKinley, of Spruce Grove, Alta.; Frank Ranuf, Fort Saskatchewan; J. Littlejohn, Edmonton, and J. Richards, Red Deer.

The class for stallion four years or over had listed to its credit some twenty-two entries. However, only fourteen horses entered the ring. Polar Star, owned by Colquhoun & Beattie, proved to be the favorite with the judge. This horse has size and is known by most horsemen, as he has been in the money in most of the leading shows of the West this year. Master McQueen, another massive seven-year-old, shown by J. Clark, stood second. Vanstone & Rogers owned the third prize animal. This horse was Pundit, and with many he was a favorite, as he combines much quality with considerable size.

Royal Prince, a smooth goer, owned by Osborne & Scott, stood fourth. Gallant Hero, exhibited by W. E. Butler, was fifth, while J. Richards had sixth placing in Ragoon.

In the three-year-old class there were five entries. Colonel McQueen, owned by Jas. Clark, was the winner. Vanstone & Rogers had second and third placing in Bamboo and Colston Laddie. Bamboo is a good mover besides being a horse possessing considerable quality, but the judge gave the Clark entry the preference on account of his size combined with a deal of quality. Bay Ronald, exhibited by Duncan Clark, was fourth, and Selvanis, owned by J. Littlejohn, was fifth.

Tiptop, a Vanstone & Roger entry, won out in the two-year-old class. This is a large colt. Sir Norton, shown by J. Clark, was second. He is a good colt, perhaps deserving of better favor. Gallant Sovereign, exhibited by T. R. Wibray, was third, and Druffen Barnet, of the Osborne & Scott stud fourth. Two entries constituted the year-old class. Osborne & Scott were the owners, Baron Moosomin and Baron Fleming, a pair of good colts, both possessing much quality.

PERCHERONS

An Alberta show is usually marked by its showing

of Percheron horses. Some animals of worthy merit of the breed competed for honors at the Edmonton fair. Colquhoun & Beattie, Brandon, Manitoba, were out with a good string. Vanstone & Rogers, Wawanessa, Man.; H. O. Hutchins, Keeler, Sask., and E. I. Clark, Edmonton, were other exhibitors. In the aged stallion class there were four entries. Cavalier, shown by Ed. Clark, was placed first. Gay Tom, owned by Colquhoun & Beattie, second, while Hutchins' Swift and Lino were placed third and fourth. Cavalier, the winning horse, possessed much size, but he was not the favorite to many, for Gay Tom, the second animal, carried with him much size combined with a great deal of Percheron quality.

The three-year-old class contained some interesting entries. Blondin and Harpooneur, two noted animals, exhibited by Colquhoun & Beattie, and Harmian, shown by Vanstone & Rogers, completed the class. Blondin has been the champion at most of the leading exhibitions this fall, but here the judges rated him third. His stable mate, Harpooneur, was given first, and Harmian, second.

In the two-year-old class, H. O. Hutchins had the only entry in Ansbert 2nd.

There was not a strong entry in the female classes. In the brood-mare class, Hutchins had the only entry in Fatma. He had two entries in the dry mare class, Acanthe and Gibolette. The special prize given for the best four-horse Percheron team also went to H. O. Hutchins.

BELGIANS

There were but two representatives of the Belgian breed. W. C. Kidd, of the Listowel Company, Ltd., of Strome, Alta., had the winning animal in Caesar de Machelen, a four-year-old chestnut. This horse has a weight of 2,000 lbs., and is an active lad. Benjamin de Mellemont, shown by A. Coupal, of Morinville, was the second prize animal in the stallion class.

SUFFOLKS

Geo. Jaques, owner of the Suffolk Horse Ranch, at Lamerton, Alta., had four fine entries in the Suffolk classes. Rendlisham Macraphone, his four-year-old horse, won the ticket in the aged stallion class. Gardner & Sons, Wetaskiwin, came second with King of Lulu. For stallion three years and under four, Jaques won with Durandia, a colt of exceptional merit. Rendlessham Snip, also his entry, stood alone in the two-year-old class.

There was only one female entry in the Suffolk breed. This was Sophia, shown by Geo. Jaques.

CLYDESDALE FEMALES

The entries in the female classes were not so numerous as in the stallions, but where numbers lacked there was more quality. The section for brood mare with foal by side had some nice entries. Lady Chattan, owned by J. M. Bruce, was the winner. Walnut, exhibited by Rye & Sons, was second, while Melada, shown by T. Wibray, stood third. The foal prize went to Rye & Sons for first and second, while F. Ranuf, Fort Saskatchewan, had the third colt. The class for dry mares brought out some notable entries. Salome, owned by Major Langman, a four-year-old mare topped the list. Ben Finlayson landed her here from Scotland, and since landing on Canadian soil she has developed well. Queen of Ashwood, shown by T. A. Wibray, was a popular second. Lily McQueen, exhibited by Duncan Clark, was third, a mare of good quality.

In the two-year-old class there were but two entries. Queen Helena, owned by Osborne & Scott, was first, while Bessie McQueen, shown by Jas. Clark, came second.

Throsk Margaret, owned by Major Langman, was the winner in the one-year-old class. Countess MacQueen, shown by Duncan Clark, was second. The special prize given for stallion and three of his get was given to Master MacQueen, shown by Jas. Clark. Second placing went to Baron St. Clair, owned by Osborne & Scott. Champion Clydesdale stallion, Polar Star, owned by Colquhoun & Beattie. Champion Clydesdale mare, Throsk Margaret owned by Major Langman.

Best Canadian-bred Clydesdale stallion, Master McQueen, owned by J. Clark. Best Canadian-bred Clydesdale female, Lily McQueen, owned by J. Clark. Best team of draft mares or geldings went to Major Langman on Salome and Throsk Peggie. Second went to J. M. Bruce on his team of Clydesdale mares. Best gelding or mare, Clydesdale, Throsk Salome, owned by Major Langman.

LIGHT HORSES

The light horse exhibit was one of the best yet produced at an Edmonton exhibition. There was an excellent showing of Standardbreds and roadsters, and the honors were well divided among the local men. There was also a good showing of Thoroughbreds and Hackneys. Perhaps the latter class was of the most consequence to the ringside spectator. J. M. Bruce's chestnut, Leatherhall, won the ribbon in the aged stallion class. Devondale, shown by an Edmonton syndicate, stood second, while Woodland's Sensation, owned by J. J. Richards, of Red Deer, was a good third. Walter A. Jackson, of Macleod, had the only entry in the three-year-old class in Black Magee, a colt with excellent action.

Brood mare with foal by side or in foal—1, E. C.

Evans, Edmonton; 2, J. J. Richards, Red Deer Foal, 1910—1, J. J. Richards; 2, A. C. A. Bell, Edmonton. In the dry mare class, three years and over, A. C. A. Bell won first and second with Rosemont and Warhoop.

Three-year-old filly or gelding—1, E. C. Evans, with Her Majesty, a flashy chestnut. W. A. Jackson won second placing. Two-year-old filly or gelding—1, E. C. Evans, Edmonton. Stallion and three of his get—1, Robt. Smith, of Long Lake Farm; 2, J. J. Richards, Red Deer.

CATTLE

No feature of the exhibition was of greater consequence than the cattle exhibit. Not only the showing of dairy cattle, which, in Alberta, is an assured success, but beef cattle were represented by the most important beef breeds. The men who made the awards were: J. Hunter, of Edmonton, who judged the beef breeds, and A. W. MacIntyre, of Newington, Ontario, who placed the ribbons in the dairy stock.

SHORTHORNS

The Shorthorn cattle were well represented. Many fine animals competed for honors. The rulings of the judge did not find favor with everyone, yet that would be almost an impossibility. However, a man who takes upon himself the responsibility of judging at a fair such as this, if he does not make the awards in keeping with the breed standards, must look for a certain amount of censure. It is one thing to make an award from a butcher's standpoint, and a quite different thing to take into consideration the breed characteristics. In the Shorthorn classes should we venture to offer any criticism, we should say that the low-set, blocky type was sometimes lost sight of. The exhibitors of Shorthorns were: C. F. Lyall, Strome, Alta.; R. W. Caswell, Saskatoon; Jos. Caswell, Saskatoon; J. M. Bruce, Lashburn, Sask.; J. H. Melick, Edmonton; Jos. Rye & Sons, Edmonton, and Rice Sheppard, Strathcona.

In the aged bull class there were four entries. Iron Duke, owned by J. M. Bruce, came first. J. Caswell was second with Spicy's Wonder, a blocky, low-set bull, but he did not possess the smoothness of the winner. Burgomaster, owned by J. H. Melick, was third. He was a weighty bull, but not as low set as some might prefer. Remus, owned by C. F. Lyall, a bull of good substance, stood fourth. This bull was deserving of a higher placing, as he had considerable quality combined with his size.

In the two-year-old class, R. W. Caswell stood alone with Jilts Stamford, a well-fleshed bull. For senior yearling, J. M. Bruce won with Jilt's Lavender. Jos. Rye was second with Spicy's Champion, and Rice Sheppard, third with Sunny Alberta. Bull, under eighteen months, brought out four entries. Lyall was first with Scotch Goods, an animal of beefy type. R. W. Caswell was second with Star 50th. Jos. Caswell had third and fourth placing in Spicy's Gold Mine and Spicy's Heir. Two entries came out in the senior bull calf class. Golden Star, a beautiful thick, evenly-fleshed calf, was a good winner. Rice Sheppard had the second placed animal. For bull calf, under six months, Jos. Rye had the winner in a blocky calf. J. H. Melick had the second and third placed animals.

Females.—Some six entries entered the ring in the aged cow class. Miss Trout, owned by Lyall, was placed first. R. W. Caswell came second with Olive Wenlock, a cow possessing good substance. Beauty 2nd, owned by J. H. Melick, was third, while Trout Creek Missie, owned by J. M. Bruce, came fourth. The three-year-old class contained two entries. Lyall again came first with Village Blossom, a cow with much quality and much substance. J. Caswell was second with Saskatoon 43rd. Bertie's Heroine topped the list in the two-year-old class. J. Caswell was her owner. R. W. Caswell was second with Carrie; J. H. Melick, third. In the senior yearling class R. W. Caswell won first and second on Lady Empress and Sylvan Star 1st. Melick and Rye owned the third and fourth animals.

R. W. Caswell again had the first and second animals in the junior yearling class. Village Vanity, a thick, smooth heifer, was at the top with Vanity 13th, a smooth red, her second. J. H. Melick came third with Snowball, and Lyall, fourth, with Rose-dale 2nd.

In the senior heifer class, Lyall had first and second in the Misses Nettie 11th and 12th. R. W. Caswell was third, and J. H. Melick, fourth. In the junior heifer class, R. W. Caswell was first; J. H. Melick, second, and R. W. Caswell, third. Herd bull and three females, owned by exhibitor, was won by C. F. Lyall. Second went to R. W. Caswell, and third to J. H. Melick. Champion bull went to J. M. Bruce on Iron Duke, the winner in the aged class. C. F. Lyall, second, with Scotch Goods, while R. W. Caswell was third with Jilt Stamford. Bull and two of his get, Jos. Caswell on Spicy's Wonder; C. F. Lyall, second, with Remus. Cow and three of her progeny, Jos. Rye & Sons. Champion female, Village Blossom, owned by C. F. Lyall.

(Continued on page 1284)

OUR WEEKLY MARKET REVIEW

The week was a rather quiet one in grain, live stock and farm products. Prices show little change. Grain was on the down grade most of the week, and the outlook does not indicate much change, either up or down. It is probable that wheat will remain near its present level for some time. Live-stock values show some improvement in Western Markets. Eastern Canada markets, also, are up. American and old country values about last week's basis.

GRAIN

Wheat markets opened weak and did not improve to any extent as the week advanced. Winnipeg opened at practically the preceding Saturday's close. Frost predictions sent values up a cent on Tuesday, but the following day a portion of the advance was lost. Low temperatures at a number of points caused an upward movement on Thursday, with weaker markets for the remainder of the week.

WORLD'S SHIPMENTS

Shipment figures for the previous week showed nearly a two-million bushel increase, made chiefly by larger exports from Russia and the Danube country and from India. Wheat shipments totalled 12,880,000, as against 11,120,000 the previous week and 10,112,000 last year. Figures are as follows:

	Last week	Previous week	Last year
American	1,336,000	1,536,000	3,448,000
Russian	4,752,000	3,376,000	3,312,000
Danubian	3,221,000	2,952,000	1,664,000
Indian	1,656,000	1,208,000	1,016,000
Argentine	1,160,000	1,528,000	904,000
Australian	560,000	632,000	304,000
Chili, N. Africa	55,000	88,000	64,000

Total... 12,940,000 11,120,000 10,112,000
Wheat on passage 35,320,000, last week 35,440,000, last year 30,376,000 bushels.

VISIBLE SUPPLY

There was a further decrease in the quantity of wheat in store in Canada. Total wheat in store, Port William and Port Arthur, was 2,033,514.40, as against 2,528,200 last week, and 242,279.10 last year, and 609,363.30 last week in last year. Total shipments for the week were 756,414, last year 384,367.

	Last week	Previous week	Last year
Wheat	2,710,608	3,721,327	823,438
Oats	6,648,182	6,767,707	1,198,000
Barley	627,782	828,855	136,831

Estimates of the Western wheat crop continue to vary considerably. Elsewhere in this issue we publish the estimate of the Saskatchewan government. The governments of the other two provinces have not yet issued any statement on the crops of 1910. The Free Press crop reporters estimate the outturn for the three provinces as follows:

	Wheat	Oats	Barley
Manitoba	28,660,606	28,361,890	657,520
Saskatchewan	65,250,000	63,090,000	266,000
Alberta, Spring	5,370,013		
Alberta, Winter	1,953,784	16,849,200	2,207,250
Total	101,236,413	108,301,090	7,130,770

The flax yield is estimated, Manitoba, 4,100,200; Saskatchewan, 3,537,000; Manitoba, 91,950. Other estimates vary above and below this. It is generally believed, that the three Western provinces have heaped a wheat crop of between 100,000,000 and 120,000,000 bushels, which, considering the increased acreage, is considerably below the figures of 1909.

UNITED STATES GRAIN

Wheat is being delivered in heavy quantities in American primary markets. Daily deliveries on the average exceed those of a year ago, indicating that the American farmer for some reason is parting with his wheat more readily than he did a year ago. Buyers are taking the grain steadily.

FOREIGN CONDITIONS

European reports are favorable. The situation in Russia, shows no appreciable change. Weather, generally, is good. Russian new wheat is improving in quantity arriving at ports. Markets are somewhat easier. The German official reports up to August 15 show condition of winter wheat 78, as against 85, July 15, and 74 August 15, 1909; spring wheat, 74 76 and 80, respectively. Conditions in France are more favorable. Harvesting is proceeding satisfactorily, but the yield shows no improvement. In Southeastern Europe threshing is about finished, and arrivals at ports and primary markets show heavy increases. The estimate of the wheat crop of Italy is 132,800,000 bushels, as against 148,000,000 bushels in 1909. Nothing has come through regarding crops in Argentina or Australia. The visible wheat supply in Europe last week was 69,158,000 bushels, an increase of 2,538,000 bushels over the preceding week. Last year the visible was 46,500,000 bushels.

	CLOSING OPTIONS						49	35	315	8.25
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.				
Wheat—										
October	102½	103½	103	103½	103½	103½	3	Cattle	1117	2.90
December	100½	101½	100½	101½	101½	102	7	Steers and Cattle	1207	5.00
May	104	106½	106	106½	106	106½	19	"	1227	4.35
Oats—									1059	4.15
October	38½	39½	39½	39½	38½	38½	57	"	989	4.00
December	37½	38½	38½	38	37½	38½	27	"	867	3.90
May	40½	42½	41½	41½	41½	41½	21	"	990	3.85
Flax—									861	3.75
October	212	214	215	214	218	218	9	"	875	3.65
							16	"	1055	3.30
							1	"	1125	3.00
							26	Steers	1261	5.25
No. 1 Nor.	104½	106	106½	104½	105	105½	2	"	1378	5.00
No. 2 Nor.	101½	103½	103½	101½	103	103½	20	Cows	1140	4.15
No. 3 Nor.	99½	101	101	99½	100	100	1	"	1030	4.03
Oats—									1037	4.00
No. 2 white	37	38	37½	37½	37½	37½	25	"	1075	3.70
Flax—									1051	3.00
No. 1 N.W.	220	220	221	220			3	"	1070	2.75
							3	"	1175	5.00
							1	Heifers	800	3.75
							5	Bulls	1255	3.50
No. 1 Nor.	121½	121½	121½	121½	121½	121½	1	"	1050	3.15
No. 2 Nor.	115½	114	115½	115½	115½	115½	2	"	1097	3.00
No. 3 Nor.	107	108	109½	108	108	108	3	"	915	2.75
October	108½	109½	109½	109½	109½	109½	1	Stag	140	5.00
December	109	109½	110	110	110	110	3	Calves	205	4.75
May	109	109½	110	110	110	110	15	"	264	4.60
							85	"	234	4.50
							28	"	130	4.25
							1	"	200	4.15
							20	"	268	4.00
							1	"	500	3.15
							1	"	80	3.13
							2	"	100	1.00
							5	Sheep	170	5.98
							18	"	104	5.25
							23	Ewes	144	4.40
							35	"	161	4.35
							8	"	171	4.30
							7	"	176	4.25
							40	"	184	4.00
							2	Bucks	155	3.35
							152	Lambs	71	7.00
							28	"	82	6.75

AMERICAN OPTIONS

Chicago—
September 99½ 99½ 99½ 99½ 98½ 100
December 103½ 104½ 103 103½ 103½ 104½
May 107½ 108½ 108½ 108½ 108½ 109½
Minneapolis—
September 108½ 110½ 109 110½ 109½ 111½
December 110½ 111½ 111½ 112½ 112½ 113½
May 114 115½ 115 116½ 116½ 117½
New York—
September 106 106½ 106½ 107 106½ 107½
December 109 110½ 109½ 111 110½ 110½
Duluth—
September 111½ 113 112½ 113½ 112½ 114½
December 111½ 112½ 112½ 113½ 113½ 115½
May 114½ 116½ 115½ 116½ 116½ 118

DULUTH FLAX

September 245 247 245½ 249 247½ 249
October 233 235 235 239 237½ 238½

LIVESTOCK

Receipts at the leading Canadian markets last week were lighter than the week previous and prices somewhat stronger. At Winnipeg, good stock of all kinds were in active demand and a better tone to selling. Hogs are up a quarter. At Toronto, good stock is selling at advanced prices. A good deal of Western stock is being sent East by Winnipeg dealers and is finding ready sale. British markets are about on par with last week. American markets show little change.

Rice & Whaley, livestock commission dealers, report as follows:

Cattle receipts for the week to date, 2,712 head. The supply of sale cattle was comparatively small, 1,752 head. The balance were exports and mixed butchers' and stockers' billed through to eastern points. The demand for anything desirable was keen and all the offerings changed hands on short notice after arrival. The market was on a 10 to 15 cent higher basis with the possible exception of exporters. Best cattle on sale this week sold around \$5.00 to \$5.25, delivered, fed and watered. Medium to good mixed butcher stock sold from \$3.75 to \$4.35. While our market has scored a slight advance over last week's values, indications are for moderate receipts and present prices will likely hold steady.

Quotations are as follows, fed and watered:
Best export steers \$5.25 to \$5.50
Fair to good export steers 4.75 to 5.15
Best export heifers 4.25 to 5.15
Best butcher steers 4.75 to 5.25
Fair to good butcher steers and heifers 3.90 to 4.35
Best fat cows 3.85 to 4.40
Fair to good cows 3.35 to 3.75
Common cows 2.00 to 2.75
Best bulls 3.25 to 3.75
Common bulls 2.50 to 3.00
Good to best feeding steers, 1,000 lbs. up 4.00 to 4.50
Good to best feeding steers, 900 to 1,000 lbs. 3.75 to 4.00
Stockers, 700 to 800 lbs. 3.25 to 3.75
Light stockers 2.50 to 3.00

The hog supply was extremely light, 400 head, and prices were from 25 to 50 cents higher than a week ago. The bulk of the offering sold at \$8.50, with an extreme top of \$9.00. The prospects look bright for the near future.

Sheep and lamb receipts, 342. Market active, with the bulk of the sheep selling around \$5.50, and lambs from \$6.00 to \$7.00.

Calves sold from \$4.50 to \$5.00, for the best grades, and the common kind from 4 cents down.

No.	Hogs	Ave. Weight	Price
251	Medium Hogs	266	\$8.50

TORONTO

Export steers, \$5.50 to \$6.85; export heifers, \$5.75 to \$6.25; export bulls, \$4.50 to \$5.25; butcher cattle, \$4.75 to \$6.50; cows, \$3.50 to \$5.50; bulls, \$2.00 to \$4.50; calves, \$3.50 to \$8.00; feeders, \$4.70 to \$5.50; stockers, \$3.00 to \$4.50; ewes, \$4.00 to \$4.75; lambs, \$6.50 to \$7.00; hogs, fed and watered, \$8.75; off cars, \$9.00.

BRITISH

London cables quote ranchers at 11½c. to 12½c.; Canadian steers, 15c. to 15½c. At Liverpool, ranchers sold at 11½c. to 12c.; Canadian steers, 13½c. to 14c.; United States steers, 13½c. to 14½c. Canadian bacon is quoted at 16½c. to 16¾c.

CHICAGO

Steers, \$4.75 to \$8.50; Western range cattle, \$4.75 to \$7.15; cows, \$2.50 to \$5.75; heifers, \$4.00 to \$6.75; bulls, \$4.50 to \$5.50; calves, \$4.00 to \$9.00; feeders, \$4.75 to \$5.70; stockers, \$3.00 to \$4.75; hogs, \$8.50 to \$8.90.

PRODUCE MARKETS

Following were the quotations last week for farm products in Winnipeg:

Creams, sour, per lb. butterfat	22 to 23c.
" sweet, "	30 to 31c.
Butter, creamery, fresh, in boxes	24½ to 25c.
" " " bricks	26c.
" No. 1 dairy	19c.
" No. 2 dairy	16 to 17c.
Cheese, Eastern	12½ to 13½c.
" Manitoba make	10 to 10½c.
Eggs, fresh, subject to candling	16c.
Live poultry, turkeys, per lb.	10 to 12c.
" chickens, per lb.	10 to 12c.
" boiling fowl, per lb.	8 to 10c.
" ducks, per lb.	10 to 12c.
" geese, per lb.	10 to 11c.
Meats, cured ham, per lb.	20c.
" breakfast bacon, per lb.	20½c.
" dry, salted sides, per lb.	16c.
" beef, hind quarters, per lb.	10c.
" beef, front quarter, per lb.	6½c.
" mutton, per lb.	13c.
" pork, per lb.	13½c.
" veal, per lb.	9c.
Hides, country cured, per lb.	7½ to 8c.
Sheep skins	55 to 75c.
Unwashed wool	9 to 10c.
Feed, bran, per ton	\$19.00
" shorts, per ton	21.00
" chopped barley, per ton	23.00
" chopped oats, per ton	26.00
Hay, prairie, per ton	\$10.00 to 13.00
" timothy, per ton	15.00 to 17.00
Potatoes, per bushel	75c.

HOME JOURNAL

People And Things

The World Over

The English town of Newcastle-under-Lyme has found and received its long lost charter. It was granted by Edward III. in 1328. Between 1342 and 1372, so British Museum experts say, it was borrowed by the town of Preston and the authorities forgot to restore it. The corporation of Preston is now going to return the charter and apologize for the thoughtlessness of its predecessors in keeping the precious document about 600 years. The Prestonites had actually come to think that it was their own!

"The Piper," by Josephine Preston Peabody (Mrs. Lionel Marks), of Cambridge, Massachusetts the play that won the £300 prize offered by the governors of the Shakespeare Memorial Association, Stratford-on-Avon, was produced recently at the Memorial Theatre, Stratford-on-Avon, and had an enthusiastic reception. The play deals with the old legend of the Pied Piper of Hamelin. Mr. Benson played the title role and Miss Marion Terry the part of Veronika. At the close the authoress was presented with the £300 cheque enclosed in a silver casket.

A notable event has occurred in India. The chief of Sangli, a considerable town in southern India, aged twenty-one, has married Miss Joshi, aged eighteen, daughter of a lawyer. The almost unparalleled thing in this event in Hindu society is that he is so old, a man grown, and she a woman grown. To wait so long to be wedded is thought a disgrace.

But they have advanced ideas. Miss Joshi's father and mother have been seen to walk the streets together, and Miss Joshi has studied a year in Elphinstone College. Thus reform progresses and some have intelligence enough to know that a wife should be her husband's companion and adviser.

Can an idiot vote? The French Court of Appeal has just decided this question in the affirmative, ruling, contrary to the judgment of a lower court, that a person of weak intellect, or even a certified idiot, if not otherwise legally disqualified, is entitled to his electoral rights.

It is nearly what is called "The record" for curiosities in religion that the Esperanto Congress to meet in Washington next week, has provided for two religious services on Sunday, to be conducted in the artificial language which amuses people who imagine they can displace the languages which have grown under Darwinian natural selection. One of these services is in St. Paul's Episcopal Church and the other in St. Patrick's Cathedral.

New Copyright Law

The question of copyright has been a vexed one for years, the laws at present in force being of little advantage to the author, artist or musician. In 1908, at Berlin, at a representative gathering of those interested in all the civilized nations it was decided to aim at the internationalization of a uniform copyright law. As a first step towards this desirable aim a bill has been introduced into the British parliament to establish a uniform copyright law throughout the British Empire. At present the author of works of literature or art gets a claim at the most on the sale of the product of his brains for seven years only after his death, or for forty-two years from the date of publication. The new law would extend the copyright for life and for fifty years after death, so that the author can leave to his children and grandchildren the benefit of his life's toil as the man can who has invented a machine. The present piracy of books and plays between countries will be abolished and a much fairer system will be compulsory.

and training of the baby. "He will be too harsh and severe" is the plea. Then, later, when the growing youngsters prove too much for her discipline—they have had the attention of only one where there should have been two—the father is called in as a last resort to "make them behave." His home coming at night is rarely referred to except as a threatened punisher of bad conduct, and the children grow to regard as an ogre the man who would have been their true friend and pal if he had only a chance. One of the saddest sights is to see a family plan their good times at home on the nights "father will be away."

Later on father's place as a provider becomes more apparent, and to high school and college youth he is the "payer of the bills." He is not supposed to resent extravagance or to look for gratitude. The letters home are written for mother's special benefit, unless money is wanted. A college girl said lately that she didn't write to her father once a year unless she wanted something. When boys and girls get off in homes of their own he is allowed to read the letters they send to mother and to admire the Christmas presents they send her.

It is pitiful to see the old father, left wifeless, passing his last years in the house of son or daughter. He has food and clothes and a comfortable room, but because he and his children were not companions in their youth, they cannot be now when he has turned back to the childhood of old age. He is either treated like a guest, and is embarrassed with attentions, or else is neglected and miserable. That is the father's side.

There is loss in it for the children, too, that can never be made up to them.

"The boy needs a man's hand" is often heard when the widowed mother is trying to bring up her brood alone. Often his father's hand laid on heavily is about all he gets while his father lives. He needs more than that. He needs the sympathy with a boy's peculiar joys and sorrows that the best of mothers cannot give a understandingly as the father can. He needs the advice experience can give to fit him for manhood. The man who isn't his boy's chum and confidant isn't a good father—not the best father, anyway.

As for girls, a popular belief is that mother's training is sufficient to carry them through any phase of life they may be called upon to face. It may be, but the girl who isn't real friends with her father is missing a delight she can never get in any other friendship. She will be a better friend to the boys she knows, a better wife to her husband, even a better daughter to her mother, if she and her father are on terms of loving understanding. She will gain a broader mind, a deeper sense of humor, and a finer outlook on life, and be invisibly protected from a thousand dangers.

The Little Wind

The little wind a gossip is,
Her skirts are full of mysteries,
She lingered by my casement and she
whispered to the rose.
And all the silly butterflies
Are trying to look old and wise,
And blink their goggle eyes at me like
self-admiring beaux!

The little wind a wanton is,
She has no sense of decencies,
She never keeps a secret, but tells every-
thing she knows.
She pauses to caress you,
Her little fingers press you,
And when she's learned your secret
she tells it as she goes.

The little wind a traitor is,
O, yield not to her witcheries
But keep your heart well hidden when
you feel her coming near.
She is like velvet on your face,
Her kisses have a piercing grace,
And then she runs and tells the birds
what you have let her hear.

The little wind a gossip is,
Her skirts are full of mysteries,
She stopped and kissed me on her way
and learned what I hold dear.
And all the birds are singing it,
And all the bees are bringing it,
And in the heart of every flower it's
blooming, plain and clear!

—N. Y. Independent.

Neglected Fathers

I am constrained to believe that fathers, as a class, do not get a fair show. A few days ago I came across a book whose contents were wholly compiled from what poets and great men generally have said about mothers. It was not a small book by any means and the mothers deserved every syllable of it. But ransack your memory and your scrap book and Bartlett's Quotations and you won't find enough sentiments about father to fill a two-page tract. Why is it?

There are men, but their number is remarkably small, who are not capable of handling the duties of fatherhood, and they fail because they cannot adapt themselves to the needs and joys of childhood. They aren't fitted for the part, no matter how anxious they are to play it well. But in very many homes, from the time the children are born till they leave for homes of their own, the father's relation is restricted perceptibly. The mother, perhaps naturally enough, feels that as she has suffered most the child belongs most to her, and she almost resents any share the father might wish to take in the care



Hope's Quiet Hour

CHOSEN FOR SPECIAL WORK

Who knoweth whether thou art come to the kingdom for such a time as this?—*Esther iv.: 14.*

"His appointment must be blessing, Though it may come in disguise, For the end from the beginning Open to His vision lies."

The objection sometimes made to the Book of Esther, that "the Name of God is not once mentioned in it," is a very shallow one. It is like saying that a man does not believe in God, and proving that statement by the fact that he lives his faith instead of talking about it. The Divine Sovereignty is plainly asserted many times in this beautiful Book of Esther, and it is stated very plainly in the text. Consider the circumstances. The Jews were captives in the land, and yet one of them—a beautiful young girl—had been made queen by Ahasuerus. Then her kinsman, Mordecai, by daringly refusing to cringe before the wicked favorite, Haman, had precipitated the doom which threatened his people. Haman took advantage of his position to satisfy his private vengeance, and letters were sent into all the hundred and twenty-seven Provinces "to destroy, to kill, and to cause to perish, all Jews, both young and old, little children and women, in one day"—the day having been chosen by lot. By God's good providence, the lot was cast for a day twelve months distant. But who could save the nation? Mordecai turns to Esther and says that the opportunity and privilege is hers. Salvation will come; if she is afraid to speak, then deliverance will arise from another place, but in that case she and her father's house shall be destroyed. And "who knoweth," he tells her, "whether thou art come to the kingdom for such a time as this?" Is not this a declaration of implicit trust in God? God will save His people, and has already shown both foreknowledge and power in placing Esther in a position where she—a young and timid girl, with no weapons but beauty and innocent charm—can win the king and punish Haman. Then see how bravely she obeys the call; knowing that God can help her, she calls on her people to fast for three days and nights, saying that she and her maidens will fast likewise. What good could fasting do if there were no God to see it? But, though this brave young girl leans utterly on her God, she does not fail to use all the weapons He has already given her. She puts on her royal apparel, makes her beauty shine out to the best advantage, and then dares death by going unsummoned before the king, saying simply, "If I perish, I perish." And her loveliness of face and character were a stronger defence to her people than an army of warriors. She won the king to her side instantly and easily.

Do you think Esther is the only person God has placed in a special position for special work? If we only realized that He has placed each of us with as careful attention to our capacity for our position as He showed in the matter of Esther, perhaps we might awake to a sense of the importance of our work.

It is foolish to shelter ourselves behind our apparent insignificance, for we know that in God's sight a kingly life is one that is nobly lived, though it may be passed in a carpenter's shop, or lived out on a lonely farm. Great results may come from very small beginnings. I have before me a wonderful book, called "The Romance of Medicine." Let us read a few sentences.

"Two cells, microscopic particles of

protoplasm, so frail that a little sunshine or a trace of carbolic will slay them, meet, and, lo, in the meeting a miracle is wrought: they blend into one and the one cell multiplies in a mysterious way, and becomes a mar with an immortal soul. Two other cells, likewise microscopic particles of protoplasm, made of exactly the same material, meet and blend, and, lo, a lily. The one condition of development, the one condition of immortality, a meeting! How the meeting comes to mean this no one knows."

If God can take a tiny, invisible speck of material, and gradually change it into a man or a lily, or anything else He may choose, it is foolish to say that we are too insignificant to be considered by Him. That tiny "cell" might have thought itself of little consequence; but it grew and multiplied until the wonderful heart and lungs, the eyes and ears, and all the other mysterious parts of a living body appeared. A little red point developed until it became a mighty force-pump, sending a red river of life through the arteries at the rate of a foot a second, all through life, carrying each year "not less than three thousand pounds' weight of nutritive material to the various tissues, and three thousand pounds' weight of wasted material from the tissues."

Where does the power come from? How is it that each part of the body receives exactly what it needs, without anyone but God directing the cargo which is flying along this swift river?

God said to the prophet Zechariah: "Who hath despised the day of small things?" and He is constantly saying that to us in these days when the power of invisible microbes is being revealed more and more. Here is another quotation from "The Romance of Medicine":

"The cholera bacillus, for instance, can duplicate every twenty minutes, and might thus in one day become 5,000,000,000,000,000,000, with a weight, according to the calculations of Cohn, of about 7,366 tons. In a few days, at this rate, there would be a mass of bacteria as big as the moon." The multiplication of the loaves and fishes is nothing to this.

When we remember that we are surrounded by millions of invisible foes all the time, and that the voracity of each of these bacteria is so great that it can digest "about seventy-two times its own bulk in twenty-four hours," we feel that the danger of the Jews from the hatred of Haman was very slight in comparison.

But God saves through very weak instruments, sometimes. There are white blood-cells within our bodies—called by the learned "phagocytes"—which are always fighting against our invisible foes. They go swarming by millions along the river of the blood, and seem to be free to go where they are needed, even slipping like ghosts through the walls of the blood-vessels and wandering about in the tissues. So we can walk serenely in the midst of danger, because God has commissioned a mighty army of very tiny and weak soldiers to fight our battles for us. It is their business, and they are doing it well. But it is our business to provide them with plenty of fresh air and other wholesome things. Esther was willing to do her part, but she had to be supported by the prayer and fasting of her people.

If God can give to each of these tiny soldiers within our bodies its special work, is it likely that He has forgotten one of His own dear children? Be very sure that He has appointed you your

post, and is watching with intense interest to see how you are holding it. If you are growing weary, and want to be relieved; just think how you would feel if His messenger came to-day and said, "Your task is taken out of your hands, your testing-time is over." Would you not wish that you had put more enthusiasm into it, more consecration, more earnestness of purpose? Would you not plead for a little more time, so that you could do the special work as the watching Master wished? We don't know how God is working our lives into His eternal plans—do the fighting phagocytes know that they are saving the life of a much-needed mother or father when they destroy a deadly microbe? They do their duty in a dark and narrow sphere, and God does great things through them. So He can do great things through us, if we simply obey His everyday orders, and are patient and trustful. If you are so impatient to get a perfect rose that you pull open the bud, you simply ruin both bud and rose, when you might have enjoyed both. It is wiser to rejoice in the happiness of the present, trusting God to unfold new and greater joys in the future. Always be on the lookout for gladness—our Father loves to give good things to His trustful and obedient children.

"God's plans like lilies pure and white unfold;
We must not tear the close-shut leaves apart,
Time will reveal the calyxes of gold.
And if, through patient toil, we reach the land
Where the tired feet, with sandals loosed, may rest,
Where we shall clearly see and understand,
I think that we will say, 'God knew the best.'"

DORA FARNCOMB.

TEACHER, PARENT AND PUPIL

During the last year we have had a number of letters from ratepayers pointing out defects in our school systems in friendly fashion, and in some cases offering solutions of the problems. But, except in defending themselves against attack, there has been little or nothing from teachers themselves. And yet they are the very people to shed most light on the difficulties. The experienced teachers could save the beginner from many a heartache and worry if they could and would pass along what they have found out in the art of school teaching.

On this page of the FARMER'S ADVOCATE there is a column of space—sometimes more than that—to spare, and it seems as if it could be put to good use this fall as a meeting-place for everybody interested in schools, especially for those who can help, even if it is very little.

The letter on school discipline given below makes a good beginning, and there are a hundred other topics that somebody knows something about. Let us hear from teachers, parents and pupils, and remember that asking a good

question is as helpful, often, as answering one.

Here are a few phases of school life that puzzle the new teacher:

How to sustain interest when there are only one or two pupils in a class.

How to deal with late pupils.

How to treat dishonesty, bullying, quarrelling.

When is whipping necessary?

Is a teacher under obligation to visit and cultivate the acquaintance of the whole section?

New teacher, write and tell us what worries you most in that school.

IN PLACE OF DISCIPLINE

Are teachers like poets—born to the profession? I'm sure I do not know, but it was brought home to me forcibly after wrestling with an ungraded school of sixty foreign-born, that I wasn't a born disciplinarian. That commanding mien and awe-inspiring presence was totally lacking in me. It was a misfortune rather than a fault, but the results were equally disastrous. When Kismet transferred me to a class of boys ranging in numbers from 35 to 55, and in years from precocious nine to hopeless sixteen, it was time, since there was no disciplinary hardness in my composition, to look for a substitute—something "just as good."

Within a week or two I made several discoveries about boys that helped:

Nagging, scolding and whipping as stimulants to good school work have just about as much value as other stimulants—they are short-lived, quickly lose their power and inevitably produce a reaction.

Boys will not work well unless they must.

Boys who are not at work are bound to be in mischief.

These mischievous antics are not malice but just pure boy.

The remedy then? Keep them busy; busy, busy, and there will be no need for discipline as a feature apart from giving instruction. Some boys can be kept in order by judicious praise, some by scolding, sarcasm or fear of punishment; but what will prove effective with one pupil fails entirely with another, and the teacher has to exhaust herself and waste her time by bringing all these methods into play every day. The busy method is the only rule that will apply to all.

The reasonableness of the idea once impressed on me, no time was wasted in making a working plan of it. I found that it was going to mean keeping the teacher busy as well as the boys, and any teacher looking for an easy time rather than for results might as well stop reading right here.

As a beginning I built a time-table that was not too crowded with subjects for each day, alternating as far as possible written and oral work on it. The next precaution was to be sure that no more written work was assigned for any lesson than could be well done by the average pupil in the period given up to it. To judge just the right amount required some careful observation and

(Continued on page 12-1)



A TYPICAL EASTERN CANADIAN STREET

The Ingle Nook

A WORD IN KINDNESS

Dear young Girls,—Watch yourselves. See to it that no passions lurk in your bosom which you would be unwilling to have legible in your face. Give place to nothing in your heart which may betray you into what you will remember with regret and shame in future years.

When I was a young girl there was a foster-child in our home. I did not wish to see her dressed and educated to stand beside me as my equal or superior. The fear of God was enough before my eyes so that I would not use my influence to have her sent away, but I would go away myself and leave the responsibility to others. So I left the sweet ministries which should have been mine in my home. My father was taken from me in my absence and in various ways far-reaching for sorrow was my choice at this turning-point in my life.

Oh, the humiliation that was mine a few years later, in the memory! I made restitution of what could be restored, but the time was past for noble self-abnegation in helping to mould into utmost beauty a young life to stand beside my own.

Dear young girl, does the serpent of envy or jealousy stir within your breast? Crush it, at whatever cost!

Parents, try to know what is passing in the minds of your children, and help them to be overcomers in their conflicts. "Whosoever will save his life shall lose it, and whosoever will lose his life, for My sake and the Gospels, the same shall find it."

A REPENTANT ONE.

the seeds in from tomatoes. Cook one hour slowly.

Cold Ripe Tomato Catsup.—One peck ripe tomatoes chopped fine, salt a little and drain six hours. Add one-half cup salt, one cup sugar, one-half cup white whole mustard seed, one tablespoonful celery seed or chop two bunches of celery fine, three small onions chopped fine, one tablespoonful black pepper, one teaspoonful cinnamon, three pints of cider vinegar, and one-quarter teaspoonful of cayenne pepper. Put in jug but need not seal up with good cork.

(Glad to have you as a member. The recipes so kindly sent will be sure to be of use to many. I hope someone can, in turn, supply you with the one you want. Come again.—D. D.)

LEARN ORDER

Dear Editor,—Order is heaven's first law. I think we are indebted to the poet, Milton, for this truism. If I am mistaken, please put it down to lack of memory. It is difficult to define the word order in a manner to fit all circumstances and to impart a clear idea to people in every situation.

We will speak of order just now as the opposite to confusion. Confusion in any line of life leads to unsuccessful results. To leave the greater things of this world out of the question at present, we will endeavor to deal with what are considered the small things.

To preserve order, the first item to be considered is the putting of them there. This causes inconvenience and much thought, and sometimes much work.

Western land, on the work and standing of women in the community. The bachelor homesteader values his wife when he gets her, because he has experienced the want of a woman's company and work. He feels that he can afford to buy the necessary machinery for her help, as well as those for his farm work.

This subject of order brings to notice the difference in customs between town and city people, and farmers.

Mechanics, men and women in offices, merchants and all who make their living in cities, are obliged to observe time and punctuality. Their boys and girls are accustomed to the regular meal times, and when they go out to work for themselves it is no new thing.

In comparison with farmers' families they are far above the country boy and girl in this respect. A great many farmers' homes have not stated meal times, the children straggle along to their breakfast; the dinner perhaps waits the convenience of the men for turning out their teams; the tea is sometimes at five o'clock, often any time between that and eight.

Just take notice any day you may be in the nearest town when farmers are obliged to take their noon meal at hotel or restaurant. No wonder the waiters on tables are troubled and sometimes cross! The farmers come along, stop on the street and talk about nothing in particular, and when they have nothing else to do, walk in for their dinner. The same obtains at any public meeting for farmers. Notably they do not expect the meeting, sale or whatever it is, to open till from half an hour to an hour later than advertised. No wife or housekeeper can be really orderly, no farmer can be so, unless both are united, for themselves and their helpers in the means to obtain order.

Sask. RESIDENT.

BEST WISHES FOR A GOOD CROP

Dear Dame Durden,—I have not visited the Nook for quite a while; I think it was last year near Thanksgiving Day. I enjoy the letters so much, but I have no help to send, only the pattern of the sunbonnet for Herberta. My husband and I are enjoying prairie life finely. I rather like it, although we are away from the railroad. My fowl have done fine this year. My garden is good, so far, and the only flower plants I have started are quite a few pansies. We are just getting our front flower beds dug up and placed for next year. I think it takes a lot of work and thinking to get a new home laid out well and in the most satisfactory way. The subject of dress is very interesting to me. I like to be neat and clean. I wear as a rule for working, dark navy blue, finished or piped with white or a little insertion, white collar or a white V in front. This is made up for my summer dress and I have been wearing dark green in winter. I wear white and a very light blue of some print for my aprons. My husband simply hates dark aprons. He thinks they look as though one were washing pots and pans all the time.

Well, we have had a very dry summer out here and crops will only be half-crops this year. Can anyone tell why ducks that are hatched out in June do not do well? Is it right that June ducks will not live long? They seem to die along at two and three weeks.

I might say (it may be too late for this year but it may be all right for the year to follow) if any of the poultry get gopher poison that is put out, the white of an egg is a good remedy, if the fowl are noticed and you think they have poison. I had two lovely goslings get poison that was put out for gophers, but I did not know of a remedy till too late.

I guess I had better close, for if the heat keeps up and no rain we will not have any crop and I will not feel like writing; my heart will be so sad. With best wishes to the Ingle Nook, I leave space to someone else.

A FRIEND.

A PROMISE

My Dear Dame Durden,—It's a long time since I wrote you, and it's a shame I haven't thanked you ere this, for your promptness in answering my "queries."

Not long since I was in THE ADVOCATE office with my husband, but could not

pluck up courage enough to ask for you as everyone seemed so busy.

I am sending Herberta a simple sunbonnet pattern, and hope it will fill her requirements. I find the Ingle Nook suggestions so helpful, also the patterns for girls, as I have two girls twelve and fourteen, and I do my own sewing.

We have a good garden, and if you come to see me this fall I can treat you to corn grown from seed sent to me from my "Old Ontario Home." We need rain badly and hope it may come soon.

I am a retired school teacher, too, Dame Durden, having taught for two years before I was married. Have you ever been in Rodney, Ont.? I used to spend part of my vacation there each year. Some time later, if you should care to know, I'll tell you how we make the winter pass pleasantly in our little burg. Yours with best wishes.

DOUBLE-EM.

(I surely am disappointed that you failed to ask for me when in THE ADVOCATE office. It is partly the business of some of us and very much our pleasure to see those of our readers who are interested enough to come to the building. Please be more courageous next time. It is always pleasant for me to meet any of the friends whom I know only through their letters.)

Did you send that sunbonnet pattern for Herberta to me? If so it must have gone astray on the way. However, don't be too much distressed, for someone else sent a pattern and I forwarded it to her to keep her complexion from ruin.

I've just passed through Rodney on the train, but lived not very far from there when a youngster. Wish I could accept the invitation to eat corn from Old Ontario with you.

We very much care to know how you spend the winters pleasantly. It is a problem in small places, and anyone who can shed a ray of light upon it is a public benefactor, so stand by your promise, Double-Em.—D. D.)

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6707 Plain Fitted Corset Cover, 36 to 46 bust.



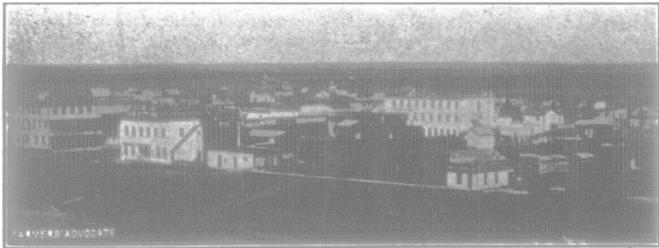
6704 Tucked Blouse, 32 to 40 bust.



6706 Empire House Gown, 34 to 42 bust.



6713 Steamer or Pullman Gown, Small 32 or 34, Medium 36 or 38, Large 40 or 42.



TOWN OF SCOTT, SASKATCHEWAN—A GOOD PRAIRIE VIEW IN THE BACKGROUND

WHO CAN HELP?

The Ingle Nookers and Chatterers,—Will you allow another to join your circle? I have been a silent reader for almost five years and now being in need of some assistance will come to you for help. My husband is not very strong, and he thinks it would help him if he could get some of the old homemade beer. Can any of the old ladies of the circle give me directions how to make it? I would be very thankful to them if they could. I want also to thank the chatterers for the nice recipes they have sent. I have enjoyed their letters very much.

As it is getting to seem like fall again, all we farmers' wives will begin to think of putting up vegetables. I have a green tomato catsup recipe and a cold ripe tomato catsup. You do not cook this last or you do not need to seal it up, only put in a stone jug and put a good cork in. I will send these to help someone, as I have received help from others. I wonder if there is anyone in the circle that came from the same county in Iowa that I came from. I am going to use the county for my pen-name. Thanking you for the recipe, for I know it will be answered, and wishing you, Dame Durden, good luck, and also all the chatterers.

POTTAWATTAMIE.

Green Tomato Catsup.—Peel and slice one gallon green tomatoes and simmer in granite kettle two hours with one pint of vinegar. Then add one cup of sugar mixed with four tablespoonfuls of salt, one teaspoonful black pepper, one-quarter of teaspoonful cayenne pepper, one tablespoonful of cinnamon, one tablespoonful of mustard, one-half tablespoonful ground cloves. If wished one can rub through sieve if you do not like

As we are writing for farmers and farmers' homes, we will try to keep this in mind.

Begin at the house. An untidy house does not always mean an unclean one. To bring about an orderly state of affairs in a house means to include order in household goods, a place for everything, and everything put in proper place, as well as insistence in keeping them in that place. If this is a first attempt, the housewife must consider her materials, where she would like to have them kept for the utmost convenience as to room, and to the getting them when required. She could try and save steps and time in all her arrangements. She must also consult the other principal members of the household, as to time for meals.

Unless there is a stated time for these, no work either in the house or on the farm, can be accomplished with regularity or profit. A woman can find time for rest, and do just as much work in any given time, by knowing just what time she can allow for doing the ordinary work about the house, what time it will take to do her mending and sewing, allowing for accidents of interruption and delays, as to go along at haphazard, not planning her routine.

We know there are many farmers' wives who think, and really with cause, that they have no resting time. This should not be. It will shorten lives and render them so miserable that no comfort can be in the family. Surely some way could be managed by the woman and the other members of the family so that the wife and mother need not be chained to a treadmill, for it is just that. The constant grind leaves no room for hope or enjoyment. There is great improvement here in our free



FARM BETTER THAN TOWN

Dear Cousin Dorothy,—This is my second letter to your interesting club. I did not see the first letter in print so I thought I would write again. We have eight oxen on the farm. I live six miles from town, for we moved to the farm just a little while ago. One of my friends came out to stay a few days. She came out last Thursday and is going home to-morrow.

Last night father put the harness on the horses and we drove them around the yard. I like on the farm better than town. We have four cows milking. One of them came in the other night. Her calf is a nice little thing and its name is John.

Man.

BLUE BELLS.

FOND OF BOTANY

Dear Cousin Dorothy,—It was with great pleasure that I saw my last letter in print, so I thought I would make a second visit to the club. I expect all the members are off on holidays and don't get time to write, so I will do my best to make this letter what so many of the members have said a letter should be, long and interesting.

I am very fond of reading and have read many books. My favorite studies are reading, drawing and all I take up I may say, for they are all very interesting. I like botany especially—it is so pleasant to study. I am very fond of flowers.

The club has increased wonderfully since I first began to read the letters. Dear Cousin Dorothy, will you please let me know in the paper Oriole's address, as I would like to correspond with the same? Well, if I don't stop, the trouble is I never will, so I must say farewell for this time. I remain a loving cousin.

MARGARET KATE DODDS.

(It is a rule of this club not to publish addresses on this page, because unscrupulous people often pick up children's names and addresses from papers and send them reading matter that is not good. But if you will write your letter to Oriole and put it in a stamped unaddressed envelope and send it to me I will forward it to her. Then she can answer you directly if she wants to correspond.—C. D.)

CREDIT GIVEN TO THE TEACHER

Dear Cousin Dorothy,—Having been an interested reader of the Western Wigwam for some time, I now take the opportunity of writing. I think Oriole writes such good letters.

What rainy weather we are having! Father has not harvested yet but he expects to do so this week. The crops were not very good this year, although we have fairly good wheat.

Three of my sisters and myself drive to school. We have five miles to drive. Well, holidays are here and will soon be over again. I was successful in my examinations and was promoted into the fifth book. My eldest sister and I both got honors. We have a splendid teacher.

How many of the Wigs are fond of reading? I am. I read so much that they often threaten to hide the books. Among the books that I have read are: The Lamplighter, Treasure Island, Cast Up by the Sea, The Wide, Wide World, etc. I like adventurous stories very much. I think I should like to read Anne of Green Gables, as I hear it is a good book.

Mother raised about ninety-five chickens this year, and ten turkeys, but only four of the turkeys are living. They are

purebred bronze. The gophers are very thick this year. I wonder how many of the Wigs have ever seen an antelope. I saw one this spring. It was about the size of a calf.

We are five miles from our nearest village and two miles from the railroad. We came from County Grey, Ontario, about four and a half years ago. I do not mind living in the West, although I prefer the East. I missed the trees more than anything when I first came here. We have had quite a number of prairie fires around here this spring. There was a large fire south of town. It burnt out ten townships, also a number of shacks. One man had six horses burned to death. There are a lot of settlers coming this spring, who are taking up homesteads. We have herd law now, and father is poundkeeper for this district.

We have eleven head of cattle, three pigs and one pony. The pony is a little buckskin. She is very quiet. I love to ride horseback, but our pony doesn't go very fast on account of having stiff knees. We girls play baseball at school. I think it is great fun. The boys have a baseball team.

Dear me! This letter is getting so long that if I don't close Cousin Dorothy will be chasing me out of the Wigwam.

Sask.

SONG-SPARROW (12).

A RABBIT STORY

Dear Cousin Dorothy,—Having been a constant reader of the club I decided to write again. I passed into the fourth reader this summer examinations. How many Wigs would rather live in the country than in the city? I would rather live in the country. I think you have more fun in the country. I have read a few books. My favorite books are Black Beauty and The Wide, Wide World.

I am going to tell you about a little wild jack rabbit my sisters and I had. A neighbor gave it to us when it was about two days old. We called him Jimmie. We kept him in a box for about two weeks. Then we let him run around. He got very tame, for he would come in the house and lie under the stove like a cat. One day Jimmie went up into the field of oats, but he came back again. When Jimmie was about six weeks old, the same neighbor that gave him to us came up with his two wolf-hounds, and they killed poor Jimmie. He promised he would give us another. In about a month, when we girls were driving to school, we met them and they gave us a bunny about two weeks old. We called him Bruce. We took him to town and left him at our auntie's till we came home. Bruce wasn't as tame as Jimmie. When we had Bruce about two weeks he ran away.

CHERRY (10).

LIKES TO BAKE

Dear Cousin Dorothy,—Having read with great interest the Western Wigwam letters for the past three years, I now take the pleasure of writing you a letter. I enjoy reading Canary's letters, also Oriole's. I think the Western Wigwam is one of the best clubs published; everyone seems to get such interesting letters in it.

It has been raining hard for the past three days, but it doesn't keep coming down steadily, only in showers. But maybe it will help the potato crops, and some green flax.

We came from Owen Sound, Ont., up to Saskatchewan about five years ago, but I like Ontario better than up here.

We live five miles from the town of Gull Lake, and we have been going to school there ever since we moved up here. I have three sisters and myself that drive to school with a pony, but inside of about one month we expect to have a school of our own about one mile from us. My sister Ida and I passed into the fifth book at summer examinations. How many of the Wigs like to read books? I do, if they are interesting. One of my favorite books is "Black Beauty." I think it is grand. How many of the Wigs like to bake cakes and pies? I just love to, especially light cakes.

Why doesn't Western Cowgirl write and tell us more about the ranch? I am very fond of riding horseback. We have an organ and I can play quite a bit on it, but play mostly by ear. I only took seven music lessons, because I had to come away from the place where I was taking them.

Sask.

HUMMING-BIRD.

(That town used to be my home, too.—C. D.)

THE THREE B'S

Dear Cousin Dorothy,—I received my button and many thanks for it. I like reading the letters of the Western Wigwam. My father has taken THE FARMER'S ADVOCATE for eight years and likes it very well. I tried the examinations for the fourth class but failed. We have two horses, four cows and three calves. The names of the calves are Bright, Beauty and Blossom. The gophers have been very scarce around here this summer. I guess I will close with a riddle: I went to the woods and I got it; I came home and I had it, but I couldn't get it. Ans.—A sliver in my hand.

ROSEBUSH.

AN ORGAN AT SCHOOL

Dear Cousin Dorothy:—My papa has taken the ADVOCATE for many years. I have enjoyed reading the children's letters, and now I think I am old enough to write one myself. I have been going to school one year. I had an examination at the end of June, and I passed into the 1st book. I like my teacher very much. We have a new organ at our school. Our teacher plays the organ and we children like to sing. Well, I will close, and if my letter escapes the waste basket I will try again. I am sending a two-cent stamp for a button.

Alta.

BRIDGET.

A MAN TEACHER

Dear Cousin Dorothy:—I guess I will sit down and write you a few lines to let you know how things are going. We are having scorching weather here; most of the crops are burned out, and the people will have to plow their crops up again. Our teacher has left. Her name is Miss H—. We are having a man teacher, and we never had one before, so we don't know how we will like him. Here are some riddles:

1. Twenty white horses on a red hill, now they go, now they go, now they stand still? Ans.—My teeth.
2. What is the first thing that smells when you go into a drug store? Ans.—Your nose.
3. Why does a street car not need lightning conductors? Ans.—Because it has conductors.

Man.

MAGGIE PATON.

A GOOD DESCRIPTION

Dear Cousin Dorothy,—This is my first letter to the club, but I hope it will be a success. I will try and describe the country to you. It is sandy soil, that is most of it is. There are places fit for farming but it is really a ranching country. We live in Sounding Lake district, but there are a great many lakes smaller than Sounding Lake.

Well, telling the district is not describing the country. Besides, there are a great many clumps of poplar trees, they are the most plentiful. There are a few cottonwoods or balm of Gilead, cherry, saskatoon and a few birch trees, a great lot of poison ivy, creeping juniper and some other sort of creeping plant, of which I know the name but I cannot spell it.

There was a big prairie fire here in April and it burnt hundreds of tons of hay and a lot, in fact most of the fruit trees, so there will not be much fruit

this year. There was another fire last October and a girl was burnt to death. Does not that seem terrible, Cousin Dorothy? We have not got a school here yet but I wish we had. I am in the fourth book.

Papa owns a half-section of land and there is a beautiful lake on it, three-quarters of a mile long and about half a mile wide. There is a lovely big hill at the south end of it, from which we can see a great stretch of surrounding country.

Well, I think I will draw to a close as my letter is getting pretty long. I will sign myself.

Alta.

WESTERN COWGAL (13).

MAKING HAY

Dear Cousin Dorothy,—This is my first letter to your cozy corner and I hope that the waste paper basket is too far away for you to easily get there.

The wheat and oats are burning up now, although it is cooler than it has been for some time past. The grass also, which never has been green, is turning white. The people are all busy around here making roads, and making hay. I think that I would rather make hay this dry weather. Papa has taken THE FARMER'S ADVOCATE for years, and says that it is the best all-round farmer's paper going.

I hope that I will get the prize for writing, and that Cousin Dorothy (that is you) will publish her dear face. I know it must be dear. Best wishes. From your cousin.

Sask.

"TWELVE-YEAR-OLD."

(This year we have not been giving prizes for writing, but if one had been offered I am sure you would have won it.—C. D.)

LOST A GOLD RING

Dear Cousin Dorothy:—I have read the letters of the Wigwam for a long time and enjoyed them very much. I have a very nice home on a ranch five and one-half miles from a town, which is Vermilion. It is nice on the farm in the summer time, but I would like a little change, so I am going to Edmonton for a little while. I had a girl friend out staying with me for a few days, and she lost her gold ring and strained her finger while staying with me. I would like to correspond with a girl of my age, twelve. Hetty Dodds wanted to know what kind of life it is out on the prairie. I would say it was a very nice life. Some of my favorite books are: Jessica's First Prayer, The Brownies, Through The Looking-glass, Madge's Legacy, A Sunday Trip, Three Firm Friends, The New York Bootblack, The Little People of Japan, and several others. We had a very nice teacher before the holidays, and her name was Miss P—, but she has got married since the holidays, and her name is Mrs. B—.

Dear Cousin Dorothy, I am sending an envelope and a two-cent stamp and would like to have a button.

Alta.

PRAIRIE GIRL.



THE LITTLE MOTHER



THE BOYS' CLUB

THE HORSE THAT LOVED TEASING

Don't tell me horses have no sense of humor. My room is over some stores and I was sitting there last Saturday afternoon when I heard a horse squeal very loudly. Of course I had to investigate. There were two delivery rigs backed up to a store door and attached to one was a skittish, nervous-looking little black mare, while to the other was hitched a chunky chestnut and white, of the regular delivery horse type. The black was perhaps a foot in advance of the other and neither horse was apparently paying attention. As I watched the heavy fellow turned his head very slowly and just tickled the little mare with his upper lip—there wasn't any attempt to bite. She kicked and squealed and then turned round, but by that time he was looking innocently ahead. He repeated that performance in every detail at least half a dozen times and you could almost see his fat sides shake and hear him chuckle when the squeal came. He was as big a tease and enjoyed it as thoroughly as any human. At last, in desperation, she drew out three or four yards, then looked triumphantly round and—he yawned in her face, the most bored yawn you ever saw. —EDITOR.

THE BOY SCOUTS

All Canadian boys are bound to hear something of the boy scouts. It is sure to interest every member of this club. This very day there are in a camp just on the outskirts of Winnipeg, a camp of English boy scouts who have come across the Atlantic with Sir Robert Baden-Powell. Lieutenant-General Baden-Powell has given up his active and distinguished military life to organize this boy scout movement all over the Empire, and he is now in Canada for that purpose, and the English boys have come with him to serve as an example of what he wants to accomplish.

There isn't room here to tell you all about it in one issue, but if you are interested enough to ask questions we'll try to answer them. There are already 400,000 boy scouts in England, so you can see how popular it is.

The scout's motto is "Be Prepared." The scout's law is:
A scout's honor is to be trusted.
A scout is loyal.
A scout's duty is to be useful and to help others.
A scout is a friend to all, regardless of rank.

A scout is courteous.
A scout is a friend to animals.
A scout obeys orders.
A scout smiles and looks pleasant.
A scout is thrifty.

An English scout's duties are many and he never gets to the end of his lessons. Before he can wear a first-class badge he must pass an examination in ten things. First, he must be able to swim fifty yards. He must have a shilling in the saving's bank. He must be able to send and receive a message either in Morse or semaphore at a rate of sixteen letters per minute. As a test in self-reliance he is sent off on a two days' journey by himself or with one other scout. On returning he must write an intelligible account of what he has done and seen. He must know how to deal with accidents, such as drowning, electric shock, fire, runaways. He must prove that he can cook biscuit, a hunter's stew, skin and cook a rabbit or clean and cook fowl. He must be able to read a map or sketch a map, use an axe for felling timber, and judge distance, size, number and weight within 25 per cent. of correct measurements. Finally he must train a tenderfoot or new member so that the new boy is ready for a tenderfoot badge. Here is what the London boys have done among other things:

"They were playing football when

news was brought of a terrible railway accident, and they immediately "rushed to the scene with their ambulance-stretcher, and for many hours calmly and promptly performed noble and terrible duties of rescue among the killed and wounded, giving the most valuable help to doctors, police, and railway servants. On the occasion of the king's funeral procession through London a crowd of more than a quarter of a million people gathered in Hyde Park. The crowd was terrific, the heat was tropical. Every minute a woman would faint. Thousands upon thousands of people stood for seven or eight hours, hemmed in and crushed on all sides, enduring the pitiless and burning sun, to see the pageant of the procession. At every ambulance centre boy scouts were in attendance, to aid the work of

painted thing of cogs and wheels and entrails made of noisy brass can ever supplant a horse's heels, or make man grudge a horse his grass. No man-made trap of bars and springs can love or confidence impart, nor give the little neigh that brings emotion to the horse-man's heart. O build your cars and ships and planes, and doom old Dobbin as you will! While men have souls and hearts and brains, old Dobbin shall be with us still!

WALT MASON.

THE WEIGHT OF A FLYING FLY

Does a fly, buzzing about in the interior of a pail, without touching it, add to the weight of the pail? One would say, "Of course not"; yet trial shows that it does, although precise explanation seems to be wanting. A German engineer named Boenninger recently described, in a lecture at Frankfurt, as reported in *Cosmos* (Paris, March 19), some astonishing experiments along this line. We read:

"If we suspend from the pan of a balance an empty cylinder having a cover at each end, and place a fly on the interior wall of the cylinder, the weight of the fly will be added to that of the rest.

"If the fly leaves the side of the cylinder and flies into the interior, the balance is not disturbed. The weight of the fly is still in evidence, although

has now succeeded in obtaining the most distinct blue rose yet produced, and has given it the name of Lady Coventry.

His nursery is near the estate of the late Lord Beaconsfield, at Hughenden, and he has previously achieved success by blending the common dog rose with cultivated roses, a notable example of his work being a climbing tree, pure white, which grows in clusters of from forty to sixty blooms.

IN PLACE OF DISCIPLINE

(Continued from page 1278)

experimenting at first, but soon I could gauge pretty accurately how much work could be done on any subject in a given length of time. That precaution left no reasonable excuse for unfinished work under ordinary circumstances.

The workable time-table and the carefully assigned lessons were two essential steps in the process of keeping order; the third and final one was just as important, that was the examination in detail of every bit of written work done by every pupil during every day. It was work for the teacher, but it paid.

The average pupil's capacity for work was used as the standard of measuring the length of written lessons. But that did not make allowance for the unusually bright or the abnormally stupid. To reach the first class and keep them from Satan's attentions to the idle when their work in any subject was finished, this rule was made with their approval of its fitness:

"When your work is done you can do as you wish as long as you disturb no one else in the room."

At first the working out of that rule was not easy, but to help overcome the difficulty I put a stiff question in mechanical arithmetic at the top of the board. Then if I saw a boy not spending his time well or interfering with another pupil in any way, this question was added to his day's work on the assumption that, being idle, the assigned work was too little for him. They called it the idle question and learned to avoid it, for it called for much figuring and absolute accuracy. Usually, though, the quick pupils spent their time preparing for spelling or recitation lessons, or in drawing, painting, reading good geographies, histories or nature books that they could take from my book shelves.

In our school pupils whose work was done were dismissed at 3.30. When the hands pointed to that hour in my room, every boy who thought his day's work was finished satisfactorily, put his practice book open on his desk and sat erect with arms folded. That was the silent signal that he was ready for inspection. I heard his corrected spellings and looked over the work done that day in his book. If it were well done he could pack his books and go home, if he could get out of the building quietly—if not he must stay until the whole school was dismissed. If the work were untidy or incomplete the defective parts were marked and these had to be remedied. Boys have a great sense of fairness, and nobody sulked after the first week over having to present a clean, tidy record for the day.

When the prepared ones had tipped downstairs, I took a few minutes helping the slow ones who had found difficulties in the arithmetic. While they used this new light on their problems, the perplexed with grammar were set straight, and other subjects untangled of puzzles. By 3.50 there would not be more than four or five pupils left, some of these being delinquents who had the "idle question" on their list. By four o'clock everybody was away, and in another half hour the work was planned for next day and I was gone too.

My room was never noted for that atmosphere of "awesome" silence, so unnatural in the vicinity of children. There was some noise, but it was the healthy bustle of pupils at work, and it did my heart good to hear it.

TEACHER ONCE.

THE NEW SERIAL A JOLLY ONE

"Tag: The Chien Boule Dog" is one hearty laugh from beginning to end. It is written by a Western Canadian woman, who laughs herself and knows how to induce laughter in other people. This story will begin in September 14 issue. Don't miss a work of it.

Watch for Tag in September 14 Issue

THE FARMER'S ADVOCATE is glad to announce that by arrangements with the L. C. Page Company it is able to give its readers the delight of reading one of the funniest stories of the year—Tag; The Chien Boule Dog. If you love to laugh get hold of the first chapter in the issue of September 14. It is safe to say that you will be sure to get all the other issues and read them in spite of harvest work and worry.

revival, carry the patients, bring water and keep back the crowd. And when all was over and the crowd dispersed, the boy scouts tidied the park of rubbish and scattered papers."

TRAINING FOR THE NAVY

EDITOR FARMER'S ADVOCATE:

Dear Sir:—In a copy of your paper, dated June 22, I noticed a paragraph headed "Boys and the Canadian Navy," stating Canadian Boys were wanting in the engineering department.

Please advise me as to where applications should be entered, as the college is not yet established.

ROSS PAINTIN, Sask. (If you write to Sir Frederick Borden, Minister of Canadian Militia, Ottawa, Ont., you will receive information regarding the training for boys for the Canadian navy. We shall be glad to hear of the results of your enquiry.—Ed.)

THE TRUSTY DOBBIN

They doom you, Dobbin, now and then, they say your usefulness is gone; some blame fool thing designed by men has put the equine race in pawn. They doomed you, and your hopes were low, when bicycles were all the rage; they said: "The horse will have to go—he lags superfluous on the stage!" They doomed you when the auto-car was given its resplendent birth. "Thus sinks the poor old horse's star—he'll have to beat it from the earth!" And now they're dooming you some more, there are so many motor things; men scorch the earth with sullen roar, or float around on hardware wings. They doom you, Dobbin, now and then, and call you has-been, and the like; but while this world is breeding men, the horse will still be on the pike. No

not exerted directly. If now the upper lid be removed the fly's weight will still be recorded. If this lid be replaced and the lower one removed, the same is true, though the insect continues to fly about in the interior.

"But if both the lids be opened the equilibrium of the balance is disturbed and only the weight of the cylinder, without the fly, is recorded, although the insect is still within.

"We can not suppose that a descending current of air acts at a distance relatively so great, and this current could not transform its stored kinetic energy into pressure without loss.

"The most curious thing is that the fly still exerts its weight when the insect is just beneath the upper lid, the lower being open. It is precisely as if the fly were suspended from the lid.

"I find that this experiment supports the theory that we should consider the air, in a case like this, as a stretched spring that is made to vibrate; for the energy that disappears when the spring is stretched appears again when it is released. I believe that small models might be constructed to illustrate these phenomena."

No true horticulturist is satisfied with the colors given to blooms by nature. If a flower is normally yellow or red he desires to produce a variety which shall be green or blue or black.

Formerly the "blue rose," the "green carnation" and the "black tulip" were synonyms for the impossible, but thanks to the striving of growers after unnatural tints such phrases have lost their old significance.

Alfred Smith, F.R.H.S., of Downley, High Wycombe, who is a well-known rose specialist, has been experimenting three or four years with a view to the production of a blue rose. By the process of crossing different strains he

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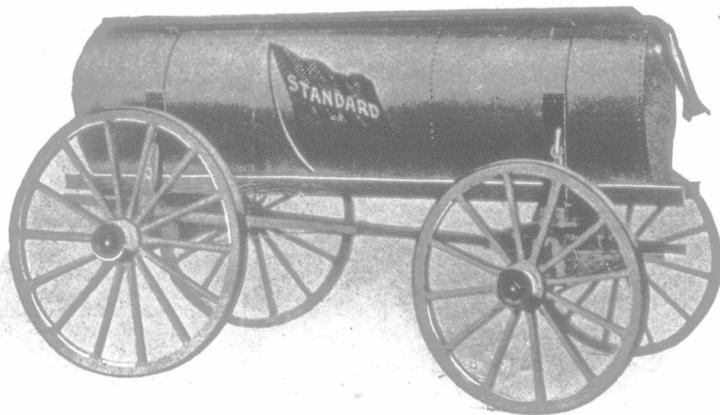
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QUESTIONS AND ANSWERS**GENERAL**

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.

HOMESTEADER INSANE

Homesteader has become mentally incapable of finishing his duties to get patent. Can his guardians—brother-in-law and sister—finish duties in case homesteader's father is unable to do so owing to ill-health and old age? Said homesteader is now in asylum and had one year and one-half in on his place. In whose name would patent be issued? Could it be transferred to his sister?—J. I. C.

Ans.—The departmental rulings relating to Dominion lands provides that in the event of any person who obtained entry for a homestead becoming insane or mentally incapable, and by reason of such insanity or mental incapacity, unable to complete the requirements necessary for the obtaining of letters patent therefor, the guardian or committee of the said person, or any person who, in the event of his death, would be entitled as his legal representative to do so, shall only be required to fulfil the conditions as to the erection of a habitable house and as to cultivation before the issue of the letters patent, but the letters patent shall not issue until the expiration of three years from the date of entry.

Letters patent in this case would issue to the guardian, presumably the father or the legal representative of the homesteader. It could be made to the sister. Brother-in-law and sister can finish duties.

A HORSE DEAL

Last spring, in April, I bought four horses from a party, three mares and one gelding. The ages given were two of the mares seven years each, one mare between nine and ten, the gelding rising five years. Since then the gelding proves to be weak in the hind legs and unable to do more than two or three hours' work at a time, so I have allowed him out on the pasture most of the summer. I wrote the party from whom I bought this horse, explaining how seriously this trouble was effecting my seeding operations, and asked him to exchange horses or help me over the seeding. In reply he stated there was nothing wrong with the horse and all it needed was a little stock food and to be turned out to grass; this, in spite of the fact that I bought the horses to put me through with the spring operations. I understood that every horse was able to do a day's work. I have been compelled to do with the three mares and I find that the mares' muscles tremble after reaching the end of the field, a distance of 120 rods, with a three-horse seeder, and one of them especially trembles violently even after giving her a rest in the middle of the stretch. I have taken the mares to be covered and the stallion owner refused to allow the horse to do service, on the ground that the mares were too old and that it would be a waste of time to bother with them. This was serious, so I got a qualified veterinarian to examine them. He gives the ages of mares, one of them 15 to 16 years, one 14 years, one 13 to 14 years and the gelding rising seven years. He states that the trembling of the muscles is due to old age. I have no doubt but that the horses were doped, for in spite of good appetites, a gallon and a half of oats each meal and new hay all the time, they are steadily going down in weight. The purchase price was \$975, \$375 cash and a note due November 1st. The ages of the horses are not on the note, and the only person that heard the seller state the ages of the horses was my wife at the time of making out the note, the man then only giving the ages of three of them. What I wish

to know would it be advisable to take action against him at once or wait until the note becomes due. The mares were sold to me as brood mares, and were advertised as such by posters in the barns and business places in town.—G. H. W.

Ans.—From your statements a gross fraud has been perpetrated, and you can either take criminal action against the vendor for obtaining money under false pretences or sue the vendor in the civil courts for damages for breach of warranty. If the vendor of the horses is worth the money we would suggest the latter course as being preferable. In any event we think it would be advisable for you to engage a responsible solicitor, as the amount involved is considerable. If the facts are proved before a court, as stated in your letter, there is no doubt that you would get a substantial judgment in your favor.

BOOKS WANTED

What do you consider the best text books on the following subjects:

1. Plain home and camp cooking and meat and fruit preserving; something suitable for a bachelor establishment where help cannot always be had.
2. Poultry and hog-raising.
3. Buttermaking.
4. Diseases and treatment of farm animals.
5. Irrigation.
6. Alfalfa raising.
7. Truck farming and fruit and berry growing.
8. Beekeeping.
9. Amateur flower gardening and landscape gardening.—G. W. S.

Ans.—1. Boston Cooking School Cook Book (\$2.00), or "Cooking for Two" (\$1.50).

2. Poultry-Raising. Write the departments of agriculture at Victoria, B. C.; Edmonton, Alta.; Toronto, Ont., and Ottawa, and procure such bulletins as they have issued on poultry raising. Aside from these a good text book is Robinson's Poultry Craft (\$1.50). Write the same departments for bulletins on hog raising.

3. Canadian Dairying, by Dean (\$1.00).

4. Farmer's Veterinarian, Burkett, (\$1.50).

5. Irrigation for the Farm Garden and Orchard, Stewart (\$1.00).

6. Coburn's book on Alfalfa.

7. Green's Vegetable Gardening (\$1.00) Success in Market Gardening (\$1.00), Practical Fruit Grower, Maynard (50 cents).

8. Langstroth, on the Honey Bee (\$1.25).

9. Landscape Gardening, Waugh (50 cents). The Beautiful Flower Garden, Matthews (40 cents).

These are some of the best books dealing with the subjects given. Some of them may not discuss their subjects along the line you wish for British Columbia, but they should give an idea of the general principles of the work they refer to. These books may be obtained through this office at the price stated. The bulletins mentioned are free.

TRACTION ENGINEERING

In one of your recent issues I noticed that some institution had sent men out who had been learning traction engine driving, but owing to having mislaid that number would you advise me as to what institution it is, and whether they take in men to learn for a certain period or not. I would like to apply for a course if you could give me information as to how long it takes to learn, and what the cost would be.—F. L.

Ans.—The notice you refer to was probably that of the Manitoba Agricultural College. This institution offers a course in traction engineering each summer. You may obtain all information thereto by applying to the principal, W. J. Black, B.S.A., M. A. C., Winnipeg.

BULLETINS WANTED

Would like to have books or pamphlets relating to the preparing of ground and raising of wheat. Also pamphlets relating to horses.—R. L. S.

Ans.—Write the department of agriculture, Ottawa, for such bulletins as they have published on wheat culture, also the departments of agriculture at Edmonton and Regina. Bulletins will be sent free on request. "The Book of

Wheat," by Dondlinger, is the latest work on the subject of wheat, price \$2.00. No bulletins on horses have been issued in any province in the Dominion save in Manitoba. You may possibly obtain a copy of Professor Peter's pamphlet on the classification of horses, by writing the Manitoba Agricultural College, Winnipeg. A good deal of information on horses, breeds, management, feeding and so on is contained in the Farmer's Cyclopaedia of Livestock (\$4.50). This is an excellent book of reference on all livestock subjects. The book on wheat and the Cyclopaedia may be obtained through this office at the price given.

QUESTION OF STRAW AND RENT

A rents his arable land to B for a cash payment. To whom does the straw belong? What is the usual time for the payment of rent in above circumstances?—A. M.

Ans.—In the absence of any agreement to the contrary the straw would belong to B. In the absence of any agreement that rent should be paid in advance it would be payable at the termination of the term.

WANTED: INFORMATION ON TRACTORS

I have been reading a good deal about the use of gasoline tractors in farm work and am thinking of getting one. Before doing so, however, I would like very much to have the experience of some of your readers who have been using them on their farms. I thought of getting one of 15 horse power, and would take it as a great favor if you would invite correspondence on the subject as to what they can do, how many plows they can haul on stubble, and also breaking land, hauling disk harrows, seed drills, etc. Our soil is a heavy sandy loam. I would like very much to know as much as possible from someone who is using one, just what can be done with them and how one of the horse power mentioned would do on farms of 300 acres.—E. H. W.

Ans.—We might answer in a general way that gasoline tractors have been giving excellent satisfaction throughout the West. We are informed by manufacturers that demand for engines last spring was beyond all expectation and that this demand arose through the work which the engines have been doing. About a year ago we published a large number of letters from readers using gasoline and steam tractors and with only one or two exceptions they were most favorably spoken of. There is not so much information as to the use of tractors in drilling, disking, etc., as there is in plowing, for which work these engines up to present have been most largely used. We are inclined to think you would be better with an engine larger than 15 horse power. Experience of users is that it is better to have more power than may be required than to be forced to crowd the engine near the maximum. We would be pleased at this time to receive letters from readers using gasoline tractors in answer to the points raised by this inquirer.

RAINFALL

What is the average annual rainfall for this district (Stockton, Man.)?—H. F.

Ans.—The annual rainfall at Brandon, which is the nearest meteorological station is 15.46 inches. This is the average for a period of twenty years.

QUESTIONS AND 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.

SWEENEY—HENS DYING

A disease has broken out among my hens, which I cannot, in spite of all good advices of neighbors, eradicate up to this day. The hens generally be-

come lame, their faces get white and they keep themselves apart moving very little. In about two weeks they die.

2. A four-year-old colt has sweeny four months. I blistered it a few days ago, but without success. Give treatment.

3. What is the best book about the horse and his diseases?—E. E.

Ans.—From the symptoms it is impossible to state exactly what the trouble is. Would advise post-mortem examination of lungs, liver and other organs. Such symptoms as you give indicate that the disease may be tuberculosis. It would be advisable for you to send the lungs, liver and digestive organs of a bird dead from the disease, to the provincial bacteriologist, Regina, who could give expert advice as to whether or not the trouble is tuberculosis. If it is you will have some trouble stamping out the disease.

2. Treatment consists in stimulating flow of blood to the poorly-nourished parts, for sweeny is simply a wasting of the muscles of the shoulders. The great nerves of the shoulder are affected and in consequence nutrition is impaired and the muscles waste away. To cure, give the animal a long rest, blister the shoulder repeatedly or apply a strong stimulant liniment. Make up a blister of biniodite of mercury, 2 drams; powdered cantharides, 2 drams; lard, 2 ounces. Clip hair from affected parts and rub the blister well in. Tie up the horse's head. Wash off in 24 hours and smear with vaseline. Repeat blister in two weeks. Better treatment consists in rubbing the parts twice daily with a stimulant liniment made as follows: Alcohol, 2 fluid ounces; oil of turpentine, 2 fluid ounces; liquor ammonia fortier, 2 fluid ounces; water, 1 pint.

3. A good book on horse diseases is "The Farmer's Veterinarian," for sale through this office for \$1.50. "Veterinary Notes for Horse Owners," by Captain Hayes, is a good book. Price, \$4.00, through this office.

SWOLLEN ABDOMEN

Have a mare with an enlarged stomach or "hay gut" and would like to find out how to reduce same without making the mare fail in flesh. She is ten years old and is in very good shape. She had a colt this spring, on the 3rd of May.—A. R. L.

Ans.—The only safe way to reduce the size of your mare's abdomen, is by restricting her hay allowance. This may be done by feeding her very small quantities of hay at the morning and evening meals and withholding hay entirely from the noon meal.

ROARING

Six-year-old gelding was sick about eight weeks last winter with distemper. His throat swelled so badly we had to lance it several times. It seemed to leave him soft in the wind. He seems all right when walking or trotting slowly, but when speeded or excited he breathes heavily. Would it be advisable to blister his throat or what treatment would you suggest?—C. W.

Ans.—The disease from which your horse suffered last winter has caused him to become a roarer. Roaring frequently follows distemper, especially when this disease has attacked the throat severely. You may try a blister made of cantharides, two drams; vaseline, two ounces. Mix well, clip off the hair right around the throat and well rub in the blistering ointment for fifteen minutes. Wash off the blister in twelve hours and smear the part with vaseline. If necessary, repeat the blister in three weeks.

The most likely way to bring about a cure, is by an operation on the vocal cords, if you can find a surgeon to do it.

LAME HORSE

Ten-year-old horse went lame about six weeks ago, and has gradually gone worse. Blacksmith could not find corns, and shod him with leather pads. However, he continues lame and rests the forefoot on the toe. I cannot find the slightest swelling or heat and he does not flinch with pressure applied in hollow of pastern. Please give me advice.—J. E.

Ans.—We are unable to diagnose the nature of the lameness in your horse, excepting from the only symptom you

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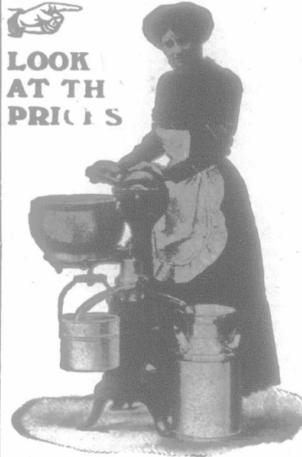
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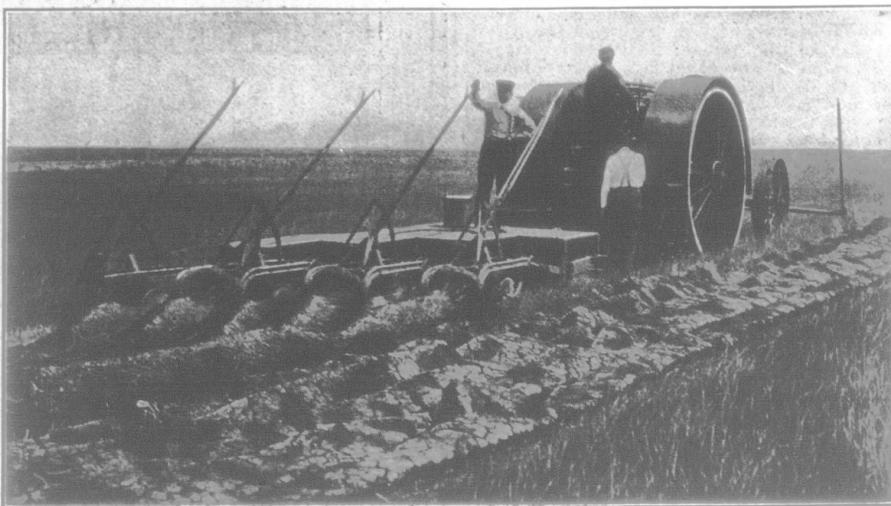
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give (standing on his toe). The trouble appears to be in the foot. But the lesion is unknown to us, as we have so little data to help us to arrive at a definite conclusion. Since you cannot find evidence of corns, it may be a sprain of the tendon in or near the foot, or possibly a sprain of the ligaments. However, the best thing to do under the circumstances (if you cannot consult a veterinarian) is to take off his shoes and poultice the forefeet, or stand him in three inches of water for three hours at a time twice a day.

FOOT ROT IN CATTLE

What is the cause and cure of foot rot in cattle?—J. A.

Ans.—Foot rot is a disease usually associated with sheep. It is a chronic inflammation of the foot, marked by ulceration, softening of the hoof, lameness and discharge of sticky material with a very fetid odor. It is produced by a germ that lives in the soil and gains entrance through wounds and surfaces chafed by barbed wire, stones or gritty clay, which becomes lodged between the toes. Treatment is antiseptic. Usually good sheep dip is used. One pound of pure carbolic acid to four gallons of water makes a good solution. With sheep the disease may be treated by making the animals stand for several minutes daily in a trough containing a dip, or the disinfectant named. The disease does not usually occur in cattle.

A VERY INTERESTING CASE

Large gelding, six years old, took sick in the spring, lost flesh rapidly, and showed other symptoms, which led our local veterinary to pronounce it a case of swamp fever in its early stage; treatment given was drastic and was continued all summer. It is now considered by the veterinary that all trace of swamp fever or any other fever has gone, and the horse pronounced in health. Hair, mane and tail and skin glossy, eye bright, but he is thin as a rail—no flesh. Work done, very slight. The other day this horse suddenly

showed the following symptoms: Went rapidly thinner, curved backbone, throat swelled and became hard in the middle for about a foot and very tender, all muscles of body and belly became very tender, so that to place the hand against the belly (without pressing) caused him to scream and draw himself together in a remarkable manner. Skin and hair still good, temperature and pulse normal, eager for oats (which are rolled) but only plays with hay, and hardly eats a handful. Has great difficulty in making water and manure and groans in the effort. Local veterinary says he has been choked in some way and has been in great difficulty to clear his throat, hence is now suffering from muscle-soreness all over the body. Treatment is two tablespoonfuls of a crystal (which looks like soda) in water, three times daily. After four days, has not had any effect.—F. W. G.

Ans.—This is certainly a very interesting case and one we should very much like to see. In fact it would be absolutely necessary to make a careful examination of the case before venturing an opinion as to the nature of the disease. We suggest that you have your veterinarian consult with some other good veterinary surgeon. Much good may result.

GOSSIP

SAVE EVERY ISSUE

Don't miss reading every word of "Tag: The Chien Boule Dog," by Valance Patriarche. If you simply can't find a moment just now, get hold of every issue and save it for a less busy time. If you don't save them we prophesy that you'll be sending in for the copies that are missing.

HASSARD'S PERCHERONS AND BELGIANS

Attention is directed to the advertisement of F. J. Hassard, V.S., Deloraine, Man., who is offering a choice selection

of recently imported Percheron and Belgian horses. These horses have been selected with the special view to meeting the requirements of the Western trade, and farmers contemplating purchasing would be well advised to procure from Dr. Hassard, particulars of this lot; or better still, look them over. Prospects point to still higher horse values in the Canadian West and the time to buy is always *Now*. It is probable that breeding horses will be priced higher next spring than at present.

THE EDMONTON FAIR BREAKS ALL RECORDS

(Continued from page 1275)

HEREFORDS

Wm. Shields, of Brandon, Man., was the strongest exhibitor of Herefords, and his herd won the bulk of the prizes. There were many other good animals there, but few of them were in good show condition. The Shields' herd not only contained many good animals but they were out in superb show condition. Other exhibitors were R. M. Ballantyne, Lacombe; C. Palmer, Lacombe, and G. H. Cresswell, Edmonton. The prizes as awarded were:

Bull, three years and over—1, Shields, on Happy Christmas; 2, Palmer, on Burden; 3, Cresswell, on Albert Junior; 4, Ballantyne, on Bonny Brae Hesiod 5th. Bull, two years and under three—1, Shields. Bull, senior yearling—1, Shields; 2, E. T. Clarke, Edmonton. Bull, junior yearling—1, Palmer; 2, Ballantyne; 3, Palmer. Senior bull calf—1, Ballantyne; 2, Palmer; 3, Ballantyne. Junior bull calf—1, Clarke; 2, Shields; 3, Cresswell. Cow, four years and over—1 and 2, Shields; 3, Cresswell. Cow, three years—1, Shields; 2, Cresswell. Heifer, two years—1 and 2, Shields; 3, Palmer. Heifer, senior yearling—1, Shields; 2, Clarke; 3, Ballantyne. Heifer, junior yearling—1 and 2, Shields; 3, Palmer. Senior heifer calf—1 and 2, Ballantyne. Junior heifer calf—1 and 2, Shields; 3, Cresswell. Bull, any age—1 and 2, Shields. Heifer, bull and

three females—1 and 2, Shields. Bull and two of his get—1, Shields. Cow and three of her progeny—1, Shields. Female, any age—Wm. Shields.

POLLED ANGUS AND GALLOWAY

The honors in the Polled Angus was divided between two herds, that of Lew. Hutchinson, Duhamel, and Chas. Ellett, Strathcona. Those are the two leading Angus herds in Alberta. Hutchinson won the greater number of the championship prizes. W. E. Tees, of Tees, Alta., was a large exhibitor of Galloways, and he won practically all the prizes in light competition.

J. H. Elliott, of Irma, was the only exhibitor of Red Polled cattle.

D. W. Warner, of Edmonton, exhibited of grade Shorthorn. Mr. Warner has endeavored to breed a type of milking grade Shorthorns, a dual purpose cow for the farmer, and he is to be commended on his success, for the animals he exhibited possess beef qualities, besides being milkers.

DAIRY CATTLE

The three leading dairy breeds were well represented. Alberta is the home of many good Ayrshires and Holsteins, and also Jersey cattle of good merit. In the latter class Jos. Harper & Son, Kinley, Sask., was the largest exhibitor. He exhibited over a dozen head. Other Jersey exhibitors were: Rice Sheppard, Strathcona; Frank Orchard, Greysville, Man.; Chas. Sanford, Edmonton; V. Crawford, Strathcona, and R. C. Watson, Edmonton.

JERSEY AWARDS

Bull, three years and over—1 and 2, Harper & Son; 3, Orchard. Bull, two years old—1, Harper & Son; 2, Sanford. Bull, one year old—1 and 2, Harper & Son; 2, Rice Sheppard. Bull calf, senior—1, Harper & Sons; 2, Sheppard. Junior bull calf—1, Sporle, Edmonton; 2, Sheppard; 3, Crawford. Cow, three years and over—1 and 2, Harper & Sons; 3, Watson. Heifer, two years old—1 and 2, Harper & Sons; 3, Sheppard. Heifer, one year old—1 and 2, Harper & Sons; 3, Watson. Senior heifer calf—1, Harper & Sons. Junior heifer calf—1, Jos. Caswell,

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Saskatoon; 2, Harper & Sons; 3, Watson. Jos. Harper & Sons won all the championship prizes.

HOLSTEINS

The competition in this breed rested between Mitchener Bros., of Red Deer, Alta., and W. L. Ferguson, Edmonton. H. J. Smith, of Clover Bar, and J. H. Holmes, of Strathcona, were other exhibitors. Prizes as awarded:

Bull, two years old—1, Ferguson; 2, Mitchener Bros. Bull, one year old—Smith. Bull calf—1 and 2, Mitchener Bros. Bull calf, junior—1, Mitchener Bros.; 2 and 3, Ferguson. Cow, three years and over—1, Ferguson; 2, Mitchener Bros.; 3, Smith; 4, Mitchener Bros.; 5, Smith. Heifer, two years old—1, 2 and 3, Mitchener Bros. Heifer, one year old—1, Ferguson; 2 and 3, Mitchener Bros.; 4, Smith. Heifer calf, senior—1, Holmes; 2, Mitchener Bros.; Junior heifer calf—1, Holmes; 2, Mitchener Bros.; 3, Smith; 4, Ferguson. Herd, bull and three females—1, Ferguson; 2, Mitchener Bros.

AYRSHIRES

A. H. Trimble, of Red Deer; J. M. Bruce, Lashburn, Sask., and J. J. Richards, of Red Deer, Alta., were the exhibitors in the Ayrshire classes. The Trimble herd and the Lashburn herd have attended most of the leading exhibitions in Western Canada, and honors have been well divided between them. Jas. A. Jackson, Leduc; J. A. Davis, Strathcona, and T. S. Mattison, of Edmonton, had representatives in the contest.

In the aged bull class, Bruce came first with Barcheskie King's Own. Jackson owned the second animal. Bull, two years old—1, Bruce; 2, Trimble & Son; 3, Davis. Bull, one year—1, Bruce; 2, Trimble & Son; 3, Mattison. Junior bull calf—1, Richards; 2, Trimble & Son. Senior bull calf—1 and 3, Trimble & Son; 2, Bruce. Cow, three years and over—1, Bruce, on Bluebell of Ormiston; 2, 3 and 4, Trimble & Son, on Woodside Lovely. Iyveleaf of Burnsides and White Rose. Heifer, two years old—1, Richards; 2, Trimble & Son; 3, Richards. Heifer, one year old—1 and 2, Bruce; 3, Trimble & Son. Senior heifer calf—1, Bruce; 2, Trimble & Son; 3, Richards. Junior heifer calf—1, Trimble & Son; 2, Bruce; 3, Trimble & Son. Herd, bull and three females—1, Bruce; 2, Trimble & Son.

SHEEP

The sheep exhibit was a very creditable one. Geo. Hunter, of Edmonton, made the awards in the various classes, there being considerable competition

in almost all. H. W. Watkins, of Olds, was perhaps the largest exhibitor, for he was an exhibitor of Shropshires, Suffolk Downs, Hampshire Downs, Southdowns and Leicesters. T. A. Cox, Brantford, Ontario, proved a strong winner in many of the classes. In Shropshire the exhibitors were, T. A. Cox, W. T. Shuttleworth, of Gaetz Valley, H. W. Watkins, of Olds, and W. Sporle, of Edmonton.

Suffolk Downs, H. W. Watkins, Olds, and J. Rye & Sons, Edmonton.

Hampshire Downs, H. W. Watkins, of Olds. Leicesters, T. A. Cox, W. T. Shuttleworth and H. W. Watkins. Cotswolds, T. A. Cox and F. Orchard, Graysville, Manitoba. Southdowns, T. A. Cox and H. W. Watkins.

Oxford Downs, T. A. Cox.

The prizes were awarded as follows: SOUTHDOWNS Ram, aged, 1, Cox; 2, Watkins; ewe aged, 1, 2 and 3, Cox; ram shearing, 1, Cox; ram lamb, 1, Cox; 2 and 3, Watkins; best pen of three ewes, 1, A. Cox; 2 and 3, Watkins.

SHROPSHIRE Aged ram, 1, Cox; 2 and 3, Shuttleworth; aged ewe, 1 and 2, Cox; 3, Sporle; shearing ram, 1, Sporle; 2, Shuttleworth; 3, Watkins; ram lamb, 1, Cox; 2, Lawrence Adamson; pen of three ewes, 1, Cox; 2, Sporle; 3, Cox.

SUFFOLK DOWNS Ram, aged, 1, Watkins; 2, Rye & Sons; aged ewe, 1 and 2, Rye & Sons; 3, Watkins; ram lamb, 1 and 2, Watkins; pen of three ewes, 1, Rye & Sons; 2, Watkins.

LEICESTERS Aged ram, 1, Cox; 2, Shuttleworth; aged ewe, 1, 2 and 3, Cox; shearing ram, 1, Cox; ram lamb, 1, Shuttleworth; pen of three ewes, 1 and 2, Cox; 3, Watkins.

COTSWOLDS Ram, aged, Cox; aged ewe, 1, 2 and 3, Cox; shearing ram, 1 and 2, Cox; ram lamb, 1, Cox; 2 and 3, Frank Orchard; pen of three ewes, 1, Cox; 2, Orchard.

OXFORD DOWNS T. A. Cox was alone with a full entry, there being no competition.

GRADE SHEEP Pair aged ewes, 1, F. T. Shaw, Belmont; 2, H. W. Watkins; pair shearing ewes, 1, L. Middleton, Edmonton; 2, W. Sporle; pair lambs, 1, Shuttleworth; 2, Sporle.

GRADE SHEEP (Long Wool) Aged ewes, pair, 1, Rye & Sons; 2, F. T. Shaw; pair shearing ewes, 1, W. Maxfield, Namayo; pair ewe lambs, 1 and 2, Rye & Sons; three fat sheep, 1, T. A. Cox.

ANGORA GOATS Buck, W. A. Tees, Tees, Alta.; doe, 1 and 2, W. A. Tees; kid, male, 1, H. Mathews, Edmonton.

SWINE There was a good representation of the many breeds of swine that are so popular in Alberta. A. W. MacIntyre, of Newington, Ontario, made the awards and he had his work well defined. The Alberta farmer has heard much of the bacon hog and the endeavor has been to breed with a view to marketability for packing purposes. Jos. Rye & Sons, of Edmonton, won the special prize given for the best sow and boar, any breed, the prize to be awarded to the ones possessing the best bacon type. Mr. Rye was in strong competition, but his favorite Tamworths won for him the prize.

In the Berkshire classes there was rather strong competition. The exhibitors in the class were, P. J. Mullen, of Millet; T. A. Cox, of Brantford, Ontario; L. Hutchinson, of Duhamel, and Rice Sheppard, Strathcona. Prizes as awarded: Boar, two years or over, 1, Mullen; 2, Cox; 3, Hutchinson; boar, one year old, 1, Cox; 2 and 3, Sheppard; boar, four months and under one year, 1, Sheppard; 2, Mullen; 3, Cox; sow, one year or over, 1, 2 and 3, Cox; sow, four months and under one year, 1, Mullen; 2 and 3, Cox; boar and four of his get, 1 and 2, Cox; 3, Sheppard; Sweepstakes boar, 1, Cox; 2, Mullen; Sweepstakes sow, Cox.

YORKSHIRES The exhibitors of Yorkshires were, W. E. Tees, of Tees, Alta.; T. Weeks, of Edmonton; H. W. Watkins, of Olds; F. T. Shaw, Belmont, Alta., and F.

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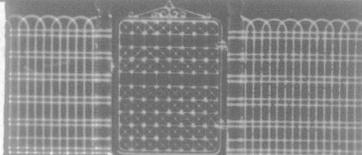
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Under the authority of Secs. 18, 19, 20, 22 and 26 of the Veterinary Association Act, 1887 (3 Vic., Chap. 60), the following persons only are entitled to practice as Veterinary Surgeons in the Province of Manitoba, or to collect fees for services rendered as such:—

- | | | |
|--------------------------------|------------------------------|-----------------------------------|
| Alton, A. L., McGregor. | Hinman, W. J., Winnipeg. | Murray, G. P., Fishburn |
| Armitage, S. B., Crystal City. | Husband, A. G., Winnipeg. | Munn, J. A., Carman. |
| Baker, G. P., Togo. | Irwin, J. J., Stonewall. | Ovens, Hugh, Swan River. |
| Barry, W. H., Cartwright. | James, N. V., Gladstone | Part, J. H., Swan River. |
| Bonnet, J. C., Snowflake. | Jamieson, J., Hamiota | Pomret, H., Winnipeg |
| Bowman, E., Gladstone. | King, T., Souris | Potter, G. G., Swan Lake |
| Bracken, G. E., Eden. | Lake, W. H., Morden. | Robinson, S., Brandon. |
| Broadfoot, J. W., Binscarth. | Lawson, R., Shoal Lake. | Roe, J. S., Neepawa. |
| Bryant, J. W., Dauphin. | Lee, W. H. T., Minto. | Rombough, M. B., Winnipeg |
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| Coxe, S. A., Brandon. | Little, M., Pilot Mound. | Shoultz, W. A., Winnipeg |
| Cruckshank, J. C., Deloraine. | Little, W., Boissevain. | Smith, H. D., Winnipeg. |
| Coombs, F. M., Oak River. | McChesney, D. H., Napinka | Smith, W. H., Carman. |
| Dand, J. M., Deloraine. | McDougall, J., Kenton | Snider, J. H., Moose Jaw |
| Dunbar, W. A., Winnipeg. | McFadden, D. H., Emerson. | Stevenson, C. A., Reston |
| Elliott, H. J., Winnipeg | McGillivray, C. D., Winnipeg | Stevenson, J. A., Gretna. |
| Frame, A. S., Treherne | McGillivray, J., Winnipeg. | Sirett, W. F., Minnedosa. |
| Fisher, J. F., Brandon. | McKenzie, W. H., Emerson | Swanson, J. A., Manitou |
| Golley, J., Treherne | McIntosh, R. A., Morden. | Taylor, W. R., Portage la Prairie |
| Graham, N., Swift Current | McLoughry, R. A., Moosomin. | Thompson, H. N., Bannerman |
| Green, E., Birtle. | McMillan, Brandon | Thompson, Wm., Minnedosa |
| Hackett, J. A., Hartney. | McQueen, L., Selkirk. | Torrance, F., Winnipeg. |
| Hassard, F. J., Deloraine. | Mack, J. S., Neepawa. | Walton, T., Killarney. |
| Harrison, W., Cyprus River | Manchester, W., Wawanessa. | Welch, J., Roland. |
| Hayter, G. P., Birtle. | Marshall, R. J., Oak Lake. | Westell, E. P., Winnipeg |
| Hilliard, W. A., Winnipeg. | Martin, W. E., Winnipeg. | Whimster, M. A., Hamiota. |
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FOR SALE IN SEPTEMBER—A limited number of first-class Italian Bees in new Langstroth hives. Also some R. C. Rhode Island Red Cockerels and Pullets in fall. Rev. W. Bell, Abernethy, Sask.

\$2.00 TO \$5.00 A DAY SURE—Pleasant honorable work at your own home, for man or woman. No experience or capital necessary. Our company with ample capital, will furnish work and plans absolutely free. Edw. McGarvey, Manager, Toronto, Ont.

FOR SALE—Comox, Vancouver Island cleared farms, bush land, sea frontage in district, all prices. Fine farming country. Good local market, ideal climate. Apply F. R. F. Biscoe, Comox, B. C.

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

300 BARRED ROCK COCKERELS \$1.00 and \$1.25 each. J. A. Surprenant St. Pierre, Man.

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Breeder's 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, Yorkshires hogs and Pekin ducks.

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

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

JAMES WILSON, Innisfail, Alta., breeder of Shorthorn cattle. Young bulls of breeding age for sale. Heifers and cows from fashionable families. These are show animals at breeder's prices. My 320 acre stock farm for sale.

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C. G. BULSTRODE, Mount Farm, South Qu'Appelle, Sask., Breeder of Berkshire swine.

H. C. GRAHAM, "Lea Park," Kitscoty, Alta., Scotch Collies and Yorkshires for sale.

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

Orchard, Greysville, Manitoba The prizes as awarded are: Aged boar, 1, Weeks; 2, Tees; 3, Watkins; boar, one year and over, 1, Tees; 2, Shaw; boar four months and under one year, 1 and 2, Shaw; 3, Orchard; sow, one year or over, 1, Shaw; 2, Tees; 3, Shaw; sow, four months and under one year, 1, Tees; 2 and 3, Shaw;

TAMWORTHS

In the Tamworth classes, J. Rye & Sons, of Edmonton, were the largest exhibitors. Frank Orchard, of Greysville, Manitoba, and Jos. Caswell, Saskatoon, had entries in the Tamworth class. The prizes as awarded were: Aged boar, 1, Rye & Sons; 2 and 3, Orchard; boar, one year old, 1, Orchard; boar, four months and under one year, 1 and 2, Orchard; 3, Caswell; sow, one year or over, 1 and 2, Rye & Sons; 3, Orchard; sow, four months and under one year, 1, Rye & Sons; 2, Orchard; sow and litter of not less than seven pigs nursing at exhibition, 1 and 2, Orchard; boar and four of his get, 1, 2 and 3, Orchard. Sweepstakes boar, 1, Rye & Sons; Sweepstakes sow, 1, Rye & Sons.

DUROC JERSEY

John Maurer, of Clive, Alta., had a strong entry of Duroc Jerseys. He was the only exhibitor of the breed, but his hogs made a worthy showing in their class.

BACON HOGS

For the pen of three to five grade bacon type hogs, Chas. Rees, of Spruce Grove, won first, while W. E. Tees, of Tees, won second and third. For pen of three grade medium thick hogs: First and second, W. E. Tees, third, Chas. Rees. Best sow and boar, bacon type, any breed, Jos. Rye & Sons, with a pair of Tamworths.

THE VANCOUVER EXHIBITION

(Continued from page 1274)

Red Polls alone represented the beef breeds, while the Holstein and the Jersey breeds upheld the standard of the milk-producing cows.

The exhibitors of Red Polls were J. T. Maynard, Chilliwack, and E. Henderson, Victoria. The prizes as awarded were: Bull, three years old, 1, Maynard; bull, two years old, 1, Maynard; bull, one year old, 1, Henderson, 2, Maynard; bull calf, 1, and 2, Maynard; champion bull, Henderson.

Cow, four years old, 1, Henderson; 2, Maynard; heifer, two years old: 1 and 2, Maynard; heifer, one year old: 1 and 3, Maynard; 2, Henderson; heifer calf, 1, Henderson; 2, Maynard; herd, 1, Henderson; 2, Maynard.

DAIRY CATTLE

The exhibitors of the Holstein breed were J. W. Hollingshead, Ladner, and A. Davie, also of Ladner. F. Robson, Mayne Island, was the largest exhibitor of Jerseys. The Glen Olbree Farm and F. E. Woodside, both of Vancouver, also exhibited animals of the Jersey breed.

Holstein awards—Bull, two years old: 1, Davie; bull calf: 1 and 2, also bull championship, Hollingshead; cow, three years old: 1, Davie; heifer, two years old: 1, Davie; heifer, one year old: 1 and 2, Davie; herd prize: 1, Davie.

Jersey awards—Bull, three years old: 1, Robson; bull, two years old: 1, Glen Olbree Farm; bull calf: 1, Glen Olbree Farm; cow, four years old: 1, Robson; cow, three years old: 1, Robson; heifer, two years old: 1, Glen Olbree Farm; 2, Woodside; heifer, one year old: Robson; herd, Robson.

SWINE

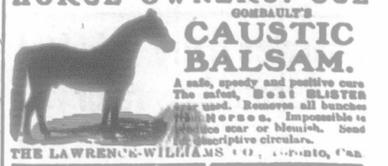
There were but two exhibitors of swine. Maynard, Chilliwack, exhibited Yorkshire, while A. Davie, Ladner, stood alone with his entry of Tamworths.

SHEEP

The competition in the sheep classes was somewhat stronger than in the cattle or swine classes. Dr. Watt, Victoria, exhibited a fine flock of Southdowns, the only entries of the breed. J. T. Maynard, Chilliwack, was the only exhibitor of Dorset Horns, while in the Cotswold and Hampshire classes, John Richardson, Port Guichon, won all the prizes. P. H. Wilson, Sardis; J. Richardson, Port Guichon, and A. Davie, Ladner, divided honors in the Shropshire classes, while in the Oxford Downs the competition lay between Alex. Davie and John Richardson.

The Oxford Downs awards were: Ram, two years, 1, 2 and 3, Davie; shearing ram, 1 and 2, Davie; ram

HORSE OWNERS! USE



lambs, 1 and 2, Davie; ram, any age, 1, Davie; ewe, two years old, 1, Richardson; 2 and 3, Davie; ewe shearing, 1 and 2, Davie; 3, Richardson; ewe lambs, 1 and 3, Davie; 2, Richardson; best ewe, 1, Richardson; best pen, 1 and 2, Davie. Shropshire awards: Ram, two years, 1 and 2, Wilson; 3, Richardson. Shearing ram, 1, 2 and 3, Wilson; ram lamb, 1, 2 and 3, Wilson; best ram, Wilson; ewe, two years old, 1, 2 and 3, Wilson; shearing ewe, 1, 2 and 3, Wilson; ewe lamb, 1 and 2, Wilson; 3, Davie; best ewe, Wilson; best pen, 1 and 2, Wilson.

INTERPROVINCIAL CONFERENCE AT VANCOUVER

(Continued from page 1274)

on many phases of the question. The captain said he was trying to organize a company to build an elevator, wharf and warehouse to facilitate both the inward and outward traffic of grain in this city. He spoke of the question of government-owned elevators and he thought it essential that the government should regulate the handling of grain. The grain, he thought, should be sacked by the farmer and sampled as in Australia at the different occasions of its handling by government inspectors. The expense of sacking he contended was not prohibitive, as was shown both by the Australian experience and that of the farmers of Washington and Oregon. This method is also a great aid in preserving the identity of the individual farmer's grain, which was the question of the greatest importance today. The captain went on to say that the storage of grain on the spot was necessary to enable shippers to take up large orders from abroad that had to be filled within a limited time.

Geo. Warner, of Edmonton, stated that he had investigated the sacking problem thoroughly and his investigations had taught him that sacking was very unpractical for the Alberta farmer, and besides grain shipped dry from the Alberta fields was very apt to become musty at the sea level of Vancouver.

Mr. Crearer, president of the Manitoba Grain Growers' Grain Company, had considerable to say on the subject. He thought that the first necessity was facilities in Vancouver for handling the Alberta grain, and he believed, the Saskatchewan grain. However, it was his opinion that the handling of the grain in bulk was the best method, although exceptions would have to be made for the Oriental trade. He looked on the development of the Western route with great interest. To-day Montreal was receiving government assistance to enable her harbor to compete with the American ports to the south, but he thought it was not right that Montreal should be the only port to receive assistance and that Vancouver was worthy of the same attention.

E. J. Fream, secretary of the Alberta Farmers' Association, in very emphatic terms stated that he wished it understood that the Farmers' Association stood for and would not be content with anything else than a government-controlled terminal elevator at Vancouver. For some time the farmers had been fighting for this, and it was felt that something definite would be known as regards the same before a great while. After considerable expression as to the success of the convention, the convention was adjourned.

Captain Worsnop banquetted the representatives from Alberta, at which a number of speeches were made by men well versed in Western trade relations.

Those who attended the convention from Alberta were: Jas. Bower, Red Deer; W. J. Tregillus, Calgary; Jas. Speakman, Penhold; D. W. Warner, Edmonton; J. Fream, Innisfail; L. H. Jelliff, Spring Coulee; E. Griesbach, Gleichen; A. Von Mielecki, Calgary; E. Carswell, Penhold; G. S. Long, Namayo, and Geo. Harcourt, Edmonton.

USE TIC AM.

positive cure BLISTER all bunches...
ny age, Richard- g, 1 and ambs, 1 est ewe, Davie. o years, Shear- m lamb, Wilson; on; ewe ie; best Wilson.



The Range with a Reputation

reputation for absolute dependability every day—year in, year out and here are the reasons:

The Majestic is built on honor of the best materials—the only range made exclusively of malleable and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break—that's why a Majestic outwears three ordinary ranges.

The reservoir is all copper, stamped from one piece, comes in direct contact with the fire box and heats like a tea kettle. It boils 15 gallons of water in a very few minutes and by the turning of a lever the frame—and reservoir—moves away from the fire.

The reservoir is all copper, stamped from one piece, comes in direct contact with the fire box and heats like a tea kettle. It boils 15 gallons of water in a very few minutes and by the turning of a lever the frame—and reservoir—moves away from the fire.

The Great and Grand MAJESTIC Malleable and Charcoal Iron RANGE

All doors drop down and form perfect and rigid shelves. Malleable iron oven racks slide out automatically, holding anything they contain. Open end ash pan eliminates shoveling ashes out of ash pit.

The Majestic is the best range you can buy no matter what you pay. It is for sale by the best dealers in nearly every county in 40 states.

Majestic Manufacturing Co. Dept. 37 St. Louis, Mo.

It should be in your Kitchen

FU SA E Barred Plymouth Rocks—30 choice yearling hens. S. C. White Leghorns—A few good cockerels Won Championship at Winnipeg Industrial C. H. BAIRD, 265 Portage Ave. Winnipeg

Elementary Engine Mechanism

Every exploding engine operating with crude oil or its distillates, or alcohol, must have certain parts, no matter how different engines may vary in other details. These parts are a cylinder in which a sliding plug or piston works back and forth, carrying a pin called the wrist pin, to which is fastened a connecting rod, the other end of which fits in another pin called

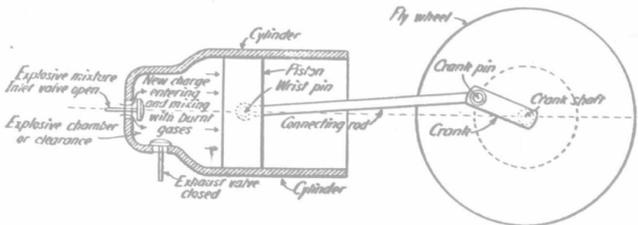


FIG. 1—THE FIRST STROKE, SHOWING POSITION OF VALVES WHEN PISTON IS DRAWN BACK ON THE FIRST STROKE AND ENTRANCE OF EXPLOSIVE

a crank pin. This crank pin is at one end of an arm called the crank, on the other end of which is the shaft or crank shaft. The piston moves back and forth in the cylinder, but when nearest the cylinder head there is still some space left between the walls, valves and the piston head. This space is called the clearance, or the explosion of mixture drawn in will be equal

fly wheels after the engine is put in motion. This moving forward of the piston is accompanied by an opening of the inlet valve, permitting the explosive mixture to follow the piston and fill the cylinder. The clearance space, before this suction stroke begins, is filled with burnt gases from the previous explosion so that the amount of mixture drawn in will be equal

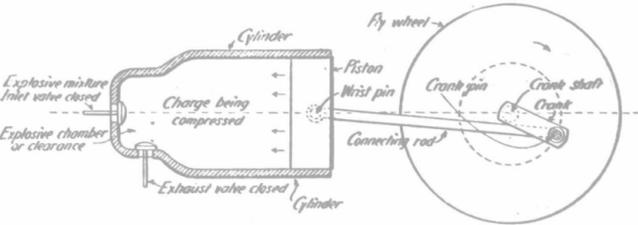


FIG. 2—SECOND STROKE, THE EXPLOSIVE BEING COMPRESSED WITH ALL VALVES CLOSED

charge is compressed before it is exploded. In the clearance walls or cylinder head there are two valves in the form of disks, which cover the openings or ports. Through one of the valves an explosive mixture, having certain characteristics to be explained later, is admitted from the source of fuel supply and from the air. Through the other valve the products of com-

to the volume displaced by the piston, and this fresh mixture will be mixed with some burnt gases. At the end of suction the inlet valve is closed and compression begins (fig. 2), continuing through the second stroke. During this process both valves are closed and the fresh charge, together with the residue of burnt gases, is squeezed into the clearance space so that it will have

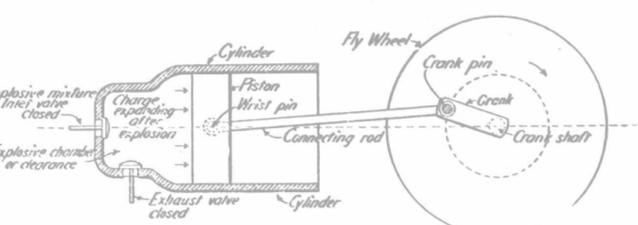


FIG. 3—WORKING STROKE: THE GASES HAVE BEEN FIRED BY AN ELECTRIC SPARK WHEN COMPRESSED IN THE FORWARD END OF THE CYLINDER, AND THE FORCE OF EXPANSION DRIVES THE PISTON BACK.

bustion after an explosion are expelled. Their duty gives these valves the names of inlet and exhaust valves, respectively. Four strokes are usually required to complete the cycle of events occurring within the cylinder, and to engines requiring these four strokes the name four-stroke cycle or four cycle is given. There are certain other engines with different valve arrange-

as a result a considerable pressure, called the compression pressure, preparatory to exploding. At the end of compression an electric spark explodes the charge, causing the pressure to rise two to four and one-half times the compression pressure. This high pressure in the clearance space will then drive the piston forward. This stroke, the third or outstroke (fig. 3), is

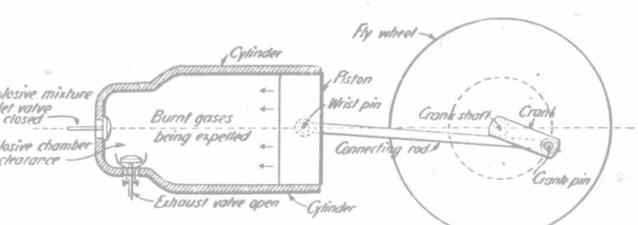


FIG. 4—CLEARANCE STROKE, THE PISTON RETURNING TO DRIVE OUT THE BURNT GASES. VALVES OPEN

When the Liver is Out of Tune

the whole system is off the key—stomach upset, bowels sluggish, head heavy, skin sallow and the eyes dull. You cannot be right again until the cause of the trouble is removed. Correct the flow of bile, and gently stimulate the liver to healthful action by taking

BEECHAM'S PILLS

the bile remedy that is safe to use and convenient to take. A dose or two will relieve the nausea and dizziness, operate the bowels, carry new life to the blood, clear the head and improve the digestion.

These old family pills are the natural remedy for bilious complaints and quickly help the liver to

Strike the Key-note of Health

Sold Everywhere. In Boxes 25 cents.

RICHELIEU & ONTARIO NAVIGATION CO.

The magnificent steamers of this line are now in service, leaving Toronto at 3.00 p.m. daily except Sunday, and after July 1st daily for the St. Lawrence River trip, through the beautiful 1,000 Islands in connection with observation steamers "Shooting the Rapids" to Montreal, where direct connection is made for Quebec and the Saguenay River. For rates, folders, etc., apply to railway or steamship agents, or for illustrated booklet, "Niagara to the Sea." Send six cents postage to H. Foster Chaffee, A.G.P.A., Toronto, Ont.

accomplished by the high pressure of the gases filling the explosion chamber and during the progress of the piston the pressure gradually falls as expansion takes place. During this time both valves are closed, as during the compression. At the end of the expansion (fig. 4) the exhaust valve opens and the piston returns under the influence of the fly wheel, which has been spun around by the explosion, giving the fourth stroke or instroke. The exhaust valve being open for this stroke, most of the burnt gases are ex-

To Really Cure Sick Kidneys

You must also get the liver and bowels right with DR. A. W. CHASE'S KIDNEY and LIVER PILLS

Strange, isn't it, that the intimate relation of the liver and kidneys should have been so overlooked?

And yet Dr. A. W. Chase's Kidney and Liver Pills owe their wonderful success to the recognition of this most essential point.

They ensure regular, healthful action of the liver and bowels, and thereby at once raise a burden from the kidneys and restore them to strength and vigor.

There is no way you can so quickly free yourself of backaches as by using Dr. A. W. Chase's Kidney and Liver Pills.

Headaches disappear, biliousness and constipation is overcome, digestion improves, and you feel fine in every way.

What's the use of experimenting with new-fangled medicines of uncertain and untried value, when you can be sure of splendid results by the use of Dr. A. W. Chase's Kidney and Liver Pills. One pill a dose, 25 cents a box, all dealers, or Edmanson, Bates & Co., Toronto. Write for free copy of Dr. Chase's Recipes.



NO KICK COMING ON OUR PRICES

It is impossible for anyone to make a kick on the prices we have submitted below, as it means a saving to you of over 25 per cent. outside of your freight charges.

With harvest now at hand you will need to lay in a good stock of groceries so as to be able to meet your requirements. We have one of the most up-to-date grocery stores in Winnipeg. Our mail-order staff are careful and will look after your interests, no matter how small they may be, and see that only the best of everything you order is shipped promptly. Doing as large a mail-order business as we do our stock is turned over every day, and consequently our goods are always fresh.

All orders sent us are accepted with the understanding that if the goods we send you are not satisfactory they can be returned to us at our expense, and the money sent in together with any freight charges paid will be immediately refunded.

— SEND US A TRIAL ORDER AND BE CONVINCED —

CANNED VEGETABLES	
Tomatoes, per tin 10c., per 2-doz. case	\$2.30
Beans, per tin 10c., per 2-doz. case	2.10
Corn, per tin, 10c., per 2-doz. case	2.10
Peas, per tin 10c., per 2-doz. case	2.50
EVAPORATED FRUITS	
Peaches, per lb. 10c., per 25-lb. box	\$2.35
Prunes, 90-100, per lb. 7c., per 25-lb. box	1.60
Prunes, 70-80, per lb. 8c., per 25-lb. box	1.90
Apples, per lb. 11c., per 50-lb. box	4.75
Pears, per lb. 12c., per 25-lb. box	2.85
Raisins, seeded, per 16-oz. pkt., per dozen	.90
Currants, cleaned, very choice, 10-lb. lot	.80
Cooking Figs, per sack of 30 lbs.	1.70

JELLY POWDERS, per doz.	.70
CORN STARCH, per doz. pkts.	.83
LAUNDRY STARCH, IVORY GLOSS, per doz. pkts.	1.00
LAUNDRY STARCH, IVORY GLOSS, per 6-lb. tin.	.55
EXTRACTS, per 2½-oz. bottle	.8
" per 2½-oz. bottle, extra strong	.18
BAKING POWDER, per 5-lb. tin, very best	.75
BAKING POWDER, per 1-lb. tin	.18
COCONUT, Schipps, 2 lbs.	.35
RICE, JAPAN, per lb.	.05
" per 50-lb. sacks	2.00
TAPIOCA, per lb.	.07
" per 10 lbs.	.65
POT BARLEY, 7 lbs.	.25
LARD, per 20-lb. pail Gold Leaf	2.85
ROLLED OATS, per 20-lb. sack	.58
" per 80 lbs.	2.10
CORN MEAL, 10 lbs.	.25
ROYAL CROWN SOAP, per pkt., 6 bars	.19
" per case, 144 bars	4.25
SUNLIGHT, 6 bars	.25
FELS NAPHTHA, 10 bars	.60
VINEGAR, per 1 gall. pail	.40
" per 5 galls.	1.75
MIXED PICKLING SPICE, per lb.	.20

PEPPER, WHITE, per lb.	.25
SUGAR, per 100-lb. sack	5.50
Preserving season is now in full swing. You cannot afford to miss this opportunity to get sugar at wholesale price.	
TEA, our special household, worth 45c. per lb., a genuine bargain at 5 lbs.	1.50
TEA, a very choice India, per lb.	.25
" per 5 lbs.	1.15
COFFEE, a really choice Mocha and Java, per lb.	.32
" per 5 lbs.	1.50
COFFEE, Santos, per lb.	.20
" per 5 lbs.	.95
COFFEE, Green Rio or Santos, per lb.	.13
" per 5 lbs.	.60
HERRINGS, in tomato sauce, per 6 tins	.60
HERRINGS, in tomato machonics, per 6 tins	.75
SALMON, Crest Brand, per doz. tins	1.85
SARDINES, King Oscar, per 6 tins	.65
" Canadian, per doz. tins	.50
Don't forget that when you buy from us you buy at wholesale price and save 33½ per cent.	
FRUIT JARS, Mason, pints, per doz.	.55
" Quarts, per doz.	.60
" ½-gall., per doz.	.85
MOLASSES, per 2-lb. tin	.08
" per 12-lb. wooden pail	.63

Mail Order Grocers

DUNGAN & HUNTER

519 Logan Ave., Winnipeg

pelled, but some are retained in the clearance. After this the fifth stroke begins, which is the same as the first stroke, and subsequently the whole series repeats itself indefinitely and automatically.

While the above operations are usual and the above parts are likewise important, an engine having no more mechanism than is shown would not run. There will be required in addition to what is shown a valve gear, which is a mechanism for opening and closing the valves at the proper time. There must be also some device for making a mixture having the proper characteristics for explosion. This mixture will consist of air and the vapor of the liquid fuel, so that there must be supplied a carburetor, which vaporizes and mixes at the same time, or a vaporizer which vaporizes without mixing. There must also be a mechanism for automatically producing an electric spark at the proper time. This constitutes an igniting gear. The explosions will heat the cylinder so much that a lubricating oil will burn and the piston stick; therefore some cooling device must be supplied, generally in the form of a jacket surrounding the whole cylinder and containing water. If the engine is to do stationary work it must operate at a constant or nearly constant speed, regardless of the amount of work done. This requires a governor. The explosions are very loud; therefore such engines are equipped with a "muffler" to lessen the noise. The rubbing parts, viz., the piston, the main bearings, and the crank shaft, wrist pin, crank pin, valve gear, igniting gear, governor, etc., must all be lubricated to prevent overheating and undue wear, so that a lubrication system is required.

Different makes of engines differ in the above details. All have some

provision for performing what is pointed out as necessary, and it is here that inventors and engineers exhibit their skill. All of these engines work as a result of the combustion of the explosive mixture of vapor and air, and a proper understanding of how the various styles of mechanism or changes in detail may affect the engine, requires a preliminary knowledge of their effect upon the explosive mixture.

POMPON GOES TO SASKATCHEWAN

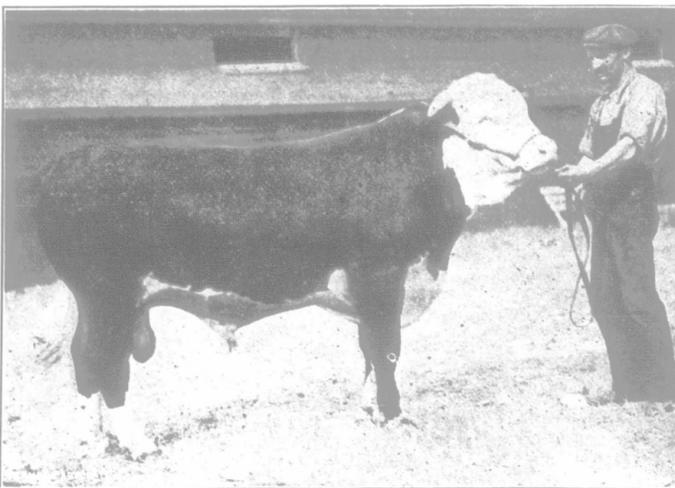
The Belgian Horse Ranch have recently sold the noted stallion, Pompon,

to C. H. Rowe, of Strassburg, Sask. This horse is a noted animal, being the champion Belgian at Seattle last fall. It is fortunate that Pompon is being retained for service in the Canadian West.

PROGRESS INDICATED

Census and Statistics Monthly says: "The improving condition of trade in Canada is illustrated by the business of the Hudson's Bay Company, a concern now in the 240th year of its existence. The fur trade upon which it ex-

isted for two centuries still continues to expand in spite of the fact that the competition of other companies has cut its profits since the monopoly feature of its affairs was taken away forty years ago. But modern methods have been applied within that period, and now instead of the frontier small store for gathering in furs from the Indian trapper and hunter there are in many places, as in Winnipeg and Edmonton, modern emporiums established to conduct trade on the largest scale that great capital can command and control. The lands acquired by the company at the time of settlement with the Dominion Government, embracing every twentieth section of the fertile belt—that is, in the region southward of the Saskatchewan river—have been a great asset, and the receipts from sales to settlers have formed a large part of the yearly revenue. Every year makes these lands more valuable, and prices are going up steadily with the progress of settlement. In the last fiscal year 104,383 acres of farm land were sold at an average of \$12.43 per acre, whereas in the preceding year the sales were only 25,449 acres at \$11.34 per acre. Sales of town lots are also a valuable share of the company's revenue, which in the past year realized \$225,188 against \$47,074 in the previous year. From 1901 to 1910 the net receipts of land sales and furs and trading profits were \$14,867,400, and the division of profits was \$14,168,068. In the first year of this period the value of the net profits was \$334,541, and in the last year \$1,976,845. The dividend in the first year was \$365,000, and in the last \$1,946,666. The expansion of the Northwest lies at the bottom of this business development, and the figures are given for the illustration they afford of progress in our new country.



CHRISTMAS KING, YOUNG HEREFORD BULL Sired by Happy Christmas the noted champion, owned by Wm. Shields

METALLIC CEILINGS

are everything that plaster, wood and wall paper are not.

Metallic Ceilings are fire-proof, absolutely.

Metallic Ceilings don't crack or crumble—don't get damp or mouldy—don't need repairs.

Metallic Ceilings are far-and-away the most economical building material you can put in a house.

You don't believe it? We can prove it. Write us for the facts.

The Metallic Roofing Co. Limited
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TORONTO AND WINNIPEG (SO)

WESTERN CANADA FACTORY :
797 Notre Dame Ave. WINNIPEG, MAN.

CANADIAN NORTHERN RAILWAY

TORONTO EXHIBITION

FROM WINNIPEG AND RETURN
\$36.90

Via All Rail

\$42.60

Via Lake and Rail

CHOICE OF ROUTES

Corresponding Low Fares from other points

Tickets on sale Aug. 22 to Sept. 6
Return Limit Sept. 23, 1910

Full information from local Agent or write
R. CREELMAN,
Asst. General Passenger Agent
WINNIPEG, Man.



SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS

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.

W. W. CORY,

Deputy of the Minister of the Interior
N.B.—Unauthorized publication of this advertisement will not be paid for.

AGRICULTURE IN THE ORIENT

A bulletin recently issued by the U. S. department of agriculture says the Orient still remains almost unexplored and unknown as to its agricultural treasures, and economic exploration rather than scholarly research is needed to make that land known and its value appreciated and to secure for the United States most useful agricultural introductions. There are to be found some of the best cultivated varieties, developed by the combined efforts of man and nature for thousands of years; and there, also, are almost all of the wild types which our prehistoric ancestors utilized in producing the cultivated crops of our time.

The report under review deals especially with the useful plants which should be introduced into the far West and Southwest from that portion of the Orient known as Palestine. Already the Smyrna fig and Thompson's seedless grape, among other fruits, Kherson oats and hard Russia and Turkey wheats, among cereals, have been introduced into the United States and made it possible to extend cultivation to regions heretofore untilled, and it is believed that what has been done in this direction is but a splendid beginning of a most promising future possibility.

This land closely resembles California, except as to the extent of area; in fact, is practically a California reduced to about one-twentieth in size, but markedly similar in general topography, climate, vegetation and agricultural and economic possibilities. Like California, Palestine is longest from north to south; it, too, has very high mountains, and very deep depressions. Passing from west to east in either, there is the littoral region along the coast, the zone of hills and plateaus, then the long valley in each, while still farther east are fertile plateaus, finally turning into arid or desert lands. Each, too, has a dry warm season, and a humid and more temperate one. Palestine is even more favored than California with regard to winter temperature, for although as in California, the thermometer rises high in summer, it rarely drops in the winter to the freezing point. Snow is rare even on the plateaus, and farmers in almost all parts of the Holy Land are safe from any damage by frost.

Curiously enough, the list of flora of this small territory of Palestine includes approximately the same number of species as that of California—about 3,000. In both sections evergreen shrubs predominate. The same forms of vegetation, often the same genera, are found on Mount Tamalpais, California, and Mount Carmel, Palestine; the mapus formation of Palestine is to be compared to the chaparral and chamiso of California; and the forms of vegetation of the Lebanon and the Hermon mountains are much the same as those of the Western slope of the Sierras. This analogy of the flora of Palestine with that of California justifies the expectations of the best results from their introduction into the last named state.

Among the large number of wild species and varieties found in Palestine is the wild emmer, from which our cultivated types of wheat and related cereals seem to have been derived. The author of the paper found large areas on the slopes of Mount Hermon covered with this cereal, and it was found growing near an eastern branch of the Jordan, 500 feet below sea level, and upon the slopes of the mountain, 6,000 feet above sea level, or in the zone of alpine plants. By selection and crossing of this wild cereal, which prefers poor, rocky, shallow, dry soil, and thrives without any cultivation, it is thought possible to produce new races which will be very persistent and very hardy, and to extend the cultivation of wheat to regions where, on account of the low quality of the soil and the severity of the climate, it is at present impossible to produce it.

The study of this and other wild types of our cereals does not confine itself to a merely botanical and historical end, but becomes intensely practical as an economic, even social problem, as its ultimate aim is to produce a little more bread at a little less expense, and to render this production possible where, up to the present time, it has been impossible.



FALL BULBS

For outdoor and indoor planting.

Write for catalogue, ready August 25th.

Also have your name added to our Mailing List for Catalogue of "Selected Seeds for Western Canada," ready about January 1st, 1911.

Steele, Briggs Seed Co.
WINNIPEG, CANADA Limited

IMPORTANT NOTICE

You cannot afford to be without one of our "LONDON" gas or gasoline engines to do that pumping, sawing, grinding or any other work you are doing by hand or giving out.

Let us tell you or refer you direct to some of our satisfied customers.

Our Catalogue 16 G, explains 1 1/2, 2 1/2, 3 1/2, 5 H. P.

LONDON GAS POWER Co., Limited

LONDON

Formerly SCOTT MACHINE Co., Limited

CANADA

KELOWNA IRRIGATED FRUIT LANDS

THE PRIZE WINNING DISTRICT OF THE OKANAGAN VALLEY

The new sub-division, "Glenmore" is being placed on the market. Ideal location, one-half mile from town limits. The soil varies from a sandy loam to a light clay loam. The land is practically level and a good portion prepared for planting.

The company is installing one of the most perfect irrigation systems in British Columbia.

Of winter, as the plainsman understands it, there is none. The temperature seldom goes down to zero.

Kelowna fruit takes the highest place at exhibitions. Its orchards are free from fruit pests of all kinds.

Apples have given results of \$750.00 per acre. Crop from four-year-old orchard of ten acres sold for \$3,000. Nineteen acres mixed orchard produced fruit worth \$9,000.

FOR PRICES AND FULL PARTICULARS, CALL AT OFFICES, OR WRITE

THE CENTRAL OKANAGAN LANDS, LIMITED, KELOWNA, B.C., or DOMINION TRUST CO., LTD., REGINA, SASK., and CALGARY, ALTA.

HOMESITES at VANCOUVER ERINDALE

Large 50-foot lots, near the city, ten minutes walk from a fine bathing beach, beautiful scenery, sloping gently south, very light clearing and only waiting for the completion of the Second Narrows bridge to bring you a huge profit. Roads are being cleared and graded through the property NOW. The bridge will be completed in a year and a half.

CAR FACTORIES AND GOVERNMENT DRY DOCKS

the construction of which is just starting, further out, will make values double here in a year. In five years this property will be built up solid and in the heart of a busy end of the city. How much will it be worth then?

am offering a limited number of these lots at \$300 each

Terms:—One-fifth cash. Balance in eight quarterly payments at seven per cent. per annum.

WE GUARANTEE ALL LOTS TO BE HIGH AND DRY, FREE FROM LARGE ROCK AND GULLIES OF ANY KIND, TO HAVE GOOD SOIL AND NOT MORE THAN A ONE PER CENT. GRADE

Out-of-town customers are allowed sixty days in which to verify the truth of this. If not satisfied on inspection within that time, your money will be returned.

To obtain maps and particulars fill up and mail this coupon.

NAME

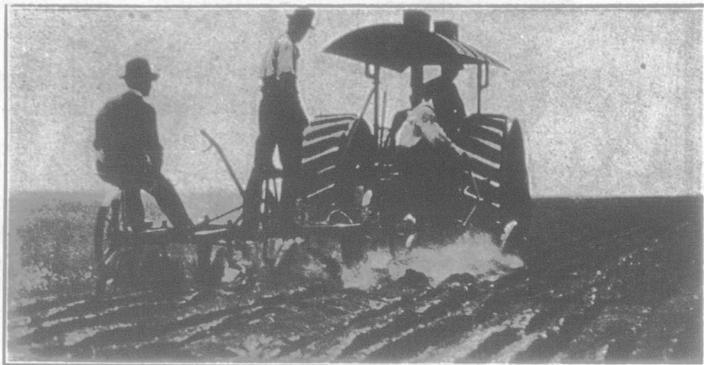
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Please send me particulars of ERINDALE.

Advocate ads give good results

Ideal Traction Gasoline Engine



28 Brake H. P. pulling 6, 12 inch bottoms

Sold By Us As a 28 Brake H. P. Engine

The Small Farmer's Rig

If you are going to buy an engine for Spring
write us for catalogue and prices.

Goold, Shapley & Muir Co., Ltd.

230 Princess St., Winnipeg, Man.

LARGE CLYDESDALE IMPORTATIONS

The *Scottish Farmer* for August 6, contains notice of the shipment of some 120 head of Clydesdales, chiefly to Canada. The West secures a good share of the importation.

Vanstone & Rogers, Wawanese, Man., had sixteen Clydesdales and a few Belgian and Percheron horses. In the shipment of Clydesdales were ten mares and fillies, one aged stallion, and the rest were three-year-old and two-year-old entire colts. The aged stallion was Look Out (12213), purchased from Mr. Alex. Picken, Kilmaurs. He was got by Royal Carrick (10270) out of a mare by Scottish Banner (9671). Look Out has been a useful breeding horse, which leaves plenty of foals. Three-year-old colt was got by the champion horse, Royal Chattan, out of a mare by Royal Gartly. Two-year-old colts are Baronson, sire of Oyama. Nearly all the fillies are two-year-olds. One is by Ruby Pride. Another is by Baron Galloway, out of a Macgregor mare, with granddam by Sir Everard. Two are by Baron Whyte; two are by Blacon Sensation; one is by Royal Favorite, and another is by Golden Crown, Cumberland-bred son of Gold Mine (9540). A four-year-old mare is by Bulwark, and a three-year-old is by Sir Hugo.

Robert Sinton, Regina, brought over 41 head. He has 21 stallions of all ages, from yearlings up to five years old, and to 20 females of varying ages. The oldest horse is Baron Gartly, by Baron's Pride, another is by Royal Chattan, out of a dam by Baron's Pride. Other individuals in Mr. Sinton's importation are by Everlasting, Baron's Pride, Chief Ruler, Royal Edward, Baron Edric, Memento, Pride of Blacon, Baron Ruby, Knight of Cowal, Revelanta, Marmion Montrave Ronald, and other sires equally as well thought of in Scottish Clydesdale circles. Mr. Sinton's importation is rated as one of the best bred contingents that have come into the West.

Strathclair, Man., has a newspaper, *Plain Talk*, the first issue of which came out on August 12. It is a bright sheet and asserts that it is strictly independent.

THE TEN COMMANDMENTS OF DRY FARMING

1. Thou shalt plow deep. Deep plowing lets rain get into soil easily without run off; provides more feeding space for plant roots; makes more plant food available, due to more moisture.

2. Thou shalt keep the surface soil loose. A loose surface keeps soil moisture from evaporating; lets rain get into soil easily; makes more plant food available, due to more moisture.

3. Thou shalt cultivate level. Level soil has the least soil exposed to the air; level soil will take in rain fall much faster than ridged soil. On ridged soil the rain runs off through the furrows. The soil in the ridges dries out so that the plant has less moist surface soil to draw on for food and moisture. Ridging the soil is a most effective way for getting rid of both the moisture in the soil and of rainfall.

4. Thou shalt summerfallow when rainfall is less than fifteen inches. Summerfallow saves up two years' rain for one crop and kills weeds and plant diseases.

5. Thou shalt add organic matter to the soil. Organic matter holds moisture and plant food, improves mechanical condition of the soil, helps make plant food available, lessens drifting, blowing and washing of soil. Stable manure is the best form.

6. Thou shalt keep down the weeds. Weeds use up moisture and plant food, crowd the plants, shade the crops, make it difficult for the plant to grow, and hard to work the land properly.

7. Thou shalt grow early maturing crops, because growing conditions are best in early summer and winter grains better than spring grains.

8. Thou shalt grow corn, every three to five years. The cultivation given

corn saves moisture and kills weeds and plant diseases. Corn is best preparation for a grain crop; produces more stock food per acre than other crops. Do not hill up the corn as this wastes the moisture.

9. Thou shalt grow clover or alfalfa every few years. Clover and alfalfa add fertility and organic matter to the soil; produce a most valuable hay and seed crop.

10. Thou shalt keep stock. The most profitable way of marketing grain and fodder is through stock. They produce manure, which is very necessary to the soil. They bring about prosperity.

Who obeys these commandments shall reap abundant crops. He who violates them shall be punished by decrease in yield in proportion to the transgression.—W. C. PALMER, Agricultural Editor Extension Department, North Dakota Agricultural College.

PERCHERON SOCIETY OF AMERICA

A meeting of the Board of Directors of the Percheron Society, was held at the offices of the association, Union Stockyards, Chicago, August 16th. The business of the society was formally turned over to Secretary Wayne Dinsmore, who has been in full charge of the affairs of the society since August 1st.

The fee of \$50.00 per head on imported animals, which was to take effect October 15, 1910, was fully discussed, and the need of additional revenue for the work of the society considered. Money received for capital stock issued to members cannot properly be used for running expenses, but must be held as a reserve fund. A careful estimate of the expenses of the society for the ensuing twelve months, including the publication of the necessary stud books, \$8,000 offered for Percheron horses at the various state fairs, and at the International show, and the maintenance of the new inspection at port of entry, was made, and entails a heavy budget.

To meet this requires increased revenues. Inasmuch as the annual reports show that heretofore something like

75 per cent. of the expenses of the society have been borne by American breeders, the importers on the board readily conceded that there should be a substantial increase in the fees for the registration of imported animals. Some of them felt, however, that as the inspection was at present confined to the numbers and identification of imported horses, and as it does not appear likely that the more costly and sweeping plan of the veterinary examination, which was at first contemplated and provided for, would be undertaken for some time, that some reduction should be made. It was also felt that the younger animals should be registered for less than the older ones, as has been the case with American-bred horses. After talking the matter over among themselves, the importers finally came to the conclusion that animals four years old and over should pay the \$50.00 fee, and animals under four years, \$25.00 per head. All members of the board came to the conclusion that this was fair and just to all parties concerned, and it therefore unanimously was so ordered. Accordingly, after October 15th, the registration fee for imported Percherons four years old and over will be \$50.00, and for those under four years, \$25.00 per head; if recorded within three months. If not recorded within this time the fee will be \$100.00 on all animals.

Importers and breeders alike are pleased with the working of the inspection at the port of entry. Several of the directors had recently come through New York with importations. Several cases where the horses did not agree with the description given in the French certificates have already been found, and the importers who had been furnished with wrong certificates for the horses in question, have sent the papers back to France and lodged complaints against the French breeders who, through carelessness or intention, had failed to furnish the correct papers. All members of the board were strongly in favor of continuing the inspection at port of entry, and making it as complete as may be necessary.

Here is our New Fall & Winter Catalogue



**We Pay
Delivery
Charges to
any Destination
in Canada**

Free Delivery of Goods Throughout the Dominion

The aim of this store has been to reach a point in its development where it can serve on equal terms all the citizens of this great Dominion, and offer to every resident of Canada the advantage of Simpson Quality, Simpson Variety and Simpson Economy, right at your own door without extra cost and without trouble or risk.

The enormous increase of our Mail Order Business now enables us to respond to your good will by being the first store in Canada to extend **FREE DELIVERY TO ALL CUSTOMERS.**

You need no longer figure out postage, express or freight rates, because the prices quoted in our catalogue are what the goods will cost you at your nearest station, except heavy or bulky goods, as stated in the catalogue.

OUR PART

The Simpson Store—the best constructed and best equipped mercantile building in the Dominion—is now practically your nearest store.

Its immense stocks bought direct from the manufacturers for cash mean economy to you.

The worthy, honest goods, made for service, and the prompt response to your request for return or exchange, mean comfort and satisfaction to you.

The latest, most stylish and up-to-date merchandise in every department means pleasure to you.

YOUR PART

If your name is not already on our mailing list send post-card at once for catalogue.

Our new free delivery system makes it profitable for you to order your entire needs from this store.

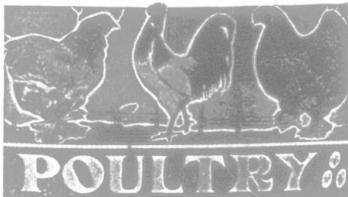
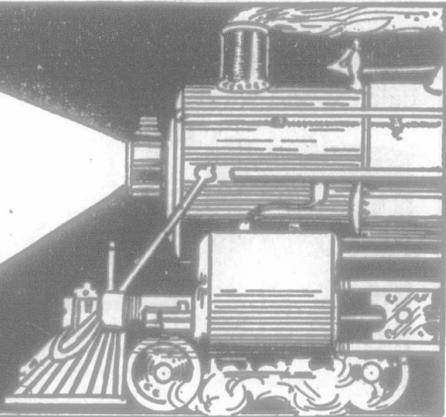
You can order any single article at any price, large or small, and we will send it cheerfully and promptly; but we suggest that you try to make each order as large as possible.

Follow carefully the instructions printed in the Catalogue.

N. B.—To get our New Fall and Winter Catalogue promptly send Post Card addressed to Dept. No. 16

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Wherever There's
a Post Office, an Express
Office or a Railroad
SIMPSON'S
Will deliver your
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B. C. POULTRY ASSOCIATION

An event of great importance, bearing on the future of the poultry industry of British Columbia, was a conference of the poultry breeders during the week of the Vancouver exhibition. Delegates assembled from all parts of the

province, from the various poultry associations to form a provincial organization to be known as the British Columbia Poultry Association, and to affiliate with the American association. M. A. Jull, government poultry official, completed the organization work, and it is quite evident that the poultry industry is destined to flourish in the province: Over one hundred and seventy-five members joined the association. Officers elected were: President, E. B. Cole, Burnaby; vice-president, W. A. Nachtrieb, Victoria; secretary-treasurer, M. A. Jull, Victoria; board of directors, W. Stonehouse, Vancouver; J. Isherwood, Nanaimo; H. Koelkenbeck, Ashcroft; R. Waddell, Enderby; W. M. Wright, Summerland; F. W. Laing, Revelstoke; W. S. Pearcey, Nelson; T. A. F. McIntosh, Grand Forks; A. B. Smith, Cranbrook; T.

Edwards, Victoria; Executive committee appointed: E. B. Cole, W. E. Nachtrieb, M. A. Jull, W. Stonehouse and T. Edwards.

EXHIBITION COOPS

EDITOR FARMER'S ADVOCATE

Describe construction of and state dimensions of an exhibition coop for a single bird, the material to be lath, canvas or screening.

Alta.

E. P.

Ans.—The regulation size of coops is as follows: Bantams, 18 inches square; Leghorns and breeds of that size, 24 inches square; larger breeds, as Brahmas, Plymouth Rock, Wyandottes, etc., 24 inches wide, 28 inches high and 24 inches deep. Coops are usually

constructed of canvas, tacked on light wooden frames, with wire fronts.

CANDLING EGGS

EDITOR FARMER'S ADVOCATE:

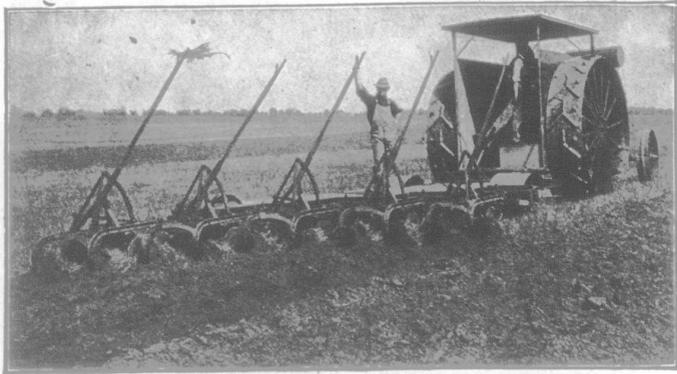
What is meant by "candling eggs"? Is it a preservative method or merely a way of determining the age and condition of eggs? I notice in market reports that quotations for eggs generally state they are subject to candling.

Alta.

W. J. S.

Candling is examining eggs as to their condition. The process is very simply performed in a dark room. The egg is held between the eye and a light. The whiter and cleaner the eggs the better.

A fresh egg has a uniform glow, a reddish tint throughout its whole struc-



"FLOUR CITY" TRACTOR PULLING TEN PLOWS

**You Want a Safe Engine for Threshing Purposes
That Won't Set Fire to your Property
The Stickney Gasoline Portable and "Flour City"
Tractors are such**

They Furnish the Maximum of Power at the Minimum of Cost.

YOU WANT WATER?

One of our WELL DRILLS or AUGERS will find it for you and Our Aylmer and Toronto PUMPS and Canadian AIRMOTORS will deliver it just where you want it.

Our AYLMEYER STANDARD SCALES will weigh your Grain and Stock, and thus save their cost in a season.

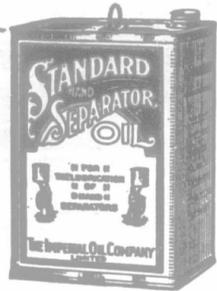
Our TORONTO GRINDERS and SAWS will chop your fuel and saw your firewood.

See us or our Local Agent and get our Catalogues and Prices before you buy.

Ontario Wind Engine and Pump Co., Ltd.,
WINNIPEG TORONTO CALGARY

The Full Percentage of Cream

Getting the full percentage of cream from milk depends as much upon the oil used to lubricate the separator as upon the separator itself. Gummy oil will cut the fine bearings of your machine, spoil its balance and waste good cream in the skim-milk pail.



**STANDARD
Hand Separator Oil**

never gums, never rusts, never corrodes. It feeds freely into the closest bearings and insures the perfect lubrication that is essential to the free spinning of the bowl and the complete separation of cream from milk. It lessens the driving effort and lengthens the life of your separator.

One gallon cans. All dealers. Or write to

The Imperial Oil Company, Limited

WALL PLASTER

When figuring on that new house do not overlook the interior finish

Ask for Sackett Plaster Board
and the Empire Brands of Wall Plaster
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WINNIPEG, MANITOBA

ture, and is turned over in different positions to see if there is any opaque or interfering substance, and when none is found the egg, as far as candling is concerned, is all right. But a stored egg, if it has been well kept, will candle almost as brilliant as a fresh egg, so the candling does not discriminate between a fresh egg and a stored egg. It discriminates between an egg which we consider edible and one which has progressed so far in its decomposition as to be inedible.

Probably the very best medium for the transfer of disease germs from fowl to fowl is the water dish or fountain. This is especially true of those diseases affecting the head, throat and lungs. The ailing bird, in getting its drink of water leaves germs which the next bird, perhaps up to that time entirely well, takes into its system. If the well bird is strong enough it may throw off the germs and experience no illness; if not, it may quickly sicken.

Another source of trouble is the feeding trough or dish, where filth and germs contaminate the food and spread disease in that manner. Both the feed and drink dishes should be thoroughly disinfected every few days by scalding with boiling water, and if any colds or other ailments are discovered in the flock, once a day is not too often to scald them.

WHAT TO FEED AND HOW TO FEED

Some writers tell us that the various ages should have feed particularly suited to the age of the chick; that a month-old bird must be fed slightly different to one two months of age. This looks reasonable until one commences to work it out; it is then found to be unworkable for the average poultry-raiser. In my experience I have found that the simpler one can make the feeding the better. It doesn't necessarily take a chemist to mix feeds for poultry, and growing chicks will thrive on any good food they may get. True, the small chick just out of the shell must have food suited to its size, but even that food need not be so different in substance to that fed the laying hens. The incubator chick is fed oatmeal, boiled egg, cracked wheat, etc., and so is the hen, only in different form; the oatmeal is fed in the whole oat, the egg in meat scraps, cracked grains usually fed whole. We feed the growing chick practically the same grain feed as the laying hen. Just now they are getting a mixture of wheat, oats and barley, and are doing nicely. When feeding growing pullets it is well to bear in mind the kind of food they will have as hens, and feed the same, or as near as possible. I have hens that were fond of oats and peas. Owing to the high prices of these two of late years the hens here will hardly eat oats, and never peas. They were not used to them while growing, and would only eat them when nothing else was available. Corn is one food that most hens are fond of, yet pullets that had not corn in their growing ration would not take readily to it when given later in life. Knowing this, practically the same feed is fed growing chicks they will eat later.

As a rule, the cockerels will be fed off before winter, but as most raisers are not so situated that it is convenient to separate them from the pullets, they get the same feed while running. The same feed is good for them, as it will most likely be used in fleshing them for market later.

A good method of feeding the chicks without too much labor is by means of hoppers. We have two or three thousand chicks running at large that are fed about once a month. They are housed in colony houses in a clover field, in which is a patch each of corn and buckwheat. The houses are placed upon blocks to give shade; hoppers are placed in the field, one for every three or four houses. Feed is put into these hoppers whenever needed, and the chicks are allowed to help themselves. When chicks have free range they will not require much feed, but it pays to have some available when they wish it. No more feed will be used this way than if fed at intervals, and the chick will be sure to have sufficient. — T. C. EL-FORD, Macdonald College.



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STILL UNRIVALLED
Seven days free trial if desired.
In beautiful oak cabinet with largest sound box, latest aluminum scientific tone arm and revolving horn, exactly as shown. No crane, stand or rubber tubing required; so simple, no attach-ments. Plays all makes and sizes of disc records. The disc style reigns supreme.

\$35 Only freight paid, including 16 large selections of your own choice.
PAY \$6.50 DOWN

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We sell all makes of Talking Machines and Records. Our prices are lower than other houses. When buying from us you do not pay for extravagant advertising, nor do we send you second-hand goods. Easy payments, from \$2.50 monthly. No C. O. D. Return if not as represented and money refunded. Satisfaction guaranteed. A straight business offer, no mysterious philanthropic ad.

Here are some of our specials:
Columbia 10-inch Double Discs (2 different selections), 85c., new velvet finish, fit any machine, last for ever; all languages. Hear George Lashwood and Raymond Hitchcock—funnier than Lauder.
We send records on approval. Write for details.

Gold Moulded Cylinder Records, Edison, Bell and Columbia, new, 25c., were 40c.

Columbia Indestructible Cylinder Records, 45c., beautiful tone, cannot break, fit any machine.

Four Minute Cylinder Records, 50c.
Columbia Indestructible Four Minute Records, most wonderful invention, 65c.

Edison Gem Phonograph and 12 selections, \$19.50. Brand new.

Edison Fireside, with 6 genuine gold moulded two-minute and 6 four-minute records, \$33.10.

Victor Disc Gramophone, with 16 large selections, \$26.40 and upwards. Second-hand machines at bargain prices. Old machines taken in trade; 40 styles of talking machines; 20,000 records; 40 styles of pianos.

Our Piano Specials \$290.00 and \$350.00

Three Fall Payments Arranged.

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295 PORTAGE AVENUE, WINNIPEG.
Biggest Piano and Phonograph house in Canada. Wholesale and retail.
Columbia, Berliner, Victor and Edison experts.
Write for interesting Graphophone history and free booklet, No. 42.

\$5 a Day

For a Representative

Man or woman in every town and district in Western Canada

WRITE FOR PARTICULARS TO

GAS POWER AGE, LTD.
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**DAIRY, FRUIT
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Land in lots from five acres up, close to Abbotsford, on electric road. Best location in the Fraser Valley. The garden of British Columbia. Crop failures unknown.

For booklet, prices and terms

JOS McCALLUM, Abbotsford, B. C.

Her Baby Nearly Died. WAS TAKEN SICK WITH Dysentery.

Mrs. Chas. Farrell, Oakland, Man., writes:—"My dear baby was taken sick last fall, and we got the doctor and he said she had dysentery. She nearly died with it, but two or three doses of Dr. Fowler's Extract of Wild Strawberry completely cured her.

"My two little boys got a bad case of diarrhoea and two doses made a wonderful change and they were completely cured also. I would not be without such a grand medicine as Dr. Fowler's Extract of Wild Strawberry if it were twice the price, as I consider it a wonderful medicine, and I cannot recommend it too highly."

Dr. Fowler's Extract of Wild Strawberry has been on the market for over sixty-five years, so you are not experimenting when you use this old and tried remedy.

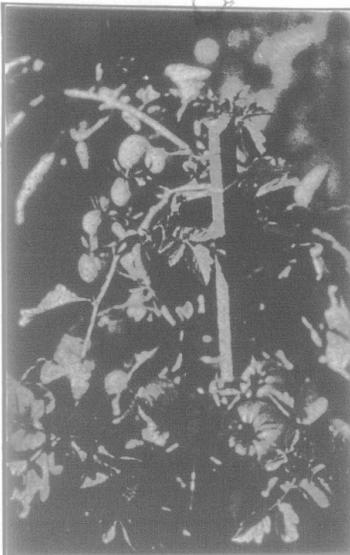
Do not accept any of the many substitutes for this sterling medicine, but ask for Dr. Fowler's and insist on getting what you ask for. Price 35 cents.

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.



TOMATOES RIPEN EARLY WHEN THE VINES ARE STAKED UP

The illustration shows how N. M. Ross does it on the Indian Head Forestry Farm. Seed was sown under glass February 27; plants were set in boxes March 19 and in the garden June 6.



When the photograph was taken July 27, the tomatoes were bigger than hens' eggs. He always keeps seed from the first large smooth fruit that ripens.

The annual report of the Canadian Forestry Association for the current year (1910) has just been issued, and is now being mailed to members of the association. In addition to a report of the business meeting of the association, a full report of the convention held in Fredericton, N. B., in February last, is contained in the volume. All papers read are given in full, and much of the ensuing discussion as well. Much valuable information is contained in regard to the protection of the forest from fire, the wood-pulp industry, the education of professional foresters or forest engineers, and many other aspects of forestry, especially in Eastern Canada. Requests for copies of the report should be addressed to James Lawler, secretary Canadian Forestry Association, Ottawa, Ont.

An excellent lawn or garden roller may be made of a length of glazed tile, say two feet in diameter, filled with concrete. Before filling, fix in the center of the tile a piece of inch-and-a-quarter gas pipe, allowing the ends to project two or three inches from each end of the tile, to which an iron handle may be attached. Any blacksmith can make the handle, at small cost. Fill the cylinder with small stones, and pour in a mortar composed of one part cement to six parts sand, thoroughly mixed and then made so thin with water that it will fill all the spaces between the stones. When the cement has become hard and dry, one will have a cheap and handy implement with which to roll his beds after planting.

CANADIAN NATIONAL APPLE SHOW

The manager of the National Apple Show to be held at Vancouver, October 31 to November 5, is touring the East in the interests of the exhibition and to encourage Eastern fruit growers to send exhibits.

Speaking of the prospects of the show, the manager says:

"We expect to have on exhibition about 15,000 boxes and barrels, covering floor space of about 100,000 square feet.

McDonald's Yorkshires

A few fine, long pure-bred Yorkshire boars on hand. Farrowed April, from prize winning stock. Price \$20.00 each.

Also three young Shorthorn bulls. Apply for prices on bulls. A. D. McDONALD, Napinka, Man.

Melrose Stock Farm

SHORTHORN CLYDESDALES Sold out of sheep. Six young bulls, a few heifer calves for sale, five young stallions, from one to three years old.

GEO. RANKIN & SONS, Oakner P. O., Man. On the G. T. P.

Great Private Sale

Special prices and terms for choice breeding Shorthorns to make room for winter. Come and see them, or write for particulars, also prize-winning Barred Plymouth Rocks. Eggs for sale in season.

R. W. CASWELL, Star Farm, Box 1283, Saskatoon, Phone 375 C. P. R., C. N. E., G. T. P.

ORMSBY GRANGE STOCK FARM

Ormsby, P. Que. Importation and breeding of High-Class Clydesdales a specialty. Special importations will be made for breeders at minimum cost. My next importation will arrive about 1st June. DUNCAN McCAIGHERAN

MIDDLETON'S

Pure Bred Large Yorks and Tamworths Stock of 800 to choose from. Prices from \$7.50 up. Inquiries given immediate attention. Address

H. A. MIDDLETON, BERGEN, MAN., or H. G. MIDDLETON, 154 Princess St., Winnipeg

The J. C. Ranch

Breeder and importer of high-class Clydesdales. Young stock always for sale. Male and female. A carload of young stallions just arrived. I can supply you with a show-ring champion or a range stallion.

JOHN CLARK, JR., Box 32, Gleichen, Alta.

Messrs. Hickman & Scruby

Court Lodge, Egerton, Kent, England EXPORTERS OF PEDIGREE LIVE STOCK of every description. Owing to the rapid increase in business, Mr. C. L. Scruby has been taken into partnership. During the spring months the export of horses of the light and heavy breeds will be a specialty. Write for prices, terms and references.

J. C. POPE

Regina Stock Farm Regina, Sask. Breeder of Ayrshire Cattle and Improved Yorkshire Swine Stock of both Sexes and all Ages for Sale.

Glencorse Yorkshires

ALSO FOR SALE! Holstein-Friesian bull calf, nine months old, sire Duke Varcoe Beryl Wayne (7718), dam Duchess de Kof (7158) and litter of registered Sable Collie puppies.

Glen Bros., Didsbury, Alta.

20 SHORTHORN HEIFERS \$40 TO \$60 EACH

2 Clydesdale Colts Cheap Yorkshire Pigs \$8.00 each Best strains of Breeding J. BOUSFIELD, Prop. MacGREGOR, Man.



HORSES Shires and Percherons

In looking for stallions or mares, don't buy until you have seen what W. W. Hunter is offering, as he buys and sells every stallion himself.

Your first purchase at this establishment means another life-long satisfied customer. Some of the best stallions and mares that were imported to Canada are in the importation which arrived November 20, 1909. Address all correspondence to—

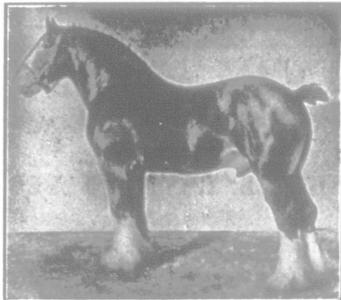
W. W. HUNTER

OLDS, ALBERTA

VANSTONE & ROGERS

Importers and Breeders Of

Clydesdales, Percherons and Hackneys



We expect to land three carloads of imported stallions and mares here about August 15.

Among them are some choice Clydesdale colts, two years old, and a number of choice Clydesdale fillies, two and three years old, particulars of which will appear in the next issue.

We have Percheron and Belgian stallions, one yearling Belgian stallion weighing over 1600 lbs.

We have the two-year-old Belgian stallion that won the state medal in his class this year, and also the winners in the yearling, two-year-old and three-year-old classes for Belgian mares, the latter mare winning the grand championship for best mare, any draft breed.

If you want a good one write, or, better still, come and see them.

VANSTONE & ROGERS

JAS. BROOKS, Manager, Vegreville, Alta.

Head Office and Stables, WAWANESA, Manitoba

Mention the Farmer's Advocate when Answering Ads.

Never without a Bottle

21 James St., South Hamilton, Ont. July 19th, 1909. "We are never without a bottle of your Spavin Cure in our stable, as we believe it the best on the market and have cured several Spavins with it." J. Irwin Van Fleet. Kendall's Spavin Cure is the certain, quick cure for Spavin, Ringbone, Splint, Curb, Swollen Joints, Cuts, Sprains and other Lameness. Keep it handy for emergencies. The best home liniment. \$1. a bottle—6 for \$5.—at all dealers. Ask for "A Treatise On The Horse" or write us. Dr. B. J. KENDALL CO., Enosburg Falls, Vt.

SAVE-THE-HORSE SPAVIN CURE

50¢ a bottle, with written directions. Send for copy, booklet and letters from thousands more and more. Permanently cures Spavins, Ringbones, Splints, Curbs, Swollen Joints, Cuts, Sprains, Windpuff, Milk Rot, injured Tendons and all Lameness. No scar or loss of hair. Horse works as usual. Double, or extra gold. Troy Chemical Company, Birmingham, N. Y. and 148 Van Horne St., Toronto Ont.

MILK FEVER OUTFITS, Dehorning, Test Syphons, Sitters, Dilators, Etc. Received Only Award World's Fairs, Chicago, St. Louis Write for Illustrated Catalogue.

HAUSSMANN & DUHN CO., 392 S Clark St., Chicago

Ring-Bone

There is no case so old or bad that we will not guarantee

Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 5-minute applications cure. Works just as well on Splintbone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a lameness, write for a free copy of Fleming's Vest-Pocket Veterinary Adviser. Ninety-six pages of veterinary information, with special attention to the treatment of lamenesses. Durable, bound, indexed and illustrated. Make a right beginning by sending for this book. FLEMING BROS., Chemists, 45 Church St., Toronto, Ontario

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AGENTS WANTED IN UNREPRESENTED DISTRICTS

NOTICE TO IMPORTERS



Of Belgian, Percheron, French and German Coach stallions and mares.

H. Vanlandeghem & Sons

Commission Agents and Interpreters, Issegem, Belgium, and Nogent-Le-Rotrou, Percheron District, Eure & Loire, France.

REFERENCE: Bank DeLaere, Issegem, Belgium. We meet importers at any port of Belgium or France and act as interpreters in the draft and coach horse districts. We can save you money. Can furnish you with full information about shipping, pedigrees, etc.

GLENALMOND SCOTCH SHORTHORNS

80—HERD NUMBERS EIGHTY HEAD—80



Sensational Offerings—Young bulls of various ages from my best stock. Young cows and heifers of breeding age. My stock bull, Baron's Voucher, imported. This bull is of grand breeding merit and a sure stock-getter. Correspondence solicited. Inspection invited.

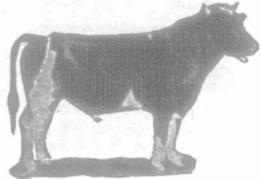
C. F. LYALL - STROME, ALTA.

SUMMER HILL OXFORDS



Their quality is undoubted. We have the best that time and experience can produce. We have seven hundred to select from. We are the founders of the first flock of Oxford in America and have sold more Ox fords than all other breeders in Canada combined. Our new importation of fifty head will arrive July 30th. We are fitting one hundred head for exhibition this season and will exhibit at the leading shows this year. See our exhibit at Winnipeg, Brandon and Regina. For particulars and prices write to PETER ARKELL & SONS, TEESWATER, ONT.

HOLSTEINS



Have two or three highly bred bull calves for sale at bargain prices for the next thirty days. Have one sire ready for service from fine milking strain. Home of Wild Rose Jones, 2nd Piebe, the only cow in Western Canada with an official record of 30 lbs. of butter in 7 days. Write us for quotations.

W. M. GIBSON, 159 Alexander Ave., Winnipeg



Brampton Jerseys

Canada's Greatest Jersey Herd

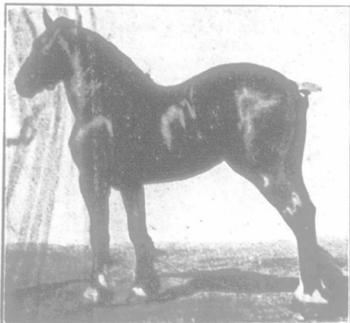
We have covered the big fairs in the West and animals from our herd won most of the prizes at Calgary, Winnipeg and Regina.

We have a full line of COWS, HEIFERS and BULLS.

Reliable BUTTER-BRED STOCK for sale.

B. H. BULL & SON, BRAMPTON, ONT.

OAK LAWNS FARM OAK LAKE, MAN.



Handsome Prince, Reg. 486, a 1910 Champion

HEAVY DRAFT BREEDING HORSES

SHIRES, CLYDESDALES

I can supply first-class stallions and mares of the above breeds to farmers who need them.

If you will notify me I will meet you at the station, or if you prefer, go to Cochrane's barn and you will be driven to Oak Lawns Farm, free of charge.

JOHN STOTT

The Advocate is the Best Advertising Medium

We are offering \$25,000 in premiums. The show will be held in the large horse show building and spacious, specially constructed temporary buildings adjacent thereto, but all connected up so that visitors may view the entire show with the least possible fatigue or inconvenience. The electric car lines from the gates of the exhibition extend to all parts of the city. In the centre of the great arena there will be a specially constructed platform where the 48th Highlanders' band of Toronto, will render concerts every afternoon and evening during the entire week. Surrounding this arena is a gallery with a seating capacity of 3,000, where visitors to the great show may rest and enjoy the music from time to time.

CAULIFLOWERS SELL BETTER WHEN A GOOD CLEAN COLOR

The common practice among those who cater to a high class trade is to tie the tips of the leaves loosely over the



top of the head. The illustration shows how N. M. Ross does it on the Forestry Farm at Indian Head.

STRAWBERRIES IN BRITISH COLUMBIA

At Mission Junction on the Fraser River small fruits are grown in large quantities, strawberries being predominant, 8,000 crates of these being the output this year. At this point I learn the most profitable strawberry is the Dunlop, which is grown in the matted row system, producing a heavy crop of medium-sized berries. I like my plan best, however, as it produces berries of phenomenal size, the best varieties being, to my mind, Gladstone and Magoon, both large, firm berries, the first being an English variety of very fine flavor.

I prepared the bed by manuring well, and then plowing up a red clover sod, upon which I grew potatoes, the soil being a sandy loam. This crop of potatoes worked up the soil, got rid of white grubs, and checked all weeds, thereby saving much labor. In spring I set out my runners: a single plant in each hill, the hills four feet apart each way.

All flower buds are removed the first season, and six runners allowed to form to each root, the original roots being strong, and throwing several crowns. Only the first plant on each of these six runners is allowed to grow, being held down in place by a stone six inches from the parent plant and six inches from each other around the plant. From this on, all runners are stopped forming; the plants root well, and the next season bear specimen berries. Horse cultivation both ways keeps down weeds, so that only the hills have to be hand weeded.

Chopped straw or grass clippings are used as a mulch between the rows, applied just before the flowers open. This mulch retains moisture, keeps down weeds, keeps the berries clean and, finally, gives a good mass of humus when plowed, or rather cultivated under in the fall. A one-inch tooth single-horse cultivator is the best tool to use all the time on such a bed.

By this method of growing and cultivation we get extra large berries the first season, large berries the second, and commercial berries the third, by which time, if the weeds have become unpleasantly thick, the whole bed is

SHARP KNIFE-LIKE PAINS

Would Go Through Heart

Thousands of people go about their daily work on the verge of death and yet don't know it.

Every once in a while a pain will seem to shoot through the heart but little attention is paid to it at the time, and it is only when a violent shock comes that the weakness of the heart is apparent.

There is only one cure and that is MILBURN'S HEART AND NERVE PILLS.

Mrs. J. E. Nixon, Riverview, Ont., writes:—"Two years ago I suffered with a bad pain around my heart. At times it would almost stop beating and then, a sharp knife-like pain would seem to go through it. As I had heard Milburn's Heart and Nerve Pills were a grand remedy for the heart, I sent and got two boxes of them, and when I had only used a box and a half I was entirely free from pain."

Milburn's Heart and Nerve Pills are 50c per box, or 3 boxes for \$1.25, at all dealers or will be mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

LAMENESS from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone or similar trouble can be stopped with

ABSORBINE

Full directions in pamphlet with each bottle. \$2.00 a bottle at dealers or delivered. Horse Book 9 D free.

ABSORBINE, J.R., for mankind, is a bottle, removes Painful Swellings, Enlarged Glands, Gout, Wens, Bruises, Yard Cose Veins, Varicocites, Old Sores, Allays Pain.

W. F. YOUNG, P.R.F., 248 Temple St., Springfield, Mass. LYMAN'S Ltd., Montreal, Canadian Agents. Also furnished by Martin Dale & Wynne Co., Winnipeg; The National Drug & Chemical Co., Winnipeg and Henderson Bros. Co. Ltd., Vancouver.

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in

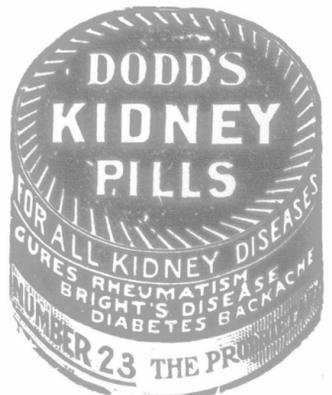
Fleming's Vest-Pocket

Veterinary Adviser

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 5 Church St., Toronto, Ontario

plowed up, another being made elsewhere. If, however, the weeds are still under control, another ring of plants, six inches from the parents, and six inches apart, can be set out as before from the runners and another crop of big berries gathered from these. Thus one bed may last for several years, an important matter where land is limited. I believe a greater weight of higher-priced berries can be raised in this way per acre than by any other system.

B. C. W. J. L. HAMILTON.



NOT "Gas" BUT Facts

Study the Figures and Learn why

Case Steam Engines

at 1910 Winnipeg Motor Contest

WON HIGHEST POINTS

IN ALL CLASSES

The following are actual results that should interest YOU

	Coal Used Per Horse Power Hr. In 2-Hr. B. Test	Number of Acres Plowed	Acres Plowed Per Hour	Draw-Bar Horse-Power Hour Delivered	Coal Used Per Draw-Bar H.P. Hour	Water Used Per Acre Gallons	Coal Used Per Acre Pounds	Total Points Allowed by Judges (Pos. 400)
ENTRY No. 13	4.16	6.06	2.14	34.74	9.12	136.7	147.2	269.3
CASE 75 H.P. No. 14	3.58	20.17	2.93	47.34	7.47	92.6	120.6	297.0
ENTRY No. 15	3.62	12.16	3.63	65.36	8.34	107.6	149.6	291.9
ENTRY No. 17	4.06	24.07	3.79	56.08	8.17	93.22	120.8	280.8
CASE 110 H.P. No. 16	3.04	33.08	3.99	74.92	5.29	82.01	99.2	356.1

The above figures show conclusively that

Case Engines are unapproachable in

ECONOMY

In the use of FUEL and WATER

Case Engines are Plowing Engines and Built to Pull

The more severe the tests, the more evident this becomes

YOU are interested in Least Expensive Plowing. Send for Catalog. No. 40 at once
AGENCIES EVERYWHERE

J. I. Case Threshing Machine Co. Incorporated

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This means that for a house for which an ordinary contractor would charge you, say \$800, we will save you at least \$200; on a \$1500 house we will save you at least \$375, or on a \$2500 we will save you at least \$600. Will you give us an opportunity to prove this?

Our houses are built wholesale by machinery---the materials are of the very finest quality and the workmanship the best in Canada---we will give you a legal binding guarantee to that effect. They are really ready---built houses---carefully constructed from designs and specifications prepared by one of the best qualified architects in this country.

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We have compiled a very fine illustrated booklet of designs and plans showing a large number of substantial, handsome houses which we will mail you free. After you have selected the home you wish, all your worries cease.

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