

P. 2  
S  
6 11  
C 34  
V. 16, #2

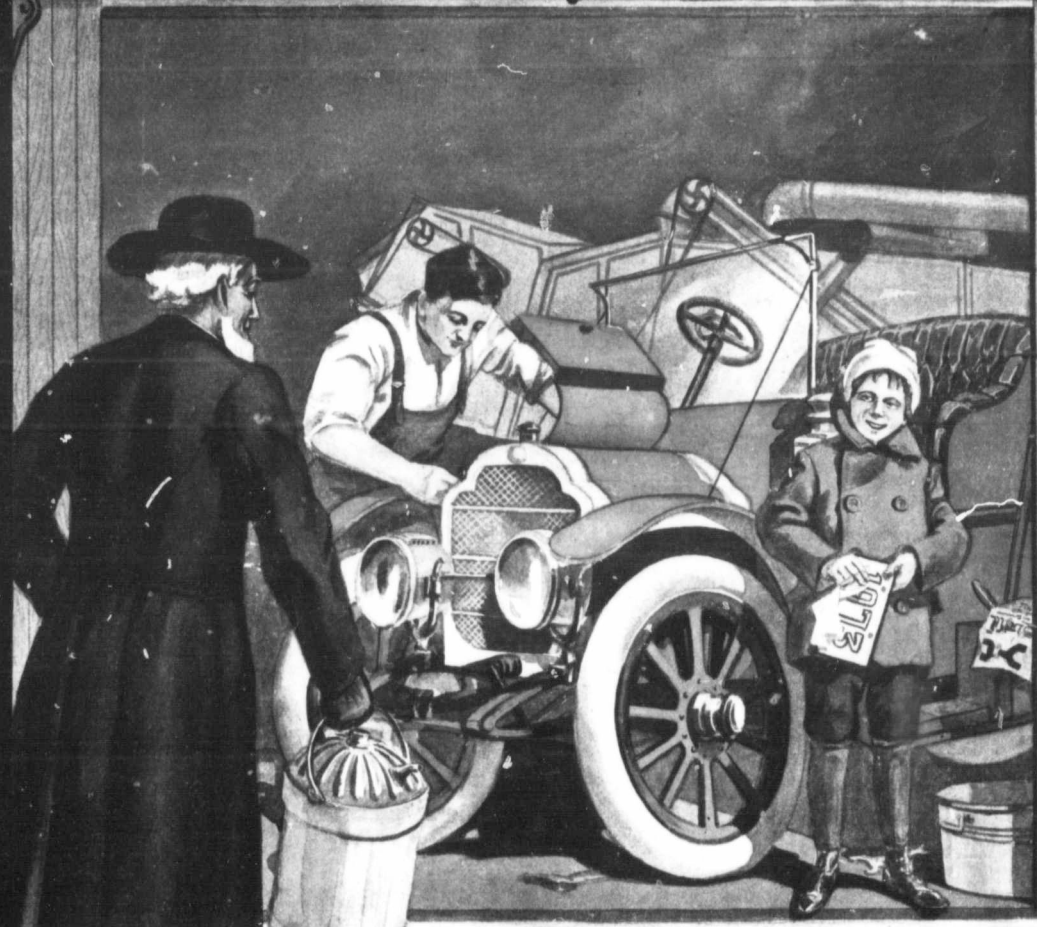
Am...

50457

# THE CANADIAN THRESHERMAN and FARMER

CANADA'S FARM MACHINERY MAGAZINE

WINNIPEG CANADA  
FEBRUARY 1911



GETTING READY FOR THE SPRING'S WORK

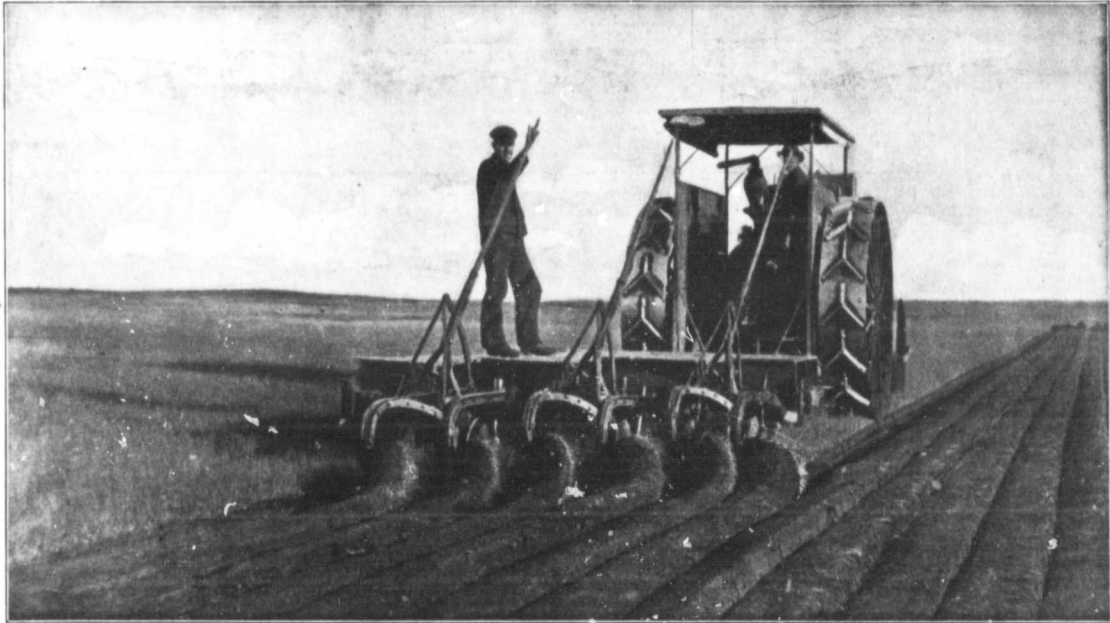
FEB-1911

E. H. Heath COMPANY LIMITED Publishers



# John Deere Engine Gang

## FOR PERFECT WORK



MORE JOHN DEERE ENGINE GANGS SOLD IN WESTERN CANADA THAN ANY COMPETITIVE MAKE

### 4, 6, 8, 10, 12 or 14 BOTTOMS

Labor most advantageously employed is the most productive.

The two men operating the engine plowing outfit shown here, will do from fifty to one hundred per cent. more work than six men and teams operating single bottom plows.

Therefore the profit on their labor is greater.

Or, to put it another way, the resulting crop costs less and is consequently more profitable.

This principle of the economical use of labor is one of the essentials of profitable farming.

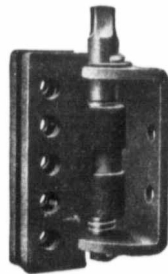
John Deere Engine Plows are built to operate most economically.

And to do the best work.

Here are a few important features.

Indestructible bridge-like steel frame, carried on three easy running wheels and covered with perfectly level platform. Plows

This is the Screw Clevis.  
Found only on John Deere  
Engine Plows.



Gives the Plows an Absolutely Accurate Adjustment.

attached to frame in pairs, each pair being operated by a single lever. One man can operate a John Deere Engine Plow, regardless of size. Each beam point is attached to a screw clevis, so plows can be given exactly the right adjustment.

A gauge wheel runs between each pair of bottoms making it possible to use rolling coulters in the right way. Beams carry stubble, turf and stubble, or breaker bottoms. And John Deere Bottoms have never been equalled for quality of work and light draft.

John Deere engine plows have the bottoms attached to frame in pairs. This ensures steady running, best work, easiest handling.

We have just published a new book which is the best thing ever put out on engine plows. It is FREE on request.

Ask for Package No. 50

## JOHN DEERE PLOW COMPANY LIMITED

CALGARY

REGINA

WINNIPEG

EDMONTON

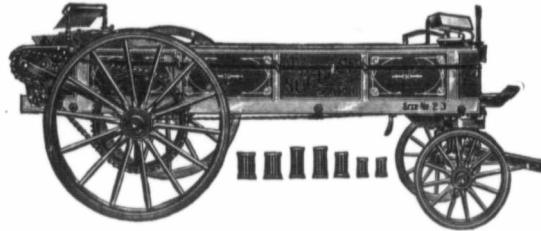
SASKATOON



# THE SUCCESS MANURE SPREADER

## Takes Another Step in Advance

Seven Sets of Roller-Bearings Settle the Matter of Draft.



Frame Made Entirely of Hard Wood—Not Pine.



"My Boss has the SUCCESS Spreader"

FOR many years the "SUCCESS" has been considered the typical manure spreader. It was first in the field. It had choice of necessary features. It tested and proved and patented for its own exclusive use all of the worthiest devices. And now it takes another step—a most important step—in advance of all other spreaders.

By its equipment with seven sets of roller-bearings—one set in each wheel, one at each end of spreading cylinder and one in cylinder driving mechanism—there is no question but that the Success

**Runs a Horse Lighter than any Other Spreader**

All 1911 "SUCCESS SPREADERS" will be equipped with these roller-bearings. It is a feature we have been working on for years and its value to spreader users cannot be over estimated. The cold-rolled steel roller-bearings at the same time

**Save the Horses and Save the Machine**

The roller-bearings do away with all friction and wear in the working parts; they lessen the shocks and strains from driving over rough, uneven ground; the entire machinery runs with less power, consequently with less breakage; they cause the Spreader to run almost as smoothly and evenly as a stationary machine.

WRITE FOR CATALOGUE



"My Boss has the other fellers"

# NEW DEAL WAGON

## New-Deal Wagon

Is made of air-seasoned lumber.

Is equipped with double collar skein.

Skeins are dust-proof, therefore will hold grease longer and run easier than others.

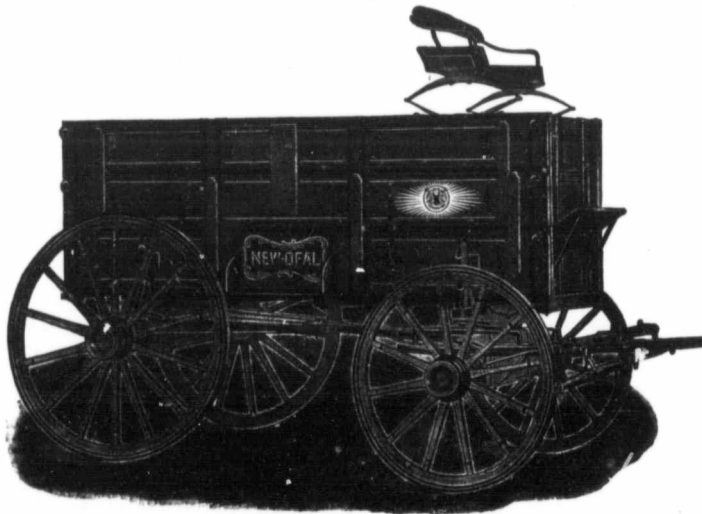
Skeins are heavier; bell is longer and larger, taking more axle.

Has riveted grain cleats (not nailed or screwed).

Bottom of box is reinforced both front and rear.

Has clipped gear, both front and rear.

Box is made flax tight



## New-Deal Wagon

Spring seat with 3-leaf springs (not single leaf).

Steel bolster stake plates on side of box.

Neck yoke 48 in. long (not 42 in.)

Has trussed tongue, cannot break or warp.

Has channel iron reach really indestructible.

Is extra well painted, striped and finished

Possesses a great many distinctive features of merit.

# JOHN DEERE PLOW CO. LTD.

WINNIPEG

REGINA

CALGARY

EDMONTON

SASKATOON

# BIG BUSINESS—BIG CROPS

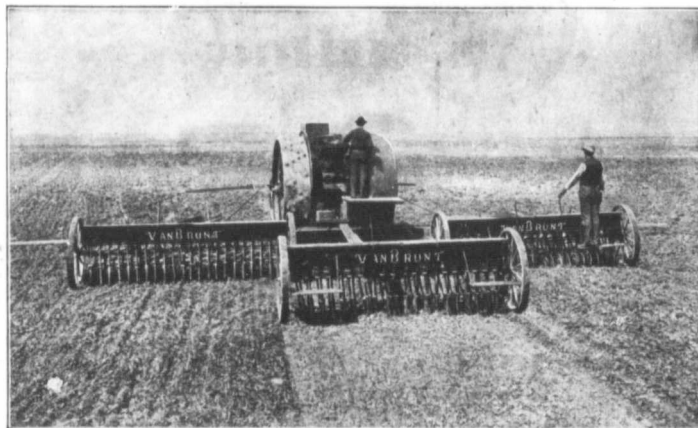
ANY FARMER WHO SEEDS WITH A  
**Light Draft VAN BRUNT Disc Drill**  
 —————  
**Cannot Fail to Make Money**  
 —————

## WHY ?

**Because** every live grain that passes from the hopper goes right home to its proper seed bed and must germinate.

**With the New (1911)** adjustment of boot and discharge placed **WITHIN** instead of outside the circle of the Disc Blade, not a single kernel is left on the surface. Everyone is planted at a uniform depth.

**Because** there's no surface or a soil condition in Canada which it cannot perfectly negotiate without missing a single square foot.



Faultless Work and a lot of it. Seeding with one  
 Twenty and two Twenty-Two Disc Drills 32 feet

## WHY ?

**Because** what it saves in horse flesh, gasoline or steam power. It is the **LIGHTEST DRAFT** seed-er made—some 300 or 400 pounds lighter than most machines.

**Because** of the matchless strength and adaptability of the frame to uneven surfaces. **Dead weight** has been superseded by **living strength** in every rod, brace or bolt. It cannot sag in the middle and there is no straining on rough ground.

**Because** there is perfect alignment of frame, hopper and wheels, which with ordinary care when the implement is idle, guarantees a machine that will outlast most lives.

**Oil Tight Dust-proof Bearings—No Clogging Possible**

# The Fleury Pulverizer

## Pulverizes and Packs the Soil

### How a Pulverizer Helps

A good seed bed is composed of a fine mellow soil well packed to ensure capillary connection with the subsoil.

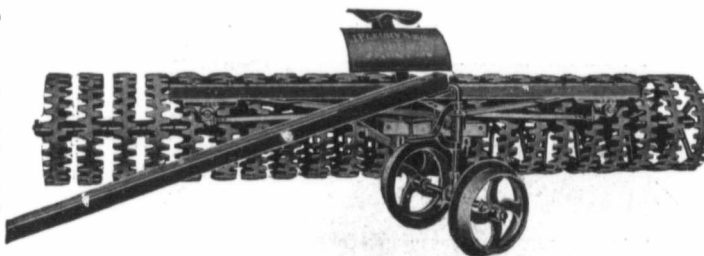
Such a seed bed will produce better crops than a lumpy one of the same chemical composition.

This is why a good pulverizer should be a part of your equipment. Other things being equal it insures better crops.

It is often necessary to plow land when it will break up into large chunks or clods. In such a case, a pulverizer is indispensable for fining the soil.

The fact is, almost any soil is benefited by being pulverized and packed after plowing, regardless of its condition.

Light, loose soils are kept from drifting by being treated in this way.



### The Fleury Does the Business

In the first place it is sufficiently heavy for its work—there is no necessity for weighting.

The sections are so constructed that they pulverize all lumps and pack the soil so it is in good seed bed condition. At the same time, it helps to produce a surface mulch which holds moisture.

It does the work of both a pulverizer and a land roller. Also, this pulverizer is sufficiently flexible to accommodate itself to rolling land.

Besides this, it is very durable. It has bushings that take the wear instead of the wheels. The ends of the wheel hubs are chilled, which reduces the end wear on the wheels.

These are a few of the excellent features of the FLEURY PULVERIZERS. Ask us for further information. Fleury Pulverizers are made in the following sizes: 16 Section, 1 pole. 22 Section, 1 pole. 22 Section, 2 pole. 24 section 2 pole 22 section, 2 pole, pulley hitch, with double-trees. 24 section, 2 pole, pulley hitch, with double-trees. 22 section with tongue truck.

### READ WHAT A FARMER SAYS OF THE FLEURY PULVERIZER "TONGUE TRUCK"

John Deere Plow Co., Winnipeg, Man.

Hamiota, July 8th, 1910

Dear Sirs:—Yours of the 5th inst. to hand re tongue truck for pulverizer, and beg to say it is entirely satisfactory and much easier on the horses than the old style. My man drove the old style pulverizer last year, and he says that the tongue truck makes a wonderful difference to the horses; it apparently is perfectly strong and I think there is not much room for improvement. We packed about 175 acres with it and you can hardly tell it has been used, and I would not buy a pulverizer without a tongue truck at any price after using it with one.

Yours truly, WM. WRIGHT

WRITE FOR CATALOGUE

WRITE FOR CATALOGUE

# JOHN DEERE PLOW CO. LTD.

WINNIPEG

REGINA

CALGARY

EDMONTON

SASKATOON

SHIP YOUR  
**WEASEL  
RED FOX  
WOLF  
LYNX  
MINK**

And all other Furs  
to us.

Special prices for February  
shipments. Hides are low  
and down to 6c.

**Northwest Hide  
and Fur Co.**

278 Rupert St. Winnipeg

**NEW RUSSIAN  
CROSS-BRED APPLES**

Originated specially for the Prairie Provinces. The hardest apples ever offered. A new strawberry crossed with the wild Manitoba strawberry. Will thrive where all other varieties fail. Also a new hardy raspberry. Needs no protection. Fine, large fruit. Improved bush cherries. Very productive and quite hardy. Catalogue free. Seed potatoes.



**BUCHANAN NURSERY CO.,**  
St. Charles P.O., Man. Winnipeg.

**Educate Yourself**

at home for business with a

**Rebuilt Typewriter**

Guaranteed like a New Machine

Visible and old model Smith Premiers, Remingtons, Underwoods and all other makes. From \$15.00 up. A postal brings list and terms.

**Dept. C, National Typewriter Co.**  
255 Notre Dame Ave., Winnipeg

**INVENTIONS**

Thoroughly Protected in all Countries

**EGERTON R. CASE**

F. M. Chart, Inst. P. A. London. Registered U.S. Patent Attorney.

Specialist in procuring Canadian and Foreign Patents

Dept. H., Temple Bldg., TORONTO  
BOOKLET AND DRAWING SHEET ON APPLICATION

**To the Threshermen of Canada.**

THE evenings are getting shorter, but it is still a considerable time before the work in the fields demands your attention. You doubtless feel that you want to be doing something and here is your opportunity.

We want your experiences. We want you to tell us what success or failure you had during the past year with your threshing outfit. Your fall's run will make an excellent story if you will but give us the facts. You have them and we want them. We are going to make it worth your while to give us these experiences and in doing so make you the following proposition.

Just sit down and write us the plain facts as you would tell a neighbor. It may take you one evening to do it, or it may take you two evenings, but we believe that you will enjoy it. Don't think that you can't do it, for we know that you can if you will but take the time.

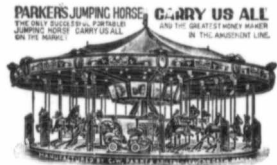
For every such experience that we receive before March fifteenth, provided we can use it, we will send you a copy of "Farm Engines and How to Run Them" and at the same time will give you a year's subscription to this magazine. If you are already a subscriber we will extend your subscription from the date of expiration.

Give us the name and make of your outfit, how long you have had it, how long you have been a thresherman, the number of bushels that you threshed, the price for threshing in your community; in fact tell us the whole story. If you are an old timer at the business give us some of your early experiences away back in the horse power days. We have five thousand of the above books waiting for you and we want you threshermen to take advantage of them.

We want to receive enough of these letters so that we can devote a department to it each month. You will enjoy reading the experiences of others and they in turn will enjoy reading your experience. Don't delay this matter, but do it now.

In sending in your letters if you have any photographs of your threshing outfit let us have them. We can make this department one of the best features of our paper, but without your help it will be impossible, and by the way, in addition to the above offers, to the first two hundred that send in their experiences we will send a beautiful embossed button that you will enjoy wearing in the lapel of your coat.

Address all your letters to  
**The E. H. HEATH CO., Limited.**



One machine earned \$15,850.00 in 28 weeks in 1904.  
One machine earned \$19,943.00 in 29 weeks in 1905.  
One machine earned \$16,692.00 in 25 weeks in 1906.  
One machine earned \$16,917.00 in 27 weeks in 1907.  
One machine earned \$12,862.00 in 27 weeks in 1908.  
One machine earned \$16,842.00 in 25 weeks in 1909.  
One machine earned \$18,521.00 in 28 weeks in 1910.

Above figures will be verified to prospective customers. Write for catalogue and prices to  
**C. W. PARKER,**  
Abilene and Leavenworth, Kan.  
Main Office and Factory, Leavenworth, Kan.

**WANTED**

**A Complete Plowing Outfit**

Including engine and 12 bottom plow, also drill, binders and separator. This outfit is to be shipped to Swift Current, Saskatchewan. Address—

**G. W. O., c/o Canadian Thresherman & Farmer**

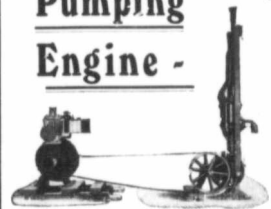
The

*Manitoba*

Air-Cooled

**Pumping**

**Engine -**



**Is a Marvel for Power!**

Will pump any well up to 300 ft.

Will run any hand power machine, such as cream separator, churn, fanning mill, etc.

Never stops or gets tired on the job, unless fuel gives out.

Guaranteed against starting troubles in Winter or Summer.

**Cannot freeze up or Overheat**

Has enclosed crank case, with perfect splash lubrication.

**A Complete high grade Power Plant weighing only 225 lbs.**

Absolutely guaranteed to give Satisfaction.

Send to-day for Catalog.

If interested in a larger size engine for sawing wood, grinding grain or threshing

**WE MAKE THEM**

**THE  
Manitoba Windmill & Pump  
Co., Limited**

**BRANDON - MAN.**

# MR. FARMER:

We're talking to you. Are you going to buy a plowing engine this spring? Pretty stormy weather we've been having lately and lots of snow. But---say isn't it remarkable how quickly the snow disappears after the first of March? Some bright morning you will wake up and find your land is ready to break or plow. Will you be ready?



Now is the time to buy your Plowing Engine and prepare for an early start.

## Styles

Do you know that we manufacture both simple and compound cylinder Steam Plowing Engines? When you buy yourself a new suit you want the latest in style and material. Don't you? Doesn't the same apply to your purchase of an engine?

Well, here are some of the special features we are anxious to have you know.

## Boilers

These are made of heavy plate and so constructed as to meet every requirement of the new Boiler Inspection Acts of Saskatchewan and Alberta and will stand any amount of heavy plowing strain.

Have you ever known of a S.-M. Boiler not standing up to its work? No! Neither have we!

## Axles, Crankshafts Countershafts

Here are parts that are very heavy; so are the brackets supporting them. They are so constructed as to give no trouble.

## Gears

We claim to furnish the best gears obtainable. Ours are made of specially blended material to produce toughness and durability.

## Traction Wheels

Ours are distinctive in their original and scientific design and their great strength is readily apparent. This ought to count for something with you!

## Sizes

Our aim is to suit every requirement of you Western Farmers—hence we build as follows:—22, 25, 27, 30 and 32 horse powers. And every one is guaranteed to stand up to its work.

## "Great West" Separators

Just while we're talking, let us remind you that we build the best threshing machine on the market to-day. Are you needing one? Well, when you're open to buy just let us know.

## Good Roads

How are the roads out your way? Won't they require some fixing after the snow melts? Well, here again we build just what you'll need in your district—The Sawyer-Massey Reversible Road Grader—hundreds in use.

Absolutely the best machine on the market. Demand was so great last year we couldn't fill our orders. We're in shape this year, however, to meet all requirements. Let's see—you give us the names of your District Councillors and we'll send them printed matter about our grader. It will interest them beyond a doubt and incidentally you'll get some good roads.

## Bonspiel

Glad to hear you're coming to Winnipeg for the Bonspiel. Call and see us at our office in the Union Bank Building.

Have you had our latest catalogue?

# SAWYER-MASSEY CO.

LIMITED

Winnipeg, Man.





Vol. XVI.

WINNIPEG, CANADA, FEBRUARY, 1911.

No. 2.

## If Not for the Farmer, Then Who?

The Automobile is Fast Becoming Not Only a Vehicle of Pleasure, but the "Jack of All Trades" on the Farm

—By E. W. H.

Developments of the automobile is a fair representation of the active temperament and the controlled energy of our genius. This progress in scientific effort has placed mechanical reputation on the very top round of progression, and the wonder of the entire world increases when it is realized that the history of this marvelous achievement dates back but twelve short years.

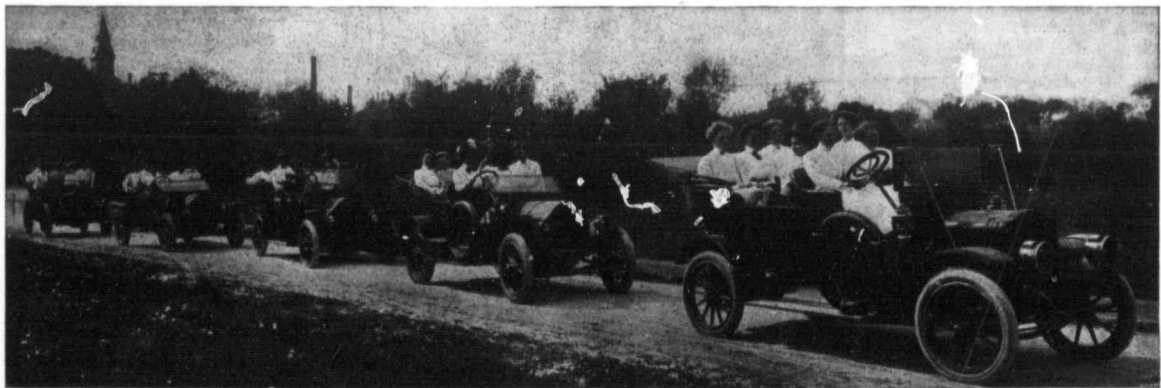
Twelve years ago the automobile was simply a horseless carriage with springs not fit to be

something akin to one, in the minds of some people for years, and this idea was worked out and demonstrated by Gottlieb Daimler, a German engineer. He devised and built the first successful motor, and it was taken up and demonstrated by the French firm, Panhard and Levassor, whose products have been known all over the world. This was twenty years ago, and following it the foreign manufacturers placed machines upon the market, but they were designed only for

recognized and accepted necessity of commercial and agricultural life.

When the automobile first made its appearance even the best informed mechanics questioned its practicability on common country roads. Engines had been used for years on railroads where traction was sure and even surface was provided so that wear and tear were reduced to a minimum, but to pack an engine on a frame and so adjust it that it could and would propel itself over

gated to the past and can be seen trailing along at the end of the line of the motley caravan which is fast disappearing into the mist of discarded things. A hundred parts have been done away with and the engines are now so simple that any one can operate them and locate difficulties and correct them. The present day automobile engine is fool-proof. You can get at the movable parts without taking the engine to pieces, and the owner is able to keep his machine in perfect repair with little



When the Suffragette Holds Full Sway we may look for Scenes Similar to This on the Country Highways

called such, with no pneumatic tires and with but little to recommend it in any way. The sensation of riding in one was far from pleasant, producing the feeling that you were sitting over a miniature volcano which frightened you with its mutterings and was likely to explode itself without a moment's warning. It had no practicability and was, in fact, but a toy for the adventurous rich. It is true that there had been a vague idea of an automobile or

travel over the best roads and under certain and assured conditions, and were accessible only to the very wealthy man and were used for his pleasure alone. It was left for more recent inventors and engineers to produce the automobile of to-day, and this transforming of forces which nature holds into practically applied mechanical power is nowhere more manifest than in the development of the automobile. It is no longer an experiment but a

the hills and through the ditches of uneven country roads, was a proposition that demanded not only mechanical genius but the very highest type of workmanship. The first gasoline engines were stationary and were operated by explosions. It was thought necessary to provide a bed of concrete for those engines of "hot tube ignition" and clumsy construction. These gasoline engines were things of many troubles, but they have been rele-

trouble or expense. It has been the problem of the manufacturer to build an automobile that would plough through sand and mud and over ruts and stones, with an engine powerful enough to drive the car up steep grades and still admit of being throttled to the desired limit. Five years ago it was a common thing to see a machine by the roadside and the driver under the car, much to the amusement of many of our country citizens, but that



As a milk wagon the auto is a peach

is a thing of the past, and to-day the farmer is the strongest advocate of the practicability of the automobile to the agriculturist. It is fast becoming a necessity, and he is not slow in recognizing the fact.

The farmer has the reputation of being conservative to the extreme, and this opinion was not changed in the minds of people by the attitude he at first assumed towards the automobile when it made its appearance along his peaceful highway. He looked upon it as an interloper, a nuisance and a thing to be condemned. There was just reason for this opinion, too, because the machine seemed to do little else than raise a dust and cause stampede among his stock. To the farmer it represented only the selfishness of capital and the touch of antagonism, but the farmer of to-day stands squarely for progression and the secrets of the larger progress are wrested from all sides of his experience, so it is not surprising that he has passed the point of tolerance and has accepted, and is using the automobile to a very large extent. The automobile is rapidly becoming the farmer's machine. To the city man it is counted a luxury, ninety-nine cases out of a hundred; but the farmer has recognized his advantage and is placing the automobile among his necessities. He is a logical thinker, and no point of advantage escapes him. His long experience with farm machinery has made him a mechanic, and the automobile finds in him an appreciative owner. The farmer is ingenious; it has been necessary for him to develop every capability he has possessed along mechanical lines, and when the automobile took its place among his chattels he set about to prove its worth on the farm. He is original as well as ingenious, and has turned his car into

various uses not dreamed of by the manufacturer when it was placed upon the market; has learned the secret of its power, and by clamping a pulley to the hub of the rear wheel of the machine, jacking the wheel up, he belts it to his pump or feed-chopper. This means economy of labor and time. The auto runs the grindstone and turns the churn in the dairy and makes itself useful in many other ways during the busy life on the farm. The practical farmer was quick to

ing of products, and on the same trip he does his banking, his trading and his gossiping, in half the time usually spent for the same ends. He combines pleasure and business in a hundred ways. In many localities it is not at all unusual to meet the farmer with his load of poultry or milk cans on the way to market, and the fact is impressing itself not only upon the manufacturer, but upon the world at large that the automobile rightfully belongs to the farmers of this country.

Perhaps the country people have come to appreciate the advantages of the automobile in ways of which the townsmen

are able to enjoy the social privileges they wish and demand. The automobile will be the means of keeping many young men on the farm when they would otherwise slip away from the home life and be lost in the maize of uncertain fortune in the city's overcrowded commerciality. "Money well invested," one farmer said with a broad smile on his genial furrowed face as his boy cranked up and was off for a good time at the close of a busy day. A spin of twenty miles is nothing, and when a day at a picnic is planned it does not signify that the entire family must be up by starlight in order to get an early start in the morning, or the toiling into the late hours in the evening in order to get the chores done after the day's outing. That farmers are appreciating every phase of the helpfulness of the machine was fully demonstrated at a farmers' picnic last summer, where out of twenty-five vehicles sixteen were automobiles.

The automobile has brought rapid and pronounced advancement along co-operative lines among farmers. In the first place it has been conducive to better roads. Where the automobile travels, the spirit of improvement follows in its trail. There was a time when the farmer felt that the good roads question was up to the municipal authorities or somebody quite as competent, but with the coming of the automobile into the rural districts as a fixture among the citizens, has also come the inspiration born of necessity, and the farmers are looking after the roads over which they and their machines must travel. He not only keeps his own property in good condition, but by an exchange of service he helps his neighbor along the good roads line.

The co-operative idea has fixed itself in the minds of the farmers, and the manufacturers, and the automobile is the central figure of attention in this field. In this connection the automobile truck comes in for recognition. It is said that it is cheaper to carry wheat from one country to another than from the farmer's barn to the nearest town. The average distance that a Western Canadian farmer has to haul his grain is estimated at over fourteen miles, and the average cost of haulage is 10 1/2 c. for one hundred pounds. Thus it has actually become true that to carry wheat ten miles by wagon costs more than 2,300 miles by steamship. These are startling facts and the solution will be the automobile truck. Many manufacturers have made a study of the truck situation, and his need and the truck for the farmer is an assured result. Trucks with five-ton grain capacity are now being used. As the thresher meets the requirements of the neighborhood so will the automobile truck haul the grain of a community, while the more moneyed farmers



The auto can be used to haul the young "bossies" to market

discern that during the busy harvest time or the rush of spring plowing, when every horse was

have no conception. In many instances when sudden accident or sickness requires a physician, a



As a produce wagon the Auto gets to market early.

needed for the work of two, that the automobile could be rolled into the gap and fulfil every requirement for which the horses otherwise would have to be taken from the field, and in much less time and with a saving of energy and force to all concerned. The poultry is marketed without delay, the creamery is visited with a speed that tells the story of successful plac-

life has been saved because the farmer or the doctor have owned an automobile. The matter of education for the children has come in for its share in the story of the auto on the farm. The town school is reached without effort where it used to mean that the young people must go in town to board from Monday until Friday night. It has meant too, the bringing into the home life the spirit of content. The boys are liberated from the dullness and the monotony of farm life, in be-



Twelve miles from town a half hour's spin at the most.

will own trucks of their own to carry on the work of the large farm.

With all of these facts making themselves felt by every one, the question is asked every day, "Will the automobile supersede the horse?" In the cities, largely, but on the farm it will but supplement the horse and fill the place of the extra horses which have to be kept throughout the year in order to have their help in the busy season. This is one of the greatest expenses to the farmer, and the automobile is proving its worth in this special particular. However, the lover of horses looks at the question from still a different standpoint; like the old darkey down in Georgia when first seeing an automobile, exclaimed: "Praise de Lord, the white man dun freed the nigger, and now he's dun freed de mule."

It might not be too venturesome to suggest, however, that no machine of steel and steam, of cog or cam, no vapor-fed motor, no craft propelled by batteries and boilers, can more than in a measure displace the horse in his many uses, in business, sport and pleasure. Until human nature becomes something else, the beauty, strength and utility embodied in a well-bred, well-trained horse, whether intended for the carriage, the saddle, the truck, or the plow, will be admired by human kind, and profit found in his rearing, improvement and varied use. It is impossible that this appreciation for the horse shall seriously abate, though his production is, as a business, like all others, subject to vicissitudes of supply and demand, fashion and fancy, method and manner, time and place. Incidentally his propagation was never more profitable nor his prices higher than now. There are no indications that the gasoline wagon is lessening any important demand for horses of the heavier breeds; for these, while they are more numerous than ever before, the call was never more insistent than it is now. Nor, even if it might have been feared, do signs point to any permanent lack of interest in the harness horse, for the elite of the fashionable centres have already exhibited renewed interest in smart drivers, to differentiate themselves from the masses so largely using the motor car and thereby making it common, if for no other reason.

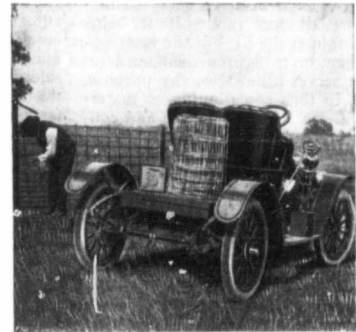
There is, it must be confessed, an air of pomp, circumstance and style, suggestive of aristocracy, if you please, about the possession and direction of a high-stepping, free acting, dashing team of high-bred roadsters. With proper appointments, not matched by the automobile.

Not only has the auto-car not depressed the draft horse business, but instead it will increase the working capital of the farm and its efficiency by tending to eliminate the many purpose horse. Few farmers, comparatively, kept

a team adapted exclusively for the road, but, on the other hand, probably a pair having no particular merit, and used both for traveling and farm work and suited especially for neither.

The farmer who has time to give outside business affairs has established himself in a very lucrative occupation in owning an automobile and doing not only the marketing for himself, but for his neighbors. Some progressive young men are opening auto liveries in the small towns, and are doing a good land business in connection, using their machines to carry the customers into the rural districts to inspect their farm lands. Many of these villages are made up almost entire-

There are few, if any, who have more or better reasons for employing these machines than the farmer. Naturally he is a mechanic; force of circumstances makes him one. He knows machinery, and hence should be able to care for, and run his car at a smaller expense than the city man, and with greater efficiency. In contemplating the advisability of buying, the man of the farm should not be governed by statements of the cost of upkeep from the city man's experience, as the farmer may elimin-



The Auto is the Farmer's "Handy Man." No More Broken Down Fences on the Farm Where There is an Auto



Bad Roads and a Full Load, Yet the Driver is Full of Confidence for She Knows

ly of retired farmers and their families, many of them still owning their farms and using their automobiles to run back and forth in the superintending of the work. It is but a short trip to the farm and back again, bringing fresh

supplies of all kinds, thus bringing the advantages of the country in close touch with life in town.

Month by month the advantages of the automobile to the farmer seem to increase and many farmers are asking: "Can I afford an automobile?" The reply comes at once from those who speak from experience. "Yes, if you will use good judgment in caring for your machine. It will prove itself to be not a luxury, but an investment which will give the best returns."



As a Produce Wagon the Auto Gets to Market Early

ing the requirements to be met, for the utility of the various cars, like that of the different breeds of horses, is to a certain extent limited. Proportions of weight to size, horse power, methods of ignition and drive, gearing and engine construction are all essentials to be considered, but no one should so far lose his mental balances to buy unless well able to do so.

This does not necessarily imply that the cash should be in hand in every instance, but if it is believed that the purchase will give fair returns on a combination of business and pleasure then buying would be a natural sequence.

In innumerable ways it may add to the economies and attractions of farm life. Instead of the slow, wearisome trip to town in the jolting, nerve-wrecking lumber wagon, with a jaded and overworked team, or even the spring wagon or carriage and a pair of fresh roadsters, the automobile makes the journey quickly and comfortably, leaving the team available for use at home, which is extremely important, especially at certain seasons. When farm affairs are pressing, the necessary trips may be taken with the auto after the day's work is done, and as recreation, if there be no son or daughter to run the car at other times. It will carry milk to the creamery, take the women shopping, haul minor produce to market, bring home supplies, and on Sundays, while teams are resting, may whisk the family to church or to neighbors or distant friends. During harvest, when the shining hours are precious, in the emergency of a breakdown in the machinery the telephone and the city auto can quickly be made available to bring the necessary extras or repairs and work goes on with little loss from delay. The auto encourages visits that make for more neighborly, congenial communities, and contributes to culture and refinement that, without the mental contact and association with others, might not be attained. It helps to break the isolation and loneliness of rural life and particularly so in the case of the good housewife, in whose years of strenuous labors restful pleas-



The Horses are in the Pasture Resting for Monday The Auto Goes to Church



ures have been in many instances all too rare. If it helps brighten the lives of the farm women, or to lighten their burdens, it serves a most worthy purpose.

In thus contributing so materially to the convenience and contentment of the farmer's family, the motor car is removing one of the chief drawbacks urged against the farm—its monotonous drudgery. Important, too, is its tendency to keep the boys on the farm, where large opportunities are, for unless all signs fail agriculture is entering an era wherein farming will be made more attractive, more remunerative, more dignified and more respected. Also, by making available a larger working force in the farm the auto has a greater significance than at first blush might appear, for it not only makes possible better cultivation, but the farming of larger areas, and hence large production, and further, in so far as it saves time, team and man to the farm, to that extent is the auto helping to solve another serious rural problem, that of labor.

Therefore, aside from big dividends the auto may pay in added contentment, its material uses are manifold. Its consideration in farm affairs brings to mind the wonderful changes in the environments of those of the rural districts now and those in former times, brought about largely by inventive genius. Farm implements of the greatest labor-and-time-saving qualities have been provided. It is a far cry from the old-time forked stick, dragged by drowsy oxen, followed by drivers no less listless, to the burnished gang plow, propelled by a quartet of Percherons, and the steam plow that turns sixteen or more furrows at a time; from the flail to the twentieth-century grain separator, or from the reaping hook and cradle to the binders and headers of the present, implements all brought to their higher perfection in comparatively recent times. These and other modern devices have made possible industrial conquest, lifted burdens from the husbandmen, put more and better food within the reach of the masses, brought wealth and often luxury for those who till the soil, and immeasurable benefits to multitudes born and yet to be born. More recently the trolley cars, telephone lines, rural free mail delivery, and improved roads have ameliorated and benefited the farmer's industrial and social conditions; enlarged prosperity has provided modern conveniences in the home and it remains for the auto to remove the last objection to rural life. It is epoch-making in farm affairs; it promotes broader views, helps the farmers' organizations, enables closer community of interests, and should bring nearer the day of co-operative marketing. As its possibilities come to be more fully understood, the use of the motor car in rural affairs will undoubtedly increase in proportion.

That the farmers consider the automobile a safe and satisfactory investment for their money was illustrated last fall in a Winnipeg salesroom. Do farmers consider the automobile a safe and satisfactory investment? Here is a

had just sold his wheat for a couple of thousand, and didn't know of a better investment for his money than to purchase an automobile. An hour later he pulled out his roll of bills, paid cash for the machine and rode

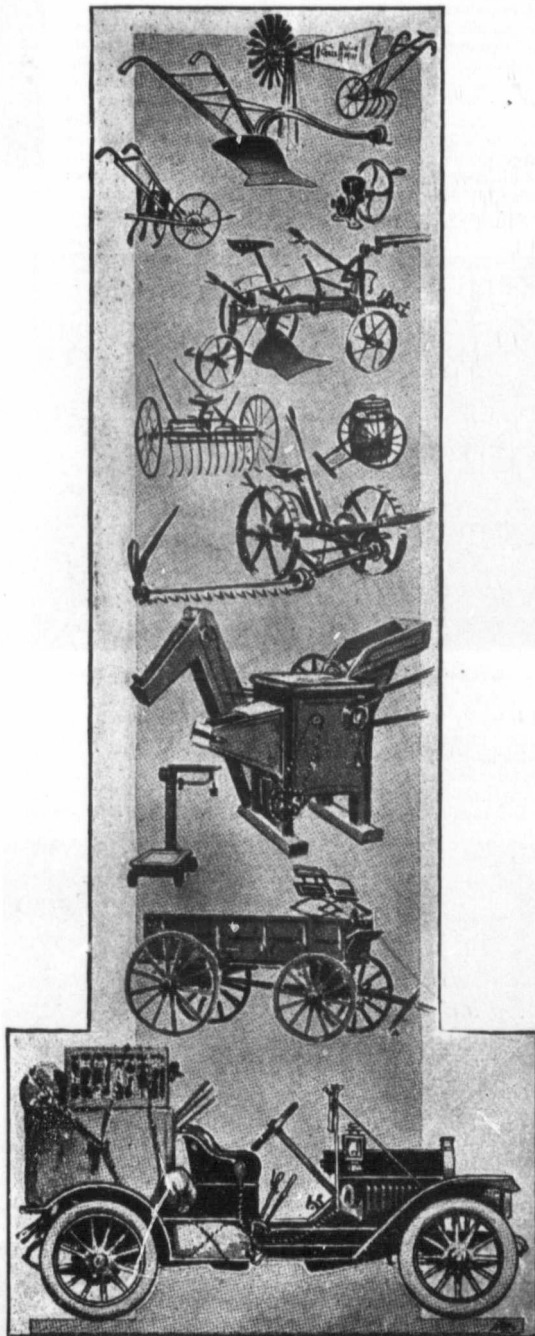
placed in the hands of the farmers during the last year, it is plainly evident that the farmer of the grain belt is not behindhand.

The idea is gaining ground that the man of limited income may wisely purchase a motor car. It is no longer the rich man's plaything. But care must be used, not so much in selection, for all manufacturers are putting out machines of highest type, but in the keeping up, of the car. It must be properly lubricated, must be looked over occasionally for loose bearings or parts, must be kept under shelter and it must be driven with care. A careless driver will wear out an automobile in a couple of seasons where a careful driver will use one for years and it will seemingly do as good work as ever. Running at high rate over bad roads, forcing the engine to its capacity all the time, and forgetting to keep sufficient oil to lubricate all of the parts, will ruin any machine no matter how well constructed. The up-keep depends upon the driver. By using forethought and applying simple methods known to every man who makes a study of his machine, the expense of keeping up a machine is very small indeed. A good driver does not tear around corners or start his machine with a jerk, or stop as if he had hit a stone wall. If he did he would ruin his tires and disarrange the mechanism of the machine generally, and would be likely to try his hand at putting it in order, which would be worse, when he does not understand what he is about. This sort of thing is what makes frequent trips to the repair shop necessary, and the owning of an automobile an expensive luxury. All machines to-day are built on general lines, strength and simplicity being the key-stone of construction, and the man who makes himself at all familiar with the different parts of his automobile and their right adjustment will have no trouble in operating his car, be it light or heavy.

The demand for automobiles within the limit of price which can be reached by the masses of people to whom they will appeal not only for pleasure but service, has become so fixed that the manufacturers are doing their best to meet it by putting out a light-weight car and runabout which has proven satisfactory in every respect. The future is one of promise for the low-priced cars, and it is not beyond the means of the comfortably well-to-do farmers to grant their desires in this respect.

The coming Automobile Show which will be held in Winnipeg, February 13-18, will tell the story of the development of the automobile industry as it has never before been told in Western Canada. People will be talking automobile everywhere; at home, on the street, and we doubt not in their sleep and all opinions stop at one point on the dial—success.

Continued on page 96



Some Things the Farmer Buys—Among Them the Auto

case in point. A farmer sauntered leisurely into the building, and in a disinterested sort of way began looking at the machines. On being asked if he was interested in automobiles he replied that he

home in it, satisfaction showing in every line of his face. This is not an unusual proceeding in the salesrooms of all of the better makes of automobiles, and by the large number of machines



# Should the Farmer Buy Automobiles?

By J. G. Wynne.

Not so very long ago, in fact not more than two or three years, the above question would have been absurd and would have undoubtedly received an absurd answer. The automobile

the road question, for at certain seasons of the year Western Canada has anything but good roads. Distances between farms are in many instances great and the cost of up-keep heavy. Until the

ing an auto was about the same as living four or five miles from town and depending on horses to get there. The farmer of Western Canada came to with a start, with the result that to-day

ness; that is to take him from the farm to town and back? Will his wife drive the car? What is he prepared to pay annually for up-keep? Does he expect to sell in a year or two, or to keep the car longer? Has he had previous experience with automobiles? Does his territory include bad hills and are the roads good or otherwise? On the answers to these questions will depend the selected type of motive power, steam, or gasoline engine; the type of transmission if a gasoline car is chosen; the power, wheel-base, and body style, the tire equipment, and the extras as regards wind shield, top, etc. The question of whether to buy new or second-hand will also be determined by this information.

Steam cars are by far and away in the minority, therefore; suffice it to say regarding them that the choice between steam power and a gasoline engine is mainly one of personal preference. The steam engine runs quietly and its power is very elastic. It takes a few minutes to fire up the boiler, but in most cases that is not a serious objection. The principal drawback is that to hold steam and water under a pressure of several hundred pounds necessitates more or less constant attention to pipe joints and couplings, stuffing boxes, packings, etc., of all of which the number about a steam car is rather large. The fuel, also, is in some cars under pressure, and there is the possibility of some pipe or connection springing a leak, and the escaping fuel being ignited by the fire under the boiler. On the other hand, if one lives in a country of steep hills or bad stretches of road, or where deep snow may be expected, one can get more for his money in the way of ability



The Above is From an Actual Photograph. This is a New Field for Auto's Farm Labors, but why not?

was regarded as the "novelty of the rich," devised for the purpose of providing a means of transportation that would not permit of being popularized as was the bicycle. For a brief period this end was scored but only for a brief one. The man of money failed to see the trend of progress. He failed to see that mechanical power was a thing toward which every business and occupation was turning. He failed to see that even the farmer was making a factory out of his farm and that this same farmer was fast beginning to realize that machinery of any kind that would decrease the cost of crop production, no matter what the cost, would become a part of his farm equipment.

It did not take the farmer very long to realize that the automobile was a most valued labor and time saver, to say nothing about the comfort it afforded, with the result that to-day farmers are among the very largest purchasers of automobiles. Some buy for comfort alone, but by far the larger majority purchase with a full realization of the commercial value and advantages of such a machine.

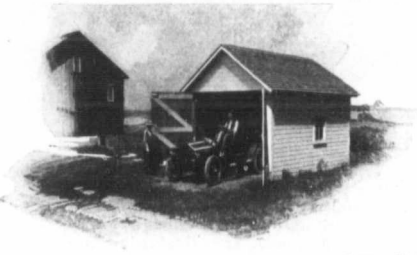
I have headed this article "Should the Farmer buy Automobiles?" What I should have done was to have headed it "What Sort of an Automobile shall the Farmer Buy?" and as a discussion I shall confine myself largely to the latter subject.

Rural Western Canada was one of the last places to take hold of the automobile with anything approaching enthusiasm. By this I do not mean that we are backward or "behind the times," but we have been so busy raising wheat at \$1.00 per that we did not stop to investigate the automobile proposition. Another apparent "stumbler" was

last few years (thanks to reliability runs and endurance tests) the auto was generally regarded as a city street conveyance and not a country road negotiator.

he is studying autos, talking auto and what is more to the point he is buying autos.

We will assume that Farmer Brown has made up his mind to



—Courtesy The Geo. Co.  
Some Repairs Are Needed and Town is Twenty Miles Away. The "Handy Man" (the Auto) Will Have Them Back in No Time.

However, the city street fallacy has been exploded and about the time of the real explosion the Western Canadian farmer, who raises \$1.00 wheat, began to real-

buy an automobile. Is there any way in which we can help him out with some good advice? Let us first ask a few questions.

What does he wish to pay for



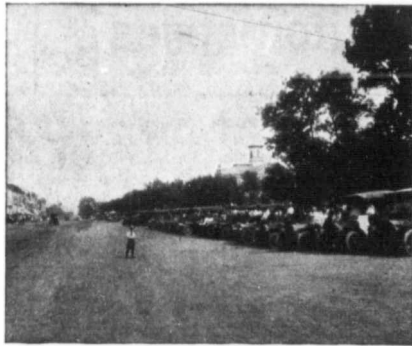
The Auto Truck Will in Time Find Many Farmer Users. Its Uses on the Farm Are Many and Varied.

ize that in the automobile was to be found something that would materially shorten the prairie miles and that living fifteen or twenty miles from town and own-

car, equipment and extras complete? What are his ideas as to power, passenger capacity, and speed? Will he use the car for pleasure only, or also for busi-

ness to surmount such obstacles in a steam car than in either of the other types.

As regards gasoline cars we find the larger number of the



Watching the Races. Quite a String Isn't it? It takes the Auto to Complete the Holiday

four cylinder type. A few years ago one and two cylinder cars were very common, as for example the single cylinder Cadillac and Reo cars and even to-day some very good two-cylinder cars are to be found on the Canadian market while the little single cylinder Brush is performing stunts of everyday record. The average small touring car of to-day has a twenty or twenty-five h. p. engine of the four cylinder type. It gives excellent service and can be purchased for practically the same price as the old one and two cylinder cars.

If the purse will permit a car developing from 30 to 35 h. p. is better for touring. Such a car will negotiate the hills and rough roads better than a smaller machine and will ride easier on account of its longer wheel base.

The exact speeds reasonably attainable with given cars will depend on the driver and the road. On good level or moderately rolling highways, even a twenty-horse power car will average twenty miles an hour during a day's run and have power to spare. With a thirty-horse power touring car, the average gait might be twenty-five miles per hour, and with a light roadster of that power a thirty-mile average would be possible, though not usual. Such a roadster will easily touch 50 miles an hour for short distances—fast enough for safety.

Other things being equal, it is advisable for the beginner to take a car of moderate power, certainly not over thirty horse power, and better somewhat less. A small car, on the other hand, is easily learned; and when you have learned to look after your car—large or small—you are in a position to avoid a lot of trouble and expense.

In Western Canada cars suitable for the average farmer can be purchased all the way from \$1,000 up to \$2,500. Choice is largely one of taste and length of pocket book. It is like purchasing a buggy. Part of the purchase price of the higher priced cars is for style and finish—size, strength and power being also factors that must be considered. If the farmer has only a limited amount of money to spend it is better to get a small than a large

car, for the small car is apt to be in better condition and will give better service for the money expended.

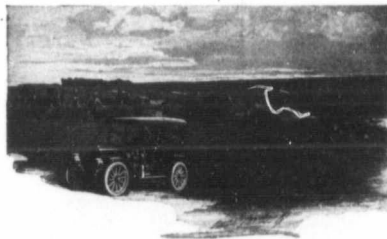
Assuming decent workmanship and intelligent care, what does it cost to keep a car? Unfortunately, this is a question which can only be answered by citing particular cases, since everything depends on the personal equation and on the extent to which the car is

a rather large expenditure and is if the farmer is to regard his car solely as a pleasure vehicle but the automobile has a commercial side to it that it is not the purpose of this article to discuss but which nevertheless is by far the most important viewed from the farmer's standpoint. The above figures may also be cut materially by care and knowledge of his car on the part of the owner, for like a good horse, nothing counts so much with a good automobile as care and attention.

Before leaving the subject of purchase price, a word should be said about the allowance for equipment. Many cars are sold to-day completely equipped, or so nearly so that the addition of \$50 or so covers everything except clothing, license, and insurance. Other cars, however, especially those sold at low prices, are often very imperfectly equipped, and one must add the price of a folding top, speedometer, wind shield (if desired), and various other things, before he is really through spending money. The lamps supplied with some low-priced cars are very flimsy and inefficient,

operated by electricity or by the exhaust pressure; the former type costs more, but is more satisfactory. Another essential item of equipment is three or four spare inner tubes and—except for the smallest cars—a spare shoe. In place of the latter, a light car intended for local use only may carry a blow-out patch and one or two tire sleeves.

With the next few years a great many second-hand cars will find their way upon the market. A large number of these will be high-priced cars and will doubtless be offered at attractive prices. A second-hand traction car is like a second-hand traction engine (only more so) and the man who buys one who is unfamiliar with a car, can be easily bitten. An automobile expert writing recently on this subject gives some very sound and wholesome advice and I give it here for the benefit of those farmer readers of this magazine who may come into contact with the second-hand proposition. He says: "In examining the car, look carefully for evidences of collision. See that the axles are not sprung and that the springs do not sag. Usually the first part of a car to wear out is the steering gear; therefore this should be examined for looseness and wear in the reducing gear and connections. Grasp the right front wheels by opposite spokes and shake them to detect 'play.' See whether the steering column is loose or rigid. If loose, a shop job is required to make it permanently snug. An old car with bevel gear drive will show looseness in the universal joints of the propeller shaft. The differential gears and pinions, and likewise the bevel driving pinion, are liable to be worn. Jack up one end of the rear axle, set one of the change gears in mesh, and rock the rear wheel back and forth. This will show how much back-lash there is in the transmission from the gears to the rear wheel. It will disclose wear, if any, in the propeller shaft joints, in the bearings of the bevel pinion shaft, and in the gear shaft bearings next to the propeller shaft. Looseness in the bearings adjacent to the rear wheel may be detected by shaking the wheel. If the wheel bearing is plain bushed, some looseness is expected, but a ball or a roller bearing should be snug. Have the engine started and note its sound. Any marked knock or rattle should be traced. An old engine will certainly be noisy; a new engine should run very quietly at ordinary speeds.



The Twine is Getting Low but There Will be no Waits with the Auto

used. If a car is used in moderation—say 2,500 miles per year—and is kept as long as it gives good service, instead of being arbitrarily sold off at the end of the first or second year, both the mileage expenses and the depreciation are kept low. Assuming a car to be purchased for a total cost of \$1,800, driven 2,500 miles

and the critical purchaser will insist on good lamps of proper size being furnished, paying the difference in price if necessary. A good automobile generator or a gas tank is as important as the lamps; and, for both safety and peace of mind, a long-range horn is an important feature of the equipment. These horns are



When summer breezes blow the auto makes things complete

per year for six years, and then sold for \$200, the yearly expense figures will be about as follows: Interest on car, \$108; depreciation, \$300; tires, \$75; repairs, \$60; gasoline, \$25; license, \$5; sundries, \$25; total, \$598.

The above figures may be a trifle high but country roads in Western Canada are on the average not the best and are rather hard on a car. \$598 may seem



The finest thing in the world for getting seed grain to the field.

"The points to notice on demonstration are smoothness of operation, flexibility of the engine, the extent to which the car can be slowed down in high gear, and the acceleration at slow speed when the throttle is suddenly opened; also the speed and hill-climbing ability. Looseness as regards the fenders, bonnet, lamp-brackets, etc., indicates an old car, although in itself it may usually be corrected with little trouble.

"If the car is purchased without overhauling, it may be best, according to circumstances, to run it first for a time and get acquainted with it, afterward putting it in a shop with definite instructions as to what overhauling should be done; or it may be best to have it overhauled at the outset. The former plan is best if the purchaser has some knowledge of automobiles and the car is in fairly good shape. The lat-



Western Canada is Not as Yet in the Melon Belt but Potatoes Make Just as Good a Load

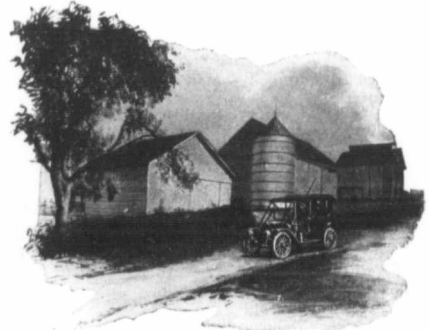
ter is preferable if the owner has not much time to spend getting acquainted with the machine, or if it is in bad shape. If the car has been purchased on the advice of an expert the latter can see to the overhauling. Under this plan the owner, as a novice, is relieved of the minor annoyances which would otherwise fall to his lot, and begins his experience with the car in nearly the condition of a new machine."

We now come back to the original question "Should Farmers Buy Automobiles?" This is a question that must be answered by every farmer for himself. The automobile is in a sense a luxury

and does not permit of being purchased with money wrung from a mortgaged farm. This is, however, not luxury of the "champagne" kind but is of a kind that will add health and strength to its owner's store. If the farm be large enough it will more than pay for itself through its use and if the farmer has a spare bank account then it is no one's business what he does with his money. Buy a car by all means, if you can afford it. Build it a good substantial garage, for automobiles don't make profitable chicken roosts. Give it the care any animal-loving, self-respecting farmer would give his horses, and you'll add ten years on to your life; your wife will develop the bloom of her younger days and the boys and girls will become a part of the farm in a way that no city call is loud enough to entice them away.



Farmer's Day at the Fair



The Complement of Everything Else on the Farm  
—Courtesy The Reo Co.

## Some of the Cars and People You Meet at the Winnipeg Motor Show HELD AT THE COCKSHUTT PLOW BUILDING.

**THE McLAUGHLIN MOTOR CAR COMPANY, LTD.,** Oshawa, Ont., and Winnipeg, Man., manufacturers of the McLaughlin-Buick automobiles and trucks, and representatives of the Welch Motor Car Co., Detroit, Mich., manufacturers of the Welch automobiles.

**A. C. McRAE,** representing the Mitchell-Lewis Motor Co., Racine, Wis., manufacturers of the Mitchell automobile, and the Regal Motor Car Company, of Canada, Ltd., Walkerville, Ont.

**WESTERN CANADA MOTOR CAR CO.,** representing the Packard Motor Car Co., Detroit, Mich., and the Willys-Overland Co., of Toledo, Ohio, manufacturers of the "Overland."

**WINNIPEG GARAGE COMPANY,** representing H. H. Franklin Manufacturing Co., Syracuse, N. Y., and the Cadillac Motor Car Co., of Detroit.

**CANADA CYCLE & MOTOR CO.,** Toronto, Ont., and Winnipeg, Man. Manufacturers Russell automobiles, Knight Daimler engines, accessories, etc.

**JOS. MAW & CO.,** representing the Reo Motor Car Co., of Canada, Ltd., the Olds Motor Works, Lansing, Mich.; the Peerless Motor Car Co., of Cleveland, Ohio.; the Columbus Buggy Co., Columbus, Ohio, manufacturers of the Firestone Columbus; the Hupp Motor Car Co., Detroit; and the Daimler Motor Co., Ltd., of Coventry, England.

**CENTRAL GARAGE CO.,** representing Knox Automobile Co., Springfield, Wis.; the Maytag-Mason Motor Co., Waterloo, Iowa; the E. R. Thomas Motor Co., of Buffalo, N.Y.; The Hudson Motor Car Co., of Detroit, Mich.; the Hendee Mfg. Co., Spring-

field, Mass., motorcycles, and the Firestone Tire and Rubber Co., Akron, Ohio.

**THE HALLIDAY AUTO CO.,** representing the Streator Motor Car Co., at Streator, Ill., manufacturers of the Halliday automobile.

**THE FORD MOTOR CO.,** Walkerville, Ont., and Wirnipeg, Man., manufacturers of the Ford automobiles.

**R. B. KERSHAW,** representing the Brush Runabout Co., Detroit, Mich., manufacturers of runabouts and commercial cars.

**HAUG BROS. AND NELLERMOE,** representing the Bartholomew Co., Peoria, Ill., manufacturers of the Glide automobile; the Empire Motor Car Co., of Indianapolis, Ind., manufacturers of the Empire "20" roadster and Paige Detroit Motor Co., Detroit, Mich.

**BREEN AUTOMOBILE CO.,** representing the E. M. F. "30" and Flanders "20," manufactured by the E. M. F. Co., of Canada, Ltd., Walkerville, Ont., Gramm Motor Car Co., Bowling Green, Ohio; Winton Motor Car Co., Cleveland, Ohio.

**WALKER MOTOR CO.,** representing the Patterson Motor Car Co., Flint, Mich., and the Maxwell Briscoe Motor Co., of Tarrytown, N. Y.

**J. I. CASE THRESHING MACHINE COMPANY,** Racine, Wis., and Winnipeg, Man., manufacturers of Case automobiles.

**TUDHOPE, ANDERSON CO.,** representing the Tudhope Motor Car Co., of Orillia, Ont., manufacturers of the "Everett 30."



# For the Prospective Automobile Purchaser

BEING A FEW TERMS THAT ARE FREQUENTLY USED IN DISCUSSING THE AUTOMOBILE.

**Wheel Base—**

The distance between the points where two road wheels on the same side of the car touch the ground.

**Tread—**

That part of the tire of a wheel which comes into contact with the ground. In order to avoid side slips and skidding in some cases to give a better grip of the road various kinds of treads other than those which are quite smooth have been adopted. Some of these are detachable from the tire, others form a part of the tire itself.

**A. L. A. M. Horse Power—**

Horse power as determined by a standard rule laid down by the Associated Licensed Automobile Manufacturers.

**Bore—**

The term used to denote the inside diameter of the cylinder. It is used in conjunction with the term stroke which denotes the distance over which the piston travels. From the bore and stroke together with the speed of the engine and the compression pressure, a formula is obtained from which the horse power of the engine can be determined.

**Piston Displacement—**

The measure of space acted through during each piston stroke, or in other words, the area of the piston multiplied by the length of the stroke.

**Ignition—**

A term applied broadly to the apparatus necessary for the ignition of the explosive gases in an internal combustion engine.

**Dual Ignition—**

Where two systems of ignition are used on the same engine, such as oil and battery and magneto, and especially where they are coupled up so as to use the same coil or contact maker, the ignition is known as dual.

**Magneto—**

A mechanical appliance used to transform magneto energy into electric energy. The term is an abbreviation of the full title "Magneto-Electric Machine." Magnetos may be either high tension or low tension.

**Lubrication—**

A term applied for the system by which oil is furnished to the different parts of the engine, particularly the crank case. The two principal systems are known as the splash system and the forced system.

**Transmission—**

The term "transmission" applied strictly to the whole of the mechanism employed in transmitting the power of the engine to the road wheels. The two principal

**Differential—**

The means by which one wheel is allowed to go faster than the other in turning corners or the means by which the tractive effort is equalized and one wheel

being accomplished by means of a large fan.

**Pumps—**

As applied to a motor car, they are principally used for circulating water through the water jackets of the cylinder and for pumping the air into the lubricating and gasoline tanks for force feed carburetors and force feed lubrication.

**Clutch—**

A device which is usually interposed between the engine shaft and the transmission system. In other words it is the coupling device between the former and the latter. By means of this the transmission remains stationary while the engine moves. Most clutches are operated from the foot board of the auto.

**Equipment—**

In general equipment means extras that go with the car. It usually includes when complete top and glass wind shield, two gas lamps, oil side and tail lamps, pump, jack, tire repair kit and complete set of tools.

**Tonnneau—**

The rear seat section of an open auto. The word is the French term for "Tub" and came into motor car use from the shape of the tonneau originally fitted.

**Chassis—**

A term adopted from the French. It strictly means frame, but as generally used in the auto world it includes not only the frame work of a car but also the wheels, springs, engine, gears, etc. mounted on or suspended from the frame; in fact everything but the body.

**Torpedo Body—**

As applied to the motor car means that shape of body which resembles a torpedo in shape. Most makers have their own style of torpedo body.

**Carburetor—**

An apparatus used to transform the liquid fuel, generally gasoline, into a gas and at the same time mix it with such a proportion of air as to make it combustible. Many different styles and types of carburetors are used on the automobiles at the present time.

**Catalog—**

One of the first things you are to send for, especially to the firms who have advertised their autos in this issue.



Quite a Load, but Easy for the Auto.

systems of transmission at the present time are those known as Selective Sliding Gear and Planetary. The Selective type transmission is that by means of which varying speeds may be obtained at the will of the

slips on the road and the other doesn't.

**Radiator—**

An appliance through which the cooling water is circulated. Its function is to subject the water to a large



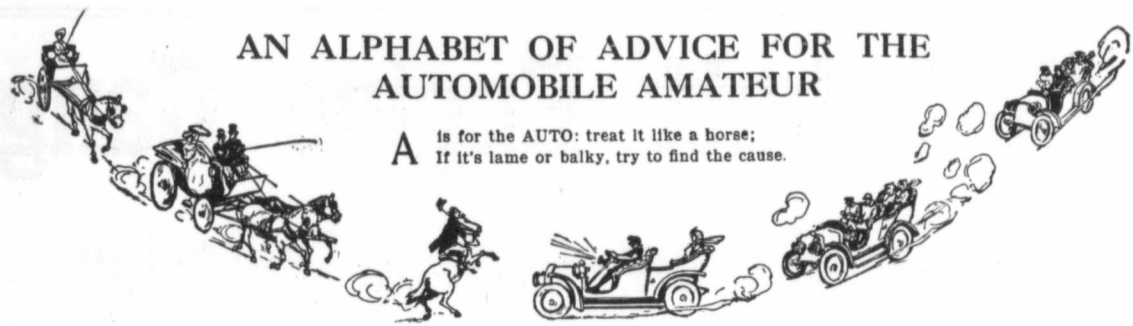
The Milk Wagon Again.

driver at the operation of a single lever. In the main it is accomplished by sliding gears into mesh with each other endwise. It has proved most successful for change speed gears in motor cars.

metal surface in contact with the air in order to radiate the heat carried off from the cylinder walls; thus keeping the latter cool. Some makes of motor cars are cooled by air, the circulation of the air



# AN ALPHABET OF ADVICE FOR THE AUTOMOBILE AMATEUR



**A** is for the **AUTO**: treat it like a horse;  
If it's lame or balky, try to find the cause.

**B** is for the **BATTERY**; don't forget to test it;  
Switch the other on at times; that will serve to rest it.

**C** is for the **CYLINDER**; keep it good and clean.  
Free from clogging carbons, by injecting kerosene.

**D** is for the **DIFFERENTIAL**; if it's packed in grease,  
Look at it occasionally, then your troubles cease.

**E** is for the **ENGINE**; never let it race.  
Keep your spark and throttle in the proper place.

**N** is for the many **NUTS** you must watch and try  
Or you will be having trouble bye and bye

**O** is for the **OILER**; see the feed is right—  
You are very lucky if it is placed in sight.

**P** is for the **PRIMING**—don't "tickle" it too long;  
She should crank the third time, if there's nothing wrong.

**Q** is for the little **QUIRKS** you learn (at least you ought).  
Cures for petty troubles (they seldom can be taught).



**F** is for the **FLY-WHEEL**; if it shakes or jars,  
Look into your bearings, for trace of heat and scars.

**G** is for the **GASOLINE**; strain it through a chamois;  
That will keep the water out, and you from saying "damme!"

**H** is for the **HIGH-SPEED**; use it when you can;  
Fretting up the low-gear's an overheating plan.

**I** is for the **IGNITION**; watch your insulations!  
Keeping them from oil and wet well repays your patience.

**R** is for the **RADIATOR**; if it gets too hot  
Try the lubrication, you're a fool if you do not.

**S** is for the tire **SHOE**; it's ruin will be dire  
If you don't investigate the bumping of the tire.

**T** is for the **Inner TUBE**; always have a spare one.  
Any older one will do, if a pretty fair one.

**U** is for the **UPKEEP**, it need not be so large.  
But it's better for the amateur to use a good Garage.



**J** is for the **JACK**, and do be sure and take one;  
If your tire is punctured, it's a job to make one!

**K** is for the **KNOCKING**; perhaps your engine's hot—  
Or your spark too far advanced—be certain that it's not!

**L** is for the **LEVER**; first release your clutch  
Or you're sure to strip your gears—that will cost you much.

**M** is for the **MUFFLER**; cut it out in time,  
You will find your motor has an easier climb.

**V** is for the **VALVE-seat**; it is apt to gum  
Maybe it needs grinding—that will test you some!

**W** is for the **WATER**; don't let it run too low;  
Always hose your tank out, every week or so,

**X** is for the **EXPLOSION**; if it skips, your duty  
Is to clean the spark-plug, which is doubtless sooty.

**Y** is for the **YOKE** that keeps your springs secure;  
See the nuts that hold it are headed over—sure!

**Z** is for the **ZANY** who, with lighted match,  
Looks for double trouble where the gas will catch.



JUSTIN STURGIS.

# Cockshutt Engine Gang

IS THE

## Original Gang—Not an Imitation

The man who buys a COCKSHUTT ENGINE GANG has a distinct advantage by reason of this fact—we originated the first successful Engine Gang Plow sold anywhere.

No former patents existed to limit our designers. They had a clear field—nothing to copy, nothing to avoid copying. They built on direct lines. What was practical and necessary they included. What was complicated or just fancy, was left out. Only for that reason was it possible to produce the simple, strong, completely effective COCKSHUTT GANG.

The farmer who buys the COCKSHUTT ENGINE GANG benefits by this. He gets an Engine Gang on which there is nothing finicky or superfluous, but every necessary feature is there.

Attempts at imitation of the COCKSHUTT GANG are now being offered the Western farmer, but these have to be built with complicated, more intricate features so as to avoid the appearance of copying the COCKSHUTT. The result is less

simplicity, less perfect working ability. You can prove for yourself, if you intend buying an Engine Gang, that the COCKSHUTT has many decided and valuable points of superiority over all others. Ask any farmer now using the COCKSHUTT how he likes it, how it does its work, whether or not it is strong, practical, simple and dependable. You will find that it satisfies the man who operates one.

We know and say, with the certainty that comes from actual knowledge, that there is no other Engine Gang equal to the COCKSHUTT for perfect work, lightness of draft, and durability. For many years it has proved a thorough success in the hard and tough sod, rough and stony land met with in Western Canada. Don't experiment with other makes. Experiments are costly and in this case unnecessary. Get the COCKSHUTT—THE ENGINE GANG that has been tried and proven under every condition. It has shown conclusively that it can do

perfect work and stand any strain.

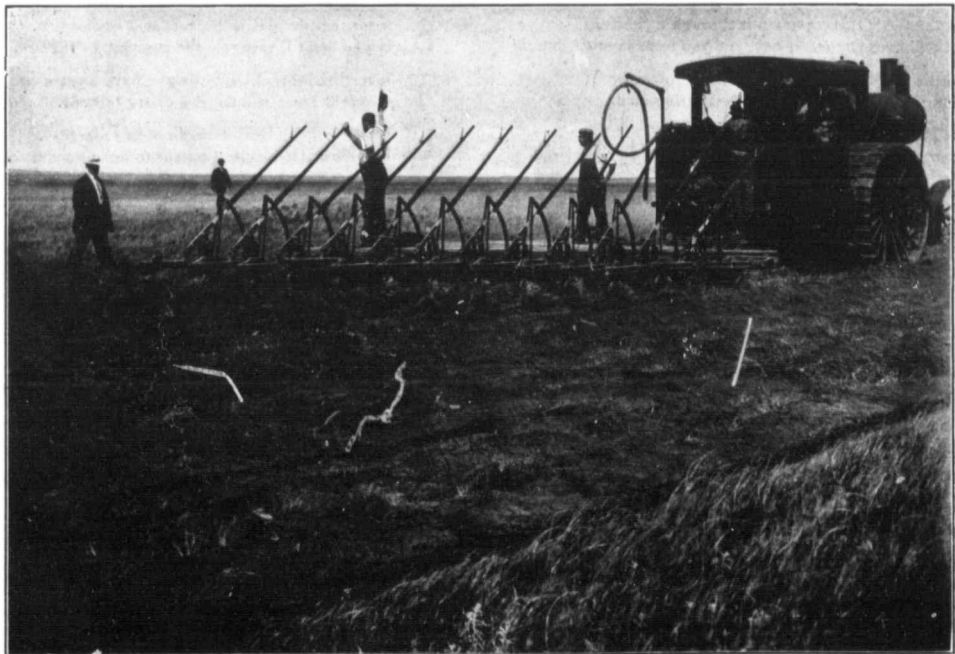
Note carefully these outstanding facts in connection with the COCKSHUTT ENGINE GANG:

The COCKSHUTT GANG introduced the "one-plow, one-lever" system. The great advantages of this system are freely admitted by the hundreds of farmers using the COCKSHUTT under all conditions.

If one bottom is thrown out by a stone the other plows are not affected. The bottom thrown out at once drops back automatically to its work without damage.

Suppose you wish to clear an obstruction. In the COCKSHUTT you simply pull ONE LEVER and raise ONE PLOW. In different other makes you must raise ALL or a PAIR of plows.

The number of plows used can be changed at a moment's notice. When plowing is extra hard instead of dropping down from eight plows to six for instance, (which you must do with two-furrow-to-the-lift engine gangs) you can use seven,



"Cockshutt Engine Gang in Winnipeg Exhibition Plowing Contest, 1910."

**COCKSHUTT**

FLOW  
COMPANY  
LIMITED

**WINNIPEG**

BRANDON

REGINA

SASKATOON

CALGARY

EDMONTON

# We Want You to Know Its Marked Superiority

strain.  
ng facts  
SHUTT

roduced  
n. The  
re freely  
farmers  
l condi-

a stone  
d. The  
ps back  
lamage.  
obstruc-  
simply  
FLOW.  
st raise

can be  
When  
ropping  
istance,  
row-to-  
e seven,

thus utilizing all the power without losing time.

When the land is loose, the drive wheels of the Traction Engine often sink several inches deep and the side of the engine tracks coming in the middle of a gang of two bottoms results in one bottom plowing deep while the other is simply scratching the surface. With our independent plows, each bottom adjusts itself automatically to the desired depth whether in depression or not.

Our bottoms and shares are very much heavier and stronger than other makes. We have found from actual field tests that it is necessary to have this increased weight to hold the bottoms in hard ground so they run level and turn a uniform furrow. This is a specially valuable feature of the COCKSHUTT GANG which farmers would do well to investigate.

These are only a few of the reasons why you should buy the COCKSHUTT ENGINE GANG in preference to any other

make. Another very important one is adjustments. The top of each standard is fitted with a set screw for adjusting the "suck" of the share and levelling up the bottoms. The bolt holes in the standard are slotted and by loosening the bolts and using the set screw each bottom can be adjusted to as fine a point as desired.

The gauge wheels can be put backward close to the shares for breaking, thus protecting them from stones, or can be transferred forward to make room for swivel rolling colters in stubble plowing.

We could take up several pages in this paper telling about the superiority of the COCKSHUTT ENGINE GANG, but everything is thoroughly explained in a handsome booklet which we have just issued.

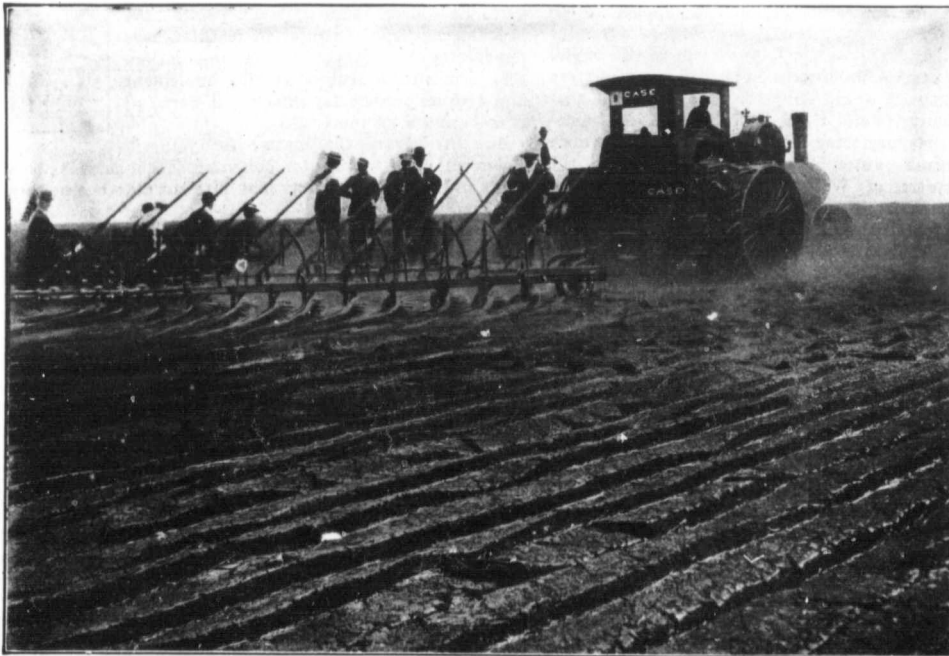
Don't miss it whatever you do. It shows a large number of splendid illustrations reproduced from actual photographs of COCKSHUTT ENGINE GANGS at work all over Western Canada, and hundreds of convincing testimonials which cannot

fail to impress you as to which ENGINE GANG is the best.

We will gladly send you a copy free on receipt of your name and address. Write us to-day—nearest address—or see a Cockshutt dealer.

It is best for intending buyers to see the COCKSHUTT ENGINE GANG and examine its various points of superiority. In the meantime get our handsome booklet about our ENGINE GANG. Many hundreds of practical farmers who have used the COCKSHUTT GANG have written to us testifying to its excellent working qualities.

We will be glad to send a free copy of this booklet to you. Send us your name and address—to nearest address, or SEE THE COCKSHUTT DEALER.



"Cockshutt Engine Gang in Winnipeg Exhibition Plowing Contest, 1910."

## COCKSHUTT

PLOW  
COMPANY  
LIMITED

## WINNIPEG

BRANDON

REGINA

SASKATOON

CALGARY

EDMONTON





**FEB.**

## The Canadian Thresherman and Farmer

CANADA'S FARM MACHINERY MAGAZINE

PUBLISHED MONTHLY BY  
**E. H. HEATH COMPANY LIMITED**  
 WINNIPEG - CANADA

Members Western Canada Press Association  
 Authorized by the Postmaster General, Ottawa, Canada, for transmission as Second Class Matter.



**E. H. HEATH**  
 PRESIDENT AND MANAGER

**E. W. HAMILTON**  
 SECRETARY

**F. C. BRAY**  
 TREASURER

"Everything begins and ends with the soil."



**1911**

### WE ARE LIVING NOT IN A "HORSELESS AGE," BUT IN AN AGE THAT KNOWS AND RESPECTS THE HORSE

#### OUR GUARANTEE

No advertisement is allowed in our columns until we are satisfied that the advertiser is absolutely reliable and that any subscriber can safely do business with him. If any subscriber is defrauded E. H. Heath Co., Ltd., will make good the loss resulting therefrom. If the event takes place within 90 days of date advertisement appeared, and complaint be made to us in writing with proofs, not later than ten days after its occurring, and provided, also, the subscriber in writing to the advertiser, stated that his advertisement was seen in "THE CANADIAN THRESHERMAN AND FARMER." Be careful when writing an advertiser to say that you saw the advertisement in "THE CANADIAN THRESHERMAN AND FARMER."

**T**HIS, our Special Farmers' Automobile number, we respectfully submit to our readers. It is our first attempt along this line and if it is received with the same enthusiasm and provokes as much favorable comment as our Traction Plowing numbers we shall feel more than repaid for the trouble and pains we have put into its preparation. We are not an automobile publication in any sense of the word. Such publications have a broad continuous mission to perform in that it is their business and their duty to exploit the automobile among all classes. We have watched these publications carefully, and we have felt that in so far as the farmer was concerned that he has not come in for his due share of recognition. They have appeared to graze where the "picking" was easy, feeling that the farmer lacked the education and business acumen to properly grasp the commercial import of the automobile as applied to his own particular use.

A glance at the sales records of the several automobile concerns doing business in Western Canada would doubtless reveal the fact that the farm end of the business had been somewhat neglected. Not but what the farmers

have purchased some automobiles, but considering the fact that the farmers of Western Canada are buyers of expensive machinery in large quantities there is absolutely no reason why the automobile should not form a part of the equipment on more farms than it does.

There was a time when the gas tractor was viewed with suspicion by the farmer. A few purchased, had good success, and now the numbers sold each year is only limited by the supply. There has been a prevalent idea among the farmers that the automobile was a luxury fit only for the man with a big bank balance. The commercial side of the proposition did not appeal to the soil tiller, and he either passed such a machine up with a jest or set the idea aside for some future time when he would have both leisure and money.

Like everything else that is new the matter of introducing the automobile to the farmer is one of education. It requires more than a mere catalog or the statement from any manufacturer that his car is "the best." The farmer if from anywhere is from Missouri and must be shown, but when once convinced he will buy to the limit.

It is with the above in mind that we have prepared this issue of our magazine. We felt that it was due our farmer readers that they be given, in so far as space allowed, a clear exposition of the auto as it applies to their particular needs. Much yet remains to be said, but we must leave it to those who are interested to take the matter up directly with the various manufacturers or jobbers who have endeavored to tell their story through our advertising columns. Write for their catalogs. Ask them any questions you may see fit and we know that the answers will be prompt, cheerful and valuable.

The farm automobile is here to stay. Its practicability has been fully demonstrated, its influence on the social side of farm life is

unquestioned—it is no longer a luxury pure and simple. It has become a decided necessity on the modern farm. Its uses for the Canadian farmer are quite fully set forth in this issue both by text and illustration. The whole number is worthy of consideration and study. The modern farmer must be up-to-date. He must have the latest and best appliances.

The last and probably the greatest addition to this list is the farm automobile. A few years ago it was considered a toy of the ultra-wealthy. It required a millionaire's pocket book to maintain it. The engine was not perfect. It caused much trouble. The tires were more or less faulty. The body of the car could not always be depended upon. Skilled engineers and mechanics have put their best time and skill on these weaknesses, and today they have been largely eliminated. Intricate parts have been removed, weak points have been strengthened, utilitarian features have replaced gaudy finish and ornamentation. The farm auto is truly a working implement and with its present day efficiency is worth all it costs and a lot more.

But investigate the matter for yourself. There will be no more automobile numbers of this magazine until 1912, and in the meantime look into the auto thoroughly. The first step is a catalog.

The big subject under discussion these days is "Reciprocity." The Canadian, British and the American press is full of it. In town and country, hamlet and village, forest and field, it is the one engrossing topic. The Canadians are pretty much divided in the matter. The Canadian farmer sees in it a wider market with great future possibilities. The Canadian manufacturer sees in it the entering wedge toward free trade relations. Both, however, seem to—or want to—neglect the fact that what affects one must of necessity affect the other. As a nation one cannot live without the other, and at the same time build up a country in its fullest and broadest sense.

British authorities are also somewhat divided. One party sees in it the propagation of an English free trade policy. The other party sees in it a severance of the preferential trade relations between England and Canada, at the same time taking some pains to warn Canadians that English capital for investment purposes is quite likely to be steered into other channels. President Taft is for reciprocity. It is somewhat difficult to explain his attitude coming as it does from a man who was born a high Protectionist, was raised one, has lived as one, and who has attained the highest seat in the nation as a champion of the protected interests. Some of the legislators are with him in his present move, but a large number eye it with suspicion. The people of the United States in general are for it, and if the question were submitted to a popular vote today it would go through. The great trouble with the proposition is that it is not the will of the people that will rule on either side of the line, but the will of a select few who are not always responsible for what they do.

#### SUBSCRIPTION RATES

Postage prepaid, Canada and Great Britain, \$1.00 Per Year.

Postage prepaid United States and Foreign Countries \$2.00 Per Year.

Failing to receive paper, you should notify the office at once, when mistakes, if any, will be corrected immediately.

All Subscriptions must be paid for in advance and are positively discontinued at date of expiration unless renewed.

Advertising copy in order to secure good position should be in our hands not later than the 15th of the month preceding date of issue.

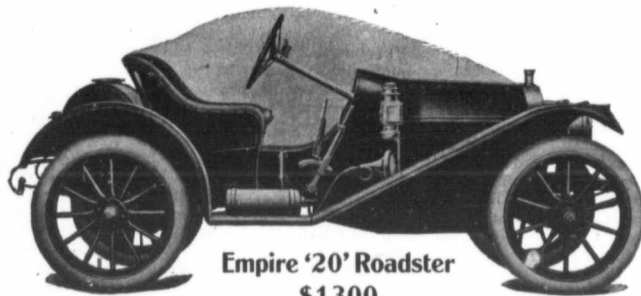
Advertising rates furnished on application.



# FARMERS!

HERE IS OUR COMPLETE LINE OF

## Automobiles and Motor Trucks



**Empire '20' Roadster**  
\$1300

### The Empire '20'

The raciest, classiest and smoothest running roadster of the year. Four cylinder, *en-Moc* motor, 3½ x 4 inches, unit power plant, either Remy or Eisemann high tension magneto. Selective, sliding transmission, unit with rear axle, three speeds forward and reverse, 32 x 3½ inch tires front and rear, Q D. rims. Exceptionally long and easy springs, semi-elliptic front and three-quarter elliptic rear. 96 inch wheelbase. Semi-torpedo body with enclosed dash. Equipped with gas headlights, oil side and tail lights, horn, pump, and complete set of tools.

**Price \$1300**

### The Glide

A 45 H.P. car at a reasonable price. Big, roomy, powerful, and mechanically correct—the Glide is the type of machine upon which the future success and prestige of the automobile industry lies. It is practically three years ahead of its time. We want you to see a Glide and ride in it before buying any other machine. After such a test we will be glad to leave the decision to your judgment.

**Prices \$2450 to \$2600**



**Glide Torpedo**  
45 H.P. 5 Passenger  
\$2600

### For the City

The Avery Truck equipped with solid rubber tires makes an ideal commercial car with a capacity of three tons or over. The extremely accessible power plant is only one of the superior features.

Furnished with any style of body desired.

**Price \$3000**



**Avery Truck**  
For Farm or City  
\$2500 to \$3000

### For the Farm

Equipped with our patented wood plug rims and automatic extension rear wheels the Avery Truck becomes the most practical power vehicle the farmer can buy. Will do plowing, threshing, or hauling. Will run fanning mills, feed choppers, saws, and other small machinery from belt.

**Price \$2500**

## Haug Bros. & Nellermeoe

Fountain and Henry Streets, Winnipeg ————— Manitoba

# AUTOMOBILES FOR THE FARMER

With this issue we begin a series of articles on the automobile as it pertains to the farmer. The increasing number of farmer automobile buyers leads us to believe that the farmer is rapidly taking hold of this means of transportation and accordingly we feel that a series of articles such as we shall give our readers should prove both interesting and profitable. They will be technical only in so far as is necessary in order to familiarize the farmer with the workings of an automobile, while considerable attention will be paid to the commercial side of the auto viewed from the farmer's standpoint. They are written by a gentleman who is thoroughly conversant with the automobile in all its phases, one who is both practical and thoroughly competent to handle the subject.

By A. C. EMMETT.

The owning of an automobile by a farmer is no longer considered by bankers to be a luxury that he should do without until he can pay down the last cent of the purchase money at the time he takes delivery of it. They have long since recognized that any machinery or equipment that can be added to the farmer's tools to effect a saving in time and labor, becomes a valuable asset and a means of making the business of the farmer more profitable.

Take the case of one farmer who had purchased a car, and been remonstrated with for spending his money on a useless luxury. His reply was: "I have had the car now over four months and I hardly know what I value the most. The ease of getting in and out of town with the butter and eggs, the getting of repairs or supplies on short notice, the children going to school in it, or whether it is because we can hitch up with a turn of the crank and run to church Sunday morning and spend the afternoon at my brother's, fifteen miles down the creek."

As in the case of this farmer, so will it prove to be the case of all others, if only half the time devoted to the care of the horses is given to keeping the car clean and in running order. The keeping in order part of the program has been a stumbling block with many people who may be located quite a distance from any town, but whilst this may have been true, some five or six years ago, it is no longer so, as the mechanism has been so simplified and improved that the care of a car is not so hard as the proper care of a horse. As a matter of fact, the farmer, with his knowledge of mechanical details, gained in the use of the plough, seeders, harrows, reapers, etc., has an advantage in the fact that he already possesses the groundwork and very little use familiarizes him with all the different working parts of the car. Makers are also ready to come to his assistance with specially prepared instruction books, which deal with the operation in the simplest manner, and as far as the driving is concerned, any member of the family can acquire the art in less than a day, thereby making a general purpose vehicle that will perform any work needed in very little longer time than would be necessary to prepare a team and return it to the stable at the end of a short trip.

That these statements are by no means a flight of imagination, is borne out by the journey from

New York to Oklahoma, made by Louie Abernethy and his brother, aged, respectively, nine and and seven years old, who covered the whole of the 2,500 mile trip without having to call for assistance from outside sources.

What the farmer needs more than any other thing, in improving his position, is a good highway between his farm and the nearest point of shipment for his produce, and nothing is helping the ultimate provision of this along more than the increasing number of automobiles put into service in the rural districts every year. Even if he does not own an automobile himself, the fact that improvements are made, enables him to take his produce to market at about half the cost incurred

pleasure outing. As will be seen from cuts, illustrating this article, even a small car can be made to do yeoman service for its owner, if, when he is buying, he takes care to purchase a machine from which the rear seats can be removed, turning it for the time being into a light commercial car. These are not fancy stunts specially arranged for the purpose of securing pictures, but are actual photographs of a car in everyday use by a wideawake farmer, who from the first realized the possibilities of the automobile and has made it a paying proposition instead of a luxury.

What has been accomplished by one man can be also done by any other and instead of the dreary ride to town at a slow gait

machinery or parts, of however trivial a nature, the real merits of the cars under test will be demonstrated in the best possible manner, and at the same time the cost of upkeep will be ascertained by carefully tabulated records kept by independent officials, who will accompany the contestants on the run.

### The Latest in Regals.

Among the new torpedo style roadsters that have been designed for the 1911 season none have better lines or finer design than the Regal Roadster. One particularly noticeable feature is the under slung frame which has never before formed part of the design of a car selling within some \$2,000 of the price at which the latest Regal model is sold. It gives the car a fine long rakish look, which immediately attracts attention on account of its fast and speedy appearance.

The wheel base of one hundred inches insures the easy riding qualities of the machine and the arrangement of the steering wheel allows for the driving of the car with the least possible fatigue.

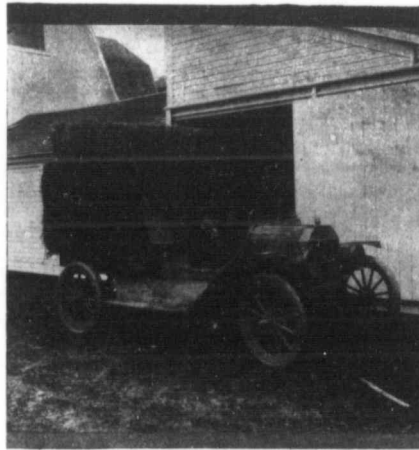
The body is of the new fore door type with a sloping dash and long mud guards flaring away well over the front wheels, which are responsible for the speedy looking appearance.

Thirty-two by three and a half tires are fitted all round and the general color scheme of the body is in blue with light grey wheels giving the finishing touch that makes a perfect car for a gentleman's roadster.

The gear change levers are fitted on the inside of the car at the left hand side of the driver and are extremely easy in operation.

### Meeting With Good Success.

The school in gasoline instruction instituted by A. McLarty in the Walker Exchange building at Portage, is meeting with great success, and the classes are filling up fast, a number having entered the school during the past week. During the visit of the Technical Education Commission to Portage Mr. McLarty was before that body as a witness for a longer period than any other person and great interest was manifested by the members in the work Mr. McLarty's school is doing. A number of the members of the classes under instruction are farmers and farmers' sons, and they are receiving a practical knowledge which will be valuable to them in farm work, especially with machinery.



Another use for the Auto on the Farm.

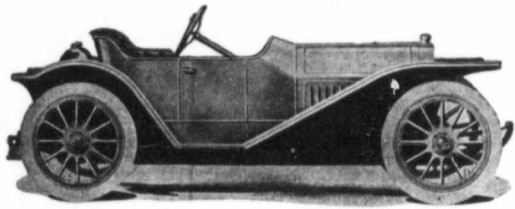
when only the poorest excuse for a road exists between the two points. With the provision of good roads, the farmers can combine together and purchase a motor truck for the hauling of their produce and supplies, or some local man will be found with sufficient grasp of the possibilities to provide it for them, eventually leaving them with practically the whole of their time to devote to the supervision of the work of the farm. The value of the time thus saved will soon repay the outlay necessary for the purchase of the motor vehicle, and in addition they will have the benefits resulting from improved means of intercommunication between themselves and neighbors at a distance.

Use of the Car  
The car can be put to many more uses on the farm than that of simply taking care of the ordinary runs to town or the family

with a loaded wagon and the same slow return with tired horses, the run can be quickly and pleasantly made in one third the time. Hundreds of other uses to which the car can be put are shown in other articles and pictures in this issue and it only remains for the farmer to grasp his opportunity by making use of the modern methods placed within his reach at a cost very little over that of a buggy and team.

Farmers in Western Canada will have a good opportunity to judge of the performances possible with an up-to-date automobile during the summer of 1911, when the big Canadian National Reliability Tour will be run from Winnipeg through Manitoba, Saskatchewan and Alberta over a route nearly 3,000 miles long, in which most of the prominent makers will be taking part. As the contestants will be penalized for any little derangement to the

# THE "REGAL" FOR 1911 Is an Ideal Farmer's Car



**Regal "20" Racy Roadster \$1,250**  
F. O. B. Winnipeg

A beautiful, racy Roadster, with full underslung frame. Gives you exactly what you want in a Roadster—high-class and low price. It's underslung frame has many mechanical advantages which make for easy riding, as well as graceful appearance. It brings the weight of the body and mechanism close to the ground and almost eliminates skidding. At the same time it has a road clearance of 10 inches.

The Regal "20" has the low-hung, graceful appearance that challenges attention on the street and meets the desires of those who want a distinguished, smart-appearing, racy, two-passenger car at a reasonable price.

Note that the Regal "20" Roadster is large, powerful, strongly built—100-inch wheel base. Heavy enough to "stick to the road"; strong and powerful enough to cover any road or hill anywhere.

**SEND FOR DEALERS' PROPOSITION AND CATALOGUE**

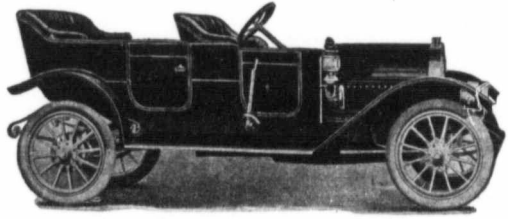
Be sure and make us a call when at the Bonsel. Our exhibit will be at the Auto Show in the Cockshutt Plow Bldg.

Be Sure and Get a Catalogue

**A. C. McRAE**  
COR. KING AND JAMES STREETS

WINNIPEG

MANITOBA



**Regal "30" Fore-Door Touring Car**

When it comes to buying a family touring car, the great points to consider are Comfort, Reliability and Power. Some cars are comfortable, but have not power enough; other cars are both powerful and comfortable, but are not Reliable. The Regal "30" combines Comfort, Reliability and Power; that's why it is the ideal family car.

The whole world knows about Regal endurance. No car has ever been put through severer tests than those to which the famous Regal "Pluggger" has been subjected. Over 29,000 miles of American roads in practically every state in the Union have been covered by this powerful, sturdy car, without repairs or replacements. Doesn't that prove Reliability?

The Regal "30"—price \$1,450—is now offered for its fourth year. In general it preserves the same mechanical principles as the first Regal "30," but everywhere—in every detail—it has been refined and refined again until it is almost perfect. Nowhere can you find a five-passenger car that will give you better service and cost you less to operate. Made in both fore-door and open styles; open style, \$1,400, including magneto and regular standard equipment

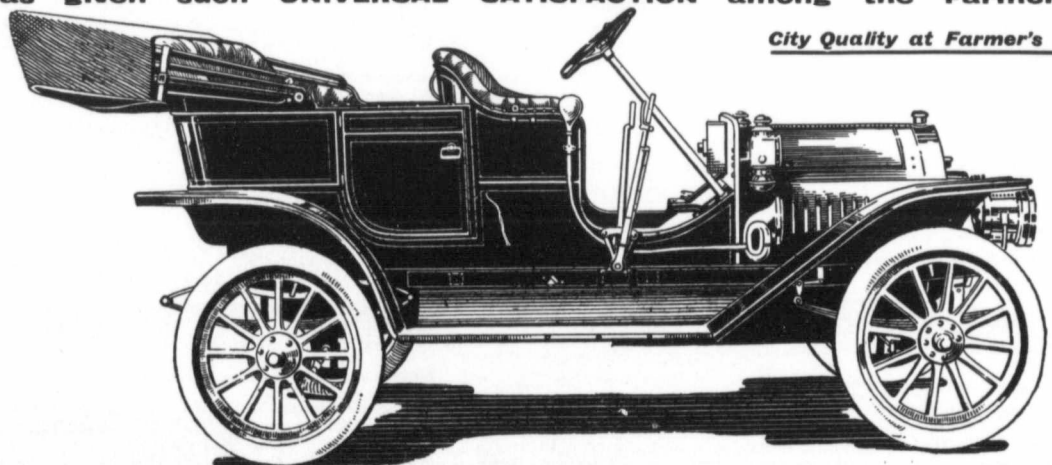
## FARMERS are buying only the Best Cars

That is why

# THE PATERSON "30"

Has given such UNIVERSAL SATISFACTION among the Farmers

City Quality at Farmer's Price



### THE MOST FOR THE MONEY

The PATERSON "30" is a car designed especially to combine simplicity and compactness with high efficiency. The mechanically correct principles upon which the construction of this car is based, together with the accuracy of workmanship make it pre-eminently "The most for the Money." **Strong—Swift—Silent.** You are sure to see it but you can't hear it.

We would take pleasure in sending you a Catalogue

See us at the Auto Show at  
Winnipeg during Bonsel.

**Walker Motor Co.**  
229 Isabel St. - Winnipeg, Man.



# The Highway, the Farmer and the Automobile

There was a time when the farmer looked upon the automobile with considerable aversion. He saw in it only the pastime of the idle rich when confined to the city limits. When upon the country highway he saw in it something that would un-nerve his horses, scatter dust in clouds, kill his chickens, and do anything else that might render it a public nuisance. In the larger cities, it is true that the automobilist can confine his trips

grades shall be such that loaded vehicles may be drawn over them without great loss of energy; that they should be properly constructed, the road-bed graded, shaped and rolled; and that they should be surfaced with the best material suited to their needs.

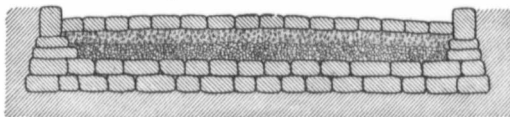
This matter of grade is one of prime importance. They do not affect matters so much in a country like Western Canada, but should nevertheless be watched carefully. "A chain is

as on a level road. As a perfectly level road can seldom be had, it is well to know the steepest allowable grade. If the hill be one of great length it is sometimes best to have the lowest part steepest, upon which the horse is capable of exerting his full strength, and to make the slope more gentle toward the summit, to correspond with the continually decreasing strength of the fatigued animal.

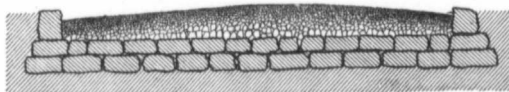
So far as descent is concerned, a road should not be so steep

add to the farmer's depreciation and expense bill.

The farmer is dependent in every way upon the public highway. Unlike the city man, he must use it, not from choice, but of necessity. No matter how poor the road may be, he must travel over it in the course of his business. It is not a question with him of taking a ride in a light buggy; it is a question of putting tremendous wear on the wagons, harness, and on the horses. Of frequent occurrence



Cross section Roman road.



Cross section French road (Roman method) previous to 1775.

to the city streets, but in the medium-sized towns and in the small village the country road must of necessity be used if any sort of a trip is to be enjoyed. Further than this, the far-seeing farmer sees in the automobile a vehicle that he can use to his own advantage and profit, and he is buying it readily, or in so far as his capital will allow.

With the rapid growth of the automobile among the farmers there is bound to come a demand for better roads. The farmer has a good pathway from his house to his barn in order that he may travel between the two in all sorts of weather and with ease. Once the farmer begins to use the automobile and sees its advantages, he will of necessity demand a better road between his home and town, and the good roads question will receive a jolt that will send it upwards by leaps and bounds.

To the farmer the good road is the connecting link which binds him to the outside world. It is the side-track from his farm factory to the main line of the world's highway—the railway. It adds value to his realty, it increases his wealth and comfort, and brands his farm as an integral part of the whole community as a good place to live upon.

no stronger than its weakest link," and the load must always be governed by the steepest grade.

No one has as yet taken the trouble of working out the influences of grade upon the efficiency of the automobile or any other vehicle; but some very careful data has been worked out as regards the horse, and as the horse is simply a means of motive power this data will apply in the main to the traction engine or automobile when used for hauling purposes.

that the wagons and carriages cannot be drawn down it with perfect ease and safety. Sir Henry Parnell considered that when the grade was no greater than 1 foot in 35 feet, vehicles could be drawn down it at a speed of 12 miles an hour with perfect safety. Gillespie says:—

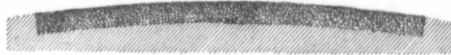
"It has been ascertained that a horse can for a short time double his usual exertion; also, that on the best roads he exerts a pressure against his collar of about one thirty-fifth of the load. If he can double his exertion for

is the road so bad that farmers are unable to haul their produce to market, with the result that they either lose the market advantage or see their produce spoil for want of proper disposal. Business for the time being stagnates, and the mutual relationship that should exist between merchant and farmer is injured for the time being.

In a recent issue of a local paper we noticed the following headlines:—

**GOOD ROADS AND GOOD WEATHER MAKE EASY MARKET — EGGS ARE BRISK—BUTTER HAS UPWARD TREND—PRODUCE IS PLENTIFUL AND WHEAT IS STRONG.**

It shows plainly the interest the townspeople take in good roads and their immediate effect upon the market in necessities. The price of necessities depends not so much upon supply and demand as they do upon the regularity with which the supply meets the demand. If the farmer's wife is to hold her egg and butter customers, she must supply them with regularity. The same holds true with regard to the more bulky farm products. The writer has in mind the case of a farmer who resided some few miles from a thriving town, and whose farm lay along a macadamized road that led to the



Cross section of original macadam road, 1876.

An authority states that if a horse can pull on a level 1,000 pounds, on a rise of one foot in—

100 he draws. . . . .	900 pounds.
50 " . . . . .	810 "
44 " . . . . .	750 "
40 " . . . . .	720 "
30 " . . . . .	640 "
25 " . . . . .	540 "
24 " . . . . .	500 "
20 " . . . . .	400 "
10 " . . . . .	250 "

It is therefore seen that when grades are 1 foot in 44, or 120 feet to the mile, a horse can draw only three-quarters as much as he can on the level; where the

a time, he can pull one thirty-fifth more, and the slope which would force him to lift that proportion would be, as seen from the above table, one of 1 in 35, or about a 3 per cent. grade. On this slope, however, he would be compelled to double his ordinary exertion to draw a full load, and it would therefore be the maximum grade.

Every farmer knows the import and truth of the above. When loading his wheat for the elevator or in arranging for the hauling of any other product to market, the first consideration is the steepest grade, and in bad



Cross section Telford road, 1820.

In the case of highways, the farmer is both a manufacturer and a consumer. He builds up, uses and tears down, and as he builds so is the usefulness of that which he manufactures to him. It should always be his aim in making roads to establish the easiest, shortest and most economical line of travel. It is therefore desirable that the roads be firm, smooth, comparatively level and fit for use at all seasons of the year; that they should be properly located, so that their

grade is 1 foot in 24 feet, or 220 feet to the mile, he can draw only half as much; and on a 10 per cent. grade, or 520 feet to the mile, he is able to draw only one-quarter as much as on a level road. The cost of haulage is therefore necessarily increased in proportion to the roughness of the surface or steepness of the grade. It costs one and one-half times as much to haul over a road having a 5 per cent. grade, and three times as much over one having a 10 per cent. grade

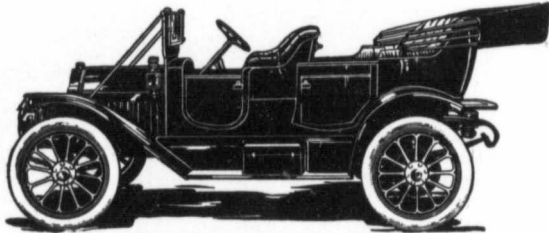
weather this consideration becomes so serious that he must needs oftentimes stop marketing entirely. Apart from this the extra draw upon horse flesh is no small item. Every bushel of oats that is required extra is just so much money taken from the farmer's pocket, to say nothing about the decrease in the value of his horses due to the extra work done. There is also an unwarranted amount of wear upon harness, wagons, buggies, etc., that

town. This same farmer always received a higher price for his produce than everyone else not so situated, for, as the dealers stated, he could be depended upon to get his stock and grain into market just when they wanted it, and in better shape.

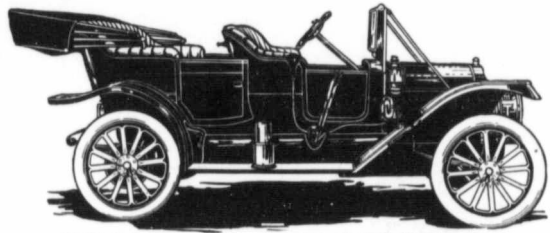
The monetary feature of the good road is by no means all that is to be considered. The degree of comfort which the well-kept, up-to-date highway affords should commend it to every

# The McLaughlin-Buick

For Durability, Reliability and Economy



\$1,550 f.o.b. Factory 5 Passenger Four Door Touring Car.



\$1,550 f.o.b. Factory 5 Passenger Torpedo Body Touring Car.

The merits of the McLaughlin-Buick have been amply demonstrated by past performances. All the principal Canadian records are held by these cars, including

**Canadian Mile Record, 59 1-5 seconds.**

**Dunlop Trophy, 25 miles, 25 minutes, 19 seconds.**

**Oldsmobile Endurance Trophy, 194 miles over all conditions of road in 6 hours, 24 minutes.**

See our exhibit at the automobile show in the Cockshutt Plow Building, February 13-18, and the magnificent display of our full line at our show rooms.

**McLAUGHLIN CARRIAGE CO., LIMITED**

Phone Garry 3704

PRINCESS STREET, WINNIPEG

## Everyman's Car

*The Brush Runabout*

**Utility—Economy—Looks**

These are the three things we wish to emphasize about the BRUSH. Keep these three things in mind when examining and when buying an automobile.

**UTILITY**

The BRUSH is the handiest car built. All you have to do to prove this statement is to drive it yourself, or to ride in it, and see how simple it is to start and stop, how fast or slow it will run, in what a short space it will turn around.

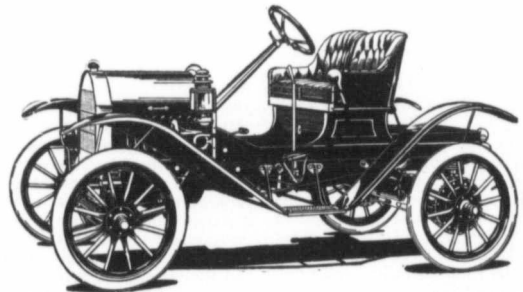
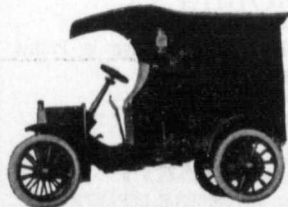
It is always ready to go. A child of twelve can crank it easily. The "little troubles" which are bound to bob up in the ordinary car never appear in the BRUSH. That's because there is nothing about it to get out of order—nothing about it that everyone cannot understand.

A critical examination of the BRUSH will show why the BRUSH owner has practically no repair bills. While the BRUSH is a marvelous utility car its simplicity is the reason for our being able to put so much value in the car and still sell it at the amazing price of \$650.00.

**ECONOMY**

Simplicity is also responsible for the wonderful economy of operation of the BRUSH. It has the simplest motor ever put in a motor car; and we believe it is the smallest consumer of gasoline per mile of any automobile built.

The BRUSH also made a record of 49 miles on one gallon of gasoline in the Economy Fuel Contest run under the auspices of the Winnipeg Industrial Exhibition Association



**Brush Runabout Model "E" \$650 F.O.B. Winnipeg**

in 1910, where it carried off a Silver Medal and Diploma.

The BRUSH is easy on tires because of its light weight and simple, practical spiral springs. We have yet to hear a single complaint from a BRUSH owner about tire expenses.

You need not worry about upkeep with the BRUSH. The low cost of maintaining one will surprise and delight you.

**LOOKS**

There is nothing freakish about the car, nothing cheap looking. True, it is not as big as a \$6,000 car, but it has as good lines as any car built. Thousands of BRUSH cars are being sold in the large cities to people who could afford to pay a much higher price if necessary. But the higher price will not buy as much handiness, as much economy, or any more in looks.

The farmer using several horses should seriously consider the BRUSH from the standpoint of an investment. It is a dollars and cents proposition. A little figuring as to the cost of keeping an extra horse compared with the dozens and dozens of things you can do with a BRUSH that you could not do with a horse will astonish you.

While we call the BRUSH "Everyman's Car," the farmer is the one man that should look at the BRUSH as an investment—not a luxury. He can prove to himself that it is an investment. As a luxury, no car at anywhere near the price offers as much. Write for literature TO-DAY.

**R. Kershaw, Western Distributor of Brush Motor Cars and Gopher Trucks**  
397 Portage Ave., Phone Main 3149, Winnipeg

## Long Touring Contest for Western Canada

For the first time in history Canada is to have a motoring event—a touring contest—of national importance and what is more to the point, the contest will cover about 2,300 miles of roads through the Western prairie provinces of Manitoba, Alberta and Saskatchewan. This big procession of automobiles, which is,



Trophy much reduced in size.

in reality, a reliability contest to determine the type of car which can make the long trip with the least number of adjustments and repairs, is modeled after the famous Glidden Tour of the United States, and will be known as the "Modern Power Canadian National Reliability Tour." The route chosen for this year's trip is a closed circuit, starting and ending at Winnipeg, and including such cities as Estevan, Moose Jaw, Medicine Hat, Lethbridge, McLeod, Calgary, Edmonton, Lloydminster, Saskatoon, Regina, Brandon and Portage la Prairie. The tour proper, in which no less than twenty different makes of motor cars are expected to compete for the handsome gold-bronze trophy offered by the promoters, will start from Winnipeg during the latter part of July and will require two weeks for its completion. For a month before the tour starts a pathfinding car will be kept on the road scouting out the route, drawing maps and obtaining information for the benefit of the tourists as to hotel and garage accommodations. The idea for this tour did not "just happen" among a few enthusiastic motorists as many people might imagine, but instead has been carefully worked out during the past six months, until everything, even to the smallest detail, has been planned and arranged for. The promoters first took up the idea of a long reliability tour of this nature as a means of determining just what type of automobile was best suited to such conditions of use as exist in Western Canada. With this project in mind they consulted with several manufacturers who heartily endorsed the idea and offered their aid and encouragement. The dealers and automobile owners throughout the West were also enthusiastic over the idea of an all-Canadian reliability tour and the promoters determined, if

possible, to arrange for such a contest during the coming summer.

As there is no governing body of motoring affairs in Canada, the promoters took the question up with the American Automobile Association, who have charge of such contests in the United States and endeavored to get that body to take hold and run the tour. The Association refused, however, on the ground that they had no jurisdiction outside of the United States, and suggested that the promoters themselves take charge of the tour, offering all the aid and assistance in their power to make the event a success.

So the great swing around the circle became a reality, the promoters agreeing to arrange for and manage all the details of the contest, while the scoring is to be done under the rules and regulations of the American Automobile Association and under the direct supervision of a special representative of that body who will come from New York to take charge of both the pathfinding trip and the tour proper. As a prize for the car concluding the trip with the least number of penalties against it for repairs or adjustments on the road, the promoters have designed the trophy shown in the cut, which will take the form of a large wall plaque of gold-bronze, mounted on a fumed oak shield, and decorated with smaller shields around the edge, on which will be engraved the names of the winners from year to year, for the contest is to be repeated each year until one car wins the trophy three times in succession.

But a tour designed as this one is to show the relative merits and defects of the different makes of cars which take part is no mere pleasant jaunt. Rather it is the most strenuous kind of serious work for the officials, the drivers, and the manufacturers who enter the cars. In the first place, the pathfinding car, which will leave a month or six weeks ahead of the tour proper, will have to go over every foot of the road and map out the route mile by mile, using for the purpose two speedometers, one attached to each front wheel, and checking them one against the other as the car proceeds from place to place. With the pathfinding car will go the official scout of the American Automobile Association, whose duty is to take notes and make maps of the route and who will be in charge of the tour when it goes over the route later; the driver of the car upon whom it will devolve to make the trip in the shortest possible time consistent with getting the information; an official photographer to take pictures of the important points along the route, and a representative of the promoters who will of course keep the outside world informed of the movements of the car and its

## French Auto Oils

The peer of all lubricants for Automobiles, Motor Cycles, Motor Boats, Gas Engines, Aeroplanes



Demand French Auto Oil and see that you get it.

The Remedy for 90% of your Auto troubles.

Lubrication is the first essential in the successful operation of a motor car. For that reason it behoves you to get the best.

We find from comparison that other oils contain from three to over ten times as much carbon as French Auto Oil.

Such surplus of Carbon as is contained in these other oils is too great for all of it to unite with the oxygen in the gasoline vapor, and a carbon deposit on cylinder walls, valves, rings, etc., with all the attendant troubles, is, therefore, the result of their use.

We feel confident in stating that no suitable oil can be produced containing less carbon than French Auto Oil.

Manufactured by Continental Oil Co., Ltd. - Winnipeg

Branches: REGINA SASKATOON CALGARY

## WESTERN CANADA'S FIRST ANNUAL AUTOMOBILE SHOW

Under the auspices of the Winnipeg Motor Trades Association

In The Cockshutt Plow Building  
BONSPIEL WEEK, FEBRUARY 13-18

A full line of the 1911 Automobiles and a fine display of Accessories.  
Band Concerts each evening.

A. C. EMMETT, Manager, Free Press Building  
Winnipeg, Man. Phone Main 6648

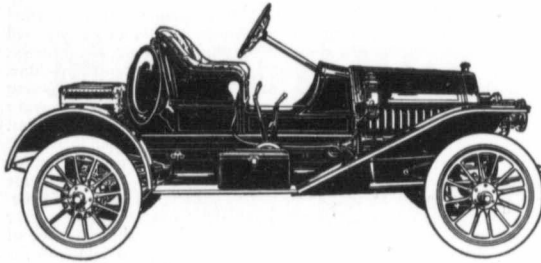
## SCHOOL OF INSTRUCTION IN GAS ENGINES AND AUTOMOBILES

BROWN'S STOCK EXCHANGE BLOCK, Portage la Prairie  
CLASS OPENS JAN., 8, 1911  
MODERATE FEES  
COURSES LAST FROM ONE WEEK UP

Address ALEX. McLARTY  
GAS ENGINE DEPARTMENT or AUTOMOBILE DEPARTMENT,  
Drawer 433, PORTAGE LA PRAIRIE



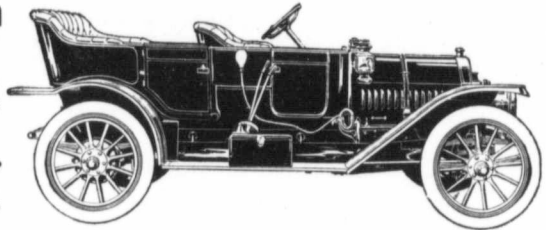
# 100 Miles in 96 Minutes in a Jackson Car



**Model "25" Roadster. 4 Cylinders  
25 H.P. Price \$1,300**

**Jackson  
Cars  
- 1911 -  
Models**

NO HILL  
TOO STEEP  
NO SAND  
TOO DEEP



**Model "30" 4 Cylinders. 30 H.P.  
Price - \$1,500**

**The Car with the Famous Overhead Cam Shaft and Direct Valves in Cylinder Heads.**

We want good live Agents to represent us in every town and City in Manitoba and Saskatchewan. Write for Catalog and Dealers' Discounts. 20 different Models, ranging in price from \$800 to \$2,750.

We have the car specially built for Country use, and would be pleased to hear from Farmers who are contemplating buying an Automobile. Write us at once and we will be pleased to furnish you with full particulars.

Arrived too late to exhibit at the Winnipeg Automobile Show during Bonspiel, but we invite you to our Show Rooms to inspect this wonderful line of cars and have a demonstration.

**Distributors for Western Canada**

## JACKSON MOTOR CO., 489 Portage Ave, Winnipeg

crew and the conditions of the roads along which they are travelling. When the pathfinder returns, all this information will be compiled into a "route book," which will be put into the hands of every contesting driver before he starts, so that each will know as exactly as possible just what to expect at different points along the road.

Before the cars in the tour leave Winnipeg, their bonnets will be sealed down, tool boxes and spare parts sealed, and a complete inventory taken of the condition of the car and its equipment. Observers who will ride with each car will keep an exact account of everything that happens during the trips and for

every adjustment or repair that is made to the car during its 2,300 mile journey a penalty will be attached. The penalties vary in degree with the extent of the adjustment or repair. For instance, if only a simple adjustment is to be made by the regular driver of the car, a penalty of one point per minute is counted against him. If two men or special tools are required, the penalty is increased in proportion to the seriousness of the work.

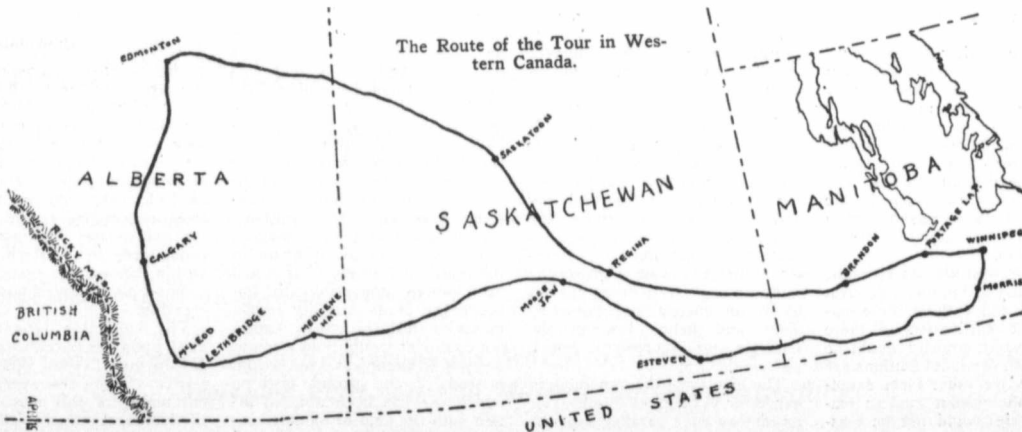
Each morning the cars start on the day's run at a set time, regardless of prevailing weather conditions. The large touring cars are required to maintain an average speed of 20 miles per hour and the smaller cars 18 miles

per hour until the evening's destination is reached. "Controls" are established at noon and night each day and if a car fails to "check in" on time, it is penalized one point for every minute it is late. As no car is allowed to pass the pilot car at the head of the procession, this means that every car must be running constantly on schedule throughout the entire trip in order to escape a penalty from one cause or another.

In addition the cars are each tested by experts on their arrival in Winnipeg at the conclusion of the tour, and every little defect, every little indication of wear, in fact, even every loose bolt or nut, is penalized at a fixed rate. A

serious break is apt to cost the unfortunate car as high as 500 points at a single levy. During all the time the cars are being examined and in fact during each noon and night stop, the cars are kept under lock and key and no one is allowed to go near them for any purpose whatever, except the officials in charge. The result of all this trouble and precaution is an accurate record sheet for each car which at the end of the tour shows definitely and completely everything that happened to the car during the entire trip, and from these sheets and the penalties attached are compiled the official scores. The car which finishes the tour with the least

Continued on page 69



## THE IMPORTANCE OF THE FARM MACHINE ON THE FARM

I.

By H. A. Skene.

There are two main aspects from which to regard machinery. First, from the point of view of making man's labor more productive, and from that of making it more pleasant.

The last hundred years has witnessed a tremendous industrial development. The world is today many times wealthier than it was one hundred years ago, and the condition of the laborer is improved in every possible way.

This is mainly due to the introduction and invention of modern machinery. Since its invention men have been able to develop and make the most of the natural resources of the country. Again, the machine has increased man's productivity. One man with a machine can do that work which at one time it took fifty men to do by hand.

Then as to our second point. It is taking the place of man in doing the disagreeable work, thus making life more pleasant. A good example of this is the power ditch digger.

There are innumerable other aspects from which to regard its importance. But the two main points are increased productivity and increased enjoyment in living.

The important part which the modern machine has played in the progress and uplifting of Western agriculture is hardly recognised. It has had a great deal to do with the opening up and settling of this new land.

Before the introduction of modern farming machinery farming as a profession was despised, and not without cause; for the farmer with very little means at his command was unable to make a profit beyond that of a living, and was called upon to make a slave of himself, getting in return a hard-fought-for living.

But by the introduction of modern machinery farming as a profession has been put on a level with any other profession on earth.

The part which it has played in the uplifting and betterment of the social line of the country can never be measured. By the introduction of modern machinery and labor-saving devices the farmer has been called further away from the clod, and his scope of action widened. He is called upon to use his brain more and more and his muscle less and less.

The last century has seen the introduction of innumerable farm machines, and without these machines the cultivation of these great Western prairies would be an impossibility. Conditions are such that we must farm extensively, and without modern machinery this would not be feasible. Imagine if you will a man

armed with a spade attacking the virgin fields of the great North-West; or the sower sowing this same field; the harvest hand, with the unique sickle, harvesting this crop; and the flail taking the place of the modern thresher; The picture is, to say the least, ridiculous. Even in this progressive and enlightened age, with every labor and time-saving device imaginable, the propagation and harvesting of this great crop is a serious project; and, indirectly, modern machinery has been the cause of the rise in importance of North America. It has been her agricultural products which have made her great, and without machinery this would not have been possible.

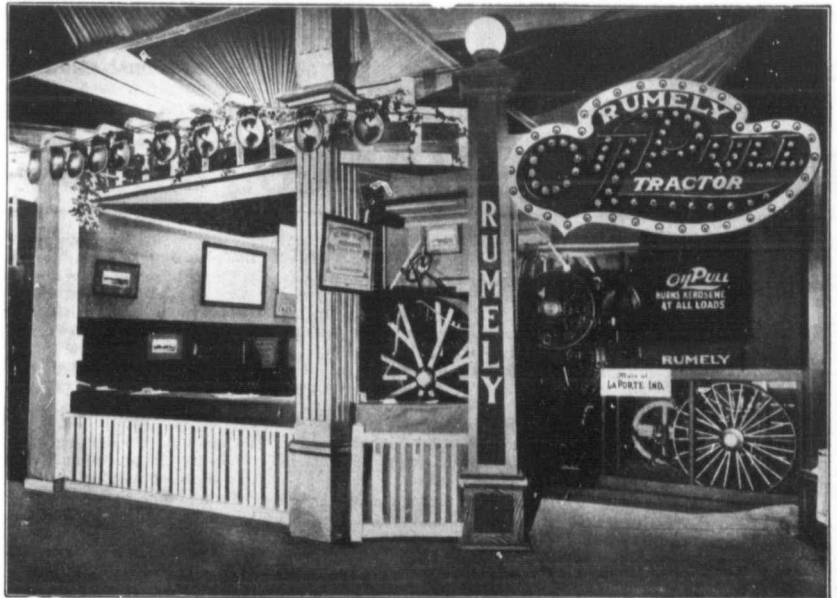
About 1832 the Republic to the south of Canada began to ex-

It was in 1833 when the first patent of importance was issued, the owner being Obed Hussey, and very shortly after this McCormick's patent was issued. Of the two machines, Hussey's resembled the modern self-binder more than did McCormick's machine. In 1851 a patent was issued for a sweep rake, which swept the platform at regular intervals, leaving the grain in bunches to be bound. The next invention of importance was that of C. W. and W. W. Marsh, of Illinois. A patent for this was granted August 17th, 1858, and gave to the world the Marsh harvester, and from this, by numerous improvements and inventions, the self-binder has been built.

Once the grain was harvested the next problem was to thrash out the grain and separate it

The economic value of good machinery should be emphasized upon the minds of the farmers; and not only one good machine, but also the value of having every machine which is necessary to properly cultivate their farms.

Machinery has been beneficial to all classes of people, but to no class, however, has the change from hand labor been more beneficial than to the farm worker himself. As to the influence of machinery on farm labor all intelligent expert observation declares it beneficial. It has relieved him of much drudgery, has made his hours of service shorter, stimulated his mental faculties, given an equilibrium of effort to mind and body, and has made him a more efficient worker, a broader man and a better citizen.



Rumely at the Land Show.

pand, and its people began to spread themselves over its great central valley. Some difficulty was met with in preparation and planting of the new areas of land, but these were got over; but when it came to harvesting this crop these energetic settlers found that some radical change must be wrought in the harvesting machinery. To Obed Hussey and Cyrus B. McCormick the honors of invention fell, each inventing a machine of somewhat different type at about the same time. But Hussey did not have the energy and perseverance, and hence lost in the struggle for supremacy which followed.

The history of the new modern harvester is of great interest, for its history runs parallel with the history of America.

from the chaff. To Pitts brothers fell the credit of the first practical machine to be put on the market. A patent was granted to them, December 29th, 1837, on a thresher, the first the endless apron type. This machine was not only made to thresh the grain, but to separate it from the straw and the chaff. Although this machine, as constructed by the Pitts brothers, was different from the modern separator, it contained many of the essential features. If it had been found impossible to improve the crude farming implements of 1820, the North American continent would hold a minor position in the eyes of the world, instead of the proud position which she has been able to attain with the help of modern machinery.

II.

By J. L. MacWilliam.

The subject—the importance of the farm machine on the farm—is a subject under which any of the machines used upon the farm may be dealt with. All of the machines used upon the farm are of some importance for a certain kind of work. Among those of most importance is the cultivator, which has just come into prominence in Western Canada within the last few years, and its use and popularity is steadily increasing.

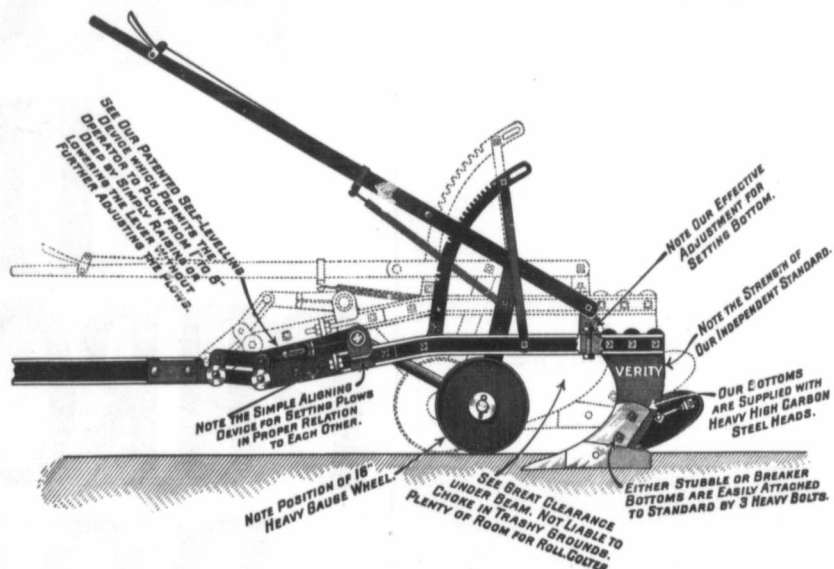
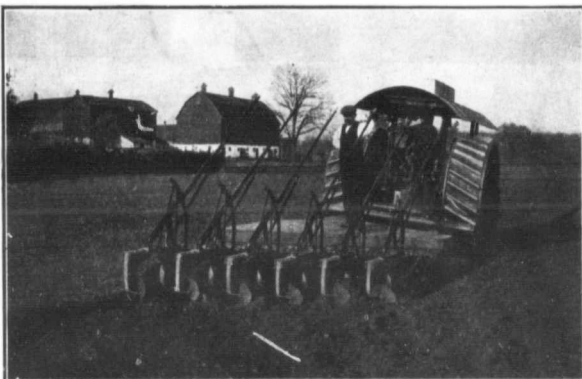
The cultivator is a machine used upon the farm to cultivate or stir up the soil and to kill weeds. There are several different makes of this machine, but the kind best suited to the West-

Continued on page 63

# THE NEW Massey-Harris Engine Gang Plow

THE ONLY ENGINE GANG WITH  
**Self-Levelling Bottoms**

This Engine Gang stands in a class by itself. The originators of the **New Massey-Harris** did not take the principles laid down by any other manufacturer as a foundation. Their own long experience in Plow Building was employed, a plow was built, embodying a number of features important for **Proper** plowing, taken to the West and thoroughly tested. This test proved that the New Engine Gang lived up fully to the standard of the Company which makes the highest class machinery for Canadian Farms.



- Easily attached to any Engine;
- Light Draft
- Convenient to Handle
- First Class Work under all Conditions
- Strongly Built
- Seeing is Believing!
- We Can Show You!
- Every MASSEY-HARRIS Feature is a Superior Feature

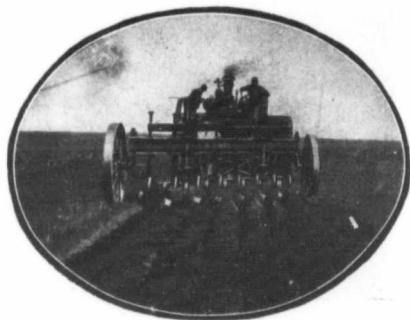
## Massey-Harris New Line Gasoline Engines **THE "OLDS"**

We have secured the Sole Sales Agency for the well-known "OLDS" Line of Gasoline Engines, in Canada. Both Stationary and Portable Engines in all standard sizes can now be supplied. It is unnecessary to mention that the "OLDS" is generally considered the best Gasoline Engine offered to the trade on the North American Continent.

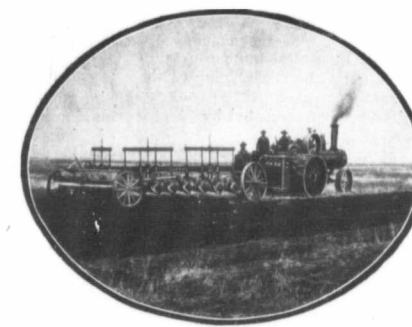
See our Engine Gang and Working Model of "OLDS" Engine during your **Bonspiel Visit, on the Market Square, Winnipeg**



# CASE ENGINES



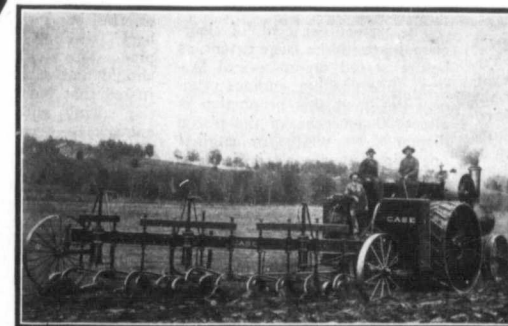
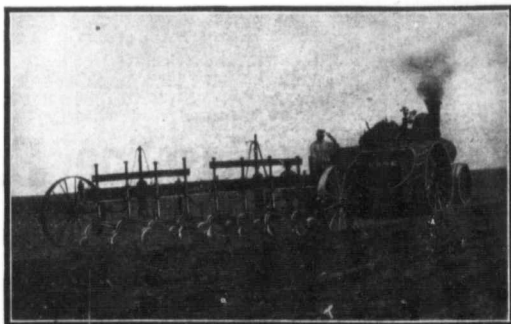
## PULL PROFITS



CASE Steam Lift Plows in three (3) sizes of eight, ten and twelve bottoms are economical because they are lighter to pull and take one less man than a hand lever plow. Figure the cost of one man one day including board and salary and add it to your profits. It belongs there with a *Case Plow Outfit*.

The CASE Engine and the Case Steam Lift Plow are profit-making. Four times have CASE engines shown in plowing tests that they are unsurpassed for economy in the use of fuel and water. *Not once*, but four times success has come to CASE engines in Plowing Contests.

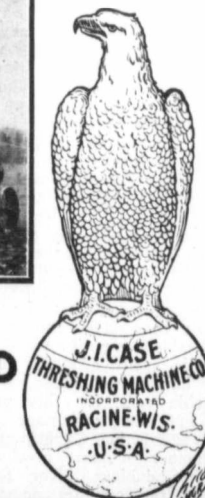
# INTO PURCHASERS POCKETS



*Write for Catalog No. 87.*

## J.I.CASE THRESHING MACHINE CO. INCORPORATED

·RACINE·WIS·U.S.A·



## Course in Gas Engineering

Conducted by D. O. BARRETT.

This is a new series of lessons that will continue for two years. These will consist of a number of practical talks on the theory and practice of the gas, gasoline and oil engine. They will be simple, illustrated where necessary, and of such a nature that the gas engine owner may easily adapt them to his daily engine work.

### LESSON IV.

#### Compression—Con.

Primarily, the amount of compression in a gas engine is inherent with the design, that is, it is not a variable factor, such as the point of ignition, the mixture, etc. In other words the amount of compression is not readily adjustable at the hands of the operator. There are several factors which affect the compression, or, more properly, perhaps, if these factors were changed the compression would also be affected to a certain extent.

At the end of the suction stroke the cylinder is filled with a mixture of gas and air, at as near atmospheric pressure as possible. On the return stroke this cylinder full of mixture is compressed in the space behind the piston. For this reason this space is called the clearance or compression space. This does not merely include that space directly behind the piston but any space connected therewith, such as valve chambers, passages, igniter chambers, etc. In calculating the compression space these must all be added to obtain the grand total. In some engines, where the valves and igniter are in the cylinder head, the compression space consists of that portion of the cylinder directly back of and of the same diameter as the piston. One of the reasons why it is almost impossible to accurately calculate the compression space of an engine which is being built is on account of these odd-shaped passages, consequently these are estimated as closely as possible and then when the engine is completed, if the compression is not what is desired, adjustments are made as necessary.

The amount of clearance space may be varied in different ways, perhaps the easiest at the gas engine factory being to change the position of the piston pin with relation to the head of the piston; this throws the head one way or the other when the piston is at the end of the stroke. The head of the piston is oftentimes cupped or set in to produce the same results without shortening the bearing surface. The length of the connecting rod may also be changed. If, however, the rod is a drop-irgng this would necessitate new dies. If a drop-forged rod is to be used it is well for the builder to have his first rods made of malleable iron until a standard length is finally adopted. Engines have been made with adjustable rods for this purpose but the advantage of this construction, considering the number of parts involved, is rather dubious. The position of the cylinder on the base may sometimes be adjusted

enough to produce the desired results.

#### Compression Space.

The amount of the compression space is usually expressed as a percentage of the piston displacement. For instance, let B be the diameter of the cylinder and S the stroke of the piston. Then  $\frac{B^2 S}{4}$  is the area of the cylinder rod  $\times \frac{B^2 S}{4}$  the volume displaced by the piston per revolution. If C be the volume of the clearance space, the per cent. clearance is represented by  $\frac{C}{\frac{B^2 S}{4} \times 100}$  OR  $\frac{78.54 C}{B^2 S \times 100}$ .

Taking a concrete example, let us assume that an engine of 6-inch bore and 9-inch stroke, with a clearance space of 79 cubic inches. Then the per cent. of clearance is  $\frac{78.54 \times 79}{6^2 \times 9 \times 100}$  or 51.

As stated before, the space can be roughly calculated from measurements taken from an existing engine but by far the easiest and most accurate method is to fill the compression space with water, measuring carefully in a graduated vessel as poured in. In nearly all horizontal engines there will be found an opening in the top of the cylinder leading into the compression space, whereby the same may be filled. The flywheels should first be turned so that the piston is at the inner centre. The water should be measured as it is poured into the cylinder as it is impossible to draw out quite all of it. Care should be taken that none of the water should be left in the cylinder, the best method being to run the engine for three or four minutes after draining so that all the water will be evaporated and the finished surfaces will have a chance to get a covering of oil and thus prevent any tendency to rust.

The proper per cent. of clearance depends to a large extent, as before stated, upon several factors. For gasoline engines properly designed this proportion is about 30 per cent. of the piston displacement while for engines operating upon gas it is less, about 25 per cent., in order to get the higher compression.

#### Factors Affecting Compression.

Size of air pipe and connections.

Size of valves.

Timing of inlet valve.

Tension of inlet valve spring.

Poorly fitting piston and rings.

Leaky valves.

Poor lubrication.

Heating of the charge.

Since the charge of air and gas is drawn into the cylinder of the engine at a high velocity any throttling of this charge will quite materially affect the quantity going into the cylinder. This is one of the troubles with many of the engines on the market at the present day, and the impor-

tant of the necessity of having a full charge in the cylinder is often not realized.

Let us assume an engine running at 300 revolutions per minute. Now the suction stroke is one per cycle or for four revolutions, that is, there will be 75 suction strokes per minute. The time of the stroke, however, will be only 1/600 of a minute or 1/10 of a second since the stroke is one-half of a revolution. In engine design there is a certain maximum value for the velocity of the incoming gases which should not be exceeded, though too often it is. This limiting velocity varies from 80 to 100 feet per second.

If the air pipes or valves are small or if there are numerous elbows or bends in the air supply pipe friction will be experienced so that the full charge will not be obtained. If a gasoline engine, the level of the gasoline in the mixer should be high enough so that it will not be necessary to have an abnormal velocity to lift the gasoline and cause it to mix with the incoming air.

Another cause which will produce the same effect as the above is improper tension on the inlet valve spring. This, of course, applies only to those engines having automatic or suction operated valves. Too great a tension will cause throttling of the charge and will result in closing the inlet valve too early during the stroke, before the cylinder is entirely full. If, however, the tension is not great enough the inertia of the valve will resist the tension of the spring sufficiently so that the valve will not heat before the piston starts on the return or compression stroke and a portion of the charge will be "blown back" through the mixer or air pipe. The tension on the spring should and can easily be so adjusted that on the highest speed the spring will be just strong enough to overcome the inertia of the valve and prevent any of the gas being "blown back" past the valves. As the engine is used the valve springs will become weak and adjustments must be made. If the spring is too stiff it can usually be compressed enough right on the engine to bring about the desired result otherwise it may be removed and some of the coils cut off. To stiffen or increase the tension of the spring the tang of a file or some other wedge-shaped piece may be forced between the coils thus spreading them apart or the spring may be removed and stretched. Of course, these operations will affect the life of the spring but the cost of this part of the engine is insignificant when the results obtained by its being in proper tension are considered.

With engines having mechanically operated inlet valves the spring is so designed that the opening of the valve is unaffected by the suction of the piston, this being regulated by means of a cam or eccentric. The spring is made stiff enough so that it will overcome the inertia of the valve and parts connected therewith and will always maintain the cam roller or push rod in contact with the operating cam. With this type of valve the time of its opening and closing with respect to the position of the piston is the all-important point. The valve must open as soon as the piston starts on its outstroke but does not close, however, until the piston has started back on the compression stroke. The reason for this is that the incoming air, having a high velocity, is possessed of considerable inertia and will continue to flow into the cylinder for some little time after the piston has reached the end of the stroke. It, of course, must not be understood that the pressure in the cylinder will "pile up" to more than that of the atmosphere for it will not, as on the suction stroke it is considerably less than that of the atmosphere. For average practice the closing of the inlet valve occurs about 20 degrees after the piston has passed the outer dead centre. The valve should close just in time so that none of the gas will be forced out of the cylinder and yet remain open long enough to allow the inertia of the gas to have a maximum effect.

As the engine is used the piston and rings become worn and under the high pressures of compression and explosion some of the gases are forced by the piston and lost. When the pistons are fitted to the cylinder at the factory they are made a free sliding fit. In diameter they are usually made less than that of the cylinder by one-half thousandth inch for each inch of diameter. Rings are made a good, free fit in the grooves and with enough tension to force them against the walls of the cylinder sufficiently to make a tight joint and prevent the loss of the compression. In order to obtain this tension they are first made of a larger diameter and then split, a portion being cut out. The rings are then compressed so that the ends come together and are returned to the diameter of the cylinder. Depending upon the elasticity of the iron to force the ring outward, they are made eccentric, that is, thicker at the side opposite where cut and gradually increasing in thickness to that point.

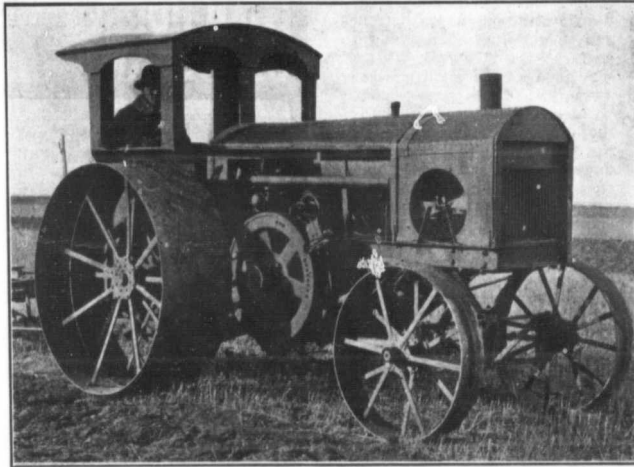
The openings in the rings are placed along the bottom of the piston in horizontal engines and

Continued on page 37

# The "Hero"

## 20 H.P. Gasoline Tractor

This cut was made from an actual photograph of the "HERO" at work in a field of heavy soil, plowing with four 14 inch bottom plows, at Crookston, Minnesota, U.S.A. This machine has plowed over 800 acres this year, and the cost of repairs has not reached the sum of \$5.00. The gasoline consumption compared with other gasoline traction engines, was



very small considering the amount of work done. This machine also did excellent work during the threshing season, and the work performed was entirely satisfactory from every standpoint. Considerable comment was expressed at the continuous steady drive on the belt to the separator, which was a 36 inch machine.

### Power Farming

The time is already here when every farmer who owns a half section of land or more realizes that the horse is far too expensive a proposition for him as a means of farm power. The steam tractor would never have made power farming possible. Just why, it is not necessary for us to tell you, for you already know, but with the evolution of the gas tractor there has been placed at the farmer's disposal a machine that will practically dispense with the service of the horse.

The demand for these machines is so great that it has been a physical impossibility for manufacturers to equip plants and turn out machines in sufficient quantity to meet it.

### What is the "Hero"?

The Hero Manufacturing Company have for a number of years been manufacturing the famous Hero Fanning Mills, Hero Smut Machines, Hero Grain Tanks, Hero Water Tanks, etc., and so satisfactory have these machines been that the name Hero is a guarantee of the very best products, ones that will do the work and give entire satisfaction.

The number of gas tractors that have been designed is numerous and it was with some hesitation that the Hero Manufacturing Company took on the manufacture of a gas tractor, until they were satisfied that they had found a machine that was worthy of the name Hero. They have found it, but only after fourteen months of exhaustive investigation into the construction, merits, stability, usefulness, etc., of the 20 horse-power type tractor suitable to the work of the average farmer.

### The Inventor

This machine is to be manufactured at their Elmwood, Winnipeg, factory under the direct supervision of Mr. Albert O. Espe, late of the Crookston Manufacturing Co., Crookston, Minn., the patentee of the new named Hero Traction Engine. Mr. Espe is ranked among the foremost practical gasoline engine experts in the United States and Canada. Mr. Espe will superintend the gasoline traction engine plant for at least the next five years and under his supervision the farmers are guaranteed a gas tractor of the highest quality, of greatest durability and of maximum efficiency.

### Your Opportunity

CANADA IS BUT ANOTHER NAME FOR OPPORTUNITY. We are apt to think of this opportunity resting entirely upon prairies that raise dollar wheat. We must not for a moment neglect the fact that it takes proper and

efficient machinery to turn these prairies into wheat fields and further than this, keep up their crop raising standard.

We have realized this and we would like to have every farmer in Western Canada realize it. We want you to know that in the manufacture of this machinery millions of dollars are going to be earned by the manufacturing industries. We want you to realize that there is not only an opportunity for you to make money out of the gas tractor in the field, but there is also a most excellent opportunity for you to make money out of these same machines as they are being manufactured. In other words, there is a chance for you as a farmer to make profits both going and coming.

### Our Offer

We have a large, well equipped factory at Elmwood, Winnipeg, where we are turning out thousands of Hero goods every year, but in order to take hold of the Hero Gasoline Tractor and make the most out of it, it will be necessary for us to enlarge this factory. We are purchasing patents, patterns, plans, giggs, drawings, etc., of the Hero Gasoline Tractor from Mr. Espe, all of which is costing us the round sum of \$30,000. We are also purchasing his well equipped factory at Crookston, Minn., for \$10,000 (not including building) which includes some of the latest iron working machinery to be had.

It takes money to run a tractor business, but the money so invested will earn handsome profits. We want the farmers of Western Canada to get in on these profits and we are offering for sale the balance of 9,500 shares of stock in the Company and we honestly believe that this is the first time that the farming public have had the opportunity of getting in on the ground floor of such a profit-making proposition.

We do not want you to feel that we are offering you something for nothing, because we are not. We are simply giving you an honest opportunity to join with us in a big money maker and a permanent dividend payer.

The Hero Manufacturing Company, Limited, is capitalized for \$250,000, divided into 25,000 shares of par value \$10.00 each, fully paid up and none accessible, of which \$125,000 has been subscribed for and fully paid. The remaining 9,500 shares of stock are yours if you want them and we confidently believe that if you will look into this proposition carefully, that if you will consider the enormous demand for gas tractors, that if you will realize that in the Hero you have one of the best gas tractors on the market today—one that will meet the requirements of each and every farmer—that you will want to get into this proposition deeper and let us tell you more about it than we can in this space.

Prospectus, Application Forms and any other information desired will be cheerfully and promptly supplied.

## Hero Manufacturing Company, Limited

R. G. THOMPSON, Secy. Treas., 403 McArthur Building, Winnipeg



## Gas Engine Experience Department

**U**NDER this heading we shall publish regularly the experiences of our readers with gas engines, stationary, portable or traction, as a matter of mutual help. We want you to give us your experience. Tell us your troubles, no matter how small, and we shall be pleased to set you right. We have made arrangements whereby your questions will be referred to a staff of experts, and the answers to your questions can thus be relied upon. What we want principally is your experience with a gasoline engine. It is only in this way that we can build up this department making it mutually valuable to yourself, your neighbor, and to this magazine.

### Uses a Portable.

I have your favor and have much pleasure in giving you a description of our outfit.

Our engine is a 12 h. p. International Harvester Portable Gasoline engine, which we are using this fall for running our Aultman & Taylor 23 x 36-inch separator, hand feed and straw carrier, but we are satisfied that we have enough power to run a self-feeder or a wind stacker.

The gasoline engine to my mind is most satisfactory in every way and is also economical. We only use about 8 gallons of gasoline per ten-hour day when threshing good dry grain, and about 10 gallons in tough, sappy straw. We can thresh from six to seven hundred bushels of wheat and from one thousand to twelve hundred bushels of oats per day and make a good clean job, not wasting any grain. About 30 gallons of water lasts a day which is a great advantage in this country where steam outfits have to haul tanks from three to five miles.

There are three brothers of us and we own the outfit between us. I was a mechanic in the old country and so run the engine and separator. Both machines, when properly adjusted, run without giving the slightest trouble.

Our Aultman & Taylor separator is fine, it being a hard job to find any wasted grain. I think the system of separation is all right. From observation I should say that 95 per cent. of the grain is separated on the revolving web immediately behind the cylinder.

Perhaps a few hints may prove valuable to some of your readers. Always purchase an engine made by a reliable firm with a reputation for good work. See that you have enough power with a margin to spare. This is very important as if your engine has to run at its maximum all the time, it will soon go to pieces and give endless trouble.

Also use a good grade of gasoline and clean water; soft water, if you can get it, as it does not leave a deposit.

Be very particular about what cylinder oil you use in a gas engine, oil that will give perfect lubrication to a steam cylinder will soon absolutely ruin a gasoline engine. The heat of a steam cylinder is moist and does not exceed 400°, while the heat of a gas engine cylinder is dry and burning; the heat of the burning gases being somewhere about 2000° F.

Never use ordinary lubricating oil on your valve stems (or igniter if make and break) but a light grade of automobile cylinder oil or if this cannot be procured use common coal-oil.

Be sure and have good batteries, or better still, a good auto spark. We use a Motsinger auto spark on our engine (make and break type), and find it a great saving, both in temper and gasoline. Of course we start the engine on batteries and then switch on to the auto spark.

A good way to see if you have a spark at the contact points without disconnecting any part of the ignition system, is to dampen the tips of your thumb and forefinger on one hand. Place finger on one electrode and thumb on the other and with the other hand make and break the contact, when you will feel a slight, but distinct, shock. Then you will know for certain that you have a good workable spark.

Should your batteries suddenly give out, there is no need to keep the engine idle until you get a new set. Just get an awl and bore a few small holes in each battery and then soak for a few minutes in water. Then connect up again and you will have enough current to start engine.

Much trouble is caused through having batteries loose so that the vibration shakes the wires loose. A good remedy is to fill battery box to top of batteries with oats.

The gasoline engine in competent hands is a thoroughly reliable source of power and is, I am certain, destined to do great things in this great country of ours.

Yours truly,  
R. H. R. Noyes,  
Fartown, Marshall, Sask.

### Likes Reading Better Than Writing.

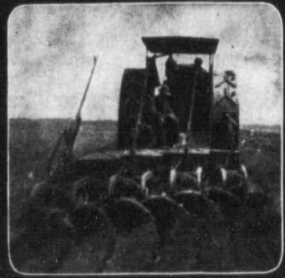
As you have asked me for my experience with gas engines I will try to tell you what I have done with our engine. I had only seen one gas engine at work before my brother and I decided to do our own threshing. We are only green Englishmen, having been in this country only six years. We are now farming two and a quarter sections of land. But this is straying away from the subject in hand.

Three years ago we purchased a 20-horse power International Harvester engine and a 32-40 Belle City separator with feeder, blower and high bagger, and started to thresh. We had had no experience and found that we had a lot to learn before we could make the outfit pay; but even the first year we had a good run. We threshed over 20,000 bushels of grain, which we considered very good for a small outfit.

I will give you an account of our run this season which was a very short one, as the crop was

## THE "FLOUR CITY" TRACTOR

### WILL DO YOUR PLOWING AND GENERAL FARM WORK CHEAPER THAN HORSES OR STEAM!



As an economical factor on the farm, the "Flour City" Gasoline Tractor has come to stay. It is always ready to put on any kind of work, and is cheaper than horses or steam. It will do more plowing in a day than thirty horses.

The "Flour City" is considered the best designed, best built, strongest and most economical tractor on the market today.

It is of the four cylinder type, which admits of a lighter construction. The "Flour City" gives the maximum power with the minimum weight. It does not pack the ground so hard, and will pass over soft places where others cannot.

The "Flour City" twice won the Gold Medal at Winnipeg, and the following letter is more evidence of its superiority.

GENTLEMEN—  
Regarding what I have been able to plow per day with my 40 h.p. "FLOUR CITY" Tractor, and how much I have made with my short season's run in the operation of same, beg to advise that I plowed 20 acres per day of ten hours in breaking with 12 inch bottom plow, and plowing from 4 to 8 inches deep. The engine can pull from six to eight bottom, according to the depth we plow and the condition of the soil. We have plowed so across this season, and I have made a net profit over and above all expenses of \$800.00, which is practically 20 per cent of my investment. Would have done considerably better had the ground not frozen up so early this fall.

Regarding cost of repairs and operation of my "FLOUR CITY" I find it is only one-third the cost of operating a steam engine. Must say that I am exceptionally well pleased with my 40 h.p. "FLOUR CITY" Engine.

Yours very truly,  
J. J. GRANT, Ingoltsie, Man.

**KINNARD-HAINES CO.**

**Minneapolis, Minn.**

Dominion Agents: **ONTARIO WIND ENGINE & PUMP CO., LTD.**

WINNIPEG — TORONTO — CALGARY

## Greater Profit---Less Labor Lots of Leisure

assured to the farmer who uses a

## "STICKNEY" Gasoline Engine

The very best general purpose engine for farm work. The most easily operated, the most effective and the BEST VALUE of all power

machines is the positive testimony of the men who are using it and who have experimented with others. Winter or Summer, it never balks, and it is essentially the COLD WEATHER ENGINE.

SIMILAR TESTIMONY IS GIVEN TO THE

## "Flour City" Gasoline Tractor

When at the Winnipeg Bospital be sure and see the New 1911 Model "Flour City" Gasoline Tractors at our warehouse and you will purchase no other.

**ARMSTRONG-QUAM Co.** Monarch and Climax Well Drills are world Beaters as are also Howell & Dempster Well Augers.

### Twice Gold Medal Winner at Winnipeg

Write at once for catalogue and testimonials of our full line of Windmills for Pumping or Driving Machinery, Aylmer Pumps and Standard Scales; also the new Aylmer Pitless Scales; Toronto Grain Grinders and Saw Frames in all sizes; Toronto Iron and Wood Pumps, Brass and Iron Cylinders, Steel Tanks and Troughs, Wood Tanks, Cow Basins and Stanchions, Belting, Well Casing, Pipe and Fittings.

## Ontario Wind Engine and Pump Co. Ltd.

TORONTO

WINNIPEG

CALGARY

# FOR YOUR SPRING PLOWING—



## Are you going to turn one furrow or eight?

The one furrow pace, even with three such good horses as these, is pretty slow work—the pull is exceedingly heavy and the cost considerably too high.

This outfit at best is not equal to more than two and one-half acres per day—cannot possibly be worked more than ten hours each day, and horses such as these generally cost \$200.00 or more per head, and they must be fed, sheltered and cared for, whether working or not.

Now, besides, as plowing and seeding must be done quickly, at just the right time when weather conditions will permit, it usually happens that the man with the three-horse-one-furrow outfit gets behind and fails to get his crops in on time. But with

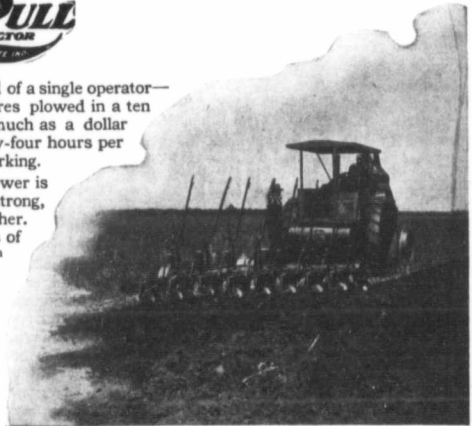


the power of thirty, yes, even more, horses is centered in the hand of a single operator—eight or ten furrows can be turned at one time—twenty-five to thirty acres plowed in a ten hour day, with the cost per acre greatly reduced—in most instances as much as a dollar per acre. When necessary to gain time the engine can be worked twenty-four hours per day—will never tire—consumes no fuel and needs no care when not working.

The *Oil Pull*, Type "E," guaranteed 30 Tractive and 60 Brake horse power is a 4 cycle, two cylinder, oil-cooled, internal combustion engine built with strong, high drivers, heavy steel I-beam frame, with all parts solidly riveted together. Crank case enclosed, all vital parts protected, yet the construction permits of quick access to every working part. It is equipped with a positively actuated ignition and throttling governor. Operator can reach every vital part from the platform. The *Oil Pull* burns *Aerosene*, the cheapest and most widely distributed liquid fuel known.

We build this engine to last for years—to give satisfaction the first day, the 100th day, the 1000th day—every day it is used for years and years; *we do not* build to give satisfaction for a few days when under an expert's care, nor stand the "acid test" from 10 to 30 days.

We sell this engine to those who want the *best* and will pay for the *best* at less than \$100 per horse power—not an approval, but behind it there is the guarantee and reputation of a manufacturing concern that has been in business nearly 60 years. On orders placed now we can guarantee delivery in time for spring work. Let us send you our proposition.



## M. RUMELY COMPANY

1922 Rose Street  
La Porte, Ind., U. S. A.

very poor. We decided to run the outfit without getting any extra men. We had four stook teams. My brother hauled the grain away from the machine with one team and two wagons, while I ran the outfit, both ends. We did not make any big day's run, but it paid all right. We were threshing ten days for 4,941 bushels of grain and used on an average of 15 gallons of gasoline, which cost us 26c., and one gallon of oil at 40c. per gallon per day.

We never had one break down or stop, excepting when we had to wait for sheaves, as the crop was so thin.

We also use the engine for crushing all the year round. We have a ten-inch Fluey grinder and can grind from twenty to thirty bags of oats per hour.

Our engine was outside all last winter. I sometimes had a little trouble in starting, but I have a painter's blow lamp with which I heat the gasoline in reservoir before I try to start. I find in this way that I can start my engine in very cold weather.

And now, gentlemen, if you can find anything in this letter worth printing in your valuable paper, you are welcome to do so. But I must say that I like reading the letters better than writing them.

Yours truly,  
E. O. Barefoot,

### Some Advice on Starting

We have a 13 B. H. P. portable Stickney engine, 4 cycle, gravity

feed, hit and miss ignition. We have used it for three falls, threshing, operating an 18-36 inch Case separator, hand feed, with 16 foot straw stacker, which it handles fairly well.

We can thresh 1,500 bushels of oats or 600 to 700 bushels of wheat per day of ten hours, at a cost of \$4.50 for gasoline. We pay 30c. per gallon, and an average grain use 15 gallons.

We have never had much trouble except in cold weather when we used to experience trouble in starting, but have got over that as a result of experience. What we do now is to hold a lighted torch under the air intake and crank several times before putting on the switch and turning on the oil. This has the effect of warming things up a bit and causing the oil to evaporize more easily. When oil has been left in the tank overnight it is a good idea to run a little out of the supply pipe (we are speaking of gravity feed) as the oil has often a certain proportion of water in it, and the water being heavier than the gasoline, naturally gets to the bottom of the pipe, the result being that you get water instead of gasoline when you need good oil. This will cause an inexperienced operator to wonder considerably and to have a good deal of cranking.

We consider a good spark most essential and of late have used a magneto with good results.

We enclose a small photo of the rig. We are thinking very seriously of going in for an oil tractor now.

Yours faithfully,  
Richards Bros.,  
Lashburn, Sask.

### A Good Threshing Experience.

Being a subscriber to your valuable paper and having enjoyed reading the many excellent letters that have appeared from month to month in the Canadian Thresherman, I thought I would write a few lines on our experience in threshing.

Our experience is very limited, having had our rig but one summer. It consists of a 20 h. p. International Tractor and a 28 x 40 American Abell separator complete with wind stacker.

I think that any farmer with a section or more of land can handle a machine of this size to very great advantage, using the engine for plowing and threshing. The advantage of a small outfit is, I think, being able to thresh your grain when it is fit, and also you do not have to form a wing to get threshed, as with a big machine, making it much easier to cope with noxious weeds.

We have nearly all our own teams to do the work, only employing three outside. We have six stook teams and can keep them busy too in a crop like this year's. With the straw being short we could have done with

more, but we had only two jobs outside our own to do, so didn't bother with more. We could keep three grain teams going, drawing to town 2½ miles away.

My brother run the separator and I the engine and for green men we manage very well. We had trouble one morning starting the engine, but after that I always took some hot water from the house and put in in the water jacket around the cylinder, and it warmed up and would start the first revolution.

Another trouble I had with the springs breaking on the movable electrode. The inside one would break in about half an hour's run after putting on a new one; and the outside one in about half a day's run. So I made one for the outside out of brass wire and it being tough, lasted right up to the finish. For the inside one a piece of ordinary elastic would last for days. A piece of elastic was a splendid substitute for the inlet valve check spring which would break occasionally.

We plowed about a hundred acres with the engine in the summer, but it was so dry and dusty and to make things worse the land had been disced in the early summer and was loose, so that we had indifferent success. We will, however, try it again.

Wishing success to a paper that I would not be without, I remain,

Yours sincerely,  
Russell Kennedy,  
Lyleton, Man.

## Gasoline Engine in the Agricultural Field at Home and Abroad

By Geo. Cormack, Jun.

I am sure that all present will agree with me when I say that the greatest field for the smaller sizes of gasoline engines in our own, and in fact in any civilized country, is the agricultural field. In fact, this is the field which nearly all of us who are building engines under 20 horse power are putting forth our best efforts to obtain a foothold in. The field is almost unlimited, the prosperity of the farmer during the past few years and the indications of a continued and abiding prosperity, should give us a reasonable assurance that this field as a market for our products will at all times be the greatest for the smaller units.

### The Farm Engine.

There are always some, however, of a pessimistic turn of mind who ask the question, "Where are you going to sell your engines when every farmer has a gasoline engine?" We need, however, have no fears on this score. Nearly every farmer owns a binder and a plow, and still the number of binders and plows manufactured, although they have been made and sold all over for many years, continues to increase from year to year. A comparison, however, between the ordinary agricultural implements, such as binders, mowers, plows and so forth, and gasoline engines is not a fair comparison. Nearly all agricultural implements are season machines, their period of service in most cases being only a few days' work every year. The life of such machines, if reasonable care is taken of them, is much prolonged, and in consequence new machines are only bought at long intervals of time. On the other hand, the gasoline engine is an every-day machine. It is a machine which the farmer can, and does, use nearly every day in the year, and in consequence it is only reasonable to expect that the life of the gasoline engine will be much shorter, and subject to replacement by a new engine at correspondingly shorter periods. Besides this the field is ever widening; new uses are being found every day on the farm for this handiest of all farm powers.

The up-to-date, prosperous and modern farmer is not content with one engine. He is finding uses for two or more. The scarcity of and the consequent high rate of wages paid to farm hands is driving the farmer to use power wherever possible. The new idea of using a small gasoline engine on the grain binders is rapidly gaining in favor, and is opening up a new field for small engines. Eventually the machinery of the grain binder, the corn binder, the

mower and the newest labor-saver, the corn picker, will all be driven by gasoline engines. Engines for such purposes should be readily removable from the machines, so that they may be used for general power purposes when not in use in their special job.

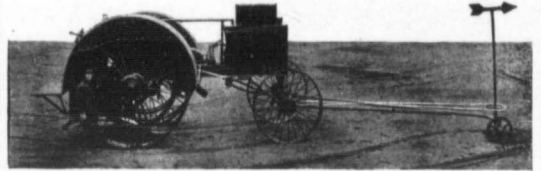
The designer of engines for these purposes should keep in mind that such engines must be primarily designed for ordinary power purposes, and that the facilities for attaching them to any machine, binder or corn picker must ever hold the secondary place. The farmer will hardly consider the purchase of an engine which can only be used to run his binder, thus limiting its use to from ten days to two weeks every year; the balance of the time it would be standing idle and rusting out. Such an investment would be unprofitable in the extreme.

Doubtless an engine could be designed of a multiple cylinder high speed air-cooled variety which could be readily attachable to a binder or any similar machine, and which would give eminent satisfaction while on the binder; but my own experience has been that when such an engine is put up against from 5 to 10 hours' hard work every day; where, in order to produce its rated power, it has to run at a speed of from 1,000 to 2,000 R.P.M., its term of usefulness is very limited unless the construction of the engine is of the highest grade possible, and close attention given to the engine while in operation. In my opinion, a moderate speed, single cylinder, either air or open jacket cooled engine will be eventually the engine for this purpose. All engines for this purpose must, however, be well and strongly designed and carefully constructed. A cheap rattle-trap will not stand the strain of running while being carried over rough and uneven ground on a machine such as a binder, which has no springs to absorb the jar. The engine in its equipment must be of the best, it must be reliable, it must run with the minimum of attention. A farmer will very soon get disgusted with an engine which will give trouble and in consequence hold back his harvesting operations.

### The Farm Tractor.

Another new field is the farm tractor. his machine is rapidly coming into use on the large farms, and although it may be only in its infancy as yet, much has been done, and as the field is unlimited many builders are contemplating or have already taken up the production of a farm tractor. There is much, however, remaining to be done in this field. In the past few years a few tractor builders have brought

## TAKE THE OPPORTUNITY DURING BONSPIEL . . . TO VISIT US . . .



THOUSANDS OF VISITORS WILL COME TO WINNIPEG DURING BONSPIEL. IF YOU ARE ONE OF THEM, AND YOU ARE INTERESTED IN A GAS TRACTION ENGINE, WE WANT TO MEET YOU. COME IN AND SEE US IN THE CHAMBERS OF COMMERCE BUILDING.

IN OUR ADVERTISEMENTS WE HAVE NOT BEEN ABLE TO TELL MORE THAN A FRACTION OF THE VALUABLE FEATURES OF THE GAS TRACTION ENGINE. BUT ITS REPUTATION AS THE MOST DEPENDABLE AND MOST ECONOMICAL GENERAL FARM MOTIVE POWER IS NOW FIRMLY ESTABLISHED IN WESTERN CANADA. IT MADE AN ENORMOUS HIT AT THE WINNIPEG EXHIBITION PLOWING CONTEST, WINNING THE GOLD MEDAL IN ITS CLASS. THAT SPEAKS FOR ITSELF, AS THE CONTEST WAS THE SEVEREST AND MOST KEENLY JUDGED PLOWING CONTEST EVER HELD ANYWHERE.

DON'T LEAVE WINNIPEG WITHOUT VISITING US. INVESTIGATE WHAT WE CLAIM FOR THE GAS TRACTION ENGINE. IF YOU DON'T INTEND COMING TO WINNIPEG SEND FOR OUR HANDSOME ILLUSTRATED BOOK ON THE GAS TRACTION ENGINE.

THE  
**GAS TRACTION CO.,**  
LIMITED

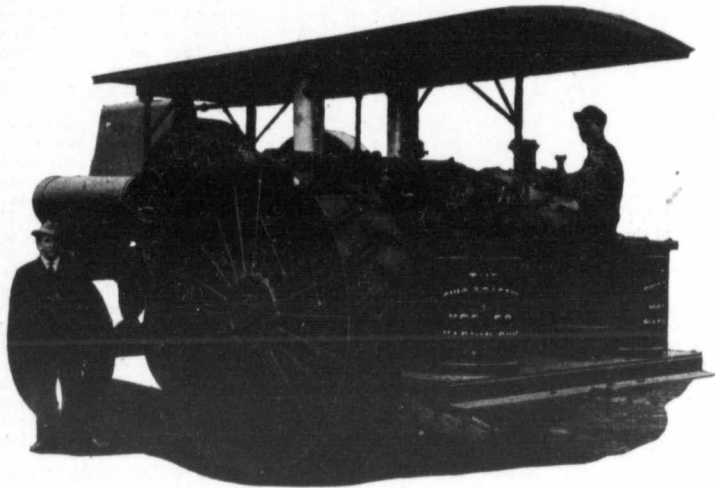
211 CHAMBERS OF COMMERCE

Winnipeg,

Man.



# Just what we Expected



Since we made our first announcement that we had secured the sales rights of the OHIO GAS TRACTOR inquiries regarding same have been away ahead of our expectations. Right now we believe that the demand for this tractor will greatly exceed the supply. Don't be caught napping. Place your order early and be sure it specifies the "OHIO." Pay no attention to that line of talk about another being "just as good." You want nothing but the best—Here it is in the

## "OHIO" GAS TRACTOR

Call and see this engine when you are in Winnipeg—Is your name on our catalog mailing list ?

Manufactured by the "OHIO" TRACTOR MANFG. CO., Marion, Ohio, for

## Sawyer-Massey Company, Ltd.

HAMILTON

(Sole Representatives for Canada)

WINNIPEG

their machines through the first experimental stages, and are placing machines on the market which are giving satisfactory results; but there has been along with this a scrub growth, if I may so put it, of cheap and poorly constructed machines. Most of these machines have been limited fortunately to just a machine or two placed in actual service, but the results obtained have usually been so unsatisfactory as to cast a good deal of discredit and distrust on the gasoline tractor in general.

There is nothing which hurts any machinery industry like the placing on the market of some crude and half-developed machines. Not only does such a course bring its builders much trouble and loss, but it creates a public distrust which takes time to overcome. The public too often has not the ability to discriminate, especially so where new departures are in question, but the public has always the ability, the will and the power to condemn, and it usually exercises this power in a wholesale manner. Any tractor, in order to be successful, and in order that it may operate under the enormous strains to which it is subjected, must be designed with a full understanding of just what these strains consist. This estimate cannot be very well arrived at by mathematical calculations alone, however helpful these may be in a primary estimate; only a close and intimate practical study of the machines operating under all

circumstances and conditions which are apt to arise can give the necessary knowledge for the production of a successful machine. Like the inventor in other agricultural lines the tractor designer's principal field for the gaining of the most useful data will ever be out in the open field watching the machine at work. The idea that any engine of sufficient power can be mounted on a truck and connected by some means to the driving road wheels will make a successful tractor has been abundantly proved erroneous. The problem calls for the evolution of an entirely new machine to meet the conditions, and we know well enough that inventive ingenuity is abundantly able and fertile enough to accomplish this.

Ten years ago the automobile consisted of an engine mounted in a rig closely resembling a common buggy. To-day the automobile has evolved from such a crude machine, a machine entirely unsatisfactory, to an absolutely new type of machine, not a horseless carriage, but an automobile, a new machine. The whole structure has been changed in every detail, and the automobile of to-day, in its best and most modern development, no more resembles a buggy than it does a flying machine. All its parts are strictly automobile parts; the engine, transmission, steering and running gears are designed to perform their respective duties in the finished machine and in no other place. You

do not hear an automobile salesman who knows his business and his machine telling a farmer that if he buys an automobile he can take out the engine and run his corn sheller or his threshing machine with it. The engine would prove an absolute failure when put to such work, whereas as an automobile engine it is a brilliant success. Although to many the automobile and the farm tractor may seem to differ in degree and not in type, a close study of the subject will soon make it manifest that there is but little in common between them, and that the difference is really one of type and not of degree. I know that there are those who believe that a good tractor could be made by taking an automobile 4 or 6-cylinder engine and mounting it on a suitable track. My candid opinion is that any such method of construction will be a failure. Although the automobile engine is capable of developing a large amount of power, the fact of the matter is that in order to develop this power it must be operated at a very high rotative speed, and, further, that when it is installed in an automobile it is very seldom called upon to deliver its maximum horse power or to run at the speed at which it is rated.

On a tractor, however—take, for instance, in plowing—it is safe enough to assume that if the engine is rated at 40 horse power plows would be hitched on to absorb a very large percentage of the available power, and the

speed of the engine would have to be kept up to the maximum in order to carry the imposed load. Furthermore, such an engine might in the busy season be called upon to maintain this gait 24 hours a day, as it is not uncommon nowadays to find farmers who keep on plowing during the night by the aid of a searchlight on the engine. The automobile engine is not built for such service, however efficient it may have proved out in its own field of usefulness. The automobile engine is usually not an efficient engine when the question of fuel consumption is considered in relation to delivered horse power. It may, however, show very economical fuel consumption when the consumption is reduced to the amount consumed per mile of travel, which is really the unit of automobile economy.

The tractor industry will eventually develop an engine which will differ both from the automobile engine and the ordinary stationary engine. It will be a moderate speed engine, embodying the flexibility of control of the automobile engine along with the high efficiency and economy of the stationary engine. Before leaving the subject of the gasoline engine in the agricultural field at home and turning to a similar field abroad, I want to say a word to those engaged in the building of agricultural engines regarding the general design and construction of such engines. An engine which may

prove all right when used as a stationary engine, where it is well protected and cared for, may give endless trouble when it is operated out-doors in rain and snow. The gasoline engine is, without doubt, the handiest form of power in small isolated units, but the future will, I think, show that in order that it may attain maximum efficiency under all conditions, special types will have to be developed to meet the demands of certain grouped special, but approximately similar, conditions. To obtain this specialization a broader and more accurate study of all conditions under which gasoline engines on the farm operate will gradually be made. When this is accomplished, much trouble, general dissatisfaction and consequent loss will be avoided. The manufacturer or his agent will then refuse to recommend an engine to his customer which has proven unsuitable under the conditions involved.

**The Foreign Field.**

Turning now to the field abroad, which in this case will be confined more especially to the conditions of the industry in Europe, I am sorry to confess that in the gas engine field we have much to learn from our brothers across the Atlantic. This does not apply alone to the engine builder, but also to the man who operates engines. It must be understood that the engines in Europe which are used

on the farm or for ordinary power purposes are not gasoline engines as we understand the term; they are oil engines. All are operated on a heavier fuel than gasoline, a fuel about the same grade as our kerosene. In consequence the engines are more complicated, are harder to operate, and cannot be as readily started as engines operated on gasoline or some similar highly volatile fuel. The European engine of the same rating is a far heavier machine, and in all its details it is really far better constructed. The stroke is usually longer in relation to the bore of the cylinder than is the average practice in this country; in consequence the speed of the engine is comparatively lower, which, although calling for heavier construction, doubtless increases the durability of the machine.

Although we doubtless are able to compete in price with the European built engine, if we are honest about it, and will take the time to make a trip across the water, we will find that our advantage lies mainly in the fact that our engines are lighter and the whole construction of the details is more trappy and, in comparison, poorly fitted and finished. Of course, it is well known that the price paid for labor in Europe is far lower than it is here, but it cannot be denied that in the aggregate, and as a whole, the European mechanic is a far higher skilled workman, and although more time is con-

sumed in manufacturing processes the resulting products, as far as workmanship and durability is concerned, more than offset the extra expense. In reference to this I would submit the following, by the editor of the American Machinist in a recent short editorial entitled "Why is the Diesel Motor a Failure in America?"

"The Diesel Motor, or Diesel oil engine, is not unknown in America, but that is about all that can be said for it. As a general proposition it can be classed as a failure: When we consider the great extent to which it is used in Europe, we at once asked the question "Why is the Diesel motor a failure in the United States?" To show the extent of its development on the Continent, the firm of Gebruder Sulzer, Winterburg, Switzerland, has built over 100,000 horse power of Diesel motors in the last four years. Another firm at Augsburg, Germany, in a similar period has built upwards of 150,000 horse power. The Aktiengesellschaft St. Georgen is specializing in small sizes of the motors, the smallest of which has a rating of five horse power.

"As new developments, Gebruder Sulzer are now building for the Prussian railways a 1,400 horse power locomotive equipped with Diesel motor. At the same time a firm in Nuremberg is building the engine for two 8,000 ton freight steamers for the Hamburg-American line, each to

be equipped with two 1,500 horse power Diesel engine sets. The Diesel motor, from a standpoint of fuel consumption, is probably the cheapest engine to operate that we know of to-day.

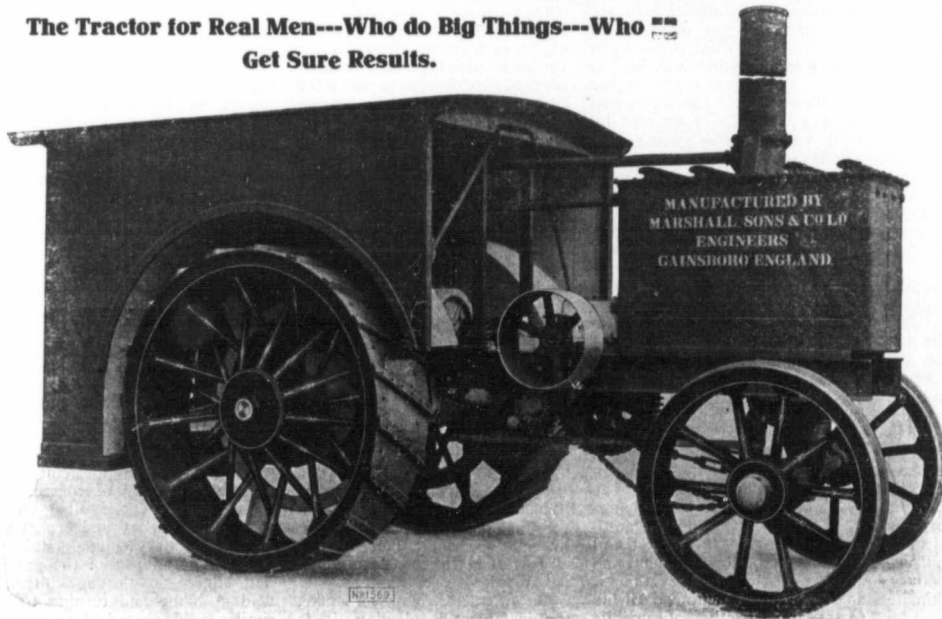
"Facing these facts, we are justified in repeating our question, 'Why is the Diesel motor a failure in the United States?' We have an ample supply of liquid fuel, and we have a demand for cheap power. Without attempting to answer the question that we have asked, we will merely point out that the Diesel engine demands the best workmanship in its construction. The compression of air in the cylinders is carried up to 33 to 35 atmospheres. The fuel injection pump works under pressure from 40 to 60 atmospheres, and on the smaller sized engines the governor must be sensitive enough to divide individual drops of fuel in order to produce the necessary refinement in regulation. The handling of these high pressures, and the demands of governing, require the best workmanship in the engine parts."

The above speaks for itself, even although the worthy editor does not answer the pertinent question which he asks. Anyone reading between the lines can easily arrive at the answer.

While in Europe during the past summer, whenever the opportunity presented itself I made it a special point to investigate the gas engine. Whenever I

# The "British Colonial" Oil Tractor

The Tractor for Real Men---Who do Big Things---Who Get Sure Results.



Consider three things when buying a Tractor.

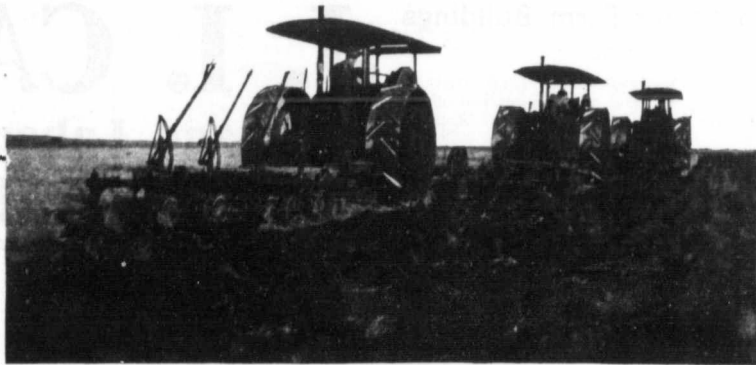
- 1st--COST.
- 2nd--Expense of operation
- 3rd--Results obtainable.

If you do you'll buy a "British Colonial" because--You get value for your money--Your running expenses are reduced to a minimum--The results will equal your highest expectations.

Are you interested? Write for information or call and see this engine when visiting Winnipeg.

This cut shows Class D--70 Brake Horse Power.

**Sawyer-Massey Company, Limited**  
611 Union Bank Building Winnipeg, Manitoba



## REDUCING THE COST OF PLOWING

By means of an IHC gasoline tractor is bringing thousands of dollars extra profit to farmers all over the country. Until recently, tilling the soil has been one of the most tedious, expensive, and time-consuming operations of farming.

To plow an acre of land means turning a furrow eight miles long. To plow a square mile tract requires turning over 5,200 miles of furrow. On this basis figure out for yourself how many miles you walk in plowing your fields—how many miles your horses drag the heavy plow through the soil.

Then consider that a 20-horse power IHC gasoline tractor will do the work of five teams with no expense for feeding—no time lost for resting—no expense for hired help—only a small cost for gasoline. Remember that horses are an expense whether they are working or not—the present cost of corn, oats and hay is a big item. Good hired men to care for and drive the horses are hard to get and must be paid good wages.

You can stop this expense and increase your profits by using an IHC gasoline tractor.

The IHC gasoline tractor has many advantages over steam tractors. It can be operated by one man. You do not need to be an engineer to run one. You do not need the services of a fireman. There is no expense for a man and team to haul fuel and water. The IHC gasoline tractor can be used in many places where a heavy steam tractor would be impractical.

**THE IHC LINE** IHC Vertical, 2, 3, 25, and 35-horse power. Horizontal (Portable and Stationary) in 4, 6, 8, 10, 12, 15, 20, and 25-horse power. Gasoline Tractors in 12, 15, 20, 25, and 45-horse power. Pumping, Spraying, and Sawing Outfits

Ask the nearest branch house about the engines, or write direct to us.

Canadian Branch House: Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, North Battleford, Ottawa, Regina, St. John, Saskatoon, Weyburn, Winnipeg, Yorkton.

**International Harvester Company of America**  
CHICAGO (INCORPORATED) U S A

heard an engine coughing I tried to gain a sight of it. My investigations were not so much in relation to the manufacturing end but were principally made on engines under service. My time was limited, and much of my observations were confined to the British Isles. On the Continent my inability to talk any other language than English—although this may not impede the ordinary tourist very much when he keeps to the beaten path of travel—it is a serious handicap when you start out to make special investigations which are outside of the things which usually interest the tourist throng. In Scotland I personally investigated a number of engines operating on farms. Such engines were used for running small threshing machines, grinders and such machines, and what was equally noticeable, every one of them was as clean and bright as when it left the factory. In all cases, while running, the engines, apart from the noise of the exhaust, were remarkably free from noise. There was no rattle or pound, showing good alignment of the elements of the engine, large and well proportioned bearings, and careful attention of the operator. The most marked difference, however, is in the operator. Too often in our country, as is well known to you, all the operators lay the bulk of the blame for trouble with the engine, on the engine and its builder.

It may be true enough that in some special case the engine and the builder is largely to blame, but in the majority of cases the engine would be entirely satisfactory if properly operated. The European operator, on the other hand, charges nearly all of his trouble to his own ignorance, and in consequence he exerts himself to increase his knowledge of gas engines, and in this way reduces his trouble, instead of trying to tell the engine builder how to build better engines. In this country we say, "Jones's engine is no good; it won't run." Over there they would say, "Jones don't know anything; he can't run his engine." Some of the engines visited had been in operation from eight to ten years, and apparently were in excellent condition, which says much for both the builders and operators. The average life of a farm engine in Europe is placed at from twenty to thirty years.

### Important Work of Harrows.

There is no tool on a farm that plays a more important part in the work than the disc harrow. Of course we all realize that there are many kinds of disc harrows, but we have especially in mind the Superior Wheel Disc Harrow and Cultivator. Why is this different from the others? Because it cultivates a wider strip, size for size, than any other; because the

discs are set at a permanent angle to the line of draft and each disc cuts from its front edge to the rear edge of its neighbor; because it completely turns the ground, like a plow; because each disc and drag bar is independent in action and provided with independent spring pressure; because it rides on its own wheels like a road cart and is just as easy to manage; because it leaves the field level; because any boy who can manage a team can do more work in one day with one Superior Wheel Disc Harrow and Cultivator than two men and two teams can do in a day with plows. Doesn't this appeal to you in your work of summer fallowing? Send to The American Seeding-Machine Co., Incorporated, King and James Sts., Winnipeg, for a copy of their booklet, "Stebbins On the Disc Harrow." Read this interesting story and then go to your retail implement dealer and insist on seeing the Superior—"the name tells a true story." If your dealer will not supply you, write the makers and they will see that you get one.

### Course in Gas Engineering.

Continued from page 30

at the back in vertical engines. As the piston rests on the bottom of the cylinder by its own weight and the oil naturally gravitates to this point the openings of the rings are placed below where

their effect will be less noticeable. To make the path of any gas leakage through the joints as long as possible the openings of the rings are zigzagged or placed one a little beyond the other. Pins are driven into the piston and engage the rings keeping them in the proper position in the slots.

Pistons are generally made with ribs and bosses on the inside and when heated from the gases in the combustion chamber do not expand uniformly throughout. Naturally the head of the piston, being in direct contact with the gases becomes the hottest and expands the most. When any part expands more than those surrounding, it will rub on the cylinder and will make its presence known by a bright spot. Oftentimes a piston which "blows" will be found to have high spots on opposite sides at the ends. This twists the piston and prevents the rings from doing the duty intended. These high spots must be carefully filed or scraped. The last land, or portion of the piston behind the last ring, is usually relieved enough so that it does not touch the cylinder at all. Of course, when the piston becomes worn the only remedy is a new one. A new lease of life may often be given to rings, however, that have become weak by carefully peening them uniformly around the inside with a machinist's hammer. This compresses the metal on the inside and consequently forces the ring out, giving it a greater tension.



## Hollow Clay Blocks for Farm Buildings

By PROF. M. L. KING.

This paper was read before the American Society of Agricultural Engineers and the prices as given are U. S. prices.

The time, energy and money spent in the design, construction and repair of farm buildings each year is so great that the importance of the problem of farm buildings stands second to none, except perhaps a very few of the most fundamental problems of conservation. Even here the protection from the elements of farm buildings ranks them among the very important problems of conservation.

The three principal classes of building materials are lumber, metal and masonry. The present prices and lasting qualities of masonry bring it to the front at the present time. The inexhaustibility of the supply assures the most extensive use of it in the future. The special and remarkable advantage of the use of a small amount of metal, combined with masonry, brings us to the conclusion that reinforced masonry will be the building material of the future.

Clay products have always been among the most widely distributed and used of masonry materials. The developments of hollow clay blocks has reduced the labor of manufacture and laying up, lessened the amount of the material used and at the same time improved the quality of the product. For building walls of small to modern-sized buildings where permanence, warmth and medium cost are desired, the clay block is not in general excelled by any material.

Description.  
In general, hollow clay blocks are made of the same material as building brick. The quality may be judged from considerations similar to those used in the judging of building brick. The clay is forced through dies and is subject to the same danger of stratification as brick.

The most common sizes are 4 x 4, 4 x 5, 4 x 8, 4 x 12 and 5 x 8. The length is generally 12 inches but 16 inches and even greater lengths are common. The air spaces are not generally greater than 4 inches in any cross-sectional dimension. The thickness of the air space equal to 76 per cent. to 12½ per cent. of the cross-sectional area of the block. In the heaviest blocks the air space is merely large enough to insure the passing of the fire down through the block while burning. For use in medium sized buildings, however, ½ to ¾ inches is most common and sufficient thickness to the clay.

The advantages of this material over brick are lower cost, less weight, poor conductors of heat, they lay up more rapidly and require less mortar without sacrificing such and often no strength. The disadvantages are few. They are little heavier to handle, sometimes less available, and for outer

walls of buildings, say variations in color, are more marked on account of the size of the blocks.

The strength of clay blocks is remarkable. Tests of medium quality blocks show a strength from 1,000 to 6,000 lbs. per square inch. Its strength is often equal to that of solid brick on account of the fact that the hollow ware is burned more uniformly. So far as downward pressure is concerned it would probably be safe to build a wall of this material of uniform thickness to a height of 4,000 feet.

A rather unusual, although perfectly safe, design in which strength of this material was quite fully utilized, was that of a silo, 18 ft. in diameter and 54 ft. in height, having a re-inforced wall which has for some time successfully supported a 600 bbl. masonry tank.

There is no building material more impervious to water and air than vitrified clay. From absolute dryness to saturation requires an absorption of less than 5 per cent. of its weight of moisture.

Specimens of pottery left from the early stages of the development of the human race are in such perfect state of preservation that we have no idea as to how good material of this sort will last. It is safe to say that it will last as long as any other building material.

In regard to its fire proof qualities, the following is quoted from the highest authority:

"Terra cotta will certainly require less reconstruction after a severe fire-and-water test than any building material except possibly the best quality of fire brick. In Baltimore and San Francisco fires it was demonstrated that for outside wall of brick is superior to any other material used in wall construction."

\* \* \* "In buildings which are to contain large quantities of inflammable material it is undoubtedly better to line the walls with porous furring tile or hollow brick."

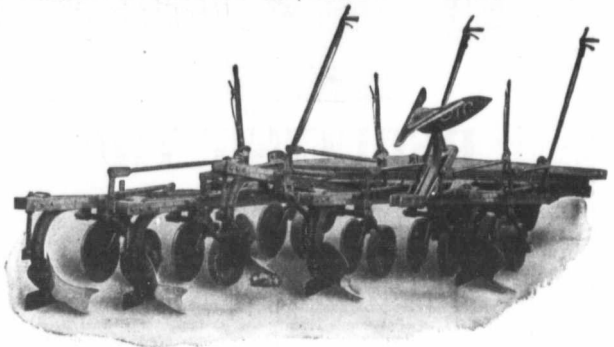
A rather interesting test along this line has been going on in the writer's house for the last two winters. We have a fire place built of 4 x 8 x 12 shale clay blocks, forming a 1-inch wall. We have burned wood, soft coal, hard coal and coke in this fire-place. The inner walls have often been white hot, yet not one of the blocks have been checked, although the expansion of the hot blocks has sheared the mortar loose from the foundation.

Clay block walls thick enough to sustain any downward pressure which comes up on them will often not be rigid enough to safely withstand the side pressure or shearing strains which may be imposed.

In dwellings the principal stresses to consider are due to side pressure of winds freezing ground in contact with the cellar

# J. I. CASE

## Time and Labor Saving IMPROVEMENTS



Notice the Bottom Turned Up

THIS IS ONE OF THE J. I. CASE ENGINE GANG SPECIAL FEATURES

## The "Break Pin" Feature

Illustrated in above picture, minimizes the breaking of shares and mouldboards, and the bending of beams.

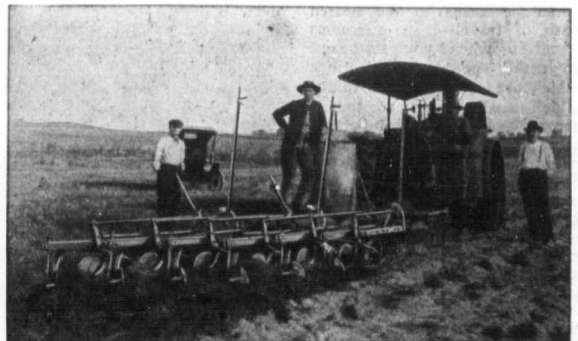
### WHY?

Because the pin breaks when otherwise part of the plow would break or bend.

And, as is obvious, removing the break pin and turning the bottom up, brings every bolt in sight and easy to get at when changing shares or complete bottoms, and the changes are made as comfortably and rapidly as at a work-bench. Compare this J. I. CASE improvement with gangs that raise the plows only a few inches above ground, and the consequent uncomfortable and awkward position when changing shares or bottoms.

Another advantage—the plows may be turned up out of the way for transportation.

Write for New Circular No. 235



6-Bottom J. I. Case Engine Gang at Palmer, Kan.

CANADIAN SALES AGENTS:

**HARMER IMPLEMENT CO.**

WINNIPEG, MAN.

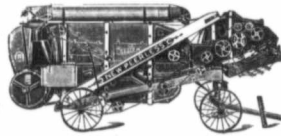
OR

**J. I. CASE PLOW WORKS**  
RACINE, WIS.



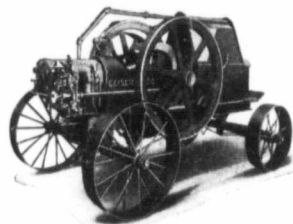
## "Geiser" Celebrated Sieveless Separators and Threshing and Plowing Engines

Are the latest and most up-to-date machines on the market.



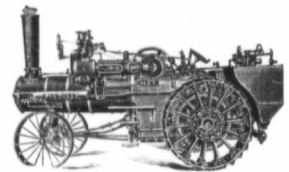
"Geiser" Sieveless Separator

The new system which has revolutionized the whole process of threshing and cleaning grain. What is known as the "Grain Plate and Roller System and Automatic blast." The simple invention eliminates the sieves or riddles and practically revolutionizes the old and antiquated method of threshing. Built in all sizes from 25x29 to 40x60. Special sizes built for Gasoline Engine Power.



"Geiser" Portable Gasoline Engine.

This Engine is specially built for threshing purposes and is the most modern on the market. LEADING FEATURES—Vertical Valves, Electric Igniter, Centrifugal Fly Ball Governor, and patent Match Starter.



"Geiser" Steam Tractor

The All Steel Plowing Engine. Double Drive. The gearing is of large dimensions, wide face made of open hearth steel and are all covered in steel cases and dust proof.

Send for illustrated catalogue of Threshers, Portable and Stationary Engines, Well Drilling Machinery, also New Bulletin of Gasoline Tractors.

### Burridge, Cooper Company Limited

156 Lombard Street, Winnipeg, Man.

Regina, Sask., Branch: 1840 Dewdney Street

od is to lay up an 8 inch wall, such as is ordinarily used in cement block house construction. The objection to this method is that while the walls are entirely wind proof, there is considerable heat conducted out through the walls on account of the mortar and clay extending from the inner to the out surfaces. Also there is always the probability of a small amount of moisture being conducted across by the mortar. In ordinary house construction 8 inch walls are much thicker than necessary and two 4 inch walls can be built from the same amount of material and slightly greater amount of labor.

For the last two winters the writer has lived in a story and a half house having a 4 inch wall built of these blocks and is at present designing another which we expect to occupy permanently. It may be that a brief description of this house will be of interest.

The whole house will be made of 4 x 8 x 12 blocks. This will facilitate sorting blocks. The cellar wall will be 8 inches thick, with soft and slightly checked blocks below the frost line and hard dark blocks above the frost line. Between the frost and grade line may be used any hard blocks which may be off in color. From the grade to the first floor line dark blocks need only to have one 4 inch surface free from checks. Above the line of the first floor will be two 4 inch walls with a 2 inch air space between. All window and door frames will be rabbitted on the back and concrete slugged in between the end of the block and the frame. This insures wind proofness around the frames. If it can be conveniently done, tar paper will be placed in the mortar joints of the inner wall and hung down full width to a mortar joint in the outer wall. This makes one more dead air

space and increases the certainty of the wall being moisture proof. Each wall will be sufficiently reinforced to stand independent of the other. In order, however, to stay the green walls while building, some wall ties will be used but only temporary dependence will be placed in them. The blocks of the outer wall will be of uniform color laid up in mortar of the same color. The inner walls and partitions may be built of blocks not fit for other purposes. Thus it will be seen that kiln run material may be used.

In case blocks cannot be secured of so uniform a color as to give the house a desirable appearance, it can be stuccoed or painted. Though appearance is desirable it is not essential and there is no place where the beauty of utility is so fully appreciated as it is on the farm. Thus the fact that we are unaccustomed to the appearance of the block construction is of less consequence for farm buildings than the other. In addition to this I am firmly of the opinion that with a fairly uniform colored block and a colored mortar with a few vines growing up around the corners the longer one lived in such a house the more he would regret leaving it.

Small clay block barns are rather common in town but large or even medium sized barns economically built are scarce. It is easy to find places where men have squandered a fortune riding an agricultural hobby, but such things have little or no bearing on every day farming.

In the northern part of Iowa there was during the summer, a medium sized dairy barn built of hollow blocks. The walls are 8 inches thick below the hay mow floor and 5 inches thick above. The roof trusses were so designed as to prevent any outward pressure on the walls. The foundation is reinforced so as to prevent any settling cracks.

Some steel is also placed in the corners and over the door and window frames. The builder of this barn reports that the cost was fully as low as other dairy barns in the same neighborhood.

#### Storage Buildings.

In storage buildings of any kind the outward pressure of material can be most conveniently provided for if the building is round as the walls are then in direct tension and the material depended upon to hold it is not so seriously stressed as though the walls were in flexure. In most cases reinforced concrete door frames can be joined to the reinforcement of the walls, thus eliminating all material less permanent in character than concrete and vitrified clay. Silos built of this material have already been in use several years. They have been perfectly satisfactory and are becoming very popular. In the fall of 1908 one silo of this type of construction was built and successfully operated. The following year 12 more were built and a bulletin issued showing their construction. During the past summer about 125 have been built. So far as we can learn they are all in successful operation and none of those built from the bulletin have been more expensive than a good grade of stave silo.

Also a few corn cribs of this material are in use. If built circular it is a very simple matter to lay some steel in the mortar joints and form a reinforced concrete door frame. In building rectangular cribs the reinforced concrete door jambs may extend to the top of the crib and may be tied across the top and bottom to pilasters on the opposite side of the crib. It then becomes a problem of reinforcing the straight walls against flexure due to pressure of the material inside.

For corn cribs, the blocks

should be laid cross-wise in the wall, the air space should extend from the inner to the outer surface. It seems to me that the best form of material for this purpose will be a special block made as large as possible but cut short and on a bevel so that in laying them up, the cut ends may form a smooth vertical wall but the air space slopes down and out, thus carrying away a large portion of any rain which would otherwise be driven in by wind.

A few larger elevator bins have been built of this material and superintendents of wide experience say that they have never had any that kept the grain so thoroughly dry.

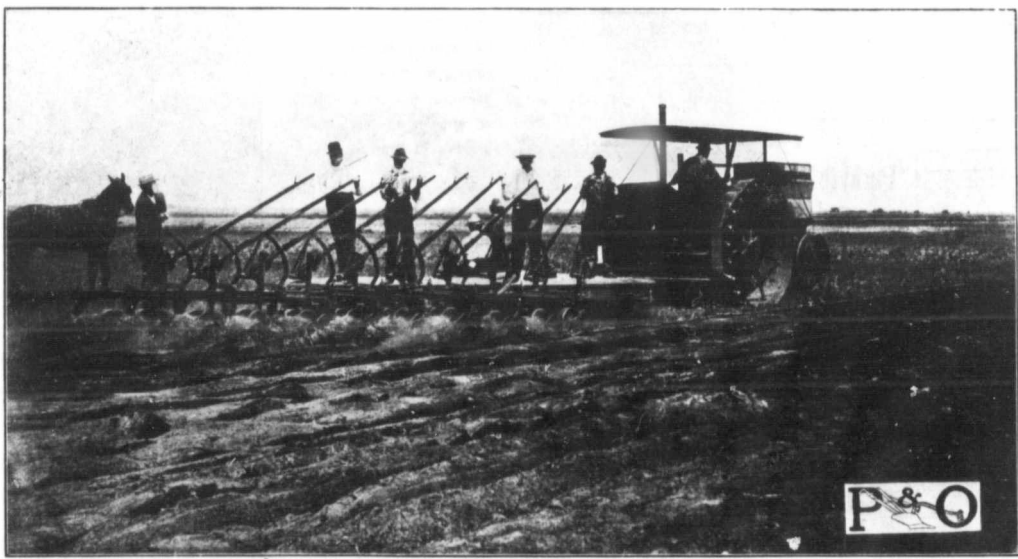
For various other small buildings about the farm, such as chicken, hog, smoke or dairy houses, the blocks are cheap, easily laid up, slightly and easily kept sanitary. They provide no hiding places for insects or pests of any kind.

Cost. Hollow blocks are generally sold in brick measure, 72 cubic inches allowed for a brick. In manufacturing the amount of material used is very much less than that for brick. It is handled in large, although comparatively light units, this lends on account of the thin walls of clay, the burning is more uniform and quickly accomplished. The selling price at the factories will range from 1/2 to 2/3 that of a similar grade of brick. The cost of manufacture is perhaps slightly increased by the fact that a greater variety of dies, and therefore forms of blocks need to be carried in stock than is the case with solid brick. The cost of buildings will of course vary with labor conditions and local supplies of sand, etc. My experience has been that for medium sized buildings the labor conditions of the rural communities and small towns are better than the cities,





# CANTON PLOWS



## The P. & O. Mogul Engine Gang

In putting the P. & O. Mogul on the market, the Parlin & Orendorff Co. offers the trade a plow that is not only the latest and best, but in addition to that we do what we always do when we introduce a new implement, and that is to offer some new and exclusive features.

The Mogul, besides incorporating in its construction everything that is necessary to fulfil the demands of an engine gang plow, offers the following:

A full sized level platform, with no openings to trip or injure the operator.

The levers can be bunched in the centre of the platform, saving about half the walking back and forth when raising or lowering the bottoms.

Self-castoring gauge wheels. Self-castoring rolling coulters, which do not interfere with the gauge wheels.

A plow that turns easier than any other similar plow.

It will turn in a smaller radius than the engine.

Taken in its entirety, with its simple design, its great strength, its hairline adjustments and backed by our reputation of being the pioneer manufacturers of engine gang plows, we have full confidence in the Mogul, and it takes a worthy place with the other P. & O. leaders.

And last—every one of them is backed by an unqualified guarantee.

**Write For Our Special Catalog  
"TRACTION ENGINE PLOWING"**

**PARLIN & ORENDORFF, CO.**  
**CANTON, ILL**



International Harvester Company of America  
:: Sales Agent for Canada ::

the mechanics of these localities must necessarily do a variety of work and the average farm building is not large enough to make advantageous use of specialists. There are so many figures that can be given tending to show the low price of any particular material which is desired to be shown, favorably, therefore, I will quote but few figures. The following is from a booklet by the Pa. Fire-proofing Co. Though this is catalog material, it is far from common practice:

Hollow tile walls per 100 sq. ft., cement stucco and interior plaster:

6 inches	.....\$23.85
8 inches	..... 27.10
10 inches	..... 30.85
12 inches	..... 32.35

Exterior plain, interior plastered:

6 inches	.....\$18.35
8 inches	..... 21.60
10 inches	..... 25.35
12 inches	..... 26.85



**Parkyte**  
Improved  
(Trade Mark Registered)  
Sanitary  
Chemical  
Closets

No Water. No Plumbing. No Excavating. No Burning. No Traps or other useless Appliances to break or get out of order. "PARKYTE" is the only Chemical Closet on the market that is giving satisfaction, and the only one that has earned the name of **SANITARY**. It is recognized everywhere as being the "Standard of Quality" and carries the endorsement of the leading Health Inspectors, Physicians and Architects in the Dominion, as well as thousands of satisfied users. With "PARKYTE" Closets all rural districts can have modern conveniences.

Write for Catalog  
**PARKER & WHITE, LTD.**  
Head Office—1203 McArthur Building, Winnipeg  
Branches: 61 St. James Street, Montreal; 49 Canada Permanent Building, Toronto; 5-6 Crown Building, Calgary.

**McLean's Stables**

179-185 James Street, Winnipeg  
**Thursday, Feb. 16, 1911**  
At 1.30 P.M.

I will offer for sale by—

**AUCTION**  
Six Car Loads High Class



**Horses**

This is the 3rd Annual Sale held during Bonspiel week, and buyers should take advantage of reduced railroad rates. Horses loaded on cars free of charge. The horses are all carefully selected draft, farm, delivery and general purpose horses, and are all sold under my guarantee. Private Sales Daily.

**McLEAN'S SALE STABLES**  
179-185 James Street  
Phone M. 2941 WINNIPEG

Exterior plain, interior ready for plaster:

6 inches	.....\$15.50
8 inches	..... 18.75
10 inches	..... 22.50
12 inches	..... 24.00

Partition walls ready for plaster:

3 inches	.....\$10.50
4 inches	..... 11.00
5 inches	..... 12.80
6 inches	..... 13.10

In silo construction a reinforced wall neatly painted outside and washed with cement inside will cost from \$13 to \$15 per square, \$14.25 being very common. A very good comparison of prices of frame hollow block and construction appeared in Carpentry and Builders, July, 1908. A builder in Wilkes Barre, Pa., recently decided to practically determine the question, and to that end he erected in the same locality three houses of the same size and arrangement. One house was built entirely of wood, the second was of concrete with wooden floors, and the third was of hollow tile blocks and concrete. When the experiment had been completed it was found that the cost of the wooden structure was \$6,000, the one of tile and concrete was \$6,500, and the one of concrete was \$8,900. The builder regarded the tile and concrete house as the cheapest, so far as durability was concerned. He also regarded it as likely to be warmer in winter and cooler in the summer by reason of the air spaces in the hollow blocks being poor conductors of heat and cold.

It is of course advantageous to use standard blocks when possible. However, special dies are not very expensive and manufacturers will make anything there is a market for. In special stuff there is always room for careful consideration. In silos, for instance, a curved block was needed and after considerable effort and some partial failures, the blocks were automatically bent by simply running them out flat on curved instead of straight pollets. The pollets of the cutting table were alternately concave and convex. The column of clay from the die settles of its own weight in the curves, thus causing no extra labor. The neds are cut square so that they are set in the kiln just as any other blocks are set.

**A Change in Name Only.**

Practically all of our readers are familiar with the name of the Parson's hawkeye Mfg. Company, "the feeder men of Western Canada." The Ruth, Parson's and Hawkeye feeders have made the greater portion of the separators in the West happy for several years past, and from all indications will continue to do so in the future. Future readers of this magazine will see the name of The Maytag Co., Limited, carrying the Ruth, Parson's and Hawkeye messages. It will be a change in name only. The same men will be at the helm and the same quality of feeders will be dealt out to the threshermen of the West.

**Five  
Million  
Trees**

Consisting of all classes of  
**FOREST TREES**

- Standard Apples
- Crab Apples
- Plums
- Compass Cherry

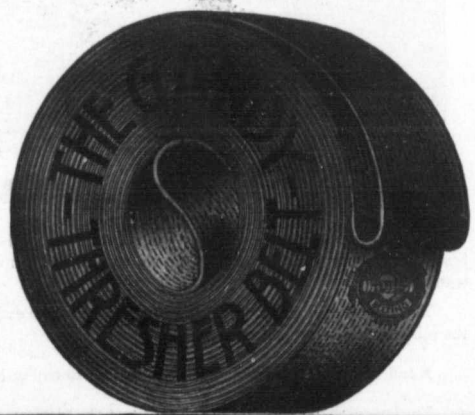
And all kinds of small fruits that have proven hardy in this country, besides a great variety of flowering shrubs, perennial flowers and bulbs, all grown on our nursery grounds at Brandon.

Parties wishing to plant for 1911 drop post card for price list.



**Spring Park Nurseries, Ltd.**

B. D. WALLACE - Manager



**For 34 Years  
THE STANDARD  
THRESHER  
BELT**

**THE GANDY BELTING COMPANY**  
733 Pratt St., Baltimore, Md.

New York Offices—85-90 Reade St.

**Traction Engine License Examinations in Saskatchewan**

Held by Inspector Waller of Whitewood

Broadview	February 1
Grenfell	February 2
Wolseley	February 4
Sintaluta	February 7
Windhorst	February 9
Kennedy	February 11
Wawota	February 14
Maryfield	February 16
Kipling	February 18
Glenavon	February 20
Montmartre	February 21
Carlyle	February 24
Manor	February 27
Wauchope	March 1
Redvers	March 3
Antler	March 6

Held by Inspector Mayhew of Whitewood

Welwyn	January 17
Rocanville	January 18
Tantallon	January 19
Esterhazy	January 20
Stockholm	January 21
Dubuc	January 23
Grayson	January 24
Neudorf	January 25
Lemberg	January 26
Lipton	January 27
Balcarres	January 28
Fleming	February 8
Moosomin	February 9
Wapella	February 10
Whitewood	February 13

Held by Inspector Inglis of Regina

Indian Head	January 9 and 10
So. Qu'Appelle	January 11
McLean	January 12
Balgonie	January 13
Lumsden	January 16
Bethune	January 17
Chamberlain	January 18
Pense	January 20
Arcoia	January 24
Kisbey	January 26
Forget	January 27
Stoughton	January 28
Heward	January 30
Creelman	January 31
Fillmore	February 1
Ossage	February 2
Tyvan	February 3
Francis	February 4
Sedley	February 6
Kronau	February 7
Moose Jaw	February 8 and 9

(With Inspector Blackburn)

Caron	February 14
Mortlach	February 16
Herbert	February 18
Swift Current	February 20 and 21
Gull Lake	February 22
Maple Creek	February 23
Regina	February 27 and 28

Held by Inspector Merchant of Prince Albert

Birch Hills	January 10
Kinistino	January 12
Melfort	January 16
Star City	January 18
Tisdale	January 20
Hudson Bay Junction	January 23
Prince Albert	January 25 and 26
Duck Lake	January 31
Rosthern	February 2 and 3
Hague	February 6
Warman	February 8
Aberdeen	February 10
Vonda	February 14
Bruno	February 16
Humboldt	February 18 and 20
Watson	February 22 and 23
Quill Lake	February 25
Wadena	February 28
Shellbrook	To be announced later

Held by Inspector Blackburn of Regina

Gainsboro	January 10
Carduff	January 11
Oxbow	January 12
Alameda	January 13
Frobisher	January 14
Estevan	January 16
Macoun	January 18
Midale	January 19
Halbrite	January 20
Weyburn	January 21
Forward	January 25
Yellowgrass	January 27
Lang	January 28
Milestone	February 1
Wilcox	February 2
Rouleau	February 3
Drinkwater	February 4
Moose Jaw	February 8 and 9

(With Inspector Inglis)

Tuxford	February 14
Keeler	February 15

# HITS THE BULLSEYE

TRADE  
**PENBERTHY**  
MARK

**AUTOMATIC INJECTORS**

**PENBERTHY INJECTOR CO., Limited**  
WINDSOR, ONT.

**And Makes a HIT With All Engineers**

MADE BETTER, WORKS BETTER and LASTS LONGER than any other Injector and "Always Dependable"

More than half a million have been sold—a proof of their popularity.

We make Injectors, Ejectors, Sight Feed Lubricators, Oil Cups, Grease Cups, Whistles, Plain Tallow Cups, etc. Write for Catalog today.

Eyebrow	February 16
Tugaske	February 17
Elbow	February 18
Hawarden	February 20
Outlook	February 21

Held by Inspector Morrison of North Battleford

Lloydminster	January 2 and 3
Lashburn	January 3 and 4
Maidstone	January 6 and 7
Breslayor	January 9 and 10
North Battleford	January 11
Battleford	January 12 and 13
Ruddell	January 16
Maymont	January 17
Radisson	January 18 and 19
Borden	January 20 and 21
Langham	January 23 and 24
Saskatoon	January 25 and 26
Asquith	January 30
Perdue	January 31
Wilkie	February 2
Adanac	February 4
MacKlin	February 7
Scott	February 9
Landis	February 10
Biggar	February 11
Delisle	February 14
Tessier	February 15
Harris	February 16
Zelandia	February 17 and 18
Rosestown	February 20
Brook	February 21
Kindersley	February 22 and 23

Held by Inspector Tripp of Yorkton

Langenburg	January 10
Churchbridge	January 11
Salteoats	January 12
Yorkton	January 13 and 14
Wynyard	January 23
Elroy	January 24
Leslie	January 25
Foam Lake	January 26
Shebo	January 27
Theodore	January 28
Melville	February 7 and 8
Fenwood	February 9
Kellher	February 10
Waldron	February 13

Held by Inspectors Tripp and Mayhew

Invermay	March 1
Buchanan	March 2
Canora	March 3
Vergin	March 6
Kamsack	March 13
Togo	March 15

Held by Inspector McMillan of Saskatoon

Dundurn	February 1
Hanley	February 2
Kenaston	February 3
Bladworth	February 4
Davidson	February 6
Girvin	February 7
Craik	February 8
Clayton	February 10
Allan	February 11
Young	February 13
Watrous	February 14 and 15
Nokomis	February 16
Semans	February 20
Raymore	February 22
Punichy	February 24
Govan	February 28
Strasbourg	March 1
Cupar	March 3
Southey	March 4

Earl Grey	March 6
Bulyea	March 7
Lockwood	March 9
Lanigan	March 11
Jansen	March 13
Guernsey	March 15
Viscount	March 17
Elstow	March 20

Held by Inspector Tripp of Yorkton

Langenburg	January 10
Churchbridge	January 11
Salteoats	January 12
Yorkton	January 13 and 14
Wynyard	January 23
Elroy	January 24
Leslie	January 25
Foam Lake	January 26
Shebo	January 27
Theodore	January 28
Melville	February 7 and 8
Fenwood	February 9
Kellher	February 10
Waldron	February 13

**Impure Water in Wells.**

It becomes more and more evident each year that much of the sickness prevalent in the country is directly attributable to the quality of the water. By carefully studying the matter, it is found that in nine cases out of ten typhoid fevers originate in families whose water supply is from a well into which impure water comes. This may be from the farm yard, and quite generally such is the case. For some years the water in a well near the house

may be pure and wholesome, but by-and-bye the soil between it and the barn-yard will become so impregnated with pollution that an unhealthful quality will be imparted to it, and disease will result from its use. This is almost sure to be the case when the distance between the two is not great, because, as a general thing, the bottom of the well is lower than the yard, and the drainage from the latter will extend in all directions through the most porous strata of soil, and when it reaches the well, it will naturally flow into it as a reservoir. No matter how pure the water may have been when the well was first dug, sooner or later it will be contaminated by water flowing through the soil from barn-yards and cesspools located anywhere near it. A case is on record in which four children died from diphtheria. An examination by the physician proved that the slops from the kitchen had so filled the soil for a distance of twenty feet between the back door, out of which they were thrown, and the well, that the water in the latter was polluted by foul gases, and from the use of it, diphtheria had certainly resulted. When making a well, have it, if possible, above the barn-yard, and let the drainage be from it rather than into it. Arrange a place for slops with a cement bottom and sides, from which glazed pipes, cemented together, allow the unhealthy matter to flow off and away from the well.



Conducted by  
Professor  
P. S. Rose

# Practical Talks to Threshermen

Talk No.  
XLII.

Returning again to the matter of cylinder teeth, we show here-with illustrations of the various shapes in which they are made and the method used for securing them in position. The most of them depend upon a square shoulder or shank to keep them from turning, and a spring washer underneath the nut to lock it and keep it from working loose. This matter of keeping the nuts tight is very important, as a little looseness in the teeth will cause them to wear the holes in the cylinder bars badly and make it impossible ever after to make them fit. The square shank, spring washer and nut are shown in the Reeves-Mammoth and Advance teeth. Another method of holding the teeth is shown in tooth marked N. S. 1901, in which the tooth is keyed. Some special methods of holding is necessary in every case for the reason above stated and because the strain on teeth is at times very heavy.

The general forms of cylinder and concave teeth do not differ very greatly except in special cases where a corrugated concave tooth is used for threshing clover, alfalfa, Turkey wheat, or some grain that is hard to thresh. The N. W. No. 4 and Avery are examples of teeth of this class. Then there is another class of large, extra heavy teeth of which the Reeves-Mammoth and Advance are examples. These are adapted for use in the large cylinders. Being extra heavy, they are not so apt to bend or break.

In some machines the same form and size of tooth is used for both cylinders and concaves, while in others it requires a special form for each. The Case tooth shown is an example of one of the interchangeable teeth, but the Case is by no means the only machine that is so designed.

In addition to the special forms of concave teeth for threshing the refractory cereals, some machines are provided with studded concaves—that is, concaves having projections like bolt nuts in between the teeth. These, to a great extent, it is claimed, prevent unthreshed heads from passing through beyond the points of the teeth.

Cylinder Draft, or Suction, as it is sometimes called, may be defined as the capacity the cylinder has of drawing straw into the machine. This differs slightly in some machines, due to differences in design which may be accidental or intentional.

An inspection of American separators will show that in all cases the straw is fed into the machine well below a horizontal plane passing through the centre of the cylinder. Also, that the

feeder table slopes sharply toward the cylinders from a point about the length of a bundle from the cylinder teeth. Up to this point the feeder carrier carries the bundles up a slight incline, which prevents them from rolling or sliding toward the machine. If the straw were delivered to the cylinder above the horizontal plane, considerable grain would be thrown back on the feeder and the cylinder teeth would have a tendency to push the straw back instead of drawing it in. In other words, the draft would be negative. If straw were delivered

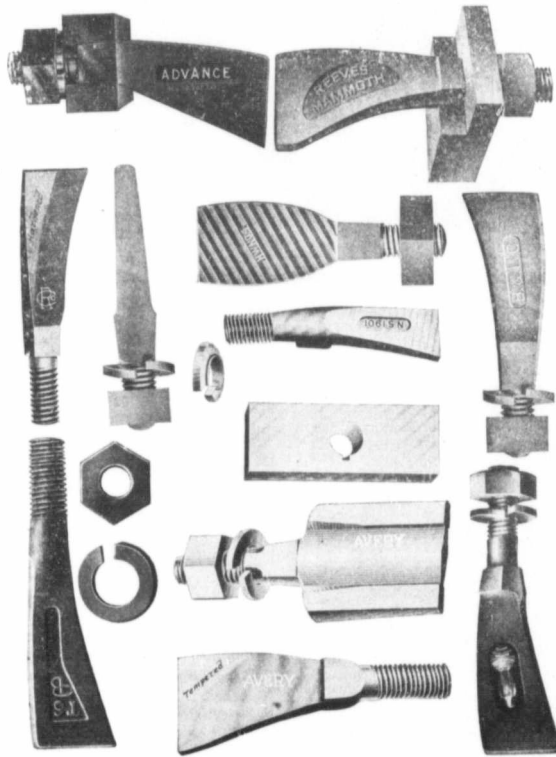
Concaves and concave frames, as can be seen from the various illustrations, consist either of heavy castings or of heavy pressed steel sections. In any event they are, and should be, made extremely heavy and strong to bear the heavy strains which are liable to occur when a wet bundle, or a pitch fork, or block of wood accidentally goes through the machine.

All concaves are made to be adjustable to or from the cylinder either at the front or rear, and some of them at both points. Where only one adjustment is provided it is in front. The

tively speaking. All of the grain that is threshed out of the straw is, of course, threshed by the cylinder. The greater part of this grain, we know, is thrown straight down through the concaves and grates upon the grain pan below, but there is a considerable portion that is caught by the whirling cylinder teeth and thrown backward and upward. This portion is thrown in among the straw, and is the part which must be separated out on the straw racks. It is also possible that some few kernels may slightly adhere to the heads of the grain and be shaken out by the action of the beater and by subsequent agitation on the racks. The amount of grain passing the cylinder unthreshed, however, must be exceedingly small; consequently the function of the beater, straw racks, and separating devices, which make up the bulk of the machine, is to take the grain out of the straw that was thrown into it by the cylinder after it was threshed out of the heads.

Now let us investigate the reason why the grain is thrown into the straw in such quantities. The straw passes into the cylinder at a high rate of speed, but when it passes to the beater and straw racks its speed is cut down from about six thousand feet per minute to something like one thousand feet. This causes a pile of straw to form right back of the cylinder, usually between it and the beater where it catches the flying grain from the cylinder. Here, then, is the real cause of most troubles in separation. It is not an easy difficulty to solve, and perhaps the various experimenters and builders have done all that is possible, but it has occurred to the writer many times that if the straw could be carried back by a swift moving raddle in the same thin blanket that exists beneath the cylinder to a point beyond where grain would be thrown into it, a machine might be devised whereby the separation would be effected without racks or agitators. There would be some serious obstacles to overcome in making such a machine, and it might not be at all practicable when completed. However, it has served my purpose of calling attention to what takes place at or near the cylinder, and will make an understanding of the various machines perhaps a little clearer.

The aim of designers apparently has been to prevent as much as possible the loading of the straw blanket just back of the cylinder in the first place, and in the second place to shake out as much of the grain as possible be-



Cylinder and Concave Teeth

exactly on the horizontal plane, there would, theoretically, be no draft, either positive or negative. When the straw is delivered at some point lower down on the cylinder the draft becomes stronger. With cylinders of the same size, and run at the same speed, the draft is dependent solely upon the angle at which the straw is delivered to the cylinder. It will be greatest when the slope of the feeding table is exactly tangent to the cylinder, and correspondingly less as the plane of the table intersects the cylinder more nearly along same diameter.

amount of adjustment is limited by the throw of a cam or of an eccentric shaft, and is such that in their highest position the concave teeth are in no danger of touching the cylinder. An examination of some of the figures will show the schemes used for concave adjustment.

Separation at or near the cylinder. In a former lesson it was pointed out that the straw passes underneath the cylinder at the rate of something like six thousand feet per minute. The amount passing through ordinarily at any single instant is very small—only a few straws, rela-

# The Pioneers of Traction Plowing



¶ The engines of the M. RUMELY Company

were among the very first to be used for traction plowing. Years ago, thrifty owners adapted

their RUMELY Traction Engines to the work of plowing.

¶ It was this pioneer work and experimenting that enabled Americans to be the first to adapt the traction engine to the work of plowing and made it possible for them to originate and perfect the big strong, 30-to-40-acres-per-day modern Steam Plowing Engine.

¶ The M. RUMELY Company was one of the Pioneers in the field of Traction Plowing. Long ago they recognized that the strains on the plowing engine were enormous and that only engines which were specially designed for this work could hold up under the strain. In the

## RUMELY STEAM PLOWING ENGINE

in its present day perfection, we have overcome the weak points of the common traction engine—overcome all the weaknesses that made the light traction engine, which was designed solely for the purpose of threshing, impracticable for the heavy work of plowing.

¶ We have in the RUMELY STEAM PLOWING ENGINE, placed heavier parts where they were needed, balanced

the engine properly on its foundation so as to insure the greatest amount of gripping efficiency on the drivers, increased the boiler capacity, equipped the engine with extra large fuel bunkers and water tanks and made our engine of a rear mounted construction, rear axle and counter shaft brackets in one solid piece of wing construction.

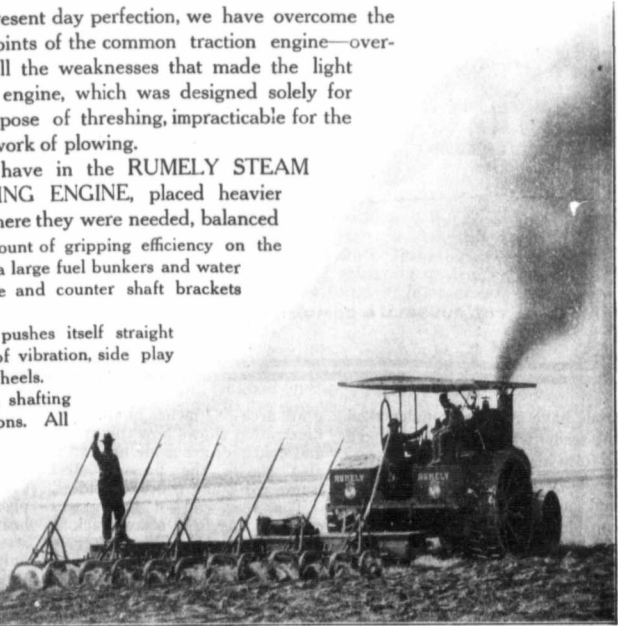
¶ It is made rear mounted and double geared so that the engine pushes itself straight ahead from the rear which entirely does away with any possibility of vibration, side play or twisting of the counter shaft, sagging or tipping in of the drive wheels.

¶ All gearing is strong and heavy, made of steel and semi-steel, shafting and crank shaft are superior to United States Naval Specifications. All these parts are proof against breakage. We guarantee it.

¶ Our 32 page Plowing Engine Catalog is full of facts—money making and money saving hints. A postal card and your name will bring it to you.

Address it to

1921 Rose Street, - Regina, Saskatchewan



# M. RUMELY CO.

fore passing it on to the straw racks.

The pictures of the various machines which we are showing herewith show how some of the different designers and builders have sought to attain similar results. We will endeavour to explain some of these devices at some length in this and the next lesson, but will refrain from passing judgment as to the merits of one machine over another, because it would, after all, be merely a personal opinion, which might not be verified by competitive trial. Since no such

vice extends above the middle of the cylinder, and consists of open slat work with a check plate behind. The object is to allow the flying kernels to pass between the slats, strike the check plate, and be deflected downward on the grain pan. The beater wings just clear the cylinder teeth and the top of the check plate, and whip the straw over, and at the same time is supposed to deflect any flying grain downward.

The Case separator comes next among the big cylinder machines. It, too, has a very large

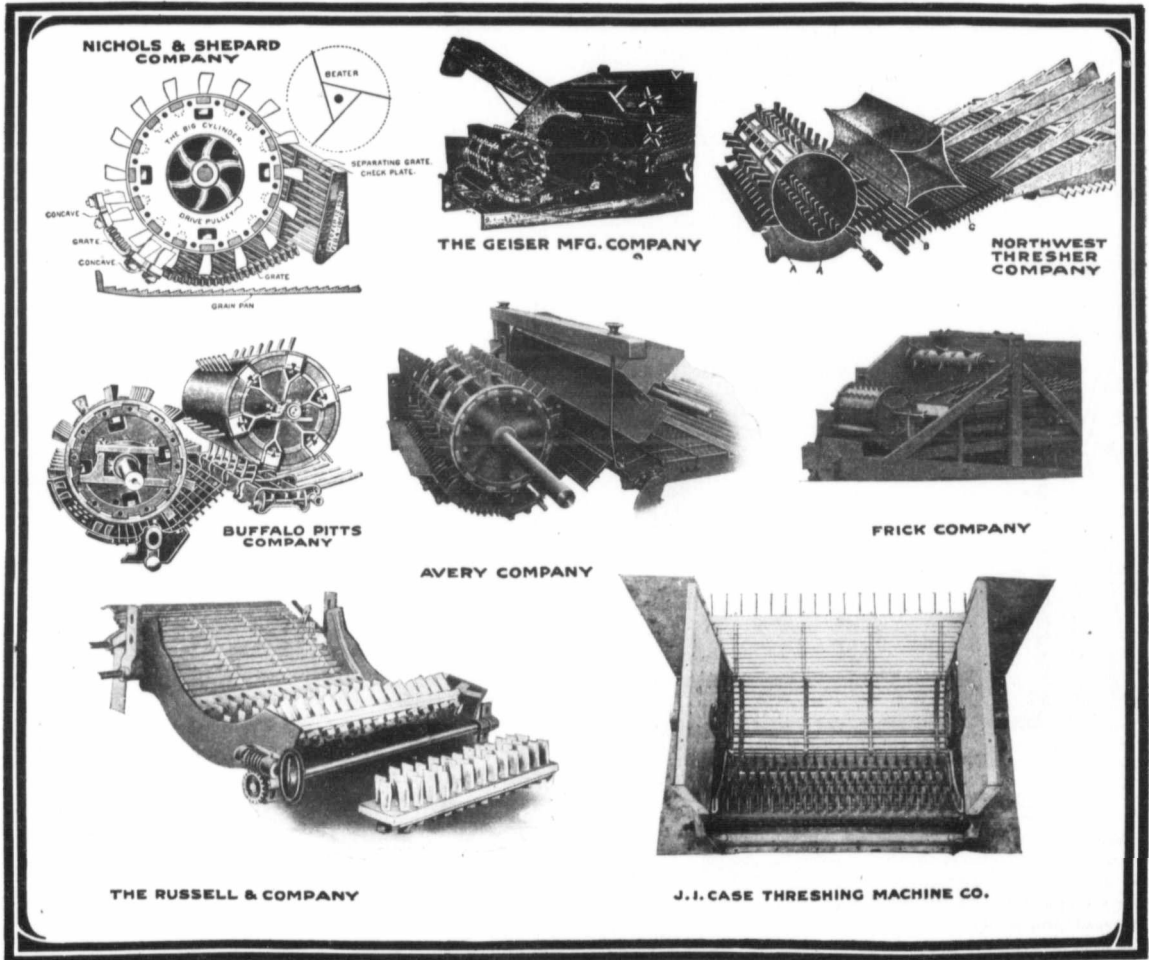
kernels that escape the beater from being thrown too far back into the straw.

The Avery Company's separator is the first of the small or medium cylinder machines we will consider. This machine is provided with as much concave and grate surface as any of the large cylinder machines. They are arranged in three sections of eighteen, fourteen and twenty inches respectively.

The concave section is adjustable both front and rear, the middle section is made adjustable, while the third section

cylinder. The straw is carried up almost to the beater, and is then thrown lightly upon the racks. Much of the grain passes through the lower grates, some strikes the smooth sides of the beater and is deflected downward, while a certain small percentage is thrown back into the straw. The first straw racks are set high, and much of the flying grain should strike through the grates directly upon the grain pan.

The Geiser Manufacturing Company's separator differs quite widely from the others we



Separation at or Near the Cylinder

trials have ever been undertaken the reader will therefore be asked to form his own conclusions after we have presented the material and put it in proper shape for consideration and comparison.

Nichols & Shepard.—The first one to engage our attention among the large cylinder machines is the Nichols & Shepard. The grates are carried well beyond the cylinder, but not concentric with them, and then rise at a very steep angle in a device called "The man behind the gun," which is clearly brought out in the illustration. The de-

grate area—52 inches in all. The illustration shows how the grates and concaves are made up, and it also shows the pressed steel frame work and concave holders.

The rear end of the grates overlap the first straw rack a short distance. The beater is of sheet metal construction, composed of four arcs of circles with the concave parts set next to the shaft. The peculiar form of the beater is such as to deflect any grain which strikes it either straight down or else back towards the cylinder. Then, just back of the beater, there is a check board to prevent flying

oscillates with the separating racks. The beater is made with four wings, and has its axis slightly above the axis of the cylinder. A check board is placed immediately behind the beater. In this machine the straw is delivered to the racks only slightly above the bottom of the cylinder.

The Buffalo-Pitts.—Here a large grate area is obtained by carrying the grates well around and concentric with the cylinder, which is of medium size. The beater is smooth and cylindrical, with backward curving teeth, which almost touch those of the

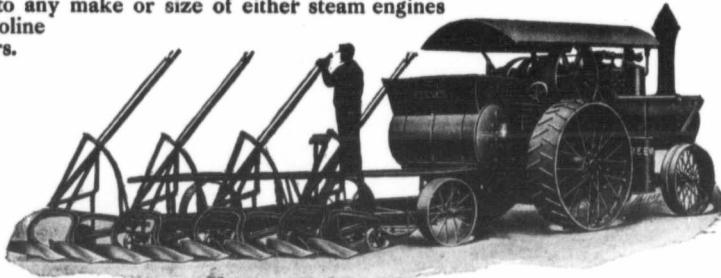
have described in some respects. It has a small or medium sized cylinder, and the straw is delivered on a level with the lower side of the cylinder. Immediately behind the cylinder and a short distance from it there is an abruptly rising grate through which the teeth of a revolving drum project. These forks pick up the straw and throw it lightly upward, where it is caught between a pair of beaters and whipped over upon the racks.

The Northwest.—The cylinder is of medium size, having sixteen bars. The grates are extra long

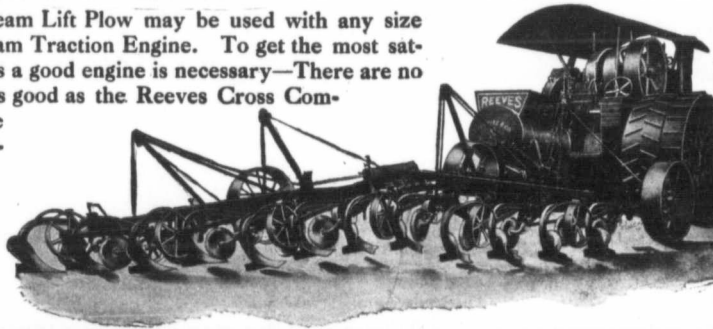


# REEVES STEAM LIFT <sup>AND</sup> HAND LIFT ENGINE PLOWS LEAD THEM ALL.

The Reeves Hand Lift Plow is adapted for attachment to any make or size of either steam engines or gasoline tractors.



The Reeves Steam Lift Plow may be used with any size or make of Steam Traction Engine. To get the most satisfactory results a good engine is necessary—There are no other engines as good as the Reeves Cross Compound—Double Cylinder Plowing Engine.



Reeves Engine Gang Plows, both hand and steam lift, have flexible frames—permitting the plow frame and the plow bottoms to conform to the irregularities of the surface; the plows are attached to frame in pairs, each plow reinforcing its companion and adding strength. Each pair of plow bottoms are carried on wheels producing light draft. The attachment of the plow to engine is pivotal, permitting the engine to control the direction of the plow—A spring releasing device insures against breakage when plows strike a stone, stump or other obstruction. With the Reeves Plow turns to right or left can be made without lifting plows from ground.

The plow follows the engine—it is not a case of the "tail wags the dog", the engine controls.

The Reeves Plow attached to the engine by its pivotal connection makes an ideal plowing outfit—controlled at will by the engineer. Don't make a mistake—get a Reeves Flexible Frame Engine Gang Plow and be in line for a profitable run of work in fall plowing. The Reeves plow is unlike others—many of which are simply dragged on the ground by chains, like a lifeless log, capable of movement only as it is pulled by the chain or rope attaching it to the engine.

The Reeves Flexible Frame Engine Gang Plow—either style, hand or steam lift—will do more and better work than any other Engine Gang Plow made. They cost more than others; but then you know the best is the cheapest—the Reeves is the best. Write for special catalog which tells all about it.

## REEVES & COMPANY

· MANUFACTURERS ·

## COLUMBUS · INDIANA · U · S · A

Chicago  
INC. & CO.

CANADIAN BRANCH : REGINA, SASKATCHEWAN

## The Thresherman's Question Drawer

Answers to Correspondents

### The Fireman's Lament

By a Fireman.

There ain't no snaps in threshing,  
I don't care what you say.  
The Boomers now a-firing  
For three small plunks per day;  
The engineer screaming in my  
ear,

My head is about to bust,  
With pulling ashes and shoving  
straw  
I'm crazy with disgust.

When I hit the bunk at night  
I'm most too tired to eat,  
A million blisters on my hands  
And can't stand upon my feet.  
When I get back to my claim,  
There's where I'll surely stay;  
For there's noathing to this firing,  
For three small bills per day.

When we pull up to a sitting;  
Charlie oils up all around,  
And if we are then not ready,  
He then tears up the ground.  
From three a.m. to eight at night,  
All is work and no play,  
I'll let some other fellow fire  
For three small bills per day.

One day the blower gearing  
broke,  
And we shut down for a while,  
I lay me down upon the straw  
With a big fat healthy smile.  
And as I lay I fell asleep,  
My dreams led me far away  
From the old American Abell  
And my three small bills per day.

I dreamt I had an auto,  
A race horse and a yacht,  
And at all high-toned picnics  
I was boomer on the spot;  
But when I awoke it was a bluff,  
The bright dream fled away  
And I was still firing  
For three small bills per day.

I feel sorry for the threshers  
Amid the busy hum and roar,  
And most of all the fireman  
He has no time at all to snore.  
I'll now leave the outfit,  
Get clear out and stay,  
Steer clear of straw and engines  
And three small bills per day.

Composed by the fireman that  
fired for Chas. Schwindt, Yellow-  
grass, Sask.

**L. A. Q.** The governor on my engine does not control it satisfactorily. I have to get speeder spring very tight to set proper speed for threshing. When separator is empty it runs too fast. A new valve did not better it. It is a Pickering. Would it do to raise the valve a little, so as not to have the spring so tight?

**A.** If you raise the valve it may not shut the steam off when the engine is running light. The governor should cut off the steam when the balls are spread. To adjust the valve correctly you can take the governor belt off and withut any belt on the fly wheel, ha re some one turn on full steam while you pull the gover-

nor balls out by hand. You can readily tell where the valve is in relation to the seat by this method. If the engine runs at high speed when the balls are pulled out to the extreme, this would indicate that the valve is too high; if the engine is shut down before the balls are pulled out to the extreme, this would indicate that the valve is set too low. Adjust the stem so that the valve comes to the seat when balls are out. To tell when you have this adjustment, you will find that the engine stops just as the balls strike the outward position, or to make the engine run steadily, while running without a load, the valve should admit enough steam (when under full steam from the throttle and when the balls are pulled out) to run the engine very slowly. In other words, the valve should be slightly off the seat when the balls are pulled out to the extreme. After this is done and if you do not have the proper speed by giving the speed spring a reasonable amount of tension, the diameter of the pulleys should be changed. If you want to run the engine faster, the pulley on the governor should be increased in diameter. If you want to run slower the pulley on the crank shaft should be increased. As it is likely not to take much, one or two thicknesses of belting put around the pulley will likely be sufficient. The pulley may be wrapped with other things to increase the diameter.

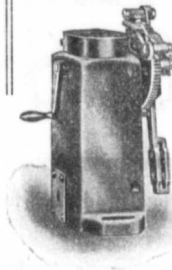
**F. B. Q.** Is babbitt instead of brass a good thing for a connecting rod?

**A.** Babbitt is a good thing for the crank pin but not for the crosshead pin. The fact that it does not wear so well in the cross head end may be due to the fact that nearly all cross head pins are smaller than crank pins. Babbitt does not heat as easily as brass and has equally as good and in many cases better wearing qualities. When it is neglected by lack of oil or if adjusted too closely, it does not scar the pin as it does brass. Men who have had experience with both babbitt and brass testify to the superior qualities of babbitt in the crank pin box of the connecting rod.

**A. R. Q.** Of what benefit is the water bottom in a fire box? I have always found it very hard to keep clean.

**A.** With a water bottom fire-box it is easy to get a tight ash pan, so that the fire can be kept under perfect control. The lower part forms a greater receptacle for mud and sediment and it does not need to be cleaned as often as an open bottom. With cleaning out holes properly placed it should not be any harder to clean than an open bottom. The open bottom has, however, other advantages, namely, the conven-

## YOU HAD LUBRICATOR TROUBLES LAST WINTER Then You Didn't Have a MADISON-KIPP



The present Madison-Kipp construction is the result of years of actual experience in oil pump manufacture. The pawls are all drop forgings, forged from open heart steel and hardened in the most modern hardening ovens. The plungers are a special grade of steel, case hardened as hard as the hardest glass and after hardening are ground as smooth as a mirror.

Our style B force feed lubricator is especially recommended for use in temperatures where the oil will not remain in a liquid state.

OVER 50,000 PUMPS IN ACTUAL USE

Our shop is devoted exclusively to the manufacture of oil pumps and force feed lubricators. All our energies are expended in this line. The highest grade of mechanics and skilled workmen are employed by us, and our shop equipment consists of the most modern machine tools, jigs, fixtures and limit gauges. This combination, together with our knowledge of knowing how to combine and use the best known materials, enables us to furnish a pump that will meet every requirement, and will work for years without any expense.

**PARSONS HAWKEYE MANUFACTURING CO.**

Sole Agents for Canada WINNIPEG, Man.

Manufactured by MADISON-KIPP LUBRICATOR CO., Madison, Wis.

## Sawyer Drive Belt

Is Not  
The  
Same

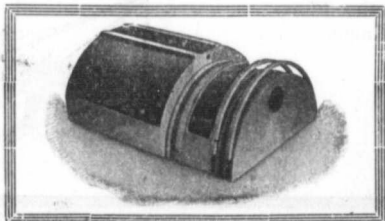


As Any  
Other  
Belt

It lasts longer. The Lap NEVER comes apart. It never gets  
Stiff in Cold Weather. Dont cost a bit more.

Write for Book "L."

**SAWYER BELTING CO.**  
CLEVELAND, OHIO.



## DON'T BLAME

## THE ENGINEER

If he doesn't keep up steam, or allows the valve gear to rattle. No doubt he's doing the best he can. Your valve drags so heavy across the ports that he can't keep steam enough in the boiler to pull the load and pull the valve with 2½ tons on its back at the same time.

Better send us a postal card asking us to mail you our catalog which tells you how to

**Increase the Power of your Engine from  
18 to 30 per cent., besides saving  
the wear on Valve Gear**

AGENTS WANTED

GENERAL AGENCIES

JOHN M. BRANT CO., Bushnell, Ill.  
KENNEY MACHINERY COMPANY, Indianapolis, Ind.  
MOTT IMPLEMENT CO., Columbus, Ohio.  
PEDELT THRESHER CO., Mason City, Iowa.  
SACHSE-BUNY & CO., Cherokee, Iowa.  
ELLSWORTH A. BULLOCK, Norfolk, Nebr.  
HAUG BROS. & NELLEMOE CO., Winnipeg, Manitoba.  
GEO. WHITE & SONS COMPANY, London, Ontario, Manufacturers in  
Canada.

ADDRESS

**Gould Balance Valve Company**  
Kellogg, Iowa, U.S.A.



## GOOD GOODS WIN

The "Good Goods Win" slogan of this Company is not an idle dream but the very soul of a clearly defined and ruggedly rooted business policy



### Lion Rubber Endless Thresher Belts

and

### Maple Leaf Endless Thresher Belts

Go Hand in Hand as Pre-eminently the Best—Ask the fellow that has one

## The Winnipeg Rubber Company Limited

Winnipeg

NOT IN ANY TRUST OR COMBINE

Calgary

ience of getting at the tubes in fire box and the renewing of the fire box should it ever become necessary.

**R. L.** What is the correct way to stop a leaky stay bolt?

**A.** A stay bolt can usually be made tight by calking, but if it leaks badly and shows signs of being loose in the thread, a good way is to have some one hold a bar of iron or something heavy against one end of the stay bolt while the other end is riveted down with an ordinary size hand hammer. This will swell the bolt in the hole and make the threads fit tightly and will be more apt to keep tight than by simply calking.

**M. T. Q.** I own a 15 h. p. compound engine. Last fall I had new flues put in by a good man and they had to be rolled twice. I got them from the \_\_\_\_\_ Company. It is a locomotive boiler and the flues were never beaded at the smoke box. Would that have anything to do with them leaking on the other end?

**A.** Having the tubes not beaded at the smoke box end will not cause them to leak at the firebox end. The thing which causes tubes to leak more than anything is allowing cold air to rush into the firebox while the tubes are quite hot.

**G. E. Q.** Which is the best, copper ferrules in flue sheet in

firebox or flues put in without copper ferrules? I notice some boilers have them and some have not. I recently have replaced some flues in my boiler and found the ferrules burned out half way through the flue sheet. Would not a boiler be better without them?

**A.** Boilers are made with and without copper ferrules, both with good success. However, it depends very largely on the workmanship in either case. There may be more chance for poor work in the use of ferrules as the usual custom is to make the hole in the tube sheet large enough to slip the ferrule in the hole and around the tube. In this case the tube has to be expanded enough to take up two loose joints. Another way is to make the holes smaller so that the ferrule can just be slipped in and then expanded in the hole and the tube then slipped in the copper-lined hole and then expanded. The latest practice in placing tubes without ferrules is to make the hole in the tube sheet smaller than the tube. In this case the tube is reduced on the end by means of a die and then driven into the tube sheet to its proper place—this applied only to the firebox end of the tube. The smoke box end is made in the regular way which is loose enough to slip the tube through. The firebox end being put in the above way is not unduly stretched as after it is expanded it is about the same size at the tube

sheet as the other part of the tube.

The writer is partial to this method.

**P. G. Q.** If three or four flues are leaking in a boiler, is it proper to bead or expand, or both?

**A.** If the flues are loose, it is necessary to expand them. While it might be possible to stop the leaks by beading yet it would not last. Usually when a flue leaks it needs expanding. The beading is more to protect the flue sheet.

**R. A. Q.** Will a balanced valve develop enough more power or make saving enough over a plain slide valve to pay the expense of putting one in an engine?

**A.** A balanced valve which does not leak any more than an unbalanced one (other conditions being equal) will certainly have the advantage, as the power which it takes to run the unbalanced valve can be used on the load of the engine.

The unbalanced valve has a tendency to wear to its seat and keep tight, but the balanced valve is apt to become leaky and hard to keep steam tight, and the saving in power which it takes to run it is lost in the amount it leaks more than the unbalanced valve. However, if the balanced valve is kept steam tight, either by adjustment or renewing the parts, it will enable the engine to give off more power. Whether

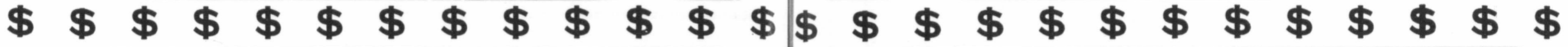
it will pay to make a change of this kind depends on what kind of a valve it is changed from and what kind it is changed to, as there are some balanced valves which are not as good as a common D unbalanced valve.

**I. B. Q.** Can you tell how to set the valve correctly on an Advance engine (Marsh reverse). I want to babbitt the reserve boxes and I will have to set it over. Tell me in a plain way.

**A.** Get the engine on the centre, placing the crank pin toward the cylinder, then place the reverse lever in the centre notch, then turn the reverse gear on the crank shaft until the crank pin of the reverse gear shaft is on its centre nearest the crank shaft or away from the cylinder. This position you estimate by eye. Then tighten the screws in the reverse gear on the crank slightly and temporarily. Then as a preliminary in the operation set the screws that are in the top and bottom of the stop plate so they will project inward about one-half inch from the lugs on the stop plate, though it is not important that they should be set exact, as this is not the correct and final position for them. Then move the reverse lever down until the reverse box strikes the screw in the bottom of the stop plate, and fasten the reverse lever in that position. Now, with the engine still on the centre nearest the cylinder set the

Continued on page 90



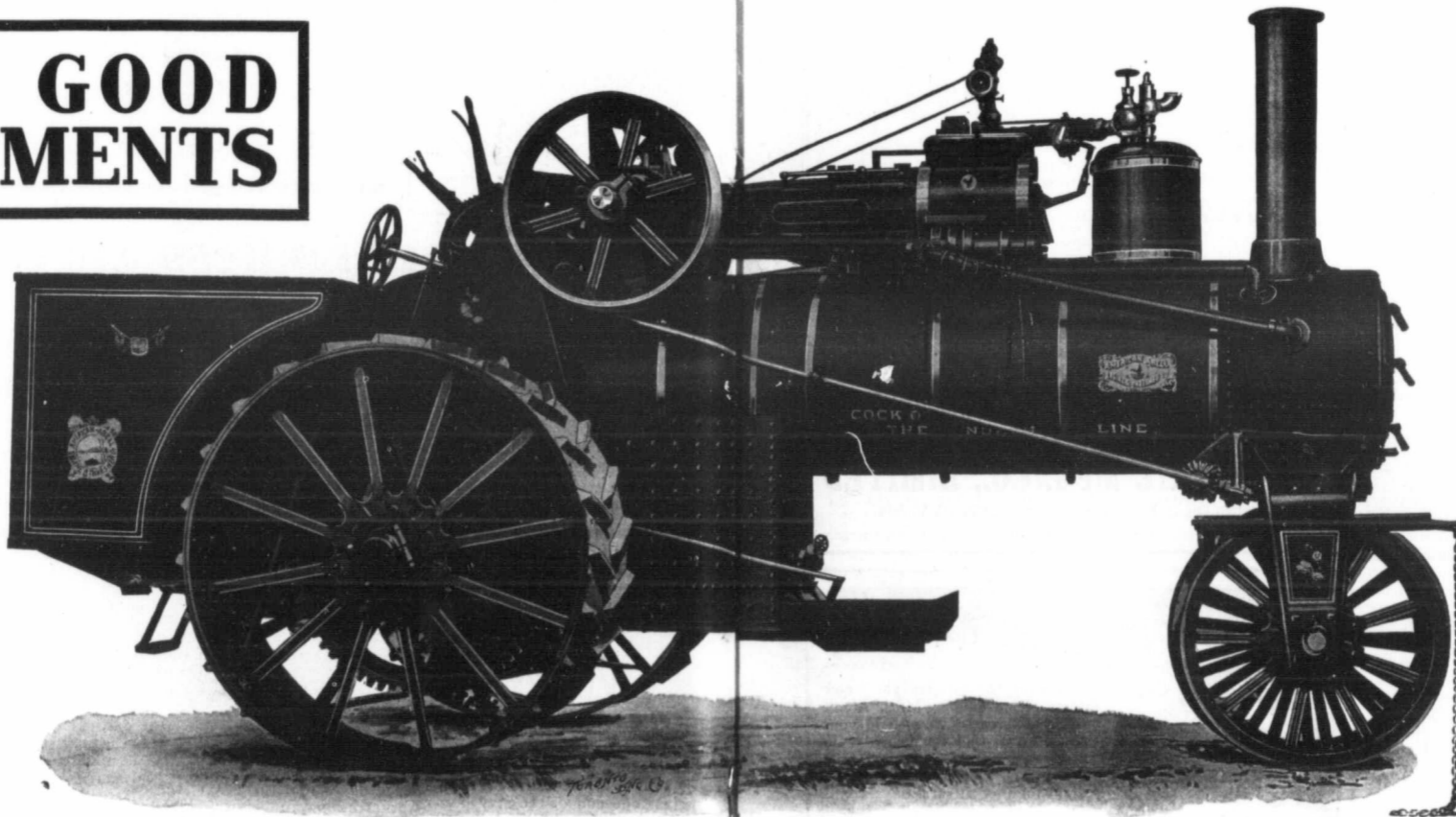


# THE WAY TO MAKE MONEY

## MAKE GOOD INVESTMENTS

The way to make Steam Plowing pay is to buy a good plowing engine. The American-Abell Engine and Thresher Co., Ltd., make the very best line of Plowing Threshing Machinery on the market. **Simplicity, Durability and Efficiency** are the watchwords at our factory. **Honest Dealing and Service** are the watchwords at our selling headquarters.

We have had many years of experience in manufacturing and selling plowing and threshing machinery, and have made a study of what sizes and designs of engines are the most efficient and the best adapted for the various conditions that exist in Western Canada, with the result that we have plowing and threshing machinery that will meet the



certain size and design of an engine to run a certain size power plant.

When you have the proper engine and plows it is easy to do a good job of plowing. Good plowing is the first step towards a good crop. It is also necessary to do good cultivating to prepare a good seed bed before planting the seed.

If you buy a steam plowing or threshing outfit you buy it to make money with. If you get the right kind and size you will make money.

There are many makes of Plowing and Threshing Machinery, but we believe that there is only **One** best line and that is the tried and true 'Cock o' the North line, made and sold on honor.

We want to sell to you, but we want your friendship more than we want your business. If we can get your friendship and use it right, you will give us your business.

requirements of the large or small farmer, or the man who goes into the business for commercial purposes.

Steam plowing is a big business, is a profitable

business and a pleasant business if you have an engine made for the business. Our engines are designed, fitted and assembled by men who are masters in the

business of plowing and threshing; men who have had years of experience in the field, and know from personal experience just what is required of an en-

gine, and know just what size of an engine is required to do certain things. It is just as necessary to have a special built engine to plow with as it is to have a

Our Creed: We believe that honest goods can be sold to honest people by honest methods

It is a pleasure for us to show our goods, you should look them over and compare them with other makes, then judge for yourself. Make our office your headquarters when in

WINNIPEG

REGINA

SASKATOON

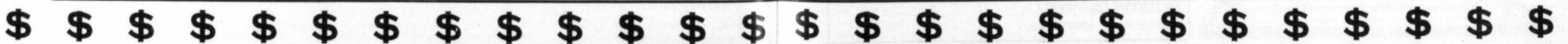
TORONTO

CALGARY

EDMONTON

# American-Abell Engine and Thresher Company, Limited.

We Represent THE ADVANCE THRESHER CO., BATTLE CREEK, MICH., AND THE MINNEAPOLIS THRESHING MACHINE CO., HOPKINS, MINN.





**Working With Poultry for a Living**

By J. R. Cote.

There comes a time in the lives of a great many people when conditions change, and you are thrown out of a series of pre-arranged plans and compelled to do something entirely different. To a preacher it may be sickness that causes him to be forced to leave his chosen work and do something else for a livelihood. The ordinary preacher is not blessed with a great abundance of this world's goods, so says Rev. E. B. Temples, and it means that he must do something to support his family. The same thing is true of the shop-worker. He has been confined for years in the shop and his health fails and he must give it up. What will he do? He has always worked behind the bench and to be forced to give it up is no less than a great calamity. He has a family to look out for and there seems to be nothing in sight. It is true of many men in many classes of life.

To the average man the poultry business seems a small thing. They do not think for a moment that they could make a real living out of poultry. It is true that they could not from the very start or within a year or two, but if their health necessitates being out in the open there is nothing that presents so good an opportunity as the poultry business.

It is essential, however, that one goes into it with the feeling that it is to be a business. That they are working at it to make a living. Keeping poultry for pleasure and keeping poultry for a living are two entirely different things. In the one instance the matter of food for a few is not much of an item. The labor is but pleasure. The results as to egg production may be meagre, but still satisfying. While with keeping them for the real profit and the means of making a living, there must be a good egg yield and profitable returns on all sides.

It is possible to make a comfortable living from poultry after the first year. The getting started is quite a proposition when one has to buy stock, build poultry houses, etc., but after the first year these things do not have to be done over again. Of course there is the constant repetition of things from one year to another, but that is true in any business. The best thing to do, however, is to buy the best stock that you can possibly afford and breed from them, keeping all your pul-

lets the first year and selling the surplus cockerels. The second year you will have a few hatching eggs to sell, and by judicious advertising these may be sold at a fair price. The second year you will hatch all the birds you can. Some of the early ones, that you will not care to keep, such as imperfect specimens, you can sell for broilers and get a good price. Later you can keep culling and constantly marketing the birds that do not appeal to you as profitable birds to keep for good utility purposes. Later on in that year you will have a few pullets to sell and quite a number of good cockerels. Now here is where the value of a good start comes in. If you have been breeding from the best obtainable stock you will have no trouble in selling your surplus birds at a good figure by stating the strain and something about the goodness of the birds.

I know of a man who lives near by, who started three years ago with a few eggs for hatching. He kept at it constantly and to-day he has one of the finest stock of birds that one wishes to lay eyes on, and right now this man gets a net profit of about \$20.00 a week from the sale of his eggs, and he says his hens are not laying yet. I know of a man in the States who made \$18,178.53 in one year selling chickens and eggs; all he had was a stock of 1,638 birds and he thus made every bird on his place bring him \$11.09 profit each in twelve months. That man is not lucky, but simply worked with a purpose and succeeded in getting there.

It is up to you to start right and succeed. If I can be of any help to you I will certainly do all I can and by starting right, you will soon build up a business that will mean a living to you and in a few years it might mean a fortune to you. If you start—start right and with good stock—breed carefully and stick to it.

**The Sheep Industry**

The impression is evidently gaining ground amongst the breeders of pure bred sheep in Canada that the only prospect of securing for themselves a steady annual market for their surplus stock lies in the direction of the encouragement and development of sheep raising, as a business in our own country. A year ago they were confronted with quarantine restrictions imposed by the United States, which created conditions for which they were not

**PROVEN**

That the **Magnet** Cream Separator Square Gear construction is built mechanically correct.

**PROVEN**

By over twelve years' daily use in Farm Dairies in Canada that the **Magnet's** one piece skimmer does better skimming than Forty Cones.

**PROVEN**

By the **Magnet** that it is not necessary to fill the bowl of a Cream Separator with a lot of cones in order to skim clean.

**PROVEN**

That the **Magnet** one piece skimmer ensures cleanliness, separates all foreign matter from milk and cream and all parts cleaned in from three to five minutes.

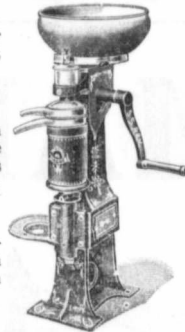
**PROVEN**

That the **Magnet's** double supported bowl will not wobble and therefore gives perfect skimming.

**PROVEN**

That you cannot clean a lot of cones in the worm gear separator bowl by stringing them on a wire, each must be washed and dried separately if you want clean butter, a waste of from 15 to 20 minutes' time after each separation.

Buy a **Magnet** Cream Separator and avoid all dairy troubles. The **Magnet** is fifty years away from the scrap heap.



**THE PETRIE MFG. CO., LIMITED**

Vancouver, Calgary, Regina, Winnipeg, Hamilton, Montreal, St. John

All Point the Way to Success



Name over the farmers you know that own good Fanning Mills. Aren't they the prosperous (progressive) men in your neighborhood? Aren't they the men who are making a success of farming? Haven't they good bank accounts? Don't you think they are able to point the way to success?

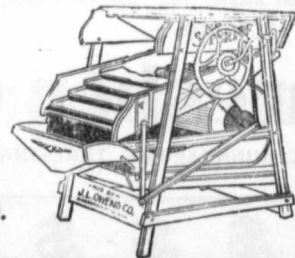
THE IMPROVED  
**NEW SUPERIOR**  
Is the best of all Good Fanning Mills

Ask any of your neighbors who own one. Find out if what we say is so when we say that the New Superior is the best built machine. The most thorough in its separation of any kind of grain, and is the King of Wild Oat Separators.

**"THE PROSPEROUS FARMER IS THE FARMER TO FOLLOW"**

Why don't you follow the way these farmers have taken?

We want to send you our booklet on our IMPROVED machine: OUR 1911 MODEL. We have improved our mill, increasing the capacity fully 35%. Our New Wind adjustments make it so you can separate by weight, which is the proper system you want in grading your seed oats. We have lots of other things we want to tell you about, which is to your interest. Write now. Be sure and see the Improved New Superior before buying any Fanning Mill and then judge for yourself.



The Harmer Implement Co.  
182 Princess St., WINNIPEG, Man.

prepared and which, in the end, depressed sales in a marked degree. During the greater part of the past season the market has no doubt been a buoyant one, but latterly the feeling of confidence in a continuous demand for Canadian sheep in the United States has steadily declined. The recent sheep sales at the International were none too satisfactory for Canadian breeders, and it was evident that the outlook for a steady or increased trade was not particularly encouraging.

It may seem most natural that Canada should be able to obtain a firm and advantageous foothold in the markets of the United States for her sheep and wool, but it is now quite clear that, until the trade policies of the two countries become more firmly established, the Canadian sheep industry, when depending so largely on the United States for its export market, rests upon a very unstable foundation. Fortunately, however, other and very encouraging outlets are available. It may be noted at this point that the home market is not unworthy of consideration. This year not more than five carloads of lambs were shipped to East Buffalo from Ontario, while in 1907 almost 1,000 carloads went to that city. The Toronto and Montreal markets have absorbed practically the whole output during the past season and at prices equivalent to that paid for similar grades in Chicago and Buffalo, a fact in itself indicating the strong and growing demand for mutton on the Canadian market.

Notwithstanding the proximity of the United States, the safest outlet for the Canadian product is still to be found in the British and, possibly at an early date, in the European markets. The English wool market is the centre of distribution for the product of the great wool-producing countries of the world, including Australia, New Zealand and the Argentine. If the Sheep Industry in this country can ever be developed to reasonable proportions, it is not to be expected that any more natural or reliable market can be found for surplus Canadian wools. In addition to this, when the extent of the industry may make possible the necessary grading and sorting of the product, such that it may be placed upon the British market in attractive condition, the prices realized may be found much more remunerative than those at present obtained.

It is clear also that the great and natural outlet for our surplus meat products, including those of mutton and lamb, is to be found across the sea, where the producing power of the land is unable to yield sufficient for the necessities of the crowded populations of long inhabited countries. Great Britain has hitherto absorbed all the surplus of the world's meat supply, but it seems probable that she is shortly to have competitors in the market for foreign meats. There is a movement in Austria and Ger-

many which will eventually result in the opening up of these countries to a chilled and frozen meat trade. A steady market is without doubt thus assured for all the mutton that Canada can produce.

The breeders of pure bred sheep, therefore, if our argument holds, would do well to direct their best energies to the development of the sheep industry in our own country. As a matter of fact, a strong local demand is the safest market in the long run. A material increase in the sheep population of the country would create a thoroughly healthy home market for breeding sheep and one much to be desired. The opportunities in this direction may well be worthy of somewhat careful consideration.

It is fortunate that, at this time, the Federal Government is interesting itself in the sheep industry of the Dominion and is making a thorough investigation, with a view to the adoption later of a policy which may lead to its general encouragement and development. There is reason to believe that sheep raising in Canada may become at no distant date a decidedly profitable industry, and the Minister of Agriculture has undertaken a measure which we may expect to be productive of much good result. We learn that the members of the investigating commission, having completed their researches in the United Kingdom, are to spend the next few months in studying conditions in the Dominion and are now engaged in interviewing a number of the prominent sheep breeders of Ontario. We are hopeful that they may meet with the full co-operation of sheep raisers and farmers generally in the prosecution of their work.

#### Lubricating Axles.

Many lubricate axles only to prevent wear; they overlook the fact that by reducing friction they lessen the draft. A well-oiled axle lightens the load. Oil to axles is best governed by the rule of "little and often." If too much is used it exudes at the ends, gathers dust, and thus the lessening of the friction is not so great, while oil is wasted. In nearly every case where the lubricant is wasted it is because it is stiff not fit to be used, for a good lubricator costs enough to keep the average man from allowing it to waste. Oil that "gums" much is unfit to be used. Castor oil is a splendid lubricator for axles, but used alone may gum too much. This is corrected by the addition of refined coal-oil (that used for lamps), or lard; the coal-oil is better. Some wagons are yet made, unprovided with metal shields or "thimbles," being banded with steel; for these some tallow may be used, as it is one of the best lubricants when iron and wood are brought together. Pine-tar is a good addition to the lubricant for wagon axles and is a part of most of the "axle greases" sold. Plumbago is an-



Over 1,200,000 in use

## DE LAVAL

### Cream Separators

FIRST—ALWAYS BEST—CHEAPEST

#### THE WORLD'S STANDARD

Ten years ahead of all others in every feature of separator practicability

Beautiful in Design Perfect in Construction Everlasting in Daily Use

Send for handsome catalogue illustrating and describing the latest styles and sizes of machines in detail, to be had for the asking.

The De Laval Separator Co.

Montreal - Winnipeg - Vancouver

## Dry Your Clothes on a Wet Washday

### With a New Perfection Oil Heater



When clothes can't be hung outside, and must be dried in a room or cellar, the New Perfection Oil Heater quickly does the work of sun and air. You can hang up the wet clothes, light your Perfection Oil Heater, open the damper top, and the heat rises and quickly dries the clothes.

Do not put off washing to await a sunny day in order to avoid mildew. Dry your washing any day with hot air from a

**PERFECTION**  
SMOKELESS  
OIL HEATER

Absolutely smokeless and odorless

It gives just as much heat as you desire. It is safe, odorless and smokeless.

It has an automatic-locking flame spreader, which prevents the wick from being turned high enough to smoke, and is easy to remove and drop back, so the wick can be quickly cleaned. Burner body or gallery cannot become wedged, because of a new device in construction, and can always be easily unscrewed for rewicking.

An indicator shows the amount of oil in the font. Filler-cap does not need to be screwed down, but is put in like a cork in a bottle, and is attached to the font by a chain. Finished in Japan or nickel, strong and durable, well-made, built for service and yet light and ornamental. It has a cool handle and a damper top.

Dealers Everywhere. If not at yours, write for descriptive circular to the nearest agency of the

**The Imperial Oil Company,**  
Limited.



other good addition; its fine particles fill the small irregularities in the opposing surfaces, thus making them smoother. A mixture of lard and plumbago is good for the journals of reapers, mowers, etc.; we have found castor oil and refined coal oil also good for this use, particularly for use on the "sickle-driver." For carriages nothing is better than castor-oil and a very little lard oil or refined coal oil. Lard oil alone has not "body" enough for the journals of reapers, mowers, etc.; add a little castor oil, or tallow or plumbago. While the axles of reapers, grain-drills, hay rakes, etc., will not need lubricating so often during the year as the axles of the wagon, oiling them must not be neglected, as the rough ground the wheels pass over makes the wear on unoled axles quite rapid.

**Incubators, their Use and Abuse on the Farm.**

By T. Ryan.

Some years ago, when the incubator was not quite as well known nor quite as popular as it is to-day, I came across a man who, from his conversation, you would have thought knew all about chickens and, perhaps, about nearly everything else on earth, and off it, also. He was laying down the principles of incubation with overweening authority, and one of his strongest statements, to which he always returned as a basis for his arguments against artificial incubation, was:

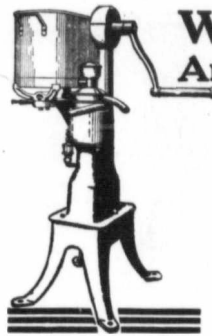
"A man can't beat nature, and it's foolish to try. The only way to hatch chickens satisfactorily is with a hen. We can't gain anything by interfering with nature," or words to this effect.

This man wore clothes which nature never provided; he lived in a house which nature did not build; ate prepared foods which nature never supplied, and drove to town in a wagon in the making of which nature had no hand other than to supply the wood. Doesn't it strike you as humorous that a man living under the conditions we are living under to-day should reason so absurdly, when half the things he was doing every moment of his life were most likely contrary to nature?

Such a man also might reason that we should not have seed selection, because nature does not select seed; that we should not practice selection in breeding our animals, but let them breed as nature will; that we should not employ machinery to plant the seed, for has not nature provided wind to scatter it broadcast?

Everyone quickly recognizes how foolish such reasoning is when applied to these other things, and yet there are far more farm folks than you and I imagine who say, when it comes to incubators, "You can't beat nature at such things, and it is foolish to try."

We have beaten nature in many things, and we have to, to live nowadays and make progress.



**Why IHC Cream Harvesters Are The Choice of Careful Farmers**

Careful farmers judge the cost of a machine by its value. They know that a cheap price means nothing if quality is lacking. And they know that it is genuine economy to pay a little more for a machine that is worth double.

A high standard of values has been set by IHC Cream Harvesters. No one without IHC facilities can ever reach that standard. Today an IHC Cream Harvester simply means the utmost for your money—the biggest value you can get at any price.

If you investigate all cream separators you will appreciate IHC features and advantage all the more.

Comparison proves IHC superiority in materials, construction, and efficiency. For instance, you will find that IHC Cream Harvesters are the only separators with gears which are dust and milk proof and at the same time easily accessible; IHC Cream Harvesters are protected against wear at all points by phosphor-bronze bushings; IHC Cream Harvesters are constructed with larger spindles, shafts, and bearings than any other separator, insuring greater efficiency and durability; the IHC bowl is free from slots or minute crevices—that is why it is so remarkably easy to clean.

You will find an IHC in a style and size to meet your needs. Dairymaid is chain drive—Bluebell is gear drive. Each is made in four sizes, from 350 to 850 pounds capacity. The IHC local dealer will be glad to explain the above IHC Cream Harvester advantages and many others, all of which have much to do with your dairy profits. Ask him for catalogues and all information, or, write nearest branch house for the information desired.

CANADIAN BRANCHES—International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Toronto.  
**INTERNATIONAL HARVESTER COMPANY OF AMERICA Chicago U S A**  
(Incorporated)

**IHC Service Bureau**  
The purpose of this Bureau is to furnish farmers with information on better farming. If you have any worthy question concerning soils, crops, pests, fertilizer, stock, etc., write to the IHC Service Bureau, and learn what our experts and others have found out concerning those subjects.



Scientists and doctors by the thousands are working hard every day to beat nature, and in many cases they have done what the incubator manufacturer has done—surpassed her in many respects.

Poultry industry is a great industry. It is one of the greatest agricultural wealth producers we have, and this in spite of much neglect of the common fowl by our farmers. To refuse to progress in the handling of chickens by adopting machinery is as foolish as to refuse to farm by up-to-date methods; and, furthermore, the demands of our egg and poultry markets are such that no man can hope to raise chickens on a sufficiently large scale to make a success of the business without adopting the artificial method of hatching. The man who has to sit around waiting for a broody hen will stand little chance competing with the man who had the new wooden hen, and he had better give up chicken raising as a commercial venture.

I don't wish my readers to get the idea from the above that I think the incubator has every advantage and that "Biddy" has none. The hen certainly has certain natural advantages which are hard to beat. One of these is that she has an element of sense and is what we might call "fool proof." Her unreliability as to broodiness is a great drawback, but once she sets to her task she generally sticks to it in spite of all the obstacles thrown in her way by people who don't know any better.

The manufacturer of the incubator can't imitate the hen in this. He can't put brains into his ma-

chine, so he can't make it "fool proof." This is the greatest drawback I see in the incubator, but as their makers can't help this, you and I will have to make the best of it.

Running an incubator does not require an unusual amount of skill, however. It is not a complicated machine which takes a mechanic to operate. It is a very simple idea, after all, and many a youngster will be found intelligent enough to run it successfully. All that is demanded is an ordinary degree of common sense; a careful watch every little while to see that everything is going as it should be, and a willingness to leave things alone when there is no absolute call to do anything else.

Follow the manufacturers' directions closely and don't add any of your own. Most manufacturers have lived with their machines for years and know best just how they will work to advantage. They want you to get as big a hatch as possible, because, if you are satisfied, you are going to say something about their incubator to your neighbor, and this will mean more sales for them. There may be a company here and there that makes incubators to sell and not to hatch, but if you buy your machine from a man who has a reputation and is well known, you will not run chances of being swindled.

Then, too, the incubator manufacturers have spent a great deal of time studying up the principles of everything that pertains to the egg, from its beginning in the mere germ to its final transformation as a "peeping chick." They must do this to work intelligent-

ly, and their study and experience in this regard is our gain.

The advantages of the incubator, which have so established them in popular favor, are too well known to need special mention. They hatch eggs in large quantities at a minimum of trouble, and are ready whenever you are ready. You do not have to wait until your wooden hen becomes broody and be subjected to the tantrums of the natural mother. The incubator hen is always broody and is too stolid to have tantrums. Once you set it going, all that is required is to have someone keep an eye on the thermometer, both in the room and in the incubator, turn the eggs daily, and see that the lamp is well trimmed and kept supplied with oil. Follow the manufacturer's directions closely.

It isn't so much of a task as to be beyond the ability of an intelligent boy or girl or one of the women folks, who can look after it with ease. It is best to let one person handle the machine, however, during the whole three weeks and not change around from day to day.

Certain conditions, of course, are necessary for successful hatching, and these must be provided. If they are not, you must not blame the incubator, but yourself. Much of the blame placed on the incubator's failure to work is due to neglect to take care of the following simple precautions:—

In the first place you must have fertile eggs. Nothing under the sun will ever get anything out of an infertile egg. If you buy your eggs this is something you cannot be sure of, unless you know

the person from whom you buy them sufficiently well. And he must understand the difference between a fertile and an infertile egg, and the principles influencing the production of either. Many don't.

The location of your incubator is another important point. It can be put in the kitchen or in the cellar, but any place will do where there is good air of even temperature, and which is out of the way of interference of anyone. This place should be easily accessible so that the person appointed to look after the machine every day will not neglect it now and then, because of the trouble connected with doing this.

The cellar is one of the best places to run an incubator that is offered the farmer, but there are good and bad features about the cellar. It generally affords less variability in temperature, which is quite an advantage, and it is accessible, while being at the same time, sufficiently out of the way to prevent passers-by being tempted to experiment. The main objections to the cellar is that so many of them are filled with impure air—air which is often overloaded with odors of the vegetables stored therein. Sweet air is necessary and you can't expect to have success with your hatch unless you provide it.

Be careful about the ventilation—not too much nor too little; also watch the temperature closely. Keep the lamp trimmed and filled so it does not smoke and never let it go out through forgetfulness. The temperature must be maintained at an even degree; fluctuations of several degrees are disastrous. With these suggestions you should have no difficulty in running any machine you may buy.

As to buying an incubator, it depends on whether you look upon your poultry as a source of profit or merely as a family convenience. To the man who will never keep more than 50 or 100 hens, an incubator is of little value; he would scarcely use it enough to make it pay. But to the farmer who recognizes the profit there is in poultry products and realizes that chickens can be raised in large quantities most economically on the farm, I would say by all means buy an incubator. You can't work without one.

#### How About your Ice Supply.

More and more farmers each winter are putting up their own ice for the next summer's use. That which a few years ago was looked upon as a luxury is now considered by an increasing number of farm folks as a necessity. It has come to be so that a farmer would about as soon think of getting through the winter without coal as through the summer without ice.

In putting up ice care must be exercised that it is not taken from polluted sources. Much harm is sometimes done by using ice from contaminated water, and the germs of several diseases, con-

trary to general belief, are not killed by freezing. Ice does not "freeze itself pure."

Generally speaking it is better to take ice from a running stream than from a small lake or pond. But the stream should be rather a large one to be safe, and not subject to contamination by sewage from towns or drainage from farms or feed-yards. If care is taken to keep stock and waterfowls from a clean pond for several weeks before the ice is to be taken, it will be a comparatively safe source of supply.

Perhaps the safest way to put up ice to make it from well water. This is not a difficult process, nor very expensive, though tedious. You can have a number of forms of convenient size made from sheet-iron. These are filled, and in twenty-four hours the ice will be frozen solid enough to pack, when it may be removed, and the process continued over and over again. The forms should be made with slightly sloping sides, a little smaller at the bottom than at the top, so

that they will slip from the ice easily, and also so that they may be conveniently stored one within the other when not in use.

#### The Plodder and the Planner.

I have in mind a couple of farmers I used to know very well. One of them was about the most industrious man I ever saw. It was simply astonishing the way that man would work. He was generally up at four o'clock in the morning and he worked as long as he could see how in the evening, and sometimes continued by lantern-light.

He seemed to be a regular pack-horse, but never got ahead because he hadn't the right kind of brains. For example, he insisted on making his horses work as hard in winter and summer as he did, and as a result in a short time his teams would play out and lie down and die. Rough treatment, of course. He lost enough in horses every winter that were doubly worked and half-fed and cared for to have left

a reasonable profit on the farm every year.

He usually kept some stock, but they were a poor lot and impossible to fatten. His cattle were of the scrub variety and after he had fed one of them for three years it was still a runt and sold in the market as a cull which brought from two dollars to three dollars less per hundred-weight than the first-class cattle that went onto the same market.

This industrious man was no reader. He worked so hard that he was too tired to read at night, and he worked so many hours that he had no time to read during the day.

As a result, he never adopted any improved methods of farming. He never seemed to realize that there was any difference between good and bad seed. Wheat was wheat and oats were oats with him. He was just as likely to plant poor seed which was only half developed and of an inferior breed as good wheat. His work was done in the hardest possible way.

**WE SEND THIS 100-PAGE  
CLOTH-BOUND VOLUME  
SEND US THE COUPON TO-DAY**

**FREE**

**YOU** only need to tear out the coupon, fill it in and mail it to us to get this book. "How to Build Rural Telephone Lines"

is a stiff-covered, cloth-bound book of 100 pages, crammed full of hard facts about the building of community-owned telephone lines. There is no theory—no clever writing in this book. It is full of nothing but actual facts. It tells the facts about the organization of numerous rural telephone companies and the success they have achieved, the facts you need to know to organize such a company in your own community, the facts about mutual-company organization and about stock-company organization and about practical construction work and how you and your own neighbors can do this construction, the facts about the equipment necessary, the facts about government regulations on the matter—in short, it tells you every fact you need to know, from the moment you dream

of the possibilities of a telephone system in your community, until the line is actually erected and you are able to talk over it. This is the most complete book of its kind ever published anywhere; it is the one single volume in existence that gives the farmer every detail of information he requires to organize a telephone company and construct a rural telephone line from start to finish.

You owe it to yourself to know all there is to know about rural telephones. Farmers all over the Dominion are organizing companies of their own; if such a company does not already exist in your locality, it is only a question of time until one will be formed, and meantime you should be becoming possessed of the facts.

**TEAR OUT THE COUPON  
SIGN AND MAIL IT**

229

**The Northern Electric  
AND MANUFACTURING CO. LIMITED**

Manufacturer and supplier of all apparatus and equipment used in the construction, operation and maintenance of Telephone, Fire Alarm and Electric Railway Plants. Address our house nearest you.



**MONTREAL TORONTO WINNIPEG REGINA  
CALGARY VANCOUVER**



480  
**The Northern Electric and Manufacturing Co., Limited**  
Gentlemen,

Please send me FREE, one copy of your 100 page, bound and illustrated book on "How to Build Rural Telephone Lines".  
Name.....  
Post Office.....Prov.....

This man was always hard up. He always got the poorest prices for what he raised, and his crops were always small in spite of all the work he did. He simply wore himself out with hard work, and although he always lived hard, he never managed to get ahead, simply because he did not mix brains with his energy.

Near him lived another man of different type. He was never what was called a hard worker. He was never out of the bed before daylight, and unless there was something exceedingly pressing he and his men quit work winter and summer a little before night, but somehow everything he did counted.

He planted only the best grains he could get hold of and made a study of his soil and what crops were best adapted to each of his fields.

He dressed well, lived well and educated his children, and still somehow or other he managed to accumulate a great deal more money than the man just across the road who worked sixteen hours each day and never seemed to spend a cent that wasn't absolutely necessary to keep him and his family alive.

The difference between the two men must have been simply a difference of ways of thinking. The one made of himself a work-mule, a burden-bearer, and nothing more; the other was a general who planned his work and made his plans count. The man that used his brains knew that it was just as easy to raise a horse that would sell for two hundred dollars when it was three years old as to raise a plug that would only sell for seventy-five dollars or perhaps less, and was hard to sell even at that price. He insisted that there was no economy in just growing ten bushels of wheat to the acre when the same ground might under the proper treatment be made to yield thirty. Don't you think this latter man's ideas were better?

### Care of Horses' Feet.

A good foot gives the impression of a well-designed pedestal, being neither too large nor too small, having correct direction in relation to the uprightness of the limb and slope of pastern. To insure these conditions, it is necessary to commence the care of the foot very early in its development.

Training the colt's foot is usually neglected, under the belief that the hoof will wear normally and preserve normal shape and direction under normal pasture conditions. While this is usually true, it often happens that the foot is not normal in the beginning. It may be too thin walled upon the inside, which will wear down a little faster, thus causing the outer wall to slope more and more until the toe is turned badly outward. A similar defect in the outer wall causes an turned or pigeon toe. These and other common defects may be material-

ly remedied when noticed early by proper trimming of the hoofs.

The illustration at the right shows proper slope of pastern and a well-trimmed hoof. The other two illustrations show untrimmed hoofs and pasterns that slope too much.

### How to Trim Feet of Colts.

Close trimming is to be avoided at all times as tending to produce tenderness. When it seems necessary to trim close on one side in order to make the wall of nearly the same length at the quarter and heel, it is better to take off but a portion of the longer wall, then repeat the process in two or three weeks as often as may be necessary to level the foot properly.

Colts which are so deformed in their feet, especially their front feet as to suffer deviations in gait such as winging and padding, may be greatly benefited by this method of caring for their feet. The change may be brought about more rapidly by very careful shoeing in the hands of a skilful farrier, but this is seldom advisable except where the colt is handled daily.

### Handling the Working Horse.

Proper care of the foot of the mature working horse requires a little time every day in picking out the dirt which accumulates and packs in the clefts of the frog and under the shoe. This simple procedure is required in a great many large stables in the city not only to insure greater comfort and health to the hoof, but for the additional reason that nails, glass, gravel, etc., are often discovered in time to prevent severe lameness and loss of usefulness for indefinite periods.

A good hoof may be easily made and should be kept hanging under the harness hook where it will not be overlooked. Idle animals in the stable should have their hoofs attended to daily, since the manure which collects and packs in and around the frogs has a bad effect upon the horn and produces a condition which is very favorable for the working of the organisms which cause thrush. One often finds animals whose feet are so tightly packed with manure and bedding as to make it difficult to remove. The effect upon the sole and frog is very plain to the experienced eye when such a foot is cleansed.

During the dry summer months and while standing on board or other dry floors, there is a marked tendency towards drying of the feet. This is especially true of the front hoofs, and particularly if the shoes are left on. This can be easily prevented by soaking the feet once a week in a water bath for half an hour, then drying carefully with straw or sacking, and greasing the hoof, especially the lower border of the wall and sole with good lard or vaseline. The water bath should not come up to the hair line of the hoof, especially during the cold months, as it may cause the



## TO BE SURE OF A GOOD MANURE SPREADER LOOK FOR THE IHC MARK

THERE is one way to be sure of satisfaction in buying a manure spreader—one way to be sure of highest quality and greatest value. See that the IHC trade mark is on the spreader you buy. The proof is the experience of thousands of careful farmers—and the records of IHC spreaders on their farms.

There are many reasons for the efficiency, strength, simplicity, and durability of IHC spreaders. First, they are made on the right principle—second, of the highest quality materials—third, by master workmen,—and fourth, in the best equipped factory for the manufacture of manure spreaders.

## IHC Manure Spreaders

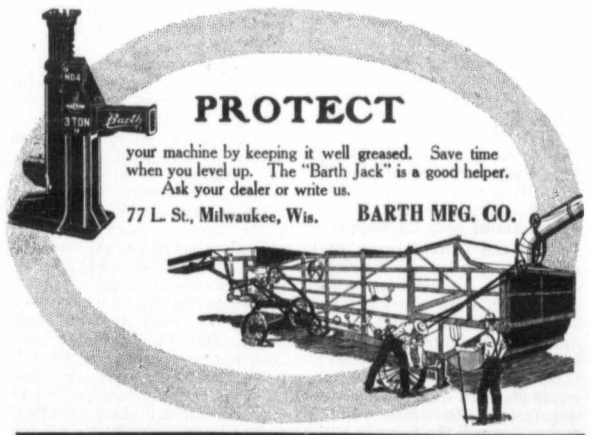
are built up to a standard—not down to a price. They are made as all manure spreaders ought to be made. There is no experimental or "freaky" construction in them. They stand up and work perfectly month after month and year after year.

Call on the IHC local dealer and let him show you the many IHC advantages. Note the easy adjustment of the feed, enabling you to spread just the right amount of manure in just the right places. Note that the beater bars are designed to thoroughly pulverize every particle of manure. Note the wide tires, the roller-bearings, and light-draft features. Note all the other IHC features. Then remember that you are assured of satisfaction by the IHC reputation.

You can have a choice of these spreaders. The **Corn King** is of the return apron type, and the **Cloverleaf** is of the endless apron style. They are made in several sizes ranging from 30 to 70 bushels capacity.

If not convenient to see the IHC local dealer at once, write nearest branch house for catalogues and all other information you desire.

CANADIAN BRANCHES—International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.  
INTERNATIONAL HARVESTER COMPANY OF AMERICA CHICAGO U S A  
(Incorporated)

## PROTECT

your machine by keeping it well greased. Save time when you level up. The "Barth Jack" is a good helper. Ask your dealer or write us.

77 L. St., Milwaukee, Wis. BARTH MFG. CO.

**Don't Fail to Renew Your Subscription Before it is Too Late.**



## HA! HA! HA!

"Well, I'm blest! So this is one of those so-called metal roofing guarantees I've read about," laughs the Wise Man of Metal Town.

"It certainly is a good joke, for it doesn't really guarantee anything to anybody, and isn't legally binding. Ask your own lawyer and you'll find I'm right."

"Stripped of all its exceptions and provisions I don't see how anyone could be serious about it."

"I go by what I know has been done, not by what is promised. For instance, I know that 'Eastlake' Metallic shingles have been in use for twenty-five years right here in Toronto, where they're made, and that those same shingles are in perfect condition now."

"Just listen here a minute. I'm getting serious now. The Metallic Roofing Company began to make metallic shingles years before anyone else in Canada. They were made right when they were first made. The Metallic Roofing Company have been continually making new designs for ceilings and walls, fronts and cornices, but as for shingles they have never seen an improvement on the 'Eastlake' steel shingles which have been made, laid and proven for twenty-five years."

"I've noticed that most metal shingle manufacturers change their pattern so frequently that I'm led to believe they, themselves, haven't much confidence in their own goods. Yes, they even change the name to cover up some weakness in a previous product."

### "TWO OTHER PERSONS' SAY-SO'S"

The Metallic Roofing Co., Limited,  
Toronto.

Simcoe, Ont., April 9th, 1908.  
Dear Sirs:—We have handled your 'Eastlake' Shingles for nearly a quarter of a century. They have been on the Court House, Free Library and other public buildings in this town for 18 years. We have used very large quantities during the past 25 years, and they have always given first-class satisfaction, and have never required any repairs.

(Signed) MADDEN BROS.,  
Tinsmith and Hardware Merchants.

The Metallic Roofing Co., Limited,  
Toronto.

Lacknow, Ont., April 9th, 1908.  
Dear Sirs:—I take great pleasure in testifying to the good qualities of your 'Eastlake' Shingles. We put your painted shingles on our Town Hall here in 1886, 23 years ago, and although they have only been painted twice since that time they are in good condition yet. I consider the lock on the 'Eastlake' the very best, and believe that a roof covered with the galvanized 'Eastlake' will last for ever.

(Signed) THOS. LAWRENCE,  
Hardware Merchant.



"I'm prejudiced, you say? Of course I'm prejudiced, but it's a prejudice founded on years of active use of the metallic goods made by The Metallic Roofing Co. It's an old man's prejudice based on a long experience."

"Write for booklet which tells more about 'Eastlake' Metallic Shingles. They are sure proof against fire, lightning, rust or weather in all climates. They are the easiest and quickest to put in place and the most durable when laid. If you send the measurement of any roof an accurate estimate of cost will be sent free."

—The Philosopher of Metal Town.

## The Metallic Roofing Co.

Limited

TORONTO and WINNIPEG

Agents wanted in some sections. Write for details, mentioning this paper.

skin to become chilled and be followed with a case of scratches.

#### Making a Hoof Bath.

The water which is taken up by the hoof enters the lower border through minute openings and very little, if any, through the side of the wall. It is, therefore, unnecessary to have more than an inch of water in the tub. This practice is made easy by a great many who have constructed soak tubs of 1½ inch lumber, four inches deep, nearly as wide as the

stall, lacking but two or three inches so that it may easily be turned up on edge and removed, and about four feet long if for the front feet alone. This can be placed in the rear of the stall for soaking the hind feet when necessary, but if one cares to make a tub as large as the stall it will be found difficult to make it water tight as well as portable.

It is better to have a permanent soak stall. The small tub described may be left in one stall and the animals moved to it, or changed

daily from one stall to another, many users of it having it in place only during the noon hour.

#### How to Kill a Hog.

The usual method of killing hogs on the farm is to thrust a sticking knife into the throat, severing the large veins. It requires experience, nerve, and skill to do this properly. The hog should be thrown on its back and held there by an as-

sistant while the operator gives the fatal thrust. With a keen double-edged knife in his right hand, he feels with his left for the proper place to insert the knife. Having found it, he sticks in the knife, aiming directly toward the base of the tail. If properly done, the large veins are severed and the hog soon bleeds to death. If the knife veers to either side, a gash is made in one shoulder, the death is slow and painful, and the blood settles in the flesh.

# THE FUNNY WORLD



The matter on this page lays no claim whatever to originality. The one idea is to amuse, to provoke a smile. If it fulfills this mission we shall feel amply repaid for the time and labor expended in its preparation. Have you read or heard something that has made you laugh? Has it chased dull care away for a time? Then pass it along for publication in our Funny World. Such contributions will be greatly appreciated.

'Twas a proud day for Jones, junior.

For some time he had suspected when he stroked his chin that there was something there, and now he was certain of it.

With a temerity of fearful joy he pushed open the door of the local barber's shop, and breathed again when he found he was the only customer. Calmly he took possession of the operating chair, the towel had just been placed beneath his chin, when—horrors!—the door opened and in stalked those rowdy brutes from the office, Jimson, Briggs and Baggs.

"Shave, sir!" said the barber to the horror-stricken Jones.

"N-n-no," blurted out the unfortunate youth in desperation; "face washed, please!"

During the progress of a big "protracted meeting" for which the south is famous, an ardent sister of the church, who usually came in old-fashioned buckboard drawn by the family horse, was late for a particularly important service and was being severely censured by the pastor.

Explaining the reason for being late the good sister said that the horse had taken fright at a passing train and bolted and that the wreck of the rig had prevented her from being on time.

"My dear sister, such little things should not make you late for divine services. You should trust in the Lord."

"Well, brother," she replied, and there was a look of calm peacefulness on her face. "I did trust in the Lord till the bellyband busted and then I had to jump."

Little Bertram had always longed for a live pet, but as he lived in an apartment building, he had to be satisfied with toy animals.

Later his parents moved to the country, and Bertram became the happy possessor of a kitten. He hugged it close and remarked, "At last I am the parent of a living creature!"

An experienced chauffeur was taking the perfunctory state examination to determine his fitness to be licensed. The usual questions were asked, which to an expert chauffeur are as child's play, yet upon his intelligent answers of them depended his license. All went well until the examiner asked:

"And now, what would you do if you were driving the car and you met a skittish horse that was plainly afraid, whose owner held up his hands for you to stop?"

"Well," answered the chauffeur, "I could stop the car, take it immediately apart, and hide the pieces in the grass."

Mistress—"I don't want you to have so much company. You have more callers in a day than I have in a week."

Domestic—"Well, mum, perhaps if you tried to be a little more agreeable you'd have as many friends as I have."

"Do you know anything that will kill potato bugs!" asked the young man with the yellow fingers.

"Yes," said the old lady with the gingham apron, crustily, "get 'em to smoke cigarettes."

"It's so long since you called upon me," said the girl as she came down to the young man in the parlor, "that I was beginning to think that you were forgetting me."

"I am for getting you," replied the smart youth, "and that's why I've called tonight. Can I have you?"

Pat—Moike, why is kissin' your girl loike a bottle of olives?

Mike—Give it up.

Pat—Cause ef yez can get one the rest come aisy.

"Do you love your teacher, my little man?"

"G'wan. Do yer tink I'm goin' to tell youse all about me love affairs!"

Fair Visitor (in the statesman's ante-room)—May I be permitted to speak to his excellency?

Attendant (with remarkable tact)—He never refuses to give audience to beautiful young women!

Fair Visitor—So-o-oh! Please tell him that his wife is waiting to see him.

"De mule what has all his life been guided by a plow line," says parson Snowball, "is a gwine to make a plum fool of himself when he gets a fine set o' harness on him. Dis also applies to people."

"I understand that after waiting twenty years she married a struggling young man."

"Yes, poor chap. He struggled the best he knew how, but she landed him."

Cook—Taylor was always a fortunate man, but doesn't it seem wonderful that his luck should stay with him to the very last?

Kaleigh—How was that?

Cook—He was operated on for the removal of a pearl which he had accidentally swallowed while eating oysters, and when the pearl was examined it was found to be valuable enough to pay for both the operation and the funeral.

The small boy backed up against the brick wall and panted heavily.

"Teacher licked you awful hard, didn't she, Jim?" said his sympathizing chum.

"You bet she did," replied the victim.

"She never licked me so hard before. She thought I had my geogery in my pants, an' I didn't."

Uncle Josh—Doesn't it say in the Declaration that a just government derives its power from the consent of the governed?

Uncle Silas—Yes, and it do beat everything what the governed will consent to.

A gentleman on a visit to London was being shown around by a native, who said:

"Now let us go and see the Widows' Home."

The gentleman put his finger to the side of his nose and winked as he replied:

"No, thanks. I saw a widow home once, and she sused me for breach of promise, which cost me five hundred dollars. No, sir. Send the widows home in a cab."

It was on a suburban train. The young man in the rear car was suddenly addressed by the woman in the seat behind him.

"Pardon me, sir," she said, but would you mind assisting me off at the next station? You see, I am very large, and when I get off I have to go backward, so the conductor thinks I am trying to get aboard and helps me on again. He has done this at three stations."

Farmer—Here's a letter from city folks answerin' our ad., Mirandy. They want ter know if there's a bath in the house. What'll I tell 'em?

His wife—Tell 'em the truth. Tell 'em if they need a bath, they'd better take it afore they come.

He—You don't know how nervous I was when I proposed to you.

She—And you don't know how nervous I was until you did so.

"What'll your mother say to you when you get home?" said one boy.

"She'll start in by asking me some hypothetical questions," answered the precocious Willie.

"What are they?"

"Questions that she thinks she knows the answers to before she starts to talk."

Isaac (who has just recovered from typhoid): "Doctor, you have charged me for four weeks' calls; I will pay for only three weeks."

Doctor: "But I called on you every day for four weeks, Mr. Isaac."

Isaac: "Vell, dere was one week I was delicious and I didn't see you come in."

Little Willie was detected by his teacher in the act of stealing from one of his playmates. Instead of inflicting punishment, she concluded to try a moral lecture. "Bear in mind, Willie, that these temptations can be resisted if you turn a deaf ear to them."

Willie's lips trembled as he replied:

"But, teacher, I ain't got a deaf ear."

Blobbs—Mrs. Buggins is always complaining that she has so little to wear.

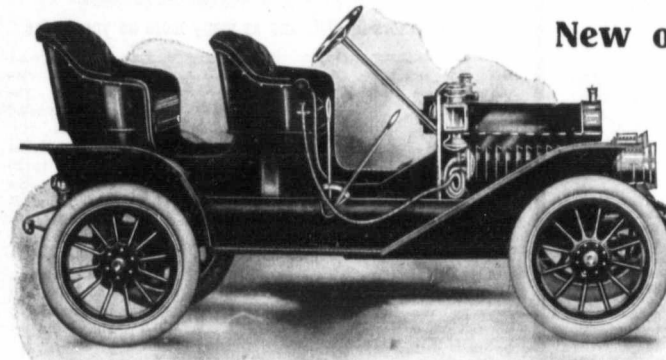
Slobbs—Well, I saw her at a ball last night and she seemed to be wearing it.

She—Will you ever love another, dear-est?

He—No, never, if I get out of this affair!"—St. Louis Republican.

# FREE REWARDS

For sending in either  
**New or Renewal Subscriptions**  
 FOR THE  
**Canadian Thresherman**  
 - - and Farmer - -



Besides the free rewards, every subscription includes three chances to win the automobile, for each subscription includes three estimates on the contest. If you send in two subscriptions, you get two rewards and seven chances on the automobile.

### LOOK

\$ 1	pays for 1 year's subscription,	1 premium and 3 estimates
\$ 2	" " " " " " " "	" " " " " " " "
\$ 3	" " " " " " " "	" " " " " " " "
\$ 4	" " " " " " " "	" " " " " " " "
\$ 5	" " " " " " " "	" " " " " " " "
\$ 6	" " " " " " " "	" " " " " " " "
\$ 7	" " " " " " " "	" " " " " " " "
\$ 8	" " " " " " " "	" " " " " " " "
\$ 9	" " " " " " " "	" " " " " " " "
\$ 10	" " " " " " " "	" " " " " " " "

Our Wheat Guessing Contest this year is on the number of kernels in twelve pounds of No. 2 Northern Wheat. To the person first guessing nearest to the number of kernels, we will give this McLaughlin Buick Automobile, valued at \$1200.00. Each subscription includes three estimates; however, by subscribing for two or more years, or sending in additional subscriptions, you can secure extra estimates as shown in the table above.

### THE AUTOMOBILE

will be delivered to the winner F. O. B. Winnipeg, all complete with oil lamp, oil side lamp, two gas head lights, generating, horn, repair outfit, jack, and pump. This is the 1911 Model "Four Passenger "Tourabout" McLaughlin-Buick Automobile with detachable rear seat.

**THE CONTEST** started November 1st, 1910, and closes June 30th, 1911. The contest is open to everyone in Canada except residents of Winnipeg. To secure estimates, all you have to do is to send in either new or renewal subscriptions for the Canadian Thresherman and Farmer. This is the third year we have put on a wheat guessing contest, and the fair and square manner in which these have been conducted in the past, is sufficient guarantee that you will have the same chance as anyone else when putting in your estimates this year. In fact we guarantee to forfeit \$2,000.00 to any charitable institution if anyone can prove that our Contest is not conducted in a fair and square manner.

**THE WHEAT** is a fair clean sample of No. 2 Northern and was procured from the Dominion Grain Inspector's Office, Winnipeg. The wheat and bottle were taken direct from the Grain Inspector's Office to the Dominion Weights & Measures Office, and exactly twelve pounds of the wheat was weighed out and poured into the bottle. The bottle was then immediately sealed up by the Ass't. Inspector of Weights & Measures in the presence of two witnesses. The bottle was then photographed and deposited with the National Trust Co. to remain in their vaults until the contest closes June 30th, 1911, when it will be taken out and counted by a board of three judges, none of whom are in any way connected with the Canadian Thresherman and Farmer.

**THE SUBSCRIPTION PRICE** of The Canadian Thresherman and Farmer is \$1.00 a year in Canada and Great Britain, and \$1.50 a year in the United States and Foreign Countries. All subscriptions are positively discontinued when they expire unless renewed. Extra subscription blanks, sample copies, etc. to assist you in forming a club, sent free on request.



One dollar pays for one year's subscription for The Canadian Thresherman & Farmer, includes three estimates on the wheat guessing contest and your choice of any one of the following books, which will be sent postpaid immediately on receipt of subscription. These books are printed in large clear type and put out in neat cloth binding.

- Pilgrim's Progress, by Bunyan
- Shirley, by C. Bronte
- Tales, Poems and Sketches, by Bret Harte
- Hypatia, by Kingsley
- Essays, by Huxley
- Handy Andy, by Samuel Lover
- Voyages of Discovery, by Cook
- Midshipman Easy, by Marryat
- Heroes and Hero Worship and Essays on Goethe, by Carlyle
- Masterman Ready, by Marryat
- Our Village, by Mitford
- Origin of Species, by Darwin
- Three Midshipmen, by Kingston
- Gulliver's Travels, by Swift
- The Tailor, by Sir Walter Scott
- Harold, by Bulwer Lytton
- Plays, by Sheridan
- Ravenshoe, by Henry Kingsley
- Vanity Fair, by Thackeray
- Peter the Whaler, by Kingston
- Wonder Book and Tanglewood Tales, by Hawthorne
- Charles O'Malley, by Charles Lever
- Historical Essays and Lays of Ancient Rome, by Macaulay
- Wuthering Heights, by Bronte
- City Mansions, by Scott
- Hard Cash, by Charles Reade
- Whitefriars, by Emma Robinson
- Poems, by Whitman
- Legends, by Proctor
- Two Years Ago, by Kingsley
- Heart of Midlothian, by Scott
- Barchester Towers, by Trollope
- Peter Simple, by Marryat
- Treasure Island and Kidnapped, by R. L. Stevenson
- Sense and Sensibility, by Jane Austen
- Bible in Spain, by Borrow
- Adam Bede, by George Eliot
- East Lynne, by Mrs. H. Wood
- Essays of Elia, by Charles Lamb
- Tale of Two Cities, by Charles Dickens
- Ivanhoe, by Sir Walter Scott
- Poems, 1830-1865, by Lord Tennyson
- Westward Ho! by Chas. Kingsley
- Sesame and Lilies, Unto this Last, and the Political Economy of Art, by John Ruskin
- The Scarlet Letter, by Nathaniel Hawthorne
- The Cloister and the Hearth, by Charles Reade
- Christmas Books, by C. Dickens
- Tom Brown's School Days, by Hughes
- King Solomon's Mines, by H. Rider Haggard
- Poems, 1853-1865 (Selected), by R. Browning
- John Halifax Gentleman, by Miss Mulock
- Essays, by Bacon
- Mill on the Floss, by George Eliot
- Autocrat of the Breakfast Table, by Holmes
- Kenilworth, by Sir Walter Scott
- Jane Eyre, by C. Bronte
- Robinson Crusoe, by Defoe
- Waverley, by Sir Walter Scott
- Old Curiosity Shop, by Dickens
- Essays (Selected), by Emerson
- Cranford, by Mrs. Gaskell
- Silas Marner, by George Eliot
- Poems (Selected), by Longfellow
- Last Days of Pompeii, by Lytton
- Henry Esmond, by Thackeray
- Tower of London, by Ainsworth
- Life of Nelson, by Southey
- Life of Christ, by Farrar
- Faust, by Goethe

- Last of the Mohicans, by Cooper
- Optim Eater, by De Quincey
- Shakespeare's Complete Works in 4 volumes
- Barnaby Rudge, by Dickens
- Last of the Barons, by Lytton
- Fairy Tales (Selected), by Andersen
- View of Wakefield, by Goldsmith
- The Deerslayer, by Cooper
- Pride and Prejudice, by Austen
- Poems (Selected), by Burns
- Three Musketeers, by Dumas
- The Channings, by Mrs. H. Wood
- Ingoldsby Legends, by Barbara Oliver Twist, by Dickens
- The Little Minister, by J. M. Barrie
- Fairy Tales (Selected), by Grimm
- Meditations, by Marcus Aurelius
- Uncle Tom's Cabin, by Stowe
- Selborne, by White
- Two Paths and Other Essays, by Ruskin
- The Pathfinder, by Cooper
- Tales from Shakespeare, by Lamb
- The Wrenn in White, by Wilkie Collins
- Sartor Resartus and Essays on the Scaffolds Letter, by Charles Sartor Resartus and Essays on the Scaffolds Letter, by Charles
- Never Too Late to Mend, by Reade
- Tales of Mystery and Imagination, by Poe
- Swiss Family Robinson, by Wyss
- The Comptrol Angler, by Walton
- The Master of Ballantrae, by Stevenson
- The Sketch Book, by Irving
- Mansfield Park, by Austen
- Lavengro, by Borrow
- The Crown of Wild Olive and the Ethics of the Dust, by Ruskin
- The Black Tulip, by Dumas
- The House of Seven Gables, by Hawthorne
- Reminiscences of Scottish Life and Character, by Ramsay
- Yllette, by C. Bronie
- The four Georges and the English Humorists of the Eighteenth Century, by Thackeray
- The Seven Lamps of Architecture, by Ruskin
- Emma, by Austen
- The Imitation of Christ, &c., by A. Kempis
- Hereward the Wake, by C. Kingsley
- Table Talk, by Haailitt
- Two Thousand Leagues under the Sea, by Verne
- Homer's Iliad, by Pope
- A Journal of the Plague Year, by Defoe
- The Professor at the Breakfast Table, by Holmes
- Scenes of Clerical Life, by Eliot
- Mrs. Beeton's Cookery Book.



Four dollars pays for four years' subscription for The Canadian Thresherman & Farmer or four one-year subscriptions, includes fifteen estimates on the wheat guessing contest and this "Daisy" single shot Air Rifle, which will be sent postpaid immediately on receipt of subscriptions. This Air Rifle shoots either BB shot or darts.



Two dollars pays for two years' subscription or two one-year subscriptions for The Canadian Thresherman & Farmer, including seven estimates on the wheat guessing contest and this "Daisy" tool kit which will be sent postpaid immediately on receipt of subscriptions. This tool kit when closed looks like an ordinary wrench with plain wood handle, and nickel-plated shank; but inside the handle are ten tools including gilet, tack puller, screw driver, awl, chisels, etc.—ten tools in one.

One dollar pays for one year's subscription for The Canadian Thresherman & Farmer, including three estimates on the wheat guessing contest and this "Avel-U-Want", which will be sent you immediately on receipt of subscription. This Avel-U-Want is for sewing leather quickly, mending harness, shoes, etc.



Six dollars pays for six years' subscription for The Canadian Thresherman & Farmer, including twenty-three estimates on the wheat guessing contest and this Home Repairing Outfit, which will be sent immediately on receipt of the subscriptions or Three dollars will pay for two years' subscription for The Canadian Thresherman & Farmer, including seven estimates on the wheat guessing contest and this Home Repairing Outfit, which will be sent immediately on receipt of subscriptions.

The Home Repairing Outfit illustrated herewith is probably one of the most useful, compact, and convenient mending and repairing outfits ever put out. It consists of 4 lasts, 1 stand, 1 hammer, 3 saws, 1 knife, cement, brushes, thread, wax, 4 packing nails, 4 leaf plates, needles, harness and saw clamps, rivets, punch, soldering iron, resin, and directions. Everything compact packed in box. Shipping weight 15 pounds. Not sent prepaid. When ordering be sure and give shipping instructions.

**The Canadian Thresherman and Farmer, Winnipeg.** K

Please find enclosed \$.....for .....years' subscription for The Canadian Thresherman and Farmer to be sent to

NAME.....

ADDRESS.....

As per your special offer send me postpaid to the following address the.....and place to my credit the estimates on your wheat guessing contest (Premium)

NAME.....

ADDRESS.....

My estimates as to the number of kernels in the 12 lbs. No. 2 Northern Wheat are .....

Send all subscriptions to E. H. HEATH CO., Limited, Publishers The Canadian Thresherman and Farmer, Winnipeg, Canada

**We will forfeit \$2,000.00** to any charitable institution if anyone can prove that our Wheat Guessing Contest is not conducted in a fair and square manner.



## The Proposed Tariff Pact

For the past month or more the topic that has been upon practically every tongue is the Tariff. Two things have brought this about: First, the delegation of both the Farmers and Manufacturers who waited upon the "powers that be" at Ottawa; and secondly, the tariff regulations that have been pending for some time between Canada and the United States.

When the results of the meeting between the two commissions on both sides of the line were published, considerable excitement was created. Each and every one who had any interest in the matter at all began a search to see just how his interests would be affected, and the opinions are wide and diversified. A careful survey of a great many of them reveals the fact that in so far as the West is concerned, some very important results are to be looked for.

In the first place, a free exchange of the products of the farmer is called for. The principal product of Western Canada is grain, more particularly wheat. The prevailing opinion seems to be that if the pending Tariff Pact is ratified by the legislative bodies in the United States and Canada, that there will be a great tendency towards turning the route of transportation south instead of east, as it now is. There seems to be a prevailing opinion that the roads on the other side of the line will make a strong bid for the Western Canadian grain trade and that the C.P.R., the Grand Trunk and the Canadian Northern will lose a large share of their business east of Winnipeg. Such a move should open up a broader market for the Western Canadian farmer for his natural products.

In so far as grain is concerned the United States is not an exporting country. United States wants Canadian wheat and the present move should make it easier for them to get it. It would seem that such a move would practically put a damper on the Hudson's Bay Railway. We already have an outlet for our grain to the east and if another one is provided to the south, the third outlet would seem unnecessary.

There is also a lowering on the duty of the various food stuffs, a great many of which Canada does not at the present time produce in very large quantities, especially Western Canada. Removing the duty from these should decrease the price to the consumer.

In so far as the duty on agricultural implements is concerned, the reduction is so slight as to be of very little consequence. It might amount to something in the case of the larger implements, but in the case of plows and harrows, very little difference will be noticed. Below we append a list of the reduction in the tariff rates and a few of the articles mentioned

in the Reciprocity Pact. These, however, are taken from newspaper reports and are not to be absolutely relied upon.

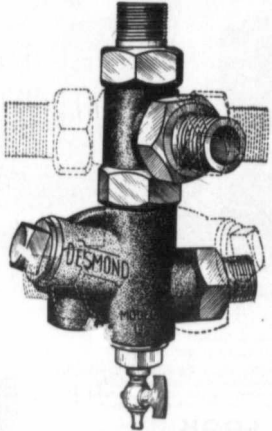
FREE LIST		
Article	New Schedule	Old Schedule
Cattle, horses, swine, mules, sheep, lambs	Free	When over \$50.00 per head in value \$12.50 per head.
Poultry, dead or alive	Free	20%
Wheat	Free	12c per bushel
Rye	Free	10c per bushel
Oats	Free	10c per bushel
Barley	Free	15c per bushel
Sweet potatoes	Free	10c per bushel
Turnips	Free	30%
Onions	Free	30%
Cabbage	Free	30%
Seed Flax	Free	10%
Apples	Free	40c per barrel
Pears	Free	50c per hundred lbs.
Peaches	Free	\$1.00 per hundred lbs.
Grapes	Free	2c per lb.
Dried apples, pears, peaches, apricots	Free	25%
Butter	Free	4c per lb.
Cheese	Free	3c per lb.
Honey	Free	3c per lb.
Eggs	Free	3c per lb.
Garden Seeds	Free	25% in less than one pound lots, 10% over one pound
Hay	Free	\$2.00 per ton
Straw	Free	\$2.00 per ton
Roofing Slate	Free	55c per square 75c
Clocks and watches	27 1/2%	30%
Motors and autos	30%	35%
Grape vines, gooseberry and raspberry bushes	17 1/2%	20%
Harvesters and reapers	15%	17 1/2%
Mowers, drills and planters	15%	17 1/2%
Horse rakes	15%	20%
Cultivators	15%	20%
Thrashing machines	15%	20%
Windstackers and weighers	15%	20%
Portable and traction engines	20%	25%
Hay Tedders	20%	25%
Potato diggers	20%	25%
Fodder cutters	20%	25%
Grain Crushers	25%	25%
Fanning Mills	20%	25%
Farm rollers	20%	25%
Manure spreaders	20%	20%
Weeders	20%	20%
Windmills	20%	20%
Portland cement	110	124
Farm wagons	22c	25%
Plows	15%	20%
Harrows	15%	20%
Bacon, Ham	11c per lb.	2c per lb.
Flour, wheat, rye, etc.	50c per bbl.	50%
Oatmeal	50c per 100 lbs.	60c
Buckwheat flour	4c per lb.	4c
Prepared Cereal Foods	20%	25%
Canned fruits	2c per lb.	2 1/2c

## THE DESMOND MODEL "U" INJECTOR

THE BEST FOR THE THRESHERMAN

FIVE Injectors in ONE and as many more as you desire

Any Model "U" fits any old connection. It is "flexible." One New Desmond Model "U" Injector will answer your Injector needs in every way, shape and manner.



One Injector that fits all connections. The New Desmond Model "U" starts low, at from 20 to 25 lbs. It works high from 175 to 190 lbs., lifts water 25 feet, handles water at 130 degrees, and delivers it to the boiler at almost 212 degrees.

All tubes screw into the body and cannot fall out or be lost or damaged when the cap is removed. Neither can they get out of alignment.

The New Desmond Model "U" will fit any space, can be put in any position, or adapted to any conditions peculiar to your needs.

It is absolutely automatic. It will not 'buck' or 'break' under the most severe and continued jars. We rigidly test every injector and guarantee it fully to work under all conditions.

The piping and valves can be arranged to suit YOUR needs and YOUR convenience; not to fit the injector.

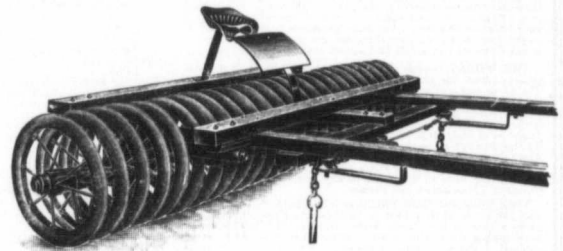
Now is the time to get busy. Give our New Desmond Model "U" a trial. If your dealer cannot supply you, write direct to us.

### DESMOND-STEPHAN MFG. CO.

URBANA, OHIO

Sales Agents for Canada - CRANE ORDWAY CO., WINNIPEG

## Sub-Surface Packers



The BRANDON Sub-Surface Packer, as improved for 1911, stands at the very top. It has the necessary weight for the work required, and at the same time has lighter draft than any other on account of our method of hitching.

The value of this implement was fully demonstrated during the dry Summer of 1910. Those who used the BRANDON Sub-Surface Packer, in all cases got more yield per acre. This increase varied from 5 to 10 bushels per acre.

See that the Sub-Surface Packer you buy is the BRANDON—the only one of proper construction for the work.

Call on our nearest Agent or write direct to:

## The Brandon Implement & Mfg. Co., Ltd.

Manufacturers

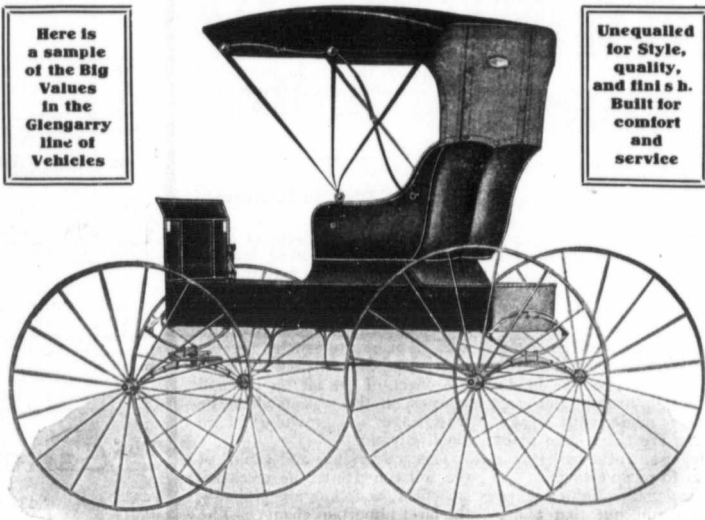
BRANDON - - MANITOBA

# The Buggy from Glengarry

ALL our new 1911 Styles will be on display on our Sample Floor during Bonspiel, and we extend to you a most cordial invitation to visit us while in the city.

Take Belt Line car either direction which will land you at our door, corner Logan and Nena Streets.

Here is a sample of the Big Values in the Glengarry line of Vehicles



Unequaled for Style, quality, and finish. Built for comfort and service

No. 223 AUTO SEAT BUGGY

## Canadian Moline Plow Co., Winnipeg, Man.

to bear on it on the part of the Canadian Parliaments. The protectionists see in this Pact the entering wedge for free trade relations between the United States and Canada.

It is not the policy of this publication to discuss matters political. The tariff proposition is a very vital one and at the same time a very complex one. It does not always hit the point at which it is aimed. The present move is, on the whole, a small one and ought not to affect the various interests concerned seriously. If put into operation it will furnish an opportunity for determining whether or not the tariff wall as it exists at the present should be allowed or whether a policy of protection is the best for Canada. The final results will be awaited with interest.

At any rate the farmer will be no worse off than he is at present and it would seem if the new agreement is entered into that considerable benefit would accrue to him not so much from a reduction of the tariff on manufactured articles as from the fact that it will afford him a wider and broader market.

### The Rumely Co. Adds to Repair Service.

On January 1st J. S. Ellis, for ten years at the head of the McCormick and International Harvester Co.'s repair service at Davenport, Iowa, and for several years previously in the repair de-

partment of the Port Huron Engine & Thresher Co., assumed charge of the repair department of the M. Rumely Co., LaPorte, Indiana.

The rapid increase in volume of business and the addition of new lines has complicated the work of supplying extras, and the Company has decided to build up a separate department in order to furnish needed parts promptly. This phase of the business will be put on a highly efficient basis, not only at the home office, but at the twenty-two sales warehouses in the United States and Canada.

### A Good One;

The first school of instruction in gasoline engines and automobiles is now well under way at Portage la Prairie. The school opened January 9 with well attended classes, and the instruction proved of great practical interest from the start. The need for such courses is clearly demonstrated by the many inquiries from all points in the West. The premises in the Exchange block were suitably equipped with machinery operated by gasoline, and the details were thoroughly outlined by A. McLarty, the expert. The courses last from one to two weeks as desired, and will continue during February. Any desiring to attend should communicate without delay to A. McLarty, Box 433, Portage la Prairie.

### The Automatic Grain Stooker.

There has just taken place in the City of Winnipeg an event that is of considerable importance both to the implement world and to the farmer. This is the re-organization of the National Grain Stooker Company, which has for its object the perfecting and putting on the market of the Homan Automatic Grain Stooker.

This machine is the invention of Mr. James Homan, of Grand View, Man. Mr. Homan for the past six years has been devoting practically all his time and attention to the working out of his ideas as regards a grain stooker and he now feels that he has a machine that will take the place of human hands in stooking the grain and at the same time handle the grain harvest much more economically and rapidly than it can be handled by hand.

The Homan Automatic Stooker consists of a steel U shaped frame, mounted on three wheels and drawn from the pole of the binder. The receptacle which carries the sheaves and which is termed "the basket," consists of another steel frame shaped like a stook, mounted on the U shaped frame, having short axles attached to either corner of the rear end of the same, resting in a sliding boxing and supported by a small cable from an overhead arch. A short conveyor carries the sheaves from the discharged arms of the binder and deposits them in the basket.

When the basket is full (ten sheaves) the driver operates a foot trip, releasing the basket which falls forward in the direction the machine is moving. A compression door meets the basket as it falls, pressing the stook into shape. The whole being rigidly locked from the time the basket strikes the stubble until the main frame moves forward nine inches, at which time the gates at the rear of the stook automatically part in the centre, swinging outward and at the same time backward clear of the stook.

The machine moves forward all the time, automatically locks the gates and raises the basket into position to receive the next stook.

The whole operation causes the driver no more operation and attention than the present bundle carrier.

The stooking of grain is one of the greatest problems with which the farmer has to deal. It takes two good men to follow the average seven or eight-foot binder and each man must be paid a wage of two to three dollars per day and board. Not only has the farmer to contend with the wage problem, but even then a great difficulty is experienced in filling the demand for harvesters. This problem confronts the farmer from year to year and to the grain grower an Automatic Stooker has heretofore been the greatest need.

The Homan Automatic Stooker has passed through a number of successful demonstrations, par-

ticularly on the Portage Plains during the season of 1910. Some of the advantages claimed for this stooker are as follows:—

1. No hired man required.
2. One man and four horses do both cutting and stooking and driver has not as much work as with the present bundle carrier.
3. All loose sheaves, broken heads and tangled grain are packed into the basket, thereby saving a great deal of grain that the hired man might overlook.
4. No matter how late you cut you know the sheaves are all set up and well set up.
5. No wet sheaves to handle after yesterday's cutting.

6. The Stooker saves its cost in one season, and being made entirely of steel and iron, it is practically indestructible, as there is no intricate gearing nor delicate parts to break or wear out.

7. There is no weight added to the horses' necks and the side draft caused by the wide cutting machines is removed; thus causing the machinery of the binder to run through straight and easy.

8. Sheaves made while stooker is dumping are taken care of by the conveyor until the basket is in a position to receive them.

There is not the slightest question of a doubt but that a machine of this kind will be of untold benefit to the farmers of Western Canada. It will not only simplify the raising of grain, but it will very materially increase the acreage, owing to the fact that harvest time is the "peak load of agriculture" and the amount of land that can be put into crop is largely determined by the amount that can be harvested.

With the Automatic Stooker of this kind this amount of land is materially increased.

For further particulars and information write the National Grain Stooker Company, Winnipeg.

**Haug Bros. and Nellerroe Co. Build Regina Warehouse**

Information is at hand to the effect that the above company are building a large warehouse at Regina. They have purchased property 125 x 500 feet adjoining the J. I. Case Building. The contract has already been let to

Messrs. Smith Bros. and Wilson, Regina, for a building 90 x 100 feet, one story, to be built of concrete, brick and steel, same to be finished by June first.

A large stock of both repairs and Avery machines will be carried as soon as the building is finished.

The growth of the above concern in Western Canada has been a remarkable one. From a small beginning they have developed into one of the leading thrasher companies doing business in the West.

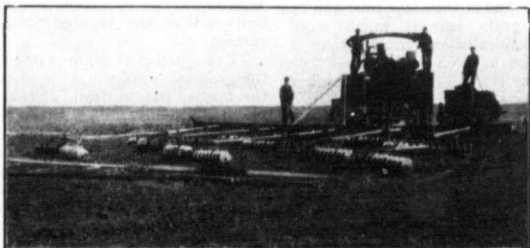
**Winter's Effect in Improving Soil.**

The beneficial effects of frost and air on fall plowed land is well known, but the way the soil is helped both mechanically and chemically is not generally considered. Besides the better pulverization of the soil by the expansion of the water in freezing, the effect of the air on the soil later on in the season when the frost leaves the ground is of no small advantage.

This pulverizing and airing of the soil constitutes the mechanical effect, and they are probably the most important changes. The circulation of water through the soil, both before and after hard freezing weather, brings about chemical changes. Air acts in the same way only on different elements.

All fall plowing or digging does not have so marked an effect as in the case of ridges or lap plowing with a bold moldboard, which pulverizes the furrow better. A furrow turned flat in the preceding furrow usually lies so that the air and frost cannot gain proper entrance, and when spring comes it is little changed, besides being exceedingly hard to get in good condition by harrowing.

Of course, no fertility is added to a fall plowed field, but the elements of fertility contained in the soil are made more available by the action of air, frost and water. More attention paid to fall preparation of the soil will result in larger crops at less expense for fertilizer and labor, especially if the soil is well stored with fertility.



**Discing at Carlstadt.**

The above cut shows one of the American-Abell 32 horse power Cross Compound Rear Mount engines cultivating prairie sod, preparing it for crop. This engine broke, cultivated and seeded over

2,000 acres of virgin prairie in Southern Alberta during the spring of 1910. It is hardly possible for one not accustomed to steam plowing to realize just what one of these engines will do when properly manned.

**PEDIGREED SEED GRAIN AND FARM SEEDS**

Garton's strains of the above have been grown from SINGLE PLANTS of PROVED SUPERIORITY, and are, therefore, truly PEDIGREED BY ACTUAL BREEDING, and not pedigreed by the lavish use of printers' ink and a fanning mill

These strains are absolutely heavier producers than seed raised by the ordinary seed growers, and generally sold throughout the West.

**EVERYTHING A MAN COULD DESIRE**

Elkhorn, Man., 1910  
Your new oat, Garton's No. 22, is everything a man could desire; produces the best of grain, good straw, free from smut and rust, and matures early. It is far superior to the Banner, which was my favorite previously.  
Jas. Guild

**RESULTS SPEAK FOR THEMSELVES**

Winnipeg, Man., Jan. 6, 1911  
I have the most beautiful stand of your new Alfalfa on ten acres. I think every seed germinated. I am so impressed with it that I shall put in a further 20 or 30 acres next season, for which you will receive my order in due course. The seed grew so well that I think 20 pounds per acre too much and shall sow less per acre next spring.  
Chas. C. Castle

SAVE MONEY and produce HEAVIER CROPS of finer quality by SOWING PEDIGREED SEEDS. Before placing an order for your requirements next Spring, write for "Garton's Book of the Farm, 1911," which fully describes with 20 illustrations the Garton System of Farm Plant Breeding, and also their Pedigreed strains of seed grain, alfalfa, clover, grass and root seed.  
If you wish to get more from your land you cannot afford to be without this 32-page, 7 x 10 inch book. IT IS FREE. Send for it now. There is sure to be a rush and our supply will not last long.

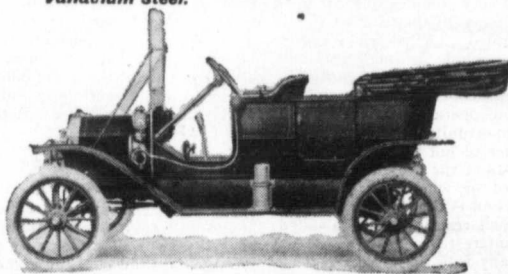
**The Garton Pedigree Seed Co.**

432 CHAMBERS OF COMMERCE

WINNIPEG, MAN.

**Ford**

The Car of Established Quality, Established Value. The Cheapest Car in the World to buy and maintain. The Lightest Car in the World, Size, Power and Capacity considered. The Strongest Car in the World—a Car of Vanadium Steel.



**Ford Model T Touring Car** 5 Passengers 4 Cylinders

With full Equipment: Extension Top, Automatic Brass Windshield, Speedometer, Two 6-inch Gas Lamps, Generator, Three Oil Lamps, Generator, Three Oil Lamps, Horn and Tools, for **\$975.00** f.o.b. Walkerville, Ontario.

This same Car with Three Oil Lamps, Horn and Tools, **\$875.00**. F.o.b. Walkerville, Ontario. Write for Catalog.

**Ford Motor Co. of Canada Ltd.** WALKERVILLE, ONTARIO

Branches: Toronto, Montreal, Winnipeg and Hamilton

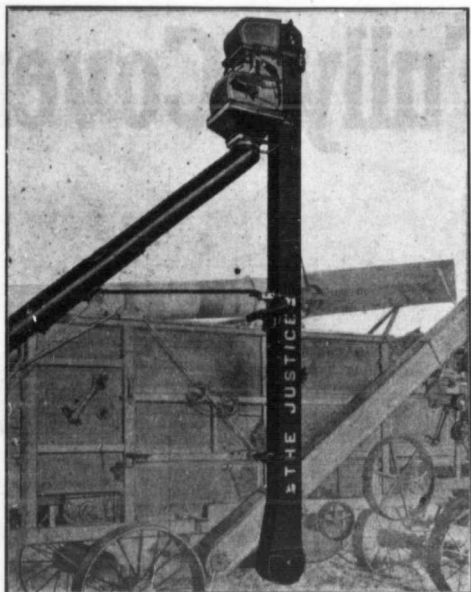
Winnipeg Branch: 309 CUMBERLAND AVENUE

Distributors for Saskatchewan: The Saskatchewan Motor Co., Regina

Distributors for Alberta: The Ford Motor Agency, Ltd., Calgary

**Patronize Those Who Patronize This Paper**





When placing your order for that 1911 Threshing Outfit be sure and see that it is equipped with a **Whiteford Justice Measure** Insist on it and you can have it.

ADDRESS THE

**Virден Manufacturing Company Limited** BOX 678 **Virден, Man.**

## Every Bushel Accounted For

BY THE

# WHITEFORD Justice Measure

A machine that cannot lie, cheat or steal. A servant whose fidelity is never in doubt. A detective that no species of dishonesty can tamper with. An accountant whose accuracy can never be questioned, whose statements never mislead. The only Government Standard for this purpose having the sanction of the Department, made and sold by us at a price within the reach of every farmer.

Would you forget all your Engine Worries? Then get a

## "McCullough" Oil Pump

An absolutely perfect appliance—a god-send to every engineer and thresherman. It cannot get out of order and is so simple in every part that a novice can handle it easily and without risk by following the simple instructions accompanying it. Agents wanted in every town.

### The Highway, the Farmer and the Automobile.

Continued from page 22

farmer. It makes him feel that he is indeed a part of "God's great plan," and puts him upon the plane of equality with his fellow-men. He can indulge in the luxury of a fine vehicle, relegating the old cumbersome and uncomfortable road wagon to a primeval time. If circumstances permit, the automobile may be found among his transportation equipment. The boys and girls find it a pleasure to drive, to visit and keep the young social standard of the community up to its proper level. They do not feel that they are isolated from the rest of the world, and in consequence are far less liable to despise the old farm home and hie themselves away to city scenes and city pleasures. The sphere of school and church is widened, land values rise, wealth increases, better homes and more of them result; in fact, the whole community finds itself uplifted and bettered as a result of the good road.

The farmer is in duty bound to give the highways their proper attention. He owes it not to himself alone, but to his fellow-men. Every day's work done should be put in with a conscientious regard for results. Many farmers are in the habit of sending the poorest outfit on the farm to work upon the highway, and they are concerned only with fulfilling the statute requirements.

This is a mistake, and not only is it a mistake but it is a theft, and a financial loss both to the individual and to the community. The farmer is far too apt to regard road expenditure as a forced waste of money. He fails many times to grasp the fact that the public highway belongs to him, that it exists for him and through him, and only in so far as he gives to it its due attention can he reap any benefits therefrom. Initial cost is the last thing to be considered, for this cost is distributed over a long term of years—years filled with comfort and wealth for the good road user.

In the automobile the farmer has something that will link town and comfort together. The man who lives in the town and owns an automobile is just as keen as the farmer, and even more so, for a good touring road. Without sober second thought one cannot grasp the immense improvement automobiles have had on good roads where they have come into general use. Occasionally one finds the individual bewailing the injury caused by automobiles on our highways. Such forget that the highways are made for use, and the more automobiles are used in rural sections the stronger will be the influence for making better roads and more of them. It is a matter of common observation that legislation looking to highway improvement has become much easier as automobiles are

being more generally utilized. No one questions that high-power machines may injure roads. The thing to remember is that there are many other advantages coming with automobiles which more than offset this deterioration to highways.

In a word, it is a matter of common knowledge that the advent of the automobile has directed popular attention to improved highways. The increasing number in use and the influence of those people owning cars are having a telling effect upon improvement. This is very fortunate, and many farmers look ahead to the time when they will personally be enjoying the use of cars on these improved roads.

### Wheat in the Northwest.

Wheat farming in the Northwest is a distinctive proposition. The fields are large, the seeding period short, the growing season limited. It means "hustle" in the spring if you want to grow wheat. But it means something more, even sowing means even growing and the uniform ripening of grain of first quality. To obtain these conditions, the North-western farmer realizes that the feeding arrangements of his grain drill must be such as will enable him to sow grain treated with formaldehyde. This is especially imperative on account of the smut that has reduced the yields to the point where the North-western

farmer realizes that he must be more painstaking in his work. A force feed drill is positively essential. The Light Draft Roller bearing Kentucky Drill meets every North-western seeding condition perfectly. This drill is made especially for the North-west. The double disks and single disks put the seed in the ground at an even depth and have bearings that will last and that are properly lubricated. The furrow openers play an important part, because they make the seed trenches; therefore whatever type is selected, the Kentucky can always be relied upon to make the most perfect seed trench. It is fully guaranteed. Send for a Kentucky catalogue to The American Seeding-Machine Co., Incorporated, King and James Sts., Winnipeg, and then go to your local dealer and insist upon seeing a Kentucky Drill.

### Massey-Harris 1911,

We are this day in receipt of the Massey-Harris catalogue describing their full line of farm implements for 1911.

This catalogue contains a large amount of information for the farmer in the way of complete and up-to-date farm implements.

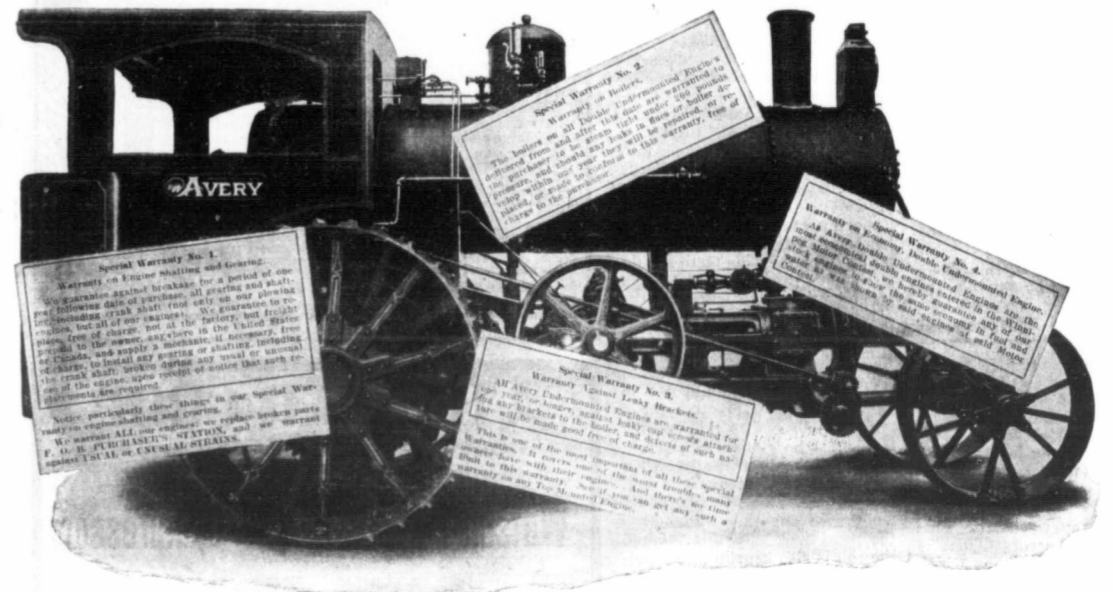
In addition to their regular lines they have this year added an engine gang plow which should merit considerable attention.

See the Massey-Harris dealers or write them direct.

# Every Part Fully Covered by Strong Warranties



## Avery "Yellow Fellow" Separator



## Avery Double Undermounted Engine

Backed up by the Strongest Guarantees ever placed on their Machinery by any Manufacturer of Engines and Separators.

We believe in backing up what we say. When you buy an Avery Machine we try to tell you what kind of material it is built of, how it is built, and what you can expect it to do. And we have a right to make strong statements about them because of the way they are built and because of what our customers say about their work.

But you don't have to depend only on what we say, for we back up what we say with the strongest guarantees ever given on such machinery by any manufacturer.

They are printed right in every 1911 Avery Order Blank. There is nothing anywhere near like them. They are much stronger than the warranties any other manufacturer gives you.

And they mean just what they say. If you buy an Avery machine and it doesn't do exactly what these warranties say it will do, you can fall right back on them, and the Avery Company will make good on every one.

And the reason we can make these Strong Warranties—much stronger than those given by any other manufacturer—is simply this—because Avery machines are built with the right kind of high grade raw materials and workmanship, and we have perfected them in design and detail to a point where they go out into the field and do the business and stand up under the work and make good at every turn.

Use the Coupon on the opposite page or write us a letter and ask for our New 1911 Free Engine, Separator, and Plow Catalog—just received from the printers. Also tell us about your machinery needs for 1911 if you are in the market, and ask for prices.

### Get an Avery Souvenir Watch Fob, Pin or Charm—They are Dandies

Write us a letter and send us the lists of names mentioned below, together with the amount in stamps given underneath the souvenir you want, and we will send you one of our Watch Fobs, Charms or Stick Pins shown here.

- These are the lists of names to send:
1. List of Threshermen in your neighborhood.
  2. List of Engine Plow owners in your neighborhood.
  3. List of those in your neighborhood talking of buying an Engine, Separator or Plow this year (do not give the names of any as being in the market unless you have actually heard that they are talking of buying).

Names, initials and addresses must be correctly given.

Address your letter as follows:

EVERY COMPANY  
675 Iowa St., Peoria, Ill.



Avery Undermounted Engine Fob or Charm, 10c.



Avery Undermounted Engine Stick Pin, 5c.

Write for Our New 1911 Free Engine, Separator and Plow Catalog—JUST RECEIVED FROM THE PRINTERS

Use this coupon or write us a letter or a postal and get a new 1911 Avery Catalogue. Also say what machinery you are thinking of buying.

EVERY COMPANY, 675 Iowa St., Peoria, Ill.

Gentlemen: Please mail me free of charge the Catalogs marked (X) below:

- |  |  |
|--|--|
| <input type="radio"/> Engine, Separator and Plow Catalog | <input type="radio"/> Thresher Supply Catalog  |
| <input type="radio"/> ..... H.P. Engine                  | <input type="radio"/> Water Tank               |
| <input type="radio"/> ..... X ..... Separator            | <input type="radio"/> I.X.L. Separating Device |
| <input type="radio"/> Gang Engine Plow                   | <input type="radio"/> Traction Steam Shovel    |

Remarks: (Catalogs will be gladly sent whether you are in the market or not; but if not at present in

the market please so state here.

Name \_\_\_\_\_

P.O. \_\_\_\_\_ County \_\_\_\_\_

R.F.D. No. \_\_\_\_\_ State \_\_\_\_\_

Avery Company, 675 Iowa St., Peoria, Ill., U.S.A.  
**Haug Brothers and Nellermeoe Co., Ltd.**  
 CANADIAN JOBBERS  
 WINNIPEG, MANITOBA



**The Importance of the Farm Machine on the Farm**

Continued from page 26

ern farmer is the one that will cut off all the weeds and not one that will leave a narrow strip of weeds between each pair of teeth. The cultivator has been greatly improved in late years, and may now be secured in sizes ranging from the small one-horse garden cultivator to the large four-horse field cultivator, with which ten or twelve acres may be covered in a day.

The cultivator is made in two forms, namely, the floating frame and the spring tooth forms. These forms are both very good, although many prefer the spring tooth. In the floating frame the teeth are set on solid legs, and therefore are liable to catch and stick, or else break off on any large obstruction that they come in contact with. In the spring tooth, as the name implies, the teeth are set on spring steel legs, which will bend and allow the tooth to pass over any obstruction, while the others remain in the ground.

The teeth are made in several sizes, and each have a different use. The small, narrow teeth are best for simply loosening up the soil on top of the ground to form a sort of mulch, when there are no weeds. But when there are many weeds the wide teeth should be used. There is a lever on the machine by which the teeth may be raised clear off the ground or pressed down the desired depth.

The cultivator should not be put on the land when it is wet and muddy, because it is hard work for the horses and does not do the land much good. There are several different methods of summer fallow. Some prefer to cultivate the land the whole summer and not raise any crop. Others prefer to plow the land in the fall, put in a crop of barley as early as possible, plow the land as soon as the crop can be taken off the field, and then give the usual form of cultivation. Still others prefer to plow in the fall, cultivate the land thoroughly in the spring, and put in a late crop of barley. The amount of available plant food, the condition of the soil, and the number of weeds have considerable influence on which of these methods is to be followed; but in any case the field cultivator is the chief implement to be used.

The object of working the land, besides that of killing weeds, is to preserve moisture by keeping the soil fine and loose on top of the ground in the form of a mulch, and to allow the air to get into the soil and give the bacteria of nitrification an abundant supply of oxygen, so that they may multiply rapidly and change the insoluble plant food into useful material, which can be taken up and used by the plant. This last object is of more importance to the Eastern than to the Western farmer.

The problem that is of great importance to the Western

farmer is the weed problem. It is coming more into prominence every year, and the farmer must pay attention to it, or his crop will become smothered out with weeds and his profits will be greatly reduced. To combat with the weeds we have several different forms of implements, and one of the most important. The small annual weeds can be killed out when very small by the harrow, and after they get larger by the disc harrow and other implements. But these implements have very little effect upon the perennial weeds, such as the Canadian Thistle and the Perennial Sow Thistle, and for their destruction the cultivator comes into prominence. To kill these weeds the teeth of the cultivator must be wide and set in a double row in such a manner that they will lap about half and thus will cut off every plant. The teeth should also be pressed well into the ground, so as to cut off the plants at such a depth that the roots will not get much air to stimulate their growth. The land should be kept black all summer; that is the weeds should not be allowed to come up and get a good growth, and to this end the land must be cultivated often.

To get the best results when the land is very weedy, it is well to cultivate it both ways, going lengthwise one time and across the next time. By this method the soil is also kept in a fine pulverized condition and so forms a mulch and aids in the preservation of moisture.

The cultivator is an implement that is very easy to understand and operate, and therefore requires very few instructions. When working the wheels should be kept well oiled, to make the draft on them as light as possible, and also to prevent wearing. When not in use, it should be put in a shed, if possible, and the teeth should be well cleaned and rubbed with oil to prevent rusting. If the machine must be left outside, the teeth should be taken off, rubbed well with oil, and put inside away from the weather. When operating all bolts and parts should be kept tight and in their correct positions.

From this it will be seen that the cultivator is of great importance to the Western farmer of to-day for the purposes of killing weeds and stirring up the land to aid in the preservation of moisture, so that a better crop will be produced the following year.

III.

By J. E. BLAKEMAN.

The farm machine upon the farm has probably helped more in bringing our occupation to its present stately position as a profession than any other one factor, with the exception of education. There is no need to outline the stages of improvement that have brought the machines of to-day to their state of perfection. This is all known fairly well and there are some amongst us who have themselves used the scythe and

**Wonderful Advantages Found Only in the World Famous SHARPLES**

**Dairy Tubular Cream Separator**

The Tubular produces twice the skimming force, skims faster and twice as clean as others. Saving in cream, as compared to others, soon pays for machine.

The Dairy Tubular bowl contains no disks or other complicated contraptions to wash, rust or wear. World's only simple separator bowl. Sanitary. Many times easier to wash than others. Produces finest cream. Greatest railroad in Canada uses Tubular cream in its dining cars.

Fewest wearing parts. Perfectly self oiling. No oil holes, cups or tubes. Uses same oil over and over—three pints lasted one man three and one-half years, running machine twice daily.

No wonder Tubular users are enthusiastic. They say, "Thank goodness I have a wear-a-lifetime Tubular and not some expensively, short-lived machine bought of a peddler or elsewhere." You can have that same satisfaction by using a Sharples Tubular.

Later than, different from all others. Wears a lifetime—guaranteed forever by the oldest separator concern on the continent. One of Canada's leading industries. Local dealers everywhere. If you do not know our dealer, ask us his name and address. Write for Catalogue No. 330.

**THE SHARPLES SEPARATOR CO.**  
Toronto, Ont. Winnipeg, Man.



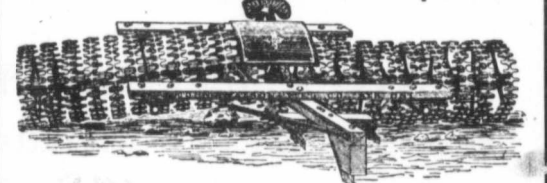
30 Yrs

**A BUMPER CROP FROM A Thirsty Land**

FROM A Thirsty Land

If You Pack Your Soil with a

**Watson Pulverizer and Compressor**



Made in two sizes } With 16 wheels, for 3 horses (weight 2100 lbs.) width 10 ft. 6 in.  
as follows } " 22 " " " 4 " " " " 2800 " " 14 ft. 6 in.  
24 in. Wheels; Removable Boxing on all wheels and centre castings.

The 22-wheel size is supplied with two poles and pulley hitch

**Reasons why you should use this pulverizer**

1. It compresses the soil around the seed.
2. It tends to conserve the moisture in the soil by checking evaporation.
3. It leaves the surface rough, holds the dust and prevents blowing of the soil.
4. It does not lug the soil in ridges and hollows for the rain to run off.
5. It does not press the clods into the ground, but crushes them.
6. It is impossible to clog if the ground is in condition to work with any implement.
7. Being flexible, it will conform to ground level or dead furrow leaving nothing untouched.

**WATSON'S Steel Boss Harrows ; WATSON'S All-Steel Channel Harrows; WATSON'S Boss Wood Harrows ; WATSON'S Harrow Carts (24, 28 and 36 inch wheels) are all INDISPENSABLES if you are to make the most of the farm. Write us direct for Catalog if your dealer doesn't handle WATSON'S.**

*John Watson Mfg. Co.*  
LIMITED  
WINNIPEG

**Western Canada's Leading Taxidermist**

Expert Mounting of Game Heads and Birds

Highest Prices for all kinds of Raw Furs, Hides and Game Heads. Will buy Wolf, Lynx and Bear Skulls.

Taxidermist Supplies Write for New Fur List

E. W. DARBEY, 231 Main St., Winnipeg  
Official Taxidermist Manitoba Government





cradle when nothing better existed, but who now can use the self binder. Yet we look to the manufacturer for improvement on even this fine machine, and their efforts to do so are followed with interest. More and better implements are constantly being brought into use so that farming is no longer calling for muscle before brains in those who go on the farm. It was a need supplied when *The Canadian Thresherman* came out as a journal devoted to farm machinery. This paper has shown further good judgment in the choosing of this topic placed before us, upon which to base a few remarks, probably to be called an essay and the best to be a prize winner. It is a well chosen subject because it can be dealt with from different standpoints, so that each person may be found in a happy mood, with little fear of encroaching on ground already covered. None need wear out their reference library and the encyclopedia is not needed, so let us be original.

Under this head we could treat of farm machinery in a general way, giving a few principles which apply to all. Then, again, we might write about any particular machine, the one perhaps which holds the place in our own mind of first and most importance. It is not my purpose to take up either phase. The intention rather is to present a few thoughts regarding a machine which you will all agree is not at present upon the average farm, though essentially a farm machine. You will at once think of the threshing outfit.

Every farmer has grain to be threshed and the machine has been improved year by year, yet we find farmers afraid to invest in a threshing outfit, rather choosing to let one or two in the community take threshing up as a business. This method, though working out nicely for the thresher and for his earliest customers, whilst charges were not too high, was a losing propo-



### This Feeding Floor Could Be Built in The Fall

and it would help greatly to preserve the condition of your live stock in the Spring.

Every farmer knows that in the Spring of the year his barnyard is almost bottomless. The live stock mire down into the mud and almost float around—greatly to the detriment of their physical condition.

By building a Concrete feeding floor in the yard, this trouble is done away with.

A Feeding Floor of comparatively small

area and built this Fall, would pay for itself next year. Concrete is the only material that can be used in this way at a moderate cost.

Will you ask for your copy of the book which we have prepared for you—*“What the Farmer Can Do With Concrete”*? It's free—and, take our word for it, you'll find it one of the most interesting pieces of such literature you ever read. And profitable, too—because it will save you money.



Ask for a Copy of This Booklet To-Day

A Postal Will Bring It Promptly

Canada Cement Co., Limited

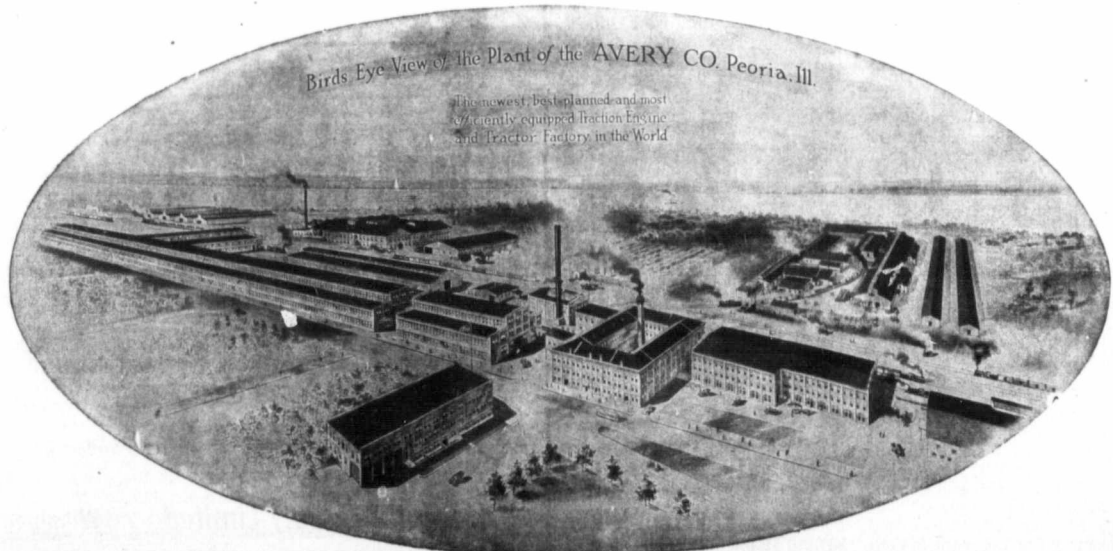
82-83 National Bank Building, MONTREAL



sition to men coming last in turn, probably about snowfall. This is specially true of conditions in the West. It is true that each farmer cannot own and operate a large threshing machine and that until recent years few small outfits suitable for individual use have been on the market. It is further true that every one, at one time, not so long ago,

could not acquire the necessary knowledge to operate either kind, large or small. It is not so now. Nothing now need interfere with the average farmer having his own threshing machine. What he will pay out to get his threshing done, at present charges, would make a payment upon an individual outfit. Then there are lots of machines to choose from,

because the increased popularity of the smaller and individual threshing outfits has caused the manufacturing firms to put them on the market in some number and in a fair stage of perfection. From books now published, from special courses in mechanics and engineering put on by agricultural colleges, and from papers as *The Canadian Thresherman*



Birds Eye View of the Plant of the AVERY CO. Peoria, Ill.

The newest, best-planned and most recently equipped traction engine and tractor factory in the world

and others with special columns on this work, the farmer can gather the knowledge required. Many business-like farmers have figured this thing out and decided to do their own threshing. Though at present a large number of individual outfits are used, the majority still hire their threshing done.

There is much to be said about the farm machine upon the farm. The farmer owning his outfit can commence threshing operations just as soon as the grain is fit to be taken from the straw. The grain need no longer stand in the stook or stack exposed to nasty weather and in the way of the plow, whilst the owner is waiting to engage the big machine or waiting his turn among others. The individual thresher enables threshing to be done before the grain is injured by exposure and before prices have dwindled on the fall markets. Greater advantage can be taken of the fall season, owing to the fact that the farm machine is taken out at the earliest date, the field cleared and the threshed grain stored, after which the land can be plowed and worked upon until King Frost arrives. Thus in a season which, were things managed otherwise, would be too short, we can get our stubble land turned over before winter and less plowing is to be done in the spring. In other words more work can be done in the fall and there will be less rush in the spring if threshing is done early. Every farmer cannot thresh early unless individual machines are used.

Next consider the greater force which can be applied in the fall work. The engine mostly used is a gasoline tractor and thus may be used at other seasons than at threshing time. The engine can be used in doing the heavy work of fall plowing. This additional force in doing the fall work is what has been long felt necessary. The horses may be used in doing the lighter surface cultivation in the meantime, or may be still kept at the plow. Such an engine can be used for motive power in many farm operations. In working the summer fallow we find it very useful. During the long, hot days when horses lose in flesh and one feels himself like a slave driver to keep them at it, the engine is found most valuable. Meanwhile the horses could be put to other work about the farm, or could be used on the disc, cultivator or harrow, which can be made much less distressing work upon a hot day than plowing is. These are points in favor of the use of a gasoline tractor in connection with the farm thresher, and indirectly are points in favor of the individual threshing outfit.

A further advantage is that during threshing time less hands are required, if a small outfit is used and especially if gasoline power is used. This will to some extent diminish expenses. The house wife can best tell just what it means when the work is done

by a smaller gang of men. It is she who prepares their meals and who knows best the work and expense that is entailed. With the individual outfit only two or three extra men are required, and sometimes threshing operations are carried on by the regular farm force alone. Five to ten men are the number, as opposed to eighteen to twenty-five, when the steam thresher is employed. In both cases the farmer's wife must prepare the meals. Which system will be the best for her?

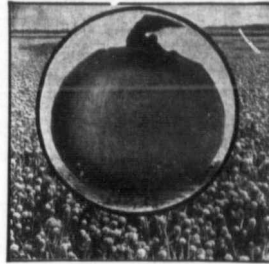
Regardless of what has been already mentioned, there are points strong enough in favor of the individual outfit to warrant our purchase of one. Weeds will be no longer spread from farm to farm. On the other hand it is known that the large custom threshing outfit passing about the neighborhood carries noxious weeds from one place to another. Weeds lodged in and about the machine while threshing on a farm badly infested, are dropped in other places, perhaps during work for a farmer whose land has been clean before, and this is really terrible as it goes on year after year. The individual thresher brings us one step farther forward in the battle against weeds. The smaller outfits owned and operated by the farmer to thresh his own grain, clean the grain better, take out more chaff and weed seeds and do on the whole a better job than is done by the average custom thresher. This is practically because the farmer is running it himself and is endeavoring to do perfect work but is not in such a hurry as those engaged in it as a special business and means of profit. Less grain is thrown over, also on this account. Those engaged in threshing are too prone to do the work in the greatest possible haste so as to make the largest profits.

Those of us who have experienced, in using the individual thresher, some of the advantages mentioned above, would certainly not go back to the old method of engaging the work done. Whilst the working of the system is viewed by some with doubt, it is, nevertheless, true that there is an increased output of these machines. Being as they are, somewhat smaller than the average outfit on the market, they do not at first seem in keeping with the plan of things in the great West, yet are growing in popularity. As all machines upon the farm should be in keeping with the size and requirements of the farm, so it must be with the farm threshing machine upon the farm, and the sooner it is considered as among the necessary machines in each individual equipment the better.

**PATENTS TRADE MARKS AND DESIGNS**

Write for Booklet, Circulars, Terms, Etc.  
**FETHERSTONHAUGH & CO.**  
GERALD S. ROXBURGH, B. A. Sc Resident

Portage Avenue **WINNIPEG**  
209-210 Bank of Nova Scotia.



ONION—Yellow Globe Danvers. This variety, also Yellow Round Danvers and Extra Early Red are specially suitable for the West.

**SEEDS**

FOR  
**Western Canada**

**First—EARLY**  
**Second—EARLY**  
**Main—CROP**

Large Illustrated Catalogue Free,  
also Free to Customers:—

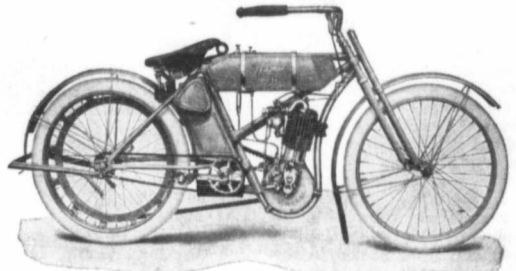
- Booklet 1—"Alfalfa and how to grow it."
- " 2—"Rape, its uses and how to grow it."
- " 3—"How to grow the best Onions."
- " 4—"How to grow Sweet Peas."
- " 5—"Lawns, how to build, repair and maintain."

*Steele, Briggs Seed Co.*  
**WINNIPEG.**

THE MOTOR CYCLE FOR THE FARMER

**WAGNER 4-'11 Models**

-- MOTOR CYCLES --



Battery or Magneto Complete Catalog on Request  
The Best Agency Proposition for Live Dealers everywhere

**CANADIAN AGENCIES**  
188 MARKET STREET - WINNIPEG  
Exclusive Distributors for Western Canada

**NO RIPS! NO TEARS!**  
**No Button Troubles!**



Just Comfort and Satisfaction to the wearer of  
— GUARANTEED —

**King of the Road Overalls**

"The Better Kind"

**Best Material.** Cut and made by Skilled Operators, in the largest and best lighted Factory.

Look for the Union Label - - IT PROTECTS

**R. J. Whitla & Co., Limited - Winnipeg**

# Parsons Hawkeye Mfg. Co.

## Who said Warranty ? HERE IS A REAL ONE

It protects you absolutely as regards your self feeder. Read it carefully, in fact memorize it and then ask the other fellow about it when he attempts to sell you something just as good.

The Ruth Feeder is warranted to feed any make or size of separator to its full capacity in any kind of grain, in any kind of condition whatsoever, bound, loose, straight, tangled, stack burned, wet or dry, without slugging the separator cylinder or loosening a spike, and to wear longer and cost less for repairs than any feeder manufactured by any other Company in the world.

We are the feeder house of Western Canada. Building feeders is our sole business, and we take off our hat to no one when it comes to feeders. We supply 75% of the self feeders sold in Canada to-day. It makes no difference what make of separator you buy, you can have a **Ruth, Parsons** or **White Wings** attached. Our feeders fit any size or make of separator. Insist on having a feeder made by us. You get not only a better feeder, but you get a guarantee that no other feeder manufacturer has ever used. Our feeders for 1911 contain many improvements.

Write for Catalog

# Parsons Hawkeye Mfg. Co.

WINNIPEG, CANADA

### Please Note

We are just in receipt of the following announcement from the Goodyear Tire and Rubber Company of Canada, Limited:

"We are pleased to announce that we have purchased and are now in possession of the Mechanical Rubber Plant of the Durham Rubber Company, Limited, of Bowmanville, Ontario.

"It is our purpose to continue manufacturing the better grades of the Durham Rubber Company's mechanical goods, and to add such new lines as may be necessary.

"Our products will be of the same high grade as manufactured by the Goodyear Tire and Rubber Company of the United States.

"The purchase of this plant gives us increased space and facilities for our Solid Tire and Automobile Tire Departments.

Additional buildings, increased power plant and new machinery will be added, which will make our rubber plant the most complete and up-to-date in Canada. This will enable us to make prompt shipment of all goods which we manufacture."

The Winnipeg offices of the above concern are to be found at 150 Princess Street, where Mr. B. C. Clarke, who for some time has been manager of the Durham Rubber Company, will be pleased to receive and welcome all **Bonspiel** visitors interested in his particular line of goods.

The Durham Rubber Company

are well and favorably known throughout Western Canada and the above change will make for an increased service and a more full and complete line.

### Long Touring Contest for Western Canada.

Continued from page 25

number of penalties against it, is, of course, considered the winner and awarded the trophy.

This method of scoring, which may be considered by some of the uninformed as exceptionally elaborate, has been found to be the only practical means of testing the relative reliability of the different cars, and a test it surely is. Of course, every precaution is taken by the manufacturer to see that his car is in the pink of condition before starting the long journey, and during the entire trip the car is in the hands of an expert driver, yet a car which can cover such a route without a penalty against it is exceptionally fortunate, as no amount of preparation will provide against unforeseen accidents of the road, car's chances of winning at one fell swoop. Then the manufacturer is out his time and money for his trouble.

It is a pretty expensive proposition, too, this entering cars in a big tour. In the first place there are the expenses of the car and crew during the run, a total of no inconsiderable amount. Add to this the salaries of drivers and observers, wear and tear on tires and equipment and transportation

charges on the car to and from the point of starting, and you have an expense account of not less than \$500 per car. An entry fee of \$150 is charged each car making the trip to help defray the expenses of the tour itself, which costs in the neighborhood of several thousand dollars more. Add to this the fact that some of the larger manufacturers enter two and three cars each, and you have an idea of the amount of faith the manufacturer of a modern automobile has in his machine and the extent to which he is willing to go to prove it.

Among the automobile dealers and motorists of Western Canada the tour is creating quite a sensation. Towns and cities along the line of the route are vying with each other to become noon or night controls, and a request has even been received from Victoria, B.C., that the tour be continued to that point in the interests of the good roads movement. It is probable that a special trophy or prize will be offered to the municipality having the best kept stretch of roadway along the route and the tour in general is expected to have a stimulating influence on the construction of improved highways.

As proposed the route to be covered by the tour lies through the most densely populated sections of the prairie provinces, it being estimated that practically 80 per cent. of the population give the different towns along the

route as their railroad stations or post-offices. From an educational stand-point, therefore, the tour should do much to get the people of Western Canada better acquainted with the modern motor car and what it is capable of doing under extreme conditions of service in their own home territory. That the manufacturers look upon it as an excellent opportunity for publicity work in behalf of the cars they represent is obvious from the fact that some of the largest and best known factories in the country are planning on sending cars to take part, while several requests have been received from the United States, England and Ireland for particulars concerning the tour.

As yet no definite announcement can be made of the number of cars that will finally participate in the run, but it is estimated that fully twenty different models will make the start. Entry blanks are now being distributed among the different manufacturers and dealers interested and within a few weeks the probable magnitude of the undertaking will be known.

Meantime Canada's first national motoring event is proving an interesting subject of conversation among the thousands of people all over the world, and everywhere the hope is expressed that it may be a complete success and worthy of annual repetition until such time as the trophy becomes the permanent property of one of the successful contestants.



Heeling under a stiff breeze, the sloop rose joyously to the long Caribbean rollers. Soon after midnight Mahoney awoke. He went to the tiller at once, and let the stalwart Jamaican nigger, who constituted his crew, take a turn of sleep. The wind was steady, the sea was clear, there was no island, reef, or shoal between himself and Cuba, and Mahoney had little to do but hold the tiller and dream. Presently clouds gathered, obscuring the moon, and thickened till the light which filtered through them was rather a deceit than an illumination. Far-off waves seemed close at hand, and waves so near they were about to break over the bow appeared remote. Strange shapes made and unmade themselves among the shifting surfaces, dark, solid forms which melted into flowing, hissing water. Mahoney's eyes amused themselves with these fantastic wave-shadows and phantoms of the fluent deep. Then suddenly one of the dark, submerged shapes broke the rules of the game—it refused to melt and flow. With a gasp Mahoney jammed his helm hard round and let go his sheet on the run. There was a shuddering shock. The boat reared, like a frightened horse struggling to climb a bank. Then with a kind of sickening deliberation she turned clean over. There was a choking yell from the rudely awakened darkey and Mahoney found himself plunged into the smother of the broken waves.

When he came to the surface and shook the water out of his eyes Mahoney clutched the stern and pulled himself up to see what had happened. He had run upon a huge fragment of a broken-up wreck. From the heavy, steady motion, he concluded that the boat was caught on a sunken portion of the wreck. Some fifteen feet away a space of deck, with a few feet of bulwarks, rose just clear of the waves. This seemed to offer a less precarious refuge than the keel to which he was clinging. He slipped back into the waves struck out hurriedly, and dragged himself up to the highest point of the wet deck. Here, holding to the broken bulwarks, he peered about for his assistant. Taking for granted that the negro, whom he knew to be a magnificent swimmer, was clinging to the other side of the boat, he shouted to him with angry solicitude, but got no answer. It was incomprehensible. He was on the point of plunging again into the smother and swimming around the boat. Then he checked himself. Such a step was obviously futile. If the negro had been there, he would have lost no time in clambering out upon the bottom of the boat. There was a mystery in that sudden and complete disappearance. With a shiver Mahoney crouched down again and clutched the lurching bulwarks.

He had plenty of time now to think. He cursed himself

## THE PROWLERS

By Charles G. D. Roberts.

bitterly for the rash impatience which had driven him to attempt the journey from Kingston to Santiago in a little sloop, instead of waiting for the regular steamer, just because he feared the rebellion might fizzle out before he could get there to make a story of it. His folly had cost the nigger's life at least, and the account was not yet closed! Well, the nigger was gone, poor beggar. His black hide had enclosed a man, all right, but there was no use worrying over him. The question was, how soon would a ship come along? This was a frequented sea, more or less. But the wreck was almost level with the water, and lamentably inconspicuous. Mahoney knew that unless he were picked up

Mahoney was impatient to get up his flag-staff, but he wanted plenty of light. He waited until the sky was blue, the sun clear of the horizon. Then he stood up, set the hilt of his knife between his teeth, and prepared to plunge in. Before doing so, however, he instinctively scanned the water all about him. Then he removed the knife from his mouth and stared.

"That accounts for it!" he muttered, his teeth baring themselves with a snarl of loathing as he thrust the knife back into his belt and sat down again. Just behind him, and not a dozen feet away, a gigantic, triangular fin was slowly cleaving the swells.

There being nothing else to do, Mahoney occupied himself in



Mahoney Looked for a Very Battle of Titans to Follow.

right soon the tropic sun would drive him mad with thirst. He knew, too, that if any sort of a wind should blow up he would promptly have forced upon him that knowledge of the other world which he was not yet ready to acquire. It was clear that he must find some means of flying a signal. He decided that when daylight came he would dive under the upturned boat, cut away either the gaff or the boom, lash it to the bulwarks, and hoist his shirt upon it as a flag of distress.

Just before dawn the breeze died away. By the time the east had begun to flame and thin washes of red-orange to mottle the sky fantastically, the long swells were as smooth as glass.

watching that great dorsal as it prowled slowly this way and that. Such a fin he calculated, must mean a bigger shark than any that had hitherto come within his range of observation. He had a righteous hatred of all sharks, but this one in particular sickened him with vindictive loathing. He knew how lately and how horribly it had fed, yet here it was, as ravenous as ever. Presently it sank out of sight, and was gone for perhaps ten or fifteen minutes. Then, on a sudden, there was the devilish black fin again, vigilant and deliberate.

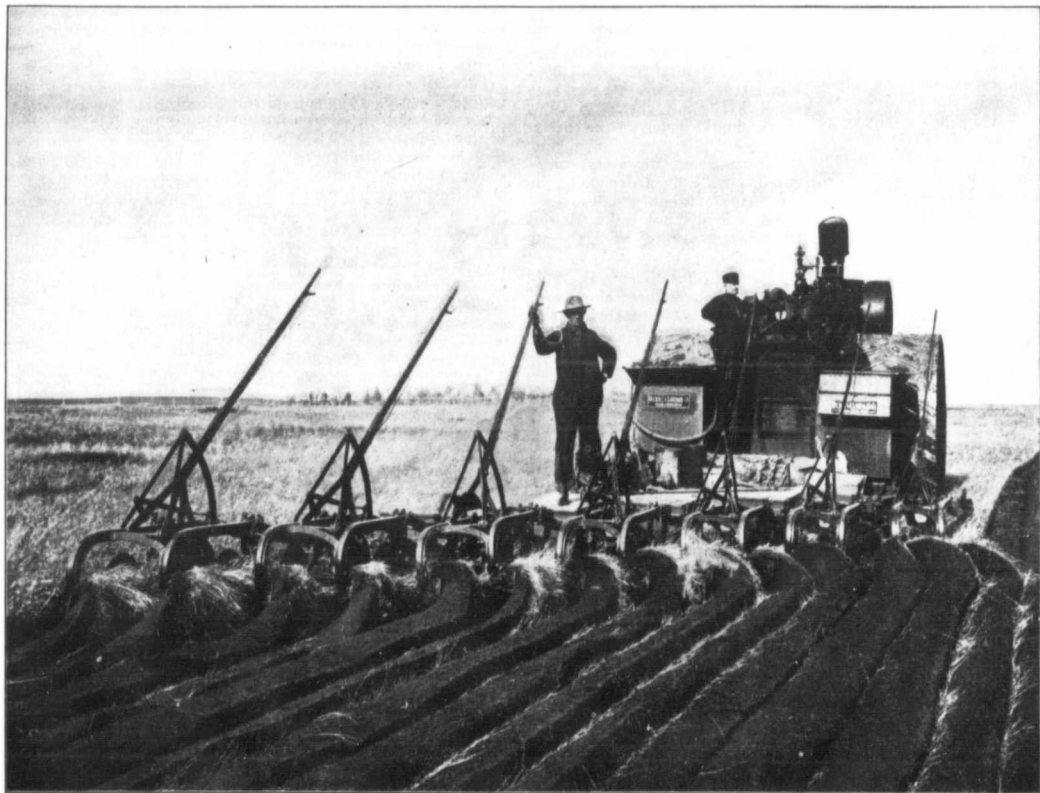
As the sun rose and the light fell more steeply, the dazzling reflections disappeared, and Mahoney could look down into the

transparent blue-green depths. He saw that the wreck on which he had taken refuge was an old one, long adrift in the teeming tropic seas. Its under edge carried a dense, waving fringe of barnacles and colored weed, swarming with sea creatures. In its shadow life crowded riotously, and death held easy revel. Among the looser fringes of the barnacle growth swam fish of the smaller species, many of them flashing with the radiance of sapphire and topaz or shooting like pink flames. Hither and thither darted a small school of blue and gold bonito, insatiable and swift, snatching down their prey from among the tips of the barnacles. About six feet below the barnacles a cavernous-jawed barracouta, perhaps five feet long, lay motionless but for the easy waving of its fins. It must have been gorged, for Mahoney, in all his seafaring, had never before seen one of these ravenous and ferocious fish thus at rest. It must even have, for once, lapsed into something like sleep—a perilous lapse in the strenuous life of the sea for anything less formidable than a sperm whale or an orca, and not without its dangers even for them. Its wide-set, staring eyes seemed to command a view in every direction. Yet they did not see a huge spectral form rise smoothly from below, turning belly upward with a sudden green-white gleam. Then the barracouta's powerful tail twisted with a violence that sent the water swirling as from a screw. But it was too late. The shark's triangular jaws snapped upon their prey, biting the big fish in halves. The two pieces were bolted instantly, as a hungry man bolts a "blue-point." And the shark—the biggest man-eater that Mahoney had ever seen—sank slowly out of sight, to reappear at the surface again in five minutes as ravenous as ever.

By this time it was beginning to get hot there on the shelterless wreck. A small steamer passed in the distance. Mahoney tore off his shirt and waved it wildly, on the chance that someone on the steamer might have a telescope pointed in his direction. The steamer went its way. Mahoney put on his shirt again, and wished he had not lost his hat. He had a handkerchief, however, and this he wound upon the top of his head like a turban. By wetting it frequently he kept his head and neck cool. As the morning wore on no fewer than five sails appeared on the horizon, but none came near enough even to excite a thrill of hope. Since there was nothing better to do, Mahoney was wise enough to keep as still as possible, watching the strange life that went on beneath his refuge, and splashing water over himself from time to time that his skin might absorb some of the liquid, and the dreaded torment of thirst be a little postponed.

# 35 ACRES PER DAY

## Using Only 1½ Tons of Coal Fourteen 14-inch Furrows



Nichols-Shepard 35 H.P. Double Cylinder turning 14 14-inch furrows. H. L. Fluke's outfit near Westport, S. Dakota

### NOTE THE DEPTH PLOWED

More acres plowed per engine by Nichols-Shepard Engines in the season of 1910 than by any other make. More money made plowing with Nichols-Shepard Engines than any other.

*Half Inch Boiler Sheets — Spur Differential Gear — Indestructible Steel Wheels — Strongest Drive Wheels with Thickest Tire and Reinforced — Great Big Crank Shaft, Cannot Spring or Break — Rocker Grates — Steel Frame Platform and Draw Bar*

All Strong and Stout and Run Steadiest because of Less Bother and Breakdowns. Send for Catalogue.

## NICHOLS & SHEPARD COMPANY, Battle Creek, Mich., U.S.A.

Branches with stocks of Machinery and Repairs: CALGARY, ALTA., CANADA, WINNIPEG, MAN., CANADA, REGINA, SASK., CANADA

pths.  
hich  
old  
ning  
car-  
e of  
reed,  
ures.  
riot-  
evel.  
the  
a of  
of  
ance  
oot-  
ther  
hool  
sati-  
own  
tips  
feet  
ous-  
five  
for  
It  
Ma-  
had  
rese  
hus  
for  
like  
the  
my-  
a  
not  
for  
yes  
in  
did  
rise  
ing  
den  
the  
st-  
the  
ew.  
k's  
on  
in  
ere  
gry  
nd  
ter  
1-  
re-  
in  
as  
ng  
er-  
ter  
fa-  
nd  
ice  
ter  
ed  
ter  
on  
he  
ad  
nd  
of  
3y  
is  
he  
an  
ri-  
gh  
e.  
er  
gh  
e,  
at  
id  
lf  
in  
d,  
of



The blazing sun dragged slowly past the zenith, indifferent to Mahoney's maledictions. Along in the afternoon a three-masted schooner hove in sight. There was not enough wind now to ruffle the tops of the swells; but there was some breeze up aloft, apparently, and the schooner, with all her canvas spread, was catching it, for she moved along at a brisk pace. Her course brought her so near that Mahoney tore off his shirt in trembling anxiety and waved it at arm's length, jumping as high as he could in the struggle to make himself conspicuous. Finding this fruitless, he then tied the shirt to the sleeves of his white duck coat, making a long streamer, which he thought the look-out could not fail to see. Notwithstanding all this frantic effort the schooner sailed on unheeding. From its decks the waving white streamer, if seen at all, would have looked like nothing more than an agitated streak of foam. But to Mahoney it seemed that he was being wantonly and brutally ignored. With a pang he realized that his excitement and his effort had accomplished but one thing—they had brought on the thirst. His throat was parching. He had an impulse to break out in a volley of hysterical curses against the retreating ship, but his self-respect withheld him. Leaning over the bulwark he murmured to the great green prowling shape of his submarine jailer:

"You're no worse than lots of men, you ain't, damn you!"

As if in answer to this equivocal compliment, the shark sailed in to within a little more than arm's length of the bulwark and looked up at Mahoney with cold, malignant eyes. Mahoney kicked at him hysterically, then turned away and drenched himself where the little waves ran up shallow over the slope of the deck. The cool of the water on his skin, particularly on his throat and wrists, did actually, though but slightly, ease his thirst.

The night fell windless and clear; and for a time so black were the shifting reflections on the swells, so confusing the phosphorescent gleams that shot up through the waters, that Mahoney could no longer see the stealthy prowling of the great black fin. Lashing himself to the bulwark by the sleeves of his shirt, he snatched an hour or two of troubled sleep. Once he woke with a shock of disappointment from a dream that the bottom had fallen out of a jug of water which he was just raising to his lips. Again he started up shouting, and struggling fiercely with the bonds that held him safely to the bulwark. He had dreamed that a glittering white steam yacht was speeding close past his refuge, so close that he had to look up at her rail, yet the people on her deck most unaccountably failing to see him. From this waking he

fell back weak and hopeless, and it was some minutes before he could get his nerves under their wonted cool control. He had no longer any desire for sleep, so he devoted himself again to soaking his wrists in the water and letting the lambent phosphorescence stream through his fingers.

At last the moon rose over the waste of sea. Across the shimmering silver pathway of its light sailed a far-off ship, small and black. Mahoney gazed at it with longing. An hour or two later another ship crossed the radiant pathway. But none came near the wreck. Only that sharp black fin, that prowled and prowled, kept always in sight, always near, till Mahoney began to wonder if it were really possible that the tireless monster would get him in the end. He registered a vow that if he should find himself growing delirious with thirst he would lash himself so securely to the bulwark that, come what might, the shark should never get his body. Comforted by this resolve, and the torment of his thirst mitigated a trifle by a drenching in the brine, Mahoney fell asleep again, and did not wake till the sun was streaming savagely on his face.

Untying himself from the bulwark, Mahoney stared about him wildly. A tall-masted brig, with royal and top-gallant sail drawing full, was retreating in the distance. Apparently it had passed not far from the wreck. Mahoney cursed himself wildly for having allowed himself to fall asleep. This had been, perhaps, his one chance. No other sail was in sight. There was nothing but a wisp of smoke on the horizon, betraying the passage of an unseen steamer. Mahoney found that he was babbling to himself about it, and the realization shocked him. He shook himself, pulled his courage and his nerve together sharply, then took off his clothes and splashed himself with water from head to foot. It was certain that his thirsty skin must absorb a good share of the liquid so generously applied to it; and, thus assuring himself, his thirst became, or seemed to become, less intolerable. When he had dressed again—leaving off the shirt, which he had kept tied to the bulwarks ready for instant use—he leaned over and peered down into the smooth water to look for the shark.

Grim and spectral, the great shape was just in sight, rising with strange indolence toward the surface. Evidently some good-sized victim had just been devoured. The shark came to rest within a few inches of the surface, where the sun could warm its rough back through the thin barrier of the water. There it lay basking, with the content of one that has well dined. The complacent malignity of its eyes, which seemed to meet the man's eyes with a peculiarly confident menace, filled Mahoney with

rage. He tore savagely at the bulwarks, in a foolish attempt to provide himself with a missile.

In the midst of this futile effort Mahoney chanced to drop his glance into the depths. There he caught sight of something that arrested him, making him forget for the moment even the tortures of his thirst. In the deepest green, at the very confines of his vision, a gigantic shape came faintly into view. It stirred, and grew more distinct. Motionless he peered down upon it, striving to make out what it was. His sea-lore, more abundant than exact, did not inform him as to whether or not the shark had any enemies to fear, but his imagination, always finding free play in the mysteries of the deep sea, was hospitably ready for any marvel. With fantastic expectancy he watched the sinister form of the strange creature as it slowly and steadily floated upward.

Presently he recognized it, having caught glimpses of its like once before in a deep lagoon of the Ladrones. It was not altogether dissimilar to the great shark basking above it, but slenderer in build, and with a pair of curious lateral fins outspread like broad, blunt wings. The most conspicuous difference was in its head, which was broad and blunt like the fins, and armed with a kind of two-edged saw, perhaps eight inches in width, projecting from its snout to a length of about four feet. The tip of the saw looked as if it had been chopped off square. Down both edges ran a series of keen, raking teeth. It was the mysterious and dreadful saw-fish, perpetrator of fabulous horrors.


Mahoney was afraid to move a muscle lest he should arouse the shark and put it on its guard. The eyes of the stranger stared up with a dead coldness at the bulk of the sleeping monster on the surface. More rapidly now, but still almost without movement of fin or tail, the ominous form arose through the transparent flood till Mahoney could fairly count the teeth on its awkward-looking but hideous weapon. Directly beneath the shark the stranger came, till at last there was no more than the space of a few feet between the two giant shapes. And still the shark slumbered. Mahoney held his breath. Then the saw-fish rolled over on its side, turning one edge of the saw toward the surface. For an instant it hung so, poised and still. Then the fins and flukes heaved together, the long bulk shot forward and upward, and the living saw cut straight across the belly of the shark, deeply and cleanly, under that tremendous thrust.

Mahoney cried out, shuddering at the horrible and unexpected sight. The shark was completely disembowelled. With a gigantic convulsion it sprang almost clear of the water, which was instantly dyed with blood. Mahoney looked for a very battle of Titans to follow. But in

truth the battle was almost over. The victim made no attempt at retaliation. It did not even seem to see its foe, or to know what had stricken it. For a few seconds it lashed the surface convulsively, then it dived, plunging straight downward, to the unseen in some rayless cavern of the deep.

With a leisurely zest which turned Mahoney sick the saw-fish guzzled its meal, then swam up and nosed inquiringly along the fringe of barnacles. Nothing there seeming to interest him, he turned with a disdainful sweep of his huge flukes and bored his way slowly downward toward the unknown deep whence he had so mysteriously come. Unstirring, held fast as if in a hideous dream, Mahoney watched the dull gray-black form grow green, and spectral and a brief space he continued to faint till at last it vanished. For a brief space he continued to stare after it, picturing it in his fevered imagination when it had sunk far beyond any reach of sight. At last, as if tearing himself free from a horrid spell, he drew a long breath and lifted his eyes to the horizon.

There, in full view, but too far away to notice such a speck among the wave as Mahoney on his bit of wreck, was a small freight boat, steaming past at a leisurely pace. Mahoney was himself in an instant. He realized that the saw-fish had freed him from his dreadful jailer. With his knife between his teeth he dived beneath the upturned sloop and fell to cutting ropes and lashings with a cool but savage haste. In half a minute he reappeared, gasping, but not discouraged. After two or three deep breaths he dived again, and this time, when he came up, he brought the long, slender pole of the gaff with him. With frantic eagerness he hoisted the white pennon of his shirt and coat, thanking heaven that the gaff was so long. He was about to lash the pole to the bulwarks with his belt, when he remembered that there was not wind enough to run out the signal. Lifting it in both hands as high as he could, he waved the flag wildly over his head in great arcs and sudden, violent dips. Would the look-out on the steamer see? Or, seeing, would he understand? Mahoney felt his strength suddenly failing, as a wave of despair sucked up at his heart. It was all he could do to keep the signal moving. Then at last he saw that the long line of the steamers broadside was shortening. Yes—yes, she was coming, she was coming! Tremblingly, with fingers that fumbled, he lashed the staff to the bulwark and sank panting upon the deck.



**ALBERTA** \$9.00 buys best incubator for \$4.00. Durable, efficient, and made by a Canadian and is adaptable to that country. It has heavy double walls, double glass doors, best copper hot water tank, safety lamp, nursery and level regulator, complete for operation. This high grade incubator is a result of many years' experience. Guaranteed and long trial. Write for free catalog. If in a hurry send price to save time. Alberta Incubator Co. Box 714, Markato, Minn.



BOOKS THAT REACH AND TEACH

You the things you want to know, and in a simple practical way that you can understand. No matter what your ambition or desire for knowledge may be, we publish books written by authorities in their different lines that will give you just the training and information you want and need.



This is the Large DESCRIPTIVE CATALOGUE which fully describes them.

Send free to any address. Write for it to-day.

Modern Locomotive Engineering. By Calvin F. Swingle, M.E. New Revised Edition with questions and answers. Size 5 x 6 1/2. 325 pages, 330 illustrations, including a number of folding charts. Pocketbook style, full grain leather, with gold stamping, and gold edges. \$1.50
Locomotive Fireman's Boiler Instructor. By Calvin F. Swingle, M.E. 420 pages, 160 illustrations, one folding chart, pocket size, full leather binding, round corners, red edges. \$1.50
Locomotive Engine Breakdowns and How to Repair Them. With Questions and Answers. By W. G. Wallace. 306 pages, full leather limp, round corners, red edges, 285 pages, 56 illustrations and 3 folding plates. \$1.50
First, Second and Third Year Standard Examination Questions and Answers for Locomotive Firemen. By W. G. Wallace. Pocket size, full leather limp, round corners, red edges, 346 pages, 90 illustrations and 3 folding plates. \$1.50
Walchaert Valve Gear Breakdowns and How to Adjust Them. By Calvin F. Swingle, M.E. Containing 100 pages, 100 illustrations. Bound in red silk cloth, round corners, red edges, pocket size. \$1.00
Modern Air Brake Practice, Its Use and Abuse. With Questions and Answers. By Frank H. Dukessmith and Calvin F. Swingle. 12mo, cloth, 400 pages, 150 illustrations, including seven folding plates. \$1.50
Construction and Maintenance of Railway Roadbed and Track. By Frederick J. Prior, Associate member. 470 pages, 300 illustrations, 7 folding plates, pocket size, full Persian morocco leather limp, round corners, red edges. \$2.00
Operation of Trains and Station Work. By F. J. Prior. Pocket size, full leather limp, round corners, red edges, 380 pages, 20 illustrations, 2 folding plates. \$1.50
Pattern Making and Foundry Practice. By L. H. Fend. 145 pages, 100 illustrations, pocket size, full leather binding, round corners, red edges. \$1.50
Practical Mechanical Drawing and Machine Design Self-Taught. By Chas. Westinghouse. 160 double pages, 230 illustrations, large quarto cloth binding. \$2.00
Twentieth Century Machine Shop Practice. By L. Elliott Brookes. 12mo, cloth, 650 pages, 400 illustrations. \$2.00
The 20th Century Toolsmith and Steel-Worker. By H. Holford. 240 pages, 120 illustrations, 12mo, cloth binding. \$1.50
Electric Railway Troubles and How to Find Them. By Paul Lowe, M.E. 12mo, cloth, cover 375 pages, fully illustrated \$1.50
How to Become a Successful Motorman. By Sidney Aymer-Small, M.A.I.E.E. 12mo, full leather limp, 320 pages, 250 illustrations and 7 folding plates. \$1.50
Motorman's Practical Air Brake Instructor. By George R. Deneshie, Master Mechanic Toronto. 16mo, 288 pages, 180 illustrations, 10 folding charts, 6 in color, full limp leather binding. \$1.50
Complete Examination Questions and Answers For Marine and Stationary Engineers. A Complete Engine Operator's Catechism. By Calvin F. Swingle, M.E. 367 pages, 212 illustrations, pocket size, full leather, round corners, red edges. \$1.50
The Twentieth Century Hand-Book for Steam Engineers and Electricians. By Calvin F. Swingle, M.E. 1,520 pages, over 700 illustrations, handsomely bound in full seal-grain leather, pocket-book style, stamped in gold, gold edges. \$3.00
Steam Boilers, Their Construction, Care and Operations. With questions and answers. By Calvin F. Swingle, M.E. 190 pages, 126 illustrations, pocket size, full leather limp binding, round corners, red edges \$1.50

Farm Engines and How to Run Them. The young engineer's guide. By James H. Stephenson and oldest expert Engineers. 12mo; cloth. \$1.00
Practical Hand-Book For Millwrights. By Calvin F. Swingle, M.E. Large 12mo, cloth, 160 pages, 100 illustrations, fully illustrated. \$2.00
The Steam Turbine, Its Care, Management and Operation. By Calvin F. Swingle, M.E. Fully illustrated, 16mo, cloth, \$1.50
Swingle's Catechism of Steam, Gas and Electrical Engineering. By Calvin F. Swingle, M.E. 190 pages, full leather limp binding, stamped in gold, round corners, red edges. \$1.50
The Automobile Hand-Book. By L. Elliott Brookes. New revised and enlarged edition, 16mo, 700 pages and over 220 illustrations, full leather limp, round corners, red edges. \$2.00
Home Furniture Making. By G. A. Raeth. Over 100 pages, fully illustrated, 16mo, cloth. \$1.00
Elevators—Hydraulic and Electric. By Calvin F. Swingle, M.E. 100 pages, 40 illustrations, 16mo, cloth. \$1.50
Practical Steel Construction. By Fred T. Hodgson, F.A.I.C. 12mo, cloth, 120 pages, fully illustrated. \$1.50
Five Orders of Architecture. Compiled and edited by Fred T. Hodgson, from the works of Sir William Chambers, Palladio, Vitruvius, Gwilt, and others. With illustrations, notes and essays on the various phases of Classical Architecture. 236 pages, 39 plates, 12mo, cloth. \$1.50
The Automobile Mechanician's Catechism. Over 400 Questions and Answers. Illustrated with 3 large folding charts, with all parts fully and correctly numbered. By Calvin F. Swingle, M.E. Pocket edition, 16mo, full leather, round corners, red edges, stamped in gold, over 100 pages. \$1.25
The Up-To-Date Electro-Plating Hand-Book. By James H. Weston. 192 pages and over 50 illustrations, with numerous tables and useful formulas, pocket size, cloth. \$1.00
Full leather. \$1.50
The Practical Gas and Oil Engine Hand-Book. By L. Elliott Brookes. 192 pages, 50 illustrations, pocket edition, cloth. \$1.50
Full leather. \$1.50
The Calculation of Horse Power Made Easy. By L. Elliott Brookes. Size 5 x 7 1/2. 80 pages, illustrated, cloth. \$1.75
Modern Wiring Diagrams and Descriptions. By Henry C. Horstmann and Victor H. Tousey. 16mo, 226 pages, 200 illustrations, full leather binding, round corners, red edges, size 4 x 6, pocket edition. New revised and enlarged edition. \$1.50
Electrical Wiring and Construction Tables. By Henry C. Horstmann and Victor H. Tousey. Bound in full Persian morocco, pocket size, round corners, red edges. Net. \$1.50
Modern Electrical Construction. By Horstmann and Tousey. New revised and enlarged edition, 16mo, 340 pages, 173 diagrams, pocket size, full leather limp. \$1.50
Practical Armature and Magnet Winding. By Henry C. Horstmann and Victor H. Tousey. 16mo, pocket size, full Persian morocco leather, round corners, red edges. \$1.50
Electrician's Operating and Testing Manual. By Henry C. Horstmann and Victor H. Tousey. Illustrated, 16mo, full leather round corners, red edges. \$1.50
Elementary Electricity Up To Date. By Sidney Aymer-Small, M. A. I. E. E. 12mo, round 600 pages, 400 illustrations. \$1.50
Electricity Made Simple. By Clark Glynn Haskins. 283 pages, 108 illustrations, 12mo, cloth binding. \$1.00

Dynamo Tending For Engineers, Or Electricity For Steam Engineers. By Henry C. Horstmann and Victor H. Tousey. 210 pages, 100 illustrations, 12mo, cloth binding. \$1.50
Easy Electrical Experiments and How to Make Them. By L. P. Dickinson. 220 pages, 110 illustrations, 12mo, cloth binding. \$1.00
First Steps in Electricity, or Electricity For Beginners. By W. Jerome Harrison. 283 pages, 114 illustrations, pocket size, bound in cloth. \$1.00
The Handy Vest Pocket Electrical Dictionary. By Wm. L. Weber, M. E. Cloth, red edges, indexed. \$1.25
Full leather, gold edges, indexed. \$1.50
Practical Telephone Hand-Book and Guide to Telephonic Exchange and Construction and Maintain Telephone Lines. By T. S. Baldwin, M. E. 12mo, cloth binding, 180 pages, 75 illustrations. \$1.50
Operators' Wireless Telegraph and Telephone Hand-Book. By Victor H. Laughter. 12mo, cloth, 210 pages, fully illustrated and with six additional full-page half-tone illustrations showing the installation of "Wireless" on the U. S. warships and ocean liners \$1.00
Telegraphy Self-Taught. A complete manual of instruction by Theodore A. Edison, M. A. Edison, C. E. 136 pages, 170 pages, fully illustrated. \$1.00
Hot Water Heating, Steam and Gas Fitting. By Wm. Donaldson. Large 12mo, 250 pages, over 100 illustrations, cloth binding. \$1.50
Practical Up-To-Date Plumbing. By George B. Clow. 310 pages, over 250 illustrations, large 12mo, cloth binding. \$1.50
Modern Blacksmithing, Rational Horseshoeing and Wagon Making. By J. G. Holmstrom. 200 pages, 75 illustrations, 12mo, cloth binding. \$1.50
Sheet Metal Workers' Instructor. By Joseph H. Rose. Large 12mo, 310 pages, 200 illustrations, cloth. \$2.00
Boat Building For Amateurs. By Adrian Nelson, C. E. 136 pages, 70 illustrations, 12mo, cloth binding. \$1.00
Elementary Chemistry Self-Taught. By H. E. Roscoe and L. Elliott Brookes. Revised and enlarged, 250 pages, 50 illustrations, 12mo, cloth stamped in gold and inks \$1.00
Picture Making, For Pleasure and Profit. The work is a treatise on the modern process of color photography by T. Stith Baldwin. 284 pages, 78 illustrations, 12mo, cloth, decorative cover. \$1.25
Modern Carpentry and Joinery—Vol. I. Advanced series. By Fred T. Hodgson, F.A.I.C. 300 pages, 318 illustrations, 12mo, cloth binding \$1.00
Modern Carpentry and Joinery—Vol. II. Advanced series. By Fred T. Hodgson, F.A.I.C. 400 pages, 393 illustrations, 12mo, cloth binding. \$1.00
The Steel Square—Two Volumes. A Practical Treatise on the Use of the Steel Square. By Fred T. Hodgson. 600 pages, 500 illustrations. \$2.00
Single Vol., Part I, cloth. \$1.00
Single Vols., Part II, cloth. \$1.00
The A. B. C. of the Steel Square and Its Practical Uses. By Fred T. Hodgson. 16mo, 130 pages, fully illustrated, cloth. \$1.50
1) Exterior Painting, Wood, Iron and Brick.
2) Interior Painting, Water and Oil Colors.
3) Colors, What They Are and What to Expect From Them.
4) Graining and Marbling.
5) Carriage Painting.
6) The Wood Finisher.

Heavy and Light Timber Framing Made Easy. By Fred T. Hodgson, F. A. I. C. Over 300 pages, fully illustrated, large 12mo, cloth binding. \$2.00
Modern Estimator and Contractor's Guide. For Pricing all Builders' Work—With Many Tables, Rules and Useful Memoranda. By Fred T. Hodgson, F. A. I. C. 318 pages, 100 illustrations, 12mo, cloth. \$1.50
Common Sense Stair Building and Hand-Railing. By Fred T. Hodgson, F. A. I. C. 300 pages, 300 illustrations, 12mo, cloth binding. \$1.00
Easy Steps to Architecture. Artificially Designed For Home Study. By Fred T. Hodgson, F. A. I. C. 350 pages, 230 illustrations, 12mo, cloth. \$1.00
Builders' Architectural Drawing Self-Taught. By Fred T. Hodgson, F. A. I. C. 336 pages, 250 illustrations, and 18 folding plates, 12mo, cloth binding. \$1.50
Practical Bungalows and Cottages For Town and Country. Arranged and edited by Fred T. Hodgson, assisted by E. N. Braucher, architect. 12mo, cloth, 420 pages, 400 illustrations. \$1.00
Easy Lessons in the Art of Wood Carving. By Fred T. Hodgson, F. A. I. C. 284 pages, 300 illustrations, 12mo, cloth binding \$1.50
The Practical Cabinet Maker and Furniture Designer. By Fred T. Hodgson, F. A. I. C. Large 12mo, cloth binding. \$2.00
Concretes, Cements, Mortars, Plasters and Stuccos. How to Make and How to Use Them. By Fred T. Hodgson, F. A. I. C. 520 pages, 150 illustrations, large 12mo, cloth binding. \$1.50
Practical Stonemasonry Self-Taught. By Fred T. Hodgson, F. A. I. C. 300 pages, 500 illustrations, 12mo, cloth binding. \$1.00
Practical Bricklaying Self-Taught. By Fred T. Hodgson, F. A. I. C. 277 pages, 300 illustrations, 12mo, cloth binding. \$1.00
The Up-To-Date Hardwood Finisher. (Two Parts in One.) By Fred T. Hodgson, F. A. I. C. 377 pages, 117 illustrations, 12mo, cloth binding. \$1.00
The Modern Painter's Cyclopaedia. By F. Mair, Head Instructor at the Chicago School of Painting, Decorating and Paper-hanging. Illustrated, 12mo, cloth, decorative cover in gold and inks. \$1.50
The Signist's Book of Modern Alphabets. Collected and engraved by F. Delamotte. Large oblong octavo, 208 pages, 100 designs. \$1.50
The Amateur Artist or Oil and Water Color. Painting Without the Aid of a Teacher. By F. Delamotte. Large 12mo, cloth, 160 pages, fully illustrated. \$1.50
The Art of Sign Painting. By Frank H. Atkinson. Large quarto, 332 pages, cloth binding, with special decorated cover design printed in five colors. \$1.50
The Red Book Series of Trade School Manuals. By F. Mair, Director of the Chicago School of Painting, Decorating and Paper-hanging. 6 volumes, 16mo, full cloth, illustrated, each. \$1.50
(1) Exterior Painting, Wood, Iron and Brick.
(2) Interior Painting, Water and Oil Colors.
(3) Colors, What They Are and What to Expect From Them.
(4) Graining and Marbling.
(5) Carriage Painting.
(6) The Wood Finisher.

These are the reputable and responsible Canadian dealers who can supply our books at all times. Or, you can send your order direct to us. These books are not subject to any duty charges.

Table listing Canadian dealers for various cities including Toronto, Vancouver, Montreal, and others, with their respective addresses and phone numbers.

Don't forget to send for this new illustrated catalogue just from the press.

FREDERICK DRAKE & COMPANY, Publishers, 1330 Michigan Ave., Chicago, U.S.A.



## Womans' Department

Conducted by PEARL RICHMOND HAMILTON

A HOUSEHOLD FORUM FOR THE DISCUSSION OF EVERYTHING THAT PERTAINS TO THE HOME



### A HELPING HAND

A helping hand we all may give,  
If but a pleasant word to say,  
And something find each day we live  
To help another on the way.

A helping hand may sow the seed  
From which the fruits of goodness grow,  
And to the right may gently lead  
The erring from the path of woe.

A helping hand to all mankind,  
Among the rich, the poor, and low,  
In every state of life can find  
An act of kindness to bestow.

A helping hand we all may need,  
When darkest sorrows leave their trace,  
Someone to comfort and to lead,  
To give us strength and divine grace.

A helping hand where'er we go,  
A ray of sunshine may impart,  
And but a deed of kindness show  
A noble and a generous heart.

A helping hand is ever near,  
In passing through life's troubled tide  
When all the world seems cold and drear,  
It is a never-failing guide.  
—Good Housekeeping.

### GRANDMOTHER

By Eugene Geary  
Looking out at shadows fleeting,  
From her window's trellised bars,  
Now her dear old eyes send greeting  
To the near, yet far-off stars.  
And her memory's never shady,  
Clear and bright is every page—  
She's a peaceful, sweet old lady  
In the nightfall of her age.

She has known life's joys and sorrows  
Trod thro' flower paths and weeds,  
And she thinks on dim to-morrows  
As the Book of Love she reads.  
Life's receding in the distance,  
She can see the jasper walls,  
And she'll offer no resistance  
When the heavenly Master calls.

Now her wrinkled face is shaded  
As she looks across the years  
At the scenes of youth unfaded,  
Till her eyes are dimmed with tears.  
Grassy graves rise up before her,  
She can read each loved one's scroll,  
And a wave of peace steals o'er her—  
She is last upon the roll.

Visions of the bright hereafter  
For the moment pass from view,  
When the children's merry laughter  
Brings the olden joys anew,  
And they tenderly caress her—  
Pour their music in her ears,  
For she loves them all, God bless her!  
In the sunset of her years.

### THE DOWER LAW

Last summer I wrote a letter to our women readers in which I urged a discussion of the dower law. Our readers did not seem to care to write their views of the subject so I let the matter drop. I had hoped, however, for a lively discussion among those interested. Last week I received the following letter; I hope others will take up the subject until we shall have a large correspondence full of ideas from our Western women. It is a law that should be of vital interest to one and all. I am pleased to publish this letter and hope to have more next month.

Dear Editor:—I am enclosing a cutting that I just lately chanced upon. I am pleased to learn that there is some interest being taken in connection with the dower law. As I think it is time there is some-

thing done, for as a rule, the farmer's wives in this country have to work harder than the men do, for the reason that there hardly ever is a time when a farmer wants men but that he can get them in a very short time. On the other hand when a woman want help for house work it is hardly ever to be had at any price. I have been in this country for twenty-eight years and in all that time household help has been hard to get.

I think it is a very unfair law as well as a most selfish one to think that any woman—no matter who—should work hard for years and then have no claim on anything for her work.

In many cases she had far better have been a servant all this time, for at least she would then have had her wages to call her own for the labor she had done, and any one who has done her household work on a farm, besides cooking for a number of men as is often the case, has and always will have to work harder than any servant ever does, and the law claims that a servant can get her wages and it sees that she does get them.

Has it got to be that a wife is of less account than a servant? The wife works for her board and a few clothes. I do not wonder that women—especially in this country—are not so anxious to get married as they were a number of years ago.

They know that they can at least earn something for themselves.

I am a farmer's wife and though I have never had cause to suffer through such a law I know how to feel for those who have, and I do not think that there is one single farmer's wife who would not like to see something done in regard to the dower law.

I wonder how the men would like to have the tables turned. I think there soon would be a big kick if a woman could take all and let him shift for himself. I would like to hear if anything has been done yet, as this clipping is out of an old number of your paper.

A Farmer's Wife.

Carman, Man.  
This is the kind of letter we want from our women readers. The women who conduct the departments for the farmers' wives are all anxious to work for the laws that will protect the interests of these usually over worked women. We would do our part, but we need your co-operation, and you can help us by writing to our department and stating your ideas just as this woman has done. Farmers' wives can earn a great deal toward their welfare if they encourage in every possible way the organizations of Women's Institutes that are now being started throughout the West. It is for their welfare that these organizations are being promoted. The women who are out working for these organizations of Women's Institutes, are honest and sincere in their efforts to help women in the country. At these institutes you will have opportunity to discuss conditions that vitally concern you as well as other problems of interest; and the social life at these meetings will add a great deal of pleasure to women who suffer from loneliness.

I want you to discuss on these pages—not only the dower law—but the home stead act; and I hope to have letters on gardening, poultry raising, cooking—in fact anything that interests you and would help other women. Your experience might save many bitter lessons for country women who are just beginning the struggle that you have passed through. Let us have for our aim—"Mutual helpfulness." Address all letters to Editor of Women's Department, Canadian Thresherman and Farmer, Winnipeg, Can.

### MOTHER'S CORNER

#### A MOTHER'S PRAYER

By Cora A. Matson Dolson  
Give me with motherhood the power  
To see life as my children see,  
To live once more the childhood hour  
When I stood by my mother's knee.

The petty trials and the fears  
That thoughtless lips have laughed to scorn,  
The prayers that fell on heedless ears,  
Beat back from my own childhood's morn.

And my heart cries, O Fount of Love,  
That laid this burden on my breast,  
How can one mortal dream to prove  
A wiser mother than the rest?

Yet, since this mother-crown is mine,  
Rightly to wear it be my part;  
Then grant one ray from Light Divine,  
That I may read my own child's heart.

#### "THE QUIET MINUTE."

This is what a much burdened little woman calls the few minutes she has all to herself between waking and rising in the morning. When she awakens from the night's sleep she lies quietly in bed a few moments, and mentally talking to herself. The day is to be full of duties and things which tempt worry, and she knows it. She also knows that her health is not robust and her nerves are not always obedient, so she quietly reassures herself that she is going to meet the duties of the day with calmness and willingness, and that she is going to depend on the Divine Mind for wisdom and the Divine Arm for strength. Then she rises to face the duties with a sweetness of spirit and a calmness of assurance which helps her over many a hard place and through many a trying crisis. It is an excellent idea to set aside this quiet minute in the early morning when one can talk to the Divine and get the heart strengthened and the nerves attuned for the day.

If you cannot find opportunities at home, you will not find them elsewhere. If you cannot discover them to-day, you will not tomorrow.

#### CONVERSATIONAL INFLUENCE

My little girl said today: "Mother, we like everybody, don't we? We must not say 'peoples' are bad, must we?" The little philosopher started me to thinking seriously. Ella Wheeler Wilcox has this to say on the subject:—"What are you talking about in your homes? What is the burden of your conversation day after day, in the presence of your children and in the association with your neighbors?"

Whatever the nature of your thought and your words, it is helping to decide your future and the future of your children.

If you are talking gossip, and scandal and criticizing all your associates, and suspecting your neighbors of wrongdoing, you are creating conditions of discord and trouble for yourself and your descendants.

Years to come you will be wondering why Fate should treat you so badly—why you and yours should always be in trouble of some kind—why people should turn against you and disparage you.

It will be hard for you to understand that you are reaping what you sowed—that the daily conversation and gossip at your table and fireside furnished the seed for all this crop of tares and thistles.

Every thought we send out is a magnet, and attracts other thoughts like itself. We often wait years before feeling the result, and by the time it comes we have forgotten the kind of thought we sent forth. But it is indestructible, and nothing can hinder it from performing its errand.

A child's mind is wax, and it is shaped by its associations.

If you talk about hatred and revenge of "getting even" and paying debts, if anger fills your thoughts, the child is going to cultivate those brain cells, and may some day figure as a criminal. Anger and revenge lead to crime, to the most awful of crimes—manslaughter. An uncontrolled temper and an uncontrolled tongue are dangerous to the peace of a community.

If you are inclined to ridicule and make fun of your neighbors, your children will follow in your footsteps and create enemies wherever they go.

On the contrary, if you look for the best quality in every one and speak of it, if you train yourself to rejoice at the good luck of others, and to be sorry for their misfortunes, you are creating friends for yourself and your descendants. You are setting in motion those most powerful vibrations of Love which will bless you and aid those with whom you associate as you pass along life's highway.

You can give your children no greater endowment than to teach them to think, talk and act love for humanity. Not only are you influencing their lives for good, but the lives of their future husbands, wives and children.

Therefore, be careful what you talk about, and what you think about, as you close your doors to the outer world and gather together in the family circle.

Do not leave any medicine within a child's reach. Even though one dose be harmless a whole bottle might cause death. I know of a dear little child whose death occurred this month because of an overdose of medicine tablets that he found.

#### PAYING OUR DEBT.

By Zelia Margaret Walker.

A young housekeeper asked her pleasant-faced neighbor to lend her a pattern. She asked with hesitation, and only after she had searched the catalogues in vain for a baby dress pattern similar to it.

"It's a pattern I invented," smiled the neighbor, "and I've given it away, but I'll cut out another for you if you'll wait."

"I don't like to put you to so much trouble," said the young woman.

"But it isn't any trouble. I'm glad of a chance to do it." Then as the young woman still hesitated, the wise neighbor went on. "What I mean is that I am glad of the chance to do some little helpful thing. We housekeepers're so busy with our own affairs that we haven't much time to look about and see how we may pay a part of our debt to humanity. I, for one, have a big debt. People have done so many kind things for me. I know I never can go out and do any big things for humanity, and I'll never be rich enough to build hospitals or endow fresh air farms. So I must just do the little things that come my way. And I am pleased when I find some small service in my power

that I can do for a neighbor. So you see you are not putting me to any trouble in cutting out the pattern. I am just passing something along."

The young woman was smiling. "I am twice glad now that I asked for the pattern. And I promise you I shall pass it along. I don't know yet what I can do, but I shall look for ways to begin to pay up the very big debt I owe."

**FOR EMERGENCIES**

**Quickly-made Fomentations and Poultices**

To make a Fomentation: Place a towel over a basin and lay a piece of folded flannel on it. Pour boiling water to thoroughly saturate the flannel. Let one person grip each end of the towel, and wring it with the flannel inside. Shake the flannel, and apply it to the skin.

To Make a Poultice: Heat a basin, knife, and spoon. Pour boiling water into the basin. Sprinkle linseed meal in whilst stirring. When the poultice is smooth and firm, and can be cut with a knife, spread it on linen and apply very hot to the skin.

Poultices and fomentations are used for pain in the chest or abdomen, for scurf or lumbago, strains or sprains.

**Burns and Scalds.**

1. Exclude air as soon as possible.
2. Apply some emollient, such as vaseline, olive oil, lanoline, cold cream or carron oil.
3. Cover with clean lint or linen and a gauze bandage.
4. Important Point.—Attend to any shock by keeping the patient warm and giving hot drinks.

Send for the doctor.

**Cuts.**

In the case of a clean cut, draw the edges together after drying any moisture, and apply collodion with a camel-hair brush. This forms a temporary skin underneath which the cut heals. A dirty cut or wound must be carefully washed with warm boracic lotion (one teaspoonful of boracic powder to half a pint of water), then dried, dusted with boracic powder and covered with clean lint and a gauze bandage.

**Bleeding.**

1. To Arrest Haemorrhage.—Apply pressure on the bleeding point with a pad of clean linen or a folded handkerchief, and fasten with a bandage.
2. Elevate the limb.
3. If the blood is bright red and is coming from the wound in spurts or jets, the bleeding is from an artery. Pass an elastic bandage round the limb immediately above the seat of haemorrhage to compress the artery.

If the blood is purplish and wells steadily from the wound, the haemorrhage is from a vein. Apply the bandage round the limb below the wound to compress the vein.

Send for the doctor.

**Bruises and Sprains**

**Bruises.**—Apply cold-water dressings to keep the swelling down.

**Sprains.**—Apply cold-water dressings until they cease to relieve pain. Then flannel wrung out of hot water. Keep the part absolutely at rest until the doctor comes.

**Fainting and Fits.**

1. **Fainting.**—The patient is pale, and the breathing regular and quiet. Lay her flat with the head low, and dash cold water on the face. Nothing should be given by the mouth to an unconscious patient. In all cases of fainting loosen and keep the patient warm.

2. **Apoplectic Fit.**—The face is livid and the breathing is stertorous. Lay the patient flat with the head on a pillow. Keep him absolutely quiet until the doctor arrives, and give nothing to drink.

3. **Epileptic Fit.**—The face is livid, and the body convulsed. The patient falls suddenly, and foams at the mouth. Keep her quiet, and prevent her from hurting herself. Put a piece of wood or cork in a folded handkerchief between the teeth to prevent her from biting the tongue. After the fit rest and sleep are necessary.

Send for the doctor.

**Sickness**

Provide absolute quiet, fresh air, and warmth. A hot-water bag or a poultice to the stomach, relieves the sickness. Keep the limbs warm. Sips of very hot water may be given by the mouth. If

due to poisoned food recently taken, an emetic should be given. (See next column.)

**Diarrhoea**

Warmth, rest, abstinence from solid food. A dose of castor oil is the best treatment in ordinary diarrhoea due to irritating material in the digestive canal. Apply a poultice or hot fomentation over the abdomen if there is pain.

**Poisoning**

1. Send for a doctor.
  2. Give copious drinks of milk or flour-and-cream beaten together. Then two raw eggs beaten up with milk.
  3. Give an emetic. If the mouth and lips are stained or burned (indicating that an acid or alkaline has been swallowed) an emetic must never be given.
- Simple Emetics:

(1) A tablespoonful of salt in a tumblerful of tepid water.

(2) A dessertspoonful of mustard in a tumblerful of lukewarm water.

4. When there are stains and burns about the mouth give milk, eggs, and oils (olive oil, cod-liver oil).

5. Strong boiled tea is a neutraliser of a number of poisons and a stimulant at the same time.

6. Treat shock by keeping the patient warm and quiet.

**Treatment**

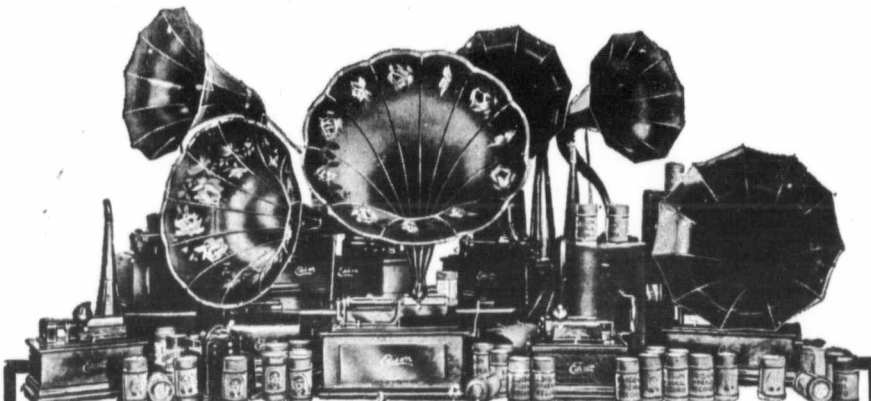
Wash the mouth with lime-water, whitening and water, chalk and water, wall plaster, or other alkaline mixture. Let the patient sip some, and afterwards give milk and olive oil. Treat shock by keeping the patient warm. Poisons (Acids) —Carbolic acid, Sulphuric acid (oil of

vitrol), nitric acid, oxalic acid (salts of lemon or salts of sorrel).

Wash mouth with an acid mixture such as vinegar and water in equal quantity or lemon-juice and water. Then give milk, oil and eggs beaten up with milk. Treat shock. (Alkalis.) Caustic potash, caustic soda, quicklime, strong ammonia. Give an emetic. Prevent the patient from going to sleep by walking him about, flicking his face with towels wrung out of cold water, smelling-salts, drinks of hot coffee, etc. Preparations of opium (morphine, laudanum, chlorodyne).

(Give an emetic and castor oil. Hot poultices or fomentations to the abdomen, warmth to the limbs. Poisoned meat, fish, or fungi (such as mushrooms). Poisoned plants (laburnum, foxglove, monkshood).

—From The Ladies Realm.



**Your Choice** of Any of These  
**Yes, FREE.** Shipped positively and absolutely free. You do not have to pay us a single penny either now or later. We don't ask you to keep the phonograph—we just ask you to accept it as a free loan. We do not even ask you for any deposit or any guarantee, not even any C. O. D. payment to us. All we ask is that you tell us **which** of the magnificent Edison outfits you prefer so that we can send that one to you on this free loan offer.

**Just Take Your Choice** You Don't Have to Buy Anything

Get any of the outfits shown above—your choice of records too. **Simply get the phonograph and the records and use them free just as though they were your own.** Entertain yourself, your family and your friends too, if you wish, with everything, from the catchiest, newest popular songs, side-splitting minstrels and vaudeville monologues to the famous grand operas, **Amberola** and other records sung by the world's greatest artists. Hear all this to perfection on the Edison Phonograph. After you have had all this entertainment absolutely free, then you may simply send the outfit right back to us at our expense. Now, if one of your friends wishes to buy such an outfit tell him that he can get the rock-bottom price, and, if he wishes, on payments as low as \$2 a month **with interest.** But that's not what we ask of you. We just want to send you your choice of the latest style Edison Phonograph **free**—your choice of records too, all **free**—then we will convince you of the magnificent superiority of the new style Edison. It will cost us a little in express charges to get the phonograph back from you—that is true—but we'll feel amply repaid for that, knowing that we have made you a friend and a walking advertisement of the new style Edison Phonograph.

**Send Coupon for the New Edison Books FREE Today**

Get our handsome Free Edison Catalog and list of over 1500 records so you can select just the machine and the songs, recitations, etc., you want to hear on this ultra generous offer. Remember, there is absolutely **no obligation** on your part. All you need to do is to return the outfit at our expense when you are through with it. If you enjoy good music, and the finest and most varied entertainment that it is possible to imagine, or if you want to give your family and friends a treat such as they could not possibly get through any other means, then you should certainly send the Free coupon today. Don't wait—your name and address on a postal will do but the coupon is handier. No letter necessary. Be certain to write while the offer lasts. Better write today.

**F. K. Babson, EDISON PHONOGRAPH DISTRIBUTERS**  
Dept. 355 Portage Avenue, WINNIPEG, CANADA. U.S. Office: Edison Block, Chicago, Illinois.

**FREE COUPON**

F. K. BABSON  
Edison Phonograph Distributors, Dept. 5202  
355 Portage Avenue, WINNIPEG, CANADA

Without obligations on me, please send me your great Edison Catalog, and also full explanations of your Free Offer on my choice of a new style Edison Phonograph.

Name \_\_\_\_\_

Address \_\_\_\_\_

No letter necessary. Just sign and mail Free Coupon NOW



**ABOUT WOMEN**

**Judith Gautier.**

Judith Gautier is the first woman to be made a member of any French academy. The Academie Goncourt has just decided to make her an immortal, in recognition of her original writings and of her translation of Parsifal and the Chinese classics.

**Miss Redmond a Playwright.**

Johanna Redmond, second daughter of the leader of the Irish Nationalists, is the author of a play which deals with the times and career of Robert Emmet at the period when Emmet was secretary to the secret directory of the United Irishmen.

**Princess Victoria Louise.**

Princess Victoria Louise of Germany bids fair to be quite independent of the Kaiser's rules. Even at this early age she is said to take issue with her Imperial father's edict that the three "K's," "kirehen, kinder, kuechen"—church, children, cooking, should be the limitations of woman's activities, and she has taken the liberty to protest against the Kaiser's utterances against suffrage for women. Recently the young princess visited a club of working girls, and is anxious to aid them. She is an expert horsewoman, and has just had her first hunt, although her mother does not approve of girls riding after hounds.

**Duchess has Charity Sale.**

The Duchess of Marlborough, formerly Miss Vanderbilt of New York, recently had a charity sale at her magnificent home, Sunderland House, at which articles made by the wives of men who are in prison were sold. This is a very commendable way of helping families in need.

**To Give Away Inheritance.**

Mrs. Maud Ballington Booth, recently announced in a lecture given in Chicago, that she had fallen heir to \$5,000, and that she would give it toward the building of a new home for the ex-convicts in whose welfare she is working. She will use this sum as a nucleus, and hopes to raise \$15,000 more for the building.

**Queen Sophia of Naples**

Ex-Queen Sophia of Naples recently celebrated her sixty-ninth birthday. She is one of the few women who have borne arms for their country. In 1860 when the combined armies of Victor Emmanuel and Garibaldi attacked Gaeta, King Francis the Second was so unnerved that he failed the army utterly, but Queen Sophia conducted the defence, remaining on the ramparts during the fiercest of the fight.

**EXPERIENCE EXTRACTS**

**Dust Cap.**

A simple way to make this very useful article is to take any pretty figured handkerchief and run a drawingstring around the hem, leaving one corner for a little loop in front.

**Center Piece Holder.**

Try a mailing tube covered with linen for rolling center pieces. If a tube is not obtainable take an old broom stick and bind with cretonne. Then take brass tacks, tack a yard length of the cretonne to rod. Now place center piece next to rod and roll. This is an excellent device for keeping center pieces clean and without creases. An embroidered cover is an addition elaborated to suit one's taste.

**Wrist Pincushions.**

We have had pincushions on the sewing machine arm and at the side of the machine, and we have had all sorts of pincushions for the sewing table, but a new contrivance devised by an ingenious dressmaker is a cushion which is attached to a rubber band and which slips over the hand and rests on the left wrist. Of course, there can be no hunting for pins when one carries them on her wrist.

**Shampooing White Hair.**

The woman with snowy white hair must beware of hair shampoos and tonics lest her white locks be discolored. A safe and effective shampoo can be made of the whites of eggs beaten lightly with a little lukewarm water. Then the hair should be rinsed with clear warm water. A few drops of bluing in the rinsing water will give the hair that much-desired glossy look.

**Keep Plates from Breaking.**

To prevent the fine china plates breaking put a thickness of blotting paper between them. This may be bought in large sheets and cut into rounds which are large enough to prevent one plate marring the decoration of another.

**The Kerosene Odor.**

The odor from the burning kerosene lamp or lantern is as disagreeable as it is unhealthy. It is said that a tablespoonful of vinegar put into the lamp after it is filled with the oil will prevent the smoke and odor, and will also make the light clearer. Some housekeepers claim that if the wicks are boiled in strong hot vinegar before they are used most of the disagreeable odor will be prevented.

**Safety Pin Rings.**

Make a ribbon bow with four ends of different length. Buttonhole four brass rings with button-hole stitch of embroidery silk the same color as ribbon. Attach neatly to the ribbon ends. In each ring hang a different size safety pin.

**RECIPES**

**Corn Cakes.**

Four eggs beaten light, two teaspoons of sweet milk, a pinch of salt, and flour enough for a thin batter. Add a half a can of sweet corn, mix well, drop in hot grease and fry.

**Pork Cake.**

One pound pork chopped fine, one cup molasses, two cups sugar, three eggs, one pound raisins, one pound currants, one teaspoonful soda and spice to taste. Mix, and bake in quick oven.

**Pork Fried in Batter.**

Slice fat pork and soak the slices an hour in sweet milk; drain and dry until the pork begins to turn brown, then dip it in a batter made of one egg, which is beaten and stirred into two tablespoonfuls of flour, then fry on both sides. Salt pork is really delicious when fried in this way.

**Cracker Pudding.**—Butter a dish and place a layer of split soda crackers (biscuits) in the bottom; sprinkle with raisins, cinnamon, nutmeg and a little salt, then add a layer of sour apples, pared, cored and sliced; place over some more crackers, and repeat with the fruit and spices until the dish is three-quarters full; then pour on enough milk to come just to the top of the crackers, beating into the milk the yolks of two eggs and the white of one, reserving the white of the second for the meringue. Let stand fifteen minutes to soak up, then bake in a moderate oven until the pudding is puffy and brown on top. Beat the egg white with two tablespoonfuls of granulated sugar until very stiff; put this over the hot pudding, letting the top be rough, then place in the oven, the heat of which has been reduced to allow the meringue to cook through before browning on top. This method will give a tender meringue. As soon as the meringue is done, serve with a hard egg sauce.

**Jam Pudding.**—Beat one egg, add one cupful of brown sugar, one cupful of milk, two cupfuls of flour, into which sift a quarter teaspoonful of salt, four level teaspoonfuls of baking powder; then add two tablespoonfuls of melted butter, half a pint of jam; beat well, then pour enough of the batter into a buttered pail to come two-thirds to the top; cover with either the pail top, buttering the inside, or a buttered paper tied down, and steam for one hour, setting the pail on a plate or inverted saucer.



**Bonspiel Specials**

**HIGH CLASS FURS**

**Fur Sets**

**Silver Pointed Black Hair Fox Sets**

Large two skin Stole, trimmed heads and tails. Rug Muff to match. Worth \$35.00. Sale Price **\$19.75**

**Alaska Sable Sets**

Genuine Natural Alaska Sable Stole. Imperial Muff to match. Regular \$57.50. Sale Price **\$32.90**

**Natural Muskrat Sets**

Throwover Tie and Imperial Muff to match. Regular **\$11.00** \$17.50. Sale Price...

**Isabella Fox Sets**

Two skin Stole, fur lined, trimmed tails. Large Rug Muff to match. Regular \$55.00, for... **\$37.50**

**Mink Sets**

Fine Labrador Mink large Throwover. 9 x 100 inches, with large Pillow Muff. Regular \$325.00. **\$230.00** Sale Price.....

**Genuine Moleskin Set**

Throwover 7 x 92 inches, with fancy Muff to match. Regular **\$56.00** \$70.00. Sale Price.....

**Fur and Fur Lined Coats**

**Ladies' Long Muskrat Coats**  
Semi-fitting style. Regular \$85.00. Sale Price **\$67.50**

**Ladies' Hudson Seal Coats**  
50 inches long, best quality. Regular \$225.00. Sale Price **\$167.50**

**Ladies' Fur-Lined Coat**

Muskrat lining, Labrador Mink Collar and Lapels. Fine Broadcloth shell. Regular \$125.00. Sale Price **\$87.50**

**Ladies' Fur-Lined Coats**

Broadcloth shell in black, blue or green, Hampster lined, Western Sable or Russian Otter collar. Tailor made, Fairweather style. Reg. \$55.00. Sale Price **\$40.00**

**Ladies' Persian Lamb Coats**

Plain and trimmed styles. Regular \$200.00 and \$225.00. Sale Price **\$147.50**

**Genuine Alaska Seal Jacket**

Twenty-four inches long. Sale Price **\$197.50**

You can buy any ordinary fur garment from your furrier to-day at a liberal discount, but when you buy from us you buy real furs. They cost no more when purchased from us, but the garments contain a large amount of extra fur value as regards style, finish and wearing qualities. We have forty years of experience behind us. We welcome comparison.

**MEN'S FURS**

**Men's Natural Coon Coats.** Made from selected dark skins. Regular \$125.00. Sale Price **\$77.50**

**Men's Muskrat Lined Coats.** Fine Beaver and Melton Cloth shells, Persian Lamb and Otter Collars. Regular **\$77.50** up to \$125.00. Sale Price.....

**Chamois Lined Coats** with Persian Lamb and Russian Otter Collars, very stylishly made. Regular **\$45.00**. Sale Price **\$32.50**

**FAIRWEATHER & CO.**  
WINNIPEG

**GET WARM FEET AT LOW COST**



Let 50 degrees below zero come along and with Lumbersoles on you won't be scared. Feet will still be warm. We guarantee it. Don't put off ordering a pair of Lumbersoles. Get a pair for your wife too. We have all sizes. Coldest days you have this winter your feet will be nice and comfortable. Isn't that worth \$1.75? More economical than rubbers or felts. Send for Lumbersoles. Sizes 3-12 (for all ages) \$1.75. Children's sizes 6-2 (fit ages 3-10) \$1.35. Post or express paid by us. Send for catalogue of British Footwear and Woollen Goods. Sent by return. Money refunded if boots not satisfactory. Dealers wanted. Ask for catalogue and special proposition.

**SCOTTISH WHOLESALE SPECIALTY CO.**  
134D Princess Street, Winnipeg, Man.  
**LUMBERSOLE BOOTS**

# We Pay Delivery Charges



## SIMPSON'S COVERS CANADA

Whether you live in Nova Scotia, British Columbia, or anywhere between, your nearest post, express or freight office is practically a branch of Simpson's. *Simpson's Will Come to You.*

### We Serve Every Citizen of the Dominion on Equal Terms

You order from our catalogue at regular Toronto prices. *We Pay Delivery Charges. Everything we sell, except certain heavy or bulky goods (which are clearly specified in our catalogue) is Shipped Prepaid.*

You don't have to go to Toronto to shop at Simpson's.

You can have the benefit of our immense stocks, our great variety of goods and our low prices, right where you are.

All customers who buy at our store are privileged—if they desire—to return the goods and get their money back. *You can have the same privilege, no matter where you live, and we pay transportation charges both ways.*

**Send for our Mid-Winter Sale Catalogue.** The prices in it are special. It is filled with bargains, such as Toronto shoppers wait for and snap up. This catalogue gives you the same chance to save money.

**Send for the Catalogue Now—It's Free**

Just address a postal to Dept. No. 17, saying "Send me your Mid-Winter Sale Catalogue."

The **SIMPSON** Company  
Robert Limited  
TORONTO

and not in a steamer. Serve with a sauce made by creaming half a cupful of butter with one cupful of granulated sugar, then add half-pint of jam and mix thoroughly; pile on a cold dish, and set where it will chill before using.

**Black Pudding Sauce.**—Beat the yolk of one egg with one-half pint of granulated sugar and a rounding tablespoonful of butter; when it is light and foamy add half-pint of boiling water in a thin stream, beating constantly; then place the dish in boiling water and set over the fire to cook until the custard coats the spoon when it is withdrawn instead of leaving the spoon free of the mixture. At this point add a little nutmeg and flavor with lemon juice to suit the taste, then pour the mixture in a stream on the stiffly beaten white of the egg. Serve in a warm sauce dish.

These recipes are taken from the January number of the Ladies' World. They are old and tried, and for the woman who likes to serve puddings I am sure they will prove satisfactory.

**Baked Heart.**—Soak the heart for five or six hours in salted water. Wash it thoroughly. Fill it with a good meat dressing made of bread crumbs and put it in a baking pan with several slices of bacon and two thin slices of onion laid over it. Put some hot water in the pan and baste with hot water while the meat is cooking. Two and a half hours will be required for the baking; sometimes a little longer.

#### Winter Spice Cake.

One cupful granulated sugar creamed with half a cupful of butter. Use two

eggs, saving white of one for the icing. One-fourth cupful of molasses, two and a half cupfuls of flour, one cupful of sour milk or butter-milk, one-half teaspoonful each of nutmeg, cloves and cinnamon and a teaspoonful of soda sifted with the flour, one-half cupful of chopped raisins. More fruit may be added if desired. Bake in a loaf and use the white icing for the top made with the one white.—Mrs. A. McKann.

#### Caramel Cake.

Here is a number one cake recipe: White sugar one and one-half cupfuls, butter one-half cupful, sweet milk one-half cupful, two eggs, baking powder two teaspoonfuls, flour two and one-half cupfuls. Bake in layers. **Caramel Filling.**—One and one-half cupfuls of brown sugar, one-half cupful sweet milk, one

tablespoonful butter. Boil six minutes then beat until thick and creamy, spread between layers. Put the remainder on the stove and cook until it threads. Spread this on top of the cake.—Mrs. W. F. Caskey.

#### Hot Rice Pudding.

One-half cupful of rice, one quart of scalded milk, four tablespoonfuls of sugar, one-half teaspoon of salt, one egg, one-third teaspoonful of cinnamon, four tablespoonfuls of butter. Wash the rice in cold water and put it in a double boiler with the hot milk. Cook quickly until tender; then add half the sugar, half the butter and the salt. Beat the egg until it is light and add it to the rice, cooking for one minute. Pour into the dish in which the pudding is to be sent to the table. Mix the rest of the sugar and the

ground cinnamon and sprinkle over the top of the pudding. Cut the rest of the butter into tiny bits and drop them at regular intervals on the pudding. When the butter melts the sugar and cinnamon will form a rich-looking brown sauce. Serve hot.

#### Split Pea Soup.

One cupful of dried split peas, eight cupfuls of cold water, two cupfuls of milk, two tablespoonfuls of butter, two tablespoonfuls of flour, one small onion, salt pork, salt and pepper. Pick over the peas, wash them, then soak in plenty of cold water over night. In the morning pour off the water and put the peas in a kettle with two quarts of cold water, a two-inch cube of salt pork, and the onion sliced. Cook slowly until the peas have become very soft, stirring frequently from the bottom to prevent burning. It will probably require four or five hours to cook them properly. When they are done rub them through a sieve. Return to the kettle and let them boil again. Beat the butter and flour to a cream, and after thinning it with a little of the boiling soup stir the mixture into the soup. Season with salt and pepper. Add the milk, and, when the soup boils up, serve.

#### Smothered Fish.

Fresh fish, salt pork, onions, potatoes seasoning. In Canada this dish is greatly relished on a cold winter night. To make it put six or seven slices of fat salt pork in a frying-pan and fry slowly. When the pork is brown take it out and put in the fat five or six sliced onions of medium size. Cook the onions until they are about a third done; then skim out the onions and lay pieces of raw, fresh fish on the bottom of the pan. Over this spread some of the onion, adding a dash of salt and pepper. Cover the onions with sliced raw potatoes and a sprinkling of salt; then put on another layer of fish, which should be covered with more onions, salted and peppered. The top layer of the dish should be formed of sliced raw potatoes, also seasoned. Cover closely, and cook slowly on a part of the range where the dish will not burn, until all the ingredients are thoroughly cooked. It will take an hour or more to accomplish this cold cooked fish and cold boiled potatoes may be used in place of the raw material, but in that case the pork and onions should be prepared just as if all the ingredients were raw.

#### Boston Brown Bread.

Mix and sift one cupful each of rye-meal, granulated cornmeal and graham flour. Add one teaspoonful of salt, three-fourths of a teaspoonful of soda, three-fourths of a cupful of molasses and one and three-fourths cupfuls of sweet milk. Stir until well mixed turn into a buttered mold, cover and steam three and one-half hours. Do not fill the mold more than two-thirds full. The cover should be tied down firmly with a string; otherwise the bread in rising might force off cover. If a steamer is not at hand, place mold on a trivet in kettle containing boiling water, allowing water to come half-way up around mold. Cover closely and steam, adding as needed more boiling water.

To Slice Hot Brown Bread.—Put string around the loaf one third of an inch from top, cross string and hold one end in each hand; then draw ends in opposite direction until the loaf is cut through. Remove the slice to a plate and so continue until all is cut that is to be served hot.

#### Salt Codfish Cakes.

Wash fish and pick in small pieces (there should be one cupful). Put in frying-pan, add one quart of lukewarm water and place on shelf which is attached to back of range; let stand from thirty minutes to one hour. The time depends upon the saltiness of the fish and care must be taken that the water does not get hot, which would cause the fish to become hard. Wash and pare four potatoes, cover with cold water and let stand one hour. Drain off water and add to potatoes one quart of boiling water and cook until potatoes are soft. Again drain and mash potatoes (there should be two cupfuls). Drain fish as dry as possible and add to potatoes; then add one egg well beaten and a few grains of pepper. When thoroughly mixed, make into round flat cakes three-fourths of an inch in thick-

ness. Roll cakes in flour, having entire surface well coated, and set aside to cool. Cut fat salt pork in one-fourth-inch slices, cut slices in one-fourth-inch strips lengthwise of pork and nearly to, but not severing, the rind. Fry out the pork in hot frying-pan, and turn frequently while cooking to prevent burning. When well browned, remove pork and use fat in pan for frying the cakes. Should there be too much, pour off some, to be added later as needed. Put fish-cakes in frying-pan, being careful not to crowd them; brown one side, then turn and brown the other. Remove to a hot platter and garnish with the pork-scraps.

#### FASHION FANCIES

##### Fashion Fancies.

Wooden beads are used for trimming in embroidered effects on hats, bags and belts.

##### Velvet Band.

The band of narrow black velvet worn around the throat is now in vogue. It should be fashioned with a quaint old-fashioned pin. This is a fashion to be expected with the colorless bodices, and it is very becoming to the woman with the prettily rounded throat, and it serves to conceal defects if the throat is too long. We see this pretty fashion in the portraits painted by Reynolds and Gainsborough; and, by the way, the band of black velvet ribbon around the throat brings with it the coquetish little black patch.

##### Baby's House Cap.

The old fashion of having baby wear a cap in the house will be revived, it is said. At least an attempt is being made in that direction. The little house caps are made of the very sheerest open work materials, and will no doubt be popular with some mothers as a winter precaution.

##### Costume for a Little Girl.

A pretty costume for a little girl is a black broadcloth coat reaching to the bottom of her dress and a black plush hat, the only trimming of which is a band of wide blue ribbon brought around the crown and tied in a big bow in front. This coat and hat may be worn with a dress of any color, and the little miss will always present an attractive appearance.

##### Velvet One-Piece Gowns.

The velvet one-piece gown in dark green, blue or brown, and trimmed with bands of fur both on the waist and skirt, are among the smartest models worn this season. Either velvet or velveteen is used in these stylish dresses. Select a good velvet, for while nothing is richer or more elegant than the new velvet suit, nothing can be much shabbier than the velvet suit with the nap crushed and worn shiny smooth.

##### Brocade.

Brocade is growing in popular favor. The figures are generally large, and made in a design which is very like those employed in upholstery.

##### A New Blue.

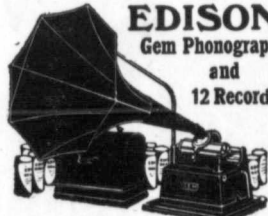
A new blue, called the Nationale, will be used extensively in the making of spring suits. This is a royal blue, and it will divide honors with black, white and navy blue for spring two-piece suits of satin. The satin suit, which was looked upon as a novelty, is comfortable and dressy for spring and summer.

##### The Stocking as a Pocket.

If there are no masculine ears listening, we have a secret to tell. Of course, it won't do to tell it out loud, but many women are now carrying little manieure sets fastened to the top of their stockings. The set may be detached when milady, on her travels or her shopping tour, desires to care for her hands. The watch is now carried in a bag fastened to the stocking, and there are little bags of satin and silk for jewels which are worn on the stocking.

#### A THEATRE AT HOME

### EDISON Gem Phonograph and 12 Records



**\$19.50 Only** PAY \$2.40 Monthly

Combination Gem Phonograph, with 6 two minute and 6 four minute records, \$23.70

Fireless outfit, \$32.80; Standard outfit, \$43.20; Home outfit, \$57.40, etc., etc.

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. We have second-hand machines at bargain prices. Old machines taken in trade; 40 styles of talking machines; 30,000 records; 40 styles of pianos.

Gold Moulded Cylinder Records, two minute, 25c.; four minute, 45c.

Columbia Indestructible Cylinder Records, 45c., beautiful tone, cannot break, fit any machine. Mailing charge 4c. each only. Indestructible 4 minute records, 65c.

#### OUR PIANO SPECIALS \$290.00 and \$350.00

Three Fall Payments Arranged

Write for interesting Graphophone History and Free Booklet No. 43.

## WINNIPEG PIANO CO.

295 PORTAGE AVENUE, WINNIPEG

We give you a cordial invitation to make the parlors of the Winnipeg Piano Co. your MECCA when you come to THE BONSPIEL

### COLUMBIA VICTOR



We sell all makes

Seven days' free trial if desired

This Columbia in beautiful modern 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 attachments. Plays all makes and sizes of disc records. The disc style reigns supreme.

**\$35 Only** freight paid, including 10 large selections (5 double discs) of your own choice.

PAY \$6.50 DOWN AND **\$4.00 Monthly**

Other Columbia Outfits \$25.00, \$50.00, \$75.00, \$100.00, etc.

Victor Disc Gramophones, with 10 large selections, \$26.40, \$35.00, \$75.00 and upwards. Double Discs, 2 different selections, 85c.; new velvet finish, last for ever. All languages. Imported British records now ready.

Biggest Piano and Phonograph house in Canada. Wholesale and retail.

The Proof of Quality

## FIVE ROSES FLOUR

"MAKES GOOD" ON BAKING DAY  
"Unbleached yet white as snow"

**FIVE ROSES**

### Send Ten Cents AND GET The Farmers' Home Journal A WHOLE YEAR

The Farmers' Home Journal is edited by a man who lives on a farm. Then the paper is printed on the farm, and in fact it is the only paper which is actually set up and printed on the farm.

It is not a farm paper, but a paper for the farmer, containing good articles on poultry, and giving some bright interesting stories.

The price is only ten cents a year, and you would do well to see it ten cents in stamps or a dime to-day by mail and receive the paper for a year.

The Editor of the Farmers' Home Journal is Mr. J. R. Cote, who contributes the Poultry Articles in this paper, and if you desire to get a good paper, send ten cents to-day, and get it for a whole year.

Mention The Canadian Thresherman and Farmer when Writing.

**ADDRESS, J. R. COTE, Editor  
The Farmers' Home Journal, Chatham, Ont., Canada**



## Seeds That Grow

If you want the best it is possible to grow, such as you can rely upon to produce the choicest vegetables and the most beautiful flowers, you should try our seeds. We will be pleased to mail you our catalogue, which is comprehensive, and includes the choicest and hardest of seeds, trees, shrubs and plants.

## World-Famed Choice Seeds

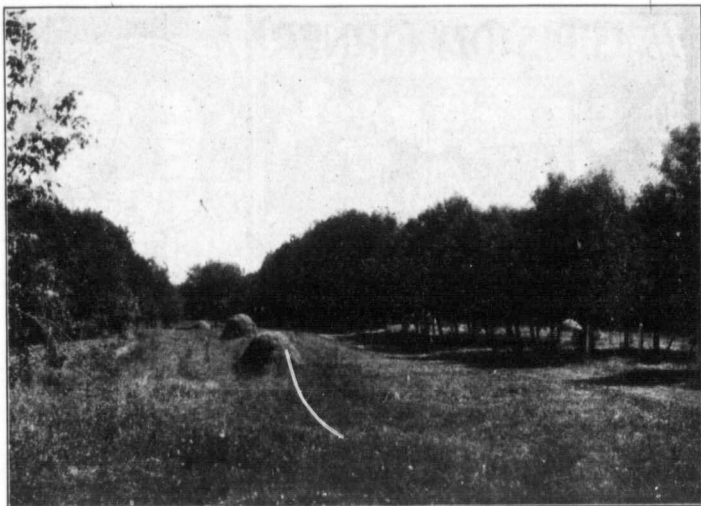
In this catalogue Messrs. Sutton & Sons offer some of their varieties best adapted for use in this climate. Our catalogues are good and expensive. We do not wish to throw them away, but send them to careful buyers. Send us your name and address before placing your order elsewhere. Your enquiry will have our personal attention.

**We have to offer this spring 500,000 Maples. Just what you want to plant in Avenue or Wind break, Russian and Laurel Willows, Poplars, Shrubs and Hardy Fruit Trees.**

## Patmore Nursery Company

BRANDON

MANITOBA



### Lawn Collar.

A pretty Dutch collar made of lawn and designed by a foreign modiste is embroidered with bunches of forget-me-nots and lovers' knot bows, with an insertion of Valenciennes lace and a scalloped edge. It was worn with a handsome brown tailored suit, and, of course, the tie worn with the collar was of brown silk with long ends.

### Gathering a Ruffle.

Some women, in gathering a ruffle, make a long loose stitch on the machine, place the edge to be gathered under the foot and sew it, then draw the upper thread until the ruffle has the desired fulness. This is a good practice when one wants ruffles of varied fulness. A long piece of ruffling may be gathered at one time and then used as needed.

### Evening Gowns.

The waist line will be high in the prediction of those who know about the evening gown for spring. So the

woman who is selecting new gowns with the idea of making them of use in the spring will be safe in choosing the design with the high waist line. Some of the handsomest of the latest evening gowns have a long drapery which does not cover the front breadth of the skirt at the waist, but is caught together at the bottom with an immense medallion of beads, below which is a deep fringe of bugle beads that reaches nearly to the bottom of the skirt. Kimona sleeves are still in vogue.

### Full Skirts Coming?

The fashion authorities who are already predicting the styles for the spring of 1911 say that an attempt will be made to bring the very full skirt into favor. We have heard tidings like this for the last two or three years, but the predictions have not been verified, and it is doubtful if the very full skirt will ever again be in vogue. The narrow skirt—the hobble, however—with its short walking length, is too convenient a style, and admits of such freedom of muscle, and shows the figure to such good advantage, that women will be very slow to adopt the full skirt.

### Red Party Dress.

A young college girl has made a pretty red party gown, which is very charming in its simplicity. It is fashioned of the china silk which costs but 25 cents a yard, and is cut with round neck and sleeves just above the elbow. The trimming consists of bands of rich dark red embroidery, which gives the dress just the right distinguishing touch of richness and beauty. And, by the way, china silk, if used properly, is one of the most satisfactory of all the cheaper materials for party dresses. It is almost as sheer as chiffon, and when worn over a stiff skirt, like one I saw recently, the effect is far from pleasing or artistic, but worn over a soft petticoat or princess slip it hangs in graceful lines. The silk is found in a variety of the pale evening shades, as well as the darker colors.

### Says Hobble Skirt is Joke.

Miss Louise Dresser, a well-known actress, who has brought back from Paris some stunning gowns, says that the hobble skirt is a joke perpetrated on the American woman by Paris. She says—"The American women, in their mad effort to be fashionable rather than lovely, grab frantically at anything that is out there. Beauty and grace and appropriateness have nothing to do with it; a certain class of American women want the unusual. The Paris dressmakers know this, and take advantage of it. This is how the little trick is accom-

plished: All of the fashionable costumiers employ people whose sole duty is to secure free advertising. When these special and absurd fashions are originated for the American market, the agents get up a dress parade, and models are employed to wear these styles, which are never seen elsewhere in Paris. The hobble skirt was worn in Paris this year. It was seen at Auteil and at Long-champs, but it was worn only by these paid models of the big establishments. Then the fashion papers of this country are flooded with pictures, and the American woman who knows no better wears the atrocities."

### For the Tired Hour.

The cheapest thing at a bargain counter is always a man waiting for his wife.

Little Johnnie, who had been praying for some months for God to send him a baby brother, finally became discouraged. "I don't believe God has any more little boys to send," he told his mother, "and I'm going to quit it." Early one morning not long after that he was taken to his mother's room to see twin boys who had arrived in the night. Johnnie regarded them thoughtfully for some minutes. "Gee," he remarked finally, "it's a good thing I stopped praying when I did!"

Wife: "We are founding a home for neglected children."

Husband: "Well, you can make a good start with the one in your own house."

Radiate a sunny self-trust, and make whatever you touch luminous.

There's no place like home—when you want to raise enough money on mortgage to get an automobile.

Reverend Gentleman: "Do you know, my friend, that half the cases of cancer are caused by people smoking those foul, dirty, short, black clay pipes?"  
Son of Toil: "And do you know, Guv'nor, that 'alf of the black eyes are caused by folks not mindin' their own business?"

Mother—"Johnny, you said you'd been to Sunday School."

Johnny—"I carried home a look"—  
"Yes, ma."

Mother—"How does it happen that your hands smell fishy?"

Johnny—"I—carried home th' Sunday School paper, an'—an' th' outside page is all about Jonah an' th' whale."

She asked him if he was the photographer. He said he was. She asked him if he took children's pictures. He said he did. She asked him how much he charged. He said: "A dollar a dozen." "Then I'll have to go somewhere else," she replied, "I only have eleven."

As several travellers got into the station bus, one of the men noticed that a young woman had a grip exactly like his, but that it was placed with the rest of the baggage on top. Thinking there might be some mistake made, he kept his inside, and placed it at his feet.

He was soon engrossed with his paper, and did not notice the young woman reach over and draw the grip close to her side. He waited until she was occupied with a book, and then pulled the grip to its former position, the rest of the travellers looking on with amused expression.

In turning over a leaf she looked down, and suddenly became aware of the removal of the grip. With some force in her voice and manner, she said: "That is mine!" and jerked it back close to her feet.

Touching his hat politely, the owner said:

"All right, madam. But may I please get my pipe and nightshirt out? You are welcome to the rest of the things."

### A BOY INVENTOR.

From Indiana comes the record of the achievement of Claude Moore, the son of a poor coal miner. Young Moore, who is 20 years old, was reduced to the sum of two cents when he received word from the patent office that it had issued a patent on a corn husker. Thereupon Claude, who is a thrifty youth, sold his patent to the harvester trust for considerable real money.

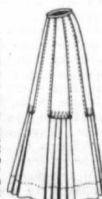
## Send \$4.95

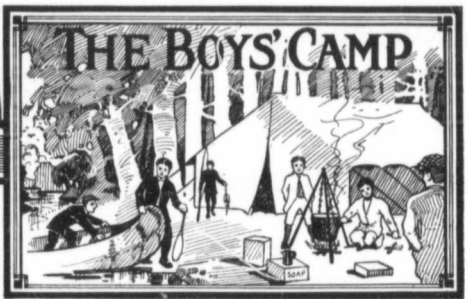
Receive by mail Post paid this beautiful New Style One-piece Dress. Made with a pleated waist, sleeve and skirt just as pictured. Fancy lace yoke trimmed with silk braids which also trims cuffs and belt, lace cuffs on sleeves to match yoke, skirt is trimmed with a wide band of self material just below the knee and ended in front with a large button on each point. The material is fine French lustre in all shades, cream, black, dark red, brown, green and navy. It is the very latest style one-piece dress just as pictured. Order this dress by all means if you wish a dress in the latest style. It is a strikingly handsome and stylish dress, finely made and neatly finished, and you will be proud to wear one of them. Give inches around neck, largest part of bust and hips, also smallest part of waist; length of sleeve and under-arm from arm-eyes to bottom of belt; down back from neck to bottom of belt. We guarantee the dress to fit as perfectly as a dress can fit. Send \$4.95 today. Same dress in all wool panama, same shades as lustre above, \$6.75, add 35 cents for postage. Order dress No. 19, Standard Garment Co., London, Ont., 10 Coote Block.



## SEND US \$1.95

Receive postpaid this late style skirt. It is cut in seven gues with pleated sides, made just as pictured; trimmed with satin buttons. Skirt closed in back with an inverted pleat. The material is a smooth finished Vicuna cloth; a splendid wearing material for skirts in black, navy, dark green and dark red. This is the best and lowest priced skirt sold and we want you to order one to-day at only \$1.95. Give inches around waist and hips; also length in front. Add 25c. for postage. Order skirt No. 12. Order to-day. STANDARD GARMENT CO., 11 COOTE BLOCK, LONDON, CANADA





**THE Girls' Cozy Corner**

A PLAY ON WORDS.  
Ask your friends the following questions:—

- Did you ever see a stone step?
- Or a peanut stand?
- Or a sardine box?
- Or a sausage roll?
- Or an apple turn over?
- Or hair die?
- Or a day pass by?
- Or a horse fly?
- Or a snake dance?
- Or a ship spar?
- Or a sugar bowl?
- Or a vine run?
- Or a cracker box?
- Or a bed spring?
- Or a rail fence?
- Or a ginger snap?
- Or a skate fish?
- Or a bottle fly?
- Or a man catch his breath?
- Or hear a bed tick?
- Or see a clock run?
- Or see ink stand?
- Or a man pull up a river?

**A GIRL'S MOTHER.**  
What does a girl "owe" her mother?  
To manifest an interest in whatever affects or amuses her.  
To seek the mother's comfort and pleasure in all things before one's own, says the New York Sun.  
Not to forget, though she may be old and wrinkled, she still loves pretty things.  
Frequently to make her simple gifts, and to be sure that they are appropriate and tasteful.  
To remember she is still a girl at heart, so far as delicate little attentions are concerned.  
To lift the many burdens from shoulders that have grown stooped, perhaps, in waiting upon her girls and in working for them.  
Never by word or deed to signify that the daughter's world and her's differ, or that on feels the mother is out of date.  
To study her tastes and habits, her likes and dislikes, and cater to them in an unobtrusive way.  
To bear patiently with all her peculiarities and infirmities, which after all may be the result of a life of care and toil.  
To defer to her opinions, even if they do seem antiquated and not obtrusively to possess the wisdom of one's college education.  
To do one's best in keeping the mother youthful in appearance as well as in spirit by overseeing her costume and the little details of her toilet.  
Not to shock her by turning into ridicule her religious prejudices, if they happen to be at variance with one's own advanced views.  
To introduce to her one's friends and enlist her sympathies in one's projects, hopes and plans, that once again she may revive her own youth.  
If she be no longer able to take her accustomed parts in the household duties, never allow her to feel she is superfluous or has lost her importance as the central factor of the home.  
To remember her life is monotonous compared to one's own, and to take her to places of amusement or for an outing in the country as frequently as is convenient.

The girl who endeavors to repay in a slight measure what she owes her mother will be most popular with those who are worth considering, and, ten to one, her life will be a successful one.—From McCall's Magazine.

**GIRL'S PRIZE LETTER.**

Sunnyslope, Alta.  
Dear Cousins:—Will you let me come to your Cozy Corner for a chat? I will try to tell you about myself, what I look like and the pleasures I delight in.  
I cannot hold you spell bound with interest in this letter as a good interesting book would hold those fond of reading.  
But I will do my best to draw your attention for a few minutes, just shut your eyes and imagine you see a brown-haired girl with blue eyes and not quite as tall as most girls of fourteen, sitting at a table writing a letter to your Cozy Corner.  
Last summer I drove the stacker team for my father when we were haying. I am very fond of reading, when I have a good book before me I know nothing of what is going on around me.  
I have read quite a few books, but it would not do for me to tell you their names for it would take up too much room in the Cozy Corner.  
I go to school every day, and I suppose quite a few of the cousins go to. I love to hear someone sing, and I am also very fond of music.  
How many of the cousins like to cook? I like to.  
Will some of the cousins that make candy to pull tell how they make it when they are writing to the Cozy Corner.  
Now I will close hoping to see this letter in print. With best regards to Cousin Doris, I remain, your loving cousin.—Clara Henderson  
You write a very nice letter Clara. I am glad you like to cook. My little daughter, Monona, likes to make little cakes for her daddy. She is only four and she thinks she is a real big lady when she is using her kitchen outfit.  
Will some of the girls tell Clara how to make candy pull?—C. D.  
Snow Lake, Man.  
Dear Cousin Doris:—We have taken the Canadian Thresherman and Farmer for two years and I take great pleasure in reading the letters written by the girls and boys.  
I have two pups, one is gray and the other is black. I have no other pets this year but I had a black lamb for a pet last year. I fed it with a bottle and had my picture taken feeding it one day. I ride horseback after the cows, which I enjoy very much.  
We live a half a mile from the small town of Snow Lake which is situated on the C.P.R. I go to Prairie City school, and am in grade eight.  
Hoping this letter is not too long and will escape the W.P.B. I remain, your new Cousin.—Amy H. C. Dew.  
I wish I had the picture you mentioned. We might put it in our Cozy Corner.—C. D.  
Ladstock, Sask.  
Dear Cousin Doris:—This is my first letter to your Club. I have two sisters and four brothers. I am going to school and I am in the second book. I am nine years old. Papa takes this paper.  
I have no more to say, so I guess I'll close for this time. Yours truly,—Irene Steele.  
I hope you will write again, Irene.—C. D.

Whitewood, Sask.  
Dear Cousin Doris:—This is my first letter I have written to you. My uncle has taken the Canadian Thresherman for several years and likes it very well. I always read the girls' prize letters and like reading them.  
I live on a farm two miles and a half from a town named Whitewood.  
We have seven head of cattle and three pigs and thirteen horses. I have a pet colt named Jennie. We have four cats and two dogs. My grandmother keeps quite a few chickens and geese. I remain your cousin. Wishing your paper every success.—Fressie Dayman.  
Tell us more about Jennie.—C. D.

Soho, Sask.  
Dear Cousin:—Will you take me in as a friend of yours? I am ten years old and am in the fourth book at school. My studies are: Reading, writing, spelling, arithmetic, drawing, dictation and geography. I and my sister drive four miles to school. I like to go to school. Our teacher's name is Miss L. Well, I guess I won't make you tired so I will close with a story.

**The Little Match Girl**  
One cold and snowy night a poor little girl who sold matches roamed barefooted through the city. No one bought any of her matches or gave her even a penny, and she looked the picture of misery.

It was New Year's eve. In a corner between two houses the little girl sank down and huddled up to keep off the cold. Her hands were almost frozen so she lit her matches, saw her old grandmother the only one that had ever loved her. She said "Oh, take me with you," so her grandmother did and in the morning they found the poor little match girl frozen to death.—Wild Rose.  
I am pleased you gave us such a pretty story, Wild Rose. Kindly give us your real name.—C. D.

Inglow, Man.  
Dear Cousin Doris:—This is my first letter to you. I have read so many letters I thought I would write myself, hoping I would get a prize.  
I have been going to school. We live one mile and a half from school. We are milking five cows.  
We are all so proud of our new school house. I am going to tell you all about it. It was this summer, started on Aug. 15th. It has snowed about 6 inches deep. We have 4 sisters and one brother. The school was built on Mr. Dod's farm, on southeast section. I am 11 years old. Yours truly.—Leticia Clar.

Glenavon, Sask.  
Dear Cousin Doris:—Here I come again, to have another chat with the Cousins. I received my book O.K., and I am very proud of it indeed; it is a lovely story too. I covered the back of it so that it will not get soiled.

Are there any of the Cousins that do fancy work? I do quite a lot in the winter time. I think it is a nice pastime.  
I would send another recipe this time but as there are none of the other Cousins sending any I feel kind of shy; I am also glad to know that my last recipe has been tested, hoping that all who tried it will have good luck with it. I remain, your Cousin.—Miss Jean Barber.  
I wish you would send more recipes, Jean. Cousin Doris cooks, you know, and she likes to try them.—C. D.

Dear Cousin Doris:—With both pleasure and interest have I read the letters published on this page from month to

month and have actually decided to write at last.

A few days ago I was comparing the boys' club to the girls', and I have almost a mind to say that the boys' letters are more interesting than ours. I felt disappointed to find it so, but perhaps some of the Cousins have a different opinion (which I hope). I belong to a Club where the girls beat the boys all hollow; now Cousins why couldn't we do the same in this Club, come, let's hurry!

How many of you prefer country life to city life? I for one, like the country best. It is so lovely to look upon, so healthy and agreeable, and as far as amusement goes I think the country can have as much as the city, but, of course, in its own way. The country can't have big shows and balls like the city but I think it can have small dances, concerts and even skating parties. Would the Cousins like to discuss this with me?

I shall close my enormous letter now, trusting that it may escape the W.P.B. With success to the club.—"Miss Snow."  
I hope the Cousins will discuss the problem "Miss Snow" mentions. I am pleased to know that our cousins enjoy country life. I know it adds to their home life. Will "Miss Snow" write again and send me her name?—C. D.

Loxeburn, Sask.  
Dear Cousin Doris:—May I please come and have a merry chat with you all? Please say yes, for I have already made myself at home. I will not wear my pen out while I am making a visit to your Cozy Corner. I will begin.

I am a girl 9 years. I have brown eyes and black hair, nearly four feet tall, and not very fat. I cannot think of anything else to describe myself, but I think by what I have said you can imagine me sitting here writing. I am living on a farm this summer.

I like to sew very well. Don't you girls? I also like to cook. I have two sisters and four brothers. One of them is up here and the other three are in Kansas, U.S.A. The one up here is taking the Canadian Thresherman and Farmer. I like to read the girls' prize letters

**BOYS' SCOUT SUIT FREE**

The above picture gives an idea of the elegant Boy's Scout suit we are giving positively free. It is made of best material and trimmed in true scout style. The above suit is given absolutely free to any boy answering this advt. Write us for \$4.00 worth of high grade embossed and colored postcards, including Valentine, Easter, Birthday, Love Scenes, Best Wishes, Views, etc., to sell at 6 for 10c. Return money and we will mail the Scout Suit free. Remember our cards are best grades and sell on sight; any you cannot sell we will exchange for others. WESTERN PREMIUM CO., DEPT. T5, WINNIPEG, MAN.

very much. I would like a book very much. I can't say anything else, so I must close. I will close with a riddle. Round like an apple and as busy as a bee. Ans.—Watch.

Well goodbye to all, and best regards to dear Cousin Doris.—Mary Miller.  
Write again, Mary, I am so glad to know you like to cook.—C. D.

Reston, Man.

Dear Cousin Doris:—This is my first letter to your Girls' Cozy Corner. I am five miles from the nearest station. We are one mile from the school. I am in the fifth grade. I am eleven years old. I have two sisters and one brother. My father is digging a well, and he got plenty of water. Last winter we hadn't enough water and the men had to drive the cows to the river. I would like some girls to correspond with me. I hope to see my letter in print. Wishing your paper every success.—Maggie Napier.

I wish some of the girls in our Cozy Corner would write to Maggie.—C. D.

Fleming, Sask.

Dear Cousin Doris:—This is my first letter to the Camp. I always read the letters in the Boys' and Girls' Corner.

We live about eight miles south of Fleming which is our nearest station. To get to Fleming, we have to cross a small creek which is called the Pipestone. In the summer time we bathe on the creek and in the winter we skate on it. We water our stock at the creek in the winter time. The creek runs through our farm and we have a waterhole on our own place.

I am not going to school just now but I expect to start soon. I think I will close. Yours sincerely.—Robert McCormick.

Your letter is very nicely written, Robert. Please write again to our Camp.—C. D.

THE Canadian Boy's Camp

MY MOTHER

My mother, she's so good to me; If I was as good as I could be I couldn't be as good—no, sir! No boy could be as good as her.

She loves me when I'm glad or sad, She loves me when I'm good or bad, And—it's a funny thing—she says She loves me when she punishes.

I don't like her to punish me; That don't hurt, but it hurts to see Her crying. Then I cry. And then We both cry, and be good again! —James Whitcomb Riley.

NEW SOUTH AFRICA UNION STAMP

Supplies of the special postage stamp which is to be issued in commemoration of the Union of South Africa have been sent to Pretoria from London. It was designed in South Africa, will be of dark blue, and of the value of 2½d. The head of King George makes the central figure, and at the corners are the coats of arms of the Cape and Natal, and the shields of the Transvaal and Orange River Colony.

AEROPLANE FLEETS

When the aeroplane became a working reality there were a few enthusiasts who said it would end war because it would make war too bloody. A bomb dropped from on high would sink a Dreadnought costing millions and drown all its crew. Death could be rained down from the sky upon a helpless army. But sad experience has taught that new and better instrumentalities for carrying on war do not put an end to it. About all they seem to do is to make it more expensive to live up to the axiom that if you want peace you must be ready for war.

The exact military value of aeroplanes cannot be known until two nations provided with them shall have engaged in war. Interesting as the results would be, it is to be hoped that it will be long before we are enlightened. It is Mr. Hudson Maxim's opinion that the value of the flying machine in future warfare will be mainly as scouting craft as the far-seeing eyes of an army. He does not think they could accomplish much by dropping dynamite bombs on ships or forts, for he says the destructive effect

of high explosives is greatly exaggerated.

But without waiting for practical utility tests the military nations are equipping themselves with aeroplanes. The German government has ordered forty, designed to carry light guns. American army officers have given it as their opinion that this country should have twenty at once. Probably congress will be asked for an appropriation. What Germany has England must have, and a little more, and France will not be behind. As the torpedo boat begot the torpedo boat destroyer, the aeroplane will begot the aeroplane destroyer, and every nation will have to have some.

It is lucky that aeroplanes are cheap compared with Dreadnoughts. But construction of fleets of them will swell the war budgets of the nations and add something to the burdens of their tax-payers. That is the one certain result of the invention of the aeroplane.

BOY'S PRIZE LETTER.

Berry Creek, Alta.

Dear Canadian Camp:—This is my first letter to your Club. We have been taking the Canadian Thresherman and Farmer since July and I thought I would write.

I see that you are giving a prize for those who write the best letter in this Club.

I have a dog. We call him Toby. He is a good dog. We use him for driving cattle and he used to be good for hunting rabbits but he is too old now.

We have a game we play here. We call it "cross tag" and I will show you how we play it. One person is hit and he will take after one and one of the others would cross and he would take after the other one and another would cross and so on till they were caught.

I will be very pleased to get the prize. Wishing success to the Camp and hope it will increase.—Cecil Madge.

I like your letter, Cecil. Write again. Perhaps you may win the prize next time.—C. D.

I hope the boys will write more letters this month. They were ahead of the girls several months. Who are ahead this time?—C. D.

ALEC'S RECORD COAST.

By Harriet Lummis Smith.

Illustrated by Alfredo L. Demorest. "Going coasting, are you Alec? You'll want to wrap up warm. It's cold to-day."

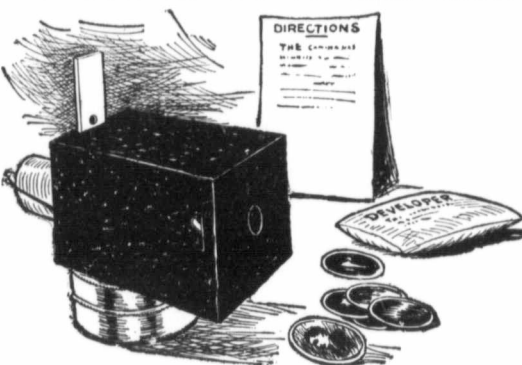
"Yes'm, I'm a-going to," Alec said, and took his long red tippet from the nail, tying it over his ears and winding it several times about his neck. Alec liked the tippet for more than one reason. Not only did it hold his cap in place and keep his ears from freezing as the sled flashed over the glistening crust, but its brilliant scarlet coloring was in itself a comfort to him. Alec's mates had nicknamed him "Reddy," but Alec was sure the name was misapplied when he contrasted the flaming tippet with his close-cropped hair. Certainly the hair and the tippet did not match.

Alec curleyed his sled out from the barn, and Curley, the dog, who had been frisking about full of joyous expectancy, put his nose in the air and howled. Curley had long ago given up accompanying his young master on coasting expeditions. To see Alec lying flat on his sled, flying like a meteor down the long slope, while he himself slipped and slid in his wake, was an experience for which Curley had no liking. Accordingly he howled and left the boy to go alone.

The day was colder than it looked, for the sky was blue and the sunshine bright. The effort of toiling up the long slope kept Alec's body warm and the red tippet protected his ears, but his snub nose and freckled cheeks tingled and his hands ached in his thick mittens. "Too cold to coast long," Alec thought regretfully. It was a pity, too, for never since he could remember had there been such a crust. It was hard enough so that one could have driven over it with a horse and cutter, and run no risk of breaking through. Pine Mountain, up whose side Alec was now climbing, was sheathed in glittering crystal armor. Even the evergreens near its

Continued on page 60

The "Duz-it-all" Photo Button Camera



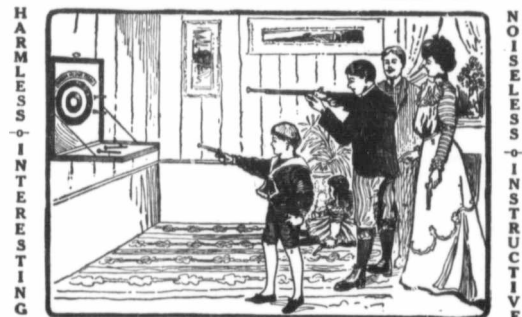
Press the Lever—Push the Slide—The Picture is finished

It sounds too simple to be true, doesn't it? But that is all there is to it, just the same. If you will answer this "Ad" to-day, and be prompt, we will give you one of these outfits absolutely free. First of all, you put a dozen little Button Films in the magazine at the back of the Camera, then get your "customer" to "look pleasant." Just press the lever, then the slide, and in one minute the pretty little Button Picture is finished all ready to mount into a locket, a brooch, or in any way you like. You can make easy money selling these pictures to your friends at 10c. to 25c. each. The Winter is the very best time to get really good Pictures and we want to get these Photo Button Cameras introduced into every section of the country, and in order to do this quickly, are going to give away 25 gross (3,600) of them, absolutely free. Now act quickly, because you want to be the first, around your vicinity, to get one of these and have some fun and make some money with it as well. Now, all we ask you to do in return for this grand present, is that you introduce among your friends, only 24 of our fast selling, size 16 x 20, multi-color, Oleograph reproductions of Famous Paintings, the originals of which cost hundreds of dollars, and include such popular subjects as "The Village Smithy," "Can't You Talk," "Home Again," and many others. These Pictures sell in Art Stores at 50 cents each. They are all suitable for framing and at our price of 15 cents each, you can sell one or more to every person you show them to. Especially as we will send you a **Prize Coupon**, to give with every Picture, which will entitle the holder to receive an extra present from us, absolutely free. When sold, return us our money, \$3.50, and this grand Camera, with supplies, will be sent to you at once.

**SPECIAL OFFER.**—In the regular way, you would have to pay express or postage charges on your Camera, but in addition to giving you this splendid outfit absolutely free, we are going to prepay the charges on it ourselves, direct to your town, provided you will be prompt and return our money inside of four weeks. (10 days extra allowed to places west of Winnipeg.) **Write to-day.** We will send the Pictures by return mail, postpaid. Then the rest is easy.

Address, COLONIAL ART COMPANY, DESK 55, TORONTO, ONTARIO.

FUN-FOR-ALL-AGES WITH THIS GRAND FAMILY GAME



By special arrangement with the manufacturers, and in order to quickly advertise and introduce this grand Family Game into every locality throughout Canada we are going to give away 3,000 sets absolutely free. To everyone who will answer this "Ad" to-day, and be prompt, we will give a complete set, which consists of a pair of full Army Leather Pistols, fitted with harmless and noiseless Rubber Tipped Arrows, also a splendid regulation Militia Practice Target and Target Holder. The soft Rubber Tipped Arrows adhere to the Target by the suction principle, as soon as they strike it, which enables the players to keep an accurate score. Now all we ask you to do, in return for this grand present, is that you introduce among your friends, only 24 of our fast selling, size 16 x 20, multi-color, Oleograph reproductions of Famous Paintings, the originals of which cost hundreds of dollars, and include such popular subjects as "The Village Smithy," "Can't You Talk," "Home Again," and many others. These Pictures sell in Art Stores at 50 cents each. They are all suitable for framing, and at our price, of 15 cents each, you can sell one or more to every person you show them to. Especially as we will send you a **Prize Coupon**, to give with every Picture, which will entitle the holder to receive an extra present from us, absolutely free. When sold, return us our money, \$3.50, and this grand Game will be sent to you at once. **SPECIAL OFFER.**—In the regular way, you would have to pay express or postage charges on this set, but in addition to giving you this splendid outfit absolutely free, we are going to prepay the charges on it ourselves, direct to your town, provided you will be prompt and return us our money inside of four weeks. (10 days extra allowed to places west of Winnipeg.) **Write to-day.** We will send the Pictures by return mail postpaid. Then the rest is easy.

Address, COLONIAL ART COMPANY, DESK 58 TORONTO, ONTARIO.

See Premiums in Wheat Guessing Coniest



## The Grain Growers' Demand.

The following article, from the pen of the Hon. George E. Foster, is significant, coming as it does from a member of the Opposition. In some cases, especially the latter part, it may be a little far reaching but in the main it is probably a fair statement of what would happen.

There are three sides to this question as it stands at present, viz., the country's side, the farmer's side and the manufacturer's side. It is an impossibility to tamper with the interests of one without affecting all. One cannot exist without the other two. It is further true that Canada's tariff policy was framed at a time when the population was small and our manufacturing industries were blacksmith shops, and it is further true that under a system of protection they have been able to progress. Might it not be true that a time has come for a change? It is not true, however, that this change shall be a radical one. Canada, industrially speaking, is a pretty big infant but she has not as yet reached the same stage in her growth as our cousins across the border. However, read what the Hon. George E. Foster says and see if you cannot find a grain of truth in what he says:

The Grain-Growers' deputation has visited Ottawa and presented its case with great fulness to the Government and Parliament. It was large in numbers, excellently well organized, thoroughly disciplined, intelligent and business-like, and did its work with precision and skill.

Its resolutions were tersely put, its speakers well chosen and clever, and they made their points with a clearness and closeness which may well have been envied by more practised orators. The deputation impressed one as sincere and very earnest, and, so far as outward appearances indicated, was entirely unanimous.

Altogether it was a notable gathering, and easily ranks as the largest of the kind ever known at Ottawa. Few who witnessed it will soon forget the scene and its unique settings in the old historical House of Commons.

And now that it has come, delivered its plea and dispersed again to the four corners of Canada, we have time to muse over the spirit, the matter and the merits of the great demonstration.

### What They Wanted.

Outside of the Railway Act, Bank Act amendment and Co-operative Society legislation asked for, none of which were at all startling, their demands were comprised in four propositions—few in number it is true, but so far reaching that their full realization would involve little short of a revolution in principles and methods at present followed.

1. The Government was asked to institute and operate a national chilled meat industry, to find the money therefor and conduct it

either solely as a Government business or on some co-operative plan, paying all expenses out of the proceeds and returning the profits to the sellers. Provision was asked to be made to pay off the first capital cost by setting aside a portion of the profits annually. This means that all the capital shall be first provided and all the risks run by the State, and that all the profits shall accrue to the producers of the food animals. It means also that, if undertaken by the State, it must be State-wide in its operation, and not confined to a section of this class of producers. The principle once adopted and carried to its logical conclusion must be extended to all classes of producers, and would, when fully embodied, socialize the entire economic system of the country. To confine it to one class, however important, would mean the taxation of all to provide a marketing mechanism for one, which is contrary to the Grain-Growers' doctrine as respects tariff and transport.

2. The Government was asked to build and operate the Hudson Bay Railway—an extension of the principle of public ownership and operation which now obtains in the I. C. R. and the canals. In this the deputation had a very strong case. More even than the Intercolonial is this route peculiarly a common highway for the national benefit, defeated in its purpose and futile in results unless it be built with all possible economy and operated at lowest cost and absolutely barred to private or corporate exploitation.

But it would appear that the deputation, having gone so far, must go farther and insist upon a line of steamships, established and controlled by the Government, to connect the railway with the European markets. To ensure a correct basis for one-half the route and neglect to provide for similar safeguards on the other, would risk the efficiency and defeat the purpose of the whole project. This involves a vast initial outlay by the State, and a continuing complex and expensive operative system also financed by the State.

3. The Government was asked to provide, by purchase and construction, for terminal elevators, and to operate them by means of an independent commission. It was urged that, in order to obviate suspicion and ensure confidence, the grain-grower must be assured that his product, paid for on its grade inspection at the elevator, is not only properly graded, but that the elevator shall fulfil its trust of cleansing, storing and delivering the grain true to grade and free from manipulation of any kind. On the absolute fidelity of the elevator to this trust depends the price to the grower, the quality to the buyer and the reputation of Canadian grain in the ultimate market.

## Save the Money that Gophers Cost You



Every gopher costs you at least 10 cents to keep. And there are from 500 to 1000 gophers in a 40-acre infested field—and every pair of gophers raise from 20 to 30 more each season. Mickelson's Kill-Em-Quick is the simplest, surest, quickest and most economical Gopher Poison. Its peculiar odor attracts gophers. They can't resist it—and they eat it in preference to the tender shoots or the seed, and the poison is so strong that the merest atom kills a gopher. A \$1.25 box of Kill-Em-Quick will kill 4000 gophers. As each gopher costs you fully 10 cents, one box of Kill-Em-Quick means \$400.00 in increased crops.

### Mickelson's Kill-Em-Quick Gopher Poison

is far better than strychnine or any other poison. Strychnine is very insoluble and a great quantity of water must be used to dissolve it and a great amount of grain must be added, to absorb the liquid mixture. Thus its strength is so reduced that it takes an average of 20 grains to kill one gopher. But, as strychnine is excessively bitter, only about one-third of the gophers eat enough of it to kill them. A \$1.25 box of Mickelson's Kill-Em-Quick actually kills 4,000 gophers. Ask your dealer about Kill-Em-Quick. You take no chances. My money-back guarantee protects you.

### Interesting Folders Free

I want to send you some more interesting facts that show the many advantages and the superiority of Mickelson's Kill-Em-Quick Gopher Poison. Send me a postal now. Anton Mickelson President.

Mickelson Kill-Em-Quick Company  
1439 Washington Ave., No.  
Minneapolis  
Minnesota



## Manitoba Winter and Fat Stock Show

and Manitoba Poultry Show

**BRANDON**

MARCH 11th, 13th, 14th, 15th, 16th, 17th, 19th

The Great LIVE STOCK EXPOSITION of Western Canada

HORSES  
SHEEP  
POULTRY

JUDGING - LECTURES

CATTLE  
SWINE  
GRAIN

Annual Convention of Live Stock Associations of Manitoba

JAS. D. MCGREGOR, Pres., Brandon

W. J. SMALE, Sec. and Mgr., Brandon

## A FEELING OF SECURITY

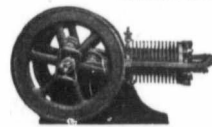
Of absolute reliability and power is enjoyed by every owner of a

**GILSON ENGINE** "GOES LIKE SIXTY"

GAS GASOLINE ALCOHOL

A mechanical masterpiece of the highest type, with our improved simple methods of air cooling, governing and sparking. Positively guaranteed, biggest value, free trial. All sizes. Ask for catalogue.

GILSON MANUFACTURING CO., GUELPH, CANADA  
Empire Cream Separator Co., Innipeg, Man., General Agents



### Coming East This Winter?

Let your trip include a Term in our School and secure transportation at 50 per cent. of single fare. It will pay you in every way. Write us for catalogue, enrollment form and certificate.

**CENTRAL BUSINESS COLLEGE**  
W. H. SHAW, Prin., TORONTO



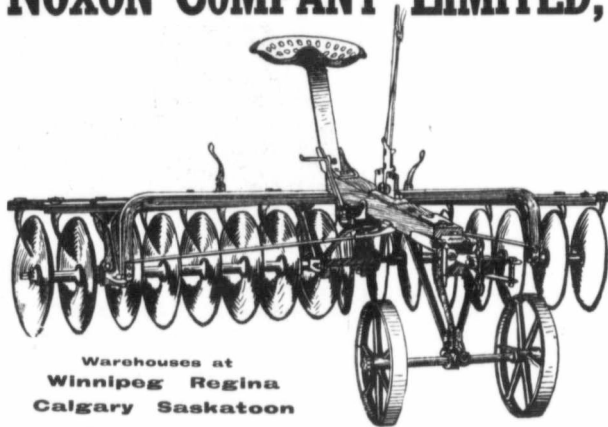
W. H. SHAW, Prin.



College Building.

# THE NOXON COMPANY LIMITED, INGERSOLL

Noxon  
No. 15  
Disc  
Harrow



Warehouses at  
Winnipeg Regina  
Calgary Saskatoon

Strongly built.  
Properly balanced.  
Light draft.  
Spring pressure.  
Independent gangs.  
Does not buckle in center.  
Every disc stays in the ground and does its work.  
Supplied with or without tongue truck.

## TUDHOPE-ANDERSON COMPANY, LIMITED

There seems little doubt that the temptations and opportunities afforded the elevator companies for private gain at the expense of the grower and the millers are so great as to constitute a grievance of magnitude, and one which must be effectually remedied. Can this be done by supervision and control? If not, then how? It appears to be up to the Government to solve the problem. If it can be done only through State ownership and operation, here, if ever, is a justification for the exercise of such powers.

But here again the cost of elevators on both oceans and at many ports, and also on the lakes involves the pocket of every taxpayer in Canada. It is State aid that is invoked, and State aid for the profit and advantage of a class.

If any doubt existed in the wording of the resolution it was wholly removed by the elaborate reasoning with which the speakers supported and enforced it, culminating in the dramatic and wildly applauded assertion of one of their advocates that "They had this day flung wide a flag which would not be furled until it had been planted on the ruins of protection."

### The Effect Upon Canada.

Without disparaging for a moment the sincerity and conviction of the Grain-Growers' Association, one may question whether they have taken into account other interests and other phases of development and the effect thereon if their tariff demands were complied with.

The foreign trade of Canada runs over \$650,000,000, and its internal traffic is vastly greater. This has been gradually built up to its present dimensions on a certain fiscal basis, supported by 35 years of public sentiment and legislation. Vast systems of transport at immense cost have been developed to accommodate

and extend this trade, into which pours the products of many great industries and occupations. Never were progress and expansion more gratifying throughout Canada than now, and never the promise brighter for still greater progress and expansion.

How would the tariff proposals of the deputation, so definitely expressed, so insistently demanded and pressed for immediate adoption affect all this development? Is it certain that their adoption would prove a panacea even for all the ills complained of as attaching to the farmer's vocation? Is it quite clear to the minds of the deputation what effect this sudden and pervasive change in our fiscal policy would have on all other interests and on the general development of our national ideal? These things must be made very clear before the demands of even so intelligent and strong a deputation can hope for a favorable verdict from the grand jury of the nation. And when such proposals are transplanted from the atmosphere of the club or association, where but one interest is uppermost and one view favored, to the forum of the whole country the perspective changes, and other interests crowd to the foreground.

### The Meaning of the Proposals.

These three proposals present a programme of great magnitude and far reaching consequences. The first is fairly revolutionary, and all call for immense initial outlays by the State, that is by the individuals of the State, in the shape of taxation, by which alone money can be provided. These proposals lay their advocates open to the question posed by themselves with great force against the protective policy. They are now open to the question: "By what right do you compel the artisan, the manufacturer, the fisherman, the miner, the market gardener, the fruit

grower, the professional man, and the multitudinous urban dweller and business man to put his hand in his pocket and furnish the capital and take the risks in operating a Government mechanism for purchasing, slaughtering and marketing the beeves, hogs and sheep of prosperous and often wealthy farmers? Or to undertake to buy, build, equip and run costly elevators to the end that grain-growers should be provided with business checks on the progress of their product from the farm to the market?

It is clear that to apply to these propositions the positive and unrelenting reasoning applied by the grain-growers to other industries would prove their confusion. All this serves to show how complex and gigantic is the task of building up a nation, how divergent and varied are the interests which are to be developed, and how necessary is the application of all around consideration and mutual "give and take" to the problems that confront us. Academic theories and the deductions of cold logic must be dominated by the spirit of conciliation and sacrifice, and by an ever-present sense of the vital correlation and wide comradeship of the great and varied interests of the country.

In these three proposals one class, the grain-growers, asks the State, i.e., all classes, to tax themselves to provide it with profitable machinery. Well and good, but can it then logically deny aid by the State to the other great industries?

The moment it demands State aid and co-operation its case against the manufacturing industries falls to the ground.

But it is when we reach the final proposal of the deputation that the fine import of its mission is developed.

What is asked? Reciprocal free trade with the United States in all fruit, fish, lumber, agricul-

tural and animal products, in fuel and oils, in spraying materials, fertilizers, cement, agricultural implements, machinery, vehicles and parts thereof, and an immediate reduction of 50 per cent. of the general duty on imports from Britain, with the stipulation that even this lightened duty shall be entirely removed within ten years.

The issue is the plain one of free trade with direct taxation for revenue, and a complete elimination of the principle of protection in every form. Give legislative effect to these tariff proposals to-morrow, and what would happen?

Our established trade routes would be vitally affected. Freight would change as to points of origin and destination, and seek new channels of transit, to the detriment of the old. In proportion as the volume of traffic was enlarged north and south it would be diminished east and west. Canada would get the short haul, while the United States transport systems would benefit by the long haul. To the extent that Canadians bought and sold more in the United States and less in Transatlantic countries this would affect both our interior lines and our ocean routes. The tendency would be to attract to the United States steamship lines, their seaports and railways more and more of our trade to and from Europe.

We have for more than thirty years been straining every nerve to develop Canadian trade routes, and have spent billions thereon. Shall we now suddenly and with a light heart put all these in jeopardy? Even now the Welland enlargement, the Georgian Bay Canal and the Hudson's Bay route are being pressed forward and will call for hundreds of millions more. To what end if our trade is diverted to north and south lines?

Continued on page 80

# The Canadian Bank of Commerce

## ANNUAL MEETING

The forty-fourth annual meeting of the shareholders of the Canadian Bank of Commerce was held in the banking house on Tuesday, 10th January, 1911, at twelve o'clock.

### General Manager's Address.

The General Manager said in part:—

We have pleasure in presenting you with a statement which is in many respects a culminating record in the Bank's history. The past year was remarkable for a large volume of business and general prosperity, which justified our predictions when last we had the honour of appearing before you. At no time during the year was there any apprehension lest we should fall short of our estimates. The trend of business, uniformly satisfactory profits, and comparative freedom from losses make it possible to lay before you the results of our operations with great confidence and a full assurance that they will meet with your very cordial approval.

The profits for the past year were \$1,838,065.04, an increase of \$327,370 as compared with those of the previous year—being 18.38 per cent. on the paid-up capital. This result was obtained after making a careful revaluation of our assets and ample provision for all bad and doubtful debts.

In accordance with our recommendation, your directors increased the dividend to 9 per cent. per annum, which called for a payment of \$900,000. We are gratified that our present and prospective prosperity justifies the expectation of a larger return on your capital, and it will be our pleasure to suggest the payment of 10 per cent. for the coming year.

You were good enough to pass a resolution at the last annual meeting authorizing the grant of \$20,000 as a nucleus for a Widows' and Orphans' Fund, and this sum, with the regular payment of \$30,000 towards the Pension Fund, accounts for the \$50,000 charged against profits for this year. After very careful investigation and actuarial examination, we are pleased to say we have been able to adopt a comprehensive scheme to embrace in one fund a beneficent recognition of every member of the staff. We cannot express too strongly our gratification at this consummation of our desire for the welfare of the service. This crowning act will do much to foster the best interests of the Bank, so zealously guarded since its establishment.

After providing for these appropriations we were able to transfer to Reserve Account \$1,000,000, and to carry forward \$310,204.06 in Profit and Loss Account.

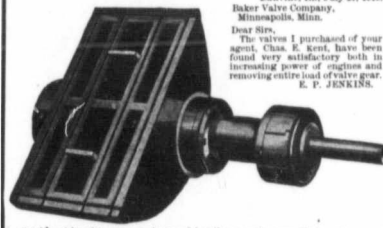
Our deposits show an increase of \$6,347,275, which we regard

as a healthy growth under this head; the accession of special amounts of a temporary nature, mentioned in last year's statement, equalling the withdrawals during the year. On account of the expansion of our commercial business in Canada, current loans and discounts have increased \$10,900,344, and this necessitated the withdrawal of \$9,523,788 from our call and short loans in the United States. We report \$2,167,410 more cash on hand than in last year's statement, and our quick assets equal 45 per cent. of our liabilities, excluding capital and surplus.

The extraordinary development of Canada, the manifest need for the extension of our system to meet the requirements of a rapidly growing business and the protection of our business at points where we are already established make it imperative that we should do our duty in opening branches, often anticipating the necessities of the case. We are not unmindful of the criticism activity of this kind engenders, but are conscious of the fact that we are expected to do our full share in the upbuilding of the country which gives us privileges with the understanding that our services will be commensurate with our opportunities. We realize our accountability to the shareholders of this Bank, who have entrusted us with a large investment and we believe you will be satisfied with the assurance that we exercise a prudent caution as we continue to open branches in new fields.

We have closed a very satisfactory year, our accounts showing unusual profits and a healthy advance in material prosperity. There was a steady and persistent demand for money to care for the needs of merchants, manufacturers and our farming community, with rates fairly well maintained, the fluctuations being unimportant, notwithstanding the uncertainty of financial affairs in other centres with which we are intimately connected. The outlook for easier conditions in Great Britain will probably result in the sale of Canadian securities abroad in large volume, and the prospect of cheaper money in the United States may have a reflex influence here; but with the great development in all parts of Canada there should be employment at remunerative rates for funds to carry on ordinary business, and all the indications are favorable to active trade along safe lines. We enter the coming year with a confidence begotten of past experience and hope to share in the general prosperity and to enjoy reasonable freedom from undue anxiety in the management of our institution.

# AND STILL THEY COME



Danville, Ill., July 21, 1910.  
Baker Valve Company,  
Minneapolis, Minn.  
Dear Sirs,  
The valves I purchased of your agent, Chas. E. Kent, have been found very satisfactory both in increasing power of engine and removing entire load of valve gear.  
E. P. JENKINS.

Kankakee, Ill., Aug. 4, 1910.  
Baker Valve Company,  
Minneapolis, Minn.  
Dear Sirs,  
Your Mr. Kent sold us one of your valves for our Atlas 100 H.P. Engine. The valve has been working for about a month and it is saving us from 20 to 25 per cent. of coal.  
We are very well satisfied with the valve, and would recommend it to anyone working a slide valve engine. Yours truly,  
WEST SIDE QUARRIES CO.

Otto Lindloff, Town Clerk of  
Dahlgren, Carver County, Minn.  
Carver, Minn., Nov. 4, 1910.  
Baker Valve Company,  
Minneapolis, Minn.  
Gentlemen,  
My valve gives good results; it does all you claim for it, and I value after I put in, as it did not get out of order in any way, and works like a top. Waiting success to you, I am,  
O. LUEDLOFF.

How do you like them? What we have done for others, we can do for you. Send us your order to-day.  
**BAKER VALVE CO.**  
404 8th Ave. South, Minneapolis, Minnesota  
Dist. Office, WASHINGTON, OREGON, IDAHO AND CALIFORNIA, 14 MAYNARD BLDG., SEATTLE, WASH.

# ALLAN, LANG & KILLAM

Insurance and Financial Agents  
BULMAN BLOCK, WINNIPEG

Fire, Life, Marine, Accident, Liability  
and Burglary Insurance

GUARANTEE BONDS - - - MONEY TO LOAN

## A REVOLUTION COUNTER THAT'S RIGHT

Discount to  
DEALERS  
\$1.00  
By Mail



Do not  
guess at  
your speed  
  
Buy a  
Tabor Stop  
Motion  
Counter

**THE GRANT MANUFACTURING AND MACHINE CO.**  
110 SILLIMAN AVENUE - BRIDGEPORT, Conn.

## SHIP YOUR GRAIN THROUGH US

WE WILL LOOK AFTER YOUR GRADES

References any Bank or Commercial Agency.

**THE CANADIAN ELEVATOR CO., LTD.**  
WINNIPEG, MAN.

WE ARE OPEN TO BUY

# HIDES AND FURS

OF ALL KINDS

AT HIGHEST MARKET PRICES. SHIPMENTS SOLICITED  
Write for our Fall Circular containing full list of prices.

**PIONEER HIDE & FUR CO.** Successors to  
172 to 176 KING ST., WINNIPEG LIGHTCAP HIDE & FUR CO.  
P.O. BOX 1092



## President's Address.

The President then said in part:—

Doubtless the feeling most strongly present at the moment regarding business conditions in Canada is that we are enjoying a prosperity as great as we have ever known. Whatever significance the check of 1907 had at the time or should still have, even the memory of it seems to have passed away, and with larger foreign and home trade, larger bank clearings, a larger amount of building in cities, a larger amount of railway construction and larger immigration than in any previous year, it would be strange if we felt otherwise. Our Western crops were not to our liking this year; bankers know that a little more expansion may make money scarce, and the pace of real estate speculation has brought on the inevitable temporary exhaustion, but, important as these things are, they have little effect on the situation as a whole. Even the large reduction in the volume of business in the United States is regarded as mainly due to political unrest and as having no direct bearing on our position. That we are experiencing very great prosperity is a matter evident to all, but if we examine in detail the circumstances accompanying this prosperity, there is much that is not satisfactory. Great Britain is a country which can afford to import much more than it exports, because the world owes it annually an enormous sum for interest and other things, for which it must, of course, take payment mainly in merchandise. The United States is a country which should export annually about \$500,000,000 more than it imports in order to pay for interest and for the money drawn from the country by permanent absentees, tourists, emigrants to Canada, etc., and because it cannot afford to increase its debt to foreign countries, having already about 100,000,000 people and a scarcity in many raw materials. Canada is one of the new countries which is entitled to, and which must, during its period of rapid settlement, import more than it exports. The difference is met, however, by debt obligations which must some day be paid. The question, then, as to how much we should go into debt is the same which confronts the individual in trade, but the considerations are so large and so complicated that it is hard to know when we are wise and when unwise. What is certain, however, is that when a man is in debt he should live sparingly, not extravagantly, and that, if with the money he has borrowed he has put himself in the way of making a product with which he hopes to pay his debt, he should strain every nerve to make and sell as much of that product as he can in order to reduce his indebtedness to the lowest point possible. Now, Canada is some-

what like a man who, having a rich inheritance in land, borrows to develop it, and, confident of its future value, spends freely for his present gratification, while he does not make effort enough to create the needed present revenue from his property.

During the fiscal year 1910 of the Dominion Government our imports and exports both reached record figures. Our imports were \$391,803,000, and our exports were \$301,358,000, the balance against us being \$90,445,000. The excess of imports is not a record, having been exceeded in 1907 and 1908, but it is, as was expected, a great increase over the previous year, when, because of the contraction in 1908, the excess of imports was only \$48,162,000. The total of our foreign trade was \$693,161,000, more than three times the volume of twenty years ago. It is unfortunate that we cannot estimate, even roughly, the volume and growth of our domestic trade during the same period. Our imports from the United States were larger than ever—\$237,693,000. This is almost twice the amount of ten years ago. Our exports were a trifle less than in 1908, being \$113,145,000. The sum we had to pay to the United States in money was therefore \$124,548,000, or more than two and a half times the amount we had to pay ten years ago. This money was obtained partly from the surplus in our exports to Great Britain, partly from the sale of securities in Great Britain and Europe, and to a small degree from investments in Canada coming from the United States and the wealth brought in by settlers from that country. Our imports from Great Britain were \$95,677,000, a trifle less than those of the record year, 1908. Our exports were a record, being \$149,634,000, against \$134,484,000 in 1908. The surplus in our favor was \$53,956,000, a smaller figure than in six of the last ten years, and about

eighteen millions less than in the most favorable year, 1903.

It is clear that if we chose we could largely increase our exports. We know that in almost all parts of Canada the majority of farmers produce very much less wealth per acre than would be possible with greater effort and with the necessary labor available. The farmer who has no mortgage or other debts, who finds labor extremely hard to obtain, whose standard of comfort is fixed and who is no longer young, cannot easily realize that he has any duty to the State which he does not perform, nor can any pressure be brought to bear upon him except by friendly argument and practical illustration. The fact remains, however, that because the farmers as a whole do not produce more, our debts to other countries for national expenditure made in anticipation of future development are more burdensome than is necessary.

The total value of the field crops of Canada at local market prices, as estimated by the Census Department, is \$507,185,000, the product of 32,711,062 acres. The corresponding figures for 1909 are \$532,992,000, from 30,065,556 acres; and for 1908, \$432,534,000 from 27,505,663 acres. The loss in 1910 was in wheat, oats and barley, in which the acreage was 20,992,900, with a value of only \$248,738,000, against 13,917,900 acres in 1909, with a value of \$289,144,000. So that while the decrease in all field crops is \$25,807,000, the loss in wheat, oats and barley alone is \$40,406,000, leaving a handsome increase in all other field crops.

The most curious feature in Canada at the moment is the outbreak from time to time of agitation, stirred up sometimes by guilds, sometimes by strikes, and often by city councils, but always by one set of interests against another. We have a more general prosperity than could readily be found elsewhere

now or in the history of the past. The only people with a just complaint are those whose labor and brains are paid by a more or less fixed recompense, which is not adjusted in accordance with the change in prices. These are the people who, as a rule, do not complain, perhaps because their fortune is the same in every country. In the case of the majority of our wage-earners there is some adjustment, whether sufficient or not. In any event, the overwhelming bulk of our people share in our prosperity, which, be it remembered, is the result of our combined activities. It is not due to the farmer alone, nor to the mechanic, nor to the railroad, nor to the bank, the manufacturer, or the shopkeeper. It is the result of the fortuitous circumstances under which we are enabled by our combined effort to make profitable use of the natural resources of Canada. Is it not, therefore, most regrettable that, instead of each individual finding happiness and contentment in his own prosperity and in his share in building up this country, which is his guarantee of future well-being, we agitate merely that we may still further profit as individuals, even if other Canadian industries are made to lose or are destroyed thereby?

## The Maritime Provinces.

While there is perhaps less change from year to year in the Maritime Provinces than in most parts of Canada, there is a slow but steady improvement in many industries, and the year just closed has been one of marked prosperity. The results from general agriculture have been perhaps the best in the history of this part of Canada, both as to yield and as to price. The value of the field crops of the Maritime Provinces in 1910 was \$50,150,000, compared with \$49,684,000 for 1909. Potatoes suffered so severely from rot and the yield was so small that this important

**Elmira**  
FINE FELT SHOES

keep the feet warm and comfortable, no matter how long you are out. They are the only possible means of protecting the feet against cold. They prevent you taking cold—and make walking—driving and curling an extra pleasure.

Elmira Felt Slippers are fine for the house. See that the trademark, as shown above, appears on the sole. All genuine Elmira goods have the above trademark.

Sold all over the West by best dealers. 53

crop brought in only about half the usual returns. Apples and other small fruits, excluding berries, were most unsatisfactory—apples being less than one-third of a crop—but in other products, especially hay and grain, crops and prices were so good as to second the admirable efforts of the Agricultural College to impress upon the people how profitable are the results to be obtained from land which is fertile and near to good markets, but which lies idle largely because the people of many parts of these Provinces have been used to other pursuits. In Prince Edward Island dairying and stock-raising are increasing in volume and have been very profitable during the past year, and the same is true of some parts of Nova Scotia, but in New Brunswick, notwithstanding the higher prices and the fine hay crops, much less cheese and butter is made than five or ten years ago, many less factories and creameries are in operation, and the stock of horses, cattle, and sheep is actually less numerous than ten years ago.

**Ontario and Quebec.**

A year ago, despite some fluctuations in conditions, the record of agriculture in Ontario and Quebec was most satisfactory. This year the record is still better, and it is questionable if, as regards yields or prices, excepting in the case of fruit, potatoes and one or two minor articles, a more generally successful result was ever obtained by our farmers. High prices in 1909 had caused a larger acreage of grain to be planted, farm work began early in the spring, fall wheat came through the winter well, harvest results were excellent, hay gave a large yield, roots in most localities did well; cattle, horses, hogs, poultry, eggs and all dairy products brought high prices, but the supply was unfortunately always insufficient. The value of the field crops of Ontario and Quebec for 1910 was \$301,109,000, compared with \$290,469,000 for 1909.

Although in the fruit districts, where apple growing is carried on scientifically, as fine apples were produced as could be desired, the crop as a whole was as great a failure in Ontario as in the Maritime Provinces. In neither district can accurate statistics be obtained, but the quantity shipped from Montreal is sufficient to show what a bad crop means. In 1910 the shipments were only 163,000 barrels, there being no recent year comparable with this except 1901, when shipments were only 122,000 barrels. The highest figure reached was in 1903, 732,000 barrels, and the average of eight ordinary years was about 515,000 barrels. Doubtless no care would have averted the main cause of a lessened crop, but with scientific methods the number and size of the apples would always be greatly increased and the quality greatly improved.

We used to be able to follow closely the growth of our dairying industry by using the figures of the shipments of cheese and butter from Montreal as examples, but new conditions have arisen, and these figures are now of little use. The consumption of butter in Canada and of cream in Canada and the United States has practically destroyed our foreign trade in butter, which one year reached 573,449 packages, valued at \$7,400,000. The same causes have kept our cheese exports almost stationary for three or four years. The figures for 1910 are, 1,892,000 boxes, worth \$17,503,000, as against the record of 2,395,932 boxes in 1903, valued at \$21,500,000. One great departmental store collects direct from the farmers sufficient milk to keep several cheese factories busy.

Successful as the year has been with the farmers of the East, there is a growing conviction that this part of Canada is at the moment a land of neglected opportunity, largely owing to the easy success of those who have taken up the cheap lands and virgin soil of the West. While many think that more effort is necessary to succeed in the East, facts gathered from recent experience show that in no part of Canada can a larger return be obtained in proportion to the intelligence employed than here in Ontario. We have one of the best and most famous of agricultural colleges, and wherever one of its students is farming, the effect of his knowledge on his own farm and the influence of his example on those of others is most marked, but there are many parts where no such examples of improved methods exist, and the Government has now adopted the plan of taking the College to the farmer. The Farmers' Institute lectures and the Agricultural Fair prices have done and are doing much good, but the new effort is of a much more effective and practical nature. It is sought by demonstration farming actually carried on by experts acting for the Government, and by visits paid to various parts of the Province by experts who are able and willing to give advice, gradually to break up that condition of contentment with the farming of our fathers which is so great an enemy to progress. If young men can be shown the results of a thorough knowledge of stock-raising as compared with not knowing, of caring for orchards instead of not caring for them, of systematic manuring and of proper drainage, of a knowledge, indeed, of the many things which bring about the enormous difference in results between old-fashioned and up-to-date farming, we may hope that more farmers' sons will stay on the land, and that many city men will settle there, and that increased wealth and happiness will be the result. But actual results are more powerful arguments than mere

# MAGIC BAKING POWDER

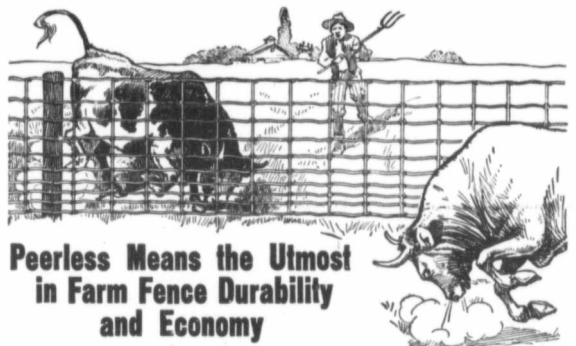
MADE IN CANADA

**Pure—Wholesome—Economical**

It is used by all the large Bakers and Caterers, as well as by the best home bakers and cooks. Food products that are produced in clean factories are best.

**E. W. GILLETT CO. LTD.**

TORONTO, ONT.



**Peerless Means the Utmost in Farm Fence Durability and Economy**

The Peerless Fence is made to stand wear and weather. It is made of carefully selected, fully galvanized, spring steel wire. Stays springy and strong, always taut, never sags. Put a Peerless Fence around your farm and you'll get real service.

**Read what users have to say about the Peerless:—**

Concerning the quality and galvanizing of your fence, I think it perfect. I have compared it with other makes and every person where I put up your fence is well pleased with it and will not have any other fence on the place. I was at a farmer's not long ago and he stated that he was going to have three hundred rods of it in the Spring. I put up ninety rods for his neighbor four years ago and there is no sign of rust or slackness yet. The wire in your fence is tempered so as to suit the cold and warm weather and I have never had to go back to tighten one rod of fence that I have put up yet. I could mention different makes of fence, from firms well known, that their fences have rusted badly inside of three years. The Peerless is the farmers' favorite around here. —**F. FOGAL, Cedar Valley.**

I have been comparing some of the Peerless Fencing that I put up the first year I sold fence and every wire is just as bright as ever, while some other makes put up about the same time have from one to three rusty horizontal wires running through it. I have always found the wire in Peerless Fencing first class. —**EZRA FOX, Kingsville.**

In regard to the durability of the Peerless Fence for the length of time it is up, I find on examination by myself and the parties I have put it up for, it surpasses any other wire fence for not rusting. Also the people I have dealt with give the Peerless Fence the preference before any other and if they were buying again would buy no other. —**W. H. VAN ALSTYNE, Atkinson.**

Peerless Fencing is the best galvanized fence and when put up properly is the best fence on the market today. I have some Peerless Fence, put up some four or five years ago, which is as bright as ever and tight, standing O. K. —**BOWARD BRU. M. Pitts Ferry.**

Farmers speak well of your fence and I know of no fence that looks better for the years that it has been erected than the Peerless. I have never heard a farmer say that the Peerless showed any sign of rust yet. —**GEO. DAVIS, Clinton.**

The best fence for you to put around your farm is the Peerless—it will last longest, give you the most satisfaction and save you money. Write for particulars.

**THE BANWELL HOKIE WIRE FENCE CO., Ltd.**  
 Makers of Farm, Poultry and Ornamental Fence and Gates of exceptional quality  
 Dept. B, Winnipeg, Man., Hamilton, Ont.

## TRACTION ENGINEERING

The Heath School of Traction Engineering (by correspondence) will teach you Traction and Stationary Steam Engineering at home in your spare time this Winter. The School is conducted in connection with The Canadian Thresherman and Farmer, which publication guarantees its reliability to develop practical engineers. A School for the experienced Threshermen as well as the beginner. The Lessons are clear, concise, fascinating, and easily mastered.

We have issued a handsome illustrated booklet, giving outline of Course, with reduced plates of some of the drawings, and explaining The Heath System in detail. This booklet will be sent free to you on request.

**E. H. HEATH CO., LIMITED,**  
 Winnipeg, Canada.

# THE SYLVESTER SEEDING MACHINES AND CULTIVATORS

ARE STILL LEADERS

**SYLVESTER MFG. CO., LTD., Lindsay, Ont.**

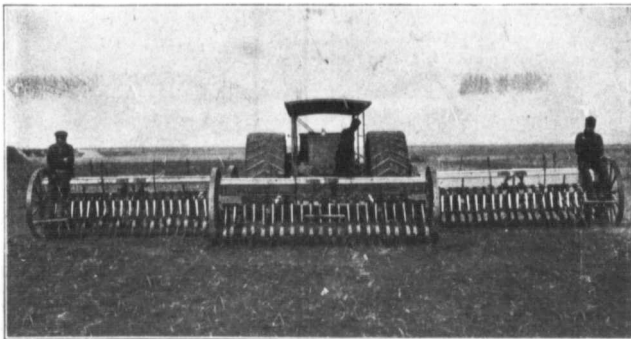
SOLE MANUFACTURERS UNDER STEPHENSON'S PATENTS

The Double Disc is universally pronounced to give the best satisfaction of any.

18 Sylvester Double Disc Drills used on the Dutschem farm (Canada's largest farm at Girvin, Sask.) during 1910, and more ordered for next season.

Made in sizes 14 to 24 Disc, and are made interchangeable.

Drills can be supplied with single disc or slides, if desired.



Sylvester 4 cylinder opposed Gasoline Traction Engine 45 Brake H.P.

This cut shows 3 Sylvester 22 double disc drills operated on the farm of Mr. R. Alexander, La Salle, Man., drawn by a Sylvester Gasoline Traction Engine. This Engine has done record work the past season and like the Sylvester drills is a leader in its class; it is powerful and economical of fuel.

The Sylvester is the best and most favorably known drill in the Canadian west, and 1911 machines guaranteed better than ever.

APPLY TO—

## TUDHOPE-ANDERSON CO., LTD., WINNIPEG

A FULL SUPPLY OF REPAIRS KEPT IN STOCK

SOLE JOBBERS

WINNIPEG, REGINA, SASKATOON, CALGARY

preaching. An orchard in Ontario which yielded prior to 1909, \$100 worth of apples, annually, produced in 1909 in new hands fruit worth \$1,437, the net profit on which was \$974, in addition to apples not suitable for eating worth more than the whole crop before the orchard was properly cared for. In other cases 8 acres of orchard produced \$2,489 gross and \$1,890 net; 5½ acres produced \$2,237 gross and \$1,720 net; 1½ acres produced \$539 gross; and many cases of yields in money from \$150 to \$300 per acre could be shown, the result varying of course with the age of the trees but mainly with the practical knowledge of the fruit-grower. In vegetables one man with 17 acres raised 127 tons of cauliflower, which he sold for \$30 per ton, a return of about \$225 per acre. We know that for years large profits have been made in Ontario growing fine roses and other flowers for New York and other United States markets, but we now hear of one experienced hybridizer, who is also a banker, who has made himself famous as well as prosperous as a producer of innumerable species of gladioli, which are in demand in all quarters of the world. It must be remembered that these results are not due merely to the proximity of a market, but that in almost any part of Western Ontario similar things can be done. Too much credit cannot be accorded to the Department of Agriculture of Ontario for the ef-

fort it is making, and we can but hope that the number of lecturers and demonstrators will be increased, and that they will be persistently kept at work as a permanent force working for agricultural improvement. In some parts already a new tone has been given to farm affairs, emigration to the West has nearly ceased, farm values are increasing, and intensive farming is a subject of general and keen interest.

That a more enterprising spirit is necessary may be readily gathered from the statistics of live stock in Ontario. From 1901 to 1907 the number of horses on hand grew from 620,000 to 725,000, but since that year there has been practically no increase. The number sold annually, has, however, increased from 51,000 in 1901 to 98,000 in 1910, which is evidence enough of the difficulty of maintaining a stock on hand. The number of milch cows in 1901 was 984,000, in 1907 1,152,000, in 1910 only 1,052,000. The number of other cattle in 1901 was 1,523,000, in 1906 1,834,000, and in 1910 only 1,514,000. The number of stock slaughtered, however, rose steadily from 610,000 in 1901 to 817,000 in 1910. In sheep and lambs the story is one of steady decline from 1901 to 1910 in both the number of those on hand and of those slaughtered. In swine the number on hand rose from 1,491,000 in 1901 to 2,049,000 in 1907, and fell to 1,561,000 in 1910, while

the number slaughtered rose from 1,973,000 in 1901 to 2,267,000 in 1905, and fell to 1,844,000 in 1910. In poultry of all classes there has been a satisfactory increase in the number on hand and in the number annually killed. It will be seen from these figures, which are mainly taken from reports of the Agricultural Department of the Province of Ontario, and do not agree very closely with those of the Census Department at Ottawa that we are meeting a greatly increased demand by decreasing the stock on hand, and such a state of things cannot, of course, continue long. Many quite natural causes have led to this result, and others will tend to remedy it to some extent in the near future. Hay being scarce, high prices prevailing for coarse grains and the highest prices ever known for cattle, the farmer has in many cases sold both cattle and coarse grains, instead of feeding his stock as usual. But food crops are now more plentiful, and we may look for an increase in the stock of animals on hand.

### Manitoba, Saskatchewan and Alberta.

Considerable disappointment, as we all know, accompanies the record of what is nevertheless another year of progress in the prairie provinces. The wheat, oats, and flax reaped in the previous year were the highest in grade, and the whole crop was the largest and produced the

largest sum in money ever known. Under such conditions the acreage for 1910 was naturally increased, not merely by older farmers, but by new settlers preparing their first crops. With an early spring everything promised well, but because of many adverse conditions a smaller and less highly graded crop was the result. Our estimates in August were:—

	Bushels
Wheat . . . . .	88,000,000
Oats . . . . .	90,000,000
Barley . . . . .	17,000,000
Flax . . . . .	4,000,000

Other estimates are as high as 104,000,000 bushels for wheat and 128,000,000 bushels of oats, but we do not expect either wheat or oats to reach 100,000,000 bushels. About 60 per cent. of the wheat is fit for milling, and oats and barley grade badly. The flax crop was larger than in 1909 and the price during 1910 has been as high as \$2.54 per bushel, and is still most unusually high, so that the crop is much more important than might be supposed. The money result from the crops of the three prairie provinces, as estimated by conservative Western opinion, will be about \$20,000,000 less than for 1909. The estimate of the Census Department, which includes all field crops, is less favorable. The total field crops for the three provinces for 1910 are valued at \$155,926,000, as compared with \$192,839,000 for 1909, a less amount by about \$37,000,000. Much of the



shrinkage in value is due to decline in price.

The smaller yield of the crops of these provinces is due to unfavorable weather in three districts, Southern Alberta, Southern Manitoba, and South-Western Saskatchewan. In the northern districts and in some southern parts results were most excellent. In the districts where results were generally unfavorable, however, isolated cases stand out clearly, showing splendid results obtained, despite the weather, simply by scientific farming. Agricultural conditions at the moment in Southern Manitoba and parts of South-Western Saskatchewan are unsatisfactory because of lack of moisture, while in Southern Alberta, because of plentiful moisture during the last few months, the prospects are as good as could be desired. For some years the necessity of more advanced methods in such older parts as Southern Manitoba has been painfully evident. May we now hope that the Government of Manitoba as well as the farmers will forthwith do the quite obvious and not difficult things necessary to redeem and maintain the reputation of this part of Canada as a grain-producing country. Undoubtedly the crop is largely reduced every year by the prevalence of weeds, and it is clear that the Provincial Government cannot take too much trouble to remove this evil as far as possible. Enough has been done by individual cases of good farming to show how much larger the profits of agriculture in the West should be. The results of the present poor crop have been improved by the fact that mixed farming has been increasing—indeed, that is one direction in which Southern Manitoba is already working out the reform made necessary by the impoverishment of the land as a result of repeated grain crops.

There is no question of more importance to Western development than that of improving the breeding of live stock and of increasing their numbers. We are witnessing the gradual extinction of the rancher and the gradual establishment of a great grazing and feeding industry. It is naturally difficult by the increase due to the slower methods of the latter to make up for the losses consequent on the passing of the rancher, but the outlook as a whole is promising. The Live Stock Exhibition at Winnipeg in 1910 exceeded all records in the number of high-grade animals shown, and these were of such excellence that little further improvement can be looked for, some classes having been the finest ever shown in America. The progressive Western farmer is demonstrating to his fellows that if each of them will, as soon as he can afford it, raise a few head of high-grade stock, the disappearance of the rancher will rebound to their gain, and the problem of maintaining a sufficient supply of animals will be solved. As mat-

ters now stand, stocks are not as large as they should be, nor are they increasing as fast as they should. Statistics do not go far enough back in Saskatchewan and Alberta to be of much service, but in Manitoba horses have increased in numbers only about 50 per cent. in ten years, cattle a trifle more than 50 per cent., sheep have lessened in number, swine have increased about 100 per cent., and poultry about 65 to 70 per cent. Such statistics as are available show that stocks on hand for the three Provinces are about 870,000 horses, 2,300,000 cattle, 345,000 sheep, and 608,000 swine. Figures for poultry seem unreliable, but apparently there are not yet half as many as in Ontario. One has only to look at the map and consider the small part of Ontario that is farmed, and to compare it with the West, in order to see how very much must be done before it can be made impossible for the Vice President of the C. P. R. to reproach Manitoba with the importation of 12,000,000 eggs in one year over that railway alone, and to say further that the poultry and cream for their dining cars must be obtained partly in the United States.

The storage capacity of terminal and inland elevators has increased from 63,190,000 bushels in 1909 to 77,901,000 in 1910.

The railways are again to be congratulated on the manner in which they handled the crop. It is estimated that by the close of navigation 60,000,000 bushels had reached the head of the lakes. Terminal facilities for handling the crop have still further improved, and through the Lake Shippers' Clearance Association vessels can be loaded and despatched with much greater rapidity than heretofore. There has been the usual large increase in the mileage of railways, with the prospect of a still greater increase in 1911. In addition to Winnipeg, there are now many important railway centres, such as Brandon, Regina, Moose Jaw, Weyburn, Saskatoon, Prince Albert, Yorkton, North Battleford, Edmonton, Calgary, and Lethbridge.

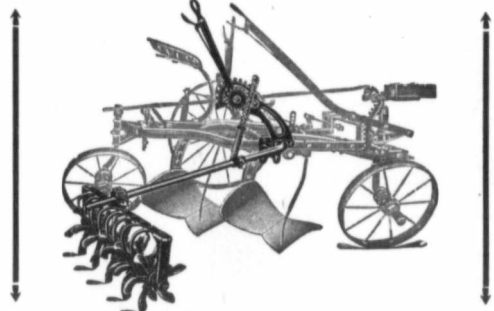
One of the most interesting things in the settlement of Canada is the work of the superintendent of the irrigation schemes of the Canadian Pacific Railway. The policy of providing "ready-made" farms is succeeding admirably, and the dryness of the past season has drawn attention to the value of irrigation in Southern Alberta. Sales of land in the irrigation area have been very large during the last three years, and have lately averaged a million dollars a month. The railway company naturally favors sales which result in immediate occupation. Their plans have succeeded so well that an appropriation of \$8,000,000 is said to have been voted by the Railway Board in order to carry the irrigation system further east.

# Best Tillage Tool

ever made for the farm is the

## Kramer Rotary Harrow

FOR PLOW ATTACHMENT



If you want to make money, and in doing so save enormously in time and labor, then you will never run a farm without a Kramer Rotary Harrow.

For plow attachment it is the only implement for the job and this is confirmed by the fact that nearly 100,000 farmers are using it in preference to any other harrow that has ever been introduced. Highly recommended by the Manitoba Agricultural College. Price and terms will fit the purse of any settler.

THE KRAMER MANFG. CO., Paxton, Ill.

### John Deere Plow Co. Ltd.

WINNIPEG, REGINA, CALGARY, EDMONTON, SASKATOON  
Exclusive Selling Agents for Western Canada



## Pickering Governors

made for

### Every Build of Engine

A Record Breaker for Output and  
Reduced Operating Expenses

Did you ever figure your Expenses for stopping to fix up that Governor that was causing all your trouble and then the fixing did not last?

PATENT BALL RANGER SPEED CHANGER SUPPLIED ON ALL  
GENUINE PICKERING GOVERNORS

If you have Governor troubles write

### The Pickering Governor Co.

PORTLAND

CONN., U.S.A.

## Hillcrest Steam Coal

ALL COAL—NO SLATE, ROCK OR OTHER  
FOREIGN MATTER.

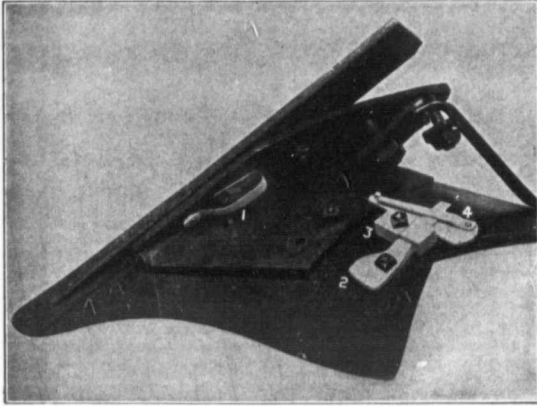
The best of the Rocky Mountain Steam Coal.  
Will plow more land and thresh more grain per  
ton than any other coal. Get some and try it.

### HILLCREST COLLIERIES, LTD.

HILLCREST, ALTA.

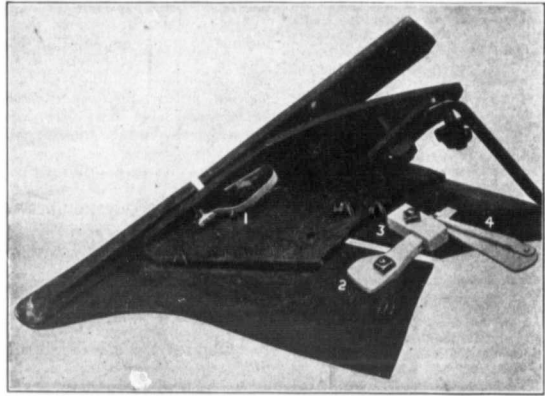
# Plowshare Fastener

Change Shares in Forty Seconds. A boy old enough to handle a Plow can do it as easily as a man. Not a Burr to loosen, or a Bolt to remove. It is easily attached. The Wedge Key draws the Share on and holds it there, in spite of rocks, stumps or gumbo, until you release it.



The Parks-Coughlin Plowshare Fastener (Patented)

Eliminates Plowshare Troubles.  
No more need of Night Man for changing Shares.  
No more Rusted Burr and Turning Bolt Troubles.  
No more use for Hammer and Punch to force Holes in Shares in line with those in the Frog.  
Cheaper than Bolts. Strong—has stood every test in every soil. Lasts a life-time.  
The Spring Share originated it.



1—Spring Bolt. 2—Coupler. 3—Lock Bar 4—Wedge Key.

Simply lift the plow out of the ground loosen the wedge key by tapping it at the point with your wrench—remove it—unsnap the spring bolt and lift the share off. Place the new share in position—secure the spring bolt—insert the key and drive it in with your wrench.

**You Want This.** Ask your implement man to demonstrate it to you, or write us for more particulars, giving your implement agent's name.

**Implement Specialties Corporation Ltd., 304 McIntyre Block, Winnipeg**

## Alec's Record Coast

Continued from page 81

summit were so weighted down with snow and ice that they looked hoary.

Alec stopped climbing at last and faced about. Involuntarily he found himself looking down what the boys called the "Long Coast." That ran above and parallel with the cut where the railway tracks had been laid, in a long descent that dropped steeply to the river. Only the more daring of the boys ever tried the Long Coast, and it had been especially unpopular since Bud Hawkins, flying down the slope with the velocity of an express train, had broken through the ice as soon as he touched the river. The fatality following close on several less serious accidents had led fathers and mothers to favor the Short Coast. Alec himself felt no temptation to try that mile and a half of swift, perilous flight. He was not one of the boys who are given to taking risks, and some of his mates made fun of him for a caution that they were inclined to consider unmanly.

The whistle of a train wakened all the echoes and Alec, swinging his arms to keep warm, waited to see it pass. "Must be the three o'clock express," Alec reflected. He knew every train that passed his father's farm and could have set the family clock by their whistles. He always liked to see the three o'clock express whiz by, all Pullman coaches rushing without stop from one large city to another. An aristocrat of the road was the three o'clock express, and plodding accommodations and lumbering freights must stand aside for it. Alec never saw it without a quickening of his pulses.

The train swung around the curve, while the boy on the slope above looked with all his eyes. He had seen it all more times than he could count, the huge engine with its massive driving wheels, the grimy face of the engineer looking vigilantly along the shining track, the swaying coaches with here and there a passenger gazing out on the winter landscape, all the same as usual.

Alec heard a voice crying out, and he did not know till afterwards that it was his own. All was not the same as

usual. Something terribly new and different was in evidence. For on the rear steps of the last Pullman stood a man gripping the iron support. His hat was gone and on his face was an expression of horror and despair unmistakable even from that distance.

Alec had never been on a vestibuled train in his life, yet in a twinkling he guessed the truth. The man had attempted to board the train by the rear door, had found it locked, and had been unable to call attention to his perilous position. The train made no stops for more than thirty miles. Long before that he would have frozen stiff, or have fallen from the steps in sheer exhaustion.

Ordinarily Alec was a boy who thought and acted with rather irritating deliberation. But at this crisis his mind worked by leaps and bounds. The man on the steps would die if help were not given immediately. The train must be stopped. The question was how. And all at once it was answered.

Alec whirled his sled, flung himself upon it face downward, and started down the steep slope of the Long Coast. Swiftly as he moved his thoughts outran the flying sled. The train would slow up for the bridge. He must beat it, flag it, and tell the story of the man on the rear steps. It did not occur to him to be afraid. So much depended on his success that an accident seemed out of the question. And beside the peril of the man whose horror-stricken face he had seen, his own danger seemed unworthy of a second thought.

The rush of the cold air in his face took away his breath. The stinging sleet forced him to shut his eyes. Steering by instinct instead of by sight he shot over the crust at a rate of speed almost incredible. A queer feeling took possession of him that it was never to end, that for ever and ever he would go rushing down, down, down, over a surface as smooth as glass.

He blinked his eyes open for a second, guessed he was near the river and gripped the runners more tightly. And it was well that he did so, for the sled shot from the bank into the air and flew like a bird one third across the stream

before its runners touched the ice. It cannot be denied that at this instant Alec thought of Bud Hawkins, and there was a chill at his heart as if a cold hand had been laid on it. In a flash he remembered how they had found Bud's body in the spring when the ice went out. But before he had time to wonder if he were getting frightened at last, the sled was climbing the river bank as if there was no such thing as the law of gravitation. It was on a level with the railroad bridge before its speed slackened perceptibly.

Alec rolled off the sled and staggered to his feet, the blood running from a cut where a jagged piece of ice had gashed his cheek. He ran toward the bridge, unwinding his tippet as he ran. The train was coming. He had won the race. But the delay of a second might make that victory useless.

The engineer peering ahead with the trained eyes that nothing escapes saw a boy on the track almost under the engine wheels, a boy with a blood-stained face and protruding eyes, brandishing a tippet whose flaming scarlet seemed fairly to screech the word "Danger!" The train had slowed up for the bridge and it was not a difficult matter to bring it to a full stop. Faces showed at the windows of the coaches. Men rushed to the platforms. The conductor leaped out and came face to face with Alec, who had run at the top of his speed after the train as its speed slackened.

"What's this, boy?" The conductor gripped Alec by the shoulder. "What's the trouble?"

What with his running and his excitement, and the fear which, now that the danger was over, had set his heart to thumping, Alec found it hard work to answer. "It's a man," he managed to gasp at last. "A man standing on the steps of the last car."

"What nonsense is this?" The conductor's voice was gruff. But another voice spoke over his shoulder, with an authority both man and boy recognized. "Let's look into this," it said. A man in a fur overcoat had followed the conductor off the coach, and he led the way to the rear of the train.

The man Alec had seen had not loos-

ened his hold when the train stopped. He stood still upon the steps gripping the iron supports, unable to straighten his stiffened fingers. And the look of horror on his face was unchanged as if it had been frozen there. But his eyes were closed, and when they pried his hands loose he fell into the conductor's arms a dead weight.

The man in the fur overcoat bent over him with a startled exclamation. "It's young Dudley," he said, "son of old Sam Dudley, the millionaire lumber man. I'm afraid help's come too late for him."

But it was not too late. The next day's paper brought the news that the physicians of the hospital to which the young man had been taken gave hope of his recovery. And they told other things which made interesting reading for Alec and his friends. Young Mr. Dudley, coming to the station late, had swung himself aboard the rear platform of the rear coach just as his train was moving out. He had found the door of the vestibule locked, and his shouts for help had not been heard above the roar of the train. Owing to the extreme cold he would have perished from exposure had it not been for a farmer's son who had seen his peril and flagged the train.

It was several months before young Mr. Dudley was out of the hospital. And then one day Alec had a caller. A rather shabby man with a grizzled beard made his appearance and began to institute inquiries about the episode of the winter. At his request, Alec accompanied him to the spot where he had begun his race with the express train and death. Alec explained how from this vantage point he had seen the man on the steps of the Pullman coach, and had evolved the plan for his rescue.

The old man looked down the steep slope, over which Alec had made his record run, and whistled softly. "The coasting must have been good," he suggested, "or you couldn't have beaten the express, even though she had to slow up for the bridge."

"Oh, the coasting was dandy," Alec explained, his face aglow as he remembered the shining surface. "Hard and smooth and slippery. I never saw anything like it."

"Looks as if it would be rather a risky proposition taking that route," said the stranger. "But I suppose you were used to it."

"Well, not exactly. I'd never tried the Long Coast before."

"Why not?" The eyes under the grey brows suddenly fastened on him and gave him an odd sensation as if they were boring down to his deepest thoughts.

"Because—well, its dangerous. Hardly any of the boys try the Long Coast since Bud Hawkins was drowned."

"But you tried it that day," the old man persisted, and Alec felt almost impatient over his slowness to understand.

"Why, of course," he said indignantly. "That was different." And he stopped confused for the stranger smiled upon him as a father might have done, kindly, and with a queer satisfied pride mingling with the kindness.

"Yes, yes, son," he said. "I see. It was different, of course. And now suppose you tell me all about it just once more."

Before he went away the man with the grey beard had a little private talk with Alec's father. "I've been pumping that boy of yours," he began. "He thinks he would like to go to some technical school; he's got a leaning toward being a civil engineer he says."

"If wishes were horses, beggars might ride," quoted Alec's father. "I'd be glad to give the boy a chance," he added, "but my farm's worked out. I haven't been able to make more than a bare living for the past ten years."

"If he wants schooling," said the stranger, "I'll see that he gets it. I'm Sam Dudley."

Alec's father's look of amazement was hardly complimentary, but old Mr. Dudley smiled. He was well aware of the fact that he frequently wore garments which his clerks would be ashamed of, and to his friends he explained that his wealth had come too late to make him comfortable in such clothing as his son wore.

"I'm grateful to that boy of yours," Mr. Dudley went on. "He saved my son in the nick of time. Another ten minutes would have finished him, the doctors say. He did some quick thinking when every second was precious, and he took a risk without stopping to worry over his chances to break his neck. Your boy is the kind of stuff that's needed badly in this world, and if my money can help him in making the most of himself, I don't know how I could use it better."

### The Grain Growers' Demand.

Continued from page 83

The next effect would be felt by the industries involved, and these would be practically all our industries. Free reciprocity with the United States in the commodities proposed and a cut of 50 per cent. on imports from Great Britain would vitally affect every cotton, woollen, coal, leather, wood and metal industry in Canada, and would shut up most of them. The cut in duties is not to be exercised with discrimination, it is to be arbitrary and horizontal and instantaneous. No legislation was ever proposed on so inconsiderate and mechanical a basis.

It needs but a moment's reflection to visualize the resulting confusion, the crash of business enterprises, the depreciation and dislocation and loss of capital, the stoppage of industries, the non-employment of wage-earners, and the transfer of capital and labor to other countries. The sunken capital and idle labor would not go to the farms, and new capital would find no inducements.

To pit Canadian industries unprotected against the competition

of the world of protected nations could only have one result. Nor in Free Trade England could they sell their cottons in competition with Lancashire, nor their wools against Yorkshire, nor their steel against Birmingham and Sheffield. They would go to the wall.

And a Canada without great industries would not fulfil its destiny in the development of its rich resources of material and powers, nor would it in the end be a profitable and desirable arena for the farmer himself.

### Thresherman's Question Drawer

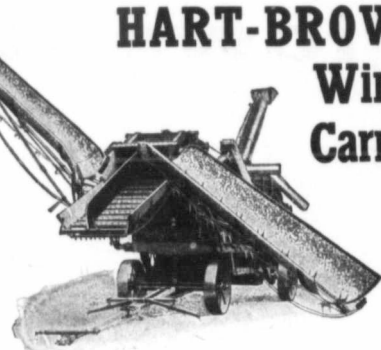
Continued from page 49

valve on the valve stem with the edge of the valve even with the edge of the port in the valve seat, or so that the valve just covers the port, then tighten the screws slightly that hold the valve to the valve stem. Then, with the engine still on the same centre, move the reverse lever in the opposite direction until the reverse box strikes the screw in the top of the stop plate and fasten the lever in that position. If the edge of the valve does not return to the edge of the port, or if it laps by the edge of the port, make a mark on the valve seat even with the edge of the valve. Now make another mark half way between the edge of the port and the first mark, then loosen the screws in the reverse gear on the crank shaft and turn the gear until the edge of the valve stops at the centre mark just made. Now tighten securely the screws in the reverse gear on the crank shaft. After this operation the gear is supposed to be properly located.

The next step in the operation is to loosen the valve on the stem and set it so there will be about one-thirty-second of an inch opening between the edge of the valve and the port; this is what we term the lead, and the valve should now be securely fastened on the stem while in that position, the engine still being on the centre nearest the cylinder. The next step in the operation is to place the crank pin on the engine on the opposite centre or away from the cylinder. The reverse lever being in the top notch the engine should be turned over in centering it. It should be turned in this manner in order to take up the lost motion in the reverse gear. The engine is thus centred to determine the lead on the opposite end of the cylinder. With the reverse lever still in the top notch, if the lead is found to be more than one-thirty-second of an inch, turn the set screw into the lug at the top of the stop plate until the proper lead is secured. If it is found to be less than one-thirty-second of an inch turn the set screw out of the lug at the top of the stop-plate until the proper lead is secured. Having thus secured the proper lead the jamb nuts on the set screws should be securely tightened.

## HART-BROWN Wing Carrier

For Stack, Shock and Headed Grain Threshing



Makes all Feeders Good Feeders. Eliminates slugging and prolongs life of both separator and feeder.

Attaches to any Separator with any Feeder. Does not hang on feeder, but attaches to strongest part of separator frame.

In stack threshing the carriers swing about over the stacks and are lowered as height of stack is reduced. They are always within convenient reach of the pitcher and one man will do more than two ordinarily will—From two to four pitchers or from \$5.00 to \$10.00 per day may be saved by using Hart-Brown Wing Carriers in stack threshing.

In shock threshing where the bundles are pitched from the rack the bundle wagons are 15-feet away from the machine, out of the dirt and dust and out of the way of the grain wagons, and the bundles pitched into the carriers are delivered to the feeder straighter and more evenly than is done by hand. A big saving may be made by using the Hart Universal Thresher Racks. See below.

### Hart Universal Thresher Rack



(Patents Pending)

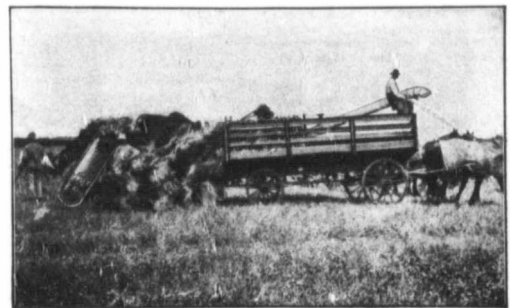
May be unloaded without stopping the team which can immediately return to the field.

Simple in construction, no derrick, pulleys, gears or sprockets, nothing to get out of order.

By using the Hart Universal Thresher Racks the pitchers in the field may be dispensed with and half the teams and men usually required to haul bundles from the field may be saved.

Do you wish to save the labor of from eight to ten men and from five to seven teams?

Do you wish to save from \$30.00 to \$40.00 per day, if so you can do it by securing a Hart-Brown Wing Carrier and a set of our Thresher Racks.



Hart Universal Thresher Rack unloading at machine.

Hart-Brown Wing Carriers and Hart Universal Thresher Racks are sold by the following thresher companies at the home office and their various branches:

- ADVANCE THRESHER CO., Battle Creek, Mich.
- AULTMAN & TAYLOR MACHINERY CO., Mansfield, Ohio
- AVERY COMPANY, Peoria, Illinois.
- HUBER MFG. CO., Marion, Ohio.
- INTERNATIONAL HARVESTER CO. OF AMERICA, Chicago, Ill.
- MINNEAPOLIS THRESHING MACHINE CO., Hopkins, Minn.
- NICHOLS & SHEPARD CO., Battle Creek, Mich.
- NORTHWEST THRESHER CO., Stillwater, Minn.
- PORT HURON ENGINE & THRESHER CO., Port Huron, Mich.
- AMERICAN-ABELL ENGINE & THRESHER CO., Limited, Toronto, Canada
- SAWYER & MASSEY CO., Limited, Hamilton, Ontario, Canada
- THE WATERLOO MANUFACTURING CO., Limited, Waterloo, Ontario, Canada
- JOHN GOODISON THRESHER CO., Limited, Sarnia, Ontario, Canada
- BUFFALO PITTS CO., Buffalo, N.Y.
- THE RUSSELL & CO., Massillon, Ohio
- REEVES & CO., Columbus, Ind.
- M. RUMELY CO., La Porte, Ind.

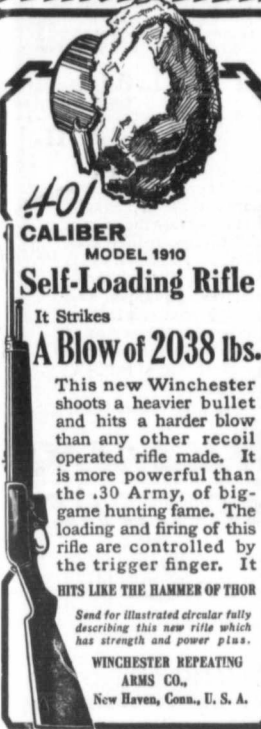
Manufactured by

Hart Grain Weigher Co.,

Peoria, Illinois, U.S.A.



# WINCHESTER



**401 CALIBER MODEL 1910 Self-Loading Rifle**

**It Strikes A Blow of 2038 lbs.**

This new Winchester shoots a heavier bullet and hits a harder blow than any other recoil operated rifle made. It is more powerful than the .30 Army, of big-game hunting fame. The loading and firing of this rifle are controlled by the trigger finger. It **HITS LIKE THE HAMMER OF THOR**

*Send for illustrated circular fully describing this new rifle which has strength and power plus.*

**WINCHESTER REPEATING ARMS CO.,**  
New Haven, Conn., U. S. A.

## Synopsis of the Report of the Saskatchewan Elevator Commission

Continued from page 72 last issue,

ter of initial storage must be distinguished from the other parts of the system.

They are unanimous in holding that the conditions necessary to create an effective sample market, involving as they do sampling, transportation, terminal facilities and mixing of grain, cannot be dealt with by the Provincial Legislature alone.

They are unanimous in holding that the question of terminal storage should be left in the hands of the Federal Parliament in the meantime, and that the question of a sample market depends in large measure upon the policy adopted by the Federal Parliament in regard to the terminals and the mixing of grain.

They are unanimous in holding that a Grain Exchange similar to existing exchanges, but located within the province, could not be created by the Provincial Legislature until the conditions that would make such an exchange successful came into existence and that if these conditions appeared, an exchange would probably appear also.

They are unanimous in holding that an exchange within the province in which grain was traded in for private gain and on the lines of the speculative market, would not be free from the evils alleged against the present exchange. The Commission believe that there is at present real competition in the Winnipeg Exchange, and that while there is the possibility of evils connected with the speculative side of the market, the practice of so large a number of farmers in shipping their grain to independent commission men is the best means of preserving a competitive market under the existing conditions.

Whatever evils may be connected with the Grain Exchange, they could only be removed, if at all, by the Saskatchewan Legislature, for Saskatchewan grain, by the creation of some system of collection or provincial selling, which would abolish private trading.

The Commission are unanimous in holding that the schemes of the Executive of the Grain Growers' Association of Saskatchewan and of Mr. Dorcil are not workable.

The Commission are unanimous in holding that a scheme of municipal and district elevators, while aiming at local loyalty, do not secure such a personal and direct pecuniary interest from the farmer as is needed to make the elevators a success in competing with other elevators.

The Commission are unanimous in holding that a scheme similar to the Manitoba scheme would not be satisfactory to the farmers generally on the one hand, and on the other would probably end in financial disaster. True, by various conceivable devices of book-keeping, the facts might be more or less

# THE CANADIAN BANK OF COMMERCE

HEAD OFFICE: TORONTO

**CAPITAL, \$10,000,000 REST, \$7,000,000**

SIR EDMUND WALKER, C.V.O., LL.D., D.C.L., President  
ALEXANDER LAIRD, General Manager A. H. IRELAND, Superintendent of Branches

BRANCHES IN EVERY PROVINCE OF CANADA AND IN THE UNITED STATES, MEXICO AND GREAT BRITAIN

### BRANCHES IN ALBERTA

BASSANO	HIGH RIVER	PONOKA
BAWLIF	INNISFAIL	PROVOST
CALGARY	INNISFREE	RED DEER
CARMANGAY	LETHBRIDGE	STAVELY
CLAREHOLM	MACLEOD	STONY PLAIN
CLEVERVILLE	MEDICINE HAT	STRATHCONA
CROSSFIELD	MILK RIVER	STRATHMORE
EDMONTON	MONARCH	VEGREVILLE
GLEICHEN	NANTON	VERMILION
GRANUM	NEW DAYTON	WARNER
HARDISTY	OLDS	WETASKIWIN
	PINCHER CREEK	

## BANKING BY MAIL

Accounts may be opened at any branch of the Bank and deposits made or withdrawn by mail. Every attention paid to out-of-town accounts.

A SAVINGS BANK DEPARTMENT IS OPEN AT EVERY BRANCH OF THE BANK IN CANADA EXCEPT IN THE YUKON TERRITORY

# HAVE YOU A HIDE

or Skin to be Tanned for a Coat, Robe, Gauntlets or Rug?

Send it to us, and we will make it as soft as a glove. We use no acid in our tanning, only the purest and best bark and mineral extracts.

Our total charges to tan and line an average sized hide, weighing above 50 lbs., with the best of lining and double row of felt trimming, is \$9.50

Smaller hides less in proportion and we pay freight one way.

We have been tanning hides for robes and coats for 15 years in the west, and our reputation is one of the best. Ask your neighbor.



## BRANDON TANNERY

Successors to Carruthers & Co.

BRANDON

MAN.

# Lunkenheimer Pop-Safety Valves

Do not waste steam as they relieve the overpressure only

They can be regulated to reduce the pressure only one pound, if such close regulation is desired. The improved construction of the valves prevents chattering and sticking and adjustment of the pop and pressure can be made from the outside of the valve.

**Lunkenheimer Pop-Safety Valves have full relieving capacity and are positive in operation.**

Either brass or iron body valves can be had, and they are made in all standard sizes for working pressures up to 250 pounds.

Write for Catalogue J. Your Local Dealer can furnish them, if not, write us.



## THE LUNKENHEIMER COMPANY

Largest Manufacturers of High-Grade Engineering Specialties in the world.

General Offices and Works: CINCINNATI, OHIO, U.S.A.

BRANCHES:

NEW YORK—64-68 Fulton Street  
CHICAGO—32 Dearborn St., cor. Lake  
LONDON, S.E., 35 Gt. Dover St

# The Vulcan Iron Works

Winnipeg LIMITED Canada

MANUFACTURERS OF Boilers and Engines, Elevator and Milling Machinery, Iron and Brass Castings

JOBBERS OF Steam Fitting Supplies, Architectural and Bridge Material, Steam Pumps, Rubber Belting, Packing and Hose, Pipe and Supplies, Boiler Plate and Sheet Iron Boiler Tubes, Etc., Etc.

AGENTS FOR FAIRBANKS, MORSE & CO., Gasoline Engines, Pumps and Scales HUNTLY MANUFACTURING CO., Monitor Grain Cleaning Machinery TAYLOR FORBES CO., Sovereign Radiators and Boilers

**DOMINION EXPRESS CO.**

MONEY ORDERS, FOREIGN DRAFTS and TRAVELLERS' CHEQUES

Issued in  
Dollars, Pounds Sterling, France, Gulden, Kronen, Krokor, Lire, Marks, Roubles, Etc., etc.

PAYABLE ALL OVER THE WORLD  
Money Transferred by Telegraph and Cable

Hundreds of Offices throughout Canada

FOREIGN MONEY BOUGHT AND SOLD

Winnipeg Office 212-214 Bannatyne Avenue

**Imperial Bank**

OF CANADA

CAPITAL AUTHORIZED.....\$10,000,000 00  
CAPITAL SUBSCRIBED.....5,905,000 00  
CAPITAL PAID UP.....5,575,000 00  
RESERVE FUND.....5,575,000 00

HEAD OFFICE, TORONTO

Directors:  
D. R. Wilkie, President and General Manager.  
Hon. Robt. Jaffray, Vice-President.  
Wm. Ramsay, Elias Rogers.  
Cavethra Mulock, J. E. Osborne.  
Charles Cockburn, Peleg Howland.  
Wm. Whyte, Wm. Hamilton Merritt.  
Hon. Richard Turner.

List of Branches of Imperial Bank of Canada

MANITOBA  
Winnipeg  
Winnipeg (North End)  
Brandon  
Portage la Prairie

SASKATCHEWAN  
Balgonie  
Broadview  
Fort Qu'Appelle  
Husker  
Moose Jaw  
North Battleford  
Regina  
Rosetown  
Saskatoon  
Wilkie  
Wynyard

ALBERTA  
Athabasca Landing  
Banff  
Calgary  
Calgary (East End)  
Edmonton  
Edmonton (West End)  
Lechbridge  
Red Deer  
Strathcona  
Wetaskiwin

Winnipeg Branch: N. C. Leslie, Manager

concealed for a time, but if there is anything of a business character that can be forecasted, such a scheme runs the gravest possible financial risk.

1. There is excessive storage capacity in the province at present, tested on a storage and handling basis. On that basis few of the initial elevators in Saskatchewan are profitable.

There is no doubt that the Government could purchase a large number of the existing elevators at prices not unreasonable. It could probably purchase some independent elevators, and some belonging to the "line" companies. But if it endeavored to buy a monopoly, it would most probably find itself as the result in the possession of the least successful elevators at any shipping points. Owners would probably in many cases be pleased to sell their houses at something like the cost of erection, to the Government. They cannot expect better terms from any other quarter. The Government would thus saddle its system of storage with a large initial outlay, only to find itself still confronted with the keen competition of the most successful companies. Such a beginning would be fatal to the system. An indiscriminate buying of existing elevators would be in the interests of the owners of those elevators but would not be in the interest of the grain growers, who would have to pay the bill.

2. But assuming that the Government did purchase a large number of elevators and did enter into competition with the remaining trading companies, it is demonstrable that the Government would compete under several grave disadvantages:—

(1) It could only store and handle while its competitors could also buy and sell. Its income would be limited to the maximum rate of 1 3/4c. per bushel, and there is no reason whatever to suppose that it could secure the maximum rate. On the contrary the probability is that its rivals would store and handle for less than the maximum rate, perhaps for one cent per bushel. And it is sheer nonsense to suppose that under such competition the Government would receive a considerable income from secondary storage.

(2) The Government would find a difficulty in providing for street grain. Many farmers desire to sell their grain outright. And if a farmer has to pay interest it might suit him best to sell his grain at once, pay his bills, avoid that interest as far as possible, and avoid also the storing and insuring of the grain, and the possible fluctuations in the price. The Government would be compelled to make some provision for street grain. It could lease space in the elevators, and perhaps secure some buyers. Possibly it could induce the G. G. G. Company to buy the street grain, or some similar company.

(3) The Government would be at a disadvantage arising from the fact that farmers having no



"It's Never Too Late to Learn."

Perhaps you have used paints and varnishes that have not been satisfactory and you wonder why. If you bought them because the price was low, that's probably the reason. The man who buys "cheap goods" to save money does not save it when buying paints. Paints, varnishes, stains and enamels which are cheap in price usually lack something—durability or spreading and covering qualities. You can't make good paint without putting good raw materials into it—and they cost money. It is wiser to buy a paint that has quality back of it; you will get twice the wear out of it that you would from a cheap paint. Go to the S-W dealer in your town to get paint satisfaction.

The Little Paint Man.

**SHERWIN-WILLIAMS PAINTS & VARNISHES**



Sherwin-Williams Paint, Prepared (SWP) is made from pure white lead, pure zinc, pure linseed oil, and the necessary pigments and driers.

Sherwin-Williams Varnishes are made from the best gums, pure linseed oil, pure turpentine, and thoroughly filtered and aged.



**THE SHERWIN-WILLIAMS Co.**  
MONTREAL TORONTO WINNIPEG VANCOUVER



**Barn Roofing**

Fire, Lightning Rust and Storm Proof Durable and Ornamental

Let us know the size of any roof you are thinking of covering and we will make you an interesting offer.

**Metallic Roofing Co.**  
Limited  
MANUFACTURERS  
TORONTO and WINNIPEG

Western Canada Factory:  
797, Notre Dame Ave., Winnipeg.

SHIP YOUR FURS AND HIDES TO McMILLAN FUR & WOOL CO. 277 SUPER STREET WINNIPEG - MANITOBA WRITE FOR CIRCULAR TRAPPERS GUIDE FREE TO THOSE WHO SHIP TO US.

Alex. Naismith, Pres. Wm. Paterson, Vice-Pres. C. D. Kerr, Treasurer

**The WAWANESA MUTUAL INSURANCE COMPANY**

HEAD OFFICE: WAWANESA, MAN.

A. F. KEMPTON, Secretary-Manager

Amount of Insurance in force Dec. 31st, 1909 \$24,136,616.00  
Assets over Liabilities 374,682.43

THE NUMBER OF FARMERS INSURED 18,193

Over 16,316 Farmers Insured. The Largest Agricultural Fire Insurance Company west of Lake Superior. Agents wanted in unrepresented districts

A. Naismith, Pres. R. M. Matheson, Vice-Pres. C. D. Kerr, Treasurer  
A. F. Kempton, Sec. and Mgr.

Authorized Capital. \$500,000.00 Subscribed Capital. \$300,000.00

**THE OCCIDENTAL FIRE INSURANCE CO.**

FULL GOVERNMENT DEPOSIT

Agents wanted in unrepresented districts. Head Office—Wawanesa, Man.

FIRE INSURANCE

**The MANITOBA ASSURANCE CO.**

(Re-Organized)

All Policies Guaranteed by

THE LIVERPOOL AND LONDON AND GLOBE INSURANCE COMPANY, LTD.

Northwest Branch

WINNIPEG, Canada

Agents wanted in unrepresented districts.

FRED. W. PACE, Local Manager

Patronize Those Who Patronize This Paper

**Warranted to Give Satisfaction.**  
**Gombault's**  
**Caustic Balsam**



**Has Imitators But No Competitors.**  
A Safe, Speedy and Positive Cure for  
Curb, Splint, Sweny, Capoe Hook,  
Strained Tendons, Founder, Wind  
Puffs, and all lameness from Spavin,  
Ringbone and other bony tumors.  
Cures all skin diseases or Parasites,  
Thrush, Diphtheria. Removes all  
Bunches from Horses or Cattle.  
As a Human Remedy for Rheumatism,  
Sprains, Sore Throat, etc. it is invaluable.  
Every bottle of Caustic Balsam sold is  
warranted to give satisfaction. Price \$1.50  
per bottle. Sold by druggists, or sent by ex-  
press, charges paid, with full directions for  
its use. If need for descriptive circular,  
testimonials, etc. Address  
The Lawrence-Williams Co., Toronto, Ont.

**3**

**Leading Brands**

Sold everywhere throughout  
Western Canada

**DREWRY'S**

**Refined**  
**Ale**

(Registered)

**Extra Stout**

AND

**Redwood**  
**Lager**

These well known malt  
beverages are brewed from  
barley malt and hops only.  
Always uniform in quality and  
flavor.

**Well Drilling**  
**Machines**



Over 200 styles and  
either deep or  
any kind of soil  
on wheels or on  
gins or horse  
styles for drilling  
shallow wells in  
or rock. Mounted  
on wheels. With  
powers. Strong,  
simple, durable.  
Any mechanic  
can operate  
them. Send  
for catalog.

**WILLIAMS BROS.,**  
ITHACA, N. Y.

direct and personal financial re-  
sponsibility for the provincial ele-  
vators, would feel, according to  
their own representatives, free to  
take their grain to whatever ele-  
vator paid them best.

(4) The Government would be  
at a disadvantage arising from  
the fact universally admitted,  
that there is a general disposition  
to exact the utmost possible from  
the public treasury, while not  
giving the utmost return. This is  
perhaps the greatest obstacle to  
the development of public own-  
ership, and so long as such dispo-  
sition is general, so long will  
governments find it difficult to  
compete in matters commercial or  
industrial with private corpora-  
tions.

(5) The Government would be  
at a disadvantage arising from  
the fact that political influences  
would tend to make themselves  
felt. Whatever party happened to  
be in power would be tempted to  
run the system in its own polit-  
ical interest. Appointments  
would be made on the grounds of  
party affiliation, and on the same  
ground contracts would be given  
and money spent, and all this  
would be used by some grain  
growers as a sufficient ground for  
taking their grain to the other  
elevators.

(6) A Government that want-  
ed to discredit the whole prin-  
ciple of public ownership, that de-  
sired to hold it up to the ridicule  
of the West, or that was even  
unsympathetic to that principle,  
would have a splendid opportuni-  
ty. The conditions under which  
the provincial elevators would  
operate are not conditions that  
make for successful public own-  
ership, and they would require to  
have behind them a Government  
not merely in sympathy with  
public ownership, but so devoted  
to it that the members would be  
ready to stake their political  
careers upon it. Advocates of  
public ownership of public util-  
ities may well hesitate to rest  
their case on provincial versus  
private initial elevators.

On these grounds the Commis-  
sion consider that the financial  
success of such a scheme is so  
doubtful that they cannot recom-  
mend it to the Government. On  
the contrary, the Commission are  
unanimous in advising the Govern-  
ment against such a course.

The Commission are unani-  
mous in holding that a solution  
of the elevator problem satisfactory  
to the farmers must give the  
farmers full control of the system.  
And they are unanimous in hold-  
ing that no storing and handling  
elevator is likely to be a financial  
success, unless a considerable  
number of the growers of grain  
have a direct personal interest in  
and responsibility for the ele-  
vators.

The Commission, therefore, are  
unanimous in holding that the  
solution must be sought along  
the line of co-operation by the  
farmers themselves, assisted in  
the matter of finance by a provin-  
cial loan.

The Commission consider that  
special legislation should be



**SPORTSMEN**  
YOU CAN GET YOUR HEADS  
MOUNTED FREE



Diplomas of Merit  
1909 and 1910  
Silver Medal  
1909 and 1910

By "Ambrose" if  
you can show me a  
single head mount-  
ed in Winnipeg by  
the most modern  
scientific methods  
other than my own  
work which I make  
a specialty to guar-  
antee, I will mount  
your head free of  
charge. The most  
modern and scienti-  
fic method claimed  
by others was  
practiced a quarter  
of a century ago  
and is now out of  
date. I am now  
remounting work  
mounted on this  
system only two  
years ago.



First Prize Birds  
1909 and 1910  
First Prize Animals  
and Heads  
1909 and 1910

Have your trophies  
preserved and  
mounted by a  
Practical Taxider-  
mist, who has spent  
a life time at his art  
and will guarantee  
perfect work with  
absolute fidelity to  
Nature.

Prices given on Big  
Game Heads, Elk,  
Tusks, Raw Furs,  
Hides and Rare  
Birds.

**JOHN AMBROSE, Taxidermist**

**175 FORT STREET, WINNIPEG**  
PHONE MAIN 6185

**The Liverpool and London**  
**and Globe Insurance Co., Ltd.**  
"THE STRONGEST FIRE COMPANY IN THE WORLD"

**Northwest Branch, WINNIPEG, Manitoba**  
Agents wanted in  
unrepresented districts. **FRED. W. PACE,**  
Local Manager.

**New Model 27 Marlin**  
**REPEATING RIFLE**

The only gun that fills the  
demand for a trom-  
bone ("pump") ac-  
tion repeater in  
.25-20 and  
.32-20  
calibres.

Shoots  
high ve-  
locity smoke-  
less cartridges,  
also black and low  
pressure smokeless.  
Powerful enough for deer,  
safe to use in settled districts, ex-  
cellent for target work, for foxes,  
geese, woodchucks, etc.



Its exclusive features: the quick, smooth working "pump" action;  
the wear-resisting Special Smokeless Steel barrel; the modern solid  
top and side ejector for rapid, accurate firing; increased safety and  
convenience. It has take-down construction and heavy Blast Proof  
sight; these cost extra on other rifles of these calibres.

Our 136 page catalog describes the full Marlin  
line. Sent for three stamps postage. Write for it.  
105 Willow Street  
**The Marlin Firearms Co.** New Haven, Conn.

**WESTERN KING** UNION MADE  
**SHIRTS and**  
**"Biggest and Best" OVERALLS**

There is neither satisfaction nor economy in buying small, poorly-made  
work clothes, especially when you can get—at no additional cost—such large,  
well made, comfortable, sure-to-please garments as WESTERN KING.

**THE WORKMEN'S FAVORITE** Our good, big, roomy, bib overall in plain  
black or blue, or blue and white stripe. Only  
best grade materials used and cut so as to give most comfort. Popular prices everywhere.

Any dealer will get our goods for you if he has not already got them, or  
we will forward direct.

**The Western King Garment Co.**

McDERMOTT AVE., WINNIPEG

The Largest in the West

**Patronize those who patronize this Paper.**



## Stop That Limp

Change that limping, useless horse into a sound, healthy horse, willing and eager to do a good day's work. Don't let a Spavin, Curb, Splint, Sprain, Ringbone or any other Lameness keep your horse in the stable. Cure it with

### Kendall's Spavin Cure

It cures without leaving a scar, blemish or white hairs—because it does not blister.

Fort Kalia, B.C., June 14th 1909  
 "Have been using your Liniment for years and find it all that you represent. Have not been without it for 10 years."  
 GEORGE GORDON.

\$1. a bottle—\$ for \$5. Excellent for household use. Sold by all dealers. Ask for free book "A Treatise On The Horse" or write us for copy.

DR. B. J. KENDALL CO. Essexburg Falls, Vt.

enacted providing for the creation of a co-operative organization of the farmers on the principle of:

- (1) The maximum amount of local control consistent with
- (2) ownership by the whole body of shareholders and management through a central board of directors.

The Commission consider that the managing body should be wholly elected by the shareholders themselves, and should be entirely independent of government interference. There is no reason why the Government should elect even one member of this managing body, or interfere in any way with the management, the loan being secured, and the conditions of obtaining it fulfilled. The local boards should be elected by the local shareholders, and their power and functions duly set forth, and the shares should be confined to agriculturists, and the transfer of shares by shareholders should be subject to the approval of shareholders at the annual meeting. The annual meeting should be composed of delegates duly appointed by the local bodies and the central directors of the Company.

The shares should be \$50 each, with not less than 15 per cent. paid up, and the maximum number of shares sold to one person should not exceed ten. The stock subscribed to each local should be equal to the cost of the proposed elevator, and the aggregate annual crop acreage of the shareholders should not be less than two thousand acres for each ten thousand bushels of the capacity of the elevator, or one acre for every dollar of proposed expenditure at each local.

As soon as twenty-five locals are organized, the first meeting of the shareholders should be called, and the officers of the company elected, as provided for in the Act, and the Government should then be prepared to grant the loan on the conditions outlined, and thereafter from time to time as the required conditions are fulfilled. The loan should be repayable in twenty equal annual instalments, capital and interest, except that only the interest should be paid the first year the elevators are in operation. The loan would be amply secured by mortgages on the property, and by the unpaid subscriptions, which could be called in when necessary to meet possible deficits or provide the fixed charges, the liability being lessened thereby each year. Insurance policies on the buildings should also be made payable to the Government.

It is the opinion of the Commission that the interest on the paid-up capital should be limited, and that, if possible, the profits of the Company should be distributed on the co-operative principle, according to the business offered by each member of the Company. The same principle should, if possible, prevail as regards the locals, thus securing to each of these the advantages of its own enterprise and discretion.

## WHY/WHAT DELICIOUS TEA!

Do you mind telling me what kind it is? Not at all. I always use it. It is



That is not a make-believe conversation. It shows why the use of Blue Ribbon Tea spreads. Try it. If you don't find it perfectly satisfactory your grocer will promptly refund your money.

## The Famous Rayo

Gives the Best Light at Any Price



When you pay more than the Rayo price for a lamp, you are paying for extra decorations that cannot add to the quality of the light. You can't pay for a better light, because there is none. An oil light has the least effect on the human eye, and the Rayo Lamp is the best oil lamp made, though low in price. You can pay \$5, \$10, or \$20 for some other lamp, and although you get a more costly lamp, you can't get a better light than the white, mellow, diffused, unflinching light of the low-priced Rayo.

Has a strong, durable shade-holder. This season's burner adds to the strength and appearance. Made of solid brass, nicked, and easily polished.

Once a Rayo User, Always One

Dealers Everywhere. If not at yours, write for descriptive circular to the nearest agency of the

The Imperial Oil Company Limited.

### WELL DRILLING

GUS PECH  
 FOUNDRY AND  
 MANUFACTURING  
 COMPANY

Manufacturers of the Celebrated  
**MONITOR WELL AUGERS AND DRILLS**

Write for prices and Illustrated Catalogue.

L. H. MARKS, IOWA U.S.A.  
 Branch House: REGINA, SASK.

### 'S ARMY AUCTION BARGAINS

\$114.00 SET ARMY POLE BARNES \$21.85  
 Set Army Lead Team Harness \$47.95

Army Saddles \$3.00 up  
 Army Saddle Tents 1.00 up  
 Army Uniforms 1.25 up  
 7 Shot Rifle Carbine 3.50  
 Outside Army Tents 50 up  
 Side Arm Saws .35 up

SEND POSTAL TO-DAY FOR FREE CIRCULAR

Largest stock Government Auction Bazaar in the world. 10 acres required for its storage. 864-page catalogue, over 4,000 illustrations of army and navy stores, guns, military paraphernalia. Mailed for 10 cents (stamp). Regular Bazaar, FRANKS, BROWN, & CO., 515 BROADWAY, NEW YORK. FRANCIS BANNERMAN, 501 Broadway, N. Y.

### Send only 10 cents

For this beautiful 18 inch tray cloth on Fine Art Linen your choice of Wallachian, Egyptian, Mt. Melick, Violet or Holly design, and we will include FREE OF CHARGE one year's subscription to "Art Needlework" Magazine.

The tray cloth regularly sells for 25 cents, and one year's subscription to our embroidery Magazine would ordinarily cost you 20 cents, thus making a total cash value of 45 cents.

The above Bargain Offer will be sent to any address upon receipt of ten cents and the names and addresses of five lady friends. Send us your order to-day.

WALLORE & CO., Inc.,  
 207-3 Addison Ave., Chicago, Ill.

### ERZINGER'S No. 2 CUT PLUG

Leads them all. It's the Best Dollar Tobacco sold anywhere.

JOHN ERZINGER  
 McIntyre Bldg. - 293 Portage Ave.  
 Phone 69 Phone 2677

### Austin Well Drilling and Prospecting Machinery

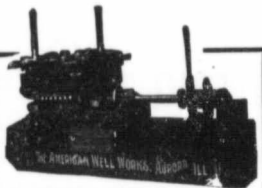
Rock Drilling Hydraulic Jetting or Hydraulic Rotary Machines to drill any depth in any formation. Operated by Steam or Gasoline Engines or Horse Power.

WRITE FOR ILLUSTRATED CATALOGUE NO. 15  
 Our Line Includes Steam and Gasoline Traction Engines, Sleeveless Separators and Supplies

Burridge Cooper Co. Ltd., 156 Lombard St., Winnipeg  
 Regina, Sask., Branch: 1840 Dewdney St.

### Family Group Photos a Speciality

AT  
**STEELE & CO., LTD.**  
 MAIN ST. AND BANNATYNE AVE. WINNIPEG



\$1500 to \$5000 Per Year

have been made by hundreds of people operating the "American" Drilling Machines, 40 years' experience, 59 regular styles and sizes and the output of the world's largest manufacturers of this kind of machinery make

"AMERICAN" MACHINES STANDARD Made in types for every kind of earth and rock drilling or mineral prospecting, equipped with any power, or operated with your traction engine. Our new 1910 page Catalog Free.

THE AMERICAN WELL WORKS

General Office and Works:

AURORA ILL., U.S.A.

Chicago Office: First Nat. Bk. Bldg.



BURRIDGE-COOPER CO., Ltd.

Agents Winnipeg, Canada



Dealers Increase Your Sales!

Look at:

Strite Governor Pulley

It's the original and the only thing for driving cream separator, with gasoline engine, that tried, always used. THEY ONE. More in use than all others combined. Costs no more than imitations. Also, ask about our friction clutch pulleys.

STRITE GOVERNOR PULLEY CO., 310 S. 3RD ST., MINNEAPOLIS.

The Pump That Pumps

Double-acting, Lift, Tank and Spray PUMPS

MYERS HAY TOOLS

of all kinds. Write for Circulars and Prices.

Myers Stayson Flexible Door Hangers with anti-rubber bearings, easy to wash and to pull, cannot be thrown off the track—keeps in shape—Stayson. Write for descriptive circular and prices. Exclusive agency given to right party who will buy in quantity.

J. MYERS & SONS, Oshkosh, Wis.

CALVES Rate Them Without Error. Booklet Free. Steele, Eggs Seed Co. Winnipeg

The Commission consider that for purposes of preliminary organization the Executive of the Saskatchewan Grain Growers' Association should be the provisional directors, and that the Government should make a special generous grant to them for that purpose.

The Company might be called the Saskatchewan Co-operative Elevator Company.

The Commission are not opposed to the principle of public utilities, but they consider that provincial competition with private companies in the matter of initial storage is subject to conditions which would invite failure, and that such a scheme in any case would be limited in the scope of the service it could do for the growers of grain.

The Commission would have little objection to an experiment by the province were it not for the fact that an experiment upon a large scale is being conducted by the Province of Manitoba. If Saskatchewan would make an equally serious attempt to develop a co-operative solution of the problem, the western farmers would soon be in a position to avail themselves of the best results of both experiments. Both plans aim at removing initial storage from the ownership of companies interested in the trading of grain. The one plan aims at ownership by the State and management by the Government, and the other aims at ownership and management by the growers of grain. Both plans recognize the strength of the feeling of injustice in the minds of many farmers, both seek to create conditions for the marketing of grain which will give the farmers confidence and satisfaction, and both involve financial aid on the part of the State. The chief difference between the two plans is that in the one the issue is in the hands of the Government, while in the other it is in the hands of the farmers themselves, and to this Commission, at all events, it appears that this difference is in favor of the co-operative plan. This plan avoids many of the risks and limitations of the other plans, and is pregnant besides with possibilities for the future.

Motor Vehicles in London.

Recent statistics show that almost 6,000 taxicabs ply the streets of London, Eng., in place of the 11,000 horse-drawn vehicles of which the city formerly boasted. Motor cabs of all kinds have practically taken the place of horse vehicles in the English capital. There are some 7,500 of the former in the city, of which almost 6,000 belong to the public vehicle class. There are several of the motor-cab companies and the competition among them is keen. The vehicles are kept in good condition at all times and the average rate is eight pence per mile (about 16 cents). It is stated, however, that, owing to the demand for finer vehicles, the companies operating them have found this rate insufficient.

# SUN FIRE

The oldest Insurance Office in the world  
FOUNDED A.D. 1710 BI-CENTENARY 1910  
HOME OFFICE: LONDON, ENGLAND  
Canadian Branch, Sun Building, Toronto, H. M. Blackburn, Manager.  
AGENTS WANTED IN UNREPRESENTED DISTRICTS

## Wall Plaster

If you intend building this year, see that you get a good Plaster Job.

The Sackett Plaster Board  
AND  
The Empire Brands of Wall Plaster  
are what you will need.

THE MANITOBA GYPSUM COMPANY, LIMITED

Office and Mill, WINNIPEG, MAN.

## Mackenzie, Brown, Thom & McMorran Mackenzie, Brown, MacDonald & Anderson

Barristers, Solicitors, &c.

Regina, Saskatchewan, Canada

Norman Mackenzie, K.C., Official Administrator. George W. Brown.  
Douglas J. Thom, T. Sydney McMorran, Hector Y. MacDonald  
Percy M. Anderson.

General Solicitors in Saskatchewan for Fifteen Canadian and American Threshing and Implement Companies.

## MONEY TO LOAN on IMPROVED FARM LANDS at LOWEST RATES

APPLY TO  
NATIONAL TRUST COMPANY, LIMITED  
WINNIPEG SASKATOON EDMONTON

REGISTERED TRADE MARK



JOSEPH RODGERS & SONS, Limited  
SHEFFIELD, ENG.

Avoid imitations of our CUTLERY by Seeing that This EXACT MARK is on Each Blade.

SOLE AGENTS FOR CANADA

JAMES HUTTON & CO., MONTREAL

Book Free

## ACME PULVERIZING HARROW

Conserves All the Moisture for the Growing Crop

For use on irrigated or dry farms the "ACME" is the best tool on the market, because it packs the soil under and leaves the top soil matted, which attracts and conserves all the moisture for the growing crop. Where the "ACME" is used there are no air spaces between the furrows, nor are any bumps or voids left. The "ACME" thoroughly pulverizes the soil, making a perfect seed bed. This Harrow

Cuts, Crushes, Turns and Smooths

breaks up, pulverizes and prepares perfectly plowed soil or stubble on one operation. On summer fallow work the "ACME" keeps down the weed growth and conserves moisture. The action of the rollers is such that all trash that has been turned under by the plow is left beneath the surface. Made in sizes from 3 to 17 1/2 feet wide. Suitable for every farm. Guaranteed against breakage.

Send for our combined catalog and book, "Preparation of the Soil"—free, written by the highest authority, and shows how to raise the largest crops; also illustrates and describes the "ACME." Ask your dealer about the "ACME" Harrow, or write John Deere Plow Co., Ltd., Calgary, Winnipeg, Regina, Saskatoon, Edmonton.

DUANE H. NASH, Incorporated 115 Division Ave., Millington, N. J.

**FRAZER AXLE GREASE**



Not affected by Heat or Cold. Highest Awards at Centennial, Paris, and World's Fair. MANUFACTURED BY FRAZER LUBRICATOR COMPANY Factories: ST. LOUIS, NEW YORK. NICHOLSON & BAIN, Agents WINNIPEG, MAN.

**Practical Talks to Threshermen**

Continued on page 46 and extend well back under the beater. The grates are adjustable, as in all machines. The rear grates are hinged to the concave holder and are given a vibrating motion by an eccentric secured to the beater shaft. The beater is a four cusped affair, similar to the one used on the Case machine, and is located immediately behind and slightly above the cylinder. The check board is close to and directly back of the beater.

The Frick Company's Eclipse separator is another separator which deserves especial mention on account of some peculiarities of design. It has a large grate area placed concentric with and extending well past the middle of the rear of the cylinder. The first straw rack is placed high above the bottom of the cylinder, so that very little of the grain thrown through the grates can find its way into the straw. The beater, or picker, as it is called, in this machine is placed rather farther away from the cylinder than in most machines and higher above the racks. It is provided with a number of blades or large teeth placed helically on the beater body. The cylinder consists of a steel tube with an inner lining of hard wood, through which the teeth pass. A special wrench, which is worked from the end of the cylinder, is used to tighten the nuts of the cylinder teeth. The teeth are of special form, having the back edge similar in form to the front, so that when worn they may be turned half-around, or the cylinder may be turned end for end in the bearings.

**Farm Land and City Property For Sale**

We own and control the sale of some 5,000 acres of improved and unimproved farms in the vicinity of Elm Creek, situated South West of Winnipeg some 45 miles, and in the famous Red River Valley. Also lands in the New Drainage District, North of Gladstone.

In Saskatchewan we are the owners of some 15,000 acres of select farm land in the Eagle Lake District, North of Kindersley, which is a Divisional Point on the C.N.R. The G.T.P. Biggar to Calgary Branch is under construction and passes just to the North of our lands. These lands are without stone or scrub, and are a steam plow proposition.

We would be pleased to meet all Bonspiel visitors at our Head Offices, Winnipeg.

**Red River Loan and Land Co.**

913 Union Bank Building, Winnipeg

THOMAS GUINAN, President

E. C. COMPLIN, Manager

**PATENTS TRADE MARKS AND DESIGNS**

PROCURER IN ALL COUNTRIES Special Attention Given to Patent Litigation. PAMPHLET SENT FREE ON APPLICATION

RIDOUT & MAYBEE 305 BAY ST. TORONTO

**Your Nose is Frozen, Mr.**



Was a daily remark during the recent cold, and storms, and there is going to be more of to touch that, now tender spot of yours.

Those who wear a Dysthe face protector speaks differently.

To my mind there is nothing can take its place in a blizzard and I often used it, also on a clear day when there was a cold wind to face. They are well worth the money. Dr. L. E. MYLKS, Clanwilliam, Man.

Mailed anywhere for \$1 00. write for free catalogue today.

MARTINIUS DYSTHE 353 Beverly St., Winnipeg, Can.

**SAVE THE HORSE'S SPAVIN CURE**



50 Mann Ave., Newark, N. J., Jan. 15, 1911. Some time ago I purchased a horse, believing him to be a real good one. At the time I did not know that he had been bred and blistered. He became very lame from a Spavin, and the prospect was not very favorable, owing to his advanced age. However, having a bottle of "Save-The-Horse" on hand, of which I had used very little in satisfactorily curing Puffs on another horse, I ventured to think it would help the Spavin on my new purchase. I was advised to drive the horse to the day-time, he was so lame. I used about half the bottle. Suddenly the horse shook his legs, and so to this day he acts and goes as sound as a colt. Now should you want a recommendation you are at liberty to refer to me. Am. Wa. Branch, \$5.00 a Bottle With Signed CONTRACT. This is a binding CONTRACT and protects purchaser absolutely in treating and curing any case of Bone and Soft Spavin, Thorough, Ring-bone, (except low), Curb, Splint, Capped Neck, Windfall, Shin-kick, bowed tendons and all Lameness. No wear or loss of hair. Horse works as usual. Send for copy of contract, booklet on all lameness and letters from prominent business men, bankers, farmers and horse owners the world over on every kind of case. At all Druggists and Dealers, or on orders paid. Troy Chalmers & Co. 145 1/2 Hira St., Toronto, Ont., and Binghamton, N.Y.

**If Not For the Farmer Then Who?**

Continued from Page 10

The real value of the automobile show to the customers has not always been appreciated. It has been thought by some that an automobile show was an advertisement for the various machines, and only that, but we must look from the other side of the fence if the perspective is to be true. The automobile show is an education, and a liberal one, to the general public who are interested in automobiles.

The automobile shows have done much to bring the people in touch with the advancement of this wonderful industry, and the February display will be representative of this in every way. As has been said before, the automobile is no longer the rich man's property, but the man of modest means, the business man of to-day, and the ever careful and reliable farmer of the country districts has appeared in the parade of progress which is steadily and surely spreading over the land. Banners of achievement are floating over the industries of the country, and the automobile emblem forms no small part in the display.



**There Is No String To This Pipe**

It is absolutely FREE to subscribers who take advantage of this offer

**The Weekly Free Press and Prairie Farmer  
The Canadian Thresherman and Farmer**

Both including Pipe for the nominal sum of **\$1.25**

The lowest price at which these two papers will be offered this year is \$1.25. It makes no difference whether you take the pipe or not, the price is the same. While the supply of these pipes lasts they will be given away free to all who subscribe. Better get your order in early and be sure of a good smoke.

1910.

Weekly Free Press and Prairie Farmer, Winnipeg, Man.

Find enclosed \$1.25 for which send the "Weekly Free Press and Prairie Farmer" one year, and the "Canadian Thresherman and Farmer" one year, together with pipe, to the following address:

Name \_\_\_\_\_  
Town \_\_\_\_\_  
Province \_\_\_\_\_ P.O. Box \_\_\_\_\_





Conducted for the benefit of Dealers, Threshermen and Farmers who have anything to sell or exchange. Three cents a word for each insertion.

WANTED—To exchange Sawyer & Massey eight horse power, mounted on trucks, complete with level jack, sweeps, tumbling rods, etc. for portable gasoline engine small portable steam engine. Will guarantee machine in first class order. A. W. Smith, Lunenburg, Alta.

"A SNAP"—FOR SALE—John Deere engine gang, 8 breaker bottoms, 1910 make, in first class condition, broke 300 acres. Apply to Neil Wright, Box 155, Wellwood, Man.

FOR SALE—Acetylene Headlight, new, also good supply of carbide. A. E. Powell, Box 155, Caron, Sask.

FOR SALE—Hawkeye Self Feeder, used one season. In first class shape. Bargain for quick sale. E. S. Barrow, 555 Burnell St. City.

BROTHER, accidentally discovered root will cure both tobacco habit and indigestion. Gladly send particulars. H. Stokes, Mohawk, Florida.

ARE YOU GOING TO BE WITH US another year? If so, do not fail to renew your subscription when it expires. If not, unless renewed this magazine will be positively discontinued when your subscription expires.

CANARIES FOR SALE—A large selection of strong, healthy, vigorous birds, both Western and imported varieties, magnificent songsters. Prides and descriptions on application. C. Symmonds, Druggist, Invermay, Sask.

FOR SALE—One J. I. Case, 20 H.P. Traction Engine, only used a short time in good shape; one 25-34 J. I. Case steel separator in good shape, will sell outfit for \$1800.00. Will take stock in part payment or will trade it on a gasoline traction. Apply Box 10, Lander, Man.

BE AN ENGINEER—The Heath School of Traction Engineering (by correspondence) offers you a thoroughly practical course in Traction and Stationary Steam Engineering for spare time home study. Send for prospectus and full information to E. H. Heath Co., Limited, Winnipeg.

POCKET MEDICINE CASE—A complete, compact, emergency accident and sickness medicine case. Remedies in tablet form. Directions in English, French and German. Weight eight ounces. Just the thing for hunters, homesteaders, travellers, etc. Sample cases sent postpaid for \$1.00. Universal Remedy Co., Box 1917, Winnipeg, Can.

WANTED NOW—Reliable men in unrepresented districts to sell a selected set of hardy fruit and ornamental trees, forest seedlings, berry bushes. Our men succeed where others fail because we handle Western business to meet Western requirements. Good pay weekly. Outfit free. Exclusive territory. Write for particulars to Western Sales Manager, Pelham Nursery Co., Toronto, Ont.

EXPERIENCED ENGINEER desires position. I am an experienced Traction Engineer, Plowman and Thresherman, and hold Licenses for Saskatchewan and Alberta. When replying please state make and size of outfit, and wages offered. Address—Chas. A. D. Scott, Coultersville, Man.

YOUNG MAN used to gasoline engines wants position on gasoline tractor this summer. State make of engine and wages to Box 3079, Canadian Thresherman and Farmer, Winnipeg.

FOR SALE—One Gould Balance valve for 22 or 25 H. P. Gaar-Scott engine. J. Reynolds, Yellow Grass, Sask.

ENGINEER—Wants position on plowing outfit coming season in Manitoba, Saskatchewan, or Alberta. Saskatchewan certificate. Strictly temperate. Do own repairing. References furnished.—Edward Winchester, Melita, Man.

WANTED—Position as engineer on steam plowing outfit the coming season in Manitoba or Saskatchewan, or Traction Engine work of any kind. R. H. Hargett, Melita, Sask.

EXPERIENCED Practical Engineer, Fireman and Traction Plowman desires position. Licensed for Saskatchewan and Alberta, also Graduated Student of The Heath School of Traction Engineering. Apply H. L. Bushall, 448 Elgin Ave., Winnipeg.

CERTIFIED ENGINEER and Mechanist with fifteen years' experience wishes position on steam or gasoline plowing engine. Can do own repairing. Apply D. Mark, Manville, Alta.

A COOK and Cakes seeks place on big farm, north or other place where good board is appreciated. Wages moderate. State wages. Address F. M. Burns, 285 Thompson St., Winnipeg.

FOR SALE—30 H. P. Flour City gasoline traction engine, price \$2400.00, plowed 400 acres. As good as new. For terms, etc., write to G. Dennis & Lodge, Macdonald, Man.

WELL DRILLING OUTFIT FOR SALE A Sparta No. 3 Hydraulic Jacking machine with a 6 horse power Fairbanks-Morse upright gasoline engine attached. All complete and in good working order. Geo. Taylor, Bransford, Sask.

WANTED—Position as engineer, strictly temperate; have had considerable experience and can furnish references. State wages and make of engine. Address Andrew J. Johnston, Killarney, Man.

FOR SALE—Small separator complete with all attachments. \$400 cash. Box 13, Welby, Sask.

WANTED—Position on steam plowing outfit, strictly temperate, experienced. Frank Campbell, Marquette, Man.

ENGINE OWNERS write me for terms on re-tying and stay bolt repairing. I can save you money. I am also open for engagement during the winter season. Chas. Fenwick, Licensed Engineer, Warfield, Sask.

WANTED—Position as engineer on plowing engine. Can begin work at once. Fully experienced in Western Canada. References furnished. Joseph Richers, 73 Par St., Winnipeg.

WANTED—Position as fireman during plowing and threshing season of 1910. Two years experience. Can operate engine if necessary. References. Reply stating wages to Russell Algire, 255 Dorothy St., Winnipeg.

WANTED—Position as Engineer, experienced. First class references. Ready to start at once. Saskatchewan or Alberta preferred. Apply Box A, Winnipeg, Man.

Steam Traction Engineer wishes a position on a plowing outfit for coming season. One season's experience threshing. Am also a pupil of the Heath School of Traction Engineering by correspondence. Canadian. Total abstainer. Give your references. Percival Huggard, Winnipeg, Manitoba.

WANTED—Position as engineer on steam plowing outfit. 7 years experience in Ontario and one in Saskatchewan. Hold a provincial certificate for Saskatchewan. Will take engine through threshing if desired. Address E. F. Sharpe, Maple View, Ontario.

WANTED—Position as Engineer on a steam traction outfit. Full experienced. Can furnish references. Address J. E. Peach, Clava, Man.

WANTED—Position on steam threshing engine for fall of 1910. One a graduate in the Heath School of Engineering. Also a graduate from short course of engineering given by the University of Minnesota. Strictly staiding wages and kind of engine. Address Elvyn S. Post, Woodrose, Man.

ENGINEER—Wants position on engine for threshing, good practical running and shop experience. Diploma from Heath School of Traction Engineering; do own repairs. State size and make of engine. E. Coleman, 46 Kate St., Winnipeg.

WANTED—Position as Engineer on Threshing Outfit this fall. Will work for going wages. Licensed for Alberta and Saskatchewan. Norman Woolley, Norton, P.O.

FOR SALE—One 4 H.P. Fairbank-Morse Gasoline Engine, in perfect order, complete with all attachments, has been used one week. Owner having no further need of same. Apply The Winnipeg Fur Co., Limited, 181 Bannatyne Ave., East.

MACHINIST—Engineer with certificate for Saskatchewan and Manitoba and experience with American Abel Engines wants running of engine for threshing season. Write or wire, Alf. Sterns, General Delivery, Winnipeg, Man.

WANTED—Experienced man to run separator, also an engineer for season's threshing. Apply stating experience and wages to W. N. Carney Haselhoff, Sask.

WANTED—By holder of second class certificate position as engineer; have also good knowledge of gasoline engine. Address care of Box 148, Osbow, Sask.

FOR SALE—25 H.P. Port Huron traction engine, 32x54 Port Huron separator complete with self feeder, high wheel, wind stacker, tank, caboose all in good running order. Easy terms or will exchange for land. S. Piott, Redvers, Sask.

ENGINEER wants position on breaking outfit this season. Holds certificate for 50 horse power in Saskatchewan. References given, strictly temperate. Apply Mark Ketteringham, Box 43, Forwarren, Man.

FOR SALE

- No. 15 Horse Case Simple Portable Engine..... 20540
15 Horse Case Simple Portable Engine..... 18833
15 Horse Compound Portable Engine..... 18426
18 Horse Simple Traction Waterloo..... 323
16 Horse Portable Sawyer-Massey..... 8299
20 Horse Portable Sawyer-Massey..... 1419
20 Horse Simple Traction Sawyer-Massey..... 1116
20 Horse Compound Traction Engine, Case..... 2668
20 Horse Simple Traction Engine..... 17721
20 Horse Simple Traction Engine..... 16912
32 Horse Simple Traction Engine..... 19019

FOR SALE

One American Advance Separator, 30x56, with all latest attachments. One 15 inch Vermont Grinder; one 2 wholed Engine Tender; 2-3 furrow John Deere Engine Gangs. The above property for sale cheap. F. W. Hunter, Stonewall, Man.

FOR SALE

One 15 H. P. Case Traction Engine, with or without 25x50 separator. For sale or exchange with a Gasoline Traction Engine.—William Brayshaw, Kellou P. O. Man.

FOR SALE

SECOND-HAND AND REBUILT MACHINERY. Two 25 H.P. Simple J. I. Case engines. One 15 H. P. Simple J. I. Case engine. One 15 H. P. Compound Case engine. One 25x50 Wood Case separator. One 25x50 steel Case separator, with wind stacker, self feeder and separator. J. I. CASE THRESHING MACHINE CO., Calgary, Alberta.

BARGAINS

- 1-32 H.P. Port Huron Compound, rebuilt and in first class shape.
1-American Abell 20 H. P. engine, rebuilt.
1-Minneapolis Separator 44x72, rebuilt. With all connections.
1-32x54 Avery Separator, complete, just rebuilt.
1-30x50 Avery Separator, complete, rebuilt.
2-Avery 30 H. P. double undermouted engines.
1-30 H.P. Northwest engine, not rebuilt, cheap.
1-30x50 Avery separator, complete with all attachments.
1-42x70 Avery separator, will be rebuilt in time for next Fall's work.

HAUG BROS. & NELLERMOR Co. Ltd. WINNIPEG.

FOR SALE

Two Rebuilt Threshing Outfits: 22 H. P. Port Huron Compound Traction Engine No. 8057, equipped with steel gearing and all plowing attachment. 20 H. P. American-Rusher Separator No. 6569, with all attachments. Price F.O.B. Winnipeg, Man., for full outfit \$2,500.00. 21 H.P. Compound Traction Engine No. 8203, steel gearing, all plowing attachments. 30x50 Port Huron Rusher Separator No. 6680, with all attachments. Price F.O.B. Winnipeg, Man., for full outfit \$2,300.00. These outfits have been thoroughly rebuilt, painted and varnished, and ready for immediate shipment. We guarantee them the same as we do new machinery. Write CANADIAN PORT HURON CO., LTD., WINNIPEG, MAN.

FOR SALE OR EXCHANGE FOR LAND

Good second-hand Portable Steam Engine, 25 H.P. with cyclone separator and plow. Terms and price would be made most interesting to threshermen. Calvin Young, Mapleton, Minn. Apply to Manitoba Bridge and Iron Works, Winnipeg, Man.

FOR SALE

Two four bottom Moline engine gangs with beaker bottoms and extra shares, price, \$100.—J. Hansford, Fairlight, Sask.

We can sell your Threshing Machine on other property. Send description and price. Northwestern Business Agency, Minneapolis, Minnesota.

FOR SALE

Complete Threshing Rig for sale, consisting of 1 Waterloo Manitoba Champion 40x62 separator, with side flow blower, Harley Dakota weight, Hawkeye feeder, run about 60 days, 1.30 H.P. Buffalo Pitts engine in good shape, also two water tanks, rubber belt, set of 10 trucks all for \$2500, Andrew Parkes, Box 12, Ridgeville, Man.

FOR SALE

We have on hand at present a very full line of Rebuilt and Second-hand Engines and Separators, which we are offering at attractive prices. Write us fully what you are thinking of trying, when we shall be pleased to tell you what we have and quote prices. All our rebuilt goods are sold under same guarantee as new ones and of course are carefully repaired and look exactly like new. If you write us at once we are almost sure to have the size you want. Also have a thoroughly Rebuilt Sew Mill Outfit consisting of 25 H. P. Saw Mill Engine and Portable Saw Mill with carriage and track complete. Can hardly be distinguished from new goods. Will be sold at a bargain. SAWYER-MASSEY COMPANY, LIMITED, Winnipeg, Man.

BARGAINS

Give these bargains your attention. Four Case Portable Engines at \$1,800; two Minneapolis Tractors, 15 and 20 H. P.; one Advance Traction 8000. 1 Case 20 H. P. Traction Engine \$800.00. Several good Separators to suit the above engines. See our farmers Pet separator. All our engines fitted with Gould Balance valves. Write us about them. THE GEO. WHITE & SONS CO. LTD. BRANDON, MAN.

FOR SALE

One 25 h. p. direct fly, Simple, heavy gear traction engine. One 21 h. p. Compound, return fly traction engine. One 18 h. p. Simple, return fly traction engine, and one 25 h. p. Compound, return fly traction engine. Also several others of our own and other makes. We also have several rebuilt separators of our own and other makes. GAAR-SCOTT & CO., WINNIPEG

REBUILT MACHINERY ON HAND AT BRANDON.

- 1-34 H. P. C. C. Hy Northwest Traction engine.
2-28 H. P. C. C. Hy Northwest Traction engine.
2-25 H. P. Northwest Traction engine.
1-25 H. P. New Giant Traction engine.
1-25 H. P. New Giant Traction Engine.
2-18 H. P. New Giant Traction engines.
2-21 H. P. Port Huron Traction Engines.
1-20 H. P. Sawyer & Massey Traction engine.
1-20 H. P. J. I. Case Traction engine.
1-25 H. P. J. I. Case Traction engine.
1-17 H. P. Sawyer & Massey Portable engine.
3-size 74 40x54 Northwest Separators with N.W. Feeder, Windstacker and Dakota Perfection Wheel.
1-size 6 36x56 Northwest Separator with Parsons Feeder, N.W. Windstacker, and Dakota Perfection Wheel.
1-size 31 32x52 Northwest Separator with N.W. Windstacker, Parsons feeder and Dakota Perfection Wheel.
1-30x50 Sawyer & Massey Separator with attachments just as it stands. (Not rebuilt).
1-30x50 Port Huron Separator with all attachments just as it stands. (Not rebuilt).
1-30x38 Case Separator with all attachments, just as it stands. (Not rebuilt).
1-17 H. P. Sawyer & Massey Separator, except last three mentioned Separators, are or will be thoroughly rebuilt and repainted and warranted to be in first class shape and working order, and will be sold cheap. Write for particulars. NORTHWEST THRESHER COMPANY Brandon, Manitoba

FOR SALE

- 30 H. P. American-Abell Sim. Trac..... \$2500.00
26 H. P. American-Abell..... 1700.00
26 H. P. John Abell Sim. Trac..... 1200.00
22 H. P. American-Abell Sim. Trac..... 1500.00
22 H. P. American-Abell Simple..... 1200.00
22 H. P. American-Abell Cross Comp..... 1200.00
22 H. P. American-Abell Simple..... 1500.00
22 H. P. American-Abell Simple..... 1500.00
22 H. P. American-Abell Cross Comp..... 2500.00
18 H. P. American-Abell Simple..... 1000.00
18 H. P. American-Abell Simple..... 1000.00
18 H. P. John Abell..... 900.00
18 H. P. Advance Comp. Traction..... 1000.00
18 H. P. Advance Comp. Traction..... 1100.00
19 H. P. Minneapolis Comp. return fly..... 1000.00
20 H. P. American-Abell Portable..... 800.00
18 H. P. American-Abell..... 800.00
14 H. P. American-Abell..... 800.00
30x50 Tor. Adv. Sepr., 36 inch Parsons feeder, 56 inch Maple Hay Windstacker..... 575.00
30x50 Tor. Adv. Sepr., 36 inch Parsons feeder, 56 inch Maple Hay Windstacker..... 700.00
40x56 Advance Sepr., 40 inch Advance feeder, Advance Wr. & W. L..... 550.00
30x50 Toronto Advance Sepr., 36 inch Parsons feeder, 60 inch A-W Windstacker, Perfection E. W. & W. L..... 750.00

These goods have been thoroughly rebuilt, painted and put in first class condition throughout and will stand up to the high reputation that our rebuilt machinery has acquired in the past. The prices quoted are f. o. b. Winnipeg. AMERICAN-ABELL ENGINE & THRESHER CO., LTD., WINNIPEG.

REBUILT GASOLINE ENGINES

IN STOCK AT WINNIPEG FOR IMMEDIATE DELIVERY AT BARGAIN PRICES.

- 6 H.P. Fairbanks-Morse.
21 H.P. Bates & Edmunds, Vertical.
12 H.P. Marine.
5 H.P. Howe Horizontal Engine, formerly used in elevator.
8 inch Rover Grinder.
Send for complete Bargain list to Canadian Fairbanks Co. Limited, 92 Arthur St., Winnipeg

BOYS AND GIRLS—Send us your name and address on school card. We will show you how to earn \$10 and up every month, after school hour. Avalone & Co., Inc., 2057 E. Addison Ave., Chicago, Ill.

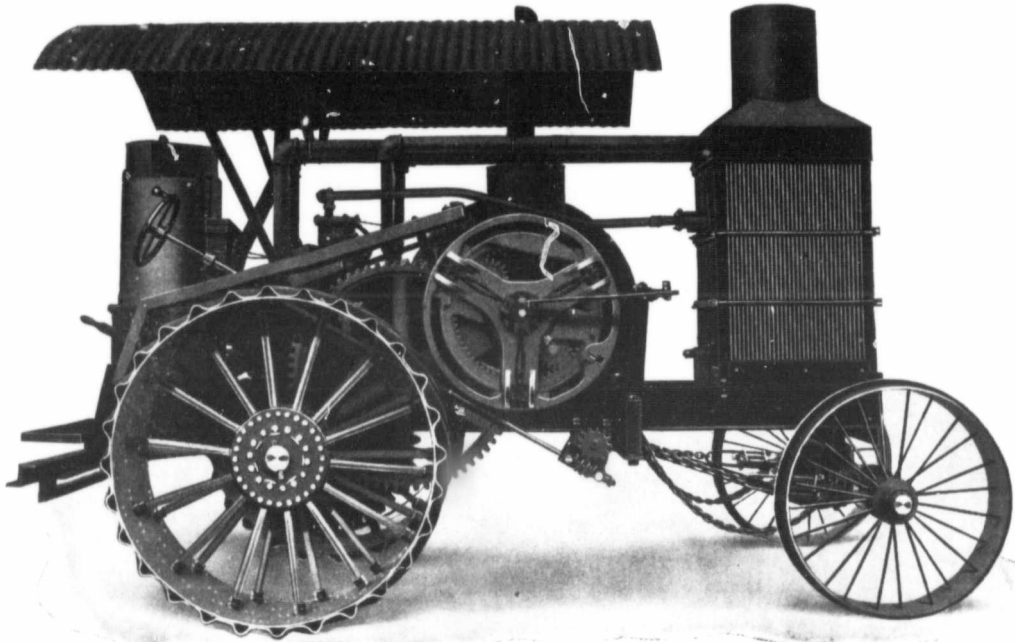
In Answering Advertisements in This Magazine be sure and mention where you saw the advt. Remember we guarantee the reliability of all our advertisers.

# WESTERN CANADIAN IMPLEMENT DIRECTORY

EXPLANATION.—First find the Implement Wanted and the Number opposite will be the Number of the Concern, in the first column, that handles it.

1—ALBERTA PORT HURON CO., Calgary, Alta.	61—STEWART & NELSON CO. LTD., Brandon.	Goold, Stapley & Muir..... 17	LAND ROLLERS AND PULVERIZERS	THRESHING MACHINERY, SELF-FEEDERS, WIND STACKERS AND ATTACHMENTS
1—AMERICAN-ABELL ENGINE & THRESHER CO., Winnipeg, Calgary and Edmonton.	62—STEVENS, JOHN & CO., Winnipeg.	Maple Leaf..... 44	Canton Land Roller..... 33	Advance..... 54
2—AMERICAN SEEDING MACHINE CO., Winnipeg.	62a—STUART, JAMES, ELECTRIC CO., Winnipeg.	Ontario..... 48	Campbell Sub-Surface Packer..... 33	American-Abell..... 1
3—BAILEY SUPPLY CO., Winnipeg.	62b—SUB-SURFACE PACKER CO., Winnipeg.	Scientific..... 48	Cockshutt Land Roller..... 19	Aultman & Taylor..... 33
4—BEEMAN MFG. CO., Winnipeg.	63—SYLVESTER MFG. CO., Brandon.	Stover Ideal..... 15-11	Deere Land Roller..... 61	Avery..... 28
4—BELL B. & SONS, Winnipeg.	64—TUDHOPE-ANDERSON CO., Winnipeg, Regina, Calgary.	Thoma..... 49	Dale Land Roller..... 63	Belle City Thresher..... 33
5—BELL ROBT. ENGINE & THRESHER CO., Winnipeg.	65—VIRDEN MFG. CO., Viriden.	Yonot..... 33	Deere Pulverizer..... 21	Bell, Robt..... 5
6—BRANDON MACHINE WORKS, Brandon.	66—VULCAN IRON WORKS, Winnipeg.	Victor..... 69	Fulton's Sub-Surface Packer..... 11	Brandon Cornell Engine..... 6
7—BRANDON PUMP & WINDMILL WORKS, Brandon.	67—WATERLOO MFG. CO., Winnipeg.	Watson's Ideal..... 60	Hanson Pulverizer..... 27	Buffalo Pitts..... 72
8—BRANDON & ROBERTSON, Brandon.	68—WATEROUS ENGINE WORKS, Winnipeg.	GARDEN IMPLEMENTS, INCUBATORS AND POULTRY SUPPLIES.	Hilborn Land Roller..... 54	Canada..... 34
9—BURRIDGE-COOPER CO., Winnipeg.	69—WATSON, JNO. MFG. CO., Winnipeg.	Chatham Incubator..... 27	Moline Parallel Pulveriser..... 11	Case, J. J..... 17
10—CANADIAN FAIRBANKS CO., Winnipeg, Vancouver.	70—WHITE, GEO. & SONS, Brandon.	Cyphers' Incubator..... 60	Verity Land Roller..... 39	Case-J. J. (ask any Thresher Co.)..... 1
11—CANADIAN MOLINE PLOW CO., Winnipeg.	71—WINNIEPPEG RUBBER CO., Winnipeg.	Fountain Air Sprayer..... 50	Verity Pulveriser..... 39	Fowton Wind Stacker..... 31
12—CANADIAN PORT HURON CO., Winnipeg.	72—WATSON PEG THRESHING MACHINE CO., Winnipeg.	Iron Age (Garden Impl.), 19-33 and 61	Watson's Flexible Pulveriser..... 69	Gar-Scott..... 28
13—CANADIAN RUBBER CO., Winnipeg, Vancouver.		Planet Jr. Garden Tools..... 41-53	New Land Roller..... 69	Goodson..... 9
14—CANADIAN STOVER CO., Brandon.				Goodson's..... 18-61
15—CARBERRY IRON WORKS, Carberry.				Hawkeye Feeder..... 18-61
16—CARBERRY STACK CO., Carberry.				Hawkeye Feeder..... 18-61
17—J. I. CASE T. M. CO., Regina, Calgary.				High Feeder..... 33
18—CHAPIN CO., Calgary.				Humble..... 57
19—COCKSHUTT PLOW CO., Winnipeg, Regina, Calgary, Edmonton.				Imperial..... 18-61
20—CRANE & ORDWAY, Winnipeg.				Imperial..... 18-61
21—DEERE, JOHN PLOW CO., Winnipeg, Regina, Calgary, Edmonton, Saskatoon.				Imperial..... 18-61
22—DE LAVAL SEPARATOR CO., Winnipeg.				Imperial..... 18-61
23—DURHAM RUBBER CO., Winnipeg.				Imperial..... 18-61
24—EMPIRE CREAM SEPARATOR CO., Winnipeg.				Imperial..... 18-61
25—QAAR, SCOTT & CO., Winnipeg, Regina, Calgary.				Imperial..... 18-61
26—GASTRACTION CO., Winnipeg.				Imperial..... 18-61
27—GRAY-CAMPBELL CO., Winnipeg, Brandon, Moose Jaw, Calgary.				Imperial..... 18-61
28—HAUG BROE & NELLERMOR, Winnipeg and Calgary.				Imperial..... 18-61
29—HARMER IMPLEMENT CO., Winnipeg.				Imperial..... 18-61
30—HART-PARR CO., Portage la Prairie.				Imperial..... 18-61
31—HELGESON, H. T., Winnipeg.				Imperial..... 18-61
32—HERO IMPLEMENT CO., Winnipeg.				Imperial..... 18-61
33—INTERNATIONAL HARVESTER CO., Winnipeg, Regina, Calgary, Edmonton, Saskatoon, Brandon.				Imperial..... 18-61
34—LOUDEM HDWE. & SPECIALTY CO., Winnipeg.				Imperial..... 18-61
35—MANITOBA HAYES PUMP CO. LTD., Morden.				Imperial..... 18-61
36—MANITOBA IRON WORKS, Winnipeg.				Imperial..... 18-61
37—MANITOBA WINDMILL & PUMP CO., Brandon.				Imperial..... 18-61
38—MASSEY-HARRIS CO., Winnipeg, Regina, Calgary, Edmonton, Saskatoon.				Imperial..... 18-61
39—MAW, JOS. & CO. LTD., Winnipeg.				Imperial..... 18-61
40—McKENZIE, A. E., Brandon.				Imperial..... 18-61
41—McLAUGHLIN CARRIAGE CO., Winnipeg.				Imperial..... 18-61
42—McRAE, ALEX., Winnipeg.				Imperial..... 18-61
43—MELOTTE CREAM SEPARATOR CO., Winnipeg.				Imperial..... 18-61
44—NEEPAWA MFG. CO., Neepawa.				Imperial..... 18-61
45—NICHOLE & SHEPARD CO., Regina, Winnipeg.				Imperial..... 18-61
46—NORTHWEST THRESHER CO., Brandon.				Imperial..... 18-61
47—ONTARIO WIND ENGINE & PUMP CO., Winnipeg.				Imperial..... 18-61
48—PARIS PLOW CO., Winnipeg.				Imperial..... 18-61
49—PARSONS-HAWKEYE MFG. CO., Winnipeg, Regina, Calgary.				Imperial..... 18-61
50—PETRIE MFG. CO., Winnipeg, Calgary, Vancouver.				Imperial..... 18-61
51—RAYMOND MFG. CO., Winnipeg.				Imperial..... 18-61
52—REEVES & CO., Regina.				Imperial..... 18-61
53—REGENT TRACTOR CO., Regina.				Imperial..... 18-61
54—RENNIE, WM. SEED CO., Winnipeg.				Imperial..... 18-61
55—RIESBERRY PUMP CO., LTD., Brandon.				Imperial..... 18-61
56—RUMELY, M. CO., Winnipeg, Calgary, Saskatoon, Regina.				Imperial..... 18-61
57—SAWYER & MASSEY CO. LTD., Winnipeg.				Imperial..... 18-61
58—SHARPLES SEPARATOR CO., Winnipeg.				Imperial..... 18-61
59—STEELE-BRIGGS SEED CO., Winnipeg.				Imperial..... 18-61

# 45 H. P. Hart-Parr Gas Tractor



## The Modern Farm Horse

**CYLINDERS.** Two horizontal cylinders, 10 in. bore, 15 in. stroke. Speed 300 R.P.M. A long stroke, moderate speed motor,—the most efficient kind, and the one that wears longest. Cylinder heads hemispherical in shape, and cast with the rest of cylinder; hence no packed joints. Valve cages ground to seats,—no packing there.

**CRANK SHAFT.** A pressed steel forging, of high tensile strength, annealed and oil tempered,—tough and dependable. Diameter of crank shaft in the bearings, 4 in., diameter of crank pins 4 1/2 in. Crank shaft offset 2 inches from centre line of cylinders, adding to the efficiency of engine, decreasing wear of cylinders and pistons, and making engine very easy to start.

**GEARS.** Every gear of steel or semi-steel; we use no cast iron gearing. Planetary reverse gears are drop forged with machine cut teeth. Our planetary reverse makes it possible to use a single operating lever,—the only way it can be done.

**BEARINGS.** Main crank shaft bearings and crank pin bearings made in the form of half bushings, (easily replaceable) and of a special composition of high grade babbit, copper and aluminum; one of the best antifriction metals and exceedingly tough. All other bearings of the best grade of babbit or phosphor bronze.

**IGNITION.** "Jump Spark" ignition with two sets of dry batteries, and "single spark" induction coils,—the most efficient battery spark coil made.

**DRIVING WHEELS.** 66 in. diameter, 24 in. face. Our wave from driver cleats make the bearing power of these wheels equivalent to a 32 inch width wheel of the usual construction. The only perfect driver cleat for use on plowed ground for discing and seeding. Wheels built up entirely of steel, cleats riveted to tire. The most substantial, satisfactory driving wheel built. Rear axle 5 in. diameter of open-hearth steel.

**CONNECTING RODS.** Steel drop forging of I section. Studs for caps of 1 inch Vanadium steel.

**LUBRICATION.** Force feed lubrication to cylinders, connecting rod and crank shaft bearings, besides spray lubrication in enclosed crank case. Force feed lubrication to gear train.

**RATINGS.** Guaranteed to easily deliver 45 brake horse power all day. Every engine tested to at least 60 brake horse power before it leaves the works. Guaranteed to pull the same load, on firm, level footing, as twenty-two ordinary work horses. Most of our customers are doing the work of 25 to 30 horses with these tractors; will actually deliver 35 to 40 "draw-bar horse power." We rate them conservatively so that purchasers will always find they do better than we claim for them.

**RATE OF TRAVEL.** 2.3 miles per hour. Compare this with the 2 miles per hour of other gas tractors; and consider what this high rate of travel means when plowing on loose, loamy soil or discing, seeding and harvesting.

**SPECIFICATIONS**

**One Price To Everyone--\$2,800 f.o.b. Portage la Prairie**

Read the specifications, compare them with what others are offering, and you will see that we give you much more for your money than you can get elsewhere. We can do this because we build thousands of them in the most up-to-date plant of its kind.

**The Original Kerosene Tractor. We have been building Kerosene Tractors for Five Years.**

We build two other sizes of tractors. Our new Illustrated Catalog No. 11, describes all of them fully and will interest you. Write for it to-day.

# HART-PARR CO.,

28 MAIN STREET  
PORTAGE LA PRAIRIE, MAN.

The Chapin Co., Agents for Alberta



# CASE CARS

**"THE CAR WITH THE FAMOUS ENGINE"**



**ROADSTER**

2 or 3 PASSENGER

**SUBURBAN**

4 PASSENGER

**TORPEDO**

4 PASSENGER

**TOURING**

5 PASSENGER

**LIMOUSINE**

7 PASSENGER



**REMEMBER THE ENGINE WHEN YOU BUY  
AND YOU CAN FORGET IT WHEN YOU DRIVE**

**WRITE FOR 1911 AUTOMOBILE CATALOG NO. 77**

**J.I. CASE THRESHING MACHINE CO.**

**INCORPORATED**

**RACINE, WISCONSIN, U.S.A.**

TORONTO WINNIPEG REGINA CALGARY