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THE CANADIAN THRESHERMAN and FARMER

CANADA'S FARM MACHINERY MAGAZINE
WINNIPEG · CANADA

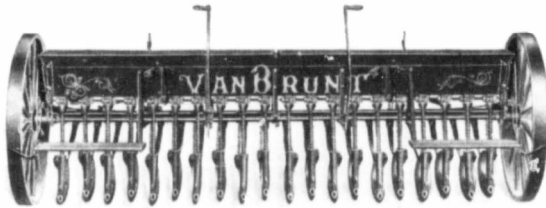
NOVEMBER, 1911



E.H. Heath COMPANY Publishers

Puts every Kernel where it will Grow.

In sowing seed, as in human affairs, "there's many a slip between the cup and the lip," but there is nothing of the "hit and miss" in a field sown with a



Wherever a Horse or Engine can travel, the

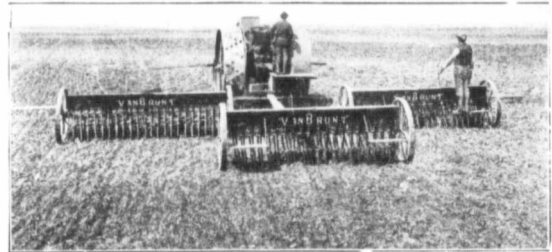
VAN BRUNT NEW MODEL

is guaranteed to perform faultless work. The first success in history in a Single Disc with closed delivery was made by Van Brunt in 1900. The "New Model" is as great a step in advance of that great original as the latter was ahead of anything else of its time and is still the model from which all copies have been made.

THE "VAN BRUNT NEW MODEL" IS STRONGER AND LIGHTER BY 300 TO 400 POUNDS THAN ITS IMITATORS.

Van Brunt LIGHT DRAFT DISC DRILL

With the NEW MODEL BOOT DISCHARGE (by which the act of seeding is done with the boot and discharged WITHIN instead of outside the circle of the disc) not a single kernel can fail to be planted at the exact and proper depth for germination. There is not a seed left on top of the soil, or so near the surface that wind or shower can expose it.



Made in 12, 14, 16, 18, 22 and 24 Single, Double, Disc and Shoe interchangeable.

Light Draft John Deere Gang Plow

HOW TO SELECT A PLOW. THE RULE OF FOUR.

Plow quality does not improve with age.

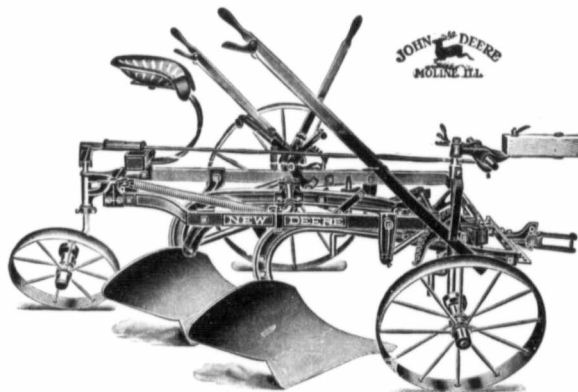
An inferior plow does poorer work, is harder to pull, and costs more for repairs every year it is in use.

Because certain things about a plow cannot be changed for the better after you buy it, care and study before buying, is important.

Judging the real worth of a plow is not difficult if four things are kept in mind.

First—Quality of work.
Second—Ease of management.

Third—Lightness of draft.
Fourth—Strength and durability.



WHY THESE FOUR QUALITIES ARE THE TEST.

First—Nothing takes the place of good work. Unless a plow does perfect work you cannot afford to own it, no matter what the price.

Second—Have regard for your own comfort—that pays. Get a plow that is easy to ride, and that can be operated with little effort on your part.

Third—Never work horses harder than necessary. Horseflesh and horsefeed cost money. An extra one-eighth horse-power added to the draft will cost you the price of a plow—very soon.

Fourth—Repairs are expensive—a good plow lasts longer than a poor one.

The Light Draft New Deere—Why it Pulls Easy

Consider five things when judging the draft of a plow. **First**—the shape of the bottom. **Second**—Material out of which it is made. **Third**—Equal weight on all the wheels. **Fourth**—Proper adjustments. **Fifth**—Staunchness of the plow.

WRITE FOR LITERATURE, PRICES AND TERMS.

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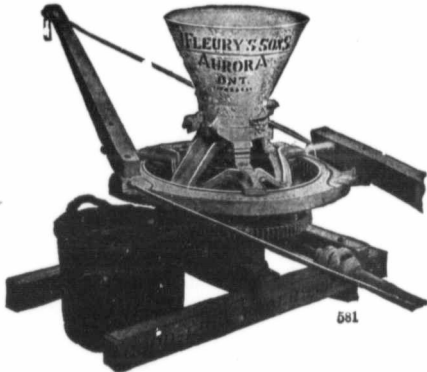
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GRIND YOUR FEED



"Good Luck" Power with Grinder Attachment

As a power for driving any machinery with two or four horses the "Good Luck" Triple Geared Power is unequalled. The above machine, set up with Arms and Tumbling Rod ready for horses and to drive another machine by rod direct, will be found one of the best time savers and effective dual-purpose machines now in use. The construction and finish are perfect. Thousands of them are now in active service and giving the highest satisfaction. A machine of highest capability.

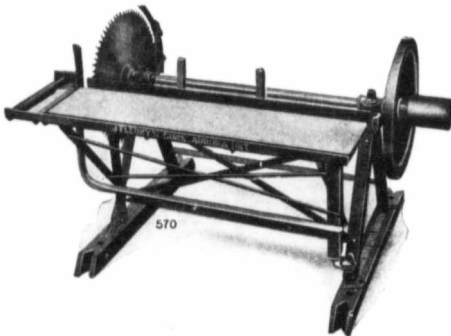
The "No. 4 Rapid Easy" with 10 inch plates, and its SOLID FRAME or BED, is not only an extremely handsome looking machine but the character of its work and its great capacity make it one of the best "paying guests" on the farm. Feed trough is long and broad giving feeding and screening capacity equal to the rapid work of the grinder. Heavy steel shaft with long bearings and heavy balance wheel. Rigid and durable, this machine is specially fitted for fast running and heavy work.



Fleury's "No. 4 Rapid Easy"

CUT YOUR FODDER

SAW YOUR WOOD



Fleury's Circular Saw Machine No. 3

Frame of steel, angle bars well braced and strongly rivetted together. Main Shaft is of fine machinery steel, of great wearing quality, running in boxes babitted with high grade metal. On the table is bolted a hardwood board and in end of table near the saw is placed a roller which carries the timber to the saw.

Seven different styles of this popular and thoroughly efficient Straw Cutter are now made for hand, horse or belt power—with or without carrier or blower. Used largely by hand, it is equally successful when run by rod direct to main shaft (knuckle taking the place of the washer in front of knife-wheel) or by belt on 18-inch pulley, as shown in cut.

This machine cuts **four lengths**; is perfectly **Simple**, strong, well-fitted and finished. Will do **more work with same power** than any other style of cutter you can buy.



Fleury's Straw Cutter No. 2

With a Fleury Machine

WRITE FOR BOOKLET 'BETTER FARMING,' GIVING COMPLETE INFORMATION

JOHN DEERE PLOW CO. LTD.

WINNIPEG REGINA CALGARY SASKATOON EDMONTON LETHBRIDGE

STYLISH-COMFORTABLE-STRONG

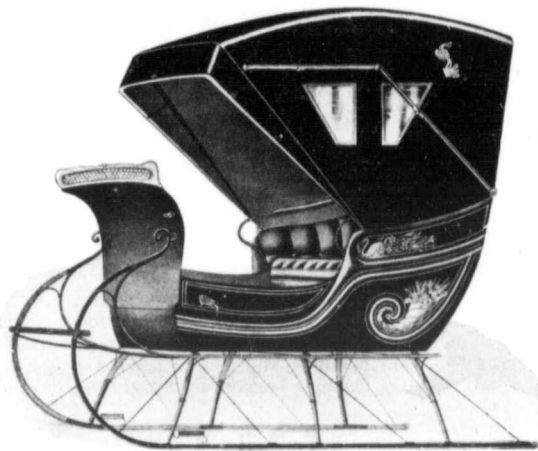
Winter has its own luxuries
and the most luxurious
of them all is a—

BROCKVILLE CUTTER

Among other outstanding
points of merit and difference
between this famous carriage
and others like it are:

GEARS—XXX Hickory
Knees and beams. Steel
braces and steel channel shoes.

Shifting rod on detachable
bar shafts.



NICKEL PLATING ON BRASS—GUARANTEED NOT TO RUST

For comfort, elegance and
speed in winter travelling,
no horse vehicle will
ever surpass a—

BROCKVILLE CUTTER

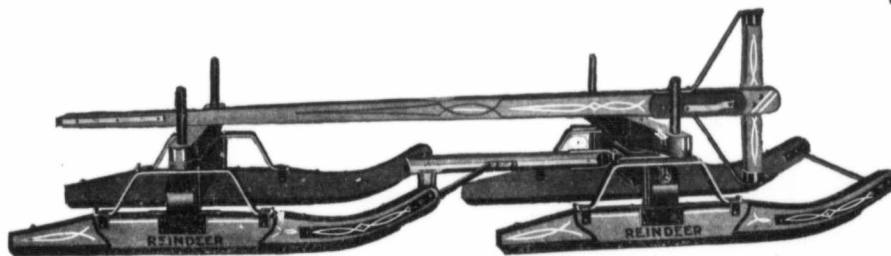
Made of the finest quality
of material by the best skill
engaged in this great industry.

The **BODIES** are of: White
ash frames. Three ply dash,
back and side panels. Panels
glued and screwed to frame.

TRIMMING—Best grade plush or wool-dyed cloth. Spring backs (removable). Spring cushions

Don't purchase a cutter until you have seen the "Brockville" or have obtained our literature giving full details. It will **PAY** to get this knowledge if you are contemplating the purchase of a cutter. The **BROCKVILLE CUTTERS** have no rivals for quality, style, comfort and value.

SWIFT, SURE, and STRONG is the "REINDEER" Sleigh



THE JOHN DEERE

No. 28½

REINDEER
SLEIGH

is made in all sizes with
Steel or Cast Shoes.

FINEST ROADSTER GOING FOR WINTER TRAFFIC

Bolsters furnished with ironed stakes. Fastened with bolts and rivets to prevent ends of bolsters from splitting.

Roller Rods for tongue and reach are full length.

Bolster Plates—large and made of steel.

Start Pins are ⅝ in., plates rivetted to each size of runners to prevent Start Pins from splitting.

See the Nearest

JOHN DEERE DEALER

JOHN DEERE PLOW COMPANY, LTD.

Winnipeg

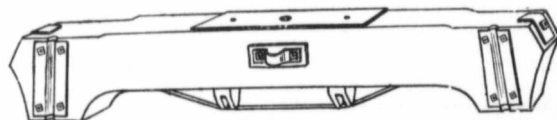
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Runners. Front inside end of runners plated, so tongue and reach rollers as well as rod holes will not wear.

Quality and Workmanship. Made throughout of carefully selected, thoroughly seasoned, straight-grained hard wood. Workmanship and painting the very best.

Lunkenheimer Pop-Safety Valves

Do not waste steam as they relieve the over pressure 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 pop 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.



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A Suggestion re Something That is Badly Needed

DURING 1911 at least four and one-half millions of dollars worth of farm power machinery was sold and delivered to the farmers of Western Canada. A large portion of this was used for the purpose of traction cultivation. Hundreds of our Western farmers used these machines for the first time, and it is needless to say that a number of them experienced no small amount of difficulty.

The proposition is one so big that it has become a matter of national importance. The machinery mentioned above represents approximately 35,000 horse power. These 35,000 horses were required to handle the increase in Western Canada's arceage in 1911, or the machinery would not have been purchased, and, such being the case, it would have been an impossibility to have secured the above number of horses, no matter how fine the North American continent could be combed. It follows that the future development of Western Canada must, to a certain extent, depend upon mechanical power, and is, therefore, entitled to every consideration from the "powers that be."

The advent of the oil tractor has given a boost to power farming that has pushed it ahead by leaps and bounds—so fast, in fact, that it is a difficult matter for the farmer to keep up with things. For plowing purposes it solved the problem of getting a large amount of work done quickly, but when it comes to seeding, discing, harrowing, harrowing, etc., the matter is not so simple, and the farmer is very

much at sea. It requires that the old methods of doing this work be more or less adjusted and changed, and unless the farmer knows just how to go about it, it may entail a considerable amount of costly experience.

In none of the government or experiment station reports that have been issued thus far have we noticed any attempt at dealing with this problem. The different varieties and kinds of grain and live stock have all been given their full share of attention, but the methods by which this same grain can be grown through power farming have not been investigated or experimented with.

Is the modern tractor a good thing for the land? Does it injure it in any way by passing over it? Can the work be done more cheaply and effectively than with horses? These are all questions that must be answered sooner or later, for upon their proper solution depends the development in Western Canada to no small degree.

It is up to the different experimental farms to deal with this matter. The farmers support such institutions for this very purpose. Eventually the farmers themselves will arrive at the answers, but in the meantime much valuable time has been lost. We have been attempting to do what we could, and we are candid in stating that we have been the largest single factor in gathering and spreading broadcast information along this line.

The movement is a big one. It is worthy of an experimental farm in each of the three prairie provinces, carried on for no other purpose than that of arriving at the best methods of cultivation by traction power.

See the V

And Make **\$25 a Week** Trapping this Fall

VICTOR TRAPS

are sure to go and sure to hold Every genuine Victor Trap is pierced with a "V"

Ask your Dealer

Insist on the "V"

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Trained Salesmen earn from \$1,000.00 to \$10,000 a year and expenses. Hundreds of good positions now open. No experience needed to get one of them. We will assist you to secure a position where you can earn good wages while you are learning Practical Salesmanship. Write today for full particulars, list of good openings, and testimonials from over a thousand men we have recently placed in good positions.

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ABSORBINE

will clean them off permanently, and you work the horse same time. Comes out in blister or remove the hair. \$2.00 per bottle delivered. Bottle & 2 Free.

ABSORBINE, J.H., liniment for manning, reducing various Veins, ruptured Muscles or Joints, enlarged Glands, Goitres, Wens, Cysts, Alays you in quick. Price \$1.00 and \$2.00 a bottle at druggists or delivered. Will tell you more if you write. Manufactured only by **W. F. YOUNG, P.D.F., 112 Lyons St., Montreal, Can.**

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CALVES Raise Them Without HMR.
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OUR OFFER

One Thresherman's Settlement Book and the Canadian Thresherman and Farmer one year for

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Do You Know What This Outfit Can Do?

WHAT IT IS WORTH? HOW IT IS BUILT?

FARMERS AND THRESHERMEN--You are equally interested in Threshing Outfits

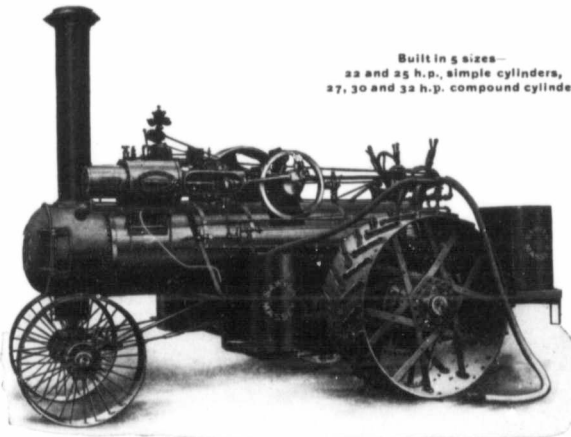
You, Mr. Thresherman, because you wish to do **Good Work, Give Satisfaction, and Secure Big Contracts** in the future.

You, Mr. Farmer, because your dollars are at **stake. You want to see the work of Threshing Finished Promptly.**

You want to know your grain has not been **wasted, and that it has been well cleaned.**

You should therefore be **impressed with the three questions** at the head of this page, and **immediately** make it a point to **find out** all about the **SAWYER-MASSEY OUTFIT.**

Let us tell you right here, it is of **great importance** to you if you contemplate buying an outfit or have any **threshing to do** or land to **plow.**

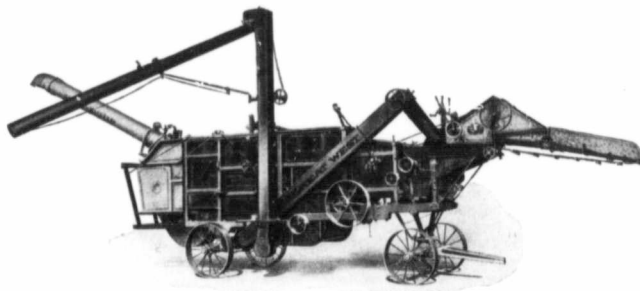


Built in 5 sizes—
22 and 25 h.p. simple cylinders,
27, 30 and 32 h.p. compound cylinders.

An
Easy
Steamer

Simple,
Strong,
Durable and
POWERFUL

**SAWYER-MASSEY MACHINES UNDER ACTUAL FIELD WORKING CONDITIONS UPHOLD THEIR OWN REPUTATION
SAWYER-MASSEY MACHINE OWNERS AND OPERATORS UPHOLD THE SAWYER-MASSEY REPUTATION FOR A
FAIR DEAL ALWAYS UNDER ALL CIRCUMSTANCES**



Great West Separators in seven sizes, Daisy Separator in two sizes, Eclipse in one size.

Pulleys
well arranged,
Simple System
of Belting

Frame well
braced and
supported.
Weight equally
distributed on
both front and
rear axles

Do not think that this is merely **advertising talk**, for it is **not. We tell you this, because we know** it is of **importance to you.**

You will admit it, if you just take the **time to think** over carefully all the **advantages of a SAWYER-MASSEY OUTFIT.**

We are interested in your success, we want an opportunity to tell you and to show you **how a SAWYER-MASSEY OUTFIT** will help you to the **success you wish for.**

Each mail brings us letters from customers from **all parts of the country** telling us what **Great Satisfaction** our **Machines** are giving. **Factory being enlarged—Bigger business being done—Percentage of cost of production thereby reduced.**

Better Terms,—Better Prices,—Machines Improved, and Better Than Ever.

Get into touch with us,—Get to know the **Company** and the **Machines** that are fast taking the **lead everywhere.**

Drop us a line,—Let us send you full particulars and our **Catalogue.**

SAWYER-MASSEY CO. LIMITED
Winnipeg, Man.

A MAGAZINE FOR THE FARM AND HOME



THE CANADIAN THRESHERMAN AND FARMER

Vol. XVI.

WINNIPEG, CANADA, NOVEMBER, 1911.

No. 11.

The Season of Annual Round Up

By A. R. BALDWIN.

"Whew! But it's cold this morning. Looks as if we might have snow most any time now."

A common expression at this season of the year. Does it make you feel uncomfortable, or are you secure in the thought that your work is done, and you are ready for the long winter that has never missed its visit within the memory of man.

Winter in the north is an absolute necessity. The soil is of such a nature that it must be well frost treated in order that it may be ready for crop another season. We sometimes think that it need not be quite so cold, but nature works out her own destiny in a way that is all her own, and while we cannot always understand her pranks, she generally comes up to the occasion when required.

In northern climes work is strenuous. The hurry and bustle of a Saskatchewan wheat farmer would give a Georgia cotton planter nervous prostration. Our seasons in this latitude are necessarily short, and things must needs be on time or not at all. If the seed is not sown to-day its planting tomorrow will mean an appreciable decrease in the yield. It behooves every farmer in Western Canada to be up and doing. It is a strenuous life while it lasts, and the resting time is long and well deserved.

To the farmer who is ready for it, winter comes as a welcome respite from the summer's labors, but to the man who has neglected to "get his house in order" it descends with a dull sickening thud.

Once winter sets in in this northern climate, it stays with us until the spring breaks up. There are few days when it is possible to do any "fixing up" as it were. It is, therefore, necessary that all of this preliminary work be done before winter comes on.

Let us see what there is to be done. During the warm days of summer it did not seem much of a task to go three or four, or even ten miles, to the hay meadows, but with the wind blowing a gale of forty miles an hour across the prairies and the thermometer holding its own at around 30 deg. Fahrenheit, a trip of even a mile is not the most pleasant task. Wouldn't it be easier to have that hay in now, at least such as you are likely to use before spring. Your stock is less liable to go hungry, and you can toast your shins by the kitchen stove instead of exposing them to the elements.

makes for a coal famine and puts a great many families in dire straits for fuel, when there is really no necessity for it. Order your coal early. It will not evaporate or lose its burning qualities, even if you have to throw it in some old shed. It won't cost you any more now than what it will later, in fact the chances are in favor of its being cheaper. If you burn wood, get a good dry supply on hand. You can burn green wood in the early fall and late spring, but we pity the housewife who tries to keep her house warm with it in mid-winter.

How about your barns and out-

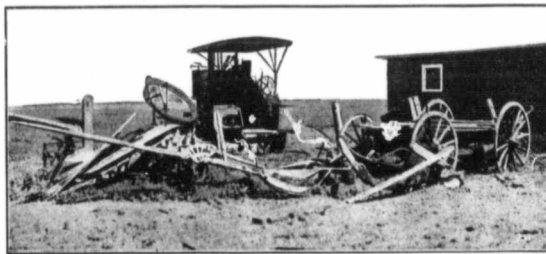
be thoroughly banked before freeze up, a great deal of the cold can be kept out.

And now we come to that all-important, but much neglected, thing, the getting in of the farm machinery. It almost makes one weep to travel over Western Canada in the winter time and see the number of plow handles, disc harrow seats, harrow levers, etc., etc., that peek out from huge snow drifts in the fence corners or on the fields. Yonder stands a traction engine weathering in the wintry wind. There stands a threshing machine, whose joints are becoming thoroughly water soaked, and which, when pressed into service next fall, will soon shake to pieces. Over there stands a drill, the shovels or discs left in the dirt, and when put into use next spring, they will be in such a condition as to render anything but service. Sometimes the machinery is drawn to the barn yard, and left for the cattle to wander around and over it during the winter time, with the result that when it is wanted again there will be a lot of broken tongues and broken parts, all of which costs money to replace.

There is more money spent in Western Canada on farm machinery than on any one thing, and it is needless to say that here is a lot of money wasted.

The writer was talking with a manufacturer who had just placed a new machine on the market. I suggested to him that it might be a good thing to compel every farmer when he purchased a machine, to sign a contract that he would place the machine under cover. He replied: "That would be working against my own interests; because leaving it stand out in the weather will wear it out more quickly than using it, and I wouldn't sell so many machines."

Continued on page 72



A Familiar and Unprofitable Sight on Many Farms.

How about your stock of winter coal, or if you burn wood, how much good dry stock have you on hand at this season of the year. An empty coal bin or a pile of green firewood doesn't breed much satisfaction on a winter's day.

The great cry of the coal dealer is that the average farmer will not anticipate his coal requirements so that he, the coal dealer can order in sufficient quantities to meet the demand. A large number of coal orders coming in mid-winter, when the snows are deep and when railway traffic is difficult and uncertain,

buildings? Have you got them in shape for the winter? Are the battens all thoroughly nailed on? Have the broken down stalls and mangers been repaired, and did you disinfect them thoroughly before you put your live stock into winter quarters? These are all small items in themselves, but they mean a great deal to you and your welfare between now and next spring. Did you bank your house thoroughly before it froze up? A large share of the cold that creeps into the house on a windy day in the winter time gets through between the under pinning and the sills, and if the house

The Highways



of the Air

THE WILD GEESE SOUTHWARD FLYING.

By Hubert M. Skinner.

O living cloud that rushest by,
Thou threadst along the arch of blue
Thy viewless path across the sky.
Unerring is thy course, and true.
As if 'twere marked and plain to view,
O living cloud that rushest by.

If it were not for the migrations of our furred or feathered game, we should not have such sport to-day. The great per cent. of our wild fowl and many other birds, for instance, would be massed in certain definite and well known regions where their slaughter would be only a matter of detail. It is very well for the gentlemen who believe that nature is going to take care of things somehow, that nature does take care of them in her own way, and so prevents the intentions of the men who would kill the last game bird for fifty cents, or the last game animal for the sake of half an hour's sport.

In a loose way it is often supposed that only our wild fowl migrate. As a matter of fact, however, almost all of the birds of the north are migrants, as well as many of the south. Quail migrate irregularly, and grouse migrate mysteriously; but the two seasons of heat and cold in our upper latitudes cause a general shifting of our birds twice a year.

Robins, blackbirds, bluebirds, jays, thrushes — practically all the song birds as well as the more sought for occupants of our woods and marshes — move north in the spring and south in the fall.

Generally speaking, we suppose that the seasons of warmth and cold make the only reasons for these migrations, but, as a matter of fact, a great many species could spend the entire year in the northern latitudes if they cared to do so. In parts of the north some of these do winter, while in others they migrate. Of course, if food fails the migration occurs at any time of the year. The wild duck does not find its food easily when the lakes and marshes are frozen, although the hardy mallard will hang about the last open water sometimes until midwinter. These ducks and others frequently pass the

Thou leav'st the swan and caribou,
And the wild rice and "drupe des Sioux."
Thy viewless path across the sky

Leds to the palm and cockatoo,
And all their gaudy, noisy crew,
O living cloud that rushest by,

With thy free life our souls imbue!
Thou canst not hear, yet would I sue,
Thy viewless path across the sky

Mark with a passing plume or two!
Drop me a feather 'midst the dew!
O living cloud that rushest by

whole winter as far north as South Dakota, only going below those latitudes under stress of heavy weather. Many others of the same species, none the less, go as far south as the Gulf, and winter in Mexico, Central America or even South America. In these latter countries they are less persecuted in the winter than in the United States, where, in-

So small a loss thou wilt not rue;
'Twill be a token, entre nous,
Thy viewless path across the sky

Thou wilt reverse, as travellers do,
Great Bear, Manitoba, and Sault,
O living cloud that rushest by,

Will call to thee, "Bienvenue!"
Then be thy missing numbers few!
Thy viewless path across the sky

Alive as now; and sounding through
The calm, still air, thy "yang" renew!
O living cloud that rushest by.

once grew there. We cannot remember the time when the horse had several toes instead of one for each leg. Neither, for that matter, can we remember the time when the Gulf of Mexico stretched north practically to the foot of Hudson Bay. Yet such was once the case. When the division, which was made by a mid-continental upheaval, came there were some species which had their origin in the north and others which had their origin in the south. Their original short

Like quondam winged shafts that flew
From bows of gods, return, and strew
Thy viewless path across the sky

With harrow shapes prolonged — and
who
Shall fail to greet their dusky hue,
O living cloud that rushest by,

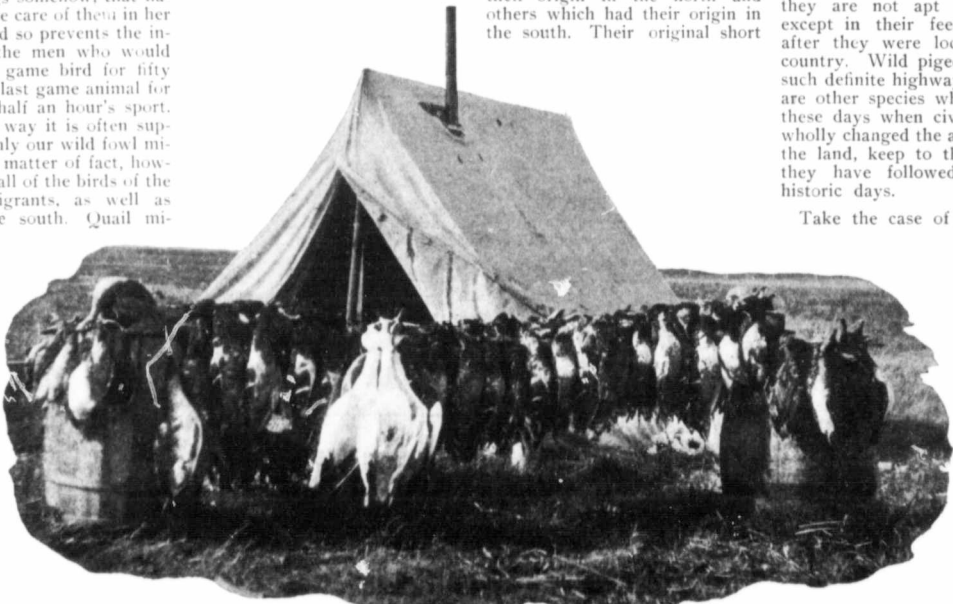
With thanks to God that Spring is due?
Like to the dreams my childhood knew
Thy viewless path across the sky,
O living cloud that rushest by!

birds pass almost any part of the country twice a year.

The singular thing about these migrations is that they apparently cling to certain lines, as though the birds had certain highways of their own up in the air. Any plover shooter will tell you that so long as there were any plover they always used to appear in the spring time along certain high ridges, on either side of which they are not apt to be seen, except in their feeding flights, after they were located in the country. Wild pigeons also had such definite highways, and there are other species which, even in these days when civilization has wholly changed the appearance of the land, keep to the lines that they have followed from pre-historic days.

Take the case of the golden plover which once moved in millions across the continent. It breeds in Labrador and the sub-Arctic America. Curious and interesting enough is the habit of this bird, which, twice a year, travels more than a third the circumference of the globe, passing

country where it might well better itself, but impelled northward and southward by some instinct stronger than breeding and feeding, stronger, indeed, than dislike for warmth and cold. The southern line of flight of a good part of the golden plover, or "frost bird," as it is known in the east, runs east of the Atlantic coast. Literally it passed over the high places of the keys, sunken or showing, which lie east of the lower coast. Observers show us that there used to be land here; and they further point out that had it not been for this north and south Atlantic flight of migratory birds, Columbus might never have discovered America or any of the islands east of it. Passing westward by water he in-



The Slaughter House of the Prairies. The Toll of the "Highway of The Air"

deed, they have no rest at all in any season of the year.

How Birds Helped Columbus.

The food question or the climate question alone does not determine migration. These migrations are customs, but back of these customs are what you may call a habit, and that habit dates far back beyond the memory of man. We make toothpicks of the splint bone on a deer's foreleg, but few of us reflect that a foot

food migrations became strengthened and lengthened into the great transcontinental flights which represent, according to some scientists, an ancient instinct for going back home. This habit has been kept up long after the original necessity for it has passed away, but in view of modern conditions it is a good thing that it has remained. Also, the sportsman can thank his stars for the same reason, counting as he does upon seeing the



intersected this highway of our earliest aviators, and so figured out that land could not be far away. But, according to scientists who have gone into the matter, these birds were only following the places where land used to be until the sea engulfed it. One of these scientists points out that there are two lines of flight, one running east of the Gulf, and one west of the Gulf; and he even shows that some species, like the bobolink, which ranges west across the continent, go south to the eastward of the Gulf. The bobolink did this, no doubt, long before the rice fields of Georgia and Alabama were planted.

The route of the Golden Plover.

Our birds do not migrate now in the large numbers they once did, but even in the past much of the flight was not noted because the birds traveled at night. Very interesting, indeed, it is to hear them in the night, calling, whistling or honking as they travel all unseen. Sometimes, unerring as is their instinct, they go astray, though this is most often when they are confused by the evidences of civilization. Once, on a foggy night, in a Red River valley town, some ten years ago, there was a great flight of golden plover, which, for four or five hours, passed above the town. In some way the lights seemed to confuse them, and although, without any doubt, the flight was an enormous one, some birds seemed to circle and hesitate. The air was full of their calls, and so curious was the phenomenon that all the inhabitants were out on the streets, and the next day the papers made much comment. This was in the spring migration. Such an experience, curious as it was, is not apt again to come to one in those parts to-day. You may, on some moonlight night, hear the honk of the wild goose passing over the unseen trails or perhaps, if very fortunate, on a brilliant moonlit night may see some dark shadows passing high up in the air against the moon. The journeys of the plovers, the snipes and woodcock, the coots and lesser ducks, and many of our song birds, take place at night, but we are most apt to become aware of the great migrations: by seeing in the daytime passing flocks of geese or ducks bound one way or the other. One of the cheeriest sounds the Western farmer ever heard was the honking of the wild geese going north.

The spring migration is more apt to be noisy and demonstrative



than that of the fall. In the mating season, when the plumage of the birds is most brilliant, they are most vociferous and, for that reason, perhaps, most easily captured, although the spring duck or goose, to use a paradox, is older than those that you see going south in the fall and should be wrier. In the fall the birds are more methodical and more sober, and the plumage of the new young is not yet so brilliant.

Even in the city parks you may, in the fall, notice the numbers of robins, bluebirds or blackbirds—not so many bluebirds as formerly, for that species is now becoming scarce. It is the sports-

man approach and on the next day all the covers are bare and deserted. The birds have gone south in the night time; just when, no one knew. Behind them a few stragglers may linger, perhaps some cripples abandoned on the marshes, perhaps some foolish individuals, for birds sometimes make mistakes, as early robins and bluebirds do in the spring when they get caught in the snow. But the bulk of the feathered life will between two days mysteriously have vanished. What line did they take? We should have to go back far into geology to answer that question. We only know that in a general

thousand miles a day, if necessary, and our spring ducks are lean and thin, not because they have lost flesh on the wing, but because they hung on too long to poor food before they started. Most of them stop "to take in more gasoline" from time to time, when they find good marshes which they long have known to be full of food. Their tarrying on the northbound flight is not from inability to fly, but from inability to feed. They follow the line of the vanishing ice and go north as fast as the waters open. Although they pass north or south in the daytime, as any wild fowler knows who has marked the travelers coming down in long spirals from the upper air to examine a marsh, they also travel at night, and the coots, or mudhens, seem to travel exclusively at night, or at least are not seen passing in the daytime. To watch this slow and clumsy bird flapping along in the endeavor to take wing ahead of your boat you



Ready for the morning flight. The Watchman on the 'Highway of The Air'

man who goes abroad in autumn, however, say in early October in the mid-latitudes, who has the best chance to see the migrations of the birds. Sometimes the crows begin to band up then and the blackbirds are very noisy and busy getting together their armies. In some strange way the woods have become full of robins and there are more blue jays flitting and screaming among the trees. In the fields the meadow larks are chattering and moving about restlessly, though not singing so melodiously as in the spring. Perhaps three-quarters of all the birds you see have come from some point farther north. They may proceed leisurely if the weather be pleasant, but let a cold

way the seacoast and the great interior river valleys, as they exist in this geological age, are natural highways for them.

Good Shooting in the Rockies.

We speak of the migratory line of wild fowl as moving farther to the west, but it is quite likely that this line existed in the remoter regions even before we knew about it. The old skin hunters found ducks in every water hole of the great plains. The Rocky Mountains, strange as that may seem, offer some of the best duck shooting in the country.

The length of time on migration varies. A duck can fly a

would not think it could fly far or fast; yet it seems to get up into the air and go south in the fall with a longer and more determined flight than almost any other sort of wild fowl.

Woodcock and snipe travel at night, not usually in large parties. The birds that have frequented your covers on marsh lands will lessen in numbers, little by little, until at last you cannot find one left. They do not band up like the blackbirds. Ducks begin to go north from the Gulf coast by the middle of February or earlier. The first flights reach the region north of the Ohio River by the middle of February, though the heaviest flights are in March, reaching the international boundary about the middle of April. The state of weather ahead and behind the flight determines its rate of progress, either in spring or fall.

The fact that land or water game has a definite line of travel, whether on the earth or in the air, is familiar to most sportsmen, who know that the deer of the forest will have local runways cut deep in the soil through immemorial time, as well as known migration trails, whether they are deer in Manitoba or caribou in Newfoundland; and that the wild fowl will usually hang to their old lines of flight. Sometimes, however, there are freakish migrations which do not seem to depend upon weather or food alone—for instance, those of the ruffled grouse.

Continued to page 70



NOV.



The Canadian Thresherman and Farmer

CANADA'S FARM MACHINERY MAGAZINE

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PRESIDENT AND MANAGER
E. W. HAMILTON
SECRETARY
F. C. BRAY
TREASURER

1911



"Everything begins and ends with the soil."

DO NOT FAIL TO READ PAGE 48 OF THIS ISSUE

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 30 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."

After fifteen years of liberal leadership let us hope for the best.

To give the farmers the best farm paper in Canada; to make better homes, better farms, and better men and women; to give everyone a square deal, is our aim. Believing that the best is none too good for the farmer and his family, we pledge ourselves to earnestly strive to inspire better living, right thinking and more intelligent farming.

There are few pessimists in Western Canada. As soon as snow flies everyone, even to the banks, will forget that we had any trouble with the 1911 crop, and we will begin to think of and plan for the big things we are going to do in 1912.

This is the season of the year when many farmers dispose of their farm and move to town. Sometime it is only the old folks who do this in order to leave room for the boys. Again the farmer feels that he has done his share of pioneer work. He has made enough to live on for the rest of his natural days and he concludes to take it easy.

This move into town means a complete readjustment of the average farmer's schedule of living. For the first year or so it is rather disconcerting. The cost of living on the farm is comparatively cheap and the things for which one has to pay dearly in town come to the prudent farmer comparatively easy. When it comes to living in a city of any size a salary of \$100 per month is small enough indeed for the average family to get along with, and the strictest economy must be practiced in order to eke out this sum. \$1200 on the farm seems like a lot of money. In town, however, such things as butter, eggs, milk, meat, potatoes and all the other staple articles must be paid for with hard cash. These things are all raised upon the farm and their consumption is not noticed. In town better clothes must be worn than what is worn upon the farm; not that the city man is any better than his country brother, for clothes never yet made a man, but when in Rome one must do as the Romans do.

Instead of the average farmer looking towards town as his ultimate goal, would it not be a much better thing to bring town to the country. Take this extra amount of money that must be spent in town living and enlarge the home. Purchase an automobile that will shorten the distance between town and the farm. Put in a good system of water supply and if you can afford it and want to indulge in further luxuries, put in an electric lighting plant. Buy a few cans of paint and decorate the farm buildings. Give your farm a name and at a very small cost have some nice letter heads printed. You will find it infinitely more fun than living in the average town or city.

Incidentally, these things all have their value in dollars and cents. They will add just that much more to the acre of land that you own, and you will prolong your years of life and happiness considerably.

What we need in this day and generation is fewer business men to prey upon the farmer and more farmers to produce food stuffs to feed a starving world.

The Farmer's Institute in Western Canada will soon be in full swing. If there is any organization among the farmers themselves that is worthy of support and from which the farmer derives immeasurable benefit it is the Farmer's Institute. This is not due so much to the fact that certain men occupy the platform and give of their knowledge and experience as it is to the fact that the farmers get together. No man can live of himself and no farmer can get the best out of his farm if he sticks to his own ways and methods of thinking alone.

Do not fail to attend these institutes and, furthermore, always bring your wife along. She will enjoy a friendly gossip with her neighbors and after all, will remember a lot of things that you will forget. Let the boys attend when possible and don't forget the girls. They will become initiated into a fund of information that later on will prove of untold value to them.

Make the Farmer's Institute in your town the biggest day of the year. Get your merchants interested and make it a buying day as well as a holiday. You will find that these same merchants will be willing to meet you half way in the matter and that they will provide everything possible for your accommodation. At the same time they will undoubtedly mark down prices considerably on this particular day. Let nothing interfere with the farmers institute. It is your organization, planned by you and for you. It is worthy of your utmost support.

Give the boy a chance this winter. Remember that his boyhood comes but once in a life-time and that the future man depends upon the training that he receives now. The winters in Western Canada are long and the amount of work to be done on the farm is comparatively small. If you can see your way clear to do so, give him a chance at the Agricultural College. Apart from the amount of knowledge that he will store up, his association with other farmers' sons from all sections of the country will be to him an invaluable experience. Don't be afraid that he will learn anything that he will have to unlearn later. Idleness was never productive of results. The boy who goes to the Agricultural College to-day is made to work and his time is entirely taken up in the pursuit of knowledge. It won't make him any the less a farmer. As a matter of fact, it will do more to keep him on the farm than any other single thing. He will come into close relationship with the college professors, men who are making it their business and their aim in life to train young men to become better farmers and better citizens.

Furthermore, a change is as good as a rest and you will find that your boy will come home next spring and go to work on the farm with a vim and an enthusiasm that you have never seen in him before.

The leaders in any community are men of training and half of the satisfaction that we get out of life lies in being able to lead others along proper channels. Give the boy a chance. He is the one that will represent you in the future and will carry your name on down through the ages.

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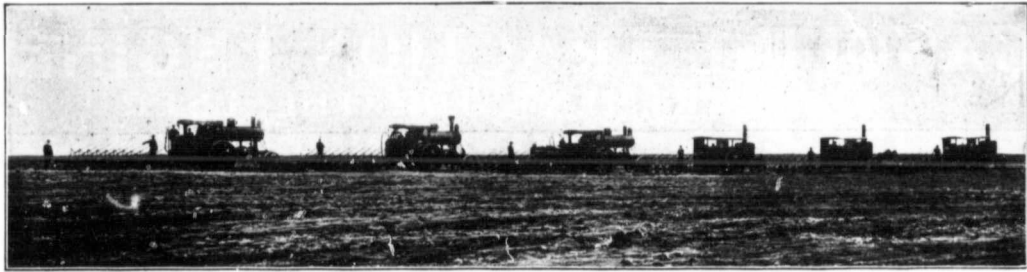
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Cockshutt Plows in the Lead EVERYWHERE

Dr. J. A. McDonald, Chief Editor of the "Toronto Globe," in speaking of the progress made by the Cockshutt Plows in the UNITED STATES, says:

"It was a great satisfaction to find that this superior Implement was appreciated by the farmers of the United States. While at Washington, I found the American manufacturers of Steam Plows making a great ado about it, and the head of one large plow manufactory told the Washington authorities that he would not be able to stand against this competition."

Familiar with the technicalities and the performance of scores of different Plows, the Farmers of the UNITED STATES acknowledge the superiority of the Cockshutt Engine Gang, and insist on having it! We are proud of the distinction, for it justifies the confidence we have in our product; confidence born of years of successful manufacture and nurtured by the severest tests to which an Engine Gang can be put.

The **Cockshutt Engine Gang** is the one traction plow that has MADE GOOD under difficult conditions, and thousands of farmers endorse its good work. The Cockshutt principle of a doubled Plow Beam to each single plow has resulted in generous and safe reserve strength against strains and accidents. It has made each single plow as controllable in its work as a hand plow. Here is DEPENDABILITY united to QUALITY of work.

From end to end the **Cockshutt Engine Gang** is a convenient and practical plow. It is automatic where a plow can be made automatic. It is a labor saver where many plows demand heavy and hard work. It is strong and solid. When you buy it, your acreage and your investment is protected. And this service extends over many years because Cockshutt experience and quality is in the **Cockshutt Engine Gang** to design it and build it properly.

Write to-day for the Catalogue, and tell us what kind of Tractor plowing you propose to do. We can help you very much and show you figures. These figures will prove the economy of the **Cockshutt Engine Gang**, the Gang which pays a big return in bettered harvests with the added advantage of plowing done at lowered cost per acre.

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Averaged 12 Acres per Day.

You request us to give you our experience with a traction plowing outfit. Our experience along that line has been very limited, so what we can say will probably be of not much value to you.

We purchased a 22 horse power Hart-Parr gasoline engine last spring to break with on our land at Warner, Alta. We were late in getting our engine, so the best of the season was over before we got started. However, we broke 600 acres, a considerable part of it after everyone else had quit on account of dry weather.

We didn't put in any long days, but averaged 12 acres a day, and pulled a packer behind the plows. We pulled six 14-inch plows and broke from three to four inches deep.

It cost us about 95c. an acre for gasoline, also oil, including lubricating oil. We burned oil mostly. We paid 29½c. per gallon for gasoline, and 21¾c. for kerosene. I think we used about 1½ bbls. of water per day with the engine.

We think it cost a trifle less than \$2.00 per acre to do our breaking. This included the engineer and plowman and the wear and tear and sharpening of the lays. In fact everything, except the wear and tear to the engine.

We used the Cockshutt plow, and found it all right, though our ground was quite stony.

We only threshed a few days, but found our engine would do the business all right. In fact we ran a 44-64 separator part of the time. This, of course, was too large for the engine.

We have purchased a 36-56 Red River Special, which we think will be the proper thing for our engine, and we expect to do some business next fall, as we will have upwards of 1500 acres of wheat of our own.

We haven't used our engine for discing and drilling yet, but expect to this season. Our engine is rated at 22 horse power, but we consider that it will do the work of 28 horses.

The team work in connection with plowing with the engine didn't require an hour a day, as we were handy to town and to water.

Trusting that this is the information that you wish, we remain,

Yours truly,
Johnson Bros.,
Warner, Alta.

Did a Large Amount of Work.

We have a Flour City 30 horse power gasoline tractor and a 6 bottom Cockshutt plow. It takes two men to handle the engine and plows, and a team occasionally to haul a tank of water and gasoline. The engine requires about 2 barrels per day for cooling, and from 2 to 2½ gallons of gasoline per acre for breaking.

We pulled five 14-inch bottoms and an eight foot roller all season, having done about 500 acres of breaking. The estimated cost for fuel and lubrication, breakage, etc., was about \$1.00 per acre.

bar, made by splicing two 16 foot 2 x 8 with an 18 foot piece, placing one disc on each end and one in centre, then running a bar back from the draw bar far enough to clear the other two. In making a hitch in this way we can turn as short as the engine can and not get them tangled up.

We disced over 1800 acres last fall. After filling up the oil and water it was only necessary to have one man on the outfit. Considering the year, which was very dry, am well satisfied with the amount and quality of work we did.

Yours respectfully,
B. H. Steele,
Langdon, Alta.

Power Farming the Only Way.

I cannot say much about plowing, as I just got my engine last

Two Men Run the Outfit.

I have a Hart-Parr traction engine, which the company guarantees to be a 22 horse power machine at traction work and 45 in the belt.

I began using it about July 15 last season, and for the next 20 days I broke on an average of 15 acres of rough scrub land using a John Deere eight furrow gang, with only six plows attached.

Two of us were all that were required to run the outfit, one man to steer the engine, the other to handle the levers on the plow. No horses required.

We had no trouble excepting in some soft places in the field where the engine had poor footing. Where the ground was solid enough to be suitable for plowing we always went along pretty steady, and never lacked power.

In the fall plowing we averaged 25 acres per day, using the eight 14-inch bottoms and a big lever harrow to follow the plows. Our fuel cost us about \$8.50 to \$9.00 per ten hour day.

I may say that in the breaking operations, where we used six plows we developed an average of 24 horse power. At least we always have to use four horses on a 14-inch breaker in this district, and as above stated, we always pulled the six 14-inch breaking plows in the scrub land.

The fuel used was mostly the 11c. kerosene, which cost us about 15c. laid down here. A gallon or two of gasoline is used every day in starting the engine and running until it is warm enough to work satisfactory on kerosene.

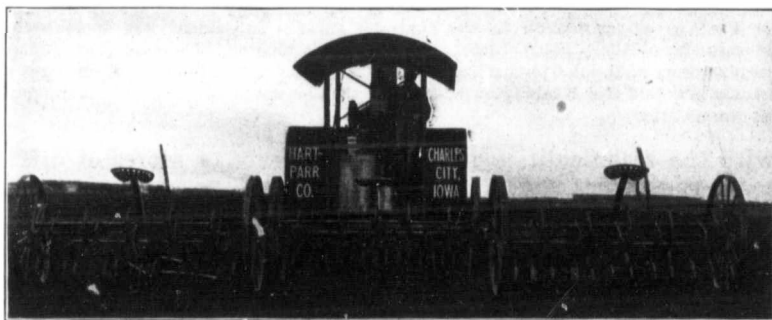
In threshing, we used a 32-56 Nichols and Shepard separator, and the first 16 days of threshing we ran out over 48,000 bushels of oats. Our largest run was 4650 bushels of oats in one day.

Yours sincerely,
R. E. Drennan,
Canora, Sask.

A Lot to Learn.

Last spring I purchased an International gasoline tractor, 20 horse power, and a set of six John Deere engine gang plows.

On May 19th we commenced work. We used four of these plows to break, the plows being 14-inch. We aimed to make 20



A Hart-Parr 15-30, Doing a Tillage stunt near Portage la Prairie.

Of course this does not include help and cost of getting gasoline and water to field.

We seeded 1000 acres to grain in the spring, using three twenty-disc drills. In hitching these drills we used a 20 foot draw bar, bolted to rear of engine and anchored from each end to head end of engine the two outside drills. We made steel tongues, bolting a two by eight across, making an evener, and hitching them on each end of draw bar.

The centre drill. We made a single tongue for it in centre of drill, and hitched it back about 14 feet from draw bar, allowing it to lap the proper distance over the other two drills. So there were no skips in the drilling. I also put a marker out to mark the next round. Drills hitched in this manner will turn very well without interfering with each other.

In discing we used 5-16-16 discs with tongue trucks. These we hitched on a 32 foot draw

fall. After threshing I did some plowing with it.

The experience I have had is certainly not much, but I can say that I do believe the only way to farm is by using steam or gasoline power.

I have a Universal gas engine, and pull nine disc plows, plowing from six to eight inches deep. I plowed from 12 to 15 acres per day at a cost of 33c. for gasoline. I did not have any help whatever, but did most of the work myself. My plows are the P. and O. make.

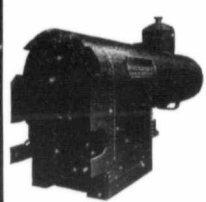
Plowing is harder on the engine than threshing. I have not kept a record of the cost per acre.

I have not had any experience with hitches, but in the spring am going to try a long axel with a wheel on each end, and a short tongue to couple to engine wheels to be about three feet high.

Yours truly,
J. S. Ulfers,
Beach, N. D.

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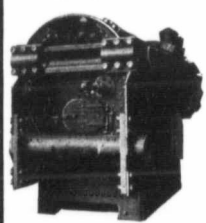
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miles a day, but when we had any bother we could not do it. We find that two miles per hour is all that the engine ought to do, and is more than we can average, counting going around ends and oiling up.

We broke 410 acres, then put on six plows and plowed 110 acres. We ran the plows shallow. If you want to plow deep, five plows are all the engine can pull. When we made 20 miles a day it took two men to run it, but one man ran it part of the time, and made from 16 to 18 miles per day.

We quit plowing about July 15 because the ground was so dry. We used from one to two barrels of water per day. When it was cool one barrel would do, but when it was hot and windy it took more. It took about 25 gallons of gasoline to break twelve acres. Our gasoline cost us 26c. per gallon.

When threshing we ran a 28-inch cylinder Case separator with engine, and threshed over 1500 bushels of wheat per day. When there was no bother we had from 5 to 6 stook teams. I don't think that plowing is any harder on engine than threshing, excepting the wear on the gears from dust.

After threshing we plowed some over 150 acres. We could have plowed as much more, but we stopped to draw grain to market.

There is a lot to learn about the engine first year, unless a person has had practical experience. A gasoline engine is not like a steam engine. Some little thing will put them on the hum, and you may lose a number of days trying to find out just where the trouble is.

Yours truly,
E. F. Kinney,
Eyebrow, Sask.

Used Engine for Harvesting.

I have an International Harvester Co. engine, 20 horse power, with which I haul six 14-inch John Deere plows in stubble plowing with Kramer Rotary harrows attached, thereby harrowing as fast as plowed. I do this with the services of one man on the outfit at a time, changing off about every five hours. The cost of labor, gasoline and oil is 75c. per acre on 160 acres, that I kept strict account of.

Next, I did practically all my seeding last spring with engine, hauling two 20-double discs, Superior seeders with small land packers attached, which is a decided success. I also had harrows hitched behind engine, ahead of seeders. The outfit was operated by two men, one to steer engine and other to fill seeder boxes and keep an eye on the three different implements we were operating.

For hitching seeders I put a 4 x 6 inch timber on rear of engine platform, then put short tongue in one seeder and hitched up close to the harrows, which are partly under the platform of engine. The rear seeder has lengthened poles or tongues, so as to let its one wheel back of front

seeder in proper place. The poles are worked on a sort of a bolster, with a bolt so as to allow turning, and seeding is done by setting stakes and hitching out like lands same as plowing, only much larger. I seed and harrow and pack on an average of 50 acres per day, this being done at an expense of 25c. per acre, including gasoline, oil and two farm laborers. I also have another man with horses to help do this work, by bringing out gasoline each morning and doing all sorts of odd jobs, such as bringing seed to field, and at times hitching to another seeder to finish the lands if they don't come out even, also sow in the sloughs which are cool wet to sow with engine.

I had great success with engine last season in harvesting, by hauling three 8-foot binders from early morning till late at night, only stopping 30 minutes at meal times. Binders were hitched by my own get up: First binder having short tongue hitched up close to engine; second binder hitched by chain running through the frame of first binder up to engine, and the tongue of second binder truck is set at an angle of about 45 degrees, which is done by boring new holes in tongue to fasten braces to, thus leaving truck wheels straight and tongue at an angle up to the goose neck of front binder, fastened by a clevis chain being hitched to frame binder at the end of short tongue; the third binder is hitched exactly as second binder is by a little adjusting of chains. Each binder cuts its full width. This is very easy work on the engine.

Now, when first starting to cut I take the rear binder off, hitch horses to it and give the corners a nice round appearance. The team cuts these blocks all off by the time the engine makes a couple of turns, then I hitch the third binder to engine again and away we go; no changing or tired horses, and with a crop like we had here last season, we could do a better job than could be done with horses, as all a man has to do is to operate his binder, and no driving to be done. Of course it takes a man for each binder and one to operate the engine, steering being the principal job.

It cost me about \$7.00 per day of ten or eleven hours for gasoline and oil for my 20 horse power engine, and I figure that I do the work of about sixteen or eighteen horses daily, which would take four or five men to handle. I only use two men with my engine, thus saving the wages of three men and board, which is a big item in this country.

We use about 40 gallons of water per day for cooling purposes.

I also use my engine for threshing, having a 28-42 inch separator, Manitoba Champion, which does first class work. I threshed 1500 bushels of wheat last year in one day, which I consider good in such a light crop as we had. I have six bundle teams, which are kept busy and keep the outfit going.

The "Flour City" Tractor.



Built in three sizes, viz., 20, 30, and 40 H.P.

The above cut represents our 20 H.P. doing its stunt in the Winnipeg contest in which it was awarded the Gold Medal.

With the addition of the 20 H.P. to the "Flour City" line, we are in position to supply a tractor suitable for any size farm. It is equipped with the well-known "FLOUR CITY" four cylinder vertical engine and high drive wheels, the type that won in every contest in which it was entered.

It is designed for those who farm on a moderate scale, weighs less than 9000 lbs. Will pull from four to six plows and handle a 28-inch separator.

If interested send for Descriptive Catalog.

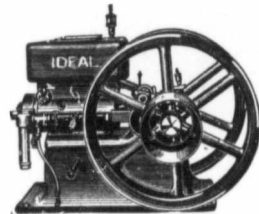
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"IDEAL" Power and Plenty of It

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Stationary or Mounted, 1 1/2 to 50 H.P.

The "IDEAL" is the very last contribution to Farm Power Machinery. Sold at an extremely moderate price, it is built throughout of highest grade material, is the most simply constructed, smooth running engine on the market, greatest fuel economiser of them all. It adapts itself to every job on the farm.

The Maple Leaf GRAIN GRINDER



most efficient and most reasonably priced feed-mill you can buy. Its popularity all through the Dominion has been earned by quality and first-rate service. Strongly built to a simple design it is extremely easy on power. All wearing parts are lathe-turned. Large hopper capacity. An Endless Belt can be used with this grinder.

Write for Catalogue and ask about our Special Gasoline Plowing Engines

Goold, Shapley & Muir Co., Ltd.
BRANTFORD, WINNIPEG, CALGARY.

Why the Big Four "30" Won.



The Big Four "30" winning the Gold Medal, Winnipeg, 1911.

EFFICIENCY—The ability to stand up to the grind of hard work in the field, day after day, month after month, and year after year—is the all-important quality in a farm tractor, and is just what the **Big Four "30"** possesses. Write to-day for: "The Book of Gas Traction Engines."

In the World's Motor competitions, held at Winnipeg in July, The Big Four "30" won Gold and Silver Medals in Gasolene and Kerosene classes, receiving

Perfect Scores

on the following points:

- Water used.
- Condition of engine at end of test.
- Condition of bearings and loose parts at end of test.
- General condition of engine, stops, etc.
- Steadiness of running.
- Possible distance travelled without replenishing fuel.

The Big Four "30" also received the highest score of all internal combustion engines for accessibility of parts, and the biggest score in its class for design and construction, materials, etc.

A Free School of Gas Tractor Engineering. Four Terms—November, December, February, March.

Gas Traction Company

General Offices and Factory, Minneapolis, Minn.

First and Largest Builders of Four-Cylinder Farm Tractors in the World

156, PRINCESS STREET, WINNIPEG, Man.

I also did some breaking last season. In light soil I hauled five 14-inch John Deere plows, and in very heavy soil and dry only four furrows. In breaking there are three of us on the outfit, but only one at a time is on the engine or plows, the others either resting or sharpening shears or hauling gasoline or water, and if we get in a hurry we plow night and day by taking our different shifts.

Hoping this will be of some use to some fellow farmer, I remain,
Yours truly,
A. A. Ashley,
Perude, Sask.

Threshing Easier Than Plowing.

In December, 1909, we ordered a 22-45 Hart-Parr engine to be delivered on April 1st, 1910, but unfortunately we were unable to get it until the end of May, by which time the best of the breaking season was over. We had no rain in June and July.

Our land is very heavy, but we can pull a six furrow John Deere plow with a 23-foot Verity packer behind most of the time, although we have pulled as many as eight plows in the lighter land.

We use about 45 gallons of coal oil a day, besides a little gasoline, and when the load is heavy we use practically as much water as coal oil.

After we were through plowing we disced, scrubbed and harrowed all our breaking, and the engine made a fine job. We pulled five

16-inch disc harrows, three 10-foot scrubbers weighted, five sections of drag harrows, and could have pulled more if we had had them.

When plowing stubble we generally put the packer after the plows, and the harrows after the packer. The packer after the breaking plow makes a wonderful difference when the land comes to be disced.

We find that threshing is much easier on the engine than plowing. We have a 33-52 Waterloo separator, and in spite of long moves, we threshed 18,000 bushels of grain in 11 days, our best day's run being 2,340 bushels, practically all wheat. We afterwards did some stack threshing with a 36-60 Rumely separator, and our engine had lots of power to spare.

We estimate that we can plow at about \$1.00 per acre breaking, whilst threshing we used engine gas oil (Winnipeg Oil Co.). This costs more than coal oil, but it is a saving as we use practically no water, and the water here is hard on the engine as it leaves deposits on the valve stems, causing loss of compression, as the valves will not start properly.

In conclusion I would like to say we are perfectly satisfied with our outfit.

Yours truly,
Mackenzie & Heptenstall,
Normanton, Sask.

A Good One.

I bought a 20 horse power International tractor last spring and a seven furrow Emerson disc plow. I plowed about 200 acres last spring, and part of the time I pulled a two furrow disc behind the seven furrow, cutting 80 inches in all. It took from 1½ to 2 gallons of gasoline per acre.

I summer fallowed 40 acres and fall plowed only one half day. I think the traction plowing is alright for summer fallow and fall plowing, but for spring plowing I prefer horses.

I bought a 28 x 50 Case separator, and was well pleased with the threshing. I threshed 11,000 bus. of wheat, 4,000 bus. of oats and 4,300 bus. of flax in 18 days.

I was troubled for a few days with the ignitor, until I got a new one, and then we sailed right along again.

Help was scarce and part of the time I found it to work best with

six teams and one spike pitcher, and have three teams on a side, and the spike pitcher would help on one load. When that was off the man on the other side would start pitching and the spike pitcher would go over on the other side. I ran both engine and separator myself, and kept the grain back in the bin most of the time. The spike pitcher came in handy when we moved, also to help get started in the morning.

We only threshed one full day on wheat, after we got running in good shape, and that day we threshed onto 1500 bushels of heavy summer fallow. Most of the time we would work half a day on wheat and then go on to flax in the afternoon. I think that is the best way, as it doesn't pay to thresh wet flax, when it is worth \$2.50 per bushel.

I had my own teams and made new racks with tight bottoms, and it was surprising the amount of grain saved.

Prices here are: Oats, 5 cents; wheat, 9 cents; and flax, 15 cents. I only threshed two jobs. I used about 20 gallons of gasoline per day, and a gallon of cylinder oil would last several days.

DON'T BUY A GASOLINE ENGINE

Until You Investigate The Temple Make. Its Great Advantages are: 1st—Lowest Fuel Cost; pays for itself in Fuel Saving. 2nd—Delivers Steadiest Power Stream, adapting it especially for operating farm machinery. 3rd—Easy on the machine it operates. 4th—Uses Gasoline, Kerosene or Gas. 5th—Perfect Lubrication. 6th—Starts Easily and Quickly, occupying minimum space. 7th—It is the King of Portable Engines. No engine has so wide a range of use. YOU WILL MAKE A MISTAKE IF YOU DO NOT WRITE FOR INFORMATION. We make 1½ to 5½ H. P. single cylinder engines; 5 to 20 H. P. two cylinder engines; 30 to 50 H. P. four cylinder engines. All Heavy duty, slow speed engines. For surety of operation and low fuel cost our engines lead. TEMPLE PUMP COMPANY, Manufacturers. 401 West 15th St., Chicago, U. S. A. This is our 59th year.

I never had any experience with an engine or separator before I got these, and as a green horn I had little trouble, but taking everything into consideration the outfit gave satisfaction. If I were buying again I would get a 25 horse power engine. I found when the wheat was a little tough it worked the engine too hard, but it handled all the oats and flax that two men could throw into the machine.

Yours truly,
V. C. Thomas,
Milestone, Sask.

A Shop Experience.

In reply to your favor, would say that I have a 6 horse power International Harvester engine; that I used to grind grain, saw wood and operate the machinery in the shop, consisting of a strip hammer, a large drill press, and emery wheel, a disc sharpener, and a rip saw.

It is the handiest power for my purpose, and is ready at any minute. My engine never gave me any trouble. It will work if you give it a chance. Some engineers expect an engine to do things out of all reason.

I have had quite a lot of experience in repairing engines.

For ignition I use an Edison wet battery to start, and then switch to a Motsinger auto spark.

It costs me about 20 cents per hour for gasoline when I am running the grinder, and about 10 cents per hour to operate in the shop. I would be very sorry to have to run a shop without a gasoline engine.

Yours respectfully,
F. E. Good,
Evarts, Alta.

Engine Twelve Years Old and Still Running.

We had a little experience last fall with a gasoline engine that may be valuable to some other brother.

Our engine is a Fairbanks-Morse 12 horse power portable engine on trucks. It is used for running a feed grinder with two sets of burrs. The engine doesn't have hard work when grinding, but when we came to threshing, that seemed to be a little too much for it.

We couldn't tell what was the matter. We thought the oil might be dirty, so we took the strainer off, but the trouble was not there. Then we put on new packing around the igniter but that wasn't the place.

We then thought the batteries were no good, but they were new. However, we took them back, but could not get any others, so we had to keep them. The man tested them and said they were good, but told us the gasoline might be poor.

In the morning we put some gasoline, which we had in another barrel, in the tank, but that didn't work either.

Well, we fooled around all day, but at last a man that had run the engine for the past nine years said that the ignitor plug might be worn so that it didn't strike on the center. We then took the igniter off and found that the igniter seat was worn about one-eighth of an inch.

Then we found a little steel washer and put that on. We had found our trouble, but the washer didn't last only a couple of days. So we had to put on another, and worked that way all through threshing.

I might say that the engine is eleven years old and giving good satisfaction at the present time.

Hoping this may be of benefit to you, and wishing you success, I am,

Yours truly,
Owen F. Radway,
Mentor, Minn.

Works Two Shifts.

We would have to state in the beginning of our letter that this is the first experience we have had with traction plowing, and of course we have many points to learn as to where we can improve both in amount of work done and class of work done.

We are using a Hart-Parr 22 tractive horse power traction engine and a six bottom Cockshutt gang plow which we think makes an excellent outfit for use in the north-west.

We did not get started last spring until late in the season, and then when we did we found the ground very dry and it broke very hard, but in the spring and fall we broke 630 acres and disced during the summer 700 acres and threshed 12,000 bushels of wheat, which we considered very good for the time that we worked, as there was 60 days that we did not use our outfit on account of the dry conditions that prevailed in our part of the country.

When breaking we worked five men, as we worked the two shift plan, one set of men going on at seven a.m. and working to seven p.m., and the other two men taking the other 12 hours, and the extra man that we had was a blacksmith who did all our repair work, and kept the plow shares in condition and helped to get the oil and water. We used two horses for hauling the water and gasoline.

In our engine we use kerosene as fuel, only using gasoline to start the engine, and the amount that we used per day varied with the class of work being done, as we sometimes pulled six plows with a packer, and other times five plows with packer and drag, which made a difference in our load. But the amount of kerosene was about 85 to 90 gallons per day, and the amount of work done with this was about 25 acres on an average per day of 24 hours. We received a price of \$4.00 per acre for breaking and 50 cents for packing.

The amount of water that we used per day of 24 hours was from 40 to 45 gallons.

Do Your Spring Plowing Quickly

Delay Means Loss

It takes rush work and thorough working of the ground in the spring to insure good crops. Horses are too slow. A matter of several hundred of dollars' profits often hangs on the difference of a few days time in getting the seed in.



56 H.P. GAS TRACTORS

DO OVER 2 ACRES AN HOUR

It is the fastest, most powerful and easily operated tractor known. A general all-round farm power engine for plowing, threshing, hauling, road work, etc. Operates eight 14-inch plows, and will haul twenty-five tons up hill over rough rocky ground. Gives a speed of from 2 1/2 to 4 miles an hour, and 1 1/2 miles an hour reverse. Economical in fuel consumption, and will work right ten years or twenty years from the day you buy it. Every one is fully guaranteed. Engine is 4-cylinder, 4-cycle type; all gears protected; double clutch pulley; multiple oiler; oil or water cooled, and frost-proof. Burns Kerosene as well as Gasoline.

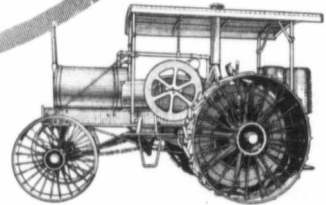
SEND FOR COMPLETE DESCRIPTIVE BOOKLET

The Eagle Mfg. Co.

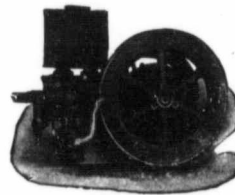
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APPLETON

WIS.



You Can Rely on a Barrie Engine



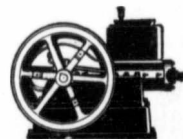
Just start it. A Barrie Engine is built to go without constant attention or regulation. The 3 H.P. Engine shown in illustration is very popular with progressive farmers. It is mounted on skid, with Battery Box and all connections made. It's all ready for you to start it going. Write for catalog giving complete description.

RELIABLE AGENTS WANTED

Canada Producer and Gas Engine Co. Ltd.

BARRIE, ONT.

JAS. RAE MACHINERY CO., MEDICINE HAT, Distributors for Alberta
McCUSKER IMPLEMENT CO., REGINA, Distributors for Saskatchewan



A FEELING OF SECURITY

Of Absolute Reliability and Power is Enjoyed by Every Owner of a

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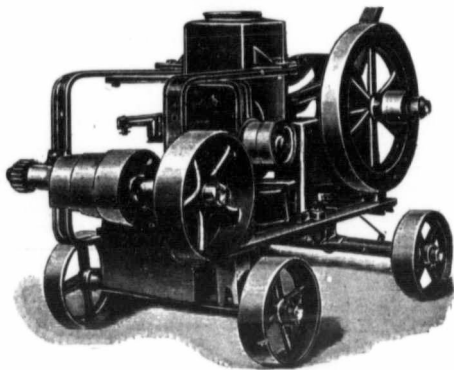
"GOES LIKE SIXTY."

A mechanical masterpiece of the highest type, with our improved simple method of cooling, governing and sparking. Positively guaranteed, biggest value. All sizes. Ask for catalogue.

GILSON MANUFACTURING CO., LTD.

GAS GASOLINE ALCOHOL 93 York Street, - - Guelph, Canada.
EMPIRE CREAM SEPARATOR CO., of CANADA, WINNIPEG, AGENTS for WESTERN CANADA

The Farmer's Power House on Wheels



The utility value of a gas engine to the farmer depends upon the variety of purposes for which it can be used. This fact led to the building of the portable gas engine, and later on to the farm tractor. The work for which the farmer requires power on his farm is not always in one place, and it is therefore very convenient at times for him to have a machine that he can move around in order to meet the various requirements.

Perfection in this respect has been reached in the **GILSON 60 SPEED GASOLINE ENGINE**. The machine as illustrated is a $1\frac{1}{2}$ H.P. four cycle engine, so arranged that sixty different speeds can be derived therefrom. The engine itself is of the usual high grade Gilson construction. Nothing has been left out that would detract from its being a perfect machine. It is arranged with a rigid steel frame, and mounted upon a pair of substantial trucks, thus making it easily portable to any place about the barn-yard, the workshop or the dairy. It will **Pump Water, Run your Cream Separator, Grind your Feed, Run your Washing Machine, Turn your Grind-stone, and perform any other operation around the farm where power is required.** It is the latest thing in gas engines. It will render you 100% service.

What are you going to do with that Frosted Wheat this Winter ?

The logical thing is to buy a **GILSON 60 SPEED ENGINE** and a **FEED MILL** and grind it at a cost for power of one-third of a cent per bushel, and when you order your outfit don't forget that we handle **FEED GRINDERS** as well. You will more than pay for your engine between now and spring, and next summer when the wind doesn't blow you will have just what you need for pumping water.

EMPIRE CREAM SEPARATOR CO. OF CANADA, Ltd., Winnipeg **SOLE AGENTS FOR WESTERN CANADA.**

When threshing we worked about 10 hours per day, and threshed on an average of 1200 bushels per day. We used a Nichols and Shepard 32 x 52 separator with gearless blower and high wagon loader.

We consider threshing easier on our engine than breaking, as we had plenty of power in operating the machine, and at no time was the engine overloaded while threshing.

Yours truly,
Kessler Bros.,
New Dayton, Alta.

Gasoline Costs 35c. per Gallon.

Our experience with a gasoline tractor has been confined to one season only, but we consider it a most economical farm power, and very popular with the farmers.

We have used a 20 horse power International gasoline tractor constantly since April 5th, with the exception of three weeks when the extreme drought stopped us from doing satisfactory work.

We plowed 700 acres of prairie sod and backsset 40 acres of stubble with the breaker bottoms and did good work. Hot weather, mosquitoes and long hours had no effect on the engine, which pulled four plows all summer.

Gasoline costs us too much, 35c. laid down here, but we are 70 miles from Moose Jaw, our nearest town, and we pay 1c. a pound to have it hauled to us. About three gallons per acre has been our average for plowing.

So far we have only plowed and threshed with our engine. We have been threshing since September 14th, and will require another month to complete our round. Twenty gallons or less per day has been the gasoline used for threshing. Some days we have long moves over unbroken prairie, but have no fear of fire.

We started without experience, and, of course, had a lot to learn, and we feel yet that there is much to find out. We have had no serious breakdowns, and have lost very little time, considering the fact that we are so far from repairs. We have had to get gasoline in wooden barrels, which are not always full when we get them.

Where land is not too rolling and grades not too steep, we believe the gasoline tractor the nearest to the ideal for farm power that has come to our notice.

To say that anyone can run a gasoline engine may be true, but to run one successfully a man requires some mechanical ingenuity and a cool, level head. An engine that is simple of construction with parts accessible is most desirable.

As "the proof of the pudding is the eating of it," so the practical work accomplished by an engine determines its value. We are well satisfied with our season's work, and feel that next season we can do more and better work, besides doing it easier and cheaper.

Yours truly,
W. J. Patterson & Sons,
Levellie, Sask.

Important to Sportsmen and Hunters

Care of Game Heads

By John Ambrose.

When you kill your game, use care in handling the head if you desire to have it mounted. Don't cut it under the throat or neck, cut it up the centre of back of neck.

If in mild weather and you cannot get it immediately to your taxidermist, it is best to remove the scalp as follows.

Cut it up the back of neck to near the horns and branch out to each horn with a Y cut.

Cut skin down over shoulders to fore legs, leaving skin full length, don't fear you will leave it too long.

Skin up neck to base of ears, cut through ear roots close down to head, pull away skin around base of horns, using knife as little as possible, rather prise it off with a blunt instrument.

Insert your finger in eye socket to guide you, and prevent cutting through skin, keeping skin pulled well away from head, using the knife close on to the bone, cut through the white membrane deep down in eye socket, leaving it attached to skin. Use care right here, the skin hangs close on to bone in front part of eye socket, the

tear pits or ducts. Skin down to mouth, cutting skin away close to teeth, easing the membrane inside lips attached to skin. Cut through nostrils well back and remove skin from the head.

Skin the inner membrane of lips forming pockets skin around ear roots, remove all surplus flesh from skin, and salt well—use plenty of salt.

If the scalp is mussy with blood, wash it off immediately with salt water, sponge as dry as possible, raising the hair to allow air to dry it out (a little dry sand is useful for this purpose; this applies especially to sheep, goat and antelope). Blood will stain the hair if left on, making it almost impossible to bring it back to its natural color, and usually decomposes the epidermis, causing the hair to slip.

Salt the scalp again when shipping, a few cents worth of salt may save dollars on the scalp.

In cold weather split scalp up back and salt well, also treat the eyes, nostrils and mouth liberally with salt.

If head will freeze up at once they won't need salt, but **keep them frozen**, don't place them where they will soften, this sometimes means the loss of the scalp.

OILDAG

REGISTERED TRADE MARK

Graphite does not dissolve in any liquid or break under pressure, and these qualities, added to the unctuous softness and purity together with its non-coalescing nature, makes Acheson-graphite ideal for lubrication purposes.

The process of defloculation makes Acheson-graphite powder so fine that it will go through a sieve having 40,000 meshes per square inch, and subdivides each grain of this finest powder into many still smaller particles—so small that they are invisible under a powerful microscope.

Oildag is this Defloculated Acheson-Graphite suspended in oil, where it neither floats or sinks, and is evenly distributed throughout. Oildag will flow anywhere the oil alone will go.

Mr. Robert A. Ross, E.E., of Ross & Holgate, Consulting and Supervising Engineers, Montreal, after running a 1910 Model T Ford car with Oildag, in reply to an anxious inquirer, wrote the following letter:

A. B. Grove, Eng., Airdrie, Alberta.

Dear Sir,—Referring to yours of May 8th with reference to Oildag, I would state that the Ford Company warned me against its use, but being an electrical man, I reasoned it out for myself and came to the conclusion that, while a graphite was a conductor and if used alone would short circuit the magneto, oil was an insulator and that each small molecule of graphite was surrounded by a sphere of oil, so that in effect no short-circuiting could take place, and this has been proved in my case and doubtless in others. I may say my car is of the model of 1910, with the magneto in the oil bath. I do not think you need be alarmed on this score. Yours very truly, (Signed) R. A. ROSS.

May 13th, 1911.

WRITE FOR OILDAG BOOKLET 77B

FACTORY AT
SARNIA, ONT. CAN.

ACHESON OILDAG COMPANY

We are General Agents for GREDAG made by the International Acheson-Graphite Co.

PORT HURON
MICH., U.S.A.

Course in Gas Engineering

This Course consists of a series of practical talks on the theory and practice of the gas, gasoline and oil engine. They will be simple, illustrated when necessary, and of such a nature that the gas engine owner may easily adapt them to his daily engine work.

LESSON XII.

The matter of rating, power delivered, etc., was gone into quite thoroughly in previous lessons, and we wish now to look at some of the characteristics of the internal combustion engine, which have a direct bearing, not so much on the manufacturers' rating, but upon the load under which the user operates his engine. It is a well known fact that most of the engines purchased at the present time are too small for the work they are expected to do. Whenever a man purchases an engine, he does so with some particular purpose in view, that is, he desires the engine to operate some particular machine, and with that end in view the proper size engine is purchased. Soon, however, the advantages and adaptability of this type of power become manifest and other uses are found for the engine. Oftentimes it is desirable to operate several machines at the same time, making an overload for the engine. While it will be shown that it is not economical to operate a large engine under a small load, yet the fuel consumption is greatly increased at an overload, besides the wear and tear on the engine is much greater in proportion to the load.

Since the most common type of engine for farm use, and in fact for all sizes up to 60 or 75 h.p. is the single cylinder hit-and-miss engine, we shall consider this type in this discussion. When engines of any particular size are mentioned, the rating is not necessarily that given the engine by the manufacturer, but is that determined in the manner shown later. As before mentioned, manufacturers' ratings are listed with lit-

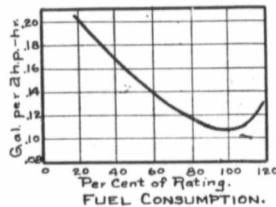


Fig. 1.

tle regard to the proper working capacity of the engine. The proper rating of an engine or other prime mover of any kind should be such that if a person desired say 60 h.p. and purchased an engine rated at 60 h.p. the engine would operate at this load under the most economical fuel consumption, or in other words at its greatest efficiency. For the larger sizes of engine, of course, such tests are made that the manufacturer knows what fuel consumption he can guarantee for a certain power delivered, and at what

load he can recommend his engine to be the most economical. Small engines do not have the same care bestowed upon them, and it is up to the purchaser to a large extent to judge this for himself.

Taking up the subject of fuel consumption, this will be represented by the graphical method as shown by the curve in Fig. 1. Distances measured vertically up to the curve represent gallons of fuel for developed horse power. The horizontal distances are usually laid off in horse-power, but since we are not discussing any particular size, the horizontal distances will be designated as percentages of the rating. 100 per cent. will then be the proper rating for any size engine under discussion.



Fig. 2.

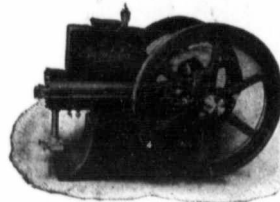
It will be noticed that the curve starts at the left quite high, that is at a small load, the fuel consumption is great, and as the power delivered by the engine is increased, the curve gradually falls until, at a certain point, the minimum fuel consumption is reached. Beyond the minimum point, the curve rises quite rapidly, showing that the fuel consumption increases in a greater proportion than the power delivered. The proper rating for the engine is the power delivered when the fuel consumption is at its minimum, and this point we will call 100 per cent. of rating.

We wish now to look into the reason for the fall and rise of this fuel consumption curve, and for which there is a definite reason.

In an engine rated at 100 developed h. p. we shall assume, as an example, that it requires 10 h. p. to operate the mechanism of the engine when running idle. This power is expended in turning the shaft, overcoming the friction of the piston in the cylinder, opening the valves against the spring tension, sucking in the mixture of gas and air, forcing out the exhaust gases, etc. The amount of power required to operate the engine is practically constant, though slightly greater as the speed of the engine is increased. Now, there is a certain fuel consumption for operating the engine idly, that is when the developed h. p. is zero. Now if a load of 15 h. p. be thrown upon the engine, the fuel necessary will correspond to 25 h. p. or nearly twice that corresponding to the power deliv-

The Manitoba Gasoline Engines

are Great Labor Savers on the Farm



They are always ready for work, in winter as well as summer, are not affected by cold weather as every engine is Hopper Cooled. No large separate water tank with small connecting pipes and circulating pump to freeze up or leak.

Have a perfect Cold Weather Automatic Mixer that requires no priming to start.

The Gasoline Supply tank is carried in the base below the intake valve. No possible chance of Flooding the Engine, Leakage or Waste, as with gravity feed engines.

The hopper, cylinder and base are all cast separate; in case of an accident can be repaired at very small cost. Quite different to those that have these parts cast all together; the latter method cheapens the first cost but not the last.

All small wearing parts are case hardened tool steel (never wear out). Has automatic battery and fuel cut out which insures long life to the batteries and economy in fuel consumption.

Write today for free catalog giving complete description of all sizes from 1 1/2 to 25 H.P. We also manufacture a complete line of Power and Pumping Windmills, Grain Grinders, Pumps, Saws, etc.

OUR FACTORY IS IN THE WEST

The Manitoba Windmill & Pump Co., LIMITED

BRANDON, MAN. and CALGARY, ALTA.

The Stickney Gasoline Engine

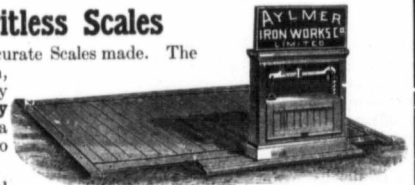
Stationary or Portable

Before you instal a Gasoline Engine of any kind, portable or stationary, learn what it costs to operate the Stickney, and how little attention it requires. It has long been known as the strongest, simplest and most economical engine in existence. Requires less fuel and less care. Sizes 1 1/2 to 20 h.p.



Aylmer Pitless Scales

The most accurate Scales made. The price is not high, but the quality is, and quality turns even a high price into lower cost.



Strong and simple in construction. There is no way for them to get out of order. The best scales on earth for weighing hay, grain or stock.

Toronto Grain Grinders

A Grain Grinder that reduces grain grinding troubles to a minimum. Gives longest service. Built of superior materials under direction of the expert. No other type can achieve its success.

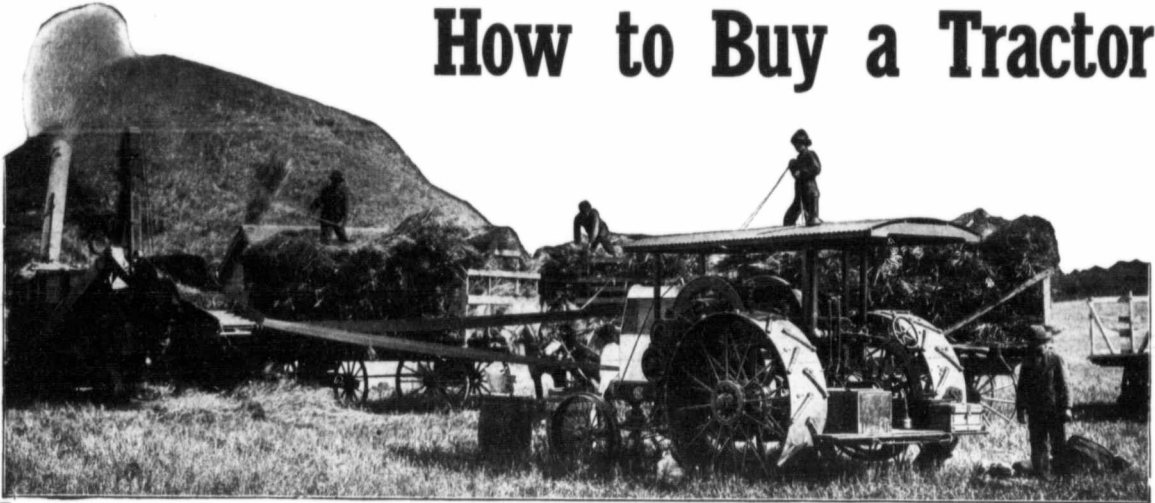
Ontario Wind Engine & Pump Co., Limited

TORONTO

WINNIPEG

CALGARY

How to Buy a Tractor



If you expect us to say "Buy an I H C Tractor and be done with it," you are mistaken. That is not the way we sell tractors, nor is it the way we expect a man to buy one. Unless you are an expert, a man who knows as much about tractors as the fellow who builds them, here is the one best way to go about buying a tractor engine.

Get catalogues and literature and go over them until you decide which machines are worth further consideration. Then write to the sellers of those machines and ask them to send you the names of three or four customers within visiting distance of your farm. When you get the names of actual owners, write and find out which of them are working under conditions most like yours, then go and see them. The man who is operating a tractor on a farm about the size of yours, raising similar crops, under about the same conditions, is the man who can do most to help you decide which tractor to buy. If you can find a man who has owned more than one kind of tractor, so much the better.

When you have learned all you can from owners, then ask the local dealers to come and see you. When you are through with them, you will know beyond doubt which tractor is the one you should buy, and, in all

probability, it will be one that bears the I H C trade mark.

We believe that any tractor buyer can arm himself against all future disappointment if he follows the suggestion outlined above. On our part, we are perfectly willing to leave the question of I H C Tractor superiority to the judgment of any man who will take that much trouble to post himself thoroughly before making such an important investment. We will gladly send catalogues and full information on request. Address the nearest branch house.

Western Canadian Branch Houses: Brandon, Man.; Calgary, Alta.; Edmonton, Alta.; Lethbridge, Alta.; North Battleford, Sask.; Regina, Sask.; Saskatoon, Sask.; Weyburn, Sask.; Winnipeg, Man.; Yorkton, Sask.

International Harvester Company of America

CHICAGO

(Incorporated)

USA

ered. If 40 h. p. is developed then the fuel consumption will correspond to 50 h. p., or only 1/4 times that corresponding to the power delivered. As the delivered power is increased the decrease in fuel consumption becomes less per delivered h.p. hour, and this is shown by the curve becoming less steep. However, by this reasoning, the fuel consumption would continue to decrease even beyond the rated load, but other conditions arise which at least more than counter balance any gain which may be obtained as above. The point at which all these conditions tend to balance and produce the least fuel consumption should determine the rated power of the engine. Of course this point can only be determined by careful tests of the engine throughout a considerable range of delivered power.

Fig. 2 shows the indicator card taken from a hit-and-miss engine for two consecutive explosions. It will be noticed that the pressure and consequently the power developed during one explosion stroke, was considerably greater than that during the succeeding. Now the larger card was taken immediately after a scavenging stroke, that is, the engine had just "cut out," the exhaust valve had been held open and the cylinder cooled to a certain extent on the idle strokes. When the next charge of mixture was admitted to the cylinder the contents remaining in the clearance space had been cooled by being drawn

back and forth through the exhaust valve, the walls of the cylinder and the valves were comparatively cooler, consequently a greater volume of mixture was drawn into the cylinder, thus developing the higher pressure. On the next succeeding explosion which occurred without the intervening scavenging strokes, the walls and valves retained considerable heat from the preceding explosion. These warmed the incoming charge, expanding it and reducing the weight admitted.

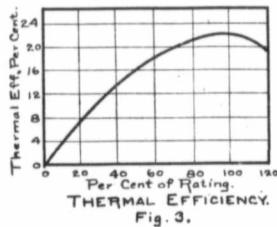


Fig. 3.

Consequently we find that on this stroke the power developed was less than in the preceding. Should the engine continue firing, the cards would be similar to that shown by the smaller of the two.

Though the scavenging action produces a greater power per stroke, but, having the scavenging strokes cuts down the number of power strokes, and consequently the power delivered. There is a point at which these factors tend to balance, and at this point we have the minimum fuel consumption.

There occurs just enough scavenging strokes to cool the cylinder advantageously. Should the engine be worked beyond this point this cooling effect is lost, the engine running considerably hotter, and we find the fuel consumption curve rising rapidly.

In Fig. 3 is shown the thermal efficiency curve, for the developed horse power. It will be noticed that this curve is the reverse of the fuel consumption curve, in fact it is obtained directly from the same. The thermal efficiency per developed horse power is the percentage of the heat in the fuel that is transformed into developed h. p. at the crank shaft. The method of calculating this efficiency from the fuel consumption was taken up quite in detail in Lesson VIII., to which the reader is referred. The values for the different consumptions were taken from the curve in Fig. 1 so that as the consumption curve falls the efficiency curve rises, reaching its highest point where the fuel consumption is at its minimum.

Lubricating Oil Tests.—From the fact that it is a common practice to use lubricating oil again after filtering it, Messrs. Sabatie and Pellet found it of interest to see whether such used and filtered oil showed any great difference from fresh oil. Analyses showed the following results. The density of the oil is somewhat increased, this being no doubt due

to the evaporation of volatile portions of the oil. The flash point and combustion are a few degrees higher. About the same viscosity was observed in both cases. The acidity of oils is not changed, but the percentage of vegetable or animal oil in mixed oils is considerably lessened. From a practical standpoint the used and filtered oil keeps all its lubricating qualities, provided that care is taken to secure a good filtering so as to remove all the solid particles.

A speedometer isn't needed to ascertain when one is going down hill. The state of the buildings and fences sufficiently proclaim the fact.

There are men who have no difficulty in keeping secret a creditable story concerning a neighbor, who could not withhold for five minutes the spreading of a scandal about him.

STOP! STOP! STOP!

Thirty Days Trial of
United States Bonded Engine. Burns gas, gasoline, kerosene, etc. Operates like a 12-Advantages—12
 1st, Pays for itself in fuel saving in short time. 2nd, No violent vibration. 3rd, Greatly reduced fuel. 4th, Easily portable; mounted anywhere. 5th, Every engine part and horse power guaranteed. 6th, Absolutely front proof. 7th, Fastest and most economical running engine made. 8th, Only engine with safety on both sides. 9th, Small price on cash only, for very slow expenses. 10th, Perfect lubrication, cooling & venting. 11th, Lowest cost engine in the world. 12th, Made by reputable firm, 60 years in business.

2 to 50 H. P.
Wonderful New Pumping Engine
 Send postal today for Illustrated Catalog.
United States Engine Works
 146 Canal St., Chicago, Ill.



TIGER THANKS FROM TEN THOUSAND



Only a 25, but it's a Tiger. Plowed all summer and fall with Twelve 14-inch Bottoms.

USERS OF THE

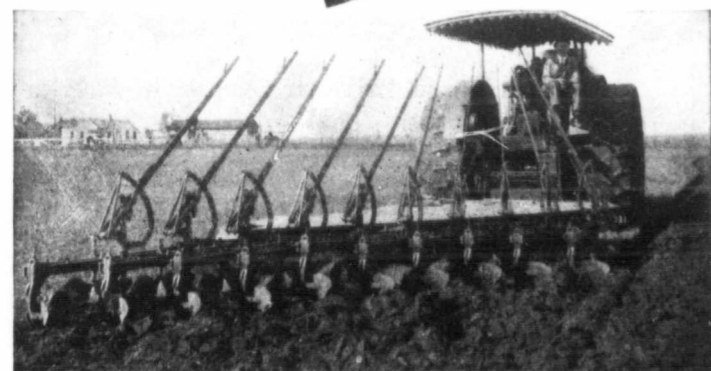


LINE



Gaar-Scott 33 h.p. Canadian Special plowing with twelve 14-inch bottoms. Burns straw only and has plenty of power.

Write for Canadian Tiger Truths, and see how we are introducing the Plow of Progress into Canadian new agriculture.



Gaar-Scott Big Forty Gas Tractor pulling ten 14-inch bottoms. Broke 1500 acres without a repair of any kind.

Powerfully Pleased and Truly Thankful

THIS SUMS UP THE FEELING OF CANADIAN THRESHERMEN AND TRACTION PLOWMEN TOWARD GAAR-SCOTT MACHINERY, AS GATHERED FROM NUMEROUS LETTERS THAT WE ARE RECEIVING IN EVERY MAIL TELLING US OF THEIR SUCCESS DURING THE PAST SEASON.

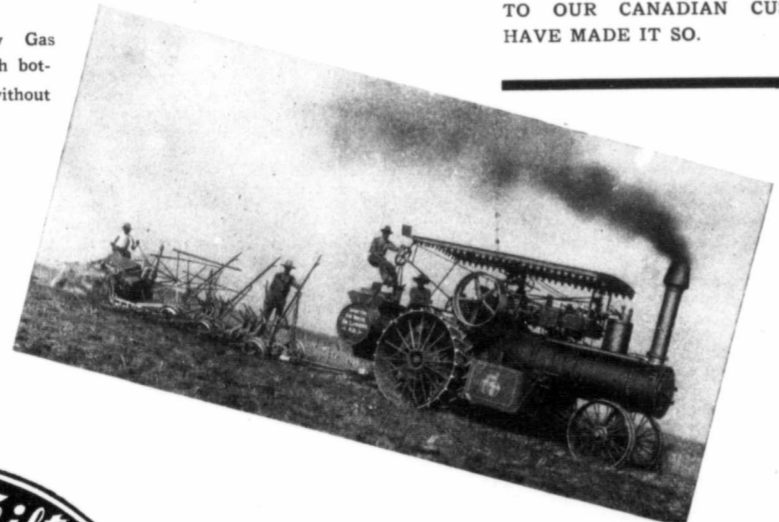
CANADA'S AGRICULTURAL PROGRESS AND THE PROSPERITY OF HER THRESHERMEN IS A LARGE PART OF OUR SUCCESS. WITH YOU WE HAVE CAST OUR FORTUNES AND REINVESTED OUR EARNINGS IN WAREHOUSES AND THE MEANS OF CARRYING ON OUR IMMENSE BUSINESS.

WE HARDLY NEED TO TELL YOU THAT WE ARE JUST AS WELL PLEASED OVER THE BIGGEST YEAR'S BUSINESS EVER DONE IN CANADA BY US OR ANY OTHER THRESHING MACHINERY MANUFACTURER, AND THAT WE ARE THANKFUL TO OUR CANADIAN CUSTOMERS WHO HAVE MADE IT SO.

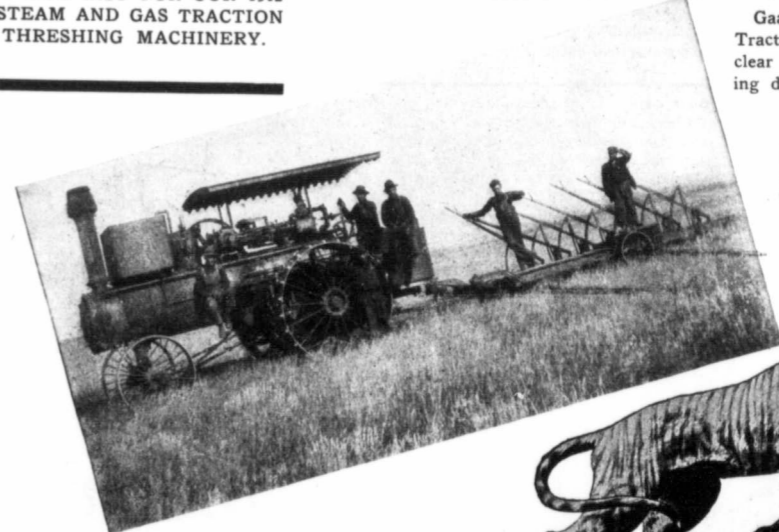
THE CONFIDENCE WE HAVE WON WE EXPECT TO RETAIN BY GIVING OUR CUSTOMERS ONE HUNDRED CENTS OF VALUE FOR EVERY DOLLAR OF THEIR MONEY. EVERY TIME WE GET A CHANCE WE PROVE THIS. IF YOU HAVEN'T GIVEN US THIS CHANCE, WHY NOT NOW? WRITE US AND GET ON OUR LIST FOR OUR 1912 CATALOGS OF STEAM AND GAS TRACTION ENGINES AND THRESHING MACHINERY.



Gaar-Scott Big Forty Gas Tractor pulling fourteen disks clear up to the hub, and burning distillate.



Gaar-Scott 33 h.p. Canadian Special, pulling two Gang Plows and Harvester at one operation.



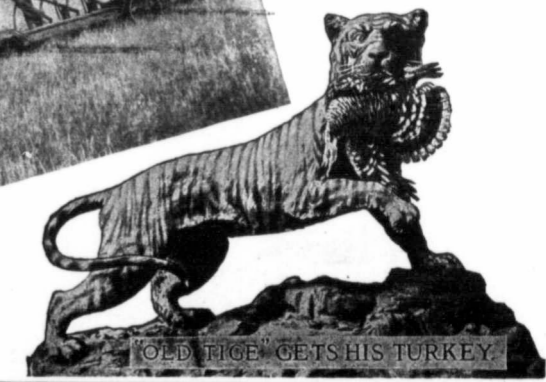
Gaar-Scott 25 h.p. double cylinder tractor pulling eight 14-inch bottoms.

Gaar Scott & Co.

Winnipeg Manitoba.
Regina Sask.
Calgary Alberta.



Tiger Tilling Makes The Most Of Your Soil, Your Seed and Your Time



LESSON 1.

The Farm a Factory.

The days of the serf are a thing of the past. Through civilization directly and through efficient farm machinery indirectly, the farmer has come unto his own until today in all civilized countries he is the mainstay and back bone of his country's industrial progress.

If Edwin Markham had waited until the present time for inspiration to write his masterpiece, "The Man with the Hoe," it would, doubtless, never have been written, for the subject of the inspiration would be lacking. "The Man with the Hoe" is a thing of the past. The "Farm Implement" is making ten blades of wheat grow where one would have grown had the old conditions of farming continued to exist. The development along agricultural lines has been a marvelous one. It has not been an easy path for those concerned to follow, but the results up-to-date have thoroughly justified the efforts put forth, until today the modern farm can be justly classed as a "Factory" and the farmer as an "Engineer," working out the problems that come under the head of that broad term known as "Agricultural Engineering."

The profession of "Farming" is a dignified one. No greater problems ever come to any one in any profession at any time than those with which the modern farmer is compelled to deal. The bringing of the soil to a proper state of cultivation, the purchasing of farm equipment, the laying out and erecting of suitable farm buildings, raising and breeding live stock, etc., etc., all call for the services of an engineer who knows what he wants and who knows the shortest and most economical way to get it. Farming today is something more than mere buying a piece of land and rais-

The AGRICULTURAL ENGINEER

Every farmer is an engineer so to speak. He works in the biggest factory in the world and his products are world products. His usefulness to himself and to others depends largely upon the efficiency and intelligence with which he handles the tools of his handiwork. In this series of lessons which will extend over a considerable period, we propose to deal with farm machinery in detail as it applies to crop production. We trust to make this department interesting and instructive. Questions will be cheerfully received and answered.

ing thereon any kind of a crop. It is a "Factory," with "Mother Earth" as the raw material, which is to be turned into finished products—crops and live stock, under the guiding hand of a skilled engineer—the farmer. The success and quality of the finished products produced depends in no small degree upon the skill and energy of the farmer just as the products of our largest manufacturing establishments depend upon the ability exercised by the men who are in charge.

Let us take an inventory of Western Canada's portion of this big factory, for it is with this that we propose to deal largely in the future discussions under this head, and it is well in the beginning to take stock of just what we are working with. As the figures for 1911 are scarcely available in accurate form, it will be necessary to deal with those for 1910. We will deal with Manitoba first and then Saskatchewan and Alberta in their regular order.

We find that in Manitoba there was plowed and in crop in 1910, 2,962,187 acres—quite a big farm, isn't it? A four horse team will plow on an average about three acres per day, so that it would take one such team 987,395 days to turn over Manitoba's cultivated area in 1910. Further, taking one year with another, about 60 days per year is all that can be utilized for plowing purposes, and on this basis it would take this same team 16,456 years to put Manitoba's cultivated area in 1910 into a plowed state. The above figures are of no practical value, but are

simply given to show the size of a portion of this factory with which we propose to deal.

Saskatchewan's crop area at present is in the neighborhood of seven and one-half millions of acres, which makes quite a big farm, and, moreover, a big addition to our "factory."

The province of Alberta will also add materially to our "factory," making it withal the biggest industrial enterprise in Canada. And we must not forget British Columbia, for while its "factory" products are somewhat different than those of the three prairie provinces, it nevertheless plays an all important part in our scheme, as we shall see before we are through with this series of articles. For the present, however, we shall deal only with Manitoba, Saskatchewan and Alberta.

Now what are the products of our factory. This year the Dominion Government estimates that these provinces will produce 184,728,000 bushels of wheat, 204,758 bushels of oats, 830,205,000 bushels of barley and 7,465,000 bushels of flax. But this is not all. We must further reckon with a vast mountain of potatoes, millions of pounds of butter and cheese, an enormous amount of poultry, millions of tons of hay, and live stock from thousands of pastures and feeding pens. Garden vegetables, wool, etc., etc., all come in for their share of attention, making our "factory" product a very wealthy total. From Winnipeg to the Rockies, the limits of the grain growing area, as a territory, so vast, so fertile and, as yet, so imperceptibly scratched,

that we hesitate to put its real value into figures, for the reason that they would be so large that the human mind could not begin to grasp them.

This "factory" is a God given heritage. For thousands of years the prairies lay sod locked in their virginity, unknown to any human eye, or traversed by nothing but the beasts of the field. Then comes the hunter, the trapper and the adventurer to spy out this land, whose fabulous wealth was as the "Gold of Cathay." The Hudson's Bay Company were the next to see its opportunities, and they, for a considerable time, were the sovereign lords over its development. Development, did I say? They opened up nothing but the trading post and produced no industry, unless that of bartering with the Indians might be called one. However, this company must be given credit for "blazing the trail," and making it possible for the real "factory" worker to come in and pry open the virgin prairies and turn them into grain and live stock raising areas, until today there is over 3,000,000 acres of the best grain raising land that the sun ever shone upon either under cultivation or in such a condition of accessibility that it can be made so.

In those early days "factory" life in Canada West was anything but fun. Transportation was by means of the ox cart. The prairie breaker, drawn by the slow going ox over a little stretch of furrow, was a "tool" so slow as to discourage any but the bravest and the sturdiest. The broad prairies looked illimitable; the task of their subjugation an apparently endless one. The "factory" was so vast as to almost lose its few workers, and to those early pioneers, who gave us of the best that was to be had in the way of sturdy persevering manhood and womanhood, we must bow our heads

Portable

Single and Double Edgers

Lumber Trimmers

Saw Mill

Planers and Matchers

Hoe Inserted Tooth Saws

and all

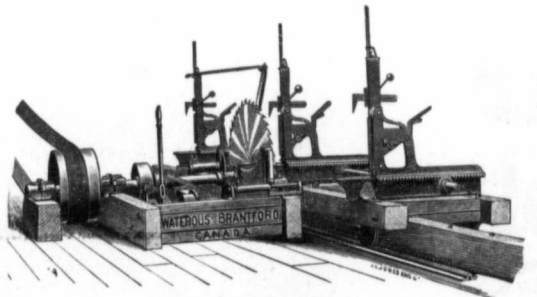
Saw Mill Machinery

Sawdust Carriers

Machinery

WRITE FOR PRICES:

Waterous Engine Works Co. Ltd. WINNIPEG MAN.



in reverence. But I am too reminiscent. We are about to deal with a "factory," not a half or three-quarters of a century old, but with a "factory" that exists today, one that is teeming with life and enthusiasm, and one that is producing results and paying dividends that are counted in terms of millions. We are dealing with a factory that uses the most modern "tools," and that is turning out manufactured products second to none, for our No. 1 Hard is the world's standard when it comes to wheat, and our other products are by no means found in obscure markets. We use the traction plow to an extent that it is used in no other section of the world per population. We are doing big things, and we are doing them in a big way. None but the most modern "tools" are employed in this "factory" of ours, and the highways and byways are full of discarded implements that once were the glory of the farmer and the "pride of his eye." We build we know not what. Upon the success of this "factory" depends to what extent future generations shall face starvation or plenty.

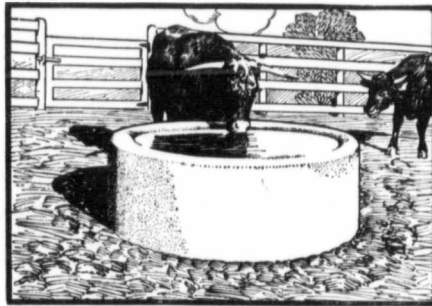
The world is our market place, and our manufactured products shall be world products. The "Canada" brand is destined to become known in every corner of the globe, and a Canadian product a standard of excellence and value.

Have I made myself clear? This vast prairie West is a "factory," and every farmer is a workman. Every workman is a stockholder, who fixes his own dividends to a very large extent according as he uses the intelligence and industry with which he is endowed. In future lessons I intend to deal largely with the tools that are used in this "factory," what they are for and how they can best be made to serve the purpose for which they were intended—that of producing manufactured products in the shape of crops of wheat, oats, barley, flax, etc. In my next lesson I shall deal with the matter of "Power in the Factory."

The "Magnet" Cream Separator

No less in its volume of business than its far-spread connections, the rapid development of the Petrie Mfg. Co. is one of the many remarkable indications of the growing interest that is being taken in the dairy farming throughout Canada.

With its factory and head office at Hamilton, this company now has its branch establishments (nearly all conducted in its own warehouse premises built especially for the "MAGNET") at St. John, N.B., Montreal, Winnipeg, Regina, Calgary and Vancouver. The Petrie warehouse in Winnipeg is one of the best equipped storage and office warehouses in the city, fitted as it is with every recent improvement



Which is Your Choice ?

Sloppy, leaky wooden troughs, or clean, durable Concrete ?

Wooden drinking troughs are about as reliable as the weather.

They are short-lived and require replacing every few years—not to mention continual patching to keep them in repair.

The best of wood cannot withstand, for long, constant dampness and soaking. Its tendency to rapid decay soon shows itself in leaks and stagnant pools of water around trough.

Contrast with this the durability, cleanliness and well-ordered appearance of Concrete.

The dampness which destroys lumber only intensifies the strength and hardness of Concrete.

You can impair a wooden trough with comparatively little use; but it takes a powerful explosive to put a Concrete water tank out of business.

Which

is your choice—expense-producing Wood, or money-saving Concrete ?

We'd be glad to send a copy of our book, "What the Farmer Can Do With Concrete,"—Free—if you'll ask for it. It tells the many uses of Concrete in plain, simple language—tells how to make

- | | | |
|----------------|----------------|------------|
| Barns | Hens' Nests | Stables |
| Cisterns | Hitching Posts | Stairs |
| Dairies | Horse Blocks | Stalls |
| Dipping Tanks | Houses | Steps |
| Foundations | Poultry Houses | Tanks |
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Canada Cement Co.

Limited

51-60 National Bank Building, Montreal



Which ?

and device that can be suggested for the special needs of a business of the kind.

We have the pleasure of reproducing a photo of Mr. A. B. Petrie, the President of the Company, whose personality is a well-known figure in Western Canada to-day. The companies with which he is identified as President has large investments in the Canadian West, which business has been built up by sterling business methods which make for permanent success.

While giving the best of his time and energy to the conduct of the factory at Hamilton, Mr. Petrie makes a tour of the West three or four times every year with the purpose of keeping abreast of the times and adjusting his business to the needs of every new development.

A "MAGNET" warehouse being required in Alberta, Mr. Petrie has just made arrangements for the erection of a three-storey, re-inforced concrete fireproof building, 100 ft. by 42 ft., in the city of Edmonton, making another link in the Petrie warehouse chain, which will soon be completed on warehouse property owned by his company in the various provinces for that purpose.

Originally a farmer's son, the subject of this sketch, approached the manufacturing of the separator with the knowledge of one

who knew experimentally what was required in a machine for perfect skimming that was at once easy to handle and so simple in construction that the business of keeping it thoroughly clean presented no difficulties.

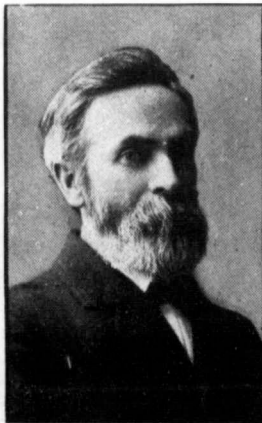
The Petrie factory is exclusively devoted to the manufacturing of the "MAGNET," and has a daily capacity of 50 separators; therefore, with the experienced mechanics and the best possible material, only good machines are made. Over a million dollars stand behind the "MAGNET,"

all invested in Canada, to guarantee every machine and statement made.

Mr. Petrie's public life in the East presents an enviable record. He is identified, among other enterprises, with the Guelph and Ontario Loan Company, of which he is president and in which over a million and a half dollars are invested in Western Canada.

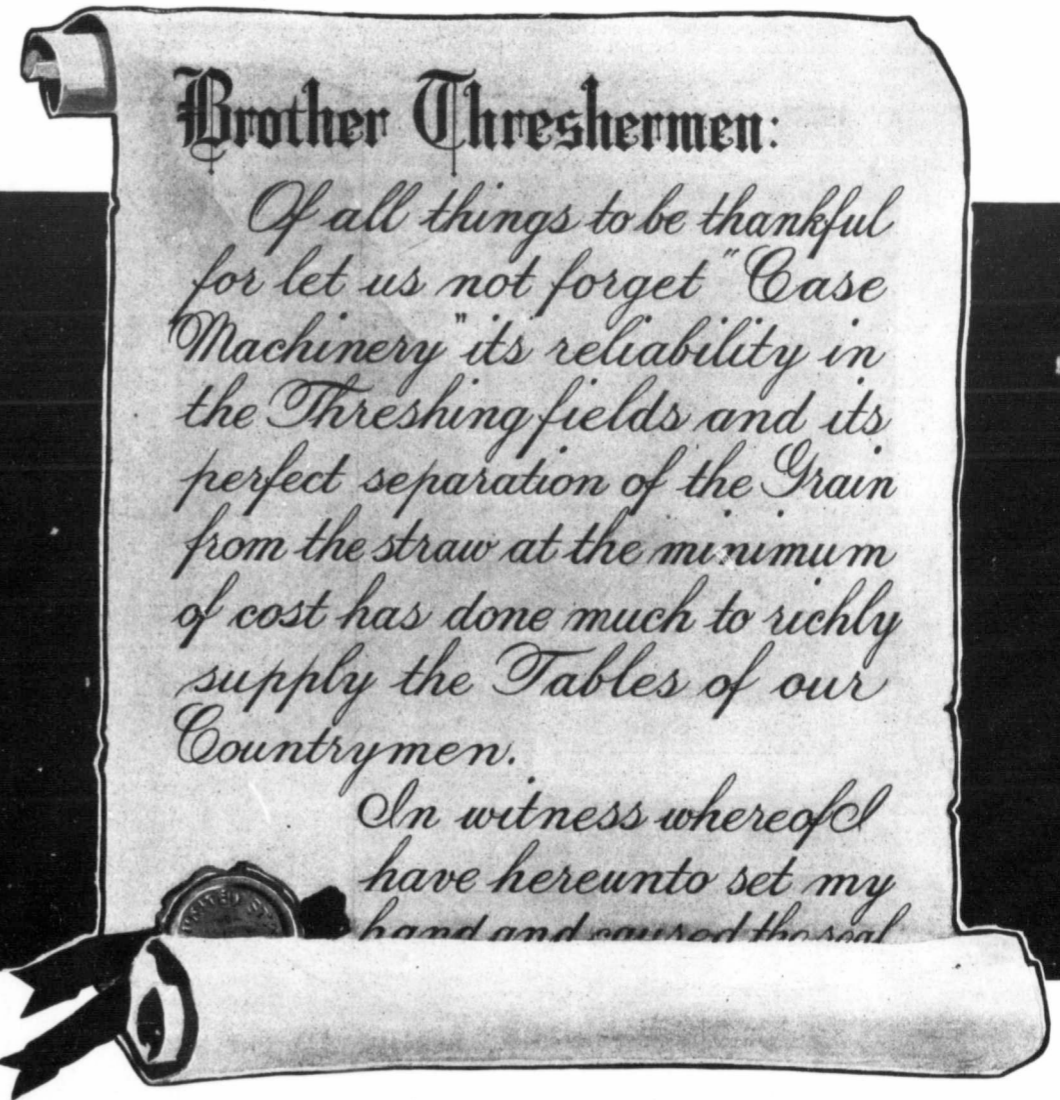
A handsome new catalogue has just been published in English, French, German and Russian by the Petrie Company, which, in addition to the concise account it gives of every detail of the construction and handling of the "MAGNET" is a clever compendium of the cream separator as a dairy utensil, and offers many valuable hints on successful dairy farming generally. A cook-book, compiled from receipts of "MAGNET" users, is also published by them in English and French, a copy of the cook-book to be had free by request.

Mr. T. S. Petrie, a director and general sales manager for Canada, is located at Winnipeg, the most convenient on the map for the handling and distribution of the "MAGNET," and extends a cordial invitation to all interested in the dairy industry to come and see him, and inspect the splendid building erected by his Company (at the corner of Henry avenue and Tecumseh street).



A. B. Petrie, President Petrie Mfg. Co.

A Real Proclamation



Brother Threshermen:

Of all things to be thankful for let us not forget "Case Machinery" its reliability in the Threshing fields and its perfect separation of the Grain from the straw at the minimum of cost has done much to richly supply the Tables of our Countrymen.

In witness whereof I have hereunto set my hand and caused the seal

J.I. CASE THRESHING MACHINE COMPANY
INCORPORATED IN WIS. U.S.A.

J.I. CASE THRESHING MACHINE COMPANY
INCORPORATED IN WIS. U.S.A.

CANADIAN BRANCHES: TORONTO, WINNIPEG, REGINA, CALGARY.

CANADIAN BRANCHES: TORONTO, WINNIPEG, REGINA, CALGARY.

TRACTION PLOWING

AS TOLD BY THE MEN WHO DO IT

On this and the following page will be found a number of letters from traction plowmen in Canada West, the originals of which are on file in our office. We have inserted the letters just as they came to us, and we will, therefore, not hold ourselves responsible for any of the opinions or criticisms contained therein. Should anyone disagree with the statements made, we would be pleased to offer them the use of our reading columns for the purpose of criticism, etc.—Editor.

Plowing with Engine Cheaper than with Horses.

I have a Rumely 30 h. p. steam engine and a John Deere ten-bottom plow. The engine being an easy steamer handles the plows without any trouble.

When I bought this outfit I never had any intention of breaking the whole earth up the first year, but to do as much breaking with as little expense as possible. I started with a crew of four men and one water team. I had two men on the engine and one man on the plows and one man with the water tank. After I got nicely started I dispensed with the man on the plow and then our crew consisted of three men and one team, which I found was sufficient where there is neither stony or scrub land it requires one man on the plows all the time.

I had to haul the coal about eighteen miles but I had a car of wheat to haul out. The same teams hauled some coal back with them. I used Pittsburg screened coal and it was the cheapest and best coal to use. I find that the best coal is the cheapest and most satisfactory to use.

I was plowing 25 days and I averaged 24 acres per day. We had most of the time a mile stretch. We made two miles in the hour. We found that was the best gait. We used about 12 barrels of water every two miles.

When we started at first the ground was rather wet. We cut two plows off for a few days until the engine could get sufficient grip, then I put on ten plows and after a few days we had the misfortune to strike a hidden rock which turned one plow right round. I sent it to town to get it straightened, but I could not get it to work right, so I cut it off and worked with nine plows.

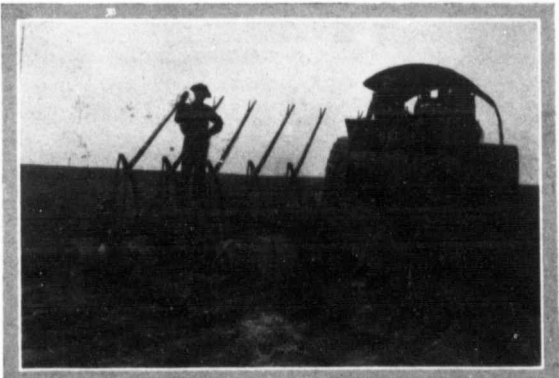
As to which is the harder on the engine, plowing or threshing, well this engine handles either so easily it is hard to say. Taking everything into consideration, however, when plowing you have all parts under a constant heavy strain and as plowing causes the most wear on the gearing and the wear on the engine is very slight. In threshing, the biggest wear I find is in the crank shaft boxes, particularly if you have to back so tight in the belt to keep a good grip on the pullies. By using some good belt dressing and running the belt as slack as possible and keeping everything adjusted and lubricated, the wear on an engine in threshing is immaterial. I always found the firebox and tubes

gave the most trouble in threshing when firing with straw, but in plowing if you are using coal and have a good man to fire I don't find it very hard on either the engine or boiler, but very hard on the gearing.

My plows are easy to handle and do nice work. I cannot say which I like better, the gangs or the single furrow, not having seen any of the others at work. I had quite a lot of trouble with the rolling colters in breaking. They were always working loose. So I got pins and had no more trouble. I find the worst job is changing the shares. It takes so long to get the nuts off the landside of the share. The others are all right.

I am well satisfied with my outfit and have gained enough experience to know that traction plowing is cheaper and better

than horses. I figured the cost of my plowing with steam at \$1.25 per acre. I am sending a photo of the outfit at work.



A Reeves and a Cockshutt doing good work in Saskatchewan.

on the engine and one man with tank team and one man to haul coal. We use about one ton and a half of coal per day and four tanks of water.

With the proper care given to an engine we do not consider plowing any harder on same than threshing. We estimate the cost of plowing per acre \$1.50.

As a rule we never plow for less than \$4.00 per acre, and with the proper care given an engine and the outfit worked under good management, this kind of business should make money for a man.

When plowing stubble at home we always use straw for fuel. At this we only employ three men; that is two men on engine and plows and one to haul straw and water. We must have the water and straw right near to the field

so that it can be handled by one man.

We have not done any plowing yet in the fall of the year on account of water being so scarce.

In the spring we have plowed, disced, dragged, packed and drilled from 25 to 30 acres per day and you could not tell whether the work had been done by steam or horses.

Yours truly,
I and S. J. Frehlich,
Scott, Sask.

Uses Wood For Fuel.
I might say that I have plowed for the last three seasons with steam and gasoline and have had fairly good success with both.

I had a 34 h. p. Cross Com-

pound North-west Engine, also a 30 h. p. Simple American-Abell. These engines are both good pullers.

I used a ten-bottom Cockshutt engine gang and under ordinary conditions I could pull the bunch, but in heavy gumbo I could only pull six at a depth of five inches. I employed five men and two teams of horses on these outfits; engineer, fireman, plowman, tankman and woodman. I have always used wood for fuel, as it came a little cheaper than coal. When working real hard I would consume three cords of wood and from 75 to 90 barrels of wafer in a day of 13 hours.

I find after careful calculation of all expense in connection with steam plowing that it takes about \$2.00 per acre for deep breaking and about \$1.00 per acre for stubble, to cover all expense.

I find that there is no comparison between plowing and threshing. The engine stands the work well if cared for properly, but is simply death to the boiler. Our ground is so rough that it would be hard to build a boiler that would stand the strain. The bigger and heavier they are the harder it is on the boiler.

I would like to say one word to the new beginner. Do not load your engines too heavily just because it is willing to do its best. That is the one great point where we plowmen fall down.

Just a word about gasoline. I have a 40 h. p. Flour City engine and an 8-bottom Big Dutchman engine gang. I use two men on it, engineer and plowman.

This outfit consumes 60 gallons of gasoline per day of 13 hours and about 1½ gallon cylinder oil, also about two barrels of water per day. It has a slight advantage over the steam tractor in not being so heavy. It does not pack the ground the same.

I have never used my engines for anything but plowing and threshing; therefore, I have had no experience with any only ordinary plow hitch.

I might say in closing that I think every plowman, thresherman and farmer should take The Canadian Thresherman and read it carefully. It is a high-class magazine in its line and what I like about it is that when they get through telling you something you can understand it.

Wishing all a good season for 1911, I am,

Yours truly,
J. J. Grant,
Ingleside, Man.

Never Plows for less than \$4.00 per acre.

We own a 25 h. p. Gaar-Scott double simple steam engine, a seven bottom Cockshutt plow and a 40-60 separator.

When breaking we never pulled any more than seven plows as we believe any more than that would be too much of a strain on the engine, a 25 horse power one, causing a lot of trouble and break-downs.

While out contracting we employ four men, that is two men

Why Farm Profits Are Less Than Factory Profits

Investigations show farm profits to be considerable less than manufacturing profits, investments being equal. The manufacturer watches his cost of production—plans for minimum waste of time—labor—materials. He plans for a maximum output—and gets it. He sets a price for his product—and gets it.

The failure of the farm to equal the factory on percentage of profit is not the fault of the farm itself—it is *the fault of the operating methods employed*. Cost of production must be closely watched—carefully tended—kept down. You cannot say what your product shall sell for—but you can keep the cost of production *down*. Every penny you cut off the producing cost means the same to you as an increase of that amount in the selling price.



Cuts 25 to 50% Off Producing Cost

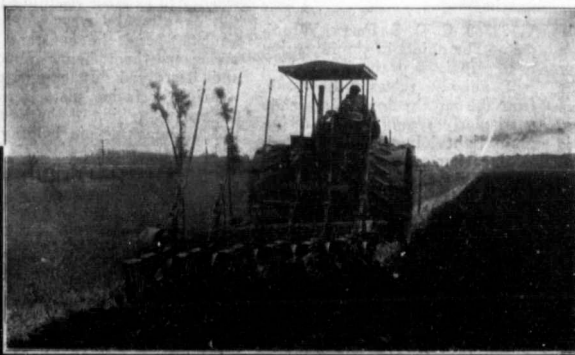
Oil Pull is a wonderful, all-purpose, farm tractor that will cut your cost of production at least 25 to 50%. It will save you \$1.00 each year on every acre you plow. It cuts 10 cents off the cost of raising a bushel of wheat. *Oil Pull* requires neither feed nor attention when not actually producing results. It is the only tractor on the market today which *burns cheapest kerosene at all loads, under all conditions*.

Oil Pull will do your plowing, drilling, cultivating, harvesting, hauling and road grading. It will run your grain separator, clover huller, corn shredder and huller, ensilage cutter, pump water, grind feed, bale hay, etc. It makes itself indispensable on the farm in a hundred and one different ways. Only a small investment for housing is needed, and you can sell practically your entire crop instead of only a part of it.

Oil Pull is economical—durable—simply built. It is built for hard work—rough work—and years of that kind of service. Sixty years' engine-building experience is embodied in its construction. When you buy the *Oil Pull* you get the benefit of those many years of fruitful experience.

Oil Pull is built in sizes to fit the 160-acre farm as well as the many thousand-acre ranch. Investigate. You will soon own a traction engine outfit or hire one. The profit lies in ownership. Let us prove it.

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BRANDON	42.70	47.70	62.20	66.15
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LETHBRIDGE	59.35	64.35	78.85	82.80
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C. B. FOSTER, General Passenger Agent, Winnipeg, Man.

Recent Canadian Patents, especially arranged and compiled by G. S. Roxburgh, of Fetherstonhaugh & Co., patent barristers, Winnipeg.

(See opposite page.)

132138, Harry F. Hanson, Regina, Sask.—The object of the invention is to provide an inexpensive, easily operated, and simply constructed buckle for connecting straps. It comprises a casing having vertical side walls and a cross strap at one end thereof, a jaw hinged in the casing and having a guide loop and a yieldable arm fastened to the guide loop and adapted for engagement with the casing for locking the jaw in the closed position. The device is particularly easily fastened or undone, and ensures a tight hold.

132146, William Hutchinson, Lloydminster, Sask.—The object of the invention is to provide a simple and inexpensive device in the form of a harrow, which can be readily applied to the mouldboard of any plow, and which will effectively harrow the ground immediately it is passed or turned from the mouldboard. It comprises a bar secured to the mouldboard, provided with adjustable teeth, which extend downwardly, and are inclined to the ground on which the plow is operated.

132166, John D. Mathison, Medicine Hat, Alta.—The object of the inventor is to provide an attachment which will cause a

screwdriver to hold firmly any screw, and which will avoid the necessity of primarily having to drive any screw or tap the screw prior to using the screwdriver. The invention comprises a set of similar jaws slidably secured to the shank of the screwdriver, and having their outer edges threaded, and a thumb nut adapted to thread on the jaws, whereby they can be tightened on the head of the screw when the end of the screwdriver is in the slot in the screw.

132337, E. D. Lockram Buchanan, Sask.—The object of the invention is to provide sleigh runners for vehicle wheels which can be readily attached to the wheel, and it comprises a metallic bar, shaped in the form of a shoe, and having side walls which receive between them the rim of the wheel. Removable bolts are supplied to secure the runner firmly to the wheel rim, there being a pair of bolts bearing on the outer face of the rim and a pair on the inner face of the rim.

132178, A. J. Pollitt, Winnipeg.—The object of the invention is to provide a hat pin with a protected point, and it comprises a sheath or tube containing slidably a pointed pin supplied with a head. A spring is inserted between the end of the pin and the adjoining end of the sheath, and is covered over with a flexible material which connects the sheath with the pin head. Upon pressure being applied to the head of the pin the pointed end

thereof is passed out of the tapered end of the tube so that the complete pin can be readily forced through the material of a hat. Immediately the pressure is removed from the pinhead the point recedes within the sheath.

132361, C. Peterson, Winnipeg.—The object of the invention is to provide a soldering iron with a self heating feature, so that the extra heating stove or pot used in heating the ordinary soldering iron may be entirely dispensed with. It comprises a tubular handle providing a reservoir, a pipe leading from the reservoir and supplied with a needle valve, a support carried by the handle, and an iron releasably secured to the support. Suitably located holes are made in the support to prevent it from overheating.

132363, C. D. S. Perry, Winnipeg.—The object of the invention is to supply a grain door which will quickly release the grain from the car, the door being made particularly strong and ensuring grain tight joints with the adjoining parts. It comprises a metallic door, supplied with bars at the sides, and bottom connected and operated in such a manner that the turning of a lever forces the bars away from the door and into suitable grooves supplied in the door posts and the car sill. A small door is formed in the main door for allowing the top grain to initially run out.

132677, R. Preston, Winnipeg.—The object of the invention is to provide a simple, inexpensive and efficient removable side liner for truck boxes, which can be readily applied on or removed from the box, thereby avoiding the necessity of continually supplying new boxes for the truck owing to the face adjoining the wheel becoming worn to such an extent that the box has to be dispensed with entirely. It comprises a wearing plate, located between the wheel and the adjoining face of the box, and a releasable pin holding the plate to the box.

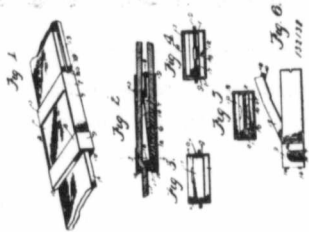
132529, A. Shields, Winnipeg.—The object of the invention is to supply a removable wearing plate for train couplers, which will do away with the present unwarranted expense resulting from the continual wear of the knuckles, and the constant loss owing to them being removed and destroyed. It comprises a wearing or facing plate, set into the engaging side of the knuckle and a removable pin holding the plate to the knuckle.

132342, J. G. Mathison, Medicine Hat, Alta.—The object of the invention is to improve the construction of the ordinary clipper so that it will operate more easily and will not become choked through loose hair lodging between the parts. In carrying out the invention, the top plate of the clipper is formed with an up-

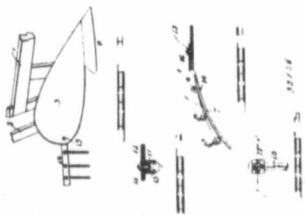
Continued on page 47

Recent Western Canadian Patents. Compiled by G. S. Roxburgh of Fetherstonehugh & Co. Winnipeg.

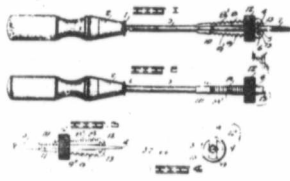
No. 132,138. Buckle. Boucle.



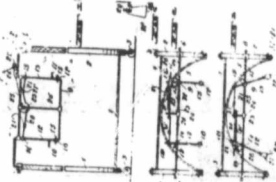
No. 132,146. Harrow. Herse.



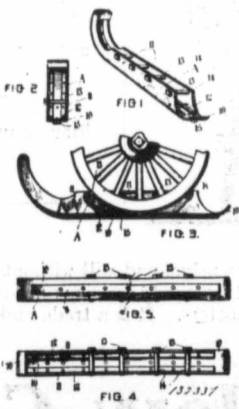
No. 132,166. Screw Driver. Tournevis.



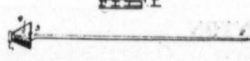
No. 132,181. Bag Holder. Support de sac.



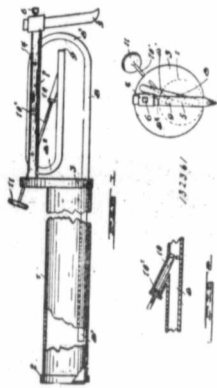
No. 132,337. Sleigh Runner for Vehicle Wheels. Patin pour roues de véhicules.



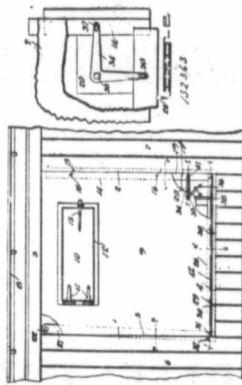
No. 132,178. Hat Pin.



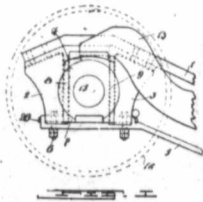
No. 132,361. Soldering Iron. Fer à souder.



No. 132,363. Grain Car Door. Porte de char à grain.



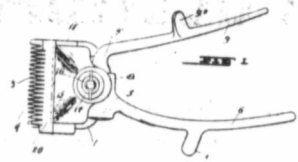
No. 132,577. Side Liner for Truck Boxes. Piquet de côté de boîtes de châssis de chars.



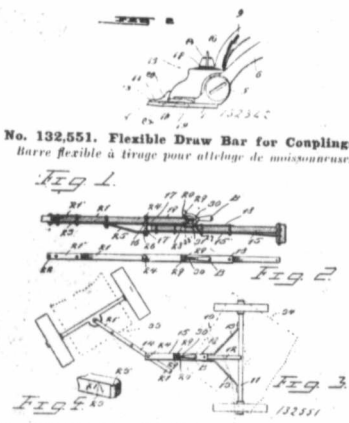
No. 132,529. Car Coupler. Attelages de chars.



No. 132,342. Choppers. Outil à tondre.



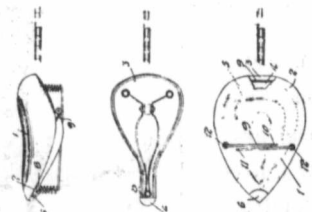
No. 132,551. Flexible Draw Bar for Couplings. Barre flexible à tirage pour attelage de moissonneuses.



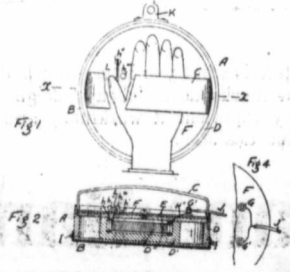
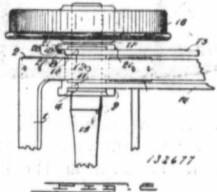
No. 132,423. Hoppie. Entrée.



No. 132,617. Cover for Bicycle Saddles. Couverture de siège de bicyclettes.



No. 132,358. Electric Frost Remover for Windows. Appareil électrique à enlever la gelée dans les fenêtres.



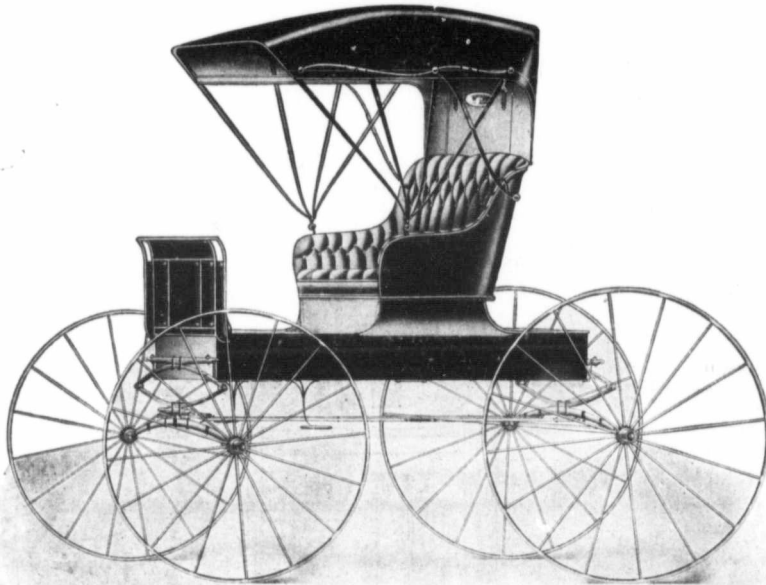
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FARMER UP-TO-DATE

NOVEMBER

FARMER GOOD INTENTION

1911

Henry:—(Extract from his first letter home from Agricultural College.) "As far as I have gone, I like it fine. I have a nice room in the dormitory, and my room mate who is a young fellow from Manitoba, by the name of Jno. Wiley, seems to be a very nice chap. We haven't gotten very well started yet, although we have a football game arranged with a Methodist College here for Saturday afternoon. I am going to play. The worst thing about it here is the cooking, although some of the boys who were here last year say that one can get used to it. The things we have to eat are not like mother makes, but I guess I can stand it until Christmas. Send me a little money as books are quite expensive."

Week
Ending
Nov. 4th

Mother:—With no fruit in the cellar and with very few vegetables, it looks as if it would be largely bread and meat for our bill-of-fare this winter. There was quite a lot of wild fruit, but sugar was so high that I could not buy it. Our potato crop was almost a total failure too. The weeds grew to such an extent that they smothered the potatoes out. I suppose it was just as well, because our cellar is in such bad shape that they would all have frozen before spring any how. I get so tired of the same kind of diet every day from November until May, that I just dread to sit down to the table.

Father:—Everything points toward this coming winter as being a hard one. A wet summer and fall usually is followed by a severe winter. I am thankful that we got our barns and sheds in good shape for the stock as it doesn't pay to put live stock into winter quarters sleek and fat, and have them come out in the spring like rails. It is both time and money wasted. But let come what may, we are in excellent shape so far as our stock is concerned. It was a good thing that we got at our fall plowing early and that we had an engine to do it with. Next spring we will buy a smaller engine for seeding, discing and harrowing. With the two machines we ought to be able to get our plowing done right on time.

Week
Ending
Nov. 11th

Father:—Hang it all any way. Here we have winter, and I am no where near ready for it. I wanted to get the manure hauled away from the barns before it froze up, but somehow I could not seem to get at it. If that fool boy Charles had stayed home we might have gotten some fall plowing done, for as it is we haven't got a furrow turned, and I don't know what we will do next spring if the season happens to be a little late, and it always is just when I need it early. These barns are in bad shape, so bad in fact that I must patch them up somehow, or the cattle and horses will freeze this winter. I also intended to get the cellar banked, as the house gets so cold that it is impossible to heat it.

Mother:—It is remarkable how those hens do continue to lay. I got two dozen eggs yesterday, and with eggs at thirty cents per dozen they are more than paying for their keep. I have about forty nice plump young roosters that I want to sell this week. They belong to that batch of chickens that was hatched out so late. I didn't think they would amount to anything, but they came out fine. The pullets I want to keep, as they will make good winter layers for next year. I am going to buy a new incubator some time this winter, as I believe I can handle some very good early chickens in that new poultry house. It is the early chicken that makes the money, even if they are a little harder to raise and demand a little more attention at first.

Week
Ending
Nov. 18th

Charles:—Father, what are you going to do about renting me the farm next year. I have to do all of the work any how, and I would like to see something for it. As it is now I work all summer, and if I didn't get out and earn a few dollars with a threshing gang, I wouldn't have enough to buy me a new suit of clothes. I'll rent it on shares or for cash, but of course you will have to be a little easy with me at the start, as you know I haven't a dollar in the world.

Father:—Pooh! What could you do with a farm? If I can't run it and make some money, you surely don't expect to make it go, do you? It takes years of experience to make a farm pay in this country and you are nothing more than a boy. Besides the young men of to-day, don't know how to work like they did when I was a boy.

John:—I have already secured a great many orders from the neighbors for grinding feed this winter, and I believe I will make good money out of it. It will not take much time. By the way, I saw a litter carrier advertised in the Canadian Thresherman and Farmer, and I believe it would be a good thing for us to have one. The cleaning out of barns is our biggest chore, and with this arrangement it would be mere child's play. We could dump the manure into the sleigh and haul it right into the fields, if the weather was too stormy on any particular day, we could leave it for a day or so, as our drops are good and deep.

Week
Ending
Nov. 25th

Smith (the Implement Dealer):—Well, Good Intention, I called to see you about those notes of yours that were due on the 1st. You know you promised that you would sure take care of them this fall, when I let you off last fall with simply paying the interest. I can't afford to carry you any longer, and we must come to a settlement of some kind. I have got to pay the Company from whom I purchased the goods, in fact they have had their pay a long time ago, which means that I have been carrying you on my own money for over two years, and I can't afford to do it any more. H—ll is paved with "Good-Intentions," but they don't pay bills. I don't want to force anybody, but it takes money to run any business, and I want a little of that money from you. I can't take any more promises.

Conducted by
Professor
P. S. Rose

Practical Talks to Threshermen

Talk No.
LI.

It is not an easy matter to design a separator frame which will be substantially braced and which at the same time will be clear and free at all points for the placing of the racks and other moving parts and for the passage of the straw. In all framed structures the completed edifice is composed of a series of triangles, since this is the only figure that will maintain its form and combine the maximum strength with the use of the least material under any system of loading. As evidence of the truth of this statement, it is only necessary to call attention to the fact that all bridge and roof trusses are built up of a series of triangles disposed in such a manner that every member is either in straight tension or compression and with no bending or shearing stresses in any member except in the lower chord.

A separator frame built in the same manner as a bridge would have maximum strength and would hold its shape almost indefinitely. The ideal is hard to realize, however, in practice, on account of the fact that we have to deal with a box-like structure which is subjected to lateral stresses as well as to vertical stresses and it is impossible to make use of cross braces running from corner to corner through the middle of the machine. This necessitates using rather heavy bed pieces and both through rods (as shown in the last lesson) and angle irons at the corners. All of these, when properly disposed, will keep the frame in very good shape and thus prevent the working parts from getting badly out of line, but in order to obtain such satisfactory results the designers are obliged to exercise exceptional care and good judgment.

Figures 93 and 94 on this page show how different designers have attacked the problem and the solution they arrived at. These views, unfortunately, do not show anything but the side frame, leaving the members out that tie the two sides of the machine together. These, however, consist in every case of strong cross pieces attached by bolts and mortised to the side frame, with usually angle braces at the corners of the bottom member.

The front axle of the machine is attached by means of a pivot bearing while the rear axle is bolted rigidly to the framework, thus

can be greatly minimized by rather slow, careful driving.

The normal working strains being in the direction of the bed pieces and main frame, in most cases, are not very severe and are unavoidable. They can be reduced to a minimum by running the machine at the correct speed and keeping all belts at the right tension. The wear and tear due to the natural vibration of the machine tends to disturb the adjustment of its parts and makes it necessary for the operator to keep careful watch lest nuts shake loose, or any vital part of the machine become misplaced.

ing, note whether or not all pulleys are running at the proper speed, and judge by the sound the machine makes if it is running right. It takes a cool, level headed man with good judgment to be a first rate separator man, for, in addition to understanding thoroughly the principles of separation in all the various kinds and conditions of grain, he must be a good mill man or mechanic.

The life of a separator is not easy to estimate. In Western Canada between four and five years is considered the average time a separator will last. Even there, however, it is not uncommon to find machines from ten to fifteen years old which have seen service every season and are still doing good work. It would seem, therefore, barring accidents, that separators should be made to last ten years on an average if handled by careful, competent operators.

Many separators are injured more in the first few hours of operation than in a normal season's run because of lack of care in putting everything in first class shape. Here is a place where it truly pays to make haste slowly.

After a long journey by rail the bearings are generally full of cinders and need cleaning. The writer remembers going once to repair a new machine that had run only a couple of hours and found the blower boxes melted out because the operator had neglected to clean out the cinders. Here was an accident that there was no excuse for whatever. Some things are hard to foresee but it is not hard to realize that the bearings of any machine need attention if the machine has travelled on an open flat car sev-

Continued on page 72

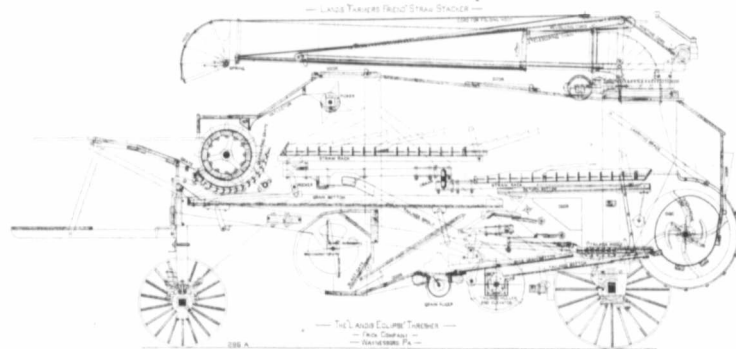


Figure 93

providing three points of support just as in all other road vehicles.

The stresses on the framework of a separator are occasioned by rough roads, by transmitting power through belts from one pulley to another, and by the natural vibration of the machine out of level. The first of these strains, that due to rough roads, is perhaps the most severe, since the lurching of the machine sidewise causes heavy lateral strains which the machine is least able to bear without distortion. These strains increase rapidly with fast road speeds, especially if the roads are a little rough. In all cases they

Running with the machine out of level is another fruitful source of trouble, since it throws the weight of grain to one side of the machine and loads the bearings on the lower side of the machine. A separator is a complicated machine; there are a large number of parts to keep in adjustment and it requires good judgment and great carefulness on the part of the operator to keep everything running smoothly. The operator should be a close observer and should make careful inspection of his machine every time it is stopped. When it is running he should go over it frequently also, watch the bearings to see they are not heat-

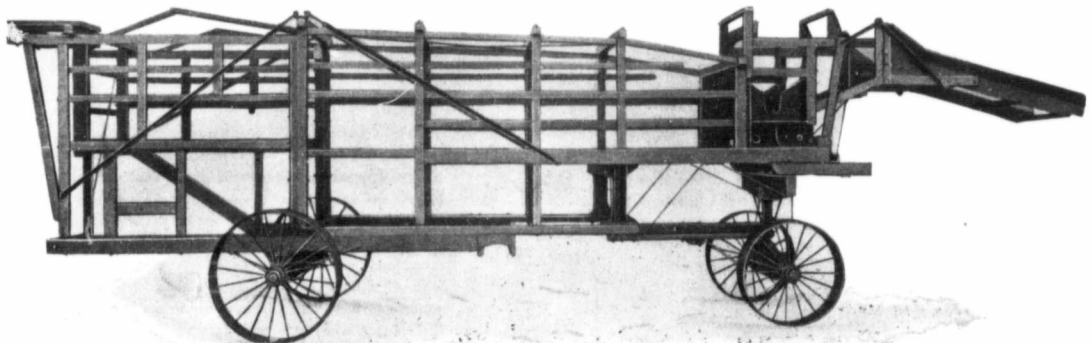
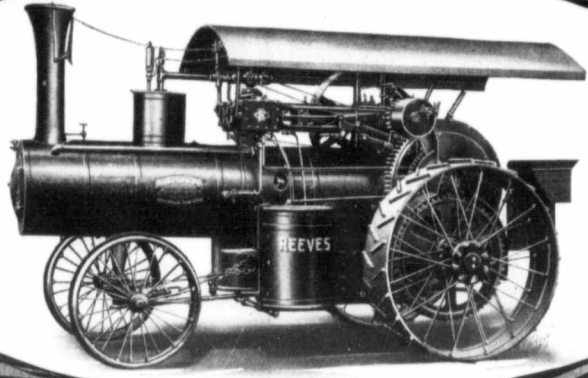


Figure 94

REEVES



Durability and Good Working Qualities in a Threshing Outfit Assure Profit to the Owner

Profit is what appeals to the buyer of threshing machinery, and when the qualities necessary to the greatest profit can be found in one machine, that is the one you should buy, even though, as is likely to be the case, the price is larger than on other machines. The following letter is right to the point and tells the experience of an operator of Reeves machinery:

Fullerton, N. D., May 29, 1911.

Reeves & Co., Columbus, Ind.

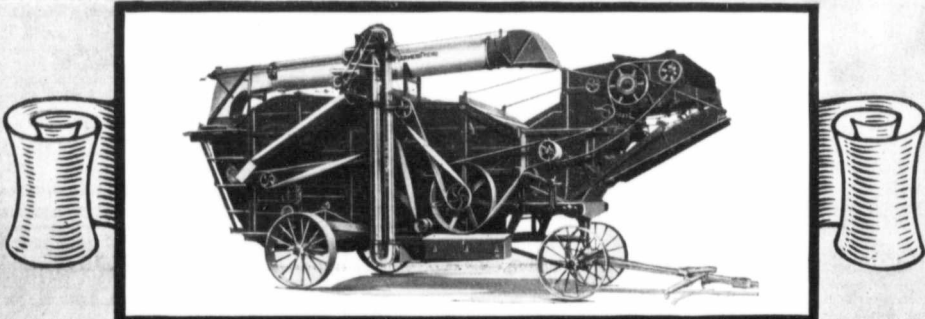
Dear Sirs:—Have you on hand lower pan for 40x60 separator No. 1052 bought in 1900? If you have, let me know and send price. This is the first repairs I have had to buy in eleven falls. I run this separator six falls in Illinois and five falls in Dakota, and it is still in first-class shape excepting this pan, and today, with a new pan, I will put it up along side any new separator and do a better job. I also am using most of the belts that came with it.

Respectfully,

Myron McKeague, Fullerton, North Dakota.

R. F. D. No. 2, Box 25.

The Reeves Double Cylinder Engine and the Reeves Compound Separator make an outfit that will prove profitable to you, satisfactory to your patrons, and with reasonable care, will last a life time.



Our catalogs are free — ask for them
REEVES & COMPANY
COLUMBUS, IND. U.S.A.

REEVES

CANADIAN BRANCH: REGINA, SASKATCHEWAN.

MEN WHO MAKE No. 1 HARD

Being first hand experiences of the men who own and operate threshing outfits in Western Canada

Good as to Costs.

In 1910 I did not do any threshing, but in 1909 I put in time enough for two seasons. In that year we started out with a 26 horse power Sawyer - Massey tandem compound engine and a 36 x 60 Great West separator.

Owing to scarcity of labor, we could not engage a full crew till the season was well advanced, but we aimed to have eight stook teams and four pitchers in the field and no spike pitchers. We also hired a fireman and separator man, while I ran the engine and my partner acted as boss and made himself useful where ever he was needed.

We were out 68 days and had no breakdowns except that we lost a key out of the steering gear and lost about two hours getting another made. Our total repairs cost \$6.50 for the season.

In the 68 days, we threshed 74,800 bushels of wheat at 7 cents and 20,390 bushels of oats at 5 cents, all from stook. Our wages paid were \$2.50 to pitchers, \$4.50 to teams, while our fireman and separator man got \$2.75 and \$4.00 respectively. I have no account of the exact amount of wages paid, but it will be readily seen that, even had we a full crew all the time, there was a nice balance on the right side. We estimated our profits as \$1800.00 after all expenses were paid, except \$900 and interest to the machine company, which left us a clear gain of over \$800.

You will say this is small considering the amount of work done, but when one takes into account all the little things, including insurance, interest on cost of machine, wagons, tanks, caboose, etc., these go a long way toward eating up the profits.

Now, 1909 was an unusually good year for threshing. We threshed wheat that yielded 35 bushels per acre and oats that went 100. Of course, this was the very best we had.

Our outfit gave us entire satisfaction. We could make a good clean job without wasting grain, and never had any trouble with either end of it.

We placed our men and teams so that everyone knew his place, and if he was not in his place we would tell him. So we never had any delays in cleaning up or moving the outfit, which, by the way, is exceedingly handy to move.

Now, I might say for the benefit of those contemplating the purchase of a threshing outfit, go slow and do not believe quite all you hear about the money in threshing. And unless you have quite a large acreage of crop yourself, I would not advise you to make a business of threshing unless you have some other use for your engine be-

tween threshing seasons. There is too much money tied up in it to have it lying idle say ten months out of twelve.

I have threshed since the days of the old horse power rigs, where the thresher got \$10.00 a day for his rig and two men, up to the present, and for one man that made money threshing, there were five or six who did not. I believe, however, that when a man has plowing or other work for his engine and he runs his business on a business basis, there is money and plenty of it in an outfit, but threshing alone, never.

I have in mind one man who, last season plowed 1200 acres of prairie sod at a cost of \$2.50 per acre, and for which he received from \$3.50 to \$4.00, and last season was very short for plowing.

I plowed for a few days myself, with a 26 horse power Sawyer-Massey engine, and could make fifteen acres per day at a cost of \$25.00 for coal, wages, oil, etc.

Trusting I have not worried you too much with this rambling account of myself, and wishing you and the Thresherman every success, I remain,

Yours respectfully,
J. N. Dibble,
Marquis, Sask.

Each Man to His Place.

I am a traction engineer, and have had quite a bit of experience, both plowing and threshing. Now, there are four things which are absolutely essential to success which every thresherman needs, and they are: First, the ability to handle a crew of men; second, experience in handling threshing machinery; third, a good outfit; and fourth, the best engineer he can obtain.

I have put the men first, because they are the wage earners, and therefore need the first consideration. Most people know that threshing is a monotonous job, especially towards the end of the season. Therefore, if you have a good crew hang on to them by making them comfortable. How? you ask. Let me tell you. Every man likes to sit in a nice warm room on a cold night, or sit and smoke and tell each other yarns of some place over the stove. So begin by building a sleeping caboose that is waterproof, draftproof, put a window in it, put a door that fits well on it, double floor the bottom bunks, and put a stove in it when the cold weather comes, and so on. But whatever you do, let the men see that you are considering their comfort. Then finish by having a definite agreement with them as to their wages, and pay them to the cent when settling time comes. If the thresherman does this he won't



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WINNIPEG OTTAWA

In the Use of Your Traction Engine

for Threshing, Shredding, Shelling, Road Grading, or any other of the hundred uses to which your traction engine may be put, do not overlook the fact that

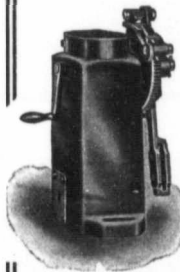
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Manufacturers in Canada

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A MADISON-KIPP Pays for Itself IN LESS THAN TWO MONTHS



One of our customers recently wrote us that he had saved oil enough with a MADISON-KIPP OIL PUMP to pay for it in 48 days. Oil costs money. What you want is a pump that will use as little as possible and yet keep your cylinders lubricated.

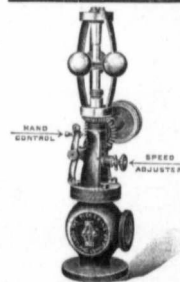
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Write for prices on a pump for gas tractors with all fittings, attachments, etc., necessary to readily and easily attach to the engine in the field.

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**Less Friction
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Longer Service
Greater Efficiency**

One day lost costs you more than a new Pickering Governor.
Patent Ball Ranger Speed Changer Supplied on all Genuine Pickering Governors.

If you have Governor troubles write

The Pickering Governor Co.
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What it Has Done for Them it Will do for You

A few more simple testimonies to the ENORMOUS SAVING IN TIME, MONEY AND LABOR effected by the STEWART SHEAF LOADER in the harvest field.

SAVES AT LEAST \$20 A DAY.

Russell, Man, Sept. 30th, 1911.
I have used the Stook Loader, sold by the Stewart Sheaf Loader Co., and I find it works perfectly. It saves me at least twenty dollars per day and I recommend it to all threshers.
Signed, W. SETTER.

ABOUT \$25 A DAY.

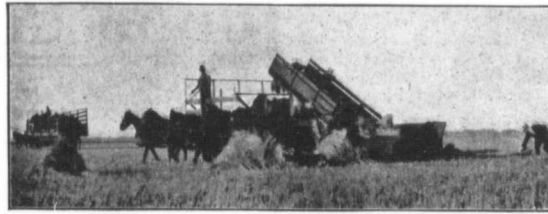
Altona, Man. Oct. 1st, 1911.
As I bought a Loader from you I write to let you know that it does very good work. On account of having this Loader, I now use five horses and six men less than I did before. This means a saving of about \$25.00 per day.
Yours truly (Signed) H. H. NIKKEL.

J. J. RING says "GREATEST BOON EVER OFFERED TO THE THRESHINGMAN."

Crystal City, Man. Oct. 3rd, 1911.
Replying to your enquiry, we would say that we have operated one of your Stewart Shock Loaders this season which is giving us the best of satisfaction. We believe it is the greatest boon yet offered to the thresherman. We have given it some very severe tests and it seems sufficient for any emergency. It appears to be able to handle shocks of unreasonable size. It does its work fast and well, only about two minutes required in putting on an average load. No thresherman can afford to be without one. It not only saves six pitchers and two stook teams, but it also saves the men's board as well as the noble housewives this extra cooking. One other advantage is the way it cleans up the litter. We have no doubt but that in a number of years it will save the price of the machine in the litter it gathers above what the average pitcher would leave. Wishing you success, yours sincerely (signed) RING BROS.

Would Not be Without It at Twice the Price

Kenton, Man. Oct. 5th, 1911.
Regarding the machine I purchased from you, will say that I am perfectly satisfied with the same. I have saved at least in the wages of six pitchers, being the number of men I have always had in the field until this year. I find in wet weather that the gang is much smaller to board. I am satisfied that it saves at least one bushel per acre in the loose grain it picks up.
Yours truly, (signed) GEO. JONES.



IF YOU ARE TO BE IN TIME FOR THE 1912 CROP, WRITE AT ONCE TO THE

Could Save \$26 a Day

Harding, Man. Oct. 15th, 1911.
After a thorough test of your Sheaf Loader, we feel that we can highly recommend it. With a proper set of racks it saves more grain than can be done with hand pitching. At present it is saving us in wages \$18.00 per day and another year we think we could save \$26.00 per day as we would have larger racks using five stook teams instead of six and by having the farmers set the stooks in straight rows, also cut out the man who now follows the machine.
Yours truly (signed) CLENDENING BROS.

P. S. I would not like to do without this machine at twice the price as it soon pays for itself and would recommend it to all threshermen.

Stewart Sheaf Loader Co., Ltd. 715 McIntyre Block, WINNIPEG, MAN.

lack men for the next fall's run; no, nor good men either.

Experience in handling threshing machinery is very necessary, for there is enough machinery about a separator to make a green man dizzy when he begins to puzzle it out for himself, but when he has had a little experience it seems to come a little easier. The best way for a green man to get his apprenticeship would be for him to hire out to some threshing rig, or if he owns one, to hire the best separator man he can get to run his outfit for the season. However, it is not very important as to how he gets his experience, so long as he gets it, but without it he had better leave separator running alone if he wishes to make a success.

I have had experience with a good number of different makes of machines. Last fall I ran a 25 horse power Sawyer-Massey compound engine and a 38 x 58 Great West separator at Lloydminster, Sask., and we ran all fall without a hitch. I also broke a record for hill climbing in that district with the above outfit, having climbed a hill there with my reverse in the first notch, that other engineers have gone round or had to unhitch the separator.

Now for the fourth and last essential: a good engineer. In choosing a good engineer be sure you are not hiring a crank, for if you do he will make lots of trouble for you with the men, but choose one who has had experience in running a threshing en-

gine and one who is steady. A good engineer will always know what is to be done and will be there to do it. He will never keep you waiting, for as soon as he sees you are beginning to clean up he will gather his tools together, get his ashes pulled and clamped, so that as soon as the belt is off he is ready to hitch on to the separator and pull to the next job. Another thing, a good engineer will not come fussing around the separator, interfering with you, but will stay at his engine, and as soon as a stop is called he picks up a piece of waste and an oil can and does a little wiping.

Another hint before I close in regards to the caboose. I may say that there is no contrivance ever built more liable to breed disease than a dirty caboose. I once worked for a thresherman who every Sunday had all the blankets, truck, etc., thrown out of the bunks and well shaken, and if fine, left in the sun and air for an hour or so, and at the end of the season he would get one of the men to scrub it all out with hot water and soap with a little disinfectant in the water, which I think is an excellent plan.

Hoping this may be of benefit to some of your readers, I am,

Yours truly,
Geoffrey Still,
Hope, B. C.

Use a Full Crew.

My outfit consists of a 32 x 52 Aultman and Taylor separator

and a 28 horse power Cross Compound North West engine.

For four seasons I had a 16 h.p. Minnesota Giant return tube chain drive rebuilt engine, which gave good satisfaction, but which was a little light for a 32 inch separator, especially when the straw was a little damp, making it hard to steam.

We have been threshing for five years. The first two years we threshed three jobs besides our own, but didn't make much. For two jobs we only got half pay and we didn't have a full crew, which made things hard. We charged 7 cents per bushel for wheat, 4 cents for oats, 5 for barley out of stook.

Last fall we threshed our own crop. We had from four to nine men for the whole crew, and with six men threshed as high as 1700 bushels of oats in a day, and from six to seven hundred of wheat. We threshed right into portable bins.

This fall when we got the big outfit we went out threshing again. We threshed two jobs and then pulled out, charging 8 cents for wheat, 6 for oats, 12 for flax and 6 for barley. We had only six teams, but threshed up to 1300 bushels of wheat, 2500 of oats, and moved once.

I don't think there is much money in threshing with only half a crew. And if there is work to do at home such as plowing and getting the land ready for next year's crop, there is more money in that. I think there is

more money lost in neglecting the work at home than what is made at threshing. Besides, threshing is a dirty job, up early and late. I think, though, if a farmer has three-quarters of a section or more he should have a little rig of his own, or else two or three farmers should go together and buy one. We intend plowing with our big engine next year.

I look after the power part of the work and my brother the rest. Wishing your paper every success, I remain,

Yours truly,
Louis M. Faber,
Dalesboro, Sask.

Favors the Multi-Cylinder

Seeing that you wish threshers to give their experience, I thought I would give mine, thinking that perhaps it might help someone who is thinking of buying an outfit in the near future.

Four years ago we thought that we would invest in an outfit, but it was so late in the season we only bought an engine, which we used that winter and the following summer for chopping. In this way we incidentally got used to the engine, and that fall we purchased a separator.

The outfit consisted of an I.H.C. 15 horse power portable engine and a 24 in. by 42 in. Case Steel separator with all attachments. We have used this out-

Continued on page 45

The Thresherman's Question Drawer

Answers to Correspondents

Q. T. F. On my engine the piston rod has worked loose in the crosshead. There is no jam nut on the piston rod, but the cross head is split, and has two bolts through it to draw it together; but I have sawed the split wider and thought I could draw it together, but I can't get it any closer. Now, what can I do with it. Do I have to get a new one, or can I get this fixed?

A. If the threads are badly worn the only thing to do is to get a new crosshead. It may be if you put stronger bolts in the crosshead, oil them well and draw them up well, and by hammering the outside of the threaded part, it may be made to fit up to the thread so that it will hold. Sometimes a lack of oil on the threads and under the head or nut of a bolt prevents it being drawn up, and this may be your trouble.

Q. S. G. H. I have a separator with a big cylinder. I can't get it to knock the grain from the heads. What is the cause? Six rows of concave teeth run high, seem to do no good.

2. How will a, say 20 h.p. gasoline engine pull under belt compared with, say, a 15 h.p. steam engine?

3. Is a 20 h.p. gasoline engine strong enough to saw with a 54-inch saw?

4. Will a 20 h.p. pull a mill good on the road, or a 28 x 54 separator, with all attachments?

A. To improve the threshing of a cylinder you should increase the speed.

2. The brake h.p. of a steam traction engine is about three times the nominal rating. Gasoline engines are rated by brake h.p., so the gasoline 20 h.p. would be equal to about a 7 h.p. steam engine.

3. A 20 h.p. gasoline engine will not do much good with a 54-inch saw, since the 20 h.p. engine is equal to a 7 h.p. steam engine.

4. A 20 h.p. gasoline engine will be light for pulling a mill or 28 x 54 separator on the road.

Q. N. S. H. Could you tell me what makes the steam go the wrong way (or backward) through injector, making it impossible to get water in the boiler? Pipes are all clean. Have tried three different injectors, also tried two new check valves.

A. There are a few things that will prevent an injector from working. The pipes should all be free from obstructions. The steam pipe should not be reduced in size, and it should be taken from the boiler and not from any other pipe that is used to conduct steam for another purpose. The suction pipe or hose should be

without leaks and without obstructions. Often times a hose is tight but the lining is loose and closes the hole and prevents a free flow of the water. The screen on the end of the suction pipe hose is often stopped up. The discharge pipe is often stopped up, especially where it enters the boiler. The pipe should be taken down occasionally to clean the lime out which accumulates, due to the heat of the boiler. The injector should be examined to see that the tubes and all passages are free from foreign matter. Sometimes scales break loose from the steam pipe and get into the injector, as well as grease and other things which come up the suction pipe. Be sure you have the check valve put on correctly.

Q. J. T. R. Will the grates close to the flues with a hot fire cause them to leak quicker than if the grates are further away? I have a rocker grate, which is about 3 inches closer than what the old ones were, or the stationary.

A. There is more heat in the upper tubes than in the lower ones even if the bed of coals is close to the latter. The hot gases being light will rise to the top of the fire box. You can make a practical test of this by placing a small tin box lid full of water in the top-most tube at the smoke box end and one in the bottom-most tube. Then run the engine, pulling an average load for five or ten minutes, and then examine the lids to see how much water has been evaporated in each tube. You will find that in the top tube the water will disappear very quickly, while in the bottom one the water will stay much longer, the difference in time depending of course on whether the boiler is large or small for the work which is being done. The failure of stay bolts and sheets is due to other conditions than the coals of fire being close to the sheet, as about all of the fire box trouble is due to accumulation of mud or sediment, or an improper place of feeding the water into the boiler. This is also true of tube trouble, and in addition to these, the overheating and sudden chilling of the tubes with cold air will cause the tubes to leak without the other conditions which are herein set forth.

Q. C. P. B. I have a Case engine and the threads in the crown sheet for the soft plug are worn out, and the sheet is some thinner around the hole than any place else. The plug has a $\frac{3}{4}$ -inch pipe thread. Can I tap the hole for a 1-inch pipe and put in a bushing, or would it be the best to have a tap made just big enough to make good threads and

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Winnipeg Not in any Trust or Combine Calgary

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Over 10,000 sold every year, because Threshermen prefer the excellent quality and workmanship to be found only in SAWYER Belts.

WRITE FOR CATALOGUE "L" TO DAY.

SAWYER BELTING CO., Cleveland, Ohio

have the plugs made to fit? Would a brass bushing be better than iron?

2. Can the bolts that are tapped in the steam and water space of a boiler be tightened?

A. It would not be good practice to bush the hole for the fusible plug, as the plug would extend farther into the fire and would give trouble in melting out when with water on the crown sheet. This could be done by making the bushing flush with the crown sheet; but as the crown sheet is thin this can hardly be done. The best way to fix it is to tap the hole larger and to have a special plug made to suit the hole, or to plug the old hole up and drill a new hole to suit a standard plug.

2. The stay bolts can be made tight by holding a heavy bar or sledge on the one end of the bolt while the other end is hammered with a hard hammer. Both ends of the bolt should be treated in this way. A slight leak can sometimes be stopped with a calking tool.

Q. R.E.S. How can I remove oil that is on my separator so that repainting will stick; will wagon paint be good to put on?

A. Wash the greasy parts with gasoline or naphtha. Paint, such as is used on wagons, would be very good.

Q. S.A.S. Could a wooden float be placed in water gauge column to advantage?

A. A wooden float in a water column would soon get water soaked and sink to the bottom of the column.

Q. T.E.T. How would you fasten the engine solid on the boiler, as it is a little loose? Some say to steam it up to low pressure, and then draw the studs down, but I think that if they were drawn cold, there wouldn't be any expansion that would give loose after tightening the bolts. Which is your opinion?

2. What would you use to take all burnt on grease and oil off the engine, boiler and jacketing?

3. What would you use to paint the boiler end and smoke box with? What would you use for paint on jacketing, just a common black paint, or something special, and how would all these be applied?

A. The suggestion that you draw up the bolts when the boiler is warm looks good; as there is likely to be less strain on the engine and other brackets if they are made fast when the boiler is expanded, as this is when the work is done.

2. Concentration lye will take the burnt grease off the engine, boiler and jacket.

3. Coal tar or some sort of asphaltic paint is as good as anything for the boiler and jacket. Apply with a brush in the regular manner. If it is done in the winter a little heat will help.

Q. E.A.K. How are the side valves set on a Reeves compound engine; and how are eccentric and rocker arms set to be re-babbitted? Must the reverse arm be in centre line with eccentric, like on Woolff valve gear.

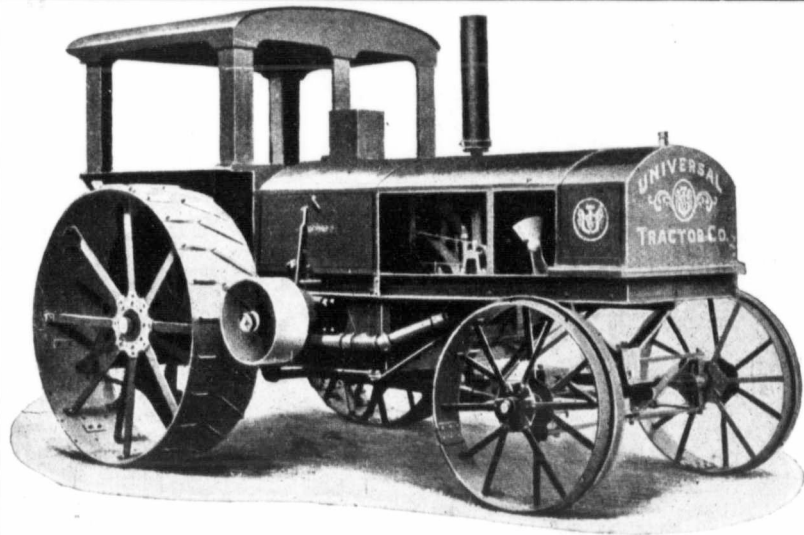
2. What is the best way of finding the clearance in the cylinder without removing connecting rod and crosshead pin on Reeves' engine?

A. Directions for setting eccentric and valves on a Reeves engine. The eccentric is keyed to the shaft and is likely not out of place, but should it be necessary to set or test the eccentric, it can be done by the following: Set the engine on dead centre, then the eccentric should be nearly opposite the crank pin or at a place that will bring the pin in the lower part of the eccentric yoke, central with the tumble or reversing shaft. To test this more accurately, have someone pull the reverse lever backward and forward while you watch the valve or valve rod. If the eccen-

tric is in its proper place the valve rod will not move while the reverse lever is pulled backward and forward when the engine is on dead centre. This should be tested on both centers of the engine. If the one center shows up all right and the other does not, this would indicate that the tumble shaft is either too high or too low; more likely too high, which can best be fixed by placing a liner between the engine frame and the rear saddle, which will raise the crank shaft. After the eccentric is set, all there is to do with the valve is to see that it has the same amount of lead on each end, which will be about one-sixteenth of an inch. The valve is set on the stem by the clamp blocks. There is another part that should be looked after, and that is the reach rod, or the rod that connects the reverse lever with the tumble shaft. This rod simply controls the cut off. If not right, the forward motion will not have the same cut off as

will the backward motion. An easy way to test this is to put the reverse lever as far as it will go one way, and note what the maximum port opening is. Then place the reverse lever to the extreme opposite end and again note the maximum port opening. The case will suggest whether the reach rod should be lengthened or shortened, which can be done by means of the thread on the ends of the rod.

2. Turn the engine on the dead center furthest from the cylinder, screw the piston rod into the crosshead until the piston strikes the end of the cylinder. Then turn the engine on the other dead center and measure from the piston to the end of the cylinder. The difference between this measurement and the distance the cylinder head projects into the cylinder is the sum of the clearance on both ends; and one-half of this amount is the clearance on each end. The clearance on each end of a Reeves cylinder is three-sixteenths inch.



**THE AMERICAN-ABELL
"Universal" Farm Motor**

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

This grand all-purpose engine is of the double opposed cylinder type, 7 1/2 inch bore by 8 inch stroke. Speed 500 revolutions, 40 horse break test, weight 10,500 pounds.

With the "Universal" one man and 25 gallons of gasoline will plow 18 acres of ordinary stubble in 10 hours.

The "Universal" never agitates for a "Short Hours' Bill." It is essentially the Farmer's Friend, for it will work night and day, if necessary, without a grouch, all the year and every day of the year, except the weekly Day of Rest.

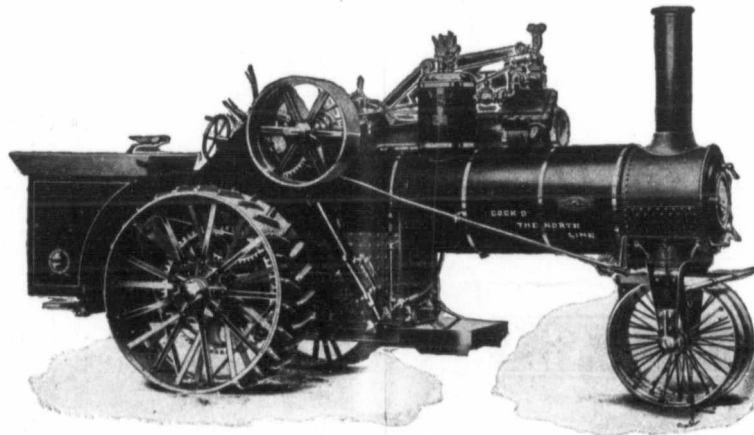
And the cost! ONLY 45 CENTS AN ACRE. This is calculated on the basis of \$3.00 a day to the man, \$1.00 for lubrication, and the "feed bill" at 15 cents a gallon for gasoline. To do the same work with horses would cost ONE DOLLAR PER DAY.

The First Condition to a Big Crop is to Plow Right

ALL HANDS ON DECK FOR 1912

MR. FARMER: "Look not mournfully into the past; whatever it is, it cannot return. Wisely improve the present—it is yours; go forth to meet the future with a brave and manly heart."

1911 may have been Good; you can make 1912 Glorious



This American-Abell 25 H.P. REAR MOUNT TRICYCLE SPECIAL PLOWING ENGINE

Has made history all over the world because its magnificent energy has "made" thousands of bushels of highest grade crop grow where a less effective force would not have produced anything. It is positively the most efficient steam tractor, and the best value in Steam Plowing Engines on the market. While specializing as a plow engine, we guarantee the very best results in all kinds of Road and Belt Work. COMPARE IT WITH ANYTHING GOING.

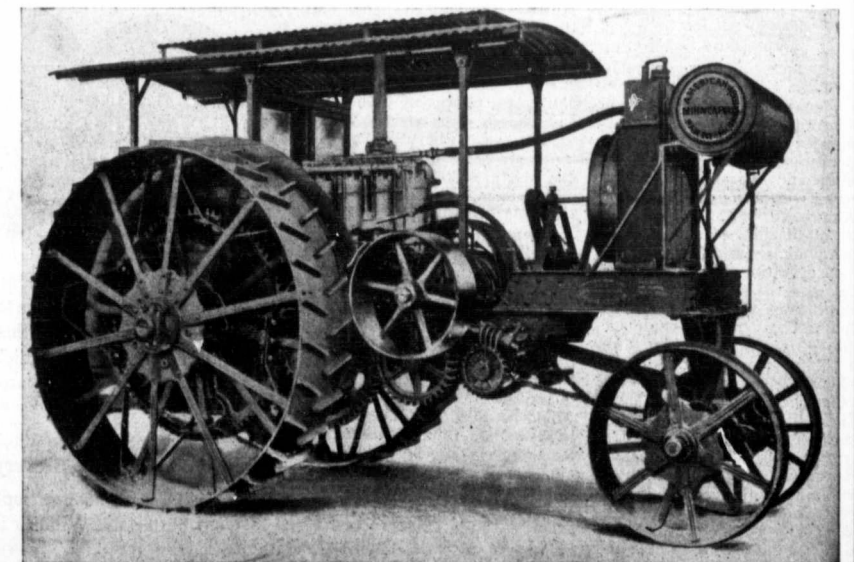
The Great 25 Horse Power "Minneapolis" Farm Motor

Is an engine with a tremendous constitution, needs no "coddling," and is one of the most economic and durable gas motors in the field. Infinite care has been exercised in selecting the material for the structural parts of this engine. The very best grade obtainable has been used, and in every case where it is practicable steel has been used instead of cast iron.

Its reputation has been made and secured by its wonderful achievements in high-class work and plenty of it, demonstrated over a wide circle.

It is, without doubt, the engine for BIG THINGS, for DIFFICULT JOBS, for ALL CONDITIONS of SOIL and CLIMATE. First of all a plow engine, it is equal to the most arduous task in any kind of road or logging service, belt work, etc.

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



Before You Get Anything—Get Our Great Descriptive Catalogue

The Last Argument of Nature is To Plow Right

WINNIPEG REGINA SASKATOON TORONTO CALGARY EDMONTON

American-Abell Engine and Thesher Co., Limited

We represent THE ADVANCE THRESHER CO., BATTLE CREEK, MICH., and THE MINNEAPOLIS THRESHING MACHINE CO., HOPKINS, MINN.



AN AUTUMN CONTEST

By Iva A. Clute.

The golden rays of the sunset
Were quivering in the west,
And peace, like a benediction,
Fell over the valley, dressed
In the garb of the early autumn,
In green and russet and red,
Whose brilliancy seemed to challenge
The wondrous tints o'erhead.
Purple and gold in the sunset,
Purple and gold in the stream,

Blue, dense blue, in the heavens,
And blue in the wild-birds' gleam;
Russet and red and amber
In the vast, ethereal sea,
And russet and red and amber
In the depths of the forest tree.

A contest of light and beauty,
Of splendor and glamour and glow;
But the colors above are fading,—
Not so the bright tints below.
"The earth has won," we whisper,
But stars come out in a host,
And the moonlight's silvery splendor
Out rivals all earth can boast.

To Make Gains, Feed Weight.

Some Comments by a National Authority on Feeding.

Every once in a while one sees in the magazines or papers a statement to the effect that some scientist has succeeded in preparing food materials in tabloid form which will furnish all necessary nourishment for man without any waste whatever, and the writer generally indulges in free flights of imagination with regard to the importance of the discovery for the future of the human race; how the necessary diet of a person can soon be carried around in one's vest pocket, and what an economy of effort will result from the general introduction of the preparation, both as regards the drudgery of housekeeping and the expenditure of energy in the digestion and assimilation of food. Armies will no longer have to be accompanied by enormous supplies of all kinds of food articles; a few pounds, perhaps, of the tabloid preparation will feed a regiment, and the soldier will march against the enemy with a firm step and a satisfied stomach, going where duty calls him, without thoughts or longings for the flesh pots of Egypt, or the pie that mother used to make.

It is all very well to give one's imagination free rein occasionally, but it is not amiss, in fact, it is very desirable, to keep one's feet on earth with both feet and not to forget fundamental laws of physiology and hygiene in placing the horoscope for the future; and this may be stated definitely that the needs of man or beast for

food will always be of paramount importance to the individual, and neither can be subsidized into ignoring the call of the appetite by flights of fancy or dribbles of special foods whose claim to recognition probably in the main lies in their fine-sounding names or in the skill with which their merits are placed before an unsuspecting patient public.

What is Food?

Let us look at the facts of the case and see whether there can be much hope that either man or animals can ever be sustained by feeding with pellets, even if these be composed of "food and only food." To take the simplest case, that of a human baby depending upon milk for its sole nutrition. If he behaves like a normal healthy baby, he will take, say, at six months of age, about a quart or two pounds of milk in the course of a day. This will contain about thirteen per cent. of solids, and he will receive, therefore, in all about four ounces of milk solids, practically all digestible. No argument or persuasive efforts on part of parents or manufacturers will convince him that a tablet or two of condensed predigested food will be enough for him. He wants what he wants, and if he does not get it, presto! there is trouble. The solid food substances of the milk, being made up of butter-fat, flesh-forming substances (so-called casein and albumen) and milk sugar, are easily and as completely digested as any food materials that can be secured, and still the little baby requires about two ounces of them daily to be happy.

A grown, fairly active man, if he should place himself on a milk diet solely, would consume some eight pounds of milk daily, containing a little over one pound of food substances, quite a bulky quantity of food, the equivalent of hundreds of food tablets, as we sometimes find them in drug stores or in special preparations sent out by manufacturers of food articles. If one pound of digestible and easily assimilated milk solids is required by man, larger quantities of other food materials would be called for, in proportion to the amount of indigestible matter these contain, for he will require in all cases about a quarter of a pound of protein in his food and a total fuel value of 3,500 calories. If he should select his food in the form of round steak, butter, potatoes and wheat-bread—all standard food articles and

IT IS NOT A TOY

The 'MAGNET' Cream Separator

WITH ITS DOUBLE SUPPORTED BOWL AND SQUARE GEAR DRIVE IS RIGHT ON THE JOB AND STAYS THERE.

In creameries and factories square geared machines are used. When you see a worn pinch gear Cream Separator, you know it is not the kind the factory people buy.

A "Toy" Separator with its worn pinch gear drive is only an aggravation when you try to skim quantities of milk in the Dairy. What is required is a machine made strong and rigid, with square gear drive to do twice a day skimming, with little work and no stopping for repairs. The square gear "Magnet" is built that way and has proven its strength by 13 years' use.

Waste money on a pinch gear machine if you like, but eventually you will buy a square gear "MAGNET." But why not buy the "MAGNET" now? It will save you this waste, because it is good for your time and your children after you.

The "MAGNET" bowl is supported at both ends ("MAGNET" PATENT) prevents wobbling and gives perfect skimming.

You get strength, durability and perfect construction in the square gear "MAGNET."



Ask your mechanic friend, he will tell you the "MAGNET" is standardized and is built mechanically true.

The "MAGNET'S" whole construction makes it solid as a rock. Stand it on the ground or any floor; it will skimmclean all its parts.

Do not take our word, but make us prove all we say to your satisfaction in your own dairy. You to be the Judge. A postal card to us will insure a free demonstration.

The Petrie Mfg. Co., Ltd.

Hamilton, Winnipeg, Calgary, Regina, Vancouver, Montreal, St. John, Edmonton.

WINDSOR DAIRY SALT

Every farmer's daughter and every farmer's wife knows



They all use it—for making delicious butter for their own table. They found out years ago that Windsor Butter Salt dissolves quicker, works in easier, and helps butter to keep better.

Windsor Salt is absolutely pure and every grain is a perfect crystal. 42

If you want to get "top" prices for your butter, use Windsor Butter Salt.

none too good for a steady diet—he would need, say, about thirteen ounces of round steak, three ounces of butter, six-ounces of potatoes and twenty-two ounces of wheat-bread; that is, forty-four ounces, or over two and one half pounds in all, if the results of dietary studies can be depended on to furnish us accurate information on this point. These figures again fail to suggest that tablet feeding of man will ever be either feasible or popular.

Feeding Farm Animals.

Applying the same method of reasoning to the feeding of farm animals, we turn the information furnished by the carefully conducted scientific experiments on the food requirements of different classes of farm animals at different stages of growth or rates of production. We know just how much food the animal requires for maintaining his body weight at different ages and how much food it takes to produce a pound of gain in a steer, for instance, at the different periods of growth. We also know quite definitely how much food it takes to produce a pound of butter fat by a dairy cow, and approximately, at least, how much food a horse requires daily to do certain amounts of work without losing in weight. This knowledge is within the reach of anyone who takes the trouble to consult standard works on the feeding of farm animals, and all our agricultural colleges are teaching their students these fundamentals. It is only necessary for the reader to put two and two together. Take, for instance, in the feeding of steers, the maintenance tables that have been constructed show that a one-thousand pound steer at rest in the stable must receive somewhere about .7 pound of digestible protein and 7.2 pounds of digestible carbohydrates and fat a day, in order to maintain his body weight. The tables giving the total and digestible components of different kinds of feeding stuffs, on the other hand, show the quantities of these feeds that it will take to furnish the amounts of digestible food components given; if, for instance, hay and corn-meal are available for feeding the steer and we feed, say, ten pounds of hay daily, it will take an additional three pounds of corn to supply the necessary nutriment for maintaining the body weight of the animal, and correspondingly more of both feeds for producing a certain amount of growth. True, it is possible to do away largely, if not wholly, for a good while at least, with the roughage and to feed corn only, but there we have about the limit of concentrated feeding.

Few of our concentrated feeding stuffs have a higher percentage of digestibility than corn, and none would perhaps make a more satisfactory sole feed for a growing steer, if it were desirable to experiment in that direction.

But it would take at least nine pounds of corn daily to furnish the amount of valuable food materials required by a one-thousand pound steer for maintaining his weight, and proportionately more for making a fair increase in weight. Not much tallow food about that, is there? Of course, nobody has gone quite as far as that in the case of farm animals, either, but many feeders are deceived by descriptions of the wonderful gains animals will make by the use of small amounts of certain special food preparations, which are not, as a general rule, foods, and cannot be classed as medicines.

Where the Absurdity Lies.

It is no more feasible to fatten an animal on a couple of teaspoonfuls of a certain preparation than it is to satisfy the appetite of a man by giving him a few food tablets to eat. The two are of a kind, and the strange thing about it is that so many people do not stop to consider the matter for themselves, but blindly accept the representations of others. The thinking farmer should remember that there can be no substance a few ounces of which will make a healthy hog gain a couple of pounds, or treble the milk-yield of a cow, or make a hen lay twice as many eggs, no matter how positive the statements may be which he is asked to credit.

The above does not, of course, refer to well-organized concentrates like oil meal, dried brewers' or distillers' grains, gluten meal, or other highly concentrated feeds, the feeding of which doubtless in most cases would result in a marked improvement in the production of the condition of the animals. These concentrates are real foods and will produce results as regards gains in weights or yields, in proportion to the amounts in which they are fed to the animals. They are valuable feeds and not tallow delusions.

The Waster and His Brother.

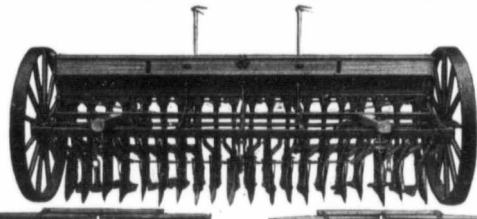
We believe it was Solomon who once remarked that the man who is "slothful in his work is brother to the man who is a great waster." None of us have very much respect for the man who is slothful, or in modern English for a lazy man. We regard him as a cumberer of the ground, and can not bring ourselves to mourn very deeply over his untimely death, even if we have great sympathy for his wife and family.

We usually have a better opinion of his brother, the man who is a great waster, and particularly so if he wastes in the same line that we have been in the habit of wasting. We can criticize this waster very severely if he wastes his health, throws away his money on useless luxuries; but we are apt to forget that as a nation we are the greatest wasters of which history furnishes any record. We farmers censure severely the lumber

Deering Drills Make Good

It is to your interest to plant seed so that it is sure to grow. You are sure to have a fine, even stand of grain when you use a Deering drill because it plants exactly the right amount of seed in the right way.

DEERING DRILLS



are made in Canada to work under Canadian conditions. No matter whether your ground is hard or soft, gravelly or clayey, level or hilly, smooth or rough, there is a Deering drill that will plant any kind of seed in it, at just the right depth.

Western Canada single and double disk and shoe drills are made with 14, 16, 18, 20 and 22 furrow openers. Single disks, double disks and shoes are interchangeable.

There are many points about Deering Drills that you ought to know. Our catalogues tell you all the good points to look for. We will gladly send them if you want us to, but you will have to see the machine at the local dealer's to find out all you want to know about Deering drills. Address the nearest branch.

WESTERN CANADIAN BRANCH HOUSES—Brandon, Man.; Calgary, Alta.; Edmonton, Alta.; Lethbridge, Alta.; North Battleford, Sask.; Regina, Sask.; Saskatoon, Sask.; Winnipeg, Man.; Weyburn, Sask.; Yorkton, Sask.

International Harvester Company of America
CHICAGO (Incorporated) U S A

New Model 27 Marlin REPEATING RIFLE

Shoots high velocity smokeless cartridges, also black and low pressure smokeless. Powerful enough for deer, safe to use in settled districts, excellent 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-spring lock; rapid, accurate firing; increased safety and convenience. It has take-down construction and Ivory Stock from sight; these call extra on other rifles of these calibres.

Our 136 page catalog describes the full Marlin line. Sent for three stamps postage. Write for it.

The Marlin Firearms Co. 155 Willow Street New Haven, Conn.

Wall Plaster

For a Cool Building in Summer, and a Warm Building in Winter, use Plaster Board, and the "Empire" Brands of Wall Plaster.

We shall be pleased to send you plaster literature.

THE MANITOBA GYPSUM COMPANY, LIMITED
WINNIPEG, MAN.

barons, as we call them, or the men who have cut down our great forests, marketing only the best, and wasting quite as much of the tree as they marketed, besides leaving the tops to be dreid by the sun and thus become a source of great fires that swept over miles and sometimes scores of miles of territory.

He forgets that in his own way the average farmer has wasted, and is wasting values quite as great, and often much greater, than the values that have been wasted by the men who have stripped away our forests.

We do not know much about mining coal, but a little investigation will show that in times past about one-third of it has been uselessly wasted in its mining. We censure the coal miners; but we do not censure ourselves for wasting, through bad rations and bad methods of feeding, one-third of the nutritive matter of our crops, the crops we grew with so much toil and expense.

When we come to examine ourselves and sit in judgment of ourselves as a nation, we will come to see that for thirty years we have been mining our soil and selling it to the cities and foreign nations at barely the labor cost, and sometimes at less than that cost. We came into this country, a country rich beyond the dreams of avarice, and cut and slashed in the forests, in the mines and in the soils, foolishly imagining that forests would grow about as fast as they were cut; that there was coal enough to last ages on ages; and, worse still, imagining that our lands themselves were of inexhaustible fertility; that is was useless to look after the interests of posterity. In fact, we have often heard the remark, when we protested against this: "What has posterity done for me?" The argument was, first, "The land is inexhaustible," and, second, "If it is not exhaustible, that is not my look out. I must look out for myself; posterity can look out for itself."

Candidly, we believe the farmer has been the greatest waster of the bunch; and the energetic farmer a greater waster than the lazy one. He is the older brother of the lazy man. The greater the improvements in our machinery, the greater has been our ability to waste; for the man with a gang plow and binder can actually do more wasting in one year than his grandfather, with the old wooden moldboard plow, the cradle and the sickle, could do in half a lifetime.

Both the woodsman, the coal miner and the farmer have been selling the resources of the country at less than the cost of production; and this sacrifice of resources has gone on until in almost every direction we can see a coming scarcity. The great cities of the world and of our own country have had the benefit of these products furnished for the market at less than the cost of

production; and they, too, have believed that this was to go on forever.

In the last five years or more we have been brought up with a sharp turn, brought up to the snubbing post, so to speak. The cities are inquiring: What is the matter? and chiding the farmer for not growing more grain. They will have to realize from this time on that the days of cheap coal, of cheap lumber, and especially cheap food, are past. There is little more new land to be possessed. The addition of virgin acres has done little more than balance the decline in fertility of the older acres. We are "up against it." We are at the end of our tether; and henceforth the city must figure on paying more for food supplies than they ever paid before, to the relief of farmers in the older states, who have been almost crushed by the competition we have been able to make by selling farm products at less than they cost us to produce them.

In other words, because of this wastefulness in the past, we are no longer able to furnish bread and meats at the old prices. Where the farmer has maintained the fertility of his soil and can grow more than average crops, and particularly where he can grow more than twice the average crop of any one thing, he is making money. And why should he not? The lumberman who had his forests yet uncut, or who was able to cut them so as to have a perpetual crop, instead of one crop which it took a century to grow, would be making money, too, and for the same reason.

Many farmers have been laughed at for the past twenty years because they took pains to maintain the fertility of their soils. These farmers are getting their reward. Farmers who have wasted their soil, however, who have allowed it to actually decline in fertility and to get out of physical condition for lack of a supply of vegetable matter, find themselves sorely handicapped in this work of restoring the fertility of a worn out farm. And why not? We can not go on indefinitely wasting the resources of the soil, of the mine and of the forest, without having to pay for it sooner or later.

It is a shame that there has been all this terrific waste in the past; but human nature being what it is, we could not expect anything very different. The point now is to economize, to stop this wasting, consider the farm as a factory that should be run economically, wisely, skillfully, with the end in view of growing annual crops of the greatest magnitude possible, and still maintaining the efficiency of the factory—in other words, the fertility of the soil.

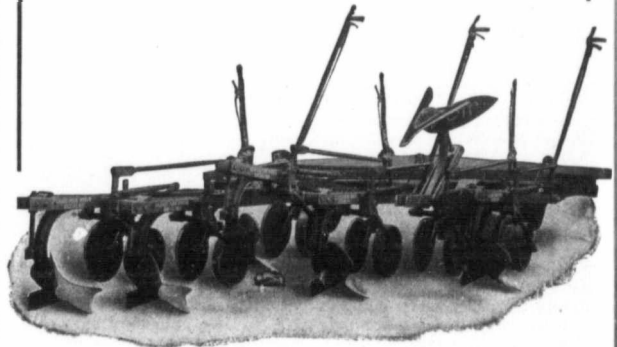
Put those few extra shingles on now. The roofs will leak next spring if you don't. You can't do it after the snow comes.

The Break Pin Saves Me Shares Every Day

Writes one man in North Dakota. That is exactly what they are intended to do and are doing in hundreds of cases where

J. I. CASE ENGINE GANGS

are being used in rough land. And to save shares means to save money and time. Hence the J. I. CASE is the cheapest Engine Gang to buy, regardless of first cost.



Another exclusive J. I. CASE feature is the Hinged Beam—see picture above. It makes all bolts easy to get at when replacing dull shares and changing bottoms. Change can be made much quicker and with less trouble than on other makes, where you have to stand almost on your head in order to get at the bolts.

For other points of advantage, write us for descriptive matter. Our new 1912 catalogue will soon be ready for mailing.

CANADIAN SALES AGENTS:

The Harmer Implement Company

WINNIPEG, MAN.

MANUFACTURED BY

J. I. CASE PLOW WORKS
RACINE, WIS.

Farm Telephones.

The farmer who would be successful in this day and time must conduct his farm scientifically and systematically. There is practically no limit to his possibilities if he will study his business as carefully as the leaders of commercial industries study theirs. The details of farming, the crops that grow best in his section, the fertilizer most suited to the particular class of soil. All these should carefully be looked into. The latest labor-saving devices should be used, and, by all means, a good live farm paper should be subscribed to and read studiously.

All these things go toward the ultimate success of the twentieth century farmer; but there is one thing in particular that tends to put the farmer in better circumstances than anything else he could invest in—that is a telephone.

Among the manifold uses of the farm telephone is that of making it increase profits directly by putting the farmer in touch with markets far and near. The grain grower when approached by a buyer who wishes to purchase his wheat simply steps to the telephone and asks through the nearest exchange the closing prices in the nearest market on the preceding day or the opening prices on the present day. The truck farmers in the neighborhood of large cities telephone to the city markets and find out whether there is any demand for their fresh vegetables, or whether the market is glutted and prices low. If the report is unfavorable they wait for a better demand and better prices before carrying their vegetables or fruits or other products to the place of sale.

If an animal of value falls sick the veterinary surgeon is summoned by telephone. If a horse is stolen word is sent to all the farmers on the circuit. In case of fire or accident help is called with avoidance of the delay involved in the despatch of a messenger, who cannot well be spared at such a time.

On many country circuits a prearranged signal at or about some regular hour summonses all subscribers to their telephones while "Central" reads out the important news of the day and gives out the weather report. The telephone relieves the isolation of the women on the farm. Their days are often spent in loneliness while the "men folk" are at their work on some distant part of the farm or absent on some errand to the city or some other farm. A few minutes' chat with a neighbor is a measureless boon to many so situated.

A great many people who live in the country seem to think it would cost too much to have a telephone on their farm. They should be interested in knowing that they and their neighbors can build a complete telephone system at a comparatively low cost.

These neighborhood telephone lines are divided into two general

Our Telephones Chosen by Majority Of New Systems

IN Ontario where the fight for business is keenest—where all telephone manufacturers enter into competition—this company has assumed a commanding position. This year The Majority of municipalities and new companies entering the independent telephone field selected our telephones and equipment.

QUALITY WINS

Price cut no figure in securing the business of these companies. Other telephones were offered for less. SUPERIOR QUALITY won us the victories.

Our telephones were selected not only by new systems, but by those who had been using other makes, because they were proven to be the clearest-talking, strongest-ringing, simplest and best constructed. They were given the severest tests, the most minute and rigid examinations. They established their superiority beyond question.

BUSINESS DOUBLING

Between 400 and 500 Independent Canadian Telephone Companies are buying their supplies from us. Our business is again repeating last year's record, when it doubled in volume. What better guarantee of satisfac-

tion could a municipality or local telephone company want than the evidence of the satisfaction we are giving others?

10 YEARS' GUARANTEE

Everything we sell is guaranteed. Our Telephones are guaranteed for 10 years against defects in material or workmanship. Our Side Blocks and Top Pins are made specially for us, so as to insure uniform quality. In No. 12 Galvanized Line Wire we never carry anything but the best.

We stock nothing but first quality materials. And we stock them in large quantities.

Notwithstanding our large increase in business, our facilities are such that we are able to handle all orders promptly and satisfactorily. A Price List will be mailed on request.



NO. 3 BULLETIN

Our latest book on telephones has just been printed. It contains the latest, most authentic information on construction and operation of telephone lines. Also shows the most up-to-date equipment. Ask for the No. 3 Bulletin.

If you haven't a copy of our famous book, "Canada and the Telephone," profusely and graphically illustrated by a leading artist, we will be glad to mail you one, too.

FREE TRIAL

If your company is going to replace some old phones with new ones, or is just starting a system, ask us about our FREE TRIAL OFFER, whereby the quality and efficiency of our telephones can be judged before spending a dollar.

Canadian Independent Telephone Co.

1844 DUNCAN STREET, TORONTO

Limited

systems—a grounded, or one-line system, and a full metallic or two-line system. The full metallic system is the better and should always be adopted whenever the number of farmers constructing the line is sufficient to stand the extra expense. One writer in Wisconsin gives the following figures for that state; these would have to be increased somewhat for Western Canada. "The cost of one mile of line material, exclusive of the poles and labor, for a grounded system of twelve miles or more is approximately \$7. For a full metallic, or two-

wire system, of the same length the cost is approximately \$14. A complete standard telephone station outfit for either of these systems costs approximately \$13 more. An estimate of the cost of the complete system, therefore, is determined by multiplying the number of stations, or farmers to have a telephone, by the cost per station, then multiplying the number of miles of line construction by the cost per mile, and add this to the total cost of the station outfits. For a group of twenty farmers, the furthest being a distance of twelve miles from a

town exchange, a full metallic system would cost, therefore, approximately \$430, or \$21 per farmer." For a system of this nature there is no rent, the only expense being the maintenance, which, when distributed among those receiving the service, is very low. For the information of those farmers who are contemplating neighborhood systems, books are printed that contain complete information, written in such a way that any farmer can understand exactly what is necessary in order to construct and maintain a rural telephone line.

Convenient Roosts and Nests.

The work of caring for the farm flock of poultry is reduced and made more pleasant by having the poultry house fixtures conveniently arranged. It is small wonder that many farmers dislike the task of cleaning the poultry house when the roosts are simply poles nailed across one end of the house, and the nests—often nailed to the wall—are frequently used as roosting places by the hens. In such a house, lice and mites are apt to reign supreme, and the unfortunate wight who has the job of cleaning up will come out with a creepy feeling from head to foot, and hatred in his heart for the whole feathered tribe. Such houses are the result of that old notion to which some farmers still cling, that chickens "don't pay," and are merely tolerated as a sort of necessary evil. But chickens do pay if they are given proper care. This is particularly true of farm flocks, for they pick up a good share of their living around the barns and corn-crib during the summer months.

One of the chief requisites of success is clean quarters. A conveniently arranged house is least likely to be neglected, hence it is important that rooms and nests be constructed and arranged properly, as they are the main fixtures. Roosts require frequent oiling or whitewashing in order to keep vermin in check. If they are removable, it is an easy matter to keep them clean. One of the most satisfactory plans is to make the roosts of two-by-four scantlings, the ends resting on notched cleats at each end of the platform used to catch the droppings. By giving the ends and under sides frequent attention, there should be no trouble from lice. There are various swinging, self-oiling and other patent roosts, the use of which is promised to keep the house free from vermin; but the fact remains that whatever sort of roost is used, we must be eternally vigilant to keep the lice and mites from getting ahead of us. If it is preferred to have the ends of the roosts away from the wall, they may be shortened and nailed to boards eight inches wide and long enough to accommodate the required number of roosts. The boards rest on the platform and, for cleaning, the entire roost is lifted off.

Hens detest filthy nests, and will not lay in them if they can find a better place. Nests nailed to the wall are an abomination, for they afford an excellent hiding place for lice, where it is difficult to get at them. As a rule, we make our nests in sections of three each, each nest being fifteen by twelve inches and twelve inches high. They are placed beneath the platform, and, as they have a removable top, it is easy to gather the eggs. As the nests face the wall, the hens never get into the habit of roosting in them. We examine the nests frequently to make sure they have not be-

come infested with lice. A handful of air slaked lime is placed in the bottom of each nest box, and when nesting material is renewed it is sprinkled with insect powder. By using these precautions we have little trouble with lice or mites.

Seed Potatoes.

Had the same methods of breeding been practised in the production of our domestic animals as have been used in producing our potato crops, there would have been no such thing as Guernseys, Shorthorns, Shropshires and Poland Chinas. Haphazard methods have not produced these superior animals, and experience has taught us that practically the same principles apply in the production of improved plants. Breeders of livestock do not base their operations upon the individual, but they consider the family; the individual's pedigree is of as much importance as the individual itself. A dairy cow's value for breeding purpose is based very largely upon her performance at the pail.

Now, why should not these same principles apply in the production of potatoes? They do, but comparatively few men seem to realize it. The potato is one of the most common crops grown and the consumptive capacity of this country is enormous, yet it is surprising what little attention is given to its improvement. It has become a common notion that potatoes grown from the same stock year after year will gradually deteriorate or "run out." The real cause of this decrease in productivity and in quality is the law of heredity—like produces like. Planting the potatoes that were too small for the women folks to peel is the prime cause of most of this so-called "running out."

Even selecting desirable tubers from the bin is not a good method of improving the yield. The basis of selection should be the plant, it should be the unit instead of the potato itself. A fine specimen selected from the bin may have come from a hill producing a large number of marketable potatoes and it may not. The chances are often against it.

Farmers who pay a little attention to improvement in the selection of seed will soon create a demand which will bring more than market prices for their product.

Depreciation of Farm Tools.

Fall is nearly here and winter will follow shortly. Are those farm tools which one sees out under the trees or in fence corners of any account? If not, why not sell them for old iron and clean up the place? If they are, should they not be put under the shed or in the barn? Iron will rust, you know, and paint will easily scale off.

Rusted plow shares, mold-boards or cultivator shovels are full of pits caused by the small iron scales which drop off in the

WINCHESTER



Self-Loading Shotgun
12 GAUGE, MODEL 1911

This new Winchester has all the good points of other recoil operated shotguns and many distinctive features and improvements besides. Among them are Nickel steel construction, which gives surpassing strength and safety; and a reloading system that will handle all safe loads without readjustment.

Look one over at your dealer's or send to the Winchester Repeating Arms Co., New Haven, Conn., for a descriptive circular.

IT WORKS WELL WITH ALL LOADS.



SHERWIN-WILLIAMS
PAINTS & VARNISHES



When you buy paint, buy length of service. For Economy-by-the-year there is no paint like SWP—Sherwin-Williams Paint, Prepared. Ask your local Sherwin-Williams dealer for a color card and plan your color scheme at home or write to us for suggestions.

THE SHERWIN-WILLIAMS Co. of Canada, Ltd., Montreal, Toronto, Winnipeg, Vancouver.

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.

Allan, Killam & McKay

Insurance, Financial and Real Estate Agents
BULMAN BLOCK, WINNIPEG

Fire, Life, Marine, Accident, Liability
and Burglary Insurance

GUARANTEE BONDS - - - MONEY TO LOAN

rusting process. These tools never scour properly again, and cause trouble ever after by such delay, and further fail to do good work when most needed. Poor plowing and poor cultivation most certainly mean poor crops, and always a poor farmer.

Winter Clothes for Alfalfa.

Alfalfa from northern grown seed is hardy, yet it needs winter protection. In case there was not a good growth left to cover it, to catch snow and lessen the effect of freezing and thawing, it will be helpful to put on a light covering of straw or manure. Some of this will get into the hay, but the important thing is to save the stand of alfalfa.

Just because sheep will gnaw away and manage to live on the shortest pasturage about the farm is no indication that they will do their best on such grazing.

It is poor policy to turn cows out to rough it, as soon as they are turned dry, for a month or two in winter or early spring. This is the time they demand a good and regular ration. A cow is not going to do her best at the pail when calving time finds her run down in condition.

Never fasten fencing wire directly to growing trees. If you do, in a few years the wire will have become imbedded in the tree and do it permanent injury. When you wish to use a tree for this purpose, spike a strip of sound board securely to the tree and fasten the wire to that. In this way very little injury will be done to the tree. Save the trees!

A New Department.

The J. I. Case Plow Works has recently added a Department of Agronomy to their organization.

F. H. Demaree, until lately Assistant Professor of Agronomy and Acting Agronomist at the Experiment Station of the University of Missouri, has assumed charge of the department. Mr. Demaree is a graduate of Purdue University—Indiana's agricultural college—and also of the Graduate School of the University of Missouri. For the past three years he was on the faculty of the last named institution.

Born and raised a farmer, scientifically trained in the work, and with years of practical experience behind him, Mr. Demaree's sole interest lies in the various problems and needs of farmers. Through him the J. I. Case Plow Works believes that they can come in closer touch with the needs of farmers in their particular line. Furthermore, they expect to increase the efficiency of their product by more careful field tests and to settle some long discussed disputes as to types of machines for different phases of cultivation.



THE BOOK DESCRIBES EVERY STEP IN DETAIL

IN the organization and construction of rural telephone lines, this book "How to Build Rural Telephone Lines," is a practical guide. It is a carefully classified volume, covering everything you need to know, from the inception of the idea to the moment the telephone is hanging on your own wall, ready for you to use. No question on the building of rural telephone lines can possibly arise without your being able to find the answer to it in this volume. It offers explanation on every point—the solution for every problem. If you are even the least bit interested in the subject, all you have to do is to clip, sign and mail the coupon and

We Will Send You FREE This Book on "How to Build Rural Telephone Lines"

Bear in mind that you have to ask for this volume to get it. This book represents 100 profusely illustrated pages of vital facts, bound in stiff, cloth-covered bindings. Apart entirely from the cost of printing and binding, this book represents the brain work of experienced telephone men—has cost us so much money that we really ought to make a charge for it. So long as the edition lasts, however, we are willing to send it FREE to every farmer, who by using the coupon, signifies that he is interested in the subject. This book is very frank; it tells you exactly what you can do, what you must do and what you



cannot do; you will be interested in the straightforward way in which it comes out with vital information. Systems of rural telephone lines are spreading a network throughout the Dominion in the form of community-owned companies. Sooner or later someone will organize such a system in your locality. Why shouldn't you be the man to do it? In any event you owe it to yourself to know all there is to know about this subject. Better send the coupon NOW, while you are thinking about it. 235

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 to you. Montreal Toronto Winnipeg Regina Calgary Vancouver



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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
Province



THE MEN WHO MAKE No. 1 HARD.

Continued from page 35

fit for three seasons, but are sorry now that we did not get a larger engine, as this one is rather small for our separator. We could not run the separator to its full capacity.

The question then arises as to whether the single cylinder or the multi-cylinder is the better. From my own observation I favor the multi-cylinder engine of fairly high speed. In the first place there is lack of jar or pound, that is found in the single cylinder of the same horse power. And on account of the less vibration there would be longer life in the engine. The single is not very satisfactory when pulling damp straw, or when the engine is running to its full capacity and a sheaf should go in crossways, the engine is nearly always sure to run down, and sometimes it slows so that when the machine is clear it takes the engine some time to gain its full speed.

My separator is just fine. It is a good cleaner when handled properly. A good deal of the running of the separator depends on the buyer. A man cannot expect to get the best out of a separator when he does not know how to run it and does not know the principle of the working parts. My separator is just right, neither too large nor too small, and four teams with two pitchers and one spike pitcher could put through from 1,000 to 1,200 bushels of wheat a day, providing you have the power to handle the separator to its full capacity. But four teams will keep the power I have busy without any pitchers, and I can put through from 650 to 750 of wheat a day.

I should like to point out to intending purchasers that they should not go by the horse power of a steam engine that is capable of driving a certain sized separator, as there is a great difference between the ratings of steam and gasoline engines. The steam engines are usually rated at what is known as a normal rating, and

the gasoline usually by its brake horse power. For instance, suppose we put a 15 horse power steam engine on the brake, we should find that we had from 30 to 40 brake horse power. We then put on a 15 horse power gasoline, and find that we have very little more than 15 brake horse power, if any; so that the difference is apparent.

This fall I took off the feeder and fed by hand, thinking that I might put through a little more by so doing, but, although it was a little easier on the engine, we could not get much more through, as the straw in this district was rather tough this fall.

I hope I have not trespassed too much on your valuable space, and that this may help some brother thresher. I might say that I have been an engineer ever since I have been able to work, but am afraid that I have not been able to express myself very well.

Yours truly,
A Thresher,
Guy Foster.

A SAFE MARKET



You Take No Chances



We Assume All of the Risk

Ever since Esau sold his birth-right for a mess of pottage and even before, the world has had its full share of "sharppers" and "crooks" who try through apparently honest methods to take from the public its hard earned dollars and give in return values that are questionable.

Every month there is carried in the columns of this magazine a large amount of advertising, representing goods to the extent of many thousands of dollars.

This advertising is placed in The Canadian Thresherman and Farmer for no reason other than that the concerns who advertise with us wish to interest our readers in their various products. They are attempting to interest you to the extent of becoming a customer. Many thousands of dollars are paid us each year in this way; in fact, it is the revenue from this source that makes it possible for us to issue each month a high class, well printed magazine, such as The Canadian Thresherman and Farmer.

The carrying of all of this advertising, while necessary to the welfare of our business, is not without its responsibilities. Thousands of our readers, every year, are led to investigate and to buy the goods advertised in our magazine through reading the advertisements contained therein and for this reason we have done everything in our power to protect our subscribers against fraud.

HOW YOU ARE PROTECTED

Every issue of The Canadian Thresherman and Farmer contains a guarantee, the terms of which, are so explicit that you, as a reader of this publication, need have no hesitancy whatever, about purchasing any article advertised therein.

Before we accept any advertisement of any nature, we satisfy ourselves as to the reliability of the firm itself. We assure ourselves that they are in a position to fulfil their obligations and that they mean what they say. To quote from our guarantee, which you will always find on our editorial page. "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."

This censorship on our part, oftentimes prevents our accepting very profitable business, and viewed from the standpoint of dollars and cents compels us every year to turn down a large amount of money that we would otherwise get, but we feel that you have confidence in us or you wouldn't come back year after year and renew your subscriptions as you do and we want you to feel and know that the trust that you place in us is not abused or neglected.

It is possible for us to sometimes be fooled and regardless of how careful we may be an advertisement may creep into our columns that is just not what it should be and our subscribers may suffer loss thereby. Again, we assume the responsibility, for in our guarantee we say:--

"If any subscriber is defrauded, E. H. Heath Co. Limited, will make good the loss resulting therefrom if the event takes place within thirty 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."

Can anything be more fair or could we make it any stronger as regards your protection? In so far as we know, we are the only publication in Canada that carries to its subscribers a guarantee of this kind.

We aim to carry only legitimate and reliable goods in our advertising columns, and we want every one of our advertisers to be of that class that any of our subscribers can safely do business with him.

JUST THINK THIS OVER AND SEE IF IT DOESN'T MEAN SOMETHING TO YOU AND THEN ANSWER THE ADVERTISEMENTS IN OUR COLUMNS WITH A FULL FEELING OF SECURITY.

The value of any market to the buyer depends largely upon its safety and reliability. The Canadian Thresherman and Farmer is Western Canada's market place. Our guarantee makes it absolutely safe.

E. H. HEATH CO., LIMITED, Winnipeg, Canada

Recent Canadian Patents

Continued from page 28

wardly projecting flange adapted to close against the capping piece. Ball bearings are introduced between the capping piece and the top plate at the front, and also between the top plate and the bottom plate, the parts accordingly operate very freely.

132551, J. F. Wilcock, Wauchope, Sask.—The object of the invention is to provide a flexible draw bar or beam for threshing machines, and it comprises inner and outer bar sections, one being connected at its extremity to the intermediate portion of the other, the two pieces being releasably locked by a latch device when they are aligned.

132423, L. Rod, Edmonton, Alta.—The object of the invention is to provide a folding hopple for animals which will effectively prevent them from running away when left standing. It comprises a supporting member preferably fastened to the shaft, a main brace adjustably secured to the supporting member, the main brace being supplied at the lower end with a detachable device whereby it can be quickly fastened to or released from the foot of the animal, and a knee brace connected to the main brace more or less centrally, and having the free end supplied with a member engagable with the back of the animal's knee. This article when used positively prevents the horse from bending the leg to which it is attached, as the main brace prevents a forward motion of the foot, and the knee brace does not allow the knee to bend.

132617, J. O. Collede, Winnipeg.—The object of this invention is to supply a combination pad and cover for a bicycle or other such saddle, which will prevent the clothing of the rider from being worn and becoming shiny, and it consists of a pad presenting a good wearing surface such as corduroy, which pad is shaped the same as the bicycle seat, and has a front end supplied with a pocket which receives the nose of the saddle. Tie strings are supplied for holding the pad on the seat.

132358, F. C. T. O'Hara, Ottawa, Ont.—The object of the invention is to provide a simply constructed electrically operated device for removing frost from windows, such device being fitted to the hand, and it comprises a portable pad more or less circular in form having heating elements arranged therein and supplied with a contact surface of soft absorbent material, adapted to be applied to the window. The article is connected up by wires to a suitable source of electric power. In order that the current can be turned off, a switch is supplied at a point where it can be easily manipulated by the thumb.



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WITH
WESTERN INSTRUCTORS
FOR
WESTERN FARMERS**

The
**Scientific Farmer
Holds His Crop
in the Hollow Of His Hand**

He takes no chances. He farms his land as a manufacturer runs his factory. His harvest is the result of planning—and knowing how to plan—long months before the grain is even sown.

Aware that every crop failure can be traced to some definite cause, his knowledge and skill enable him to safe-guard himself. The scientific farmer is a doctor, not only of plant diseases, but of the soil as well.

He knows just what depth and the time for plowing, harrowing, disking and seeding required for each kind of soil and each individual crop on his farm.

That "wheat is wheat" is no longer accepted by the scientific farmer. There is as much difference between varieties best adapted to certain localities as between a "scrub" and champion horse. And, more, he knows that "like produces like."

Are You One of Those

who have felt the need of greater knowledge in farming operations? If you are you will welcome our course of Scientific Farming Methods by mail. Our lessons are prepared by the strongest staff of agricultural experts on the North American continent and include such men as Prof. S. A. Bedford, Prof. H. L. Bolley, Prof. Thos. Shaw, Prof. W. H. Day, Mr. R. E. Drennan, James Murray, Arch. Mitchell, W. H. Fairchild, Prof. C. H. Lee, Norman M. Ross, Prof. F. C. Elford, Prof. R. M. Doive, Prof. C. I. Guinness and others.

Our course of lessons contains the best things in farming and much that has never before been printed and the whole has been boiled down into concise, logical, readable, studiable form. As one of our present students, Mr. Thos. Duxbury, of Imperial, Sask., says: "It is an appeal of intelligence to the intelligent farmer at a moderate price." We have hundreds of testimonials, but speak to a student yourself.

CUT OUT THE ATTACHED COUPON AND SEND FOR FURTHER PARTICULARS TODAY



**Correspondence School of
Scientific Farming**

5 EDWARD BLDG.,
(Opposite Eaton's)

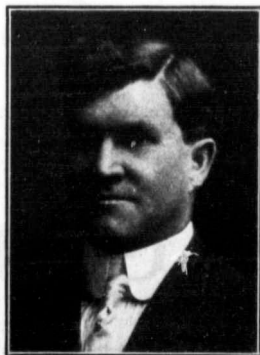
Winnipeg,
Man.

Send no further particulars, free of charge, postage prepaid

The subject of this sketch, Mr. L. L. Brockett, is at present director of the destinies of the Big Four-Thirty in Western Canada.

Mr. Brockett's business tact and genial smile has won him a host of friends during the short time that he has been in the Canadian West. While a young man in years, he is an old timer in the implement business, having been at the game for eighteen years. His first experience was at Des Moines, Iowa, where he sold harvesting machinery for Aultman and Miller. Liking the harvesting machine game he next went with the International Harvester Co., travelling out of Minneapolis. From this position he cast his lot with the Racine Sattley Co., at Minneapolis, and when the Gas Traction Co. of that place was perfecting its sales organization,

Mr. Brockett was placed in charge of outside sales. In June of this year he came to Winnipeg as



L. L. Brockett, Manager Gas Traction Co. Winnipeg

manager for the Gas Traction Co. in Canada.

Mr. Brockett reports a splendid business in 1911 in Big Four-Thirties. A gold medal winner and a gold medal manager go a long way toward piling up a big sales record.

Mother stands for the referendum and the recall on the farm, as Willie learns when he wants to go fishing at an inopportune time.

Few men will admit the possession of any superstition, but few will willingly occupy room 13 in a hotel.

The fello on the wheel is not disposed to complain, though the fellow on the seat too often does.

Big Victory for Avery Designed Construction

Winnipeg Motor Contest Proves AVERY Machinery Best in Design and Construction

DESIGN AND CONSTRUCTION								
Highest Possible No. of Points	Gas	20	20	20	20	20	100	
	Steam	20	20	20	20	20	100	
CLASS	Entry Number	Protection of Working Parts	Accessibility	Variation of Speed	Ease of Manipulation	Design, Material, Etc.	Total Points	
A Gasoline	1	13.5	17	19	16	17	78.5	
B Gasoline	2	18	16.5	17	15	18.5	85	
	Avery 3	15	15	20	20	17.5	88.5	
	4	14	17	13	11.5	12.5	74	
	5	14.5	18	18	12.5	15.5	79.5	
	6	13	18	15	16.5	16.5	79	
	7	14	12	19	18	17	79	
	8	Did not enter tests.						
C Gasoline	9	Same as No. 1						81
	10	17.5	16.5	19	15.5	18.5	87	
	11	14.5	17	14	14.5	16.5	75.5	
	12	17	18.5	17	16	18.5	87	
	13	13	16	14	14.5	16.5	74	
	14	12	18.5	15	16.5	16.5	78.5	
	15	14	16.5	17	18	18.5	86.5	
	16	14	18	17	17	16.5	82.5	
	17	Withdrawn.						
D Kerosene	18	Same as No. 1						75.5
	19	Same as No. 13						74
	20	Same as No. 4						74
	21	Same as No. 5						78.5
	22	Same as No. 11						75.5
	23	Same as No. 12						87
	24	Same as No. 2						81
	25	Same as No. 5 (lost 3 points for gear change)						78.5
F Steam	26	Withdrawn.						
	27	16	17	14	19	16	82	
G Steam Avery	28	18.5	20	20	20	17	88.5	
	29	16	17	17	19	16	82	
	30	Withdrawn.						
	31	16	17	14	19	16	82	

First in Class and in Entire Contest in Protection of Working Parts.

Tied for First in Class in Accessibility.

Perfect Score in Variation of Speed. First in Class and Tied with Avery Engine for First in Entire Contest.

Perfect Score in Ease of Manipulation. First in Class and Tied with Avery Engine for First in Entire Contest.

First in Class in Design, Material, Etc.

First in Class in Total Points on Design and Construction.

Double First Place in Entire Contest in Design and Construction won by the Avery Tractor and the Avery Undermounted Tractor Engine.

First in Class in Total Points on Design and Construction.

First in Class in Protection of Working Parts.

Perfect Score in Accessibility. First in Class and in Entire Contest.

Perfect score in Variation of Speed. First in Class and tied with Avery Tractor for first in entire Contest.

Perfect score in Ease of Manipulation. First in Class and tied with Avery Tractor for first in Entire Contest.

First in Class in Design, Material, Etc.

Five perfect Scores won by the Avery Tractor and the Avery Undermounted Engine. Avery Machinery won the Only Perfect Scores in Design and Construction in the Entire Contest.

This table is a copy of the Judges report,

It was the greatest Engine Contest ever held in the world.

The Avery Tractor won First in its class on every one of the five points.

1. Protection of Working Parts.
2. Accessibility.
3. Variation of Speed.
4. Ease of Manipulation.
5. Design, Material, etc.

The Avery Undermounted Engine did the same thing— Won First in its Class on every one of these five points.

And besides winning First Place on every point the Avery Tractor won two "Perfects," and the Avery Undermounted Engine three "Perfects."

Just think of it! Five "Perfects" for Avery Machinery out of ten markings and no other engine in the entire contest even won a single perfect score.

In the total markings for Design and Construction, the Avery Tractor won First in its Class, scoring 93 1-2 points out of a possible 100—beating its nearest competitor by 12 1-2 points.

The Avery Undermounted Engine also won First in its Class in the total markings for Design and Construction, scoring 93 1-2 points out of a possible 100—beating its nearest competitor 8 1-2 points.

And besides winning first in their Classes in Design and Construction, the Avery Tractor and the Undermounted Engine won a DOUBLE FIRST in the Entire Contest, both scoring the same 93 1-2 points out of a possible 100—and beating the nearest of their 28 competitors by 6 1-2 points.

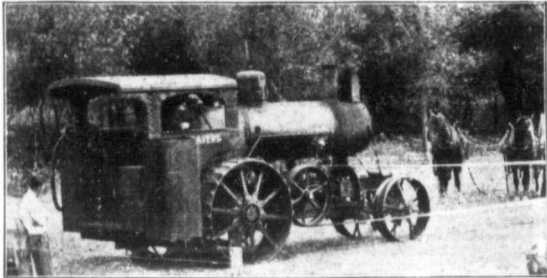
This is certainly wonderfully strong proof of the superiority of Avery Design and Construction.

It means that when a man buys an Avery Machine, he gets most Improved and up-to-date Design and Construction of any machine built.

AVERY COMPANY 675 IOWA STREET, PEORIA, ILL., U S A

HAUG BROTHERS & NELLERMOE COMPANY, CANADIAN JOBBERS, WINNIPEG, CANADA

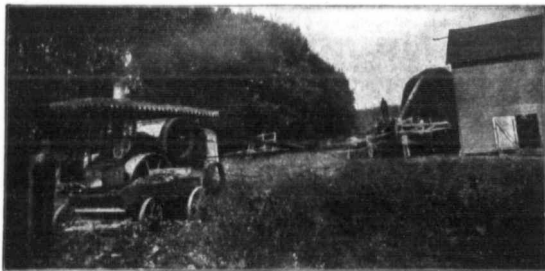
Here are Some of the Reasons why AVERY Machinery Won in Design and Construction, and why they win in the Field



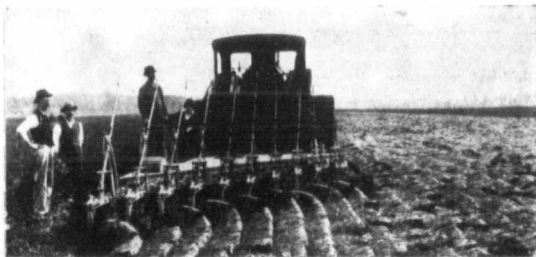
Who builds the only Undermounted Steam Traction Engine?—The Avery Company.
 What Steam Engine has the least boiler strains of any?—The Avery Undermounted.
 What is the only Steam Engine that has a straight-line-pull from the cylinders to the load?—The Avery Undermounted.
 What is the only Engine that has a screw shaft guide and a low down fly wheel?—The Avery Undermounted.
 What is the only Steam Engine, where the working parts can all be reached while standing on the ground without having to climb around over a hot boiler?—The Avery Undermounted.
 What is the Engine that has more attachments for doing more different kinds of work than any other engine built?—The Avery Undermounted.
 What Engine Won the Sweepstakes in the 1911 Winnipeg Motor Contest?—The Avery Undermounted.



Who builds the "Yellow Fellow—Grain Saver" Separator?—The Avery Company.
 What is the only machine that ever made an average record of 99 9-10 per cent Saved in 27 Canvas Tests?—The Avery "Grain Saver" Separator.
 What is the only Separator with Genuine Tool Steel Teeth?—The Avery.
 What is the only Separator that is regularly equipped with the famous IXL Grain Saving Device without extra charge?—The Avery.
 What Separator will thresh all kinds of grain and seeds and hull clover better than a clover huller?—The Avery.



What is the only Steam Engine with a full Water Front Return Flue Boiler?—The Avery.
 What is the Engine that is built so well that many of them are still running and in good shape after 14 or 15 years of hard work?—The Avery Return Flue.

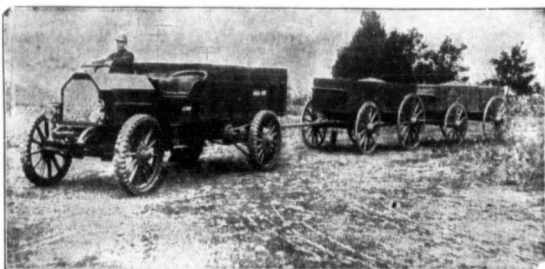


What is the strongest Engine Gang Plow built?—The Cockshutt-Avery.
 What Engine will Plow rocky ground, hard ground, gumbo and anything else better than any other engine gang built?—The Cockshutt-Avery.
 You ought to know all about how Avery Machinery is built and what it will do for you. You can find out all about them by writing for free copies of the Avery Tractor and Thresher catalogs.
 Get these catalogs now so you can have them to read over this winter.
 Write for them at once.
 Use the Coupon below or write a letter or postal card.



Who builds the simplest Gas Traction Engine?—The Avery Company.
 What Gas Traction Engine is one of the lightest built considering its power?—The Avery.
 What Gas Traction Engine has the neatest and strongest appearance of any?—The Avery.

AVERY COMPANY, 675 Iowa St., Peoria, Ill., U.S.A.



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Womans' Department

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A HOUSEHOLD FORUM FOR THE DISCUSSION OF EVERYTHING THAT PERTAINS TO THE HOME



IF WE KNEW.

There are gems of wondrous brightness
Of times lying at our feet,
And we pass them, walking thoughtless
Down the busy, crowded street.
If we knew, our pace would slacken,
We would step more oft with care,
Lest our careless feet be treading
To the earth some jewel rare.

If we knew what hearts are aching
For the comfort we might bring;
If we knew what souls are yearning
For the sunshine we might fling.
If we knew what feet are weary,
Walking pathways roughly laid,
We would quickly hasten forward,
Stretching forth our hands to aid.

If we knew what friends around us
Feel a want they never tell,
That some word that we have spoken
Pained or wounded where it fell.
We would speak in accents tender,
To each friend we chanced to meet;
We would give to each one freely
Smiles of sympathy so sweet.

—Genesee Richardson.

THE TOWN TRUST.

By Pearl Richmond Hamilton.

There were four organizations in Bainville, namely—the Town Council, the School Board, the Aid Society, and the Missionary Society.

Now the only capital to be found in any one of these clubs was the word *the*, and each body wanted the other organizations to know that it was the lawful owner of said capital. Every woman in town belonged to either the Aid Society or to the Missionary Society, except Jane Hanson, and when she wanted to start a new club, the female inhabitants waged a war of words.

Even those men whose working principles were not generous enough to be recorded sat on their accustomed much be-whitened benches and hurled sharp-pointed arrows at the proposed club. To be sure everyone liked Jane because she had a smile and a kind word for everybody, but another society could never thrive in the town of Bainville.

I say everyone liked Jane—everyone but Richard Brown. He did not like anyone—not even himself.

When Richard—alias Dick—heard of the plan, he slid his thumb into the arm-hole of his waistcoat and swelled his chest a little and drawled out in his usual pessimistic voice:

"What's the use in having another society—the one's we've got never did no good." Dick had always lived in the shade—he never saw the sun, nor a flower, nor a smile nor anything lovely in the whole world. His warped and shrivelled mind had affected his eyesight. In fact all of the men at Loafers' Retreat, which place shifted from the east side of the Post Office on sunny days to the inside on cold days, ridiculed and swore at the new idea. For the entire afternoon clouds of gossip and tobacco smoke were blackened with the threatening storm of bitter objection to the new club.

Finally Jim Watson with a beefy fist shoved back off his greasy forehead his felt hat, and his tight blue trousers stretched over his enormous knees as he

stiffened up to a painfully erect position while he announced the usual sentence that broke up these afternoon sessions: "Wall—I guess it's gittin' long about eatin' time."

Two or three heavy nickel watches came out of bulging pockets. Jim Watson stretched his stiffened muscles with great effort combined with a prolonged grunt, stood up and started down the lane with heavy uncertain steps.

Jack Smith coughed the frog out of his throat, stuck his cob pipe into his hip pocket and went into the post office to see if a train that never came in the afternoon had brought him any mail. This was a tri-daily habit with him. It was the only thing he ever did with regularity; he subscribed for no papers and never wrote a letter.

Richard Brown jumped up quickly as if some one had accused him guilty of a great offence, for he it said in all fairness that Richard rarely loafed. His one fault was that he was too ambitious, a condition not infectious in this town.

Shortly Loafers' Retreat was deserted and the inhabitants thereof were scattered to the four ends of the town.

thes come home to be a charge on her poor parents," and Mrs. Bowen shook her finger, freshly pierced by the needle during her exciting words.

"Well, they do say that she disgraced her folks somethin' terrible, but that ain't my business," Mrs. Watson rolled the frame over a little tighter after this remark. "Well, it serves them right. They should have been stricter in her bringin' up. I never let my girls walk the streets at nights."

Mrs. Watson wondered where these same girls were nights when Mrs. Bowen was poking around the corners of buildings with her lantern about eleven o'clock two or three evenings out of every week.

The two women looked out of the window just in time to see Mrs. Lamb and Mrs. Ramsay came up the walk.

"Well, I do declare, there's Mrs. Ramsay dressed up as usual. She will sew about ten stitches."

Mrs. Watson reached over for the ball that had rolled away just as the two new arrivals sat down on the opposite side.

Mrs. Ramsay began to talk about the minister's wife and the others listened

Then the four ladies with Mrs. Stevens looked over the afternoon's work. They had not accomplished much but "very little counts," Mrs. Ramsay said as she pinned on her plumaged hat.

The next afternoon the Missionary Society met and discussed the work in China for five minutes, then while they sewed carpet rags, the next one hundred and twenty minutes, they discussed the affairs of the town, especially Nina Kelsey.

As the Town Council and School Board met behind closed doors I cannot give the minutes of their meetings, but it was rumored that the President of the school board, Jim Watson, dismissed the primary teacher because his wife said that a girl who went to dances was not fit to teach her children.

When I saw the little teacher board the train for her home, I wondered which environment was the more harmful for children—the exercise of tongues in the movement of uneven measures and discordant tones of gossip, or the exercise of feet in the movement of perfect time and pleasing harmony.

The evening set for the formation of the club was at hand. Of course no one intended to join but everybody went through curiosity, even to Richard Brown.

Some say he did not go through curiosity, but anyway he went—was suffering from indigestion of the affections perhaps.

There was the sullen, silent stupid figure of the President of the School Board; Mrs. Watson with her neighbor, Mrs. Bowen, came in late and both sat in the back seat. On the face of each a proud, icy, loathing expression indicating their conviction of doubt.

There were the five Smith sisters who were all married and settled in a circle about the parental home. Ambitious plans of any of their respective husbands could not induce them to leave their father and mother. Every afternoon they met for two hours in the kitchen of their childhood, returning to their own homes in time to warm over the potatoes for tea. There they waited in various attitudes of weariness, expectancy and uncertainty.

For a few moments there was silence, then a buzz of suppressed whispering and a sudden hush at the appearance of Jane Hanson who walked across the platform with a freedom of movement and complete absence of self-consciousness which indicate great strength and body well under control.

There was a general feeling that this was a moment of importance, which resulted in concentrated attention. Then Jane's frank eyes seemed to look right into the shallow and shuffling little souls before her while a sense of calm assurance gave her courage to present her object and she began:

"Dear friends, this, no doubt, to you is a mysterious meeting, but I come before you with a plea for the improvement of our village. I have been studying conditions here and I find a goodly number of graduates from Grumbler's College and a very active Fretting Fraternity. Instead of praising our town, you are telling everyone who comes here that this place is dead. You are advertising this idea so widely that strangers



A Christmas Dinner in sight

The next day an extra meeting of the Aid Society was called, the notice read to tie a quilt for a box they were filling for Christmas. Now as this was in the month of July the Christmas rush was evidently on.

The quilt was one of those log cabin affairs that had been pieced by different members at the weekly meetings. It had been "set together" in classic style and sewed on to the quilting frames. These frames were stretched out in Mrs. Stevens' "spare room." The Aid Society always tied their quilts there because her "spare room" was the only room that was always "spare."

Mrs. Bowen and Mrs. Watson sat on the south side because they arrived first. After threading their long needles with cotton, they began their work of charity. "Nina Kelsey has come home to live off her father and mother I hear." "You don't say so, Mrs. Watson. Now I call that a right down shame for her to galavantin off to the city and spend a lot of their hard-earned money and

in mean silence. She had a head like a bell—the tongue was the only thing in it. Mrs. Ramsay's remarks, however, always commanded attention. She wore her black silk dress this day and the attention was even more marked.

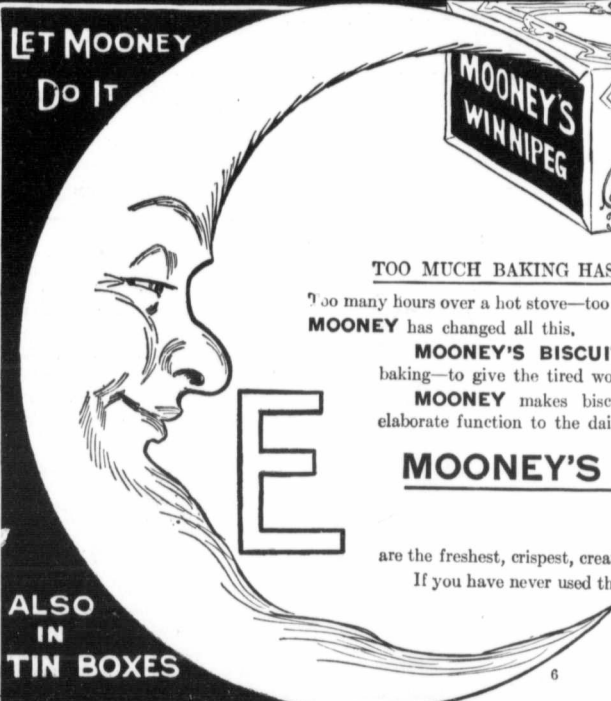
"The minister's new wife cannot find time to attend our Aid Society and Missionary Society but she is encouraging Jane Hanson to start her new club!" exclaimed "the woman in black," flushed with the excitement of conveying to the society a fresh piece of news.

"Well, did you ever!" came a chorused answer.


Then a terrible thought twisted up Mrs. Watson's face.

Mrs. Bowen's thread knotted until she jerked it out in a mad manner, and Mrs. Ramsay's tight dress waxed tighter as she swelled in indignant protest. Then a terrific cyclone of words burst from every mouth and continued its swath of destructive abuse until the clock striking five warned them that "time's up."

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"LET MOONEY DO IT"

regard this as the poorest business place on the line.

We have a few people here who have turned out bad and in place of lifting them up you are kicking them down. The wronged girl has no hope and the drunkard no kind word, the innocent find themselves slandered by merciless tongues.

Now the object of this club is encouragement. The members of this club will pledge themselves to encourage everyone in the village and a word of unkind gossip will never be spoken."

Jane Hanson's clear eyes seemed to touch bottom everywhere. For a moment a sense of blank astonishment came over everyone. Then the men realized that before them was a woman with a reliable mind in a capable body presenting a theme that meant power and progress.

As a rule the human heart is responsive to the appeal of an honest heart and what appeared but "shallow and shuffling little souls" were really deep and sincere when touched by love and truth and the inspiring belief in fresh possibilities prompted them to sign the pledge almost in a body. Then they went dumbly home. Richard Brown did not join the Encouragement Club.

"Oh, no, none of that for me!" he exclaimed, "two months from now it will be a thing of the past," and Richard sauntered down the road in a pessimistic manner toward his home.

That afternoon the Aid Society met, and a strange meeting it was. It was remarkable for its unfinished sentences. Mrs. Watson sat in bony silence, while Mrs. Bowen patiently showed Nina Kelsey the intricacies of the quilting secret. Mrs. Ramsay and Mrs. Lamb came early and they made brave attempts to talk, but since they had joined the new club they could think of nothing to talk about. Finally Mrs. Lamb exclaimed: "Well, I am going to take the family album and wax flowers off of my table and put in their places books and magazines. What I need is some good reading material."

"I've been cutting out little quotations," exclaimed Mrs. Bowen, taking a deep stitch, "and I am learning them while I work. It is surprising how they drive away mean thoughts of other people."

The Missionary Society met and they sewed carpet rags mostly in silence.

The School Board met, so did the Town Council. The latter voted Jane Hanson a salary to carry out the plans of her club.

Even the rude nature of the coarsest men melted under the influence of Jane Hanson's beneficial acts. But Richard Brown remained impenetrable and discouraged every movement. Finally, one day he met Jane in the store and when she approached him with a kindly smile he stepped back as if half afraid of her. "Glad to see you, Mr. Brown; I noticed your garden yesterday and I am wondering if I may have some ideas from you on gardening. Your's is really a model example," and she held out her hand in friendly greeting. Richard held back a minute in sensitive silence.

"A fellow wants to have a clean bill when he shakes hands with you," he felt a flush crawling up from under his collar at his own remark. Jane was deeply moved, the intense attraction of her womanliness seemed all the more over-powering because there was so much beneath the surface. Then she looked up into the face of a man whose face was suddenly transformed from darkness to light. For the first time in his life he had looked into the depth of a woman's soul. In this deep silence as each looked into the other's face so much was said that could not be spoken.

They understood—she walked on and so did he—in opposite directions.

The Encouragement Club soon made its influence felt in the village. Homes were improved, back yards were cleaned, houses wore new coats of paint, the sick and discouraged took on new leases of life, and the homes in the community increased in happiness. A general feeling of hospitality pervaded the atmosphere and an optimistic spirit increased the price of town property until it gained a reputation far and wide as a desirable place for investment. Optimism encourages ambition and even the lazy loafers were converted into respectable citizens. Children, too, absorbed the environment. Cupid shot an optimistic arrow right into the head of the pessimistic king and he led the queen to the altar and after the ceremony the Encouragement Club was formed a Trust

combining the Aid Society, the Missionary Society, the Town Council and the School Board and "the town lived happily ever after."

Mother's Corner

A CHILD'S PRAYER.

"God bless Daddy, Mother and me,
And make me happy as can be,
Make me good and make me strong,
And make my life a helpful song."

The above prayer is large enough to cover the desire of a child from the age of four years on through girlhood, womanhood and old age.

"Just a little smile will cheer us
When life's hill is very steep;
Just a kindly word will help us
When a frown would make us weep.

Just the sunshine on the waters,
Just the rainbow in the sky,
Just a little love—so little,
And its value is so high."

"A friendly smile and love's embering spark
Leaps into flowers and illuminates the dark.
A whispered "Be brave!" to our fellow men,
And they pick up the thread of hope again.
There's never an act or word or thought,
But that may be with importance fraught,
For small things build up eternity
And blazon the ways for destiny."

The mothers who read this department will be interested to know that the author of "Sowing Seeds in Danny" and "The Second Chance" has blessed Canada with another valuable production in the form of a son born in the month of October. Mrs. McClung is an unusually gifted woman; she has a personality so winning, a voice so clear and beautiful, and the expression of an intellect so

brilliant that her readings fascinate her audience. But her greatest charm is her womanliness—she is a mother in the true sense of the word. Besides the new babe she is the mother of three other sons and one daughter.

STRIKING EXHIBITS AND SOME GOOD ADVICE.

At the recent Child Welfare Exhibit in Chicago a red electric light was arranged to flash every twenty seconds. Every flash indicated the death of a child, somewhere in the civilized world, from a preventable cause.

Mothers need to be protected against exposure, over-work, dissipation, venereal diseases, stress and strain of every kind; and they need to be taught how to nurse their children, and how to feed, clothe and bathe them properly. Every baby ought to have plenty of fresh air, cleanliness, nourishment, rest and a quiet happy babyhood.

To enliven the teaching of needed lessons and to express vital truths, striking epigrams were displayed here and

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there, named according to the topics they were intended to emphasize. Here are a few:

"Closed windows are open avenues to consumption."

"Strong drink makes weak men."

"No good growth without exercise."

"Modern city life may build fortunes, but it breaks health."

"A clean tooth never decays."

"First aid to the dyspeptic—a good laugh."

"High living develops low vitality."

"Breathe deeply; the more you expand your chest, the less you will contract colds."

"For your baby's sake, nurse it. You can't improve upon God's plan."

"Dirty air is death."

"What will it profit a child to gain the whole curriculum, if it lose its health?"

"Child's curiosity concerning sex is normal, pure, and necessary for mental and moral development. Satisfy it with chaste ideals."

"Begin early to prepare the next generation for parenthood."

"Better a year too early than an hour too late."

"Switzerland requires her children to be in the open air ten minutes every school hour."

"The only night air that is injurious is last night's; open the windows and let it out."

"It is better to be safe than sorry."

Very quickly the Baby's Dresses become too snug for comfort. Did you ever try trimming out the neck and arm-holes and putting in new sleeves? This will enlarge the little dress enough to ensure comfort, until the material shows signs of wear and the dress must be discarded.

One man says: When I was a boy I sometimes visited with a prominent farmer who had a large family. He was one of the best farmers I ever knew. Nearly every night he would talk to the boys about the business of farming. He was a great reader and thinker, loved farming and delighted to teach them from his vast stores of knowledge. He would tell them how much land one man could cultivate in the different crops, how much money he should get out of these crops and about what his average income should be. His sons are now the leading farmers in their section of country and I believe it is largely due to the training given them by their father.

The parents should allow the boys to assume responsibilities when quite young, increase them as they grow older, encourage and assist them, and when they become men they will be able to manage a farm successfully.

Ella Wheeler Wilcox writes this about boys:

Whatever pertains to the best interests of boys pertains to the best interests of the whole world. Our boys are our future citizens, law makers, rulers, teachers and toilers.

Whatever helps boys to form right ideals and entertain noble aspirations helps Society at large for generations to come.

Imagine for a moment the awful condition of the world were all boys of the present day to be brought up in the slums, without any moral or legal guidance.

What would become of the land after thirty years?

Imagine the results which would follow if by some miracle every boy in America to-day should be given the most complete and scientific training, which would enable him to feel a sense of high responsibility and fill him with a desire to be a useful and worthy citizen.

The millenium would indeed be near. And with every boy, or bevy of boys, led into right paths, the whole race is led just so much nearer perfection.

The article on "Helps for Expectant Mothers" will be sent to any woman who writes to me for it. There is no charge. Address Editor of Woman's Department.

Correspondence

Dufferin Home Economics Society held one of its most successful and enjoyable meetings at the home of its president, Mrs. W. S. Murray, in July. Two very interesting papers were read. The first one by Nurse Adrian, of the Carman General Hospital, on "The Care of Typhoid in the Home." The second on "Ridding our Premises of the Filthy House Fly," by Miss Fender. Nurse Adrian's paper was a clear and concise one and treated very thoroughly on typhoid, its symptoms, care and complications. Both young ladies were given a vote of thanks.

The music furnished by one of the members added greatly to the enjoyment of the meeting, and after singing the national anthem, our hostess invited all to remain for a cup of tea with her. This invitation was accepted and a fine supper enjoyed by all. Thirteen new names were added to our membership at this meeting.

The regular monthly meeting of the society was held in Carman on August sixteenth and was very well attended considering that it was harvest time. The program consisted of a general discussion of "The Dower Law" and an exchange of pickling recipes. Arrangements were also made for a lecture to be given by Dr. Mary Davidson at the September meeting.

At the meeting of Sept. 20th the time was entirely given over to Dr. Mary Davidson, of Neepawa, who addressed the ladies on "The Hygienic Cure and Management of Infants and Small Children." At the close of her lecture Dr. Davidson conducted a question drawer, which was much appreciated by all present.

It is to be regretted that more of the country ladies could not avail themselves of the opportunity to hear this excellent address by such an instructive and fluent speaker as Dr. Davidson. The inclemency of the weather and threshing were potent factors in keeping many of our members and friends at home.

H. C. F., Carman.

I am sure our readers will agree to the fact that the Dufferin society has had some very instructive programmes. I wish we might have all attended. This society is in a very prosperous condition.

Paper read at one of the meetings of the Home Economic Society:

BREAD MAKING.

This is one of the most important articles of diet and deserves the first place in this work. So much depends on having necessary of life-light, sweet and fresh, that hardly enough can be said on the subject to induce wives and mothers to give their attention to this department of the kitchen work, and if need be, make less cake.

Bread making is an art and requires experiments, patience and observation, but when you have once reached perfection be careful ever after to follow those rules that lead to success.

Bread has been truly named the "staff of life;" it holds in itself gluten, starch and sugar, and therefore combines the chief nutritive properties of animal and vegetable food. An authority on bread making has said in this composition of good bread there are three important requisites: good flour, good yeast, and strength to knead it well. A very important constituency of a wholesome diary is good bread. In some form an immense quantity of bread is eaten good, bad and indifferent, the two latter qualities prevailing are very injurious to health.

A house-keeper who is not a good bread-maker lacks one very essential request in her vocation and may be regarded as unfortunate indeed.

A little experience with the following hints will enable anyone to judge pretty correctly the quality of flour:—

Squeeze up a handful and if it falls from the hand light and elastic it is a sure sign it is good; if it falls in a compact mass or is clammy to the touch it is bad and will not make good light bread.

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It is not of the first importance that flour should be very white, although it is desirable that it should be so. Flour will work very much better by thoroughly drying it out, let it be set on the top shelf of the range, or some other warm place twenty-four hours and you will be surprised at the difference it will make in either bread or cakes. Some good cooks keep a lot of dry flour on hand all the time, and regard it as a great secret.

Salt is always used in bread making, not only on account of its flavor which draws the insipid raw state of the flour, but because it makes the dough raise better.

If either the sponge or the dough be permitted to over-work itself, that is to say, if the mixing and kneading be neglected when it has reached the proper stage for either, sour bread will probably be the consequence, in warm weather, and bad bread in any case. The goodness will also be endangered by placing it so near a fire as to make it hot instead of maintaining the gentle and equal degree of heat required, and an almost certain way of spoiling dough is to leave it half made and to allow it to become cold before it is finished.

As a general rule the oven for baking bread should be rather quick and the heat so regulated as to penetrate the dough without hardening the outside.

The oven door should not be open after the bread is put in, until the dough is set or has become firm.

As the cool air admitted will have an unfavorable effect upon it, the dough should raise and the bread begin to brown after about 30 minutes but only slightly.

Bake from 50 to 60 minutes and have it browned well all over when baked.

Remove the loaves immediately from the pan and place where the air can circulate freely around them and thus carry off the gas which has been formed but is no longer needed. At noon, the day before baking, I take six good sized potatoes, boil and drain the water on two table-spoonfuls of salt, one-half cup of flour, half a tea-spoonful of ginger and two table-spoonfuls of sugar. Mash the potatoes, put with the potatoes, ginger, sugar, salt and flour, add cold water until cold enough to put the yeast cake (half a yeast cake) in. It is wise to put the yeast cake to soak in luke warm water when you put the potatoes on to boil, set it on the top shelf of range until night, then cover it up until morning.

Then I take the flour in the bread pan, put the batter in and stir until quite thick, let it stand for three-quarters of an hour, then mix it, let stand one hour longer, the next time it rises put it in the pan.

Graham Bread.

This bread ought to be the bread of general use, it is fast becoming popular as it deserves. The fine white bolted flour so commonly used has been deprived of its most valuable quality by that bolting. The general use of "graham flour" should be encouraged, almost everyone who uses it for a time gets to like it better than the white, its sweetness and strength makes the latter seem insipid to the taste. The sponge is prepared precisely in the same way as for white bread.

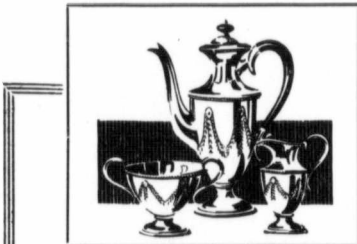
R. W. Parrott.

This paper is both interesting and instructive and will help our readers.—P. R. H.

CHRISTMAS HINTS.

A Mending Box.

It is easy to make a good mending-box from any ordinary wooden box bought from your grocer, and what mother would not be glad to have one? says a writer in an exchange. Cover the box with denim, and pad the lid: Line the box with a pretty wall paper. On the outside make pockets of the denim, with flaps to fasten down, and tack these pockets on with brass-headed tacks. In one pocket put thread, thimble, scissors, etc. Fill the others with scraps of woolen and cotton material for mending. On the inside of the lid tack a pincushion filled with all sorts of needles and some common pins. On ironing day each garment that needs mending can be folded and placed inside



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the box. Then, when a neighbor comes in to spend the afternoon, the box can be pulled out from where it has been serving as a window-seat or stool, and the weekly mending will not be such a bugbear.

"In June I began to make a list of things I could do to make others happy—especially at Christmas time. I was quite shocked to find that at first I could think of almost nothing that did not cost money. But after I thought of one thing, another suggested itself and that led me on to another so that when November came I had a list that I was proud of. And I began making my Christmas presents a month before the holidays as I had done for years.

"The first thing I did was to write cheery, Christmassy letters to each of my friends who lived out of town and whom I could not 'remember,' according to my plan, in any other way. I made it a point to write at least one letter a day until all had some helpful message. As each was written I stamped and addressed it and laid it away in my desk, all ready to mail. About a week before Christmas I began mailing them so that they would be delivered two days before the holiday. There are a lot of postmen who do not know of the present I gave them! I think it is a shame that they are worked so hard on Christmas Day just because people will not take the trouble to think."

A Christmas Gift for Grandma.

Buy a small glass or cleared sugar bowl with a lid. Fill it with old-fashioned candies, such as peppermint, wintergreen and horehound drops, and give it to grandmother for a candy jar. It will be a pretty ornament for the mantelpiece or table, and will be handy whenever she has a tickling in the throat, or when she wants a sweetie for herself or to give to a grandchild.

An Inexpensive Christmas Gift.

So many people seem to feel that the Christmas preparations are a burden that I would like to urge the mothers of the Council to make more simple, inexpensive gifts, reducing the cost and

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The DELMAR price for this great folio is only **POSTPAID**

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- From 'Madame Sherry' arranged as a Barn Dance.
- WALTZ—Where the River Shannon Flows
- TWO-STEP—Loving (from N. Y. Hippodrome Production 1910-11).
- WALTZ—Good Night Dear.
- BARN-DANCE—Doctor Tinkle Tinker (from The Girl of My Dreams).
- WALTZ—Can't You See I Love You (from The Newlyweds and Their Baby).
- TWO-STEP—That's Yiddisha Love.
- WALTZ—My Heart Has Learned to Love You, Now Do Not Say Good-Bye.
- Also the following numbers, each one a great success.
- TWO-STEP—Bright Eyes (from Bright Eyes).
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- TWO-STEP—Shaky Eyes.
- WALTZ—I Love The Name of Mary (from Chauncey Oloott's Barry of Ballymore).
- BARN-DANCE—I'm Looking for a Sweetheart and I think You'll Do (from Pied Piper and Sporting Days).
- WALTZ—To The End of The World With You
- LANCERS—Madame Sherry.

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BLACK OR NAVY BLUE
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Nobby ladies' suit, made of very good quality broadcloth. Coat has semi-fitted back. Coat sleeves and collar are beautifully trimmed and outlined with heavy silk braid. Finished with trimming buttons. Entire coat lined throughout with heavy serge lining. Length of coat 30 inches.

Skirt has all seams stitched to hip length heading wide vent plaits insuring perfect fit.

This is an elegantly finished and dressy suit. Generally sold at from \$10 to \$12. Colors black and navy blue. Sizes 34-44 bust measure.

With every order for suit we will include, absolutely free of charge, one year's subscription to "Art Needlework Magazine." Send in your order to-day.

AVALLONE & CO., INC., Dept. C.
515 TRADERS BANK BLDG., TORONTO, ONT.

labor but by no means reducing the Christmas spirit. A useful gift that may be made at a little cost is a case for teapots and may be made as follows: Get half a yard of cotton flannel and five yards of red binding ribbon about one-half inch wide. First, bind one of the raw edges of the flannel with the ribbon and turn this edge up to a depth of six and one-fourth inches, with the fuzzy side of the material folded inside. Baste in place and divide into fourteen narrow pockets and stitch twice between each two pockets with red silk. Turn over the remainder of the flannel for a lap, shape it to please your taste and bind it with ribbon. Bind all of the raw edges with ribbon and use the remainder of the ribbon as a tie for the case when it is filled and rolled up. The little daughter can be taught to make these cases and every housewife would appreciate having one.

For the Traveller.

Nothing can be more acceptable to the friend who travels considerably than a toilet apron of stout linen. It should be made of a liberal sized square of brown linen, gathered slightly to a broad band which buttons round the waist. Upon the front of the apron place the desired pockets for mirror, brushes of various sorts, combs, soap, pins, and whatever may be needed for the toilet. The pockets designed for sponge, soap and tooth brush should be lined with rubber. This apron is much more convenient than any sort of toilet bag, particularly for long overland journeys when one must dress in the toilet room of a sleeper.

Coat Hangers.

Shapely and inexpensive coat hangers are made from half a barrel hoop. They may be covered plainly and a loop attached to hang, or quite elaborate ones are made by padding with sheet cotton in which sachet powder is sprinkled, then covering with shirred silk or ribbon and a pretty bow and loop attached. A silken bag stuffed with scented cotton may be suspended by a short ribbon from each end of the hanger, making a very dainty article.

A Pretty Hatpin Holder.

A hatpin holder that will not only be convenient, but will add a decoration to the room in which it is placed, is an acceptable gift. To make this holder, take two pieces of cardboard 8 1/2 inches long by 3 inches wide. Sew the pieces together at both ends, putting wadding between them. Then cover the top with a piece of fancy ribbon, hemming neatly at one side, and oversewing the selvage edges of the ribbon at both sides. Sew a piece of narrow ribbon at the top by which to hang it, having the ribbon match the flowers in the covering. It requires 6 3/4 inches of 8 1/2 inch ribbon, and 1 1/2 yards of narrow ribbon. Stick the hatpins in at each end.

A Bag for Paper Patterns.

The time is getting short for our girls in which to make their Christmas gifts. Here is a very simple gift which will be appreciated in the family where home sewing is done. It can be made of plain denim, but if made of some heavy flowered cretonne, you will have added attractiveness to usefulness. We should all try to do this at the Christmas season.

To make the bag take two pieces of material one twenty-seven inches square, the other 22 x 27 inches. Cut the smaller piece in two lengthwise, and bind the upper edges of these two pieces. Then place one of these pieces on the large piece about four inches from the top, and stitch firmly in place, making three bags as shown in the illustration. Do the same with the other piece, placing it at the bottom of the large piece. When the bags are in place, bind with strong braid on three sides. Hem the top, making the hem large enough to run a small brass curtain-rod in. Cat-stitch the names of patterns to be placed in the bags on each bag. To hang up securely use curtain brackets.



For Health and Economy Eat more Bread

TEN cents will feed an ordinary family a day on first class bread. This does not mean ordinary bread. For there is an important difference between ordinary bread and first class bread.

It isn't a difference of looks or methods of making or baking. It is a difference of nutrition, food value, healthfulness. And this food value depends on the flour used. For there is a wide difference between flours.

If all flour were the best flour, then all bread, properly made, would be good bread. But all flour is not first class because all wheat is not first class. Wheat, you know, varies in quality almost as much as apples or potatoes; there are as many different grades of wheat as there are grades of butter—or wool.

And every difference in grade represents an actual difference in nourishing value, food elements, wholesomeness. Flour made from a low grade of wheat is by no means so healthful as flour made from high grade wheat, Now the wheat that goes into

Ogilvie's Royal Household Flour

is of the very highest grade. It contains the highest possible percentage of nutritive value. The makers of "ROYAL HOUSEHOLD" maintain expensive laboratories and baking departments where skilled men scientifically analyse each day's milling. None but the very best Red Fyfe wheat—rich in nutrition and healthfulness—can pass. For this reason bread made from ROYAL HOUSEHOLD FLOUR contains the maximum of food value and

furnishes the maximum of energy and strength. And for the same reason "ROYAL HOUSEHOLD" makes the finest pies, cakes, biscuits, muffins, rolls, and pastry of all kinds. It is the one flour that a housewife should use in order to have her household baking strictly first class.



"Ogilvie's Book for a Cook" with 125 pages of Recipes that have been tried and tested will be sent free to your address if you mention the name of your dealer. 133

The Ogilvie Flour Mills Co. Limited, Montreal, Fort William, Winnipeg.

SEND \$4.25



Receive by mail postpaid this very attractive tailor made dress comes in the latest style as shown, two plaits extend down the front from the yoke to the foot trimmed with 2 dozen buttons, lace yoke, side gored of skirt end in fine pleats, skirt is in 7 gored. The whole suit is finely made and bound to please in every way. Material consists of fine French tulle in black, navy, dark red, and dark green can also be had in a smooth faced warm soft cloth, suitable for cold weather in black, navy, dark red, and dark green. Order one of these dresses today you will be well pleased with your bargain. Simply give the number of ins. around the largest part of bust and hips. Also around the smallest part of waist and length of skirt from belt to desired length. Order dress No. 18 add 38c for postage STANDARD GARMENT CO., 23 Standard Building, London, Canada.

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SWITCHES.

Wavy, extra short stem, made of splendid quality hair and to match any ordinary shade.

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26 inches.....	\$4.25
to Puffs or Curls.....	\$1.25

Rare, peculiar and grey shades are a little more expensive. Ask for estimate. Send long sample of your hair and describe article you want.

You will be more than satisfied with the price and quality of these goods, and if you are not, return them to us promptly and we will return your money.

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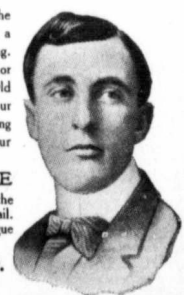


Receive by return mail post paid two beautiful little dresses like cut, in soft warm dress goods, in dark red plaid patterns for little girls, age 2 to 8, made with waist and skirt, trimmed with braid, in latest style. Age 10 to 12, 75c. Age 14 \$1.25, add 14c for postage. Standard Garment Co., 23 Standard Building, London, Canada.



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But if he LOOKS old, he is, reckoned old without a chance to prove he's young. The world has no place for Old Men—who Look Old Protect yourself, your health and avoid that feeling of sensitiveness among your friends by wearing a



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Light, natural looking, easily adjusted; they give the head the natural protection necessary to perfect health. Order by mail. Perfect fit and satisfaction guaranteed. Write for free Catalogue No. 22.

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Kindly send me copy of your new (1912) Catalogue as advertised in the Canadian Thresherman and Farmer.

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Like diamonds, there are many qualities of pearls obtainable. The "Extra-Oriental" quality is three times that of the commercial grade usually found in Pearl Jewellery but the beautiful rich coloring and lustre of the "Extra-Oriental" is well worth the difference in cost over the dull yellow coloring of the commercial grades. By mounting the commercial grade of pearls in our Jewellery the price could be lowered and the piece would illustrate equally as well but the quality of Pearl Jewellery is being the very highest standard of quality and the best in intrinsic value to be obtained anywhere. We invite inspection of our stock with comparison of values at all times.

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33352, \$11.00

ABOUT WOMEN.

The hearts of men who are down cannot be warmed by wives who grumble.

A woman's strength is most potent when robed in gentleness.

A poor memory is only one that has not been drilled sufficiently.

Jane Applebee is the cattle queen of Oklahoma. She is now eighty-two years old. When she was fifty years of age she was a washer woman with fifteen children. Driven by necessity, she went into business with splendid energy, thrift and foresight. She succeeded wonderfully and is now a wealthy woman.

Eve was made of a rib out of the side of Adam—not out of his feet to be trampled upon by him but out of his side to be equal with him.—Matthew Arnold.

The most unhappy woman in Europe and probably in the world is one of the richest and most high-placed—the Czarina of Russia.

It is well known that for several years the Czarina has been suffering from a very severe nervous affection. She has been in a state of deep melancholy, varied by paroxysms of fear

aroused by more or less imaginary causes. She has imagined that she would meet the fate of other unhappy women of the Russian court, and she has suffered from frightful dreams.

Her condition is sometimes described as neurasthenia, but it seems to be developing into a settled form of melancholia, as she has been suffering from it for several years. Melancholia in an advanced state is a very grave form of insanity.

Miss R. N. Hillman, born in St. Paul, trained as a stenographic reporter, tired of the city and moved to a Wisconsin farm. She fell in love with the life. With her mother and small brother she heard the call of Canada. Today she owns 2000 acres near Moose Jaw, owns buildings of stone and cement, employs a foreman and four hands all the time and eight men in the busy season, conducts her affairs so that each day she knows where she is financially, manages all business deals herself, and clears between \$6000 and \$10,000 every year. This is much better than serving time as a stenographer.

Human Life gives this bit of information:

The California State Board of Health figures that the upbringing of the average child in California, from birth to its

twentieth birthday, costs \$4150. Its average commercial value at its twentieth year is \$4000, or \$150 less than cost. By the time it has reached thirty its value has jumped to \$16,000. Statistics show that his maintenance, education, and the rest have cost his parents, the state or himself \$10,500, thus making him actually worth in profits \$5,500. It is only of late that the national leaders have awakened to the value of child conservation. People are beginning to see that children from the standpoint of the nation, are of value and should be treated as valuable things ought to be treated. Eventually we shall reach the stage when as much attention will be paid to breeding children as is now paid to breeding animals. If it is of importance to the country that the quality of horses, cattle, pigs, sheep and chickens should be improved, surely it is of importance that the quality of the children should be raised.

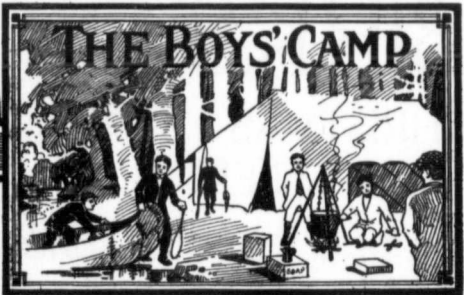
Frances Jane Crosby, popularly known as "Fanny Crosby," was born in Putnam County, N.Y., March 24, 1820. When only six weeks old, she was treated for a slight inflammation of the eyes, the doctor ordered the application of a warm poultice; apparently, through the incompetency of the physician, she lost her sight.

However, she became a happy, fun-loving girl, for her blindness did not prevent

her from sharing in many of the joys of childhood. She writes, in her interesting autobiography, that she could climb a tree or ride a horse as well as any of her playmates. "Gradually," she says, "I began to lose my regret and sorrow at having been robbed of sight; little by little God's promises and consolations came throbbing into my mind. Not only the Scriptures, but the hymns that I heard sung Sabbath after Sabbath, made deep impression upon me."

"I'm the happiest soul living," she once said. "If I had not been deprived of sight, I should never have received so good an education, nor have cultivated so fine a memory, nor have been able to do good to so many people."

Harry Turner Bailey is an artist. In a recent talk he emitted some loud hints to women on matters of dress. "If you are tall," he said, "wear gowns made on horizontal lines and never have dresses too long or too short. If you are short your costume should be made on vertical lines. Never have your dresses short, regardless of style. If you are stout, dress plainly in a one-color scheme. If you are thin, a mixed goods is permissible. Women with large feet should never wear tanned shoes. Whether feet are large or small, the broad bulldog toe is inartistic from every point of view. Puffs are condemnable because they are false."



The Girls' Cozy Corner

A Girl's Joy.

I'm glad I am a little girl,
And have the afternoon to play;
For if I were a busy bee
I s'pose I'd have to work all day.

And if I were an owl I'd be
Afraid to keep awake all night;
And if I were an elephant
How could I learn to be polite?

And if I were a Jersey calf
I might forget my name and age;
And if I were a little dog
I couldn't read the children's page.

My sakes! When I begin to count,
It makes my head go all awirl;
There are so many reasons why
I'm glad I am a little girl.

MAGIC LANTERN FREE FOR SELLING XMAS BOOKLETS

New upright shape, entirely made of metal with nickel trimmings, has lamp and chimney and is complete with colored slides. Write for only \$2.00 worth of our dainty Christmas Booklets to sell at 3 for 10c., each in an envelope and tied with a silk ribbon. These sell like hot cakes at this low price. When sold send us the \$2.00 and we will mail the lantern post free by return.

THE ART POSTCARD CO., DEPT. WINNIPEG, CANADA.

Steam Engine Free

For Selling only \$4 worth of dainty Christmas Booklets

A perfect model launch, has real steam engine which propels it through water; engine has brass boiler and oscillating cylinder. Propelled by two screws. Given free for selling only \$2.00 worth of our dainty art embossed and colored Christmas Booklets at 3 for 10c., each in an envelope and tied with a silk ribbon. These are very quick sellers. Write now, and when sold return us the money and we will send steamboat post free by return. THE WESTERN PREMIUM CO., DEPT. WINNIPEG, CANADA.

Listen Boys!

We want you to look carefully at the above picture and judge it for yourselves. You can get this engine elsewhere. We have the entire rights in it, which we secured at great cost because we determined to find an engine that was a perfect working machine in every way and that could not fail to give our agents the highest satisfaction. It is exactly like picture and guaranteed in every way. We are giving them absolutely free. Send to us for \$4.00 of our dainty Christmas Booklets, each embossed and colored, and tied with silk ribbon. They are fast sellers at 3 for 10c. Everybody buys them at first sight and can't understand how it is possible to make them at the money. **IMPORTANT!** Order now and we will at once reserve your engine. Once our stock of this fine engine has been cleared out we will not fill any further orders. When you have sold the booklets send us the \$4.00 and we will send engine immediately.

The JONES Mfg. Co., Dept. 91, Winnipeg, Canada

Prize Letter.

Whitewold, Manitoba

Dear Cousin Doris:—

This is my first letter to you but I think I will write again. We are camping here; it is a small village on Lake Winnipeg. We live in Winnipeg. I am in grade five I like school. I enjoy reading your page very much; I like to read the girls' letters. I have three brothers but no sisters. There is a splendid beach here for bathing and I certainly make use of it. We get our water from a spring and it is nice not to have to pump it or have a water bill. Mother Nature has not sent in a bill yet for it anyway. Well, I must close now, wishing the "Cozy Corner" every success in the future. I am, your truly, Florence McClung.

Tompkins, Sask., Sept. 17, 1911

Dear Cousin Doris,—This is my second letter to the "Corner" and it is so cosy I will write again. Thank you very much for the book, namely, "The Merry Girls of England." I am very proud of it.

I go to school nearly every day and am in the 8th grade. I like to go to school as my teacher Miss Bailey is very nice.

My father has been threshing for about two weeks. We live on a farm three miles from Tompkins. We have to cross a coulee to get there.

I notice that some of the girls can cook and sew. I can not do either of these things very well. I like to read books. I suppose your little girl Monona will soon be going to school. I like to tell conundrums so I will write some at the end of my letter.

I will close now hoping I will receive another prize as I am very fond of reading. I would like my letter to be printed soon. I remain a member of the C.C.,—Lillian McEwen. Age 13 years.

Q.—What is it you can fill a barrel with and still be making it lighter?
A.—Fill it with holes.

Q.—How can you get milk out of a bottle without pulling the cork or breaking the bottle?
A.—Shove the cork in.

Q.—What makes more noise than a pig under the fence?
A.—Two pigs under the fence.

Q.—Round as an apple, deep as a cup, all the king's horses can't pull it up?
A.—Well! Well!

Fleming, Sask.

Dear Cousin Doris:—I have been a silent reader of the Girls' Cozy Corner for quite a while, and I enjoy reading the letters very much. I am thirteen years old. I go to school and am in Grade VII. My favorite studies are reading, writing, grammar and history. I live four miles south of Fleming. I am very fond of reading. My favorite book is Queenie's "Whim." I enjoyed reading, What a Girl Owes to Her Mother. I am sorry to say that I have not got a mother. She died four years ago. My favorite pastime is skating and cooking. I have two sisters and three brothers. Well I guess I will close. I remain your loving cousin, Bertha Pearson.

I am sorry for any girl who has no mother. If at any time Bertha, you want to ask a friend for advice write a letter to me and I will gladly write to you personally. Let me help you when you need advice.—Cousin Doris.

Vista, Man., Feb. 5th, 1911

Dear Cousin Doris:—This is my first letter to the Girls' Cozy Corner. I go to the Cul.oss school. My age is ten. I am in the fourth reader. My studies are reading, writing, spelling, history, grammar, arithmetic, geography and competition. My teacher's name is Miss Cameron. We live four and a half miles from Vista. It consists of a blacksmith's shop, one store and a post office, one elevator, a church and a manse, and a few dwelling places. Well, I must close my letter, for it is getting too long. Wishing your paper every success, I remain, Tiger Lillie.

Pleasanton, Alta.

Dear Cousin Doris:—I am going to write a letter, and see if I can win the prize. I hope I do. I am not going to school now, but school starts this coming Monday, and I am glad too. I am in the third reader. I am eleven years old. I am fond of horseback riding. I am staying over at my sister's place. I should like very much to tell something that had happened, but don't know of anything now, so I think I shall have to close. Wishing Cousin Doris every success, and hoping this will pass the waste basket, I remain, your cousin, Anna Fossen.

Glenada P.O., Sask.

Dear Cousin Doris:—This is my first letter to your club. My uncle takes the Canadian Thresherman and Farmer and we all like it. I am thirteen years old and I go to school, and I like going. I do not go to school in winter because it is so cold and the snow is so deep. I like to read the letters in the Girls' Cozy Corner. My uncle wounded a Jack rabbit. It was getting along nicely; it would eat and drink. It slept on some straw in the stable. It got down by the horses and one of them stepped on it. I think I will close for this time. Wishing Cousin Doris success, Violet Russel.

Fletts Springs, Sask.

Dear Cousin Doris:—I though I might win a prize. I live on a farm nine miles from a town called Melfort. There is a creek running through our farm. The place is very pretty in summer and there is lots of fruit. In winter there is a good hill to sleigh ride on. We live five miles from school, and my sister, brother, and myself drive in summer, but can't go in winter because it is so cold. I like to read the stories that are on your page. Well, I think this letter will be long enough for the first letter, so good-bye. Your loving cousin, Emma Downie.

The Canadian Boys' Camp

BOYS' LETTERS.

Briercrest, Sask.

Dear Cousin Doris:—This is my first to the Boys' Camp, and I hope to see it in print. We have taken the Thresherman and Farmer for one year, and have renewed our subscription this year. I like to read the letters very well. I have written three letters to the Prairie Chicken Club, but I like this club the best.

There hasn't been much school here this winter. It just started three weeks ago. My brother and I ride our ponies every day. We live two miles from the school. I would sooner go than stay at home.

We live ten miles from our nearest town, which is Drinkwater, but we get our mail at Briercrest. The railway is surveyed two miles from our place, and by next fall I guess we will only have two miles to haul our grain.

TYPEWRITER FREE

For Selling Christmas Booklets

This dandy typewriter, with all letters of the alphabet, figures, signs, etc., can be operated easily and does splendid typewriting; is worked on an entirely new system and is thoroughly equipped for speed. Write us now for only \$4.00 worth of our dainty art Christmas Booklets, each in an envelope and tied with a silk ribbon. You will be surprised how quickly they sell. When sold send us \$4.00 and we will send typewriter by return. THE WESTERN PREMIUM CO., DEPT. WINNIPEG, CANADA.

MODEL STEAMBOAT FREE

A perfect model launch, has real steam engine which propels it through water; engine has brass boiler and oscillating cylinder. Propelled by two screws. Given free for selling only \$2.00 worth of our dainty art embossed and colored Christmas Booklets at 3 for 10c., each in an envelope and tied with a silk ribbon. These are very quick sellers. Write now, and when sold return us the money and we will send steamboat post free by return. THE WESTERN PREMIUM CO., DEPT. WINNIPEG, CANADA.

Children's Dresses

STYLISH little suits and dresses can be made for the children out of father's or mother's, or the older childrens discarded garments by Dyeing them with

DYOLA

ONE OF THE ALL KINDS OF DYES

and then making them over.

Send for Sample Card and Story Booklet. 84 The Johnson-Richardson Co., Limited, Montreal, Can.

I have a rifle. I like shooting gophers. Last summer I shot 100 gophers. I chased a coyote this winter, but I couldn't get near enough to shoot it. I guess spring has come now. I saw two gophers today. They were running around on the snow-bank. I started to chase them, but I couldn't get near them.

I can't think of any thing else to say, so I will close. Hoping to see this letter in print.—Logan M. Findlay.

Lenore, Man.

Dear Cousin Doris:—This is my first letter to your club, and I hope to see it in print. I go to school and am in the third book. I am going to tell you about a runaway we had in the fall. The hired man was cultivating. He was pretty near a bluff. He had worked about two hours after dinner when he went to talk to a neighbor. A paper flew up and scared the horses. Away they went. They went straight for the bluff, and they reached it. They caught the lever of the cultivator on a tree and broke it. But travelling through the scrub was too hard, so they stopped. Well I guess I have written enough now.—I remain your affectionate cousin, Tommy Nichol.

High River, Alta.

Dear Canadian Camp:—This is my first letter to your club. I like to read the boys' and girls' letters. We have been taking the Canadian Thresherman and Farmer for four years. We have a game here. We call it "Pussy wants a Corner." I will show you how to play it. Every one gets a corner, and the one that don't get a corner is it. The other change corners and the one that it gets one corner the one he gets the corner from is it, and so on. I hope to get a prize. I have a dog and five cats, 70 chickens and a pig, 6 cows and 7 horses. We have snow here now. Good-bye.—Yours truly, Maurice B. dby.

DAINTY DRESSED DOLL

GIVEN FREE FOR SELLING XMAS BOOKLETS



This large and beautiful doll, about two feet in height, and is dressed in the very latest style direct from Paris. Her costume is made up of fine silk, trimmed with Irish lace, and she has a very stylish hat. We believe it is one of the prettiest dolls ever shown. Given absolutely free for selling only \$3.00 worth of our dainty art Christmas Booklets at 3 for 10 cents, each in an envelope and tied with a silk ribbon. You will be surprised at how quickly they will buy. Write now for Booklets and we will send Doll as soon as you have sold them and returned us the money.

THE JONES MFG. CO., DEPT. CT
WINNIPEG, CANADA.

MODEL TRACTION ENGINE



GIVEN FREE

QVS! We are giving a number of these engines free. This is a great chance to get an instructive and entertaining article for a few hours work. This engine runs by steam and has a boiler cylinder, fly wheel and safety valve. We give it free for selling only \$2.50 worth of our high grade postcards at 8 for 10c. These include Christmas New Years, 817-days, Views, etc. Write now for cards; when sold send us the \$2.50 and we will send engine post free to your address.

THE WESTERN PREMIUM CO.
Winnipeg Dept. C.T. Canada

Rutland, B.C.

Dear Cousin Doris:—This is my first letter to the club. I am going to school every day, and my teacher's name is Miss Hartin. She is very cross. My studies are arithmetic, geography, history, composition, writing, drawing and spelling. My papa takes the Canadian Thresherman and Farmer, and I like reading the letters very much. I have two cats and they are gray. I live about 6 miles from Kelowna, and it is very nice in the summer time. We grow quite a lot of potatoes and onions, and I have to stay home part of the summer and help them work. We had a lovely winter here, but an awful spring. There was a lot of snow here, and when it melts, it comes down the mountains, and the folks have to get away, because if they didn't they would be drowned. Hoping to see this letter in print.—I remain, yours truly, Milton Bird.

Will you write us a letter describing the country where you live? It would be interesting.—Cousin Doris.

Treherne, Man.

Dear Cousin Doris:—This is my third letter to your club. I am fourteen years old, and weigh one hundred and forty-five pounds.

I have been trapping a little this winter, and have caught four wolves and nine weasels.

I live on a farm, eight miles from town and two miles from our Post Office. My father owns a gasoline engine.

We live on a hillside which leads to a creek, where we catch fish and bathe in it in the summer. I will tell you about an exciting time we had with a horse in a well.

One day when the weather was fine, we turned out all of our horses for a run. They were out about an hour or so when my brother went out to put them in the stable.

He walked around them and started to drive them up to the barn. There was a well which had been just dug, with about a foot of water in it, when suddenly one of the horses slipped and fell into the well. He ran to the house for to get help, but by the time help arrived the horse had been plunging and struggling to get up, but could not.

We tried to pull her up with a team, but the rope would not slip in the ground. We had to leave her and go to town for a block and tackle.

By the time he got back from town and got the pulley fixed and got her out of the well, she died a few minutes later. We drew her down in a willow bed, where I set my traps and caught two wolves. I like outside sport and things. I also like to run the engine when we saw wood or crush. I would like to receive a book and to see my letter in print. I will write again and tell you about some sports. I remain, yours truly, Gordon Gorrie.

Write us again, Gordon.—C. D.

Red Jacket, Sask.

Dear Canadian Camp:—This is my first letter to your club. My brother has been taking the Canadian Thresherman and Farmer for four months, and I thought I would write.

A sad accident happened last Monday, when a pedlar was struck by the train and instantly killed. He had been peddling cushion covers and photo frames here, and was walking on the ties beside the track on his way to the station, intending to take the westbound train, when No. 2, an express train, came behind him, and he being deaf and dumb was not aware of its approach. The cylinder of the engine struck him on the back and hurled him thirty-one yards through the air. When the doctors examined him, they found that his back was broken in two places.

The train's crew knew nothing about it until they reached the next station.

I go to school nearly every day, and I am in grade eight, there are quite a few pupils go to our school.

I trapped sixteen muskrats and four weasels this year. I think I will close now, wishing the club every success and hope it will get larger.—Roderick McDonald.

Our club is growing, Roderick.

Grandora, Sask.

Dear Cousin Doris:—This is my first letter to the club. I am going to school every day, and my teacher's name is Miss Hartin. She is very cross. My studies are arithmetic, geography, history, composition, writing, drawing and spelling. My papa takes the Canadian Thresherman and Farmer, and I like reading the letters very much. I have two cats and they are gray. I live about 6 miles from Kelowna, and it is very nice in the summer time. We grow quite a lot of potatoes and onions, and I have to stay home part of the summer and help them work. We had a lovely winter here, but an awful spring. There was a lot of snow here, and when it melts, it comes down the mountains, and the folks have to get away, because if they didn't they would be drowned. Hoping to see this letter in print.—I remain, yours truly, Milton Bird.

Dear Cousin Doris:—This is my first letter to your nice club. We have taken the Canadian Thresherman and Farmer for a long time.

I do not go to school now, but will be going in a little while.

My brother and I do a lot of trapping. We catch a lot of gophers. There are a lot of gophers around now.

The weather is very fine here. We have an Edison phonograph, and a lot of good records. There are many people come to hear it.

Are there many of the members that like reading? I do. I read a lot.

I think the club is very nice. I would like to get a book.

I will close. Wishing the club every success.—Alex. Sinclair, Oak River, Man.

McLean, Sask.

Dear Cousin Doris:—I have read so many of the boys' and girls' letters, that I thought I would write one too.

My brother takes the Canadian Thresherman and Farmer, and I always enjoy reading the letters.

I live on a farm with my father and mother. I have three brothers and one sister. Their names are Llewelyn, Cecil, Nellie and Geoffrey. My brother and sister go to school, but I have left. The school is a mile from our place, but it is just a nice walk. The teacher's name is Miss Stewart.

We live three miles from a small country village. It has two stores, a hotel, a butcher shop and a blacksmith shop.

I was spending a couple of weeks in Regina this spring. I stayed with some friends that were farming near us. I would not like to live in a city, I prefer the farm life.

We have sixteen little turkeys out, white and brown ones, and about thirty buff Orpington chickens. We are milking ten cows.

For pets we have two dogs and one hound. Their names are Nell, Rover and Pinky.

Wishing your paper every success.—I remain, yours truly, Gwen Johnson.

Grandora, Sask.

Dear Cousin Doris:—This is my first letter to your club.

I am fourteen years old and weigh one hundred and thirty-five pounds.

I live three miles and a half from our nearest town. It has been very cold here this winter, but it is warmer now.

I have two ponies. They are black. I drive them three miles to school every day.

Hoping to see my letter in print, I will close.—Tom Brady.

Useless Knowledge

John Bassett Moore, the great authority on international law, was a young lawyer in Delaware when Mr. Cleveland made Thomas F. Bayard his Secretary of State.

"John," said Mr. Bayard, "I want you to come down to Washington with me."

"What for?" asked Moore.

"I want you with me. You come out down there and pass a civil-service examination, and I will give you the best job I can at the start and then see what I can do later."

"Maybe I can't pass it," said the modest Moore.

"Pshaw!" protested Mr. Bayard. "Of course you can. Come on, now, and try it."

Moore went to Washington and took the examination. After he had finished he came in to Mr. Bayard's office. "Mr. Bayard," he said, "I'm afraid I didn't pass that examination."

"Why not?"

"There were some questions I couldn't answer."

"What was one of them?"

"Well, they asked me how many square miles there are in France."

"They did, did they?" snorted the Chevalier. "How many square miles there are in France? I'll see about that, John, I'll see about that. Why, I wouldn't let a man work for me who could answer that question!"

Disarming Suspicion

"How's this?" said Cusmo to Cawker as they sat down to the annual banquet of the Allied Sons of Liberty. "There's no wine on the menu, but half a dozen glasses are at each place."

"The menu is to take home to our wives," was the satisfactory explanation.

"Poor old Hoppson was buried yesterday."

"Why, is he really dead?"

"The paper doesn't actually say whether he is dead or not—it simply states that he was buried."

Defined

The Heathen (a resident of the sea-girt isle)—I don't quite understand—what is civilization?

The Castaway (from the U.S.A.)—Civilization, my benighted friend, is merely another name for working for a living.

The More the Merrier

Mrs. Archer—I thought your husband didn't like children.

Mrs. Payne—He didn't, but you see he has been appointed enumerator of our school district and he gets five cents for each child he finds.

An Inquiry

She—But I couldn't make her listen to me.

Her Husband—Really? How did she get out of it?

Given Away

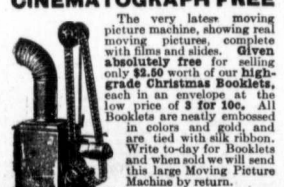


Sewing Clothes for Dolly with our FREE Sewing Machine.

FREE SEWING MACHINE

GIRLS—This is not a toy, but a real sewing machine on which you can make lovely clothes for dolly, little things for yourself or help your mother. It is beautifully made of solid steel, handsomely decorated in colors and gold, and all the machinery is brightly polished nickel. It is easy to use and ready to use with thread, needle and material in place, and with it we give a needle case containing extra needle and a fine metal clamp with which you can fasten your machine anywhere. Full directions go with it, and it is so simple anybody can do good sewing. THIS IS THE CHANCE OF A LIFETIME. We will give you this grand sewing machine ABSOLUTELY FREE for selling only thirty odd pieces of our famous National Jewellery novelties at only 10c. each. Everybody buys them, they are so beautiful and you can sell them all in a few minutes. Write for novelties to-day. We trust you with them. Return our money only three dollars (\$5.00) when sold and we promptly send this grand sewing machine, packed in a fine lithograph top box exactly as represented. WE PAY FREIGHT CHARGES ON THIS MACHINE RIGHT TO YOUR DOOR. Address: NATIONAL SALES CO., Ltd. Dept. S 160 Toronto, Ont.

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THE ART POSTCARD COMPANY
DEPT. CT WINNIPEG, CANADA.

The Difference

The Bartender—What is the difference, major, between you and one of these artesian well-drilling machines?

Major Brazer—Yo' hold me there, suh! The Bartender—Why, major, the machine bores and bores until it strikes water, while you bore and bore until you strike liquor!

She—That man's profits from his orchestra must be very large.

He—Well, he earns every penny of it—he has to listen to it, you know!

Dr. Thirdly: Can you tell me why your father has stopped coming to church?

Miss Jones: He found that a nap in the middle of the day kept him awake at night.

"What's the price of cheese?"

"Tenpence a pound."

"But the fellow opposite sells it for eightpence."

"Then go and buy it there."

"But he hasn't got any."

"Well, then, the kind of cheese I haven't got you can have here at eightpence a pound also."

Defined

Papa, what is a philanthropist?"

"Any man, my son, who has more money than he knows what to do with."

In the Fifth Avenue Parade

Respectable Deacon—I wish that young Canon Mayberry weren't obliged to preach to such a small congregation.

Frivolous Widow—So do I. Every time he said "Dearly beloved" this morning I felt as if I had received a proposal.

HOW TO SHIP GRAIN.

We are often asked concerning the right way to make grain shipments, and a few words of information may prove helpful to prospective shippers.

The first step is the ordering

WANTED

800 Bushels of First-Class, Red Fye Seed Wheat.

Must not grade less than No. 1 Hard. Must be absolutely clean. Samples must be submitted, and entire lot must be up to sample. Address:

W. M. BUNDY,
Terre Haute, INDIANA

Dysthe's Face Protector



The Winter Season is back again, with it the regular course of Storms and Blizzards as well as extreme cold. Not to mention the moderate, but disagreeable weather.

With it follows the return south of thousands of people, that dread this secure climate in its ferocity, with frozen limbs and suffering in cold and and storms.

For those wintering in this northern country no clothing has so relieved the dread, fear, suffering and anguish as the **Dysthe's Face Protector**. As you can look into the snowstorm and blizzard as through a window.

Write a card for my free book today and see what our home Doctors and Ministers say about them.

Postpaid to any point for \$1.00.
Martinus Dysthe,
279 Fort St., Winnipeg, Man.

of cars. To do this, write your name on the car order book at the railway station, giving size of car wanted. (A car marked 60,000 pounds capacity holds 1100 bus. of wheat, 1500 bus. of barley, 1800 bus. of oats; a car marked 80,000 pounds capacity holds 1400 bus. of wheat, 1700 bus. of barley, 2500 bus. of oats. Do not load more than these amounts in your cars, or you will be charged the high rate of "local freight" on the overload.)

When your car is set for loading, sweep it out thoroughly and patch stoutly any leaks. Look your work over carefully, and see that the car is in proper condition to hold grain before you start to load. See that the grain doors are seated square. Do not nail them to the casings, but drive spikes in the casing beside the doors inside and clinch them over the edges. This permits unloading the car without damage to the grain doors. (This applies only to the permanent patent doors sliding on stanchions attached to the cars. Detached doors must, of course, be nailed direct to the casings, but ten-penny nails are heavy enough to hold them in that case.)

After loading is completed, put extra boards at the tops of the grain doors extending at least one foot above the grain. Before closing up the car go around it and hammer heavily on the sheeting, sills, cornerposts and around the draw heads to test for leaks.

In loading try to make the load of even quality. If forced by circumstances to load two different grades in the same car advise your commission company of the manner in which the car is loaded. Some successful shippers take an average sample of each car and mail to their commission company, marked with the car number and initials.

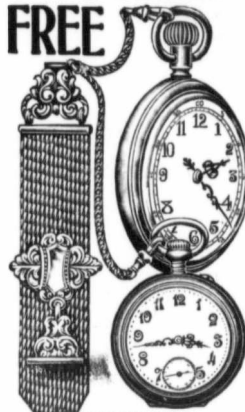
When the car is loaded, fill out the bill of lading, have it signed by the railway agent and take it to your local bank. Advances of 75 per cent. of the net value may be drawn against the cars, if accompanied by the bills of lading, and will be honored by responsible commission companies when forwarded by your bank for collection. (Many farmers prefer to send the bills of lading directly to their commission company and have the money sent them by insured bag, thus saving exchange.)

Bill the car to yourself Port Arthur or Fort William, with instructions to advise your commission company at Winnipeg. Deal only with a responsible commission company, and give them full instructions on each car, stating where to mail your returns. Use car in making your name and address plain.

Any farmers wishing to ship grain can receive further information free, including bills of lading properly made out, by addressing R, box 3079, Winnipeg, Man.

WATCHES WITH FOBS

FREE



This unprecedented offer is now open to every Boy and Girl, every Lady and Gentleman, to take advantage of promptly. We will give you absolutely free your choice, or both, of these handsome and accurate Watches with Fob attached. The Gentleman's Watch is the latest thin model, stem wind and stem set, with a genuine Swiss Precision Movement, Solid Silver Nickel Case, highly polished, fancy Dial with ornate hands, protected by a heavy bevelled French Crystal. The Lady's size is also the newest thin model, stem wind and stem set, with the same quality Swiss Precision Movement as in the man's size, highly polished, Solid Silver Nickel Case, beautifully ornamented Dial with fancy, Gold hands, and clear French Crystal. The beautiful Fob is the newest design, Solid Rolled Gold Plate throughout, fancy Mesh Pattern with Safety Chain attachment. The Suspension Clasp, Ornament, and Pendant Signet, are all handsomely engraved. We give you your choice of either of these Watches with Fob attached for selling only 24 of our fast-selling, size 10x20, Multi-color Olograph Pictures. All of our Pictures are reproductions of Famous Paintings, the originals of which cost hundreds of dollars. They are all suitable for framing, and well worthy of a place on the walls of any home.

These Pictures sell in Art Stores at 50 cents each, so that at our wholesale price of 15 cents each you can sell the whole lot in an hour. To assist you to make your sales quickly, we will send a Prize Coupon to give with every Picture you sell, which will entitle your customer to receive an extra present from us absolutely free. Order right now. We will send the Pictures by return mail Postpaid. When you return us our money, \$3.60, and your choice of either of these beautiful Watches with Fob attached complete, will be sent to you at once Postpaid. Address:

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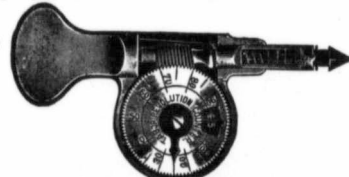
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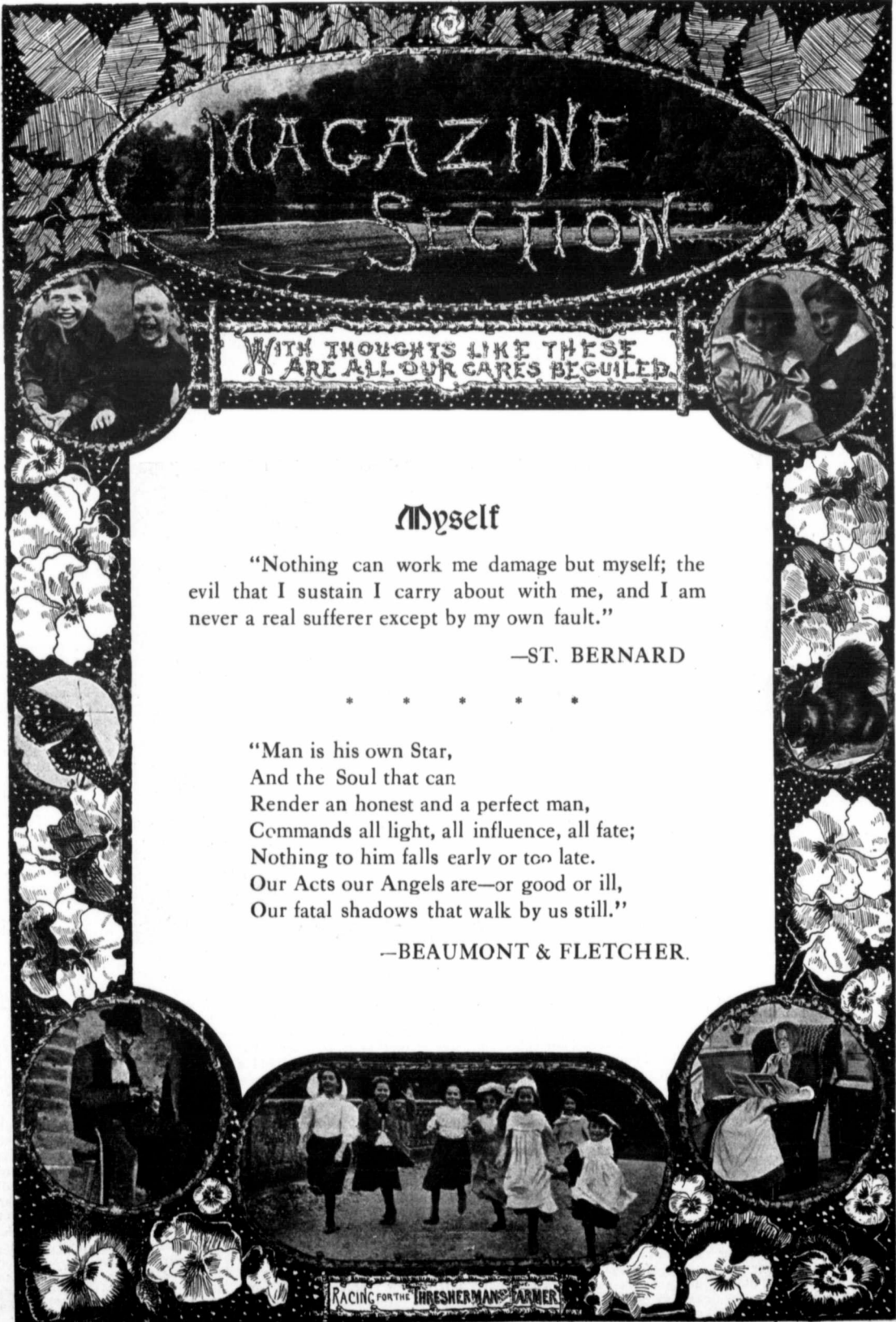
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KEEPS YOUR HARNESS SOFT AS A GLOVE TOUGH AS A WIRE BLACK AS A COAL SOLD BY DEALERS EVERYWHERE THE IMPERIAL OIL Co., Limited



MAGAZINE SECTION

WITH THOUGHTS LIKE THESE ARE ALL OUR CARES BEGUILED.

Myself

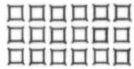
"Nothing can work me damage but myself; the evil that I sustain I carry about with me, and I am never a real sufferer except by my own fault."

—ST. BERNARD

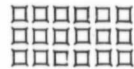
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"Man is his own Star,
And the Soul that can
Render an honest and a perfect man,
Commands all light, all influence, all fate;
Nothing to him falls early or too late.
Our Acts our Angels are—or good or ill,
Our fatal shadows that walk by us still."

—BEAUMONT & FLETCHER.



What Shall we Read and How



What would Job's lamentation be to-day if he were to take a walk round the printing offices, book stalls and news agencies of this twentieth century of ours.

If there was "no end" to the making of books in his time, he would find a far more serious business if he sought to trace either beginning or end to the up-to-date literature of these days.

He found much reading "a weariness to the flesh" did he? Poor Job found a lot of worry and vexation, that did not seem to get in the way of his contemporaries—for the reason no doubt that Job was one of the unfortunates who go out of their way to look for trouble.

The writer is reminded of a verse from the pen of an old comrade long since gone to his rest.

This budding Scotch poet had as little of the mournful in his soul as Job had of joviality in his and delighted to urge the point that Job's circumscribed and one-sided upbringing rendered him an unreliable example for the guidance of the youth, either of his own day or succeeding ages. Says this man:

"Job in his lamentations said
That man was made to mourn
And that there wasna pleasure
Frae the cradle to the urn;
But Job, although a decent chap,
He surely has forgot
The pleasures we experience
Ower a wee drappie o't."

Job was like the rest of us. He

would have his own way of doing things, and if he didn't have a "system" in his reading, no doubt he would find himself drawing little benefit from it.

The experience of the writer has been that the taste for reading is one of the finest and healthiest and most helpful "tastes" that a man can have born in him or acquire.

But like the person who is forever in a muddle, who does his work and takes his pleasures "anyhow," who, in a sense, "wades" through his affairs, the reading that is done at random from anything that comes along is without either pleasure or profit, and does become a literal "weariness to the flesh."

To get the best out of books,

magazines or newspapers, one has to forget or get away from a great deal, and especially is it necessary on the part of the average reader of "The Canadian Thresherman and Farmer" to remember this.

Even in the winter months when there is "lots of time" on the farm for reading, the most omniverous reader can only overtake a comparatively small portion of what is going and it is of the first necessity that one should get well settled into the feeling right away that he must be "contented with little."

We will not be guilty of the unwisdom or the offence of prescribing a "set of rules" because they would not adapt themselves to every case. Every individual must make "rules" for himself and the fewer they are the better.

from the point of view reading for pleasure, we manage our reading badly.

If our idea of the best in books is the recreation they can so well bring, if we go to books as a playground to forget our cares and blow off the cobwebs of the day's worry or business cares, let us make sure that we find what we seek.

No one who will read this article is likely to need any assistance in making up his or her mind as to the kind of reading that is the sort of stuff he or she is looking for. Any one with a desire for the information or recreation that books can give knows that well enough already. The thing is to reach it and to escape all else that would really become a "weariness to the flesh."

expended much valuable time and forbearance in plodding through it.

Of the multitudinous list of magazines now in circulation what shall we say? To a large extent just what has been said about the standard literature, with this difference; that while one may be glad to preserve a good volume, he cannot be expected to hoard up every magazine or periodical he buys or collects.

Take the ordinary magazine of to-day like "Everybody's" or "The Canadian Thresherman and Farmer;" to the individual reader there must be in every one of these magazines he can afford to buy or is fortunate in acquiring from some friend who has done with them an enormous mass of

material that would only mean so much dust-accumulating lumber about the place.

The writer never misses a good looking magazine he can afford to buy or may appropriate. Not many are published to-day in which some fragment worth preserving may not be found.

The fiction, however good, is of such a bulky nature that no one would care to do anything in the way of preserving it, except in so far as to pass it on, but the articles on live topics from the pens of men or women who have specialized on what they are writing about are, many of them, likely to become of permanent use to the reader in

his life's work and for that reason thoroughly worth preserving.

For many years the writer at a very small outlay of time or money has pursued a simple system of filing these. Take an example:

Suppose the reader has seen an article in this magazine on the "Winter Care of Fowls," "Alfalfa Growing," "Best Variety of Wheat to Raise," or some detail in traction engineering that he values—cut out the article right away to be placed in a pocket file. A hundred of these that may last for many years can be bought for half a dollar or you can make them from stiff paper or thin them from stiff paper on thin

Continued on page 66



ADMIRAL BLAKE AND THE SPANISH PRIEST
A Great Reader—w/o read little, but read to a purpose, and did more for British Empire in his own day than any contemporary, except his great chief, Cromwell

To begin with, he will read just what suits his own particular taste for reading matter. In making a survey of any collection or list of books, his eyes can hardly fail to light on not a few volumes which, whatever their distinction or their value for others, were never meant for him.

The way to do with such books if they come into one's possession as a part of a job lot is to hand them over to some one who has a use for them. On his own shelves, they are like so much good thrown away or invitations to entertainments for which he has no taste.

The fact is we all read too many books and too many that, as they don't interest us, bring us neither benefit or diversion. Even

For nearly a quarter of a century the writer (who has had about as little leisure for recreative reading as most people) has made it a rule never to read a book—not even on the strongest recommendation of the publishers—unless it has been recommended to him by some one who has already experimented with it and in whose judgment he has some confidence.

In this way, even if he may have escaped a lot of good things, he has not "missed" them and has not had the painful experience he might have had of wading through a miscellaneous heap of matter that is of little or no interest or value to him and which, otherwise, he would never have discovered till he had

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OF THE NEW ELEVENTH EDITION OF THE

ENCYCLOPÆDIA BRITANNICA

A COMPLETE AND MODERN EXPOSITION OF HUMAN THOUGHT, LEARNING AND ACHIEVEMENT.

29 VOLUMES

40,000 ARTICLES

44,000,000 WORDS

"When one takes up a volume he is apt to be led on from one article to another with absorbing interest. The volumes are the very triumph of the printer's and bookbinder's art, and it is a delight to handle and to read them. The book is an epoch-making book. One who possesses a copy of the Britannica has a very complete library, even if he should have no other books."—Extract from letter from Subscriber C.B. 7201.

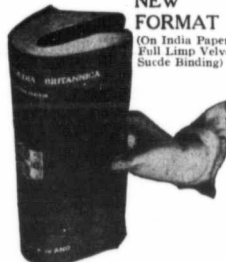
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"Concerning the eleventh edition, it is a gift of unspeakable value to all classes of readers from the plain man up, one of those human debts that money does not discharge. . . Every growing family of Canadians, pretending to any intelligence, whether they have carpets or not, ought to be provided with the eleventh edition of the Encyclopædia Britannica."—From a Review in the Manitoba Free Press, August 5th, 1911.

THE New Encyclopædia Britannica, 11th Edition (1911), is a vast repository of human thought, learning and experience brought down to the autumn of 1910. In virtue of its comprehensiveness and unflinching devotion to the exposition of knowledge, it combines three features of the widest usefulness to the present generation.

- 1.—It is a register and detailed summary of the world's life and progress.
- 2.—It is a complete inventory of extant knowledge reduced to an A, B, C simplicity of arrangement.
- 3.—It is an Index to all records, not less than to all common things in which an intelligent person is likely to be interested.

There are 28 volumes of text, aggregating 28,150 pages, which average 1,600 words to the page. Volume 29 consists of an Index containing 500,000 references, and a complete Table of Contents giving every article-heading in the work under its proper classification. By the aid of this Index, which was carefully prepared at an expense of £15,000 (\$75,000), it is believed that the reader will be able to find, in the body of the text, the answer to any conceivable question within the limits of reasonable inquiry.

The 1,500 contributors include: 1. Men of Learning (scientists, philosophers, divines, university professors, historians, economists). 2. Men of Action (soldiers, sailors, men of affairs, jurists, administrators, surgeons, architects, artists, inventors, archaeologists, explorers, engineers, sportsmen, manufacturers, financiers). 3. Practical experts, men of special knowledge who are professionally engaged in the advancement of industrial undertakings for the welfare of mankind.

The sum of £250,000 (\$1,150,000) was paid to contributors and editors, as well as for maps, illustrations, typesetting, plates, etc., before a single copy was offered for sale.

THE Encyclopædia Britannica, the only work which has summarized and elucidated universal knowledge in successive editions during 140 years in a manner commensurate with the expansion and international primacy of the two branches of the English-speaking race, has come, by virtue of its acknowledged excellence, to be recognized as an institution, as one of the most prized heritages of scholars and readers, wherever the language is spoken.

THREE NOTABLE NEW FEATURES

The issue of the new edition (the eleventh since 1768-71), while it is a notable literary event in itself, is signalized by three unprecedented features:

1. THE UNIVERSITY OF CAMBRIDGE

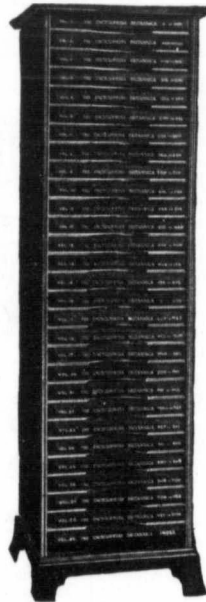
The new edition bears the imprimatur of the University of Cambridge instead of being issued by a private firm of publishers as hitherto. The added endorsement of the authority of the 1,500 eminent specialists, representing all civilized countries, who contributed to the book, served to confirm its status with a swiftness and a certainty not possible otherwise.

2. THE INDIA PAPER FORMAT

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LANDMARKS

IN THE LIFE OF

JOHNNIE LUNDIE

SPIKING DOWN AN EMPIRE.

By JAMIE SOUTAR

Stories in the making of a great manhood from a poor start; told in the "Brandon Local," and elsewhere

From the very start, the whole training and environment of Johnnie Lundie had been of that kind which has fallen to the lot of so many Scotchmen. It had taught him to fear nothing, to be astonished at nothing, to meet any fate like a stoic, and to save himself by his sole exertions from every sore strait and calamity of life.

That being so, it was not an extraordinary circumstance that Johnnie should treat the mysterious movements of his friend Peter with apparent indifference and offer to all inquiries a calm but positive assurance that he was completely in the dark as to the purpose or whereabouts of his friend.

As a matter of fact, Johnnie argued with himself, that he could not put a halter round the man's neck and stake him down to any prescribed spot. He had drawn no pay which he had not already earned, and there was the ring of solid purpose in Peter's voice that disarmed Johnnie of all apprehension and which silently counselled him to trust and wait developments.

But all the same, it put the young clerk of works on the "qui vive," and whetted the curiosity of every member of the camp who had knowledge of Peter and his relationship to Johnnie.

The whole of the following day passed without excitement, and when night came down on the camp, every man was glad to seek his couch. The day had been hot, and thunder clouds threatened at odd times, but had passed away to discharge themselves still further westwards.

Johnnie slept as he had never slept before. And for the first time for many years had to acknowledge that he was downright "sweeter" (reluctant) to get up when they called him to hustle up for breakfast.

The day's work had barely started when the foreman came to Johnnie and asked him to register on his pay roll the names of two strangers who had just come into camp in search of employment. His—"not to make reply;" his—"not to reason why;" but just to do as he was told; and so the uncouth names of the two unkempt wanderers was duly entered as men entitled to receive pay as workmen in the employ of the Armstrong Company.

Johnnie had no valid reason for suspecting the judgment of the foreman in taking on these men. The nature of the work for sometime at least would call for every able bodied man they

could lay hold of, and just then, competent men were scarce, but there was an air of suspicion about the two fellows that did not escape the notice of Johnnie Lundie and more than one of his colleagues.

They certainly did not look the part of working men. But then, as ever since, the Canadian West took little account of the looks of a fellow or the written testimony he carried with him. Whether he bore the impress of a coal-heaver or a clergyman, it was the man who "delivered the goods" who counted, and anything else found a cold reception—so frigid, in fact, that he had usually to take himself off and draw his sustenance from those whose bowels of compassion, by the interest of family ties, were easily moved.

The second working day passed without incident as the first had done, and the second night had found a crowd of jaded workers, too tired for little else than the evening pipe and perhaps a game of cards till even that excitement failed to stave off the heaviness that hung over every hammock.

It was a clear star lit night, but no moon, and a gentle breeze kept things pleasantly cool. Johnnie and the companions of his retreat had retired shortly after ten o'clock and were, most of them, "dead to the world" long before midnight.

Johnnie had gone to sleep the moment his head touched the pillow, but the noise made by one of his mates in getting into his bunk woke him up about an hour later, and from that moment he failed to lose consciousness again. He tossed about for a long time and finally got up to find as he struck a match to see his watch that it was exactly half-past one.

He stole quietly to the door of the hut and looked out upon the black stretch of prairie till it met the slightly less black vault where just one brilliant star could be seen almost touching the horizon. He gazed intent upon that star for a long time, lost to all else but the thought of the immense magnitude of that little point of light and the still more incomprehensible distance that lay between him and its atmosphere.

Gradually, as his thoughts came back to the matter-of-fact world he was then living in, he became sensible of a form—a great heaving mass it seemed, but, in reality, only the figure of a horse and its rider magnified by the surrounding gloom mov-



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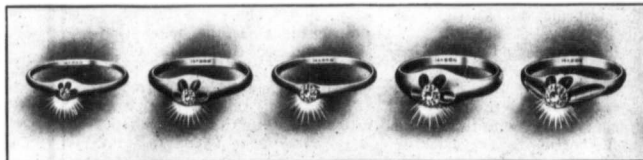
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ing towards him, and in a direct line with that morning star.

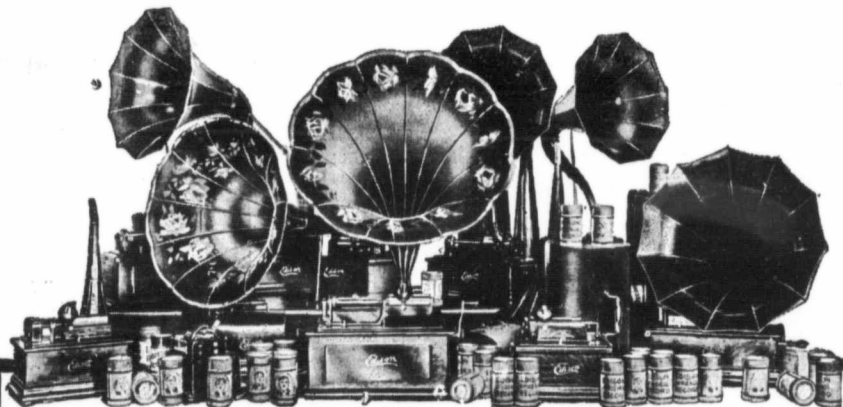
His first thoughts in this new experience were of Peter, but it was impossible to tell, and before he could gratify his curiosity, the mounted man turned his horse to the left and bore up towards the bluff that formed the north and eastern windbreak of the camp. As he did so, Johnnie discovered that he was followed by a second horseman whom the first was evidently silently guiding to a definite point, as he seemed to be perfectly familiar with the trail.

The new comers came to a halt, Johnnie believed, close to where the camp horses were hobbled between the farthest off shack and the edge of the bluff, and he heard them dismount. Not another soul seemed to be awake, but by this time he was keenly sensible of everything as he ever was at midday, and this unwonted circumstance set his wits on edge.

He partially dressed, and resolved to find out without disturbing anyone, far less exciting the notice of the strangers, whether one or other of them was really his friend Peter. As he made a detour, so that the noise of his footsteps on the crackling underbrush might not defeat his purpose, he saw the two men quickly enter the hut in which he knew were lodged the two strange "hands" who had been taken on the previous day.

Their movements were quiet—not stealthy, but deliberate, and evidently made with the desire to disturb no one, but still with the air that they were perfectly careless if the whole camp woke up to accost them.

Shortly after they had entered the hut and lighted its oil lamp, Johnnie found his way to the back window, from which he could command a fairly clear view of all that proceeded within. There, sure enough, was Peter, and his companion was a tall handsome looking fellow who stood out in remarkable contrast to the ramshackle figure of his comrade. Most surprising of all, however, this commanding looking person was in deep converse with the two suspicious looking chaps who had lately gone down on the pay roll, while Peter sat on the top of a soap box, evidently quite pleased with



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himself—his eyes eagerly bent on the two fellows who lay half clothed in their bunks replying to the queries of the other or giving information, as the case might be.

It was no occasion for butting in. So, when he saw a movement on the part of Peter and his mate to seek their berths, Johnnie silently withdrew, and without meeting or occasioning anything of note, he found his way back to his bunk, satisfied and his mind rested somewhat in the knowledge that his friend Peter was nearby, and apparently none the worse for his trip, whatever lay behind it.

He quickly found the sleep that had deserted him so early in the night, and no unkindly influence again disturbed him until it was time to get ready for the day's work.

He was in the act of dressing when Peter suddenly burst in upon him, and if there was still a veil of mystery hanging over the good fellow's movements and his language, there was not the faintest line of guilt on his honest face.

"I tell'd ye I'd be back in two days, Johnnie, and I'm here on time—and the old nag, too. Faith lad, that's a good beast, and I want to see if the old chap up at that homestead will sell or swap her for something I can trade with him."

"What have you been up to,

Peter, and what's your idea of buying a horse?"

"Mum's still the word, Johnnie lad; but keep your mind easy, boy. There's a bit of a prairie blaze in the wind that ye might see the smoke of at any minute. But for the present, dinna feel vexed w' me if I ask you to take no notice of my absence to the other chaps. I brought in a friend w' me that I'll introduce ye too by and by."

During the whole of that day, things went on very much as usual. The foreman had sent in an estimate of the time he believed it would take to complete the job, or that part of it for which the Armstrong Company was directly responsible, and he would suffer no dawdling.

He was a man with an inexhaustible stock of personal energy. He seemed to be moved at every part of the working day by an all-consuming enthusiasm, without which, it is probable, a great deal of the natural difficulties that had to be overcome would never have been tackled so successfully and so quickly as they were. His personal magnetism infected everybody. Cheerfulness was in every face, it seemed, and things hummed like a hive of midsummer bees, and there wasn't a disgruntled note heard in that camp in those early days at all events.

Continued next month

SOME THINGS YOU OUGHT TO KNOW

Q. R. A. What is the origin of the term "dark horse?" One hears it used quite frequently.

A. There lived in Tennessee an old chap named Sam Flynn, who traded in horses and generally contrived to own a speedy nag or two, which he used for racing purposes whenever he could pick up a "soft match" during his travels. The best of his flyers was a coal black stallion named Dusky Pete, who was almost a thorough-bred, and able to go in the best of company Flynn was accustomed to saddle Pete when approaching a town and ride him into it to give the impression that the animal was merely a "likely hoss," and not a flyer. One day he came to a town where a country race meeting was being held and he entered Pete among the contestants. The people of the town, not knowing anything of his antecedents, and not being over impressed by his appearance, backed two or three local favorites heavily against him. Flynn moved among the crowd and took all the bets offered against his nag. Just as the "flyers" were being saddled for the race old Judge McMinamee, who was the turf oracle of that part of the state, arrived on the course, and was made one of the judges. As he took his place on the stand he was told how the betting ran, and

of the folly of the owner of the strange entry in backing his "plug" so heavily. Running his eye over the track, the judge instantly recognized Pete, and he said, "Gentlemen, there's a dark horse in this race that will make some of you sick before supper." The judge was right. Pete, "the dark horse," lay back until the three-quarter pole was reached, when he went to the front with a rush, and won the purse and Flynn's bets with the greatest ease.

Q. M. H. When and where were postage stamps first used?

A. The postage stamp made its first appearance in 1839. Its invention is due to James Chalmers, a printer of Dundee, who died in 1853. England adopted the adhesive stamp, according to a decree of December 21st, 1839, and issued the first stamps for public use on May 6th, 1840. A year later they were introduced in the United States and Switzerland, and soon afterwards in Bavaria, Belgium and France.

Q. E. W. Is the word "dollar" an American term or was it used by some other country and in some other connection first?

A. A few persons have ever troubled themselves to think of the derivation of the word dollar.



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It is from the German thal (valley), and came into use in this way some 300 years ago. There is a little silver mining city or district in northern Bohemia called Joachimstal, or Joachim's Valley. The reigning duke of the region authorized this city in the sixteenth century to coin a silver piece, which was called "joachimsthaler." The word "joachim" was soon dropped and the name "thaler" only retained. The piece went into general use in Germany and also in Denmark, where the orthography was changed to "daler," whence it came into English, and was adopted by our forefathers with some changes in the spelling.

Q. C.S. What is the origin of the term "honeymoon" as applied to the post nuptial period. Is it of ancient or modern origin?

A. The word "honeymoon" is derived from the ancient Teutons, and means drinking for thirty days, after marriage, of metheglin, mead, or hydromel, a kind of wine made from honey. Attila, a celebrated king of the Huns, who boasted of the appellation, "The Scourage of God," is said to have died on his nuptial night from an uncommon effusion of blood, brought on by indulging too freely in hydromel at his wedding feast. The term "honeymoon" now signifies the first month after marriage, or so much of it as is spent from home. John Tobin, in "The Honeymoon," thus refers to it:

"This truth is manifest—a gentle wife
Is still the sterling comfort of man's
life;
To fools a torment, but a lasting boon
To those who wisely keep their honey-
moon."

Q. G.B. From whence did the expression "Those who live in glass houses should not throw stones" come?

A. The proverb "those who live in glass houses should not throw stones," has been traced to the royal pedant, James I. Seton says: "When London was for the first time inundated with Scotchmen, the Duke of Buckingham, jealous of their invasion, organized a movement against them, and parties were formed for the purpose of breaking the windows of their abodes. By way of retaliation, a number of Scotchmen smashed the windows of the duke's mansion in St. Martin's Fields, known as the 'Glass House,' and on his complaining to the king, His Majesty replied, 'Steenie, Steenie' (the nickname given to Villiers), those who live in glass houses should be careful how they fling stones." But the idea is more than two centuries older than the time of James I. It occurs in Chaucer's "Troilus and Creseide," where his use of verre, instead of glass, suggests that the proverb was originally current in Old French.

Q. P.R. In the expression "given this day under my hand and seal" has the phrase "hand and seal" any particular meaning?

A. When writing was limited to a few clerks, documents were authenticated by the impression of the hand dipped in ink, and then the seal was duly appended. As dipping the hand in ink was dirty, the impression of the thumb was substituted. We are informed that "scores of old English and French deeds still exist in which such 'signatures' appear." Subsequently the name was written, and this writing was called "the hand."

"Hubert: Here is your hand and seal for what I did.
King John: Oh, when the last account twixt heaven and earth

Is to be made, then shall this hand and seal
Witness against us to damnation."

—Shakespeare: King John, iv., 2.

Q. W.W.C. Can you tell me where the phrase "Don't count your chickens before they are hatched" was first used and what is its origin?

A. Generally ascribed to LaFontaine from his fable of the milk maid, Perrette. But the substance of this fable is very old. For example: In A.D. 550, Barzueh translated for the king of Persia a collection of Indian fables, called the Panka Tantra ("five books"), and one of the stories is that of a Brahmin who collected rice by begging; but it occurred to him there might be a famine, in which case he could sell his rice for 100 rupees and buy two goats. The goats would

multiply, and he would then buy cows; the cows would calve, and he would buy a farm; with the savings of his farm he would buy a mansion; then marry some one with a rich dowry; there would be a son in due time, who should be named Somo Sala, whom he would dandle on his knees. If the child ran into danger he would cry to the mother, "Take up the baby! take up the baby!" In his excitement the castle dreamer kicked over his packet of rice and all his swans took wing. From this fable the Persians say of a castle dreamer, "He is like the father of Somo Sala."



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Q. G.M. What is the origin of the term "boycott" and where was it first used?

A. Captain Boycott was the agent of an estate in Ireland, and the tenants having become dissatisfied with his management asked the landlord to remove him. This he declined to do, and thereupon the tenants and their friends refused to work for Boycott, and made an agreement among themselves that none of them, their friends, or relatives should assist or work under him at harvest. His crops were thus endangered; but assistance arriving from Ulster, the harvest was gathered under the protection of troops. The tenancy then decided to still further extend their system of tabooing by including all persons who had any dealings with Boycott. All such were not only to be ignored and treated as total strangers, but no one was to sell to them or to buy of them.

Get all of the machines under shelter before snow comes. Look them over carefully, and make a list of the repairs needed. Then order these repairs before next spring.

WHAT SHALL WE READ AND HOW?

Continued from page 60

cardboard, numbered consecutively.

Buy a small card system or make one with one card for each letter of the alphabet, but for a half dollar you can get a complete outfit that will last for years. Before placing your article in the "pocket" in which it is to be kept, enter the title on one of the plain cards of your card file. Take the first subject named above:—The best way would be to file it under "Poultry—Winter Care of Fowls" and then place opposite that title the number of the pocket in which you have put it away.

All this can be done in a fraction of the time it has taken to write the description, and in course of time as you want to look up one of those articles, you cannot yet appreciate the delight it will occasion as you place your fingers on it in a few seconds from the moment you have referred to the card file.

This is a simple and about as perfect a system of preserving facts for future reference as could well be employed. Any one who has once had the experience of moving his household gear will appreciate it when he thinks of the cart load of magazines and all sorts of literary impedimenta the loose, popular notion of "preserving things" means. The system described can be kept in a card board or thin wooden box representing a cube of about 12 inches. This would be found large enough to last the reader a very long time and when he has filled it with all it will comfortably hold after the pleasure it has given and the real service it has been to him, he will be delighted to get another, or a score for that matter if his requirements demand the space.

AMBROSE



Leads in TAXIDERMY

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Because, without exception, with an unprecedented increase in business last season, he gave the highest satisfaction to every customer.



AWARDED FOR MERIT

12 Diplomas, Silver Medals, and 1st Prizes, 1909 - 1910 - 1911.

DOING THE HIGHEST CLASS OF WORK

he is the only advertiser in this line with a practical knowledge of the profession.

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HEADS, ANIMALS, and BIRDS

Buyers of Big Game Heads, Scapals, Antlers, Elk Tusks, and Raw Furs.

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Selling Evergreens, Trees for Windbreaks and Fruit Planting in the Northwest

Act as our agent in reserved territory and we can assure you \$50 to \$100 a week selling trees in the prairie country of the Northwest.

Thousands upon thousands of treeless acres in this territory must be forested to produce a succession of crops. Trees are necessary to all agriculture to conserve moisture and afford protection from cold.

Our Stock, grown in the most Northern Nurseries in America, is

especially adapted for this purpose, both by reason of its beauty and productiveness and its extreme hardiness.

Our agents have an unlimited field, for which we offer new varieties and up-to-date ideas which make our stock sell on sight.

Write for our complete outfit, sent free of charge, and we will explain to you our big money-making proposition. Address, with references,

L. L. MAY & CO., NURSERYMEN, DEPT. 122, ST. PAUL, MINN.

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Self-Feeding Base Burner. Perfect combustion and uniform radiation guaranteed.

SALE PRICE

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New in design, most economical in fuel consumption, and still of large capacity. Requires small floor space.

This Heater will keep your home warm at a moderate cost. A neat compact handsome base burner, suitable for medium sized offices and houses. A great bargain. Try the Wingold way. Wholesale to consumer. Send for Free Catalog.



Is a thoroughly reliable medium sized and really handsome, hard coal stove. We believe the

"CHARM"

surpasses anything else at anywhere near the price. Elaborate nicked trimmings—artistic urn design.

Order from this advertisement with our guarantee of satisfaction or refund purchase money and freight charges

"CHARM"

Provided with heavy round fire pot, shaking ring and dumping grates. Large magazine, perfect draft control.

Only a limited number obtainable this season.

No. 111, "Charm," Fire Pot, 11 inches. Floor Space 20 x 20. Price, \$21.50
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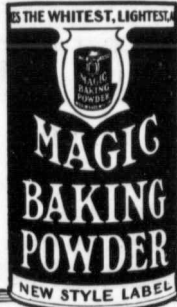
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Double-decking a City Street.
—Chief Engineer Goodrich of the Bureau of Encumbrances, of the Department of Highways, New York, has proposed a plan for the double-decking of 42nd Street, New York, between 5th and Lexington Avenues. The street is one of the most congested in the city, there being probably no place in the world where so many systems of transportation centre as here. The double-decking of the street will give an opportunity for separating the traffic, to say nothing of at once doubling the capacity of the street. Here is a problem which will have to be met and successfully solved as the modern office building twenty to thirty stories in height gradually replaces the older building. Some of the down town streets of New York are already congested almost to a standstill.

Electricity from Peat in Canada.—The Canadian government, wishing to arouse interest in the utilization of peat, has built a plant at Ottawa and secured a peat bog of three hundred acres near Alfred, Ontario. The plant is equipped to make producer gas from the peat, which will be used in a 60-horse-power four-cycle gas engine, directly connected to a 50-kilowatt dynamo. It is estimated that there are 36,000 square miles of peat in Canada, which would yield 28,000,000,000 tons of air-dried peat, which would be equivalent to 14,000,000,000 tons of coal. To demonstrate the commercial practicability of utilizing peat for power purposes a building adjoining the Ottawa plant will be fitted up as an ore dressing laboratory and will be operated by the electricity generated from the peat.

The manure spreader must be classified among weed killers. By spreading manure finely it encourages the growth of grass, which will run out weeds of most varieties.

**THIS MAGAZINE WANTS
YOUR SERVICES.**

Every farmer in Western Canada is making history. We delight in reading about the events that the historian has set down for our information and benefit under the name of "History." We read about the overthrow of nations and the setting up of new rulers, and we envy the men who lived in those times and who participated in those world making events.

Did you, as a farmer in Western Canada, ever stop to realize that you are making history. Did you ever stop to realize that you are participating in the building up of a country that will ere long influence the world. It is only a matter of time until our output of wheat will pile up so high into the millions that Western Canada will hold the balance of power in the world's

Big Ben



**If you'd rise early—just say when
And leave your call with him—Big Ben**

Put jolly old Big Ben on the job. Let him solve your early rising problem.

You have a rising problem, if you put your whole heart in your work.

For if you are a heavy worker, you require heavy sleep and plenty of it.

So leave your call with Big Ben. Go to sleep and sleep your best. Forget the rising hour.

His merry morning call will call you every day at any time

you say. It will keep on calling until you're wide awake.

Big Ben stands 7 inches tall. He's massive, well poised, triple plated.—His face is frank, open, easy to read—his keys large, strong, easy to wind.

Big Ben's Canadian price is \$3.00 anywhere.

If you cannot find him at your dealer, a money order sent to his designers, *Watches, La Salle, Illinois*, will bring him to you duty charges prepaid.

"BIG BEN"

Sent on receipt of price **\$3.00** Established 1875

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Head Office: WAWANESA, MAN.

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HEAD OFFICE: WAWANESA, MAN.

A. F. KEMPTON, Secretary-Manager

Amount of Insurance in force Dec. 31st, 1909 \$24,136,616.00
Assets over Liabilities 274,682.43

THE NUMBER OF FARMERS INSURED 16,193

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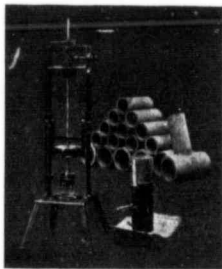
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 Myers' Station Flexible Door Hangers with steel roller bearings, easy to push and to pull, cannot be thrown off the track—have his name—Station. Write for descriptive circular and prices. Exclusive Agency given to right party who will buy in quantity. E. MYERS & CO., Antwerp, Ohio.

In Answering Advertisements in this Magazine be sure and mention where you saw the advt. Remember we guarantee the reliability of all our advertisers.

food supply. Millions will be fed or millions will go hungry in proportion to our wheat crop. Do you, as a Western Canadian farmer, realize that every virgin acre that you turn over means another step towards fixing the inevitable position of the "Last West."

There isn't much romance in the working out of this proposition, and there is a large amount of good hard work. Yet it all means a part of this great "commercial epoch," in which Western Canada is destined to play so large a part.

Every farmer who has cast his lot in this Great West did so with practically one end in view, namely, to wrest from mother earth a home and a heritage for his family. At times and in places it may be hard. Crops are not always the best, and in a great many cases it means a life of privation until the railway comes to his rescue. Many of our farmers are heroes in this respect, to a degree that the followers of Napoleon or Wellington dare not aspire. They are "blazing the trail," and in so doing are laying the foundation of a country that is destined for big things.

Are you one of these farmers? If so, I want to talk with you. You have started to work out the problems that concern us all. Your success or failure determines the success or failure of every man, woman and child in Western Canada to-day. As you do your share in broadening the tilled prairies so does every other form of industrial enterprise grown and expand. You are the country's backbone — its mainstay.

Now, what I want you to tell me is how you are carrying the load under so great a weight of responsibility, and while I do not expect you to write me a book, I am certain that you have some things, at least, that you would be only too glad to tell me about. These things are valuable to me, and I am perfectly willing to pay you for them. I know you would be only too pleased and willing to do it without pay of any sort, simply to give your fellow farmers the benefit of your experience, but as I said before, these experiences are valuable to me and I do not want something for nothing.

Your experiences are wide and varied, so I am going to suggest a few subjects, any one of which I would like to have you discuss as you have worked it out to your own satisfaction and profit. You do not need to write a long article, but just tell it as you would discuss it with your neighbor at the post office on a Saturday afternoon. Let me have it, and through the columns of this magazine I can accord you the privilege of talking to several thousands of farmers throughout this "Great West."

Here is a list of subjects in which I am interested, and upon which I would like to secure the

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"Easy Going-Long Lived"

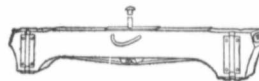


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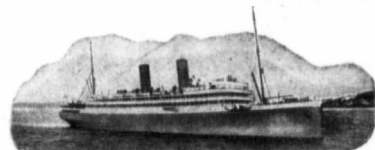
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Minimum First Cabin fare is \$92.50, Second Cabin \$53.75, and Third Cabin \$32.50, which latter applies through to Liverpool. The Accommodation and Service on the "Atlantic Royals" is far superior to that of any other Line now in the Canadian Service.

In Saloon, Children under 12 months pay \$10.00; one year and under 10 years, Half Fare; 10 and over, Adult Fare. Second Cabin—under 12 months, \$7.50; one year and under 12, Half Fare; 12 and over, Adult Fare. Third Cabin—under 12 months, \$2.50; one year and under 12, Half Fare; 12 and over, Adult Fare.

Insist on Your Steamship Ticket reading: via ROYAL LINE



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From Halifax . . . "Royal Edward" . . . Nov. 29th
 " " . . . "Royal George" . . . Dec. 13th

Steamers sailing from Halifax will leave at 10 p.m. on advertised dates. For the Christmas sailings I would advise that you secure your reservation early to ensure getting the best we have to offer. This can be done upon payment of the usual deposit, \$25.00 First Cabin, \$10.00 Second Cabin, and \$5.00 Third Cabin, balance of passage money being paid a few days prior to sailing date.



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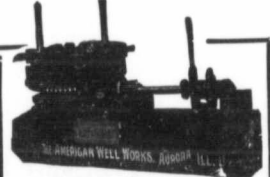


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benefit of your knowledge and experience. Just give me the facts, and I will do the rest.

1. What methods have you used in selecting seed grain and treating it?
2. What do you consider the best depth at which to break, and at what depth do you do your back setting?
3. What kind of a drill do you prefer—single disc, double disc, shoe or press, and why?
4. Give your experience with land packers, and do you consider them a valuable farm tool?
5. What has been your experience with regard to stacking as against stooking grain?
6. Would a farmers' market and a farmers' store, in your estimation, improve trade conditions in your community, and why?
7. What has been your experience with tame grasses, especially alfalfa?
8. What is the average amount of seed that you sow per acre of the following: Wheat, oats, barley, flax; and what is your method of preparing the soil for each crop?
9. If you have used a traction engine for cultivating purposes do you consider that its weight in any way injures the land as against horse drawn implements. What has been your experience in this line?
10. What suggestions can you offer towards improving the school system in your community?
11. How can the farmers' institute, as held in your community, be so improved as to reach the greatest possible number of farmers?
12. What has been your experience with regard to exterminating farm weeds, especially the following: Canada thistle, sow thistle, and mustard?
13. What has been your experience with seeding without plowing—in other words, what success have you had with raising wheat, oats and barley by simply discing it on the stubble?
14. What is the cost of your present farm machinery equipment? What is the size of your farm, and which of your farm implements do you consider make you the most money?
15. Do you consider the individual threshing outfit a profitable investment, or is it cheaper to have your work done by the regular threshing outfit of larger size?



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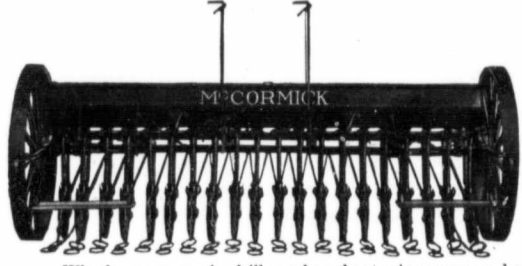
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GIVE YOUR SEED A FAIR CHANCE.



Whether you sow in drills or broadcast, give your seed a fair chance to produce a bumper crop by sowing with a

McCORMICK DRILL

There are many reasons why a McCormick drill will give your seed the chance it deserves. It will plant just the right amount, plant it at an even depth regardless of surface irregularities and will cover it evenly and smoothly, leaving the ground in just the right condition to give the seed a favorable start.

McCormick Drills are made with 14, 16, 18, 20 and 22 furrow openers in single disk, double disk or show drill styles for use in Western Canada. The three styles are interchangeable and may be used on the same machine.

The construction which makes these things possible and which makes the McCormick drill the best for you to buy will be shown in detail by your local dealer. Next time you see him ask him to show you the grain box and disk oiling device on a McCormick drill. They are worth seeing. Catalogues direct if you want them.

Western Canadian Branch Houses: Brandon, Man.; Calgary, Alta.; Edmonton, Alta.; Lethbridge, Alta.; North Battleford, Sask.; Regina, Sask.; Saskatoon, Sask.; Weyburn, Sask.; Winnipeg, Man.; Yorkton, Sask.

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PROSPERITY

is always on the side of the man who has the BEST INFORMATION and depends more than anything else on a STEADY PURSUIT of the RIGHT METHOD. An unbroken colt may be intrinsically valuable, but it is of no practical use until it has been "well broken." The boys and girls of the farm may offer the highest promise of manhood and womanhood, but in these days they are of little account in business, and they cannot do their best even on the farm till they have had the training of the school and college. The

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Guarantees at the most moderate cost at which a thorough training can be given to produce the very best results in a full business course which can be acquired through any educational system. The work is divided into three distinct courses: Commercial, Shorthand and English. Our equipment consists of a teaching staff of the highest attainments, the very latest type machines, filing and book-keeping systems, and FINEST COLLEGE PREMISES IN WINNIPEG.

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Please send me Illustrated Prospectus containing complete information of your business course as advertised in the CANADIAN THRESHERMAN AND FARMER.

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A New Horse or Kendall's Spavin Cure?



Save the difference between the cost of a good horse and \$1.00—the cost of a bottle of Kendall's Spavin Cure.

You can cure a Spavin, Splint, Ringbone, Bony Growth or Lameness, with it, like thousands have done. Read these letters—they will prove that Kendall's is

The One Safe, Reliable Cure.

Case, Ont., Dec. 14th, 1910.

Please send me your Treatise on the Horse. I have been using your Spavin Cure for a number of years with good success, having during that time cured a Spavin on a valuable horse and have also treated bruises, swellings, etc. effectively.

Christina Bosh, Conestoga, Alta.

"I have used your Spavin Cure for years, and have completely cured Foot and in my herd of cattle, and Splints and Stovins on horses. It is a sure cure whenever it is satisfactorily applied. No need to worry about your horse if you have a bottle of Kendall's Spavin Cure on hand for emergency. Get a bottle from your druggist at once. Don't take a substitute. The great book, 'Treatise on the Horse,' free, of druggists, or write to Dr. B. J. Kendall Co., Emsburg Falls, Vt.

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No. 308 — Telegraphy Self-Taught. This will interest the boys on the farm.

No. 309 — Bricklaying Self-Taught. Enables any farmer to do his own bricklaying.

No. 310—Stonemasonry Self-Taught. Be your own stonemason; it is easy with this book.

In addition to the above books I am going to offer three cash prizes for the three best letters received before January 1st, 1912. The first will be \$5.00 in cash; the second \$3.00 in cash; and the third \$2.00 in cash. The next ten best letters will each be rewarded with a year's subscription to this magazine. If your subscription is already paid in advance it will be extended one year from date of expiration.

Now, who will be the first to start the ball rolling. I want to hear from you. You have worked out a lot of valuable information that I want. I want at least 1,000 letters from my farmer readers, and when I publish them in this magazine we will have such a series of farmers' institutes as was never before held in Western Canada. Your name and address will not be published if you so request.

Yours for a series of good letters,

The Editor.

THE HIGHWAYS OF THE AIR.

Continued from page 9

Although we do not fully know the location of the main aerial highways, we none the less are sure that they exist, and we are of the common belief that the fall flight does not go south necessarily over the same line followed going north. We know that the Red River and Mississippi River valleys, the Atlantic coast and the Pacific shoreline are our greatest flyways. Perhaps not all of these were more used than that route north over high and dry plains. The latter is discontinued, because the others are lessening, because of the settling of the country and the improvement in firearms.

If the sportsman cannot tell the why or the wherefore of these great travel lines of the air, at least he is keen enough to learn about the branch lines that make off this side or the

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other from the great highways. He knows perfectly well that, in going to and from the feeding grounds, the birds will occupy pretty much the same line of flight unless very much molested. The goose hunter of Manitoba or Saskatchewan, after he has located his lake full of fowl, does not try to shoot them there, but spends a day or two driving about the country until he has established the line of flight to and from the feeding grounds. Then he puts out his decoys and digs his pit, not in the marsh but in the high and dry stubble.

Geese go out to feed, in the north, twice a day. They always have some safe roosting ground, usually open sand bar country, where they can see about them for miles. The first flight out is at daybreak, the return being made about ten o'clock, returning to their harborage again in the evening. These lines of flight will always be established over country least suitable for concealing enemies. Along the gulf coast of Texas the gunner will nearly always find the geese going out from the salt water across the highest and barest headland offered in the shoreline. Sometimes one has shot them thus when there was no shelter better than that offered by a shallow path worn by passing herds of cattle. They always carefully avoided the tules of tall grass, where a shooter might be hidden in a blind. In the north the grain fields form the chief attraction.

The Flight of Crows and Geese.

Crows are as canny as wild geese, and in passing to and from their roosting grounds always adhere to one general line of flight, which, in their belief, is safest for them. You would find it difficult to kill a crow out of the army that you may see passing across the country day after day. Blackbirds also, noisy and foolish as they may seem in many ways, employ this same system. One of the most interesting sights in wild life in Texas is the daily flight of blackbirds to and from Mitchell's Lake, a low and marshy ground not far from San Antonio. In the evening the blackbirds, which are wintering in the region around about, resort to these tule covered fastnesses as a nightly roosting place. They come in millions, and always in a long drawn out column, narrow, but miles in length, which, intercepted midway, reaches on either hand farther than the eye can distinguish—a black legion of flying birds, all following one restricted path in the air above.

What a vast journey is this of the upper air, twice a year, back and forth over unknown ways and for reasons practically unknown! What a performance is such a voyage for this little, weak, puny, trembling thing, whose heart you can feel throbbing as you hold it in your



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In whatever part of the house you want it, you can get it best and quickest with a Perfection Smokeless Oil Heater.

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Start it in bedroom or bathroom, and you dress in comfort on the coldest morning. Take it to the dining-room, and early breakfast becomes a pleasant, cosy meal. A touch of a match at dusk, and all is snug for the evening.

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A special automatic device makes smoking impossible. Burner body cannot become wedged. All parts easily cleaned. Damper top. Cool handle.

Dealers every where; or write for descriptive circular to any agency of

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Great Farm Bargains

I own and will sell cheap the following Manitoba farms, splendid for market gardening or grain.

No. 4, 480 acres, five miles from St. Claude on Canadian Pacific Ry., directly south of Portage la Prairie; one of the best districts in Manitoba; smooth land, good deep soil, very little scrub; land in same section sold recently at \$40 to \$50 per acre; my price only \$16 per acre.

No. 2, N. W. 1 of 2-1-4, east of first Meridian, 160 acres improved; half mile from International Boundary; 10 miles from Emerson, Man. Fertile, high land, well drained; rich black soil; price \$16 per acre.

No. 26, N. 1 of 14-4-6 east of first Meridian, 320 acres; station at Marchand or Dufrost, Government drainage has reclaimed this land, which has an unusually deep, rich black soil, bumper crops can be produced on this land, and my price of \$10 per acre is a snap for some one.

No. 33, N. W. 1 of 36-4-6, east; 160 acres, same township as No. 26; all old lake bottom which has been drained, leaving rich, alluvial, productive soil, price \$12 per acre.

No. 3, S. E. 1 of 10-1-6, east of first Meridian, 160 acres improved, 1 1/2 miles from Canadian Northern Ry., six miles from Stuartburn on Rossau River; on the Red River Valley famous market garden district; ten to fifteen acres broken; house on property, price \$12 per acre.

No. 164, S. 1 of 30-22-15, west of first Meridian, 320 acres, unimproved; only two miles from Laurier, Manitoba, on Canadian Northern Railway, a pretty town only about ten miles from Riding Mountain; splendid neighborhood, mostly English settlers, good schools and churches, plenty of seasonable rain, soil dark, heavy loam, 12 inches deep with clay sub; large Government ditch east to west on north side of tract, small ditch on road allowance to south. Price \$16 per acre.

No. 165, N. E. 1 of 18-22-15, west of first Meridian, 160 acres, unimproved; within one mile of Laurier, Manitoba; soil dark, heavy loam averaging 12 inches on clay sub; small stream through tract affording excellent drainage; small Government ditch half mile of land; mostly open land. Price \$16 per acre.

DR. RALPH

650 Somerset Bldg. WINNIPEG, MAN.

hand—a creature so feeble that it seems you could crush it by a breath. There is no such expenditure of energy known in any other form of animate life. Almost it seems a waste of energy, but still the inscrutable ways of nature, it goes on, and it no doubt will go on until, at some day not too distant, the last red flash will leap up from the marsh in the dusk of dawn of evening, and there will be heard for the last time the splash in the water or the thump upon the ground which, perhaps, was not included in the original plans of nature when she laid out her great transcontinental lines of aerial travel.

THE SEASON OF ANNUAL ROUND UP.

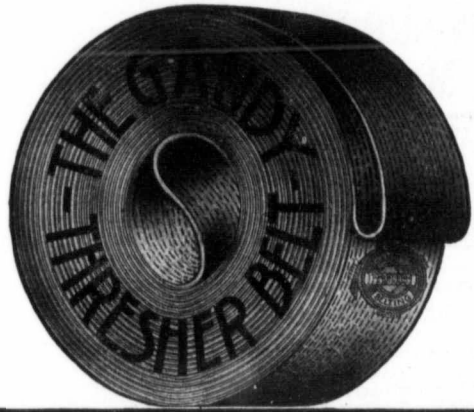
Continued from page 7

All manufacturers are not like this particular one. Yet, the fact remains, nevertheless, that more farm machinery is worn out by standing in the open than is ever worn out in service. You, as a farmer, cannot afford to pay toll to the weather. Some of you may be in a position to construct first class tool houses, but he is a poor man who cannot provide some sort of shelter for his farm machinery. We hear much in this day and generation about the conservation of our natural resources. It would be a move in the right direction for someone to start the ball rolling towards the conservation of the farmers' machinery equipment. The annual fall round-up can be made a period of pleasure and profit to the average farmer. It is an excellent time to take inventory of all of the stock you have on hand and just what condition it is in. You may think because you have raised so much grain and sowed it that you have made so much money, but we wonder how many of our farmer readers take an inventory of their machinery equipment in order to determine just how much must be charged off for wear and tear and depreciation. Think it over.

PRACTICAL TALKS TO THRESHERMEN.

Continued from page 32

eral hundred miles. Another instance of carelessness which could not be condoned was the melting out of the main cylinder boxes on another machine because of an over tight drive belt. In still another machine the jaws that held the weigher to its support on the top of the machine did not fit exactly right and the feeder fell off, of course doing considerable damage to certain of its parts. Here was another case of incompetence, a really good operator would never have started the machine until all parts were made to fit properly. Bad luck in handling machinery is generally another name for incompetence or laziness.



In the future this edge of The Gandy Endless Thresher Belt Will be painted GREEN

The rest of the belt will remain in red as before, and every roll of belting will continue to bear our brand, **The Gandy Belt**, and our Trade Mark, a coil of belt and a bale of cotton laid across it, printed upon the belt at intervals throughout the entire length of the roll, the same as heretofore.

We do this so that you will recognize at a glance **The Gandy Belt** from the many imitations now on the market.

Remember every **Gandy Belt** is guaranteed to give satisfaction, and it is not a **Gandy Belt** unless one edge is painted green, and the belt bears the brand, **The Gandy Belt**, and the Trade Mark, a coil of belt and a bale of cotton laid across it. **Look for the Belt with the Green Edge.**

Let us send you sample and booklet. Write to-day.

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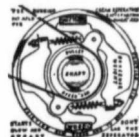
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Conducted for the benefit of Dealers, Threshermen and Farmers who have anything to sell or exchange. Three cents a word for each insertion.

WANTED—800 bushels of first class Red Fyfe seed wheat. Must not grade less than No. 1 Hard. Must be absolutely clean. Samples must be submitted and entire lot must be up to sample. Address W. M. Bundy, Terre Haute, Indiana.

FOR SALE—Reeves Plowing outfit 40 H.P.C.C. Engine with balance valves, steam guide and all steel gear running in oil. 16 bottom steam tiller plow. All in first class condition and for sale at a price that will interest you. Campbell Bros. Warner, Alta.

CANARIES FOR SALE—A large selection of strong, healthy, vigorous birds, both Western and imported varieties, magnificent songsters. Prices and descriptions on application. C. Symonds, Drugist, Invermay, Sask.

ENGINEER MACHINIST—Wants position in Manitoba for threshing season. Can do own repairing and capable of keeping engine in first class shape. State wages, wire or write J. T. H. c/o The Canadian Threshingman and Farmer, Winnipeg.

BUYERS ATTENTION.

THE GEORGE WHITE & SONS COMPANY, LIMITED, BRANDON, MAN.

- 2-25 H.P. White tractors thoroughly rebuilt and in good shape, each...\$1600.00
1-16 H.P. American Advance tractor...\$700.00
1-18 H.P. Minneapolis tractor...\$600.00
1-20 H.P. Brandon Cornell, Portable...\$400.00
1-20 H.P. White tractor...\$1200.00
SEPARATORS—Second Hand
1—Altman & Taylor 25x50, all attachments...\$400.00
1—40x62 Waterloo separator, all attachments...\$400.00
1-30x60 Goddison separator, all attachments...\$300.00
1-30x60 American Abell, all attachments...\$325.00
1-30x50 Felsche separator, all attachments...\$300.00
2-32x56 Great West Separator, all attachments...\$200.00
1-30x50 Great West Separator, all attachments...\$200.00
2-White Challenge separators, thoroughly rebuilt, all attachments, each...\$900.00
Write us re new goods—We have the best.

FOR SALE—Complete Threshing and Plowing outfit: J. I. Case, 25 H.P., steam engine, Gaar-Scott 35-62 separator and 10-14 inch Cockshutt independent breaker engine plow. Good shape. Apply Fairview Land Co., Osage, Sask.

WANTED—Experienced threshing salesman for immediate work. None but good man need apply. Address, R. B., Box 3079, Winnipeg, Canada.

BROTHER—Accidentally discovered root wile cure tobacco habit and indigestion. Gladly send particulars. H. H. Stokes, Mohawk, Fla.

SALESMEN WANTED—Threshermen or engineers to sell oils, greases, belts, packing, lacing, paints, etc. First-class opportunity for first-class men. O. L. Doty, Cleveland, Ohio.

FOR SALE—Two portable steam engines, 12 and 16 H.P., also two separators, 30 Bell City and 30 Sawyer Massey, all in good shape, \$150 each. Must be sold. G. T. Grant, Ituna, Sask.

LICENSED ENGINEER MACHINIST (not a throttle puller) would like plowing or threshing engine this season. State wages. Apply Box C. K., care of The Canadian Threshingman and Farmer, Winnipeg.

SEPARATOR MAN WANTED to operate Nichols Shepard machine. Must be experienced. Apply, stating wages wanted, to J. W. Wallace, Pilot Mound, Man.

WANTED TO RENT—A 25 H.P. engine and 36 x 60 separator for threshing season. State terms. Apply Box C. K., care of The Canadian Threshingman and Farmer, Winnipeg.

WANTED—Position as separator man. Sask. preferred. Have had 12 years experience. State full particulars. Jas. Jackson, Box 101, Dundas, Ont.

WANTED—Position as Engineer for fall 1911. 10 years' experience six seasons in Manitoba; have certificate for Ontario, can do own repairing and a hustler. Apply stating wages to Alfred Adair, Terra Nova, Ontario.

WANTED NOW—Reliable man to sell a selected list of hardy Russian fruit trees, ornamental trees and shrubs, forest seedlings, raspberry and currant bushes, seed potatoes, varieties recommended hardy by the Brandon and Indian Head experimental farm; exclusive territory; outfit free; and excellent opportunity for farmers and implement agents. For particulars write to the Pelham Nursery Co., Toronto, Ont.

FOR SALE OR EXCHANGE FOR AUTOMOBILE OR HORSES

One 18 H. P. John Abell Simple Traction Engine. McDonald and McCreid, Glen Ewen, Sask.

FOR SALE—Hart-Parr 22-45 Horse Power Engine with seven furrow Cockshutt gang or will exchange on land. For particulars apply D. Ruess, Bradwardine, Manitoba.

FIREMAN wants position on Steam Plowing or Threshing engine, preferably in Sask. In replying please state wages and probable length of run. Geo. Melike, Blanche P. O., Que.

WANTED—Position as engineer on Hart-Parr considerable experience, state wages. Apply J. H. Nugent, Caron, Sask.

FOR SALE—30 H. P. Rumely Engine. Only run one season. Two tanks and pumps. All in good shape. Cheap. For particulars apply Campbell & Woodcock, Normanton, Sask.

EXCHANGE—For good land, good second hand Steam Threshing and Plowing outfit near Winnipeg. Box 14. Lake Winnow, Murray County, Minn., U. S. A.

FIREMAN—Wishes position. One year's experience. Can make good on a Plowing Outfit. H. O. Loveday, Wasasca, Sask.

WANTED—Persons to grow mushrooms for us in waste space in gardens, yards, sheds or cellars, \$15 to \$30 per week. Send for illustrated booklet and full particulars. MONTREAL SUPPLY CO'Y, Montreal.

FOR SALE—10-14 inch Cockshutt independent engine plow breaker outfit. Only plowed 1500 acres. Good shape. Have no further use for them as farm is all broken out. Fairview Land Co., Osage, Sask.

ENGINEER—Wants position on a plowing engine. Will be willing to take it on for threshing; have had 5 years experience; can do own repairing. Also graduate of The Health School of Engineering. Chas. B. McMain, Summerberry, Sask.

FOR SALE—One J. I. Case, 20 H.P. Traction Engine, only used a short time in good shape; one 32-54 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 tractor. Apply Box 10, Lander, Man.

BE AN ENGINEER—The Health 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 information to E. H. Heath Co., Limited, Winnipeg.

FOR SALE—One Gould Balance valve for 22 or 25 H. P. Gaar-Scott engine. J. Reynolds, Yellow Grass, Sask.

CERTIFIED ENGINEER and Machinist with fifteen years' experience wishes position on steam or gas engine. Can do own repairing. Apply D. Mark, Manville, Alta.

FOR SALE—30 H. P. Plow City gasoline traction engine, price \$2400.00, plowed 400 acres. As good as new. For terms, etc., write to Glenn & Rodger, Macdonald, Man.

WANTED—Position as engineer, strictly temperate; have had considerable experience and can furnish references. State wages and make of engine. Address Andrew J. Johnson, Killarney, Man.

LOAN COMPANY commencing business wants an experienced inspector for farm lands; good prospects. Young man aged about thirty; single preferred. State salary wanted, experience and references. Care Hudson and Howell, 13 Merchants Bank Bldg.

EXPERIENCED Licensed Engineer and Traction Plowman wants position for the coming season. Eight years practical experience in steam traction engine. Will consider position in Man., Sask., or Alta. Charles Rondeau, Saint Leon, Man.

WANTED—First class blacksmith on plow outfit, near Lethbridge, Alta. Must give reference. Address Kessler Bros., 1513 North Main Str., Dayton, Ohio.

FOR SALE—30 H. P. Rumely Engine only run one season, two tanks and pumps. All in good order. Cheap and easy terms. Apply Campbell and Woodcock, Normanton, Sask.

\$1400 BUCKS COMPLETE NORTHWEST OUTFIT—25 H. P. Simple Traction Engine, 40 x 64 Separator, Feeder, Weigher, Blower, Tanks, Tender, Cook Car, etc. Good condition. Outfit at Gull Lake, Sask. Address Aukes Diebold, Wimbeldon, N. Dak.

STREAM PLOWING ENGINEER wants position on plowing outfit the coming season, has long experience, sober and of steady habits, do own repairing, hold second class certificate for Manitoba, Sask. and Minnesota. In answering please state size, make and age of engine, also wages. Address A.C. Kastner, 158 Logan Ave., Winnipeg.

"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 OR TRADE FOR GOOD LAND—One 2 H.P. Double Cylinder Steam Engine with 10 Bottom Cockshutt Plow. All in first class shape. Elias Gjertson, Warren, Man.

WANTED—Position on steam plowing outfit, fires, preferred, experienced. Frank Campbell, Marquette, Man.

FOR SALE—Two useful English Bull Bitches, good blood, good breeders, pedigrees, photos, etc. M. Cochran, Imperial Bank, Winnipeg.

FOR SALE—Imported English Bull Dog, "Lucky Barge," big winner, Winnipeg Winter Show 1911—Cheap. M. Cochran, Imperial Bk. Winnipeg.

WANTED—Position as Engineer on steam traction outfit for threshing, or would take both ends. Can do own repairing. Nine years experience. Best of references and certificate for Sask. Am. strictly temperate. Address E. F. Sharpe, Maple View Ont.

FOR SALE—A Maurer's Standard Belt Hay Press. Capacity 6 tons. In good order. Price \$200. Apply E. H. Snyder, Box 137 Camrose, Alta.

WANTED—Position on plowing engine for summer as fireman. An holder of diploma from Health School of Engineering, by correspondence, and could run engine if necessary. Would prefer to work in Saskatchewan. Apply stating wages to H. E. McMahon, Box 11, Kinley, Sask.

WANTED—To purchase second-hand traction engine, quote lowest cash price. C. A. Shier, Colonsay, Sask.

FOR SALE—Avery 1911 model 30 h.p. Alberta special motor-mounted engine, equipped for plowing. Cockshutt engine gang 8 bottom. Both run 8 days. Also new 36 x 60 Avery separator, with feeder and blower. All 3 for \$3,800.00 cash. No trade considered. Dary C. Purfurat, St. Paul Minnesota.

COMPLETE PLOWING OUTFIT FOR SALE—45 H.P. Hart-Parr with six-14 in. Cockshutt engine gang Plow with Breaker Bottoms. Everything good as new. Only run one season. Price \$2500. J. F. Crosby, Hanlan, Man.

160 ACRE FARM FOR SALE OR TRADE—For Traction Plowing outfit. Land is quarter mile from town of Ladysmith, Man. Andrew Deata, Hanlan, Man.

STEAM ENGINEER MACHINIST—Open for position on large ploughing outfit, Ontario certificate, fifteen years' experience, three in West, six building three travelling machinery, painter and pusher, have Alberta and Saskatchewan applications, papers. W. Z. Bayley, Hamilton, Ont., 35 Smith Ave.

FOR SALE—Small separator complete with all attachments. \$400 cash. Box 13, Welby, Sask.

- 15 Horse Case Simple Portable Engine...20540
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20 Horse Compound Traction Engine, Case 7936
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FOR SALE

One American Advance Separator, 36x56, with all latest attachments. One 15 inch Vessott Grinder; one 2 wheeled Engine Tender; 2-3 furrow John Deere Engine Ganga. The above property for sale cheap. F. W. Hunter, Stonehall, Man.

FOR SALE

One 15 H. P. Case Traction Engine, with or without 28x50 separator. For sale or exchange with a Gasoline Traction Engine.—William Brayshaw, Kellie P. O., Man.

FOR SALE

Two 25 H. P. Simple J. I. Case engines. One 15 H. P. Simple J. I. Case engine. One 15 H. P. Compound J. I. Case engine. One 32x54 Wood Case separator. One 28x50 steel case separator, with wind stacker, self feeder and weigher.

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 J. I. Case engine. One 32x54 Wood Case separator. One 28x50 steel case separator, with wind stacker, self feeder and weigher.

J. I. CASE THRESHING MACHINE CO., Calgary, Alberta.

BARGAINS

- 1-32 H.P. Port Huron engine, rebuilt and in first class shape.
1-American-Abell 20 H. P. engine, rebuilt.
1-Minneapolis Separator 44x72, rebuilt. With all connections.
1-36x60 Avery Separator complete, just rebuilt.
1-36x60 Avery Separator to be rebuilt complete.
2-3-30 H. P. double undermounted engines.
1-30 H. P. Northwest engine, not rebuilt, cheap.
1-J. I. Case steel, 42x60 separator complete with all attachments.
1-42x70 Avery separator, will be rebuilt in time for next fall's work.

If you are interested in second hand goods, please write and let us know what you want as we are making deals almost every day, and feel sure that we can fix you out with almost anything you want, either in new or second hand goods.

HAUG BROS. & NELLERMOR Co. Ltd. WINNIPEG.

WANTED—Position as Engineer on a steam traction outfit. Fully experienced. Can furnish references. Address J. E. Pustich, Clara, Man.

WANTED—Experienced man to run separator, also an engineer for season's threshing. Apply stating experience and wages to W. N. Carney, Hazelcliff, Sask.

WANTED—By holder of second class certificate position as engineer; have also good knowledge of gasoline engines. Address care of Box 148, Outlook, Sask.

FOR SALE—22 H.P. Port Huron traction engine, 33x54 Port Huron separator complete with self feeder, high weigher, wind stacker, tank, caboose all in good running order. Easy terms or will exchange for land. S. Platt, Redvers, Sask.

ENGINEER—Wants position on engine for threshing, good practical running and shop experience. Diploma from Health School of Traction engineering; do own repairs. State size and make of engine. E. Coleman, 46 Kate St., Winnipeg.

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.

FOR SALE—One 25 h. p. direct flow, Simple, heavy gear traction engine. One 21 h. p. Compound, return flow traction engine. One 18 h. p. Simple, return flow traction engine, and one 25 h. p. Compound, return flow traction engine.

FOR SALE

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.

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...1300.00
22 H. P. American-Abell...1200.00
22 H. P. American-Abell Cross Comp...1200.00
22 H. P. American-Abell...1500.00
22 H. P. American-Abell Simple...1900.00
18 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...1100.00
19 H. P. Minneapolis Comp. return flow...1000.00
20 H. P. American-Abell Portable...800.00
18 H. P. American-Abell...800.00
14 H. P. American-Abell...800.00
36x60 Tor. Adv. Septr., 36 inch Parsons feeder...575.00
36x50 Tor. Adv. Septr., 36 inch Parsons feeder, 50 inch May Bay Windstacker Perfection E. W. & W.L...700.00
40x56 Advance Septr., 40 inch Advance feeder, Advance Wr. & W.L...550.00
36x60 Toronto Advance Septr., 36 inch Parsons feeder, Straw carriers...575.00
36x60 Toronto Advance Septr., 36 inch Parsons feeder, 60 inch A-A 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 of that our rebuilt machinery has acquired in the past. The prices quoted are f. o. b. Winnipeg.

AMERICAN-ABELL ENGINE & THRESHER CO., LTD., WINNIPEG.

FOR SALE—Hawkeye Band Cutter and Self Feeder used one season. Size 36 inch. First fifty dollars takes it. G. W. Vincent, Cor. Arlington and Ellice, Winnipeg.

BOYS AND GIRLS—Send us your name and address on a postal card. We will show you how to earn \$10 and up every month, after school hours. Avallone Co., Inc., 2037 E. Addison Ave., Chicago, Ill.

WANTED—Engine gang six or eight bottoms must be in good repair. Box 70, Morse, Sask.

FOR SALE OR EXCHANGE FOR LAND

Good second-hand Portable Steam Engine, 26 H.P. Double cylinder 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 breaker bottoms and extra abrades, price, \$1600.—J. Hansford, Fairlight, Sask.

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 buying, when we shall be pleased to tell you what we have and quote prices. Our rebuilt goods are sold under same guarantee as new ones and of course are carefully repainted and look exactly like new. If you write us if you are sure to have the size you almost want.

We also have a thoroughly Rebuilt Saw Mill Outfit consisting of a 15 H. P. Saw Mill Engine, Ford Saw 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.

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.

A—ALBERTA PORT HURON CO., Calgary, Alta.

1—**AMERICAN—ABELL ENGINE & THRESHER CO.,** Winnipeg, Calgary and Edmonton.

2—**AMERICAN SEEDING MACHINE CO.,** Winnipeg.

3—**BAILEY SUPPLY CO.,** Winnipeg.

4—**BEEMAN MFG. CO.,** Winnipeg.

41—**BELL B. & SONS,** Winnipeg.

5—**BELL ROBT. ENGINE & THRESHER CO.,** Winnipeg.

6—**BRANDON MACHINE WORKS,** Brandon.

7—**BRANDON PUMP & WIND-MILL WORKS,** Brandon.

8—**BRANDON & ROBERTSON,** Brandon.

81—**BUFFALO PITTS CO.,** Moose Jaw, Sask.

9—**BURRIDGE-COOPER CO.,** Winnipeg.

10—**CANADIAN FAIRBANKS CO.,** Winnipeg, Vancouver.

11—**CANADIAN MOLINE PLOW CO.,** Winnipeg.

12—**CANADIAN PORT HURON CO.,** Winnipeg.

13—**CANADIAN RUBBER CO.,** Winnipeg, Vancouver.

14—**CANADIAN STOVER CO.,** Brandon.

15—**CARBERRY IRON & WOOD WORKS,** Carberry.

16—**CARBERRY STACKER CO.,** Carberry.

17—**J. I. CASE T. M. CO.,** Winnipeg, Regina, Calgary.

18—**CHAPIN CO.,** Calgary.

19—**COCKSHUTT PLOW CO.,** Winnipeg, Regina, Calgary, Edmonton.

20—**CRANE & ORDWAY,** Winnipeg.

21—**DEERE, JOHN PLOW CO.,** Winnipeg, Regina, Calgary, Edmonton, Saskatoon.

22—**DE LAVAL SEPARATOR CO.,** Winnipeg.

24—**EMPIRE CREAM SEPARATOR CO.,** Winnipeg.

25—**GAAR, SCOTT & CO.,** Winnipeg, Regina, Calgary.

26—**GAS TRACTION CO.,** Winnipeg.

25—**GOODYEAR TIRE & RUBBER CO.,** Winnipeg, Regina, Calgary.

27—**GRAY-CAMPBELL CO.,** Winnipeg, Brandon, Moose Jaw, Calgary.

271—**HAMILTON PULVERIZER CO.,** Winnipeg.

28—**HAG BROS. & NELLERMOE,** Winnipeg and Calgary.

29—**HARMER IMPLEMENT CO.,** Winnipeg.

30—**HART-PARR CO.,** Portage la Prairie.

32—**HERO IMPLEMENT CO.,** Winnipeg.

33—**INTERNATIONAL HARVESTER CO.,** Winnipeg, Regina, Calgary, Edmonton, Saskatoon, Brandon.

34—**LOUDEM HDWE & SPECIALTY CO.,** Winnipeg.

35—**MANITOBA HAYES PUMP CO. LTD.,** Morden.

36—**MANITOBA IRON WORKS, Winnipeg and Calgary.**

37—**MANITOBA WINDMILL & PUMP CO.,** Brandon.

39—**MASSEY-HARRIS CO.,** Winnipeg, Regina, Calgary, Edmonton, Saskatoon.

40—**MAW, JOS. & CO. LTD.,** Winnipeg.

41—**McKENZIE, A. E.,** Brandon.

42—**MCLAUGHLIN CARRIAGE CO.,** Winnipeg.

43—**McRAE, ALEX.,** Winnipeg.

44—**MELOTTE CREAM SEPARATOR CO.,** Winnipeg.

45—**NEEPAWA MFG. CO.,** Neepawa.

46—**NICHOLS & SHEPARD CO.,** Regina, Winnipeg.

47—**NORTHWEST THRESHER CO.,** Brandon.

48—**ONTARIO WIND ENGINE & PUMP CO.,** Winnipeg.

49—**PARIS PLOW CO.,** Winnipeg.

51—**PARSONS-HAWKEYE MFG. CO.,** Winnipeg.

52—**PETLIE MFG. CO.,** Winnipeg, Calgary, Vancouver.

53—**RAYMOND MFG. CO.,** Winnipeg.

54—**REEVES & CO.,** Regina.

55—**RENNIE, WM. SEED CO.,** Winnipeg.

56—**RIESBURY PUMP CP. LTD.,** Brandon.

57—**RUMELY, M. CO.,** Winnipeg, Calgary, Saskatoon, Regina.

58—**SAWYER & MASSEY CO., LTD.,** Winnipeg.

59—**SHARPLES SEPARATOR CO.,** Winnipeg.

60—**STEELE-BRIGGS SEED CO.,** Winnipeg.

61—**STEWART & NELSON CO., LTD.,** Brandon.

62—**STEVENS, JOHN & CO.,** Winnipeg.

62a—**STUART, JAMES, ELECTRIC CO.,** Winnipeg.

62b—**SUB-SURFACE PACKER CO.,** Winnipeg.

63—**SULVESTER MFG. CO.,** Brandon.

64—**TUDHOPE-ANDERSON CO.,** Winnipeg, Regina, Calgary.

65—**VIRDEN MFG. CO.,** Virden.

66—**VULCAN IRON WORKS,** Winnipeg.

67—**WATERLOO MFG. CO.,** Winnipeg, Regina.

68—**WATEROUS ENGINE WORKS,** Winnipeg.

69—**WATSON, JNO. MFG. CO.,** Winnipeg.

70—**WHITE, GEO. & SONS,** Brandon.

71—**WINNIPEG RUBBER CO.,** Winnipeg.

72—**WINNIPEG THRESHING MACHINE CO.,** Winnipeg.

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Why You Should Own a Gas Tractor

It's the Ideal power for all heavy farm work.

It displaces one-half to two-thirds of your horses.

Two men and a sixty horse power tractor can do the work of six men and thirty horses—better, quicker, easier.



Tractor handling eight 14-inch plows and turning 25 acres per day.

25 head of horses cost from Nov. 15th to April 1st, to feed and care for between \$500 to \$750—a gas tractor costs nothing when idle.

It discs, plows, harrows, drills, either singly or in tandem. It harvests, threshes, grades roads, hauls stone or grain—in fact performs nearly all of your heavy farm work.

It is economical in fuel, burning the cheapest distillate or Kerosene.

You can plow deeper and get bigger crops. No number of horses can put in the plow point like the steady even pull of a gas tractor.



Tractor discing and drilling 10 feet wide both at same operation

It's better than steam, because—there is no danger from freezing—no danger from explosions, fires or excessive weight. No waste time stopping for fuel or water supply; no waiting for power; no burned out grates, crown sheets or flues; no boiler to scale.

Flies, heat, dust cannot disturb a tractor. It never tires, always on the job night or day.

These—and scores of other good reasons prove that, for heavy farm work there is no economical tractive power equal to a good gas tractor.

Any man mechanically inclined can easily learn to run one.

Be sure to get one that has large wearing surfaces: one that has few parts and be sure that they are easily accessible; one that is simple to handle; one whose makers give you quick service.

LEARN HOW TO OPERATE A GAS TRACTOR Thru this

Correspondence Course in GAS TRACTION ENGINEERING

Our deep interest in cheaper, more profitable farming methods and bigger crops has inspired us to prepare this course. It is especially for farmers. It will demonstrate to each man that takes it the wonderful possibilities of power farming and the actual advantages of a Gas-Tractor over every other power.

An Outline of the Course:

Introduction---Fundamental Principles---

Herein are explained the fundamental principles relating to the construction of gas traction engines. This section gives you a general knowledge of gas traction engines so that you can readily understand any style or make.

Lessons in Detail---These lessons

explain in thoro, but simple detail the construction, operation, adjustment and repair of a gas traction engine. For instance; the subject of combustion and economical use of the different fuels; construction of the cylinders and pistons; the valves and cooling system; the timing and regrinding of valves. You are taught how the power is carried from the crankshaft to the belt pulley and traction wheels. The various gears are thoroly explained so that you will fully understand the exact construction, arrangement and operation of each gear or set of gears. You are taught how to adjust or repair all parts of your engine. If anything ever should go wrong with it you will not need to send for a factory expert. You will be an expert.

Field Operation --- Here you are

taught the latest time-saving methods of laying out a field for economical traction plowing. The advantages of an engine over horses for many farm tasks is proven. The different makes and types of engine-plows are described with their various advantages pointed out. You are taught how to hitch on to various kinds of plows, disc harrows, sod crushers, sub-surface-packers, harvesters, harrows and other implements with the plows; how to seed, harvest, thresh and haul grain; how to haul manure-spreaders and hay-loaders; how to dig and fill ditches; how to build and drag roads; how to do any number and variety of things with the engine instead of with horses.

In this department the comparative costs of performing all of these varied operations with an engine instead of with horses is discussed. Accurate figures of costs are given, taken from carefully compiled records made from actual field-work done; the figures are facts—not estimates.

Do you intend to buy sometime?

This course demonstrates that you need an engine; it proves—why; shows you how to do more work—do it better, quicker and cheaper; how a gas traction engine will lessen the work for yourself and family; how you can make more money—yes—save more.

Do you intend to buy soon?

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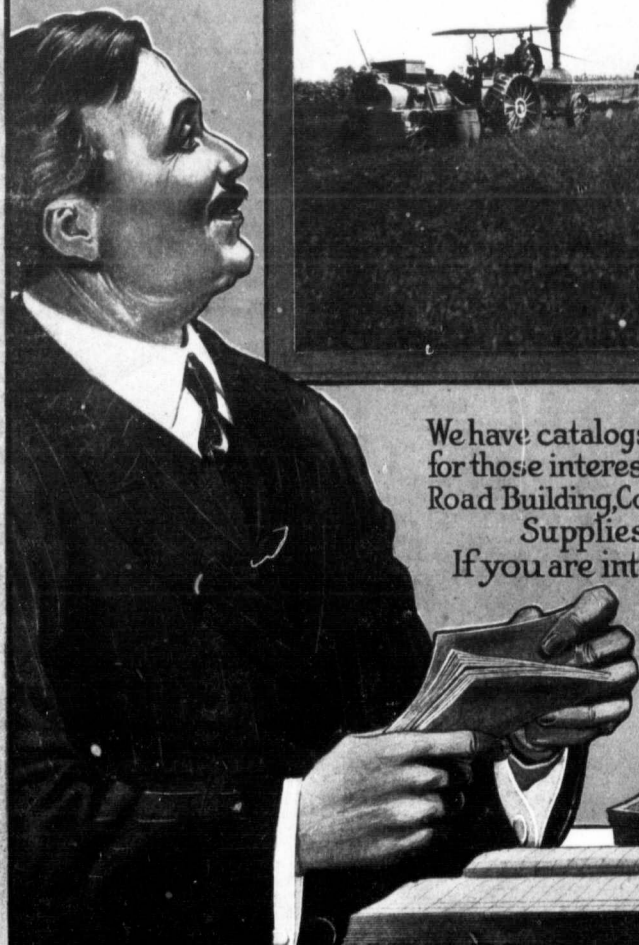
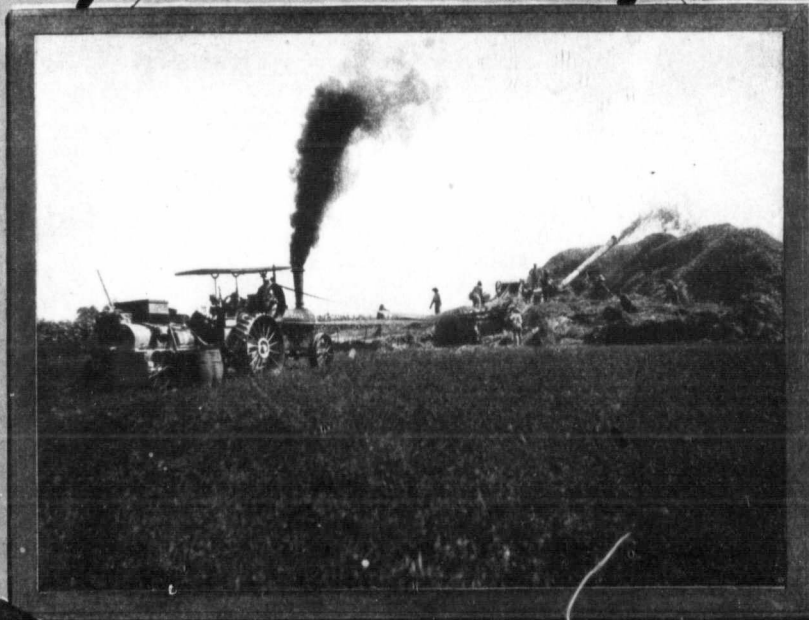
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