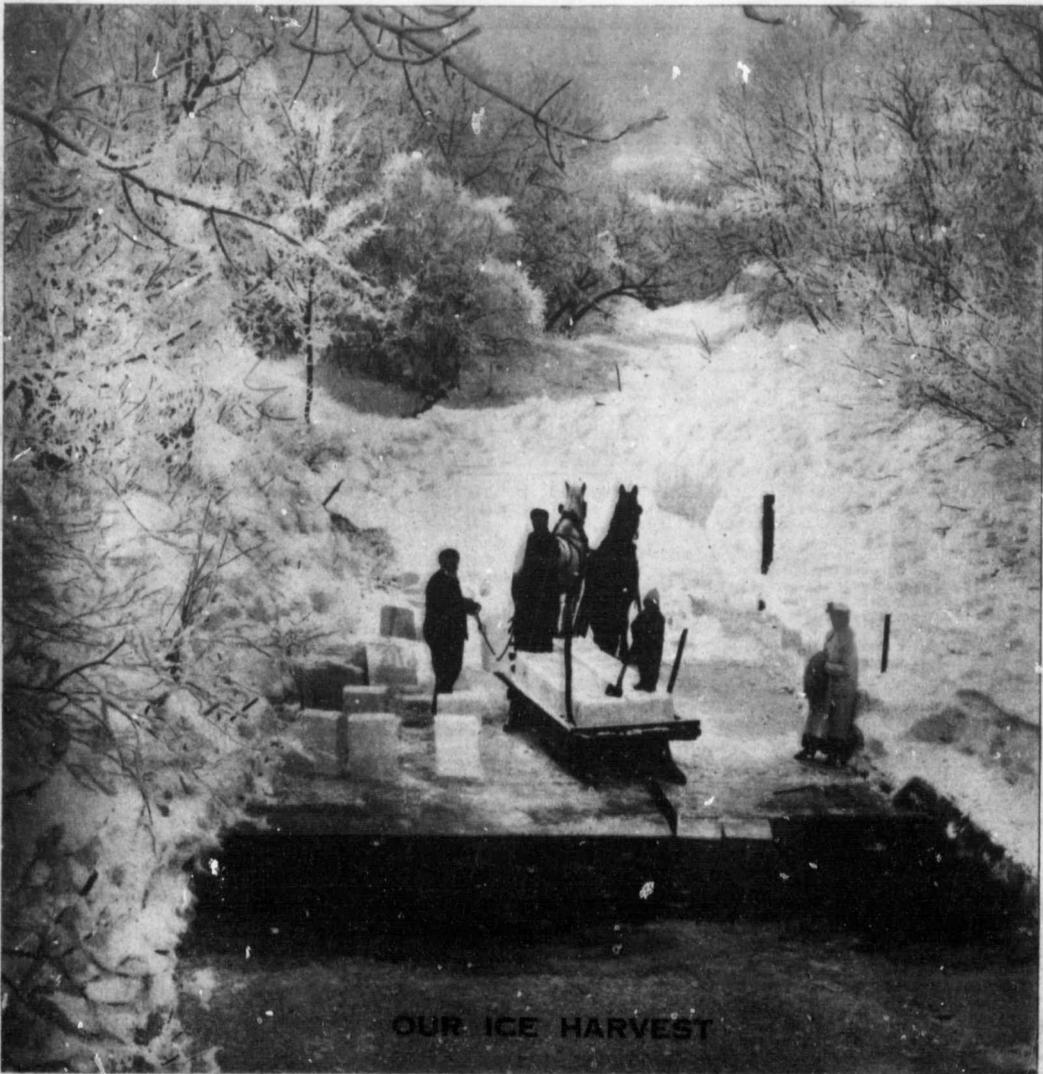


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The **CANADIAN** THRESHERMAN AND **FARMER**

WINNIPEG CANADA
JANUARY
NINETEEN NINETEEN

BETTER FARMING — BIGGER CROPS — BETTER PRICES



OUR ICE HARVEST

Published Monthly by E. H. HEATH CO. LIMITED — Our Seventeenth Year

The New HART-PARR

Specifications:

Power—Pulls three plows—30 HP on belt.
 Tested at the last National Plowing Demonstration at Salina, Kansas, developed over 31 HP at 732 RPM.
Motor—2 cylinder twin, 4 cycle. Valve in-head. 730 RPM.
Tractor Frame—Cast steel, one piece. No bend, no twist.
Carburetor—New Dray kerosene shunt.
Bearings—S.K.F. and Hyatt.
Speeds—Two forward; one reverse.
Transmission—Selective sliding gear.
Cooling Device—Honeycomb radiator—shaft driven pump and fan.
Lubrication—Force feed.



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Those who want the most Tractor value per dollar invested.

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The Founders of the Tractor Industry and Builders of the First Successful Kerosene Tractors

POWER from Kerosene STRENGTH from Steel

Kerosene is the fuel from which no power elements have been refined. The New Hart-Parr, exclusively fitted with the Dray Kerosene Shunt, burns this power-laden kerosene as well as other tractors burn gasoline. At full load or no load the twin cylinder engine runs as regularly as a good watch. And still there is a reserve power—even at full-rated load—to carry you over the peaks without a strain.

The New Hart-Parr motor is not a high-speed motor to wear itself out by its own exertion as do high strung nervous people. It's as steady as a Percheron mare, yet has no flesh to tire. Gumbo in August is all in a day's work.

With the greatest power per pound and the highest tractor value per dollar in its favor, you should learn more about the New Hart-Parr. See a Hart-Parr dealer at once—and now, to-day, send a postal to us for the New Hart-Parr Book. It's complete, it's interesting, it's free.

LITTLE GENIUS



TRACTOR PLOWS

The Tractor Plow with a Matchless Field Record—The Proven Favorite with Tractor Plowmen

MERIT POINTS

The P&O Little Genius is an efficient power lift tractor plow for the small tractor. With any tractor it constitutes the ideal one man outfit.

Power furnished by the land wheel raises and lowers the bottoms at the will of the operator.

High level lift on all three wheels gives ample clearance for trash in turning or transporting. Only one trip rope is required.

Rear wheel lift responds instantly to action of power lift device. No sliding parts. No strain on lifting parts while plow is at work.

Bottoms are forced—not merely dropped—into the ground by the whole weight of the plow.

One-half as much power required to raise the bottoms of the P&O Little Genius as is required on any similar plow. No spuds on power wheel—plow runs smoothly.

Swinging levers. When the plow is at work the levers are within easy reach of the operator from his position on the tractor, but as the bottoms raise, the levers swing back over the plow out of the way, and do not interfere with the tractor in turning.

The plows can be raised by hand. No skipped places as a result of striking a stone or other obstacle.

Lovers give perfect control of plow in finishing up a land—every bit of land can be plowed.

Spring balanced bottoms. The levers and bottoms are counterbalanced by heavy springs, making their operation extremely easy.

Pin break hitch. Better than an insurance policy—protects both plow and tractor against danger from striking hidden roots and stones.

Hitch adaptable to any tractor.

Cone coulters permit taking up all looseness occasioned by wear.

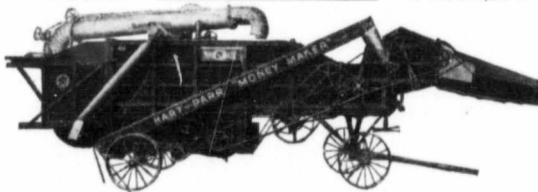
Great bottom clearance. The P&O Little Genius has made good repeatedly in ground so trashy as to render other plows almost useless. If you get a chance, compare the 19-inch bottom clearance of the P&O Little Genius with that of any other plow.

A combination coulters and jointer can be furnished on special orders.

THERE IS A P&O PLOW MADE TO MEET EVERY CONDITION AND SIZE OF FARM WITH 76 YEARS OF "KNOWING HOW" HAMMERED INTO EVERY ONE OF THEM

HART-PARR "Money Maker" THRESHERS

Every farmer and customs thresherman knows that if grain is lost in the straw, there is an actual money loss that cuts into his profits. The "Money Maker" threshes clean and fast, works to fullest capacity with the smallest consumption of power and puts bigger profits into the farmer's pocket by putting all of the grain into the wagon or sack, instead of into the stack.



The "Money Maker" is made to last and give years of hard service, at a minimum cost for operation and upkeep. From steel-trussed, cut-under truck to the arched roof deck, it is every inch a quality outfit, with each standard part—truck, frame, drive, rack, cylinder, shoe, etc., built right in every respect. We can furnish Hart-Parr "Money Maker" threshers, complete, with all attachments, if desired, including self-feeders, windstackers, etc.

Send for your copy of Catalogue fully describing above lines. Tell us in which machine you are most interested. FULL LINE OF REPAIRS CARRIED.

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AULTMAN & TAYLOR
 Tractors and Separators

An All 'Round Tractor for Year 'Round Work

A horse that works well anywhere is worth far more than one that is good for certain work only.

Likewise—a tractor that works economically and efficiently on ANY job is worth a great deal more than one which is limited to small jobs because of lack of power for big jobs.

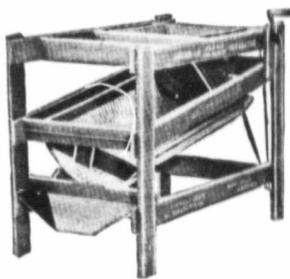
The Aultman-Taylor 15-30 Kerosene Tractor is the right size and the proper power for the widest possible range of work at the lowest possible operating cost. It works advantageously and profitably wherever you put it, from late Spring until early Fall. It has the built-in qualities that make it stay by you—not for a year or so but for years to come at an amazingly low upkeep cost. It will make your tractor experience pleasant and profitable.

Our new 1919 booklet tells all about our complete line of farm machinery—Write for it.



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American Wild Oat and Barley Separator and Cleaner

No fanning mill or cleaner, but the only real wild oat separator that absolutely removes wild oats from tame oats and barley. The only machine that separates and grades in one operation. Patented slats distribute a thin, level layer of grain over the full surface of the sieve. Ask for literature.

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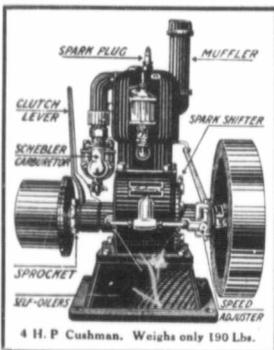
Made in two sizes, 24 and 32 inches wide. Has three times the capacity of old type mills of equal width. Has double screening surface, so that a thinner run of grain passes over screen. Patented cut-off feature increases capacity 60 per cent over other machines without such equipment. Write for bulletin.



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Built Light Built Right

The 4 h.p. Cushman weighs only 190 lbs., the 8 h.p. only 320 lbs., the 15 h.p. only 780 lbs., and the 30 h.p. only 1,200 lbs. Cushman Engines are used on the famous Cushman combination threshing outfits. They are equipped with Throttle Governor and Schebler Carburetor; 4 cycle, water cooled, with friction clutch pulley. The Cushman 4 h.p. besides doing all other farm work, is the original and successful Binder Engine. Saves a team on the binder.



4 H. P. Cushman. Weighs only 190 Lbs.

Only 40 to 60 lbs. per Horsepower

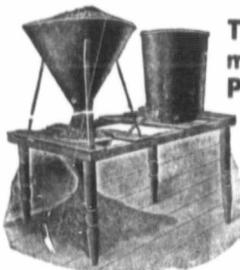
Cushman Light Weight Farm Motors weigh only 40 to 60 lbs. per horsepower—

Only about one-fourth as much as ordinary farm engines.

Yet they run even more steadily and quietly, because of perfect balance and accurate Throttling Governor.

Because of their light weight, they are the most useful farm engines, as they can be moved so easily from job to job, and quickly put to work under all sorts of conditions.

They are also very durable—in fact, Cushman Motors are the most durable farm engines in the world, because of actual superiority in design, material and construction.



The Automatic Grain Pickler

The only machine of its kind in use. Handles grain at the rate of 150 bus. per hour. Light in weight; strongly built; perfect in action; low in price. Fully guaranteed. Weight of grain operates the machine. The kernels are thoroughly soaked, turned over and treated. The most efficient automatic pickler on the market.

Lincoln Smut Cleaners

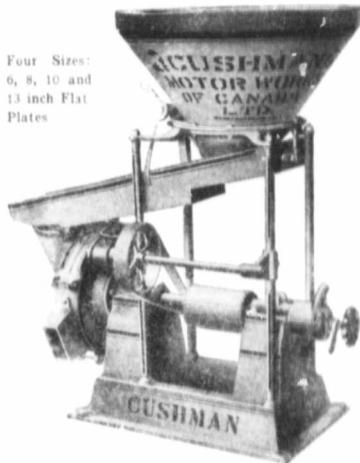
Ensure Clean Seed and Big Yields

Sold on a positive guarantee to prevent smut. No. 3 handles 30-50 bus. per hour; No. 4, 50-75 bus. The Lincoln separates smut balls, wild oats, king heads, and all light seed from wheat, also wild oats and all light seed from barley. Grain is thoroughly pickled, dried and elevated to wagon box. Automatic skimmer an exclusive feature. Strong, heavy construction. Large, rustless solution tanks.

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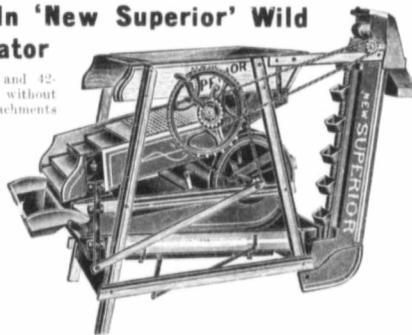
Cushman Grinders

Cushman grinders do more and do better work with less power than any other grinders of similar sizes. Very easily driven. Perfect adjustment for fineness of work. Rigid, vibrationless design; large capacity hopper; heavy drive shaft. Send for full particulars.

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Made in 24, 32 and 42-inch sizes, with or without bagger. Power attachments supplied if desired.

Patented adjustable windboards give perfect control of blast; our special sieves eradicate all wild oat seed. Strongly built and bolted; has greater capacity and does better work than any mills of similar sizes.



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Exclusive Selling Agents for: Combination Threshing Outfits—Langdon Ideal Self-Feeders—Fanning Mills—Smut and Pickling Machines—Vacuum Washing Machines—Lincoln Grinders—Lincoln Saws—Incubators—Portable Grain Elevators—Wagner Hardware Specialties—Shinn-Flat Lightning Rod.



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No. 1

"The question is whether the courage exhibited in one field is now to be shown in another; or whether the pessimism which appeared to delight in ringing the public heart in hours of darkest trial is to project its warping activities into other problems in peace. As the war was won substantially by keeping to sound principles, though they were bitterly assailed and often ridiculed by the pessimists, so we may depend upon it that in the complementary work still before us sound principles will carry us much further than showy expedients."

HAVING won the war, having secured with amazing completeness the moral and material victory we set out to obtain, what is it now going to be?

The question of the hour can be broadly put: "having rendered impotent the greatest combine of material force the world ever confronted, shall the superstructure of this great triumph be inspired by doubts akin to those of 1916, or is it to be worthy of the public majesty; whether a people of the spirit and quality of the men and women who won this crowning victory are in the least likely to accept anything of the makeshift, shoddy or mean; are they likely as a reputed New and Better Order, to allow themselves to be put off with the Old and Slovenly Order, tinkered here and there and disguised with a coat of white-wash?"

Not only in 1916 (when pessimism was at its zenith) but from the day on which war was declared until a day or two before the armistice was signed, the pessimist, the makeshift, the man of shoddy and buckram, the mean man all fought hard and persistently to get an innings, but with what avail?

In the face of such utter failure to accomplish anything when the foe was seeking to tear the heart out of the nation, what effect is the pessimist now going to have in shaping the future of civilization—more specifically of the British Empire and that branch of the great family known as Canada?

It is well to recognise the common root of pessimism whether

Sound Principles OR Showy Expedients?

in war or in peace. The common root is that underlying ideas have in the past been largely deformed by low standards and the greed of the huckster. It is the shoddy side of national thought which

thropy by act of parliament is no more a remedy than any other form.

The remedy lies in lifting the social outlook boldly on to a higher plane.



THE NEW CHALLENGE

hitherto has been uppermost in social theory, and the contrast between national greatness in action and national failing in this field of reflection is none the less striking because of efforts to disguise the meanness and mitigate its consequences. Philanthropy is not the remedy, and philan-

Now it is the formative prevalent and underlying ideas of an epoch which shape its institutions and mould its history. If therefore, the New Era is in truth to be New, if the sacrifices of the war are not to be wasted, we have to set out with faith and courage, shedding obstructive

ignorance, leaving old follies and pessimisms frankly behind.

And what a record in high courage and undeviating loyalty to sound principles have our sons created afresh and handed over to us! Were they at any time or in any part a downhearted, faithless crew? Not a single note from the trenches from the moment at which the first British throat spoke out at Mons until the last shot was fired did we hear anything but "They shall not pass!" "God will never permit these devils to win!"

But what do we find at home even while that great battle fleet is being tamely handed over to its silent conquerors "On a grey November morning?" just what all precedent led us to expect—the usual crop of croakers who are without faith or outlook beyond the immediate dollars and dough-nuts.

A Craven Fear

Even in high places there are those who fear that the great triumph may be cancelled by other troubles nearer home about labor and capital. They hardly realize what their own fears mean to the most casual citizen who has the smallest bit of marrow left in his spine. These backboneless ones admit the power that makes for righteousness has won this war, but now they would limit that power to the battlefield—which is a craven fear.

The brave spirit, on the other hand, takes what has been done before an astonished world and uses the word "therefore" as a lever. Because of what we have just seen done, "therefore" all things are possible—not only possible but must come to pass. Therefore, if by a strict adherence to sound principles, namely: **The Law of God**, we broke the back of that Royal oppressor, the future has no terrors, no impossibilities for us.

"History is no blind process, but the expression of the Almighty's judgment in the sure attainment of the Divine purpose in human affairs," says a writer in the "Times." Nothing is moving

men and women in these days so deeply as this conviction.

This estimate of history as Divine judgment is justified. It does not necessarily run counter to the conception of human life as conditioned by evolutionary processes. The one conception is complementary to the other. But in view of what is happening before our eyes in the world are we not compelled to emphasise this fact of Divine interposition in human affairs, and to insist on the reality of that revelation of the eternal Will which is disclosed to us in these last days?

The Judgment is pronounced in our ears. Sentence is being carried out before our eyes. It is overwhelming in itself, but its highest significance lies in its assurance of the complete vindication of God and the triumph of righteousness which lies in the future. It heralds the coming of the Kingdom of Heaven in righteousness, peace, and truth.

Within the past four years, ten million men have perished to prove that progress is not automatic, not comfortable, not in any way a law of Nature; and that dark forces have always sought to tear the fabric of civilization to pieces as fast as it was woven.

Galahads with Mufflers

"Generations of respectable people, getting up at seven, breakfasting on coffee, rolls and bacon, going to an office, coming home at six, bringing up children, not being conspicuously unhappy with their wives, tinkering, but not radically, with old ideas and old ways, were expected to lead mankind upward and onward toward the Divine—Galahads with mufflers and cough drops, crusaders with money invested in commissary contracts.

"It did not make a sufficient demand for heroism. It was a philosophy of padded furniture, of carpets, of shutters pulled-to-lest the carpets fade... of umbrellas, overshoes, corsets and regulated diet."

These sarcastic criticisms of the victorian ideals are taken from a lively article by R. L. Duffus of the "San Francisco Bulletin" in the "New Republic." The article does lay bare the fact most vividly that thousands of our young men found life too safe and too monotonous—that it did not make a sufficient demand for heroism. As young Lieut. Paul Jones said in his last letter home: "I think the war has given to everyone a chance to get out of himself."

Who is going to find work in the days of peace for these "Galahads with mufflers and cough drops?" Not necessarily are these "the glorified young nuts" of the afternoon tea-tables, but

they are also the limp lackadaisical loafers who not only preached but lived "blue ruin" and prophesied financial disaster when Great Britain declared war on Germany.

What did actually happen as the result of the Empire's loyalty to its pledged word and the sound principles observed in the conduct of affairs was just the very opposite of the mournful forebodings of these "Job's comforters."

"The enemies of truth and justice may be many and powerful. They have but a short time. Not seldom do we find them vaunting in all the arrogance of success. But God is marching on, and those who, disciplined and strengthened by a steadfast hope in His Final Advent, remain loyal to the ideals of His Kingdom will find themselves at last admitted to its glorious prerogatives."

Even men who had posed and were widely accepted as authorities on high finance found that sharp practice and the "showy expedients" that formed so much of their working capital was no match for sound principles in the hands of ordinary honest men gifted with an extraordinary fund of common sense.

Take a brief survey of how the Empire actually proceeded under these war conditions and what part we took in the great programme out here in Western Canada:

At any time in the memory of centuries before the war broke out, the world offered nothing finer in prestige to any man than the simple fact that he was a British subject. This in no boasting sense, but it is just the plain fact that the world had grown accustomed to regard the dominating note of the British Empire as a fair standard of all that was

"This conviction that, though it may appear to many but the slow process of evolutionary forces or the sport of blind chance, life is in reality a cycle of judgments, typical and anticipatory of that final judgment which must issue in the perfect consummation of the Divine Will for the whole world, affords the only explanation of history that matches Christian faith and experience."

honorable, trustworthy, reliable, resolute and ready to stand by its pledged word at all costs.

That was proved immediately Belgium was invaded, and now that we are able to speak freely of what has been done under that Old Flag, in the interval, our next difficulty is in gathering the astounding facts within reasonable limits.

Men, munitions, money, manufactured goods of all kinds not only for the Empire's use in sustaining eight or ten battle-fronts, but for the use of the whole of the Allies as well at every weak point

in their equipment for the grand offensive.

When Great Britain declared a moratorium in August, 1914, it was in no sense because she owed the world money and now sought to repudiate her debt, but because the world owed her money and could not pay and in response to "sound principle," she took this course to give her debtors time to get things straightened out.

Carry your mind back to 1914 and you will recall how the British pound and other money equivalents of the Empire soared in value while that of some other states rapidly shrunk. It is probably within the mark to say that it was the only money that went up in value and held its own.

Coming nearer home, it will not be forgotten that we had in Canada two years of poor crops prior to 1914, the real estate inflation had blown out, and many people on the outside looked upon Canada as in a very bad financial condition. We had a very few hours in which to make our decision, but anyone who knew the British-Canadian spirit of the people had no hesitation, and in practically thirty-five days after the British war drum beat, Canada had mobilized 35,000 men at the seaboard ready to embark, and a few days after they went

were just as ready and willing to pick up the sword in the great Crusade for right, and they should not be forgotten now that a victorious Peace has been won.

It took Canada some little time to shake down, but from the very start there was evinced on all hands,—by the laborer and capitalist, the farmer and manufacturer, the rich and poor, the butcher, the baker, the banker, the candle-stick maker—a determination to bend their entire efforts and energies to the one problem of putting Canada's full strength alongside the other portions of the Empire, and with our Allies bringing this world struggle to a successful issue.

Recalling conditions in Canada at the outbreak of the war, one realizes how the financial institutions stood up to their task and how they went through that testing time of the world, guided by resolute and capable men, so that from one end of Canada to the other there was no reduction of credits, no increase of rates and no withholding of deposits to the public for a second. The banks stood squarely behind the Government and the Nation and kept the financial structure sound, and the Government did the same.

Many countries at war and many at peace practically declared a moratorium—their bank credits were restricted, their rates went skyward, and it was impossible to withdraw money from the savings banks, etc.—but not so with Canada; all of which goes to show that Canada's political, commercial and financial fabric was well founded on sound principles in the hands of capable people.

No Feed for Pessimism

Transportation facilities were also equal to the test, and those in charge of the factories adapted themselves over night to new kinds of work and doubled their capacity in a few months. Their efforts were nobly responded to by all their employees, and these in turn were well backed up by our farmers, who bent their energies to increasing production; all of which clearly goes to show that if Canada can remain as united in peace as she was in war there is nothing to fear.

In the light of all these things and with but an elementary knowledge of the resources and the power to use them we enjoy, where can Pessimism find a morsel to feed upon here in Western Canada?

Christianity in its interpretation of human life, does keep company a long way with Pessimism. It can outstrip all others in its account of the evil in the world. A primer of Pessimism, one has said, might easily be com-

overseas in thirty-one transports with their auxiliaries and cruisers, and at that time it was the largest fleet of transports that had ever sailed into British waters since the days of the Armada.

From that day to this Canada has gone steadily forward raising and equipping men and had her fighting forces on practically every front. Not only have we a just pride in those men who volunteered and went overseas, but scarcely less in those thousands of men who volunteered for active service but were rejected as "physically unfit." They, too,

piled from detached phrases in the Bible.

But Faith parts from Pessimism when it comes to deal with the long future and the inevitable end. It sets this life with all its evil in the heart of another world of incomparable splendour, and that world is here and now for every soul who cares to live in it on its own simple conditions of citizenship.

Only if our solution of our part in the great problems be right shall we be able to do as much to secure the new order of the world by our example as we have done by our exertions to create it. And the right solution will only be attained if we persevere through the coming years the same spirit of devotion to the common good, the same sense of public service pervading, inspiring, commanding our individual lives, which has carried us triumphant through the pains and weariness of the past four years.

We stand now between the old world and the new, as between our own heroic dead and the unborn generations for whom they laid down their lives. What is there in the bright firmament to prevent us from facing the future with perfect assurance and sustaining the burdens of peace with a patience, a courage, a magnanimity and a self-control no less astonishing than the spirit in which even the weakest of us have passed through the furnace of war?

The answer is: **positively nothing**, if even a decent majority of the decent citizens will but recognise their individual responsibility in the collective burden of shaping things.

"All-Important" Groups.

The past four years have thrown into the lime-light some remarkable idiosyncrasies in the national polity that had grown into habits but which one after another of our more courageous thinkers are now seeking to place in their true perspective. One of these is the habit of grouping men in every community or nation into classes and endowing them with an altogether exaggerated air of importance. A writer in one of the comic journals has very well illustrated this in the lines:

Who out his wisdom teeth at birth?
The Working Man.
Who won the War, and owns the earth?
The Working Man.
Who is the solidest—and the flyest?
Who is the mightiest—and the drest?
Who's going to be the next All-Highest?
The Working Man.

Now you can with perfect fitness substitute for the recurring lines, "The Working Man" in this bit of sarcastic pleasantry these: "The Farmer," "The Manufacturer," "The Merchant" or anything

you can rake into a group, not forgetting "The Press."

Have we not grown accustomed to the loss of our individuality in one or other of these groups and going to sleep with the comfortable feeling that we are "it" and the rest is of no account or must play second fiddle in any concerted action?

The same facetious writer in his own happy way of gibbering this habit of exaggerating brings up the well-known figure of the

"Man is born to freedom, but is everywhere in chains. But the chains are of his own forging, and wrought from the stuff of his own soul. If those who outlive this war can once liberate their minds from unworthy jealousies and out-worn traditions, there is no limit to the happiness which the sufferings of this time shall yield—to the harvest of freedom ready to spring from its countless graves."

gentleman with flowing locks, the astrachan collar, the five-cent cane, the rich sultana or saw-pit utterance whose business is that of barker to the polar bear and performing flea show at the country fair.

The burden of his story is something like this:

"Step in, ladies and gentlemen, and see the white or polar bear, lately arrived from Kamschatka. He has teeth like ivory, a coat as white as the driven snow, and he is provided with claws to prevent him slipping upon the ice. He measures fifteen feet from the tip of his tail to the tip of his snout and fifteen feet from the tip of his snout to the tip of his tail, **making the enormous total of thirty feet in all!** The price of admission is only one dime, and there is no waiting!"

"Between you and me," he goes on to say, "I am a working man myself. I have slung ink, pushed

"The world is not yet safe for democracy. It remains for the free peoples so to enshrine in the coming peace the principles they have vindicated by their victory that out of the devastating, yet cleansing, fires of the war may arise a new order of civilisation, far better and far happier than the old because it rests on a fuller consciousness of the brotherhood of man and a more fearless application of its logic to the real facts of life."

the brilliant quill, sweated blood, and amused the children for a large variety of capitalists, ten hours a day for thirty years. I am a member of a trade union and entitled to overtime workers' coupons. My hands may no be horny; but neither are a tailor's, nor a hairdresser's, nor a linotype operator's, nor Ramsay Macdonald's. I belong to Labour, and all the water in the sea mixed with all the perfumes of Arabia won't wash away the honorable fact.

"That is why I am ruckled when I see the working-man prettily exaggerated. The demagogues appear to me to be exaggerating him out of all proportion to his true magnitude. While the war lasted they were keen to exhibit him to the world for a full blown pessimist, pacifist and defeatist. Not so very many moons ago they asserted that it proved that the working-man believed military victory to be absolutely impossible."

"Military victory has no sooner been achieved than they begin to bawl at the top of their wind 'Step right in and see the greatest thing that ever happened—the conquering hero, the sole and only winner of the great world-war, the man who bashed the Kaiser, knocked the spots off Hindenburg, and made the world safe for Doc. Wilson! Admire his teeth, feel his biceps, consider his out-size understandings given to him by Nature to prevent him slipping on the banana-skin! He stands fifteen feet high in his socks and fifteen feet high when you stand him on his head, making the enormous total of sixty feet in all. Goliath of Gath and the giant that Jack killed ain't in it with him. Walk in and see him break the Party Truce with a single blow of his fist. Walk in and see him make kings tremble and governments wish they had never been born."

We like our friend's fun because we know so well what is in his heart and because he is so true to life—even to selecting the group of which he is an honorable member to bear the burden of his joke.

You may think it's a far cry from the humble status of the working man, the man who mends the roads and your over-worn shoes to the "dignity of the Press!" But it isn't. We will take off our hat to no man in his glorification of "the Press" and

what it has accomplished and what mighty possibilities continually lie before it.

But have we not too persistently defied the press to the infinite loss of the individual thought and judgment? How far has the press rightly interpreted the public thought in recent times and correctly foretold results from the trend of things as they were laid bare to every thinking man on the street?

Carlyle's complaint about the makers of history books applies with peculiar fitness here. They posed as "historians" but were only men of the common herd who elected to tell us what they thought about certain people and events who made history.

The press is a magnificent institution and can very well speak for itself in the face of any criticism or calumny. But when "The Times," "The Chronicle" or "The Free Press" says this or that about some one or something, let it never be forgotten that the statement is often merely that of one very inexperienced "cub reporter," or that the best, the considered opinion of one man sitting in an editorial chair, more frequently than not swayed by the condition of his liver.

Let this new day be a day in which the man-in-the-street will do his thinking for himself all round. He is doing it pretty well now-a-days, as recent things he has achieved in the face of what "The Press" thought he would do abundantly testify.

Summing it up we commend a serious consideration of what Professor Jacks has recently offered to the world as a key that will unlock the most obstinate passage to final adjustments of human differences. He says:

"We now enter upon one of the most difficult periods of human history, in which **nothing but good temper** can save us from confusion such as the world has never seen. If we consider the difficulties one by one, instead of treating them in general terms, we shall find that most of them are of the very kind which is certain in an evil atmosphere to give rise to jealousies and suspicions, to set class against class and man against man.

"It would be a good thing if the plea for good temper, for the spirit of good fellowship, for social good will in every form, could be made a tail-piece, or put into the forefront of every scheme for reconstruction after the war. It should be clearly realised that the biggest tax we shall have to pay will be the tax on our social temper, which is going to be strained to the uttermost."



THE CANADIAN THRESHERMAN AND FARMER

CANADA'S LEADING AGRICULTURAL MONTHLY



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Jan.

The Boy's Conversion

1919

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."

THIS is not an "editorial": it is only a story, but as it is a good one and relates an actual experience, the chances are that it will serve the purpose of this page better than any stilted preachment such as one usually finds in the cut and dry "editorial." Moreover, the editorial is only what one man thinks: this is a plain statement of what one old man *did* to one very young boy, a farmer's boy, a boy who up to a certain point had very little "use" for the farm, a boy who had made up his mind that there was nothing in life like one of the "professions," but who in the twinkling of an eye, by the magic spell of one man's dinner table talk on Shorthorns, was "instantaneously converted" from Law to Livestock.

I think it was Law, if not it was Medicine. But it matters not. His father is a Cabinet Minister of the Province of Alberta, and is well known all over North America as an enthusiast the moment that well bred stock is mentioned in his hearing. He was in Scotland with his boy a month or so before the War broke out, and on one particular day, the

pair were the guests of one of the greatest living breeders of Shorthorns in Great Britain. This worthy is a bachelor and has advanced well beyond the three-score-years-and-ten, but is still a boy when he meets the real boy, and his big family of Shorthorn "lassies" and "lads" are his own dear children.

The usual thing when a man is entertaining a Cabinet Minister would be to place him on the immediate right of his guest at the table, but on this occasion, the old gentleman gave the young shaver the seat of honor. During the entire course of the meal he directed his remarks to the boy, and the history of the tenants of his cattle barns and clover fields formed practically the sole theme of conversation. Francis Drake did not listen with greater rapture to that old sailor of the Spanish Main than did this scion of an Alberta farm home to the old Aberdeenshire farmer as he discoursed on those wonderful dams and sires, born and reared with all the care that is given to royal offspring.

The boy was a livestock enthusiast from that day. His wise old dad had been his chum from the dawn of his memory, but the father had sense enough not to *drive* his lad into the cattle barns. He knew that there is but one royal road to a boy's heart, and he had consistently travelled it. A little counsel and encouragement administered here and there with tact, did the trick, and when it was capped by a trip to

Europe to see and hear the story of the very finest the world knows of in the specific object he is pursuing, the transformation was complete. Now there is no keener livestock man in Alberta to-day than that young lad, and if some country town has lost a second rate lawyer or medicine man, Western Canada has gained a first-class convert to her chief interest, her real concern "whose influence in bringing others to the faith will travel on and end only when time itself blows out."

No "reconstruction programme" is worth the paper on which it is written that does not take account of the young people. They must be the "first line" in everything that concerns future regeneration or recreation. "Give us the young," says Mr. Benjamin Kidd in his wonderful book, "The Science of Power;" "give us the young, and we will create a new mind and a new earth in a single generation. There is no object which a people or a race can set before itself which is not possible through the organization and the transmission of an ideal in its social heredity." We have preached this doctrine since we knew the responsibility and the unspeakable satisfaction of fatherhood, and having experimented with phenomenal success at every trial, we'll preach it if we may carry on till doomsday.

In the series of great meetings of Live Stock men and Grain Growers held in Brandon in the early days of this month, there was no sentiment that received such an ovation as that which greeted this declaration of the Minister of Agriculture of Alberta: "The big thing for Provincial Governments, as I see it, is to give the boys and girls an agricultural training, especially in the breeding and care of live stock, without which there can be no good farming. The big thing for Federal Governments is to take every burden off the farmer in the way of taxation on what he has to buy, give him a free market in all parts of the world, and when he is making money, as he soon will, tax his income to the last dollar needed in liquidating the country's debt."

We are not sure if the "farmers' platform" has any young folks' plank in it. If not, have it incorporated at once. So much of the old timber has sickened of the dry rot, the entire fabric is in danger of dropping in pieces in these days when nothing but sound timber will face the strain that is coming.

"So put me in touch with the heart of the boy,
The heart of the man to be."

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**- and old 314
is good for many
seasons more**



Drawing from photograph of F. Gasperich and his 30-60 Oil Pull

OUT on Gasperich's farm at Onida, South Dakota, old Oil Pull Number 314 is still "delivering the goods." Bought back in 1911, year after year she has given that kind of satisfaction that only an Oil Pull can give—and she is good for many years more.

As Gasperich, himself, tells the story—"For eight years now, number 314 has done the heavy work on this farm, cropping from 600 to 900 acres a year. We are just finishing breaking for the season, and the machine is working as good as when new, pulling eight breaking plows in dry sod.

"The reasons why we bought an Oil Pull in the first place were first, because it was a guaranteed oil-burner; second, on account of its strong, rigid construction; third, because of its actual power performance with a throttle-governed and smooth running motor. And I'll say right here that the machine has far surpassed all our expectations.

"We have pulled eight 14-inch breakers in dry bunch grass, with disk and drill behind. Parties here breaking the same kind of

ground have used as high as eight horses on a single breaking plow and got stuck at that, and have had to hitch on to the back of the plow to release it from the ground. You can figure it out for yourself—the Oil Pull has been pulling nearly an 80-horse load. No tractor of any kind around here has ever equalled it.

"As for cheap operation, nothing can touch our old Oil Pull. I have noticed that neighbors, who have so-called oil-burners, buy gasoline by the barrel. We buy a small can of gas once in a while just to use for starting when the engine is cold. Our repairs have been so few I have forgotten them."

This is but one chapter from the written records of Oil Pull performance that have proved the remarkable long life, dependability and economy that go with every Oil Pull. It is plain that the best basis upon which to choose a tractor is its performance over a period of years in the hands of owners.

You can get the Oil Pull in sizes from three to ten plows—there's a size to fit your farm. A postcard will bring you the Oil Pull Catalog.

ADVANCE-RUMELY THRESHER CO., Inc.
La Porte, Indiana



ADVANCE-RUMELY

"Horse Power"--What Is It?

By J. MACGREGOR SMITH

D-pt. of Engineering, Saskatchewan University

IT is the purpose of this article and any others that may follow to deal with some of the power problems, which are facing the farmers of to-day. It is not from the viewpoint of the engineer but from that of the man on the land that we will examine what the term "horsepower" means and it will be our earnest endeavor to take it up in as simple and as practical a way as possible.

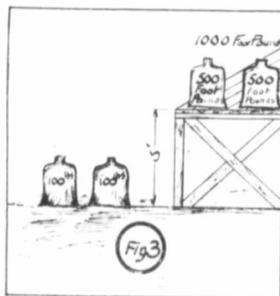
Much is written about power in a technical way and on the other hand it is often discussed without sufficient explanation on the assumption that the reader already has some knowledge of the subject. We will try to follow a line of discussion between these two extremes and we will now proceed to a general study of term—"horsepower"—and then follow it up with the topics of "Brake Horsepower" and "Drawbar Horsepower" both of which are very closely associated with present day farming. First we will discuss "work" and second "power." The two terms must not be confused.

We find on referring to a textbook on mechanics that "The amount of work done depends solely upon the product of the force applied (or the resistance overcome) and the distance through which it acts" or

$$\text{Work} = \text{Force} \times \text{Distance.}$$

Unit of Work

The unit of work is the work done in overcoming unit force through unit distance. Now since the unit of force is the pound and the unit of distance is the foot therefore the unit of work is called the "foot pound." It is the work done when a resistance of one pound is overcome through a distance of one foot.



Let us suppose a block of wood lies on a table. We attach a spring balance and pull it through a distance of one foot. Then if the pull registered on the balance is one pound, the work done is one pound \times one foot = one foot pound (refer to Fig. 1).

Again, if the pull exerted on the scale is five pounds and the block is pulled through a distance of ten feet, the work done would

equal, 5 pounds \times 10 feet = 50 footpounds.

If the pull on the scale was 10 pounds and the distance through which the block is pulled was 5 feet, the problem would be: 10 pounds \times 5 feet = 50 footpounds.

It is necessary that you clearly understand this fundamental fact because everything that will fol-

low depends upon the foregoing. Ask yourself the question: What is a footpound? If you can answer it, all right. If not, go back and find out.

You can readily see the relationship between the two terms, foot and pound and the resulting footpound. The answer was the same in both cases. We have now considered a straight pull in a horizontal direction. We will refer to it again in the question of Drawbar Horsepower. Illustration 4 is similar but deals with a circle, with which we will have more to say in the discussion of Brake Horsepower. A circle one foot in diameter has a circumference of 3.1416 feet (measurement around it). You will find some textbooks give a formula for finding the circumference of a circle in which they use the Greek letter π (pronounced pi). It means

When the block is moved through a distance of ONE FOOT and the pull on the scale is ONE POUND then the WORK done is equal to ONE FOOT POUND which is the unit of work.

WORK is defined as:

- 1 Pull in pounds
- 2 Distance in feet
- 3 Time in minutes

POWER is defined as:

- 1 Pull in pounds
- 2 Distance in feet
- 3 Time in minutes

If a horse was hitched to the stonkboot and exerted a pull of 150 POUNDS and travelled at the rate of 220 FEET per MINUTE (2 1/4 miles per hour) it would generate 150 \times 220 = 33,000 FOOT POUNDS OF WORK per MINUTE—that is ONE HORSEPOWER

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$$3.1416 \text{ or } \frac{22}{7} \text{ or } 3.1416$$

This explains the origin of the 3.1416 and if you can already find the circumference of a circle we do not wish to teach you any new way. A circle seven feet in diameter will have a cir-

cumference equal to $\frac{22}{7} \times 7 = 22$ ft. and for every time around this circle with a pull of ten pounds on the scale we have 10 pounds \times 22 feet = 220 footpounds.

So much for the horizontal pull in either a straight line or round in a circle. What about lifting in

2, distance in feet
3, time in minutes

When we speak about one horsepower we find that: "It is the rate of doing work at 33,000 footpounds per minute." Referring to the problem with the sacks we will assume that the two 100 pound sacks were lifted 5 feet in one minute meaning that altogether we have 1000 footpounds of work per minute, therefore it would take 33 minutes of time to develop one horsepower of work, or 33,000 footpounds per minute. Would it not be better to have a one horsepower gasoline engine to do the same amount of work in one minute that would take a man 33 minutes?

Does this term horsepower bear any relation to the amount of work a horse can do? If so, why do some engines get stuck when horses can go right through? A very good question asked many times.

Let us go back one hundred years. When coal was raised from the mines in Great Britain it was found that the average horse could lift a certain number of pounds through a certain distance (height) in one day. Approximately at the rate of 33,000 pounds per minute and this was taken as the standard. It is a practical one. Or to take another example we find that a horse can pull from 1/10 to 1/8 of his weight for a period of 10 hours. Suppose a horse weighing 1500 pounds is pulling 1/10 of his weight or 150 pounds at the rate of 2 1/4 miles per hour. What horsepower will he develop? Exactly one horsepower.

We must find the distance in feet per minute that 2 1/4 miles per hour would represent. Since there are 5,280 feet in a mile and

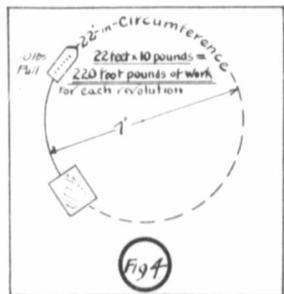
a vertical direction? By referring to Fig. 3 you will see that when a sack weighing 100 pounds is lifted a distance of 5 feet onto a platform that 100 pounds \times 5 feet = 500 footpounds, when sack number 2 is placed on the platform the same number of footpounds are generated, so we have altogether 1000 footpounds of work.

A mason's helper carries mortar from the ground to the second story of a building. The same amount of work is done whether he performs the task in one hour or five. The same applies to every illustration thus far. If the work is done in one hour, however, more energy is consumed, more effort is put forth, more power is required. Now you see power is the rate of doing work, the element of time entering into the calculation.

Let us review and be sure that so far we are clear that:

"Work" involves two factors—
1, force in pounds
2, distance in feet

while
"Power" involves three factors—
1, force in pounds



60 minutes in an hour we have: 5,280 \times 5

$$= 26,400 \text{ ft. per min., and}$$

$$\frac{26,400}{150 \times 220} = 1 \text{ Horsepower}$$

If he travelled only 2 miles per hour he would develop

$$5,280 \times 2 = 10,560 \text{ ft. per min. so that,}$$

Continued on page 34



Scientific Refining

To explain the En-ar-co system of Scientific Refining, let us assume that you have caught and condensed escaping vapor from a teakettle spout. In doing this, you have secured pure water. But along the sides and at the bottom of the kettle, scale has formed — residue that is left over. By placing this pure water in a new kettle and re-boiling it, you will find little, if any, scale in kettle number two.

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All motors give better service and last longer when lubricated with En-ar-co National Motor Oil.

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My Name is.....

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The reasons why Avery Separators save more of the grain than other makes of machines are first, because they get more of the grain out of the heads by means of the strong Avery cylinder and adjustable concaves all of which are equipped with the Avery jumbo tool steel teeth; and second, because of the I. X. L. grain saving device which has fingers that spread the straw out in a thin layer and tear all the bunches apart, so that the kernels drop through from the straw rack into the grain pan below. That is the secret of the wonderful success of Avery threshers—the grain is knocked out of the heads by the Avery guaranteed-for-life cylinder teeth and then carefully saved by the Avery I. X. L. fingers which hunt around in the straw for the last kernels and get them.

Cylinder Teeth Guaranteed for Life

The cylinder teeth in Avery threshers are guaranteed for life against breakage. They are made of genuine tool steel. They are backed up by a warranty printed right in the order blank which reads as follows: "Avery Jumbo teeth are warranted for life against breakage caused by pitch-forks, bolts, spades or other foreign materials accidentally entering the cylinder."

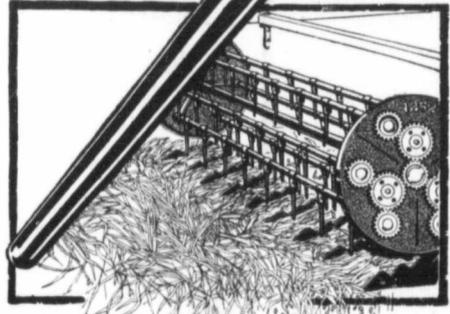
I. X. L. Grain-Saving Device

All Avery Separators are equipped with the famous I. X. L. grain saving separating device—the greatest invention made for tearing up bunches of straw, wet or dry, and getting the grain out of them. It revolves 125 times per minute and has sets of fingers which dip 750 times per minute into the straw and loosen it up. It does its work so well that we have been able to give the Avery Separators the strongest grain saving guarantee ever written, which is as follows: "Avery Separating Devices are guaranteed to shake out 99-52/100% or more of the loose grain that is in the straw. The grain to be dry and in fit condition to thresh." This warranty is printed right in the order blank.



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The new 1919 catalog is just off the press and contains illustrations, full descriptions and complete information about the Avery line of Motor Farming, Threshing and Road Building Machinery. It is now ready for distribution. A copy will be sent *free* upon request.

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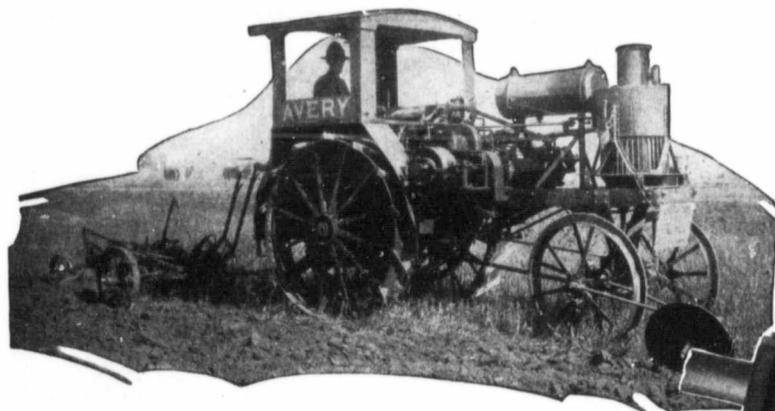
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When you buy an Avery Tractor you secure advantages which you cannot find in any other tractor. First of all, a motor *especially* built for tractor work and *only* for Avery Tractors. The Avery Perfected Opposed Motor has more advantages for tractor work than any other power plant built.

Why We Selected an Opposed Type of Motor

It has the length which distributes the weight properly between the front and rear wheels. This means getting the right weight on rear wheels for traction and on front wheels to make them guide easy.

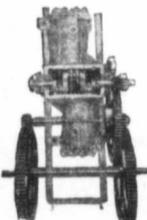
It is narrow, which makes possible a narrow tractor with less side draft in pulling plows.

It has a short crankshaft with only two bearings, which are always in perfect alignment.

It has a stronger construction and the motor shell lasts indefinitely.

It runs at low speed which requires less gears in the transmission to get proper traction speed. It makes it possible to put the belt pulley right on the end of crankshaft, which saves power, and to use a larger pulley which gets a better grip on the belt.

The Avery Opposed Motor is a draft-horse type of power plant. It delivers its power in a steady, dependable flow; does not race under light loads or kill easily on hard pulls.



How We Refined It

We built into it the heaviest crankshaft in any motor truck.



We made it a valve-in-head

motor, which means economy in power and saving in fuel.

We put five rings on the pistons, which enables the motor to hold compression better, save fuel and produce more power.



We built it with a thermo-syphon cooling system which does away with fans, pumps, belts, pulleys, etc., saves the power required to drive them and eliminates trouble-making part.



We improved it with the Avery round radiator, which is open on all sides and catches the wind from any direction.

How We Perfected It

We invented removable inner cylinder walls, which enables us to use a harder metal which wears longer and if they ever do wear can be replaced at low cost. An Avery owner does not have to buy a complete new cylinder should he score the inner wall. He simply removes the scored wall and replaces it with a new one.



We invented the Avery Gasifier, which turns kerosene, distillate, or other low-grade fuel into gas and burns it all. Low cost of operation.



We invented adjustable crankshaft boxes with which the owner can take up wear in the bearings instantly without tearing down the motor.

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Ask for a catalog, the new 1919 Avery Catalog, describing the complete line of Avery Motor Farming, Threshing and Road-Building Machinery. This new book shows the six sizes of Avery Tractors, the many sizes of Avery Threshers; the Avery Motor Cultivator and Planter; and also the Avery 5-10 H. P. Model B Tractor.

Tractor Transmission may be Further Improved

By E. R. GREER

WHEN we speak of a tractor transmission, we generally mean the entire power transmitting device, from the engine to the ground, and including the pulley for belt work. Tractor transmissions are still in an early stage of development. They are composed of a number of groups of parts that are arranged differently in nearly every case, so that they cannot be classified without dividing them or making a special class for nearly every tractor now being manufactured.

There are differences of opinion among tractor men regarding many of the most vitally important features of tractor transmissions. Some believe in rough open gearing and large plane bearings as opposed to those who insist on cut hardened enclosed gears and anti-friction bearings.

The question of wheels for traction vs. the caterpillar is far from settled. The right size of wheels for wheel tractors seems to be further from being agreed upon than anything else, and it is one of the most fundamentally important things in tractor design.

The design of a tractor transmission is effected greatly by the design of the wheels or caterpillar tracks which are to give the traction. The matter of traction is of first importance to successful tractor, and it is right here at this point that opinions differ widely. The transmission design is largely effected by the decision as to the kind of traction to be used. The caterpillar with its large surface contact has an advantage on marsh land or sand where the top soil is tougher than the ground beneath. But it is a disadvantage when just after a rain the ground is muddy on top and hard-

er below. It can bridge a small ditch but becomes blocked by one too large to bridge, and side hills or side draft cannot be taken care of as efficiently as when wheels are used.

Wheels which are simple and not very expensive must be of sufficient size and provided with lugs to give good traction. For if a tractor wheel once starts to dig, it will not climb out of its hole unless the load is released. On smooth hard ground a very small wheel gives efficient traction, but on newly plowed sandy soil or on land where there are washed out ditches, a large wheel must be used. The matter of suitable lugs is of utmost importance. On some kinds of ground a spiral cleat at about a 45-degree angle will give double the tractive effort that can be obtained from the same wheels with straight cleats or spikes.

For efficient general farm work with wheel tractors of 8 to 15 draw bar work horse-power, the drive wheels must be five feet in diameter or more, and the problem of the best way to drive the wheel is very important. The effort being applied to the ground, it follows that the rim is the natural place to apply the power, but the rim runs right in the dirt so it is necessary to take some point far enough from the rim to be protected from the dirt. If the drive is carried clear to the axle the torsional strains become very severe and good construction expensive and difficult. From all indications "The Enclosed Internal Gear Drive" is likely to become the standard traction wheel drive.

The next important item is the location of the drive pinion. There is one best location, and that is a



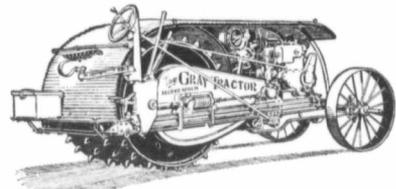
Medical Officer: "Myes, it's a rather ugly looking carbuncle; nothing serious, but just keep your eye on it."



The Gray does work no other Tractor can do, and on account of its Wide Drum Construction is light in weight, easy on fuel and can pull four plows through any soil.

NO DIFFERENTIAL—NO BEVEL GEARS

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Highest Prices Paid for BEEF HIDES, SHEEP PELTS & SENECA ROOT.

point forward and a little below the wheel axle. When the pinion is in this location the driving force is carried directly to the ground, so that the load on the drive wheel axle bearings due to power delivered, is opposite to the load due to weight, and the amount of load is the difference between the driving effort delivered by the drive pinions and the weight of the tractor that is supported by the axle when the tractor is standing. In other words, the drive axle bearings are practically floating when the tractor is pulling a certain load. At less load the bearing pressure is down and at greater load the pressure is up. The strain of the draw bar pull is carried by the drive pinion bearings through the pinion teeth to the drive wheel rim and the ground. It is the lifting effect on the front end of the tractor that results in its forward movement. There are a number of tractors that have enough power to raise the front end clear of the ground so that the front end weight is the limit of their pulling power. These tractors are very difficult to guide and are of no use at all on hills. Enough dead weight must be carried on the steering wheels so that the tractor can be guided on the steepest hill.

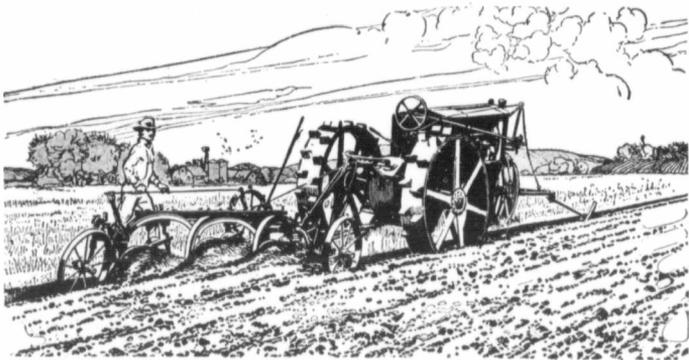
The front wheel drive offers an easy solution for hilly ground as in this case the reaction from the load is down on the rear steering wheels. There is no tendency to tip up, and the harder the pull the more positive is the control. The rear wheels must be ample to carry the additional load and the difficulty is in arriving at a suitable arrangement to handle the implements when the front wheels are drivers. While the steering mechanism may be complicated, the power transmission can be simple, the weight can be placed mostly on the drive wheels, and ditches and hills can be easily negotiated. The four-wheel drive immediately suggests itself, but the mechanical complication and expensive construction make it prohibitive.

Protection of working parts is not easily accomplished in tractor transmissions. An argument used by those who favor open rough cast gearing, is that the farmers cannot keep transmission grease or oil clean and that some grit is always put into the case at every filling. They claim that as long as parts cannot be kept clean that they wear out and may as well be made simple, open, and to operate without lubrication or when covered with dirt.

One unprotected drive known as "The Roller Pinion Drive," has been quite successful on tractors as it can be made to last a season, is very cheap, and is easily replaced. Perhaps the worm

J. I. CASE

Tractor Plows



The Mark of Merit!

FOR over 40 years the J. I. Case Plow Works has identified plows that do the very best work in every kind of soil.

A plow that wears this mark always satisfies.

J. I. Case Tractor Plows are famous for clear plowing—light draft and unusual strength.

These plows do not "drag." All the weight is carried on the three wheels which are equipped with famous J. I. Case dust-proof, easy lubricating, long distance axles.

J. I. Case Tractor Plows "ride" like any wheeled vehicle instead of dragging like a stone boat. That's why more acres are plowed per day—at less fuel cost—and with less wear on the implement and tractor.

See the local J. I. Case dealer about these specialized tractor plows. If you do not know him write us.

J. I. Case Plow Works

423 West Sixth Street
RACINE, WISC.

Dealers Everywhere in Canada



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drive gear can be taken as the opposite extreme because the excessive tooth pressures together with the vibration and dirt have prevented its being a success, no matter how carefully it is built.

As the users of tractors become more educated so as not to abuse their machines, then thoroughly protected well made parts will become more general. To-day simplicity is vital if a tractor is to be successful, but education is increasing the demand for well made, efficient, protected parts.

A notable advance in tractor transmission design is that anti-friction bearings are becoming so universally used. It has been found that an ample, non-adjustable, anti-friction bearing can last indefinitely in tractor service. Transmission bearing trouble has been a common tractor fault in

the past, and its elimination is a decided step ahead.

Shafting used is usually ordinary mild steel, as gears and bearing generally have to be of such size that the shaft sizes are ample. It is very important that splines be used instead of keys.

The standard type of automobile or truck transmission does not meet tractor requirements at all. The amount of gear reduction is too small, no belt pulley is provided for, the change speed arrangement is wrong, the parts are not ample, and it can be applied to a good tractor design.

The total gear reduction in a tractor varies between 30 to 1 and 100 to 1, so several reductions have to be used. I think it is best to discuss each reduction separately and especially to consider the final reduction by itself, al-

though in some cases entire transmissions are built as a single unit.

In general all tractor transmissions are driven from the engine through a friction clutch and without the use of universal joints except that some clutches are designed to take care of any misalignment. Cone, disc, shoe, band clutches, and friction drives are in use. The tone clutch and the internal expanding shoe clutch are most common.

First reduction gearing may be almost any kind that one can imagine, and the amount of reduction from 1 to 1 to as much as 8 to 1. The change in speeds and the reverse are often worked in on the first reduction, but also it is very common to have the second reduction used for this. Where the engine shaft is not parallel to the drive wheel axis the first reduc-

tion gears are often bevel. There is considerable advantage in having the bevel gears as the highest speed gears. It reduces cost and also provides a chance to get a belt pulley on a fairly high speed shaft without the necessity of using a separate set of gears and clutch.

When a spur reduction is used first, the change speed gears and reverse are generally a part of it as they can be much smaller and cheaper in this position than in the next reduction. This arrangement is general on tractors where the engine sets crosswise, and it is also used to some extent where the motor shafts are lengthwise the tractor, even though this arrangement necessitates a larger and more expensive set of bevel gears in the second reduction, and also the use of a separate set of gears for the belt pulley.

It is usual that change speed gears are arranged so that the pinions slide on the drive shaft and engage large gears on the driven shaft. No counter shafts as are found in automobile transmissions are used except for reverse gears. This arrangement means that all gears are disengaged except the ones actually being used and also means that no idle gears or extra reductions are necessary for different speeds. Another advantage in this arrangement is that all change gears are disengaged when the belt pulley is to be used. Tractors are used for belt work for long continuous runs for gears or shafting running idle are undesirable because they waste power and require special lubrication.

The second reduction is sometimes the final drive, though this is not often the case. Usually it is the drive to the shaft which carries the differential. If the differential can be placed in this position, ahead of the last reduction, considerable expense can be saved because the parts can all be made much smaller.

Differentials have to be very strong and ample as the traction members are always slipping and keeping the differential parts working all the time. Differential locks are considered good practice. Brakes for holding one side for short turning are often used, but brakes for stopping while necessary are not very important.

The third reduction is usually the final, and this is the most important part of a tractor transmission. The load and vibration on the teeth and bearings generally causes wear of these parts first, and as these parts are large, expensive, and difficult to replace, it is very necessary they be made to give the best of service.

In cases where more than three-gear reductions are used the extra reduction is used either to

gain compactness or to provide for some special arrangement of parts.

Tractors are used for plowing a large per cent of the time and generally are operated at from 2 to 2 3/4 miles per hour. Many have only a single speed, but most of the late designs have two or three speeds. When there are three speeds one is lower and one higher than the plowing speed, and when only two speeds are provided the second speed is usually slower than that for plowing. The range between speeds is nearly always between 30 and 40 per cent.

A tractor transmission is really a series of compromises, each part being affected by all of the others, so it is no wonder that there is such a difference in design. A difference of opinion as to the proper location of the belt pulley alone will very materially affect the entire transmission arrangement. At present there is little chance of valuable transmission standards. It will require more time and many tests to prove what is best.

NEW DIRECTOR UNION BANK

IN furtherance of the policy outlined by the president of the Union Bank of Canada at the annual general meeting held January 9th last, to have representative business men from the different provinces in which the bank does a substantial business on the board, the appointment of Stanley Edward Elkin, Esq., of St. John, N.B., to the directorate of the Union Bank has just been announced.

Mr. Elkin is one of the strong business men of the Maritime Provinces being president of the Maritime Nail Co., Ltd., president of Motor Car and Equipment Co., Ltd., and connected with many other large commercial enterprises in New Brunswick.

He is also well known politically, being one of the members for St. John, N.B., of the present Union government.

The directorate of the Union Bank is a particularly strong one—nearly all provinces in the Dominion having representatives on it.

The appointment of W. H. Malkin of British Columbia a few months ago and now Mr. Elkin of New Brunswick, indicates the determination of the bank to be not only "the pioneer bank of Western Canada," but a most active financial institution all over the Dominion. Over 100 branches are established in the East and over 200 in the West, giving splendid service to the public.

Fires Break Out

and thieves break in. Don't risk the first, or invite the second, by keeping money in the house.

Put it in The Merchants Bank, where it will be safe from loss—always available—and earn interest at highest current rates.



THE MERCHANTS BANK OF CANADA

Head Office: Montreal. Established 1864.
with its 19 Branches in Manitoba, 21 Branches in Saskatchewan, 53 Branches in Alberta, 8 Branches in British Columbia, 102 Branches in Ontario and 32 Branches in Quebec serves Rural Canada most effectively.
WRITE OR CALL AT NEAREST BRANCH

Steam or Gas Tractors

Equipped with



PICKERING
"THE GOVERNOR WITHOUT JOINTS"

give greatest efficiency

FITTED TO EVERY BUILD OF ENGINE

Patent Ball Ranger Speed Changer Supplied on all Genuine Pickering Governors.

Will increase speed 50% or more.



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MANITOBA WELDING & MFG. CO.

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**PEMBINA
PEERLESS
COAL**

"IT BURNS ALL NIGHT"

**Second only to the
Famous "Lethbridge
Imperial"**

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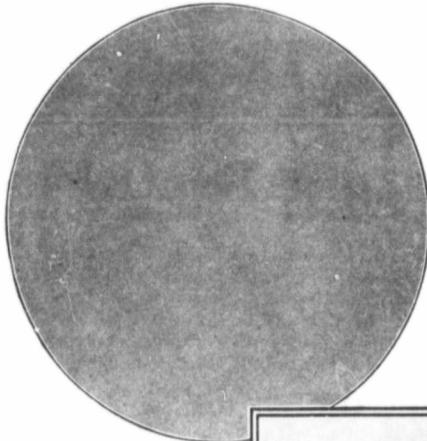
Western Canada's Largest Coal Distributors

WINNIPEG REGINA SASKATOON CALGARY EDMONTON

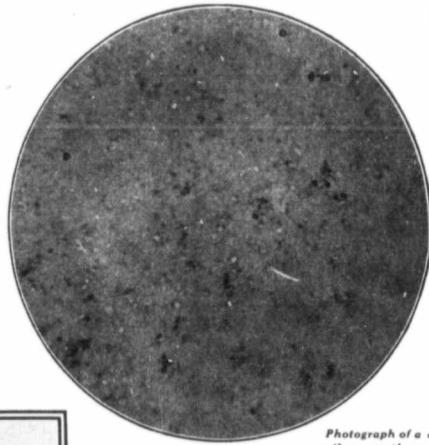
By Dominion Government test (1915, Department of Mines, Ottawa, report No. 331), Pembina Peerless Coal is proved to be superior in efficiency and actual heat obtained to Taber, Drumheller and Edmonton coals.

It is, without exception, the cleanest coal mined in Western Canada to-day. "Not a rock in a carload." It mines in big, bright hard lumps, and positively will not clinker. If you are using a coal that clinkers, or if you have to let your fires out every few days to remove rocks, you will appreciate Pembina Peerless.

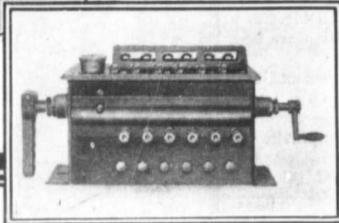
Pembina Peerless Coal is NOT an Edmonton coal. It is mined over 70 miles west of Edmonton in the Pembina coal field, and is prepared over one of the most up-to-date plants in Western Canada. Capacity, 1,000 tons daily.



Photograph of a drop of fresh oil viewed through a microscope. Note its freedom from dirt and grit.



Photograph of a drop of used oil as seen through the microscope. Note the dirt and grit.



Six-feed Madison-Kipp fresh-oil Lubricator.

Fresh Oil vs. Used Oil in Tractors

There is a good deal of confusion right now in the names used to describe tractor lubricating systems.

There are only two kinds of lubricating systems: those using oil over again and those which use fresh oil only.

The first kind is described by many names—such as circulating, force-pump, splash, crank-case system and the like—but they all mean that the oil is used over and over.

The fresh-oil kind is generally described in specifications by naming the lubricator used and the great majority of tractors now built specify Madison-Kipp Lubricators.

Why Fresh Oil is Better

The experienced tractor manufacturers use Madison-Kipp Lubricators because their fresh oil keeps down repair costs and betters the working of the motor.

This holds for both two and four cylinder motors using kerosene or low grade gasoline.

Fresh oil is the only kind of oil that really lubricates—and that really protects the working parts and bearings from undue wear.

Used oil, on the contrary, is so full of grit and sediment that it grinds down the parts it is supposed to protect.

What the Microscope Tells

The photographs at the top of this page show the difference between fresh oil and the used oil from a tractor's crank case.

These photographs are taken through a microscope. Note how smooth and clear the fresh oil is.

Note the sharp sediment and grit in the used oil.

Your motor doesn't need a microscope to detect this grinding grit any more than a gear box needs help in detecting a handful of sand thrown into it.

Protect Yourself

Before you buy a tractor study the lubrication specifications.

Remember that there are only two kinds of systems although many names are used to describe the less scientific kind.

Note that generally the manufacturers who have made good tractors for a term of years use Madison-Kipp Lubricators although these cost them more than other systems.

And that Kipp-Equip tractors cost you no more and are worth much more.

The Madison-Kipp Lubricator Co.
Madison, Wisconsin

The Products of These Tractor Builders Are Kipp-Equip

On All Sizes of Tractors

Advance-Rumely Thresher Co.
B. F. Avery & Sons
Bates Tractor Co.
Eagle Manufacturing Co.
Gile Tractor and Engine Co.
Hart-Parr Company
International Harvester Co.
Titan Mogul
International
Klumb Engine & Machine Co.
La Crosse Tractor Co.
Happy Farmer Tractors
Nichols & Shepard Co.

The Ohio Manufacturing Co.
Whitney Tractors
Southern Corn Belt Tractor Co.
Townsend Manufacturing Co.
Townsend Tractors
Western Tractor Co.
Wichita Tractor Co.

J. I. Case Threshing Mach. Co.
Case Tractors—12-25, 20-40
Holt Mfg. Co., Peoria
Caterpillar Tractors
25-45, 50-75, 60-120

Monarch Tractor Co.
Neverslip Tractors—20-12
The Russell & Co.
Russell Tractors—30-60

Madison-Kipp Lubricators

FRESH OIL SYSTEMS

Field and Farm Management

By S. A. BENTON

FARM management bears much the same relation to the business of farming as "scientific" management bears to factory management in the industrial world. However, in the industrial world the value of concrete data has long been recognized. In both fields of activity the necessity of efficient use of labor, of capital, and of natural resources is becoming more and more clearly recognized. Scientific management, that is management based on facts the result of study and investigations, is the latest phase in our agricultural, commercial and industrial development. Agriculture has been the last to recognize the value of accurate facts relating to the business side of its operation.

Rural economics is the science dealing with our wealth-getting and our wealth-using activities of rural people. It therefore deals with the general problems of international trade, of transportations, of value and prices, of land tenure, of taxation and similar subjects affecting the general property and living conditions of the farmer.

The farmers individually are primarily interested in their own farms and the system of farming that will be profitable; not profitable only in favorable years, but in the unfavorable ones. Much has been done by the State, and rightly so, in encouraging production and in getting larger yields, and much more remains to be done in finding out what kind of crops to grow, how much of each kind, and how to most profitably dispose of them after being produced. Shall they be sold or fed to stock? If fed to stock, what kind will be most profitable—hogs, sheep, dairy cattle, beef cattle, and what combinations of them? What system of farm management should be followed if stock are kept? If they are not kept, what policy should be pursued? These are all questions of vital interest to the farmer and to the province. A purely agricultural province should not neglect to develop continuously prosperous systems of farming.

Farm management systems and the methods of successful operators can be secured only from actual farmers living on their own farms and getting a livelihood by their own work. Information gained from them, then, is based on fact, not theory. Their experience is of immeasurable value to others. Little or no concrete data of this character is now available. This phase of farm development

cannot come altogether from experiment or demonstration farms, but the practices of successful farmers must be given the greatest weight.

Such information can be secured and given to the public. The Farm Management Departments of the leading agricultural States across the border are now recognized as most important. Through careful investigations among actual farmers, facts, and not opinions, are made available. Several lines of investigation are being pursued:

1. The Farm Management Survey—All the farmers in a selected area, typical of a large farming district of similar agricultural conditions, are interviewed by trained men in regard to their methods of farming, the amount of livestock kept, the crops raised, yields secured and amounts sold, the amount of labor used, etc. Among a number of farmers some will be successful, some will be partly so, and some will be unsuccessful. By finding out what the successful farmers do and what the unsuccessful do or do not do, facts, not opinions, are available on which to advise the unsuccessful ones. Few farmers keep accounts, but data along the line suggested can be secured with surprising accuracy. Some figures may be too high; others may be too low, but the average is very near the truth.

Whether the year is favorable or unfavorable, all farmers have the same opportunity. Data secured in an average year is perhaps more profitable than in a particularly profitable year, for to succeed in spite of adversity is real success and carries a lesson for others. Ontario began work of this nature last year, and this year is extending it. Investigations of this character will be of immeasurable value:

- Determining the most profitable size of farm.
- Determining the amount of horse and man labor required on farms of various sizes.
- Determining the most profitable systems of farming.
- Determining the amount of machinery needed.
- Determining the factors giving profitable farming under existing conditions.

2. Cost of Production Data—Accurate knowledge as to the cost of production of farm products is essential in making progress in farming systems. The profit in the old pioneer grain farming system in Southern Manitoba is decreasing. High prices,

1842

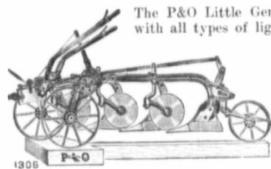


1919

Light Draft Plows

The P&O Line embraces all kinds of light draft tillage implements. If you are a user of tractor power, the P&O Line of Tractor Tillage Implements deserves your consideration. We have been leaders in the manufacture of this class of tools and our plows are known all over the world for their efficiency, simplicity of construction, lightness of draft and the ease with which they are handled.

P&O Little Genius Tractor Plow



The P&O Little Genius Tractor Plow is built for use with all types of light tractors. It is made in 2 and 3 furrow, with 12 or 14 inch bottoms, and 4 furrow with 14 inch bottoms. The power lift is instant and positive in action, raising the plow on all three wheels, giving a high, level lift. A single trip rope gives the tractor operator perfect control from his position at the steering wheel. Pin-break hitch.

IXL Bottoms (Stubble or Scotch Clipper) with Quick Detachable Shares. Can also furnish Blackland and Breaker Bottoms. Fully equipped for efficient work under all plowing conditions. A sturdy, steady plow that will give you 100 per cent efficiency and add to the life of your tractor by making its work easier.

P&O Power Lift Moguls

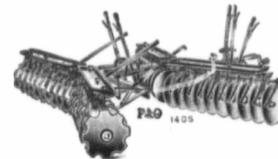
The P&O Moguls are made in 4, 5, 6, 8 and 10 furrow sizes with 14 inch bottoms. Power Lift with independent lever lift. This is the ideal plow for use on large acreages. IXL Bottoms (Stubble or Scotch Clipper) with Quick Detachable Shares. Can also furnish Blackland or Breaker Bottoms.

P&O Power Lift Tractor Disc Plows

The P&O Power Lift Tractor Disc Plow has the same dependable lift device as our famous Little Genius. The discs are 24 or 26 inch. Made in 3 or 4 furrow. The discs revolve on chilled bearings, with hard-oil lubrication. Can be set to cut 7 to 9 inches. Will plow 10 inches deep. This is a dandy tractor disc plow and one which you should investigate if your conditions call for disc plows.



P&O Tractor Tandem Harrows



P&O Tractor Disc Harrows are made in 8 and 10 foot sizes, with 16 or 18 inch discs. The hitch is adaptable to any tractor. The flexible connection between the front and rear sets of gangs insures efficient work in uneven ground. Once over with this harrow gives better results than twice over with a single disc because the ground is packed less and is more thoroughly stirred. Improved scraper control. Hard-oil lubrication. Riveted steel frames. Third lever attachment when wanted.

P&O Tractor Grub Breaker

The P&O Tractor Grub Breaker is a big plow for extraordinary work. It cuts a 24 inch furrow 12 inches deep. It will turn and cover any scrub, mosquito or underbrush that will permit the passage of a tractor. The plow weighs a ton and is built to hang together under all strain.

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WINNIPEG SASKATOON REGINA CALGARY

IF YOU START RIGHT

the New Year of 1919 offers you ninety-nine chances to one that you will continue **Right** and come in **Right** at the finish. If you want to really experience a year's work that will be **free of kinks** make it a first point to have all your gearing connected with the belting that will not kink or slip or snap at the first or at any snag. There's nothing made in belting so nearly fool-proof as the



LION BRAND
Rubber Belt
 and the
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ENDLESS THRESHER BELT



They are unbeaten in the field of grain production.

and are sold by all thresher companies doing business in Canada. They may cost a trifle more than some fabrics that are always a big risk but that is forgotten in the added years of service, and we guarantee our goods against all disappointment from slippage or breaking. It is not possible to make better belting by any scientific method known at this day

Gutta Percha and Rubber Limited

WINNIPEG FORT WILLIAM REGINA SASKATOON CALGARY LETHBRIDGE EDMONTON

due to war conditions, are supporting it now, but changes must come. The after-war competition with Siberia, Australia, Argentine Republic, the United States and the European countries which are becoming more nearly self-supporting must be recognized.

(a) No industry can be successful if it produces below cost, instead of waiting until force of necessity requires exact data. The wise policy is to start now and be ready when the problem is presented. Accurate cost accounting data, in terms of dollars and cents, as well as with labor costs determined in terms of hours with machinery costs on the basis of length of time they can be used, with building and equipment costs based on annual depreciation, and with interest or rental charges based on actual conditions, will be invaluable. Few farmers have any data on what their crops actually cost. It is somewhat difficult to figure, and the average farmer has not the time or thought to devote to the records necessary to supply the figures. It is the function of the province to carry on such work for the benefit of her farmers.

(b) Little or no data is available to show what a farmer gets from the farm for use in the home in the way of meat, vegetables, dairy products, etc. The income report, nevertheless, has asked

for an estimate. Cost accounting data would give a basis for an estimate.

(c) A share lease is not just and equitable unless the sharing of returns is based on the relative amounts contributed by landlord and tenant. Cost of production figures furnish such data.

(d) It is difficult to advise new crops or other crops, unless data is available showing the cost and returns that may be looked for.

(e) During the great war strides have been made in the direction of government price-fixing. This may not be maintained, but the after-war problem may be more critical than the present. Price-fixing may still be kept for a period. At present the fixing of prices has been on a basis of cost of production. If justice is to be done, accurate data on cost of production is essential.

(f) Farmers are being urged to keep farm accounts. Small books are becoming available which do not require much labor. These books provide sufficient data to figure total profits or losses, but many wish to go a step farther and use these books to figure the losses or profits on individual enterprises without making the work burdensome. This cannot be done unless accurate cost accounting data is available that can be given on machinery costs, man and horse labor.

A New Year Suggestion

Amongst the many matters to be arranged or re-arranged at the New Year, surely Life Insurance is one of the most urgent. No man can count his affairs in order until he has assured, so far as human foresight can assure, the continued welfare of those dependent upon him.

A Great-West Life Policy will give this assurance on terms remarkably attractive. Rates are low, conditions liberal and clearly expressed, while the profit returns to Policyholders are notably gratifying.

Let us explain the best Policy for your needs.

The Great-West Life Assurance Company

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Head Office: WINNIPEG

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M. SILBERMAN FUR CO.

Buyers and Exporters of
**Raw Furs, Seneca Root, Hides
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Head Office: 288 Logan Avenue, Winnipeg, Canada

HONEST DEALINGS BEST GRADING PROMPT RETURNS

SOME THOUGHTS ABOUT FARM TRACTOR OPERATION

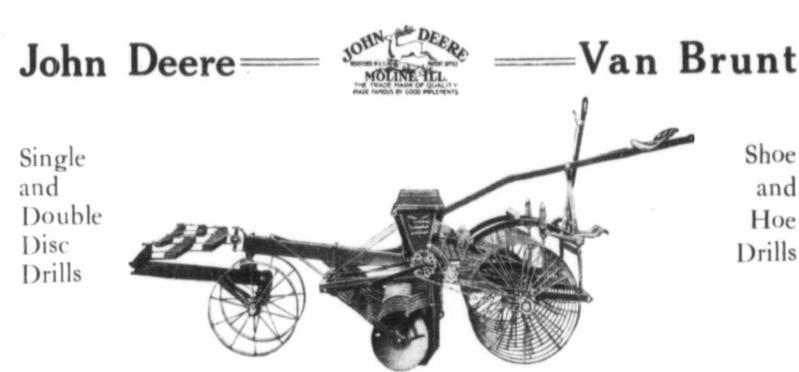
By Arch S. Merrifield

PERSONALLY, I like the suggestion that I call a "spade a spade, and give true facts." Some have attempted this very feat, but when it is all said and done, they have usually found that the other fellow's opinion was about as good as theirs, and in such cases the writer of such articles is merely airing his personal opinions. The very faults he might condemn in some tractors would prove especially pleasing or adaptable on a neighboring farm. For instance, some man will tell you that the four-wheel type or the two-wheel type or the three-wheel type of tractor will be the ultimate machine, and about this time along comes the "caterpillar" and walks away with the honors under certain soil conditions.

Then you must contend with the matter of speed. It has been common practice for the manufacturers to rate their products by the number of plows they could pull; for instance, a two, three or four-bottom machine. The salesman says: "We handle three bottoms under all conditions." And about this time another manufacturer arrives with the statement: "Yes, they handle three bottoms all right, at one and three-quarter miles per hour, but our machine will handle three bottoms at a speed of two and one-half miles per hour." This, of course, makes quite a difference in the amount of plowing accomplished in a ten-hour day.

One farmer wants to plow, another wants a machine for belt work, another has a hay farm, one has low, swampy land, another a high, rolling farm—each man has his individual requirements. Now, would it not be pure guesswork for any writer to say that this or that type of tractor was the ideal machine for all of these varying conditions? Experience has proved that certain automobiles fill certain requirements. Why not, then, find the tractor that suits your conditions or type of work, and buy it?

Here's a case in point. A farmer down in Mississippi has 150 acres of alfalfa. This is the principal crop. Practically all of his work consists of cutting and putting up alfalfa. Naturally, the mowing-machine is his principal tractor-drawn implement. One man with a team of mules or horses can handle one mower. It certainly would not be a paying investment for this man to buy a tractor which would require a man to operate the machine, in addition to a man on the mower.



John Deere JOHN DEERE
TRACTION ENGINE
MOTOR, ETC.
THE TRUCK PART OF QUALITY
MADE UNDER THE CLOSE SUPERVISION **Van Brunt**

Single and Double Disc Drills Shoe and Hoe Drills

Low Down Press Drills High Wheel Drills

The John Deere---Van Brunt Policy

Experience helps to make quality. Our material has always been good, attention to detail has been constant, ability to meet all conditions has been proven.

As a result, John Deere—Van Brunt Drills have an excellent reputation for durability and fine working qualities.

THEY MADE THEIR WAY BY THE WAY THEY ARE MADE

What we give you in a grain drill:—

- Adjustable force feed that provides an even discharge, without bunching, of any and all kinds of seed into each seed furrow.
- Furrow openers that make a proper seed bed, furrows of uniform depth, and deposit every seed on the bottom; that will work in any kind of soil that can be seeded—mud, gumbo, corn stalks or trash.
- Light draft. Light weight without the sacrifice of strength. Proper proportions to provide against excessive strain.
- Long life with small repair bill.

Van Brunt Warranty

We warrant Van Brunt Drills to be well made of the best material, to do first-class work in any soil capable of being seeded, and not to clog or choke up in mud, gumbo, sticky or trashy ground.

Write us direct or see our nearest agent. Catalog supplied.

John Deere Plow Co., Limited

WINNIPEG REGINA CALGARY SASKATOON EDMONTON

Consequently, we find him buying a tractor that can be operated from the seat of the mowing machine, and which will pull at least two mowers. Here we have the elimination of four mules, while the man power remains the same. He only needs the mules during the harvesting of the crop, and consequently he effects a real saving on feed and care during the time they would ordinarily be idle.

No one doubts now that the tractor is here, and that it has come to stay, and the development is really remarkable.

What will a tractor accomplish in certain work? Information of this sort would have to be of a general nature, for while one man might plow ten acres per day, the next man with the same tractor might not accomplish half the work.

The writer put in ten years selling engines and other farm equipment among the farmers, and from personal experience it is impossible to tell what one farmer will do with the machine, just because his next-door neighbor has accomplished some wonderful result. I have "chased and chased" to keep engines running for some farmers, when the man on the neighboring farm might buy the same size and make of engine and it would never be necessary to go near it. Purely a question of care and skill on the part of the operator. With all due respect or farmers, hundreds of whom are numbered among my best friends, there are some who could not run a wheelbarrow on a cement sidewalk without help, while others have no trouble whatever with threshing rigs and

other heavy power machinery. It is useless to say that this or that particular tractor would accomplish the same results in the hands of both of these classes of farmers.

Some farmers are constantly trying to build their equipment over to suit themselves. They seem to feel that the fellow in the designing room does not understand their particular requirements, and then when they have misadjusted the outfit until it will not perform properly, they immediately condemn the machine for not being "fool proof."

The Milkman (to suspicious customer): "You won't find nothing wrong with that milk, ma'am. All our milk is paralyzed by a government anarchist."

Canada's Great Opportunity In Live Stock



The Dominion Department of Agriculture believes the time is opportune for the extension of our Canadian Live Stock Industry. The importance of this industry to Canada cannot be too strongly emphasized. Our continued prosperity agriculturally will depend to a greater degree than ever on our exports of beef, pork, cheese, butter and eggs.

The European herds of live stock have been seriously depleted. France is short nearly 8,000,000 head; Italy has had to slaughter breeding stock. The Germans not only swept Belgium bare but were forced to slaughter their own herds which have been decreased by probably 22,000,000 head of cattle and hogs. Ireland, which used to kill 18,000 bacon hogs a week, can now supply about 4,000 only. Denmark, which formerly shipped 50,000 hogs a week has had to decrease her herds by 1,873,000 below normal. In countries reporting, there is a shortage of 32,000,000 hogs in Europe. Of cattle, sheep and hogs there is an estimated combined shortage of not less than 115,005,000 animals. This is more than nine times the total of all the cattle, hogs and sheep at present in Canada.

Europe will rebuild her herds but it will require years. Cereal production can be increased more quickly than animal production, consequently the price of feed should decline more rapidly than the price of meats.

The European market is wide open for Canadian meat products and there is a warm spot in the British and Allied hearts for anything Canadian of good

quality. The foundation herds in many European countries have been slaughtered but Canada has her herds intact and must not lose time in cultivating her export trade with Great Britain and Europe. Denmark, the most formidable competitor to Canada in the British bacon trade, is at present practically off the market; if the hog raisers of Canada "cinch" the British market now they will be able to hold it if we maintain the high quality of our product.

In 1916-17 Britain imported 1,261,082,032 pounds of hog products and 1,077,154,000 pounds of beef annually and of this only 130,304,900 pounds of hog products and 29,680,000 pounds of beef were sent from Canada. Britain's domestic supply of hogs is only 75% normal and owing to shortage of feed her farmers were obliged to kill off a large proportion of her hogs before Christmas.

Canada never had such a chance in the European market. We must aim high to supply the present demand and we must maintain quality in order to secure preference over all our competitors. Quantity is necessary but quality is absolutely essential.

Europe will require shipments of meat products far beyond the normal. If Canada is to take advantage of this opportunity all foundation stock must be conserved. But every man must figure out for himself how many animals he can feed and finish.

To secure and hold the British market alone means large returns. History and recent experience reveal the fact that permanent prosperity prevails in those countries where live stock is the basis of agriculture. Therefore, conserve the herds, improve the quality, finish thoroughly.



Arrangements for Marketing

At present, and for some months to come, all bacon and beef products for export are being taken over by the Allied Purchasing Commission at remunerative prices.

It is well-known that Canadian producers receive from one to two cents per pound more now for hog products than American producers.

It is anticipated that by the time the work of the Allied Purchasing Commission is concluded Canada will have an accredited agent in Great Britain to look after the marketing of Canadian agricultural products with particular reference to meat and dairy produce.

Live Stock Branch
Dominion of Canada Department of Agriculture
OTTAWA, CANADA

APPLICATIONS FOR SEED GRAIN

APPLICATIONS for seed grain in organized districts, either patented or unpatented land, should be made to the secretary of the municipality. The municipalities, after receiving deposits from farmers applying for seed, will place these orders either locally or with the Dominion Seed Purchasing Commission. The farmers residing in unorganized districts, whether patented or unpatented land, should send their orders direct to the office of the Weeds and Seed Commission of the province in which they reside, who will take the applications and place the orders.

How to Obtain Credit to Purchase Seed Grain

If the land is patented and mortgaged, application should be made to the loan company holding such mortgage for assistance. Arrangements have already been made with the mortgage companies whereby they have agreed to supply seed to deserving mortgage owners.

If the land is patented and not mortgaged, the security of such farmers will likely be sufficiently attractive and the local bank will advance cash to buy the seed requirements. If not, it might be possible to negotiate with one of the loan companies who make it their business to loan money on farm lands.

If the land is unpatented, application should be made to the Weeds and Seed Branch of the Provincial Department of Agriculture for blank seed forms to be filled in before a Commissioner, for Oaths and returned to the provincial office.

If you cannot buy seed grain in your own district and you do not find it convenient to order through the secretary of the municipality, you might club your order with your neighbor's, so as to make up a carload, and send your application direct to the Dominion Seed Purchasing Commission, Post Office Building, Regina, Sask. All orders for seed are filled by this commission and shipped with sight-draft attached to the bill of lading.

DEPOSITS OF UNION BANK OF CANADA HAVE INCREASED TO ONE HUNDRED AND TWENTY SEVEN MILLION

General Growth of Assets Continue and Profits for 1918 Were Extremely Satisfactory

THE Union Bank of Canada added a further nine and three-quarter million dollars to its total assets during its fiscal year ending November 30, for which the report is just issued, and this notwithstanding that the balance sheet was made up after



The Drive that Pulls

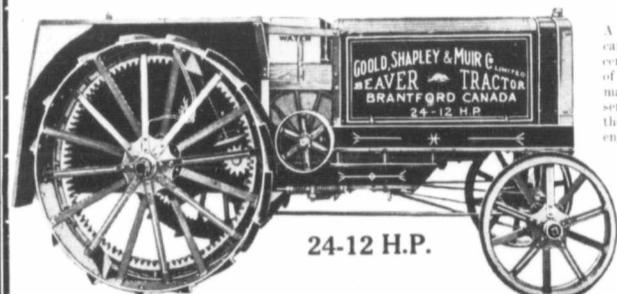
SEVEN SPEED FRICTION TRANSMISSION

Makes heavy jobs light work for the Beaver.
Hitch to a heavy load and then gradually, easily—without a jerk—move your lever up and apply the power smoothly to the drawbar—it will start with the ease of a locomotive. No jerking and stalling such as occurs with gear types. You call on the engine for just what power you need, thus saving fuel and oil. Absolute control of 7 speeds, which can be changed forward or reverse while the tractor is in motion. It will back to a load 1/2 inch at a time.

Back of the Transmission is the Power

A 4 cylinder, heavy duty, Waukesha motor that develops almost 40 h.p. at normal speed and has 50 per cent surplus power over rating. This is the feature that counts. It gives you power when you need it—in a pinch. The change from gasoline to kerosene can be made without the driver leaving the seat. The oiling system is a splash and pump type that ensures perfect lubrication—similar to an automobile motor. A Dixie magneto and impulse starter give a sure hot spark no matter how slowly the engine is cranked.

This perfect harmonizing of power and transmission gives you a tractor that uses less fuel and produces better results. It gives a smoother, stronger, more flexible power at less cost. To complete the construction it is equipped with—internal road gears; heavy frame; large, wide road wheels; simple, effective steering device; and the absolute protection of working parts from dust.



Service

A complete repair stock is carried at all principal centres in the West. A staff of competent experts is maintained to give you service and advice. We are the oldest and largest gas engine company in Canada.

Write for our free Illustrated Catalogue A

Goold Shapley & Muir Co., Limited
Brantford Portage la Prairie Regina Calgary



Christiansen PULVERIZER MULCHER AND PACKER



Saves Crops **Saves Labor**

The machine that will save your crops in a dry season and increase production at any time. It conserves moisture, prevents soil drifting and saves the use of other less effective machinery. The two end sections can be removed and the implement used with tractor power.

303 Owena St. **CHRISTIANSEN IMPLEMENTS LIMITED** Winnipeg

the Victory Loan payment date with its heavy drafts upon the savings deposits; indeed, the amount of money in the savings accounts of this bank at November 30 last was five million less than the year before, a condition which is entirely due to the temporary effects of the loan subscription. The loss on savings was more than made up by the gain in non-interest-bearing deposits, which rose 14 1/2 million dollars to \$58,805,208.

While the growth in the volume of assets was less striking

than in recent years, the business was of a much more profitable character. It is noteworthy that the Union Bank is now finding itself free to make a very considerable expansion of its commercial loan business and that there is evidently a plentiful demand for this kind of accommodation. Current loans in Canada are now 74 millions of dollars, an increase of 50 p.c. in two years, and an increase of over 15 millions since 1917. In spite of this loosening of the purse-strings towards general business, there is still a very

strong reserve of liquid assets, totalling \$72,368,327 against public liabilities of \$141,553,127, or over 51 p.c.—a very ample ratio, though considerably below what was maintained during the later years of the war.

As a natural consequence of this more active state of the bank's funds, profits were materially larger than in 1917. Before deductions for taxes and donations they amounted to \$824,175, as compared with \$763,464 in 1917 and \$651,184 in 1916. But the profits in 1917 and 1916 both were

EATON'S SPRING AND SUMMER CATALOGUE

IS READY
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BETTER THAN EVER

That is what you will say after you have carefully studied the values and prices of the thousands of items of merchandise illustrated in the big Catalogue.

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WE PREPAY CHARGES TO YOUR NEAREST POST OFFICE OR STATION ON GOODS SHOWN ON PAGES 3 TO 122 AND ON WATCHES SHOWN ON PAGES 301 TO 305

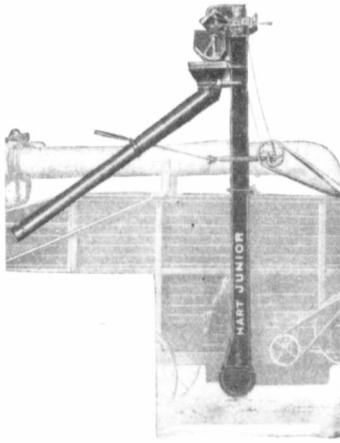
THIS CATALOGUE CANCELS ALL PREVIOUS ISSUES

T. EATON CO. LIMITED
WINNIPEG CANADA

THE T. EATON CO. LIMITED
WINNIPEG CANADA

FIRST IN THE FIELD

A BIT OF HISTORY:—Way back in pre-war days, those who controlled the destinies of the Hart Grain Weigher Co. began to realize the importance of the small thresher and the part it would



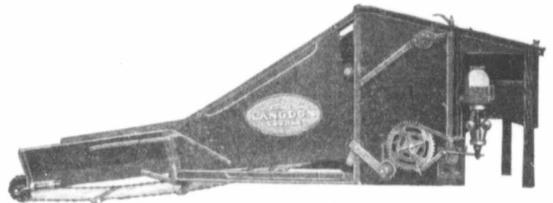
Hart Junior Automatic Register
14 foot Elevator

**A Register
and Self-
Feeder**

**FOR EVERY
SIZE
SEPARATOR
LARGE
OR SMALL**

Catalogs Now Ready

play on the stage of American Agriculture, with the result that the Langdon Junior Feeder, a perfected machine, appeared on the general market in 1916; the 12 and 14 foot Hart Junior Automatic Registers the following year. The Hart line of Junior machines were not and are not make-shifts,—not just large machines cut down to fit, but were designed throughout for the smaller separators, and thousands of Canadian threshermen and farmers will testify that they well deserve their names of **BETTER FEEDERS AND BETTER REGISTERS.**



Langdon Junior Self-Feeder

Hart Grain Weigher Co.

Peoria, Illinois

Makers of Peoria, Belt and Bucket, Simplex, Perfection and Hart Junior Automatic Registers, Loaders and Baggers, Langdon Ideal and Langdon Junior Self-Feeders; Hart Wing Feeders and Wing Carriers.

subject to a deduction of \$150,000 for contingencies or depreciation, while no such appropriation is necessary in 1918; so that it has been possible this year to transfer \$200,000 from profits to the rest account, bringing that account up to \$3,500,000, as well as writing off \$15,000 from bank premises. This is the first addi-

this year, after deducting war tax, pension fund and \$19,500 of donations, are \$744,675, which is at the rate of 8.8 p.c. on the combined capital and rest account, a result which abundantly justifies the aggressive and enterprising policy of the directorate and management in the last few years.

organization has been in existence about eight years and during that period has made remarkable progress, particularly in the sale of Cushman engines all over the Dominion of Canada.

clusively, including fanning mills, grain cleaners of all descriptions, picklers, threshers, tractor, auto accessories, etc., etc., and have built a name for themselves in the west for service.

The Light Weight Cushman Engine is now recognized as one of the leading engines for general farm purpose work, as well as for equipment as auxiliary power for other machinery, such as, grain binders, corn harvesters, hay balers, combined harvesters, etc., etc. In addition to the Cushman engine, the Canadian Company handles several leading lines ex-

The Western organization (with offices, warehouse and trackage in Winnipeg) is under the management of Mr. A. E. Donovan, who has made many friends for himself and his Company throughout Western Canada during the five years or more in which he has occupied that position.

THE CUSHMAN COMPANY

THE group on this page is that of the officers, Superintendent, experts and travellers of the Cushman Motor Works of Canada Limited. This



R. T. RILEY

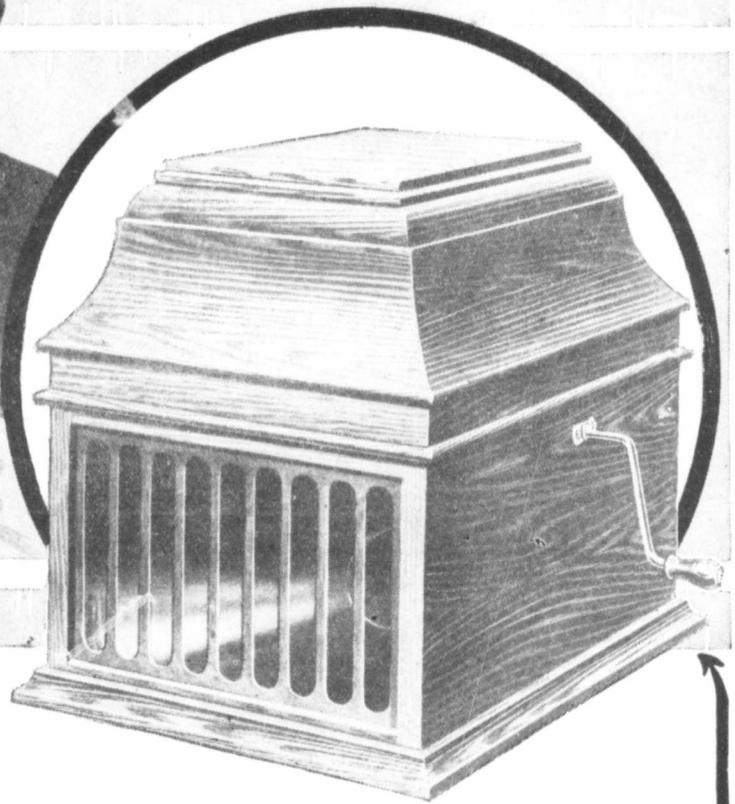
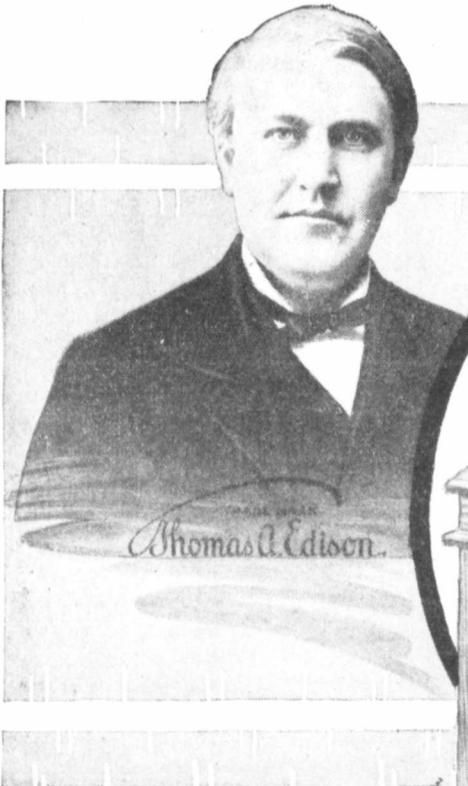
Vice President of the Union Bank of Canada

tion to rest account made since the war began and is a striking evidence of the earning power of the bank under more normal conditions, with its present enlarged volume of assets. The earnings



A few representative men of the Cushman Motor Works

Mr. Edison's Wonderful New Amberola



Only **\$1.00**

and after trial!

Yes, we will send you the New Edison Amberola, the product of the world's greatest inventor's genius, the phonograph with the wonderful diamond stylus reproducer, and your choice of latest Diamond Amberol Records on *free trial without a penny down*. On this offer you can now have the genuine Edison Amberola, the instrument which gives you real, life-like music, the finest and best of all phonographs at a small fraction of the price asked for imitations of Mr. Edison's great instrument. *Seize this opportunity.*

Rock-Bottom Direct Offer--

If, after the free trial, you decide to keep Mr. Edison's superb new instrument, send us only \$1.00. Pay the balance on easiest kind of monthly payments. Think of it! A \$1.00 payment, and a few dollars a month to get this wonderful new style outfit—Mr. Edison's great phonograph with the Diamond Stylus reproducer, all the musical results of the highest price outfits—the same Diamond Amberol Records—yes, the greatest value for \$1.00 down, balance on easiest monthly terms. Convince yourself—free trial first. No money down, no C. O. D., not one cent to pay unless you choose to keep the instrument. Send coupon

For years, the world's greatest inventor worked night and day to make the music of the phonograph true to life. At last he has succeeded. Now that you can get THE BEST on the wonderful offer below, you need no longer be satisfied with anything less than Mr. Edison's great instrument. Read below how easily you may have the genuine New Edison Amberola in your home.

A Happy Home

Happiness is life—and real happiness is found only in a real home. And by a real home I do not mean a house with a yard or farm around it. Oh, no! A real home is the place where the happy, united family gather together for mutual enjoyment and recreation. And the Edison Amberola makes this possible, for it stands supreme as the greatest home entertainer. It will furnish more than entertaining and recreation, more than an hour of amusement, yes, it will mean genuine pleasure of the lasting sort—helpful entertainment and culture of the most beneficial kind. It will mean the family united—a new home.



Entertain Your Friends

Get the New Edison Amberola in your home on free trial. Entertain your family and friends with the latest up-to-date song hits of the big cities. Laugh until your sides ache at the funniest of funny musical shows. Hear the grand old church hymns. Hear the crashing brass bands, the waltzes, the two-steps, the polkas, the duets and quartettes. You will sit awe-stricken at the wonderful grand operas as sung by the world's greatest singers. You will be moved by the tender, sweet harmony of quartettes singing those old melodies that you have heard all your life. Take your choice of any kind of entertainment. All on free trial. Then, after the trial, send the outfit back at our expense if you choose. Or keep it on our great rock-bottom offer. Send the coupon today!

COUPON

F. K. BABSON, Edison Phonograph Distributors,
355 Portage Ave., Dept. 371, WINNIPEG, MAN.

Gentlemen:—Please send me your New Edison Catalog and full particulars of your free trial offer on the new model Edison Amberola.

Name _____

Address _____

Our NEW Edison Catalog Sent Free

Your name and address on a postal or in a letter (or just the coupon) is enough. No obligation in asking for the catalog. Get this offer—while this offer lasts!

F. K. BABSON, Edison Phonograph Dist's.
355 Portage Ave., Dept. 371, WINNIPEG, MAN.
U. S. OFFICE: Edison Block, Chicago, Illinois

A Striking Experience in Taking Pains

St. Luke, Sask., Jan. 4th, 1918.

FOR a number of years we have suffered in our farming operations through a shortage of power, owing to our horses failing to stand the heavy work and through losses caused by swamp fever. This lack of power caused us to be late each year with our summer fallow to such an extent that before the job was completed ripe weeds were being plowed under and it was impossible to contend against such weeds as stink weed, wild oats, etc.

Then again we found that we were at a standstill in regard to the amount of land we could handle; this last factor was what caused us to study what was being done in different parts of the country with traction plowing outfits. After visiting several in different parts of the country, and attending the Brandon Demonstration in 1917, we purchased an I.H.C. Kerosene 10-20 Mogul, and a self-lift three-furrow Cockshutt Plow, fitted with 14-in. bottoms, also extra cleats for the drive wheel and a self-steering device.

This outfit was delivered to us in time for fall plowing, but threshing and heavy snowstorms prevented us from using it until about October 20th. By that time the night frosts made it impossible to start before midday, so we never got a full day's plowing, but in spite of these delays the tractor plowed sixty acres of wheat stubble with one man operating at a cost of approximately from 65c. to 70c. an acre, using kerosene at 22c. per gallon. The cost mentioned also includes all oils and greases, both on the engine and the plow.

This cost may seem high to the average farmer, but our farm is very stony and this caused many delays owing to the wooden breaking pin being sheared, and we had very little level ground, most of it being very hilly, in fact so steep in some places that it takes four horses to pull a six-foot binder up. Then on most mornings a start was made when the frost was still in the ground. In fact we have plowed ground that had frost two inches deep.

All these facts taken together would make for higher operating costs than would be the case if the ground was level and the days warm. We had no breakdown of any kind, either on the engine or the plow. Neither had we to change gear into "low" to climb any of the hills, the tract-

or pulling the plow up hill and down at a depth of four and five inches on high gear, and has ample power under all circumstances, and during the whole time of operating it gave perfect satisfaction.

Much of our success is due, we think, to a thorough study of the instruction book, and seeing that the outfit was properly oiled and all the nuts and bolts kept tight. All fuel was strained through a cloth, therefore, we had no trouble with our carburetor. Also all the water was strained through two plys of sacking, this precaution preventing the needle valve from injecting water into the cylinder from clogging. We found it a very good plan to empty the hopper into a wooden barrel at the end of the day's work and cover the barrel with a horse blanket. This worked fine, as the water would be quite warm at mid-day on the following day.

We will now give a few facts picked up during the short time we have been working our tractor, as some of the ideas may help other farmers:

1. Keep it well oiled. Any time spent on this work is time well spent.

2. The simplest tractor is the best for the farmer to buy, as he will learn to understand it sooner and thereby have better satisfaction.

3. A modern tractor, such as we own, can plow any land that horses can plow. By this we mean that it will go up to a fence, and turn in any corner a four-horse team will turn in.

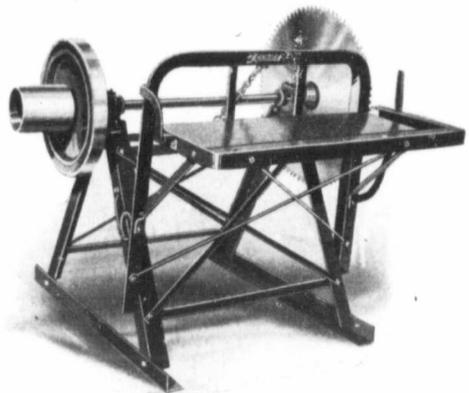
4. On any decent farm it will plow an acre an hour, therefore, the amount that can be plowed is limited only by the length of the day worked.

Finally, we wish to say that tractor plowing presents no difficulties that a man of ordinary abilities cannot overcome, if he will only give it the same attention he gives his other farm problems.—Howard Bros.

Still Dissatisfied

"What's the matter with old Hard-scrabble? I hear he is wanting to send his new tractor back."

"Well, he admits that it threshes beans, and spreads manure, and cultivates corn, and mows, and loads hay, and digs potatoes, and harvests, and thirty-six other things, but he said he tried it picking strawberries and it wouldn't work."



SAW FRAMES

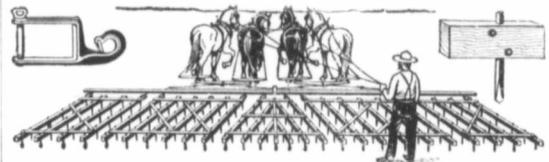
Made of Steel or Made of Wood

WE are prepared to make immediate shipment of Steel and Hardwood Pole and Cordwood Frames, also Disston Saw Blades, 24 in. to 30 in. Trade on these has been very good this winter, but there are no doubt many farmers who should have their own frame.

Will take saws from 24 in. to 30 in. All pole saw frames furnished with balance wheels below; 100-lb. balance wheels; 6 x 6 pulleys; 1½ in. arbors for 1½ in. saw. Saws are guarded and all frames furnished with spring for returning table.

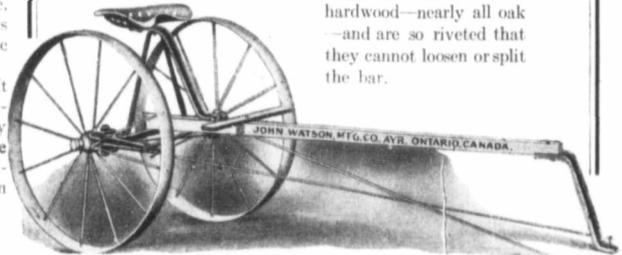
Get your dealer to order, or write us direct.

Manitoba Engines Limited
BRANDON MANITOBA



Watson's Boss Wood Harrow

Is the best that we can build and we have built the best for the past seventy-one years. The teeth are hardwood—nearly all oak—and are so riveted that they cannot loosen or split the bar.



MIGHT AS WELL RIDE!

The horses will never notice the difference but you will. The end of the day will find you fresh and the total work will be surprisingly larger.

John Watson Mfg. Co.
LIMITED

311 Chambers Street

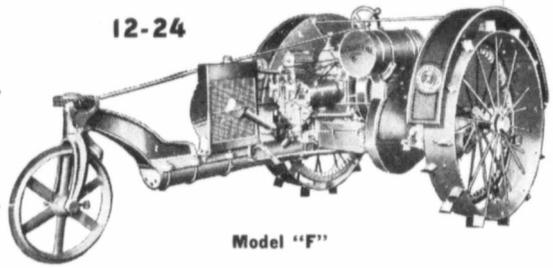
WINNIPEG



**This Sign
On That Tractor**

MEANS THAT IT IS A

Happy Farmer



Model "F"

It also means that you get the **GREATEST VALUE** for the **LEAST MONEY** of any tractor on the market. It means that you get a tractor, every part of which is made in our plant under the careful supervision of our organization. It means that every part is built to work with every other part, thus eliminating all "weak links." A tractor that has a simple wide tread and a perfectly balanced design. A **one man tractor** on which every working detail can be reached without stopping. A tractor that has burned **Kerosene** successfully for thousands of farmers, on every size of farm under all conditions of climate and load, as it **never fails to develop its full rated horsepower of 12-24.**

SELF-GUIDING IN THE FURROW—TURNS IN A SPACE OF LESS THAN NINE FEET

BEEMAN
GARDEN TRACTOR

\$295

F.O.B. Winnipeg



An Order Booked NOW may save you several weeks next spring.

THE WINNIPEG BOY KEROSENE AND GASOLINE ENGINES

THE "WINNIPEG BOY" THROTTLING GOVERNOR KEROSENE ENGINE

Specially built for kerosene burning—not an attachment for kerosene that will soon give trouble—but a perfect kerosene burner. Kerosene is harder on an engine than gasoline, that's why the "Winnipeg Boy" is specially built, is particularly strong to stand the high explosive power of kerosene.

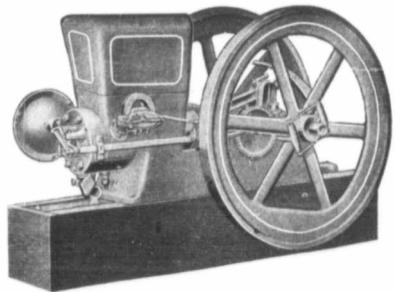
Built in 3 sizes, 3, 5 and 7 H.P.

Compare the "Winnipeg Boy" with any other gasoline engine on the market, and satisfy yourself that you've got the **BEST** in the "WINNIPEG BOY."

1½ H.P. to 6 H.P.

Write us at once for complete specifications of these outstanding engines. It will positively save you a great deal of money and an infinity of worry and lost time if you do so.

Gasoline Engine and Tractor Co., Limited, Winnipeg
(Formerly GASOLINE ENGINE AND SUPPLY CO., LIMITED)



HOW ARE YOU GETTING YOUR SEED GRAIN?

THE Seed Grain Purchasing Commission would advise municipalities, farmers' organizations and individual farmers to procure if possible their supplies of seed grain locally or through the ordinary channels of trade, failing this, to notify the Commissioner as early as possible of their needs, so that a sufficient quantity can be accumulated, cleaned and distributed in time for seeding.

The seed wheat supply is already secured and in store in the Canadian government elevator at Calgary, Moose Jaw and Saskatoon. To avoid congestion of distribution from these elevators in the spring, the commission would suggest that orders for seed wheat be placed with the commission at as early a date as possible, so that the wheat can be distributed before undertaking to supply oats, barley, etc. There is always the danger of mixing when all of these grains are being cleaned and distributed at the same time, also the danger of breakdowns, delaying the work of the elevators, thereby causing delay in cleaning and handling, together with the possibility of an early spring, bad roads and ice, breaking up on the rivers, causing delay in delivering in good

time seed wheat from railway destination to the farmers.

THE USE OF THE APPLE

THOSE who make a liberal use of apples will serve the dual purpose of saving for shipment overseas such articles of food as are fit for that purpose, and at the same time furnish a useful and valuable food for the household.

"The apple without question is the king of fruits, whether fresh, dried, evaporated or canned; it is a wholesome food, easily prepared, attractive and palatable at all times." "Always cook apples in earthen or granite utensils and use silver, granite or wooden spoons for stirring. The use of the apple as the basis for all manufactured jam is well known. This is due to the large amount of pectose which it contains. There is no waste to a good apple; even the paring and core may be utilized for jelly. Fruits are classified as flavour fruits and nutritive fruits—the apple comes under both of these heads." Extracts from a booklet issued by the Fruit Branch of the Dominion Department of Agriculture giving 160 recipes for the use of the apple. The book can be had free on application to the Publications Branch, Department of Agriculture, Ottawa.

Asked for His Reasons

for carrying Life Insurance with The Manufacturers Life, one of our large Policyholders cogently replied:

- 1st.—"In case I do not accumulate a competence, or meet with reverses in business, I know my wife and family will not become objects of charity, as my Life Insurance will supply sufficient funds for their needs."
- 2nd.—"Life Insurance is always the first asset realized on, so, if at my demise the time is not opportune to dispose of my other assets, my Executors will not need to sacrifice same to obtain ready money."
- 3rd.—"It is the only way I can make absolutely sure of providing for my dependents."
- 4th.—"It is the very essence of good business."



The Manufacturers Life Insurance Company

HEAD OFFICE - - TORONTO, CANADA

The best handbook on "Reconstruction," and particularly that end of it that deals with intensive and extensive farming in Western Canada—is the **CANADIAN THRESHERMAN AND FARMER**, price \$1.50 for one year subscription—\$2.00 for 2 years.

"Somewhere in Italy"



CASE
 KEROSENE  TRACTORS

"It Rambles Right Along"—

says Mr. W. Kempster of Forsyth, Montana, of his Case 10-20, "and does its 10 acres of plowing or 6 acres of breaking every day. This is a record in my neighborhood."

The Italian soldiers in the picture above probably have the same to say of Case 10-20 Tractors.

And this satisfaction echoes around the world. It is heard in France, in England, in Greece, in Ireland, in South America, in India—everywhere men farm.

Said in whatever language, the story of satisfaction constantly increases. Every Case owner appreciates the advantages of Case designing and engineering.

The 10-20 pictured on these two pages, plowing and discing, is one of our most successful models. Thousands are in daily use.

Every feature of this superior machine impresses one with the experience and foresight of Case engineers. Here is combined power, simplicity, accessibility

and durability never before attained in tractor construction.

Under ordinary conditions this Case 10-20 pulls three 14-inch plows 8 inches deep. It develops 14.7 H. P. at the drawbar, 47 per cent in excess of its rating. This affords plenty of reserve power for hard pulls.

With such power as this it is adaptable for all sorts of drawbar work.

It is also noted for its belt capacity, driving a Case 20x36 Thresher fully equipped and other machines of equal power requirements.

Write for complete information regarding the Case 10-20 Kerosene Tractor. We have prepared an illustrated and descriptive folder which will be sent gladly upon request.

J. I. Case Threshing Machine Company, Inc.

Founded 1842

1323 Erie Street, Racine, Wis., U. S. A.



"Somewhere in America"



"Finest Tractor Money Can Buy"—

says Mr. N. C. Lenz of Reynolds, Illinois, "and I would not be without my Case 10-20. My little boy operates the tractor in threshing and runs it with ease."

The superiority of this Case 10-20 is evident to every man who investigates it.

It has a four-cylinder Case motor, valve-in-head type, cast en bloc and mounted crosswise on the frame. Its economy as a kerosene burner is largely due to such advancements as the Sylphon Thermostat, which insures complete combustion.

All parts are accessible. The cylinder head is removable. The crank case has two hand-hold openings, provided with quick removable covers.

Every care has been taken to afford working parts complete protection from dust and grit. This insures longer life and fewer adjustments.

Throughout, as described and pictured in our folder, or as you will note in seeing it,

this Case 10-20 will impress you with its betterments. It is a worthy member of our line.

We make three other sizes of Case Kerosene Tractors—one smaller and two larger. Each, in its class, is a leader. In their designing and in their workmanship you will see what 26 years' experience in gas-tractor building has meant to our engineers. And what our 76 years' experience in the power-farming field has permitted us to offer you.

Any information regarding Case Tractors, Threshers, Steam Engines, Hay Balers, Silo Fillers and other Case Products will be gladly furnished by any of our 9,000 dealers, 54 branch houses, or you may write direct to us.

J. I. Case Threshing Machine Company, Inc.

Founded 1842

1323 Erie Street, Racine, Wis., U. S. A.

(783)



FEEDING FOR ADVANCED REGISTRY

The Only Way to Gain Experience in Testing is to Test—Records Mean Profit

By Charles W. Turner, Jr., in "The Field"

THE value of tested dairy cows in the next few years will be much greater than ever before. The reasons for this are numerous. Thanks to the work of the National Dairy Council, the true relative value of dairy products compared with other animal products is receiving wide publicity. The public is learning that there is more valuable food material in milk than in food that costs considerably more. A stimulation to a greater consumption of dairy products is sure to result from knowledge of these facts with a corresponding demand for these products. Another fact that dairymen should consider carefully at this time is this:

During the war the herds of cattle in Great Britain and Europe have been greatly depleted through slaughter, lack of food, etc. It is estimated that there has been a decrease of 115,000,000 head of livestock during the war. After the war the European breeders will be forced to go to other countries in search of breeding stock. The United States must and will come to their aid in supplying them with stock. Breeding stock will be needed and the man with a record on his stock will receive his due reward. The records now wanted by the practical man are those that cover

a relatively long period. The seven-day records are receiving less and less consideration in purchasing animals. The record should be a normal record, the cow producing a calf at the end of the record. This is the only sane method, because the profit from testing lies in the increased value of the young stock. The most profit lies in testing foundation stock, since a record placed upon one cow will increase the value of the other closely related stock. The success of testing cows lies in their breeding and in the experience of the person who feeds and handles them.

The young breeder and the older ones unexperienced in the feeding and care of purebred livestock hesitate to get into the testing game because of inexperience and the cost involved.

The only way to get experience in testing is to test. The plunge must be made sooner or later, so why not now? Plans should be made in advance to have the most promising cows served simultaneously wherever possible so as to have a number of cows freshen at once. In this way full value will be received from the service of the supervisor. He should test the full quota of cows. In Wisconsin the tester will supervise five cows if milked four times a day or six cows milked three times a day for official work, or six cows milked four times a day, eight cows milked three times a day or twelve cows twice a day for semi-official testing. The cost of testing is as follows: One-day test, \$7.50; two-day test \$9; seven-day or longer test, per day, \$3.50.



First prize Calf at Portage Boys' and Girls' Club Show

Why MILKLESS DAYS In Manitoba?



Did the Banner Province of Agricultural Canada ever register such a stupid passage in its history as that in which one company, controlling the milk traffic of its principal city tells its customers that they shall have no milk on certain days? If you would have a complete answer to this farce in our national economy write to the manufacturers of the

"MAGNET" Cream Separator—

the greatest labor-saving and food-conserving machine ever introduced into Dairy Farming and they will give it you.

After nearly 18 years' constant use on Canadian farms the "Magnet" has established beyond the shadow of a doubt that its square gear drive and ball-bearing adjustments is unequalled as an effective piece of dairy mechanics and has nothing in front of it in lasting quality.

DAIRY WOMEN know that the "MAGNET" bowl and one-piece skimmer is easily washed sweet and clean in less than five minutes—a saving of from 10 to 15 days' labor each year over the time required to properly wash the disc kind.

MAGNET ALWAYS SKIMS CLEAN

because its bowl is supported at both ends, cannot wobble and therefore will do perfect skimming for a life-time. Dairy men and women can avoid all "misery" by buying the up-to-date "Magnet" Cream Separator.

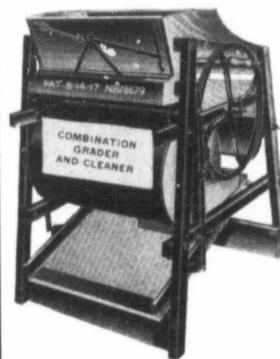
Facts are chiefs that winna ding, and canna be disputed."

The Petrie Mfg. Co. Ltd.

Head Office and Factory: Hamilton, Ont.

WINNIPEG, CALGARY, REGINA, VANCOUVER, MONTREAL, ST. JOHN, EDMONTON, LETHBRIDGE

THE FANNING MILL WITH BRAINS



THIS combination grader and cleaner is an entirely new device

guaranteed to give results which have never been reached by any other grain cleaning machine on the market. Mr. Farmer, if you are after perfect work and great capacity—here it is! Write to the makers (with whom is associated the inventor of the process) for full details. Better still, see it working on the worst sample of Wheat or Flax that can be found, at the Dairy Show, Industrial Bureau, Winnipeg, February 17-22nd.

The Combination Grain Cleaner & Grader

THE FREDERICK SAGER COMPANY

35 Aikins Bldg.

Winnipeg

As the requirements for the advanced registry vary with the age of the animal, it has been found that heifers with first calf make the requirements easiest from the standpoint of feed and care required.

Eckles was first to show that a cow in good condition will test better during the first part of her lactation period than one in poor condition. The herdsman must use this fact to advantage in preparing his cows. During the latter part of the lactation period the fitting for the test is begun. More corn meal or hominy is fed in the grain mixture at this time to start the deposition of fat. The cow should then be dry for eight weeks. During the resting period she should be fed all she will eat, including about ten pounds of a grain mixture daily, which should consist of 100 pounds hominy, 100 pound ground oats, 100 pounds bran and 30 pounds oil meal, or some equally rich mixture. More oil meal should be used with older animals.

During the last two weeks before calving a well ventilated, clean and sunny box stall should be provided. In this way the cow will become accustomed to her surroundings and will not feel out of place, or become nervous. Exercise should be given daily, according to individual condition and needs. As an aid in getting the cow to eat heartily, in addition to the grain mixture, ten or fifteen pounds of sliced beets or mangels should be fed and all the alfalfa and corn silage she will eat.

Ten days before calving the feed should be reduced, and to produce a laxative condition a bran mash be fed, made up of about six quarts of bran moistened with boiling water. After calving the cow should be blanketed and preparation made for an attack of milk fever. Cows in high condition are more susceptible, but few are ever lost if the treatment is applied at once. The water supplied the first day should be warmed. For the first three or four days a small quantity of feed is given, consisting of roots, bran, beet pulp, with perhaps in some cases three to four pounds of the fitting ration.

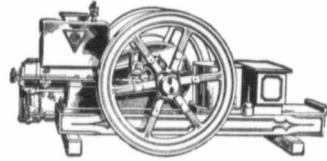
Up to forty-eight hours before calving it is a good practice not to remove all the milk from the udder because this helps to prevent milk fever. The cow will appreciate a good grooming with a soft brush, but a curry comb should not be used. Frequent rubbing of the udder with some kind of oil will be beneficial. The fifth day, if all goes well, the test of a good herdsman begins, namely, getting the cow on a full feed of grain and rough-

age. Four to five pounds of the regular grain mixture are fed, and the amount gradually increased up to the full appetite of the cow. The increase should not be more than one pound per day up to ten pounds for a 1,000 pound cow, and after that not more than a half pound daily increase. The feeder must be alert and learn from every point of view the effect of the ration. The first thing the herdsman should do in the morning is to note the condition of the bowels. The condition of the bowels and the way a cow relishes her food are the chief indications by which the experienced feeder is guided. The maximum amount of grain to feed is determined by gradually increasing the amount each day as long as the production of milk increases. When the maximum amount is produced the grain ration may be decreased a pound or two. Of the roughages, alfalfa has first choice. The second or third cutting—field cured—has no equal as a dairy roughage. Good corn silage and beets or beet pulp can be used to advantage as succulent feeds. If beet pulp is used, it may be improved by adding two pounds of molasses per cow to the water used to soak up the pulp which should be soaked twelve to twenty-four hours prior to feeding. A good method of feeding is to put the grain over the silage and beets and milk the cow while she is eating. Hay is fed twice or three times a day, according to the judgment of the feeder, while the grain is fed at each milking.

Bran, oil meal, ground oats, gluten feed, cottonseed meal, hominy feed, corn meal and dried beet pulp form a list from which feeders may make combinations that tempt the appetite and produce the best results. The slightest indication of daintiness or refusal of the cow to eat her full ration and any tendency toward constipation should be quickly noted and steps taken at once to bring the cow back to a normal condition.

Salt should be fed regularly or be available at all times. Water also should be available at all times, or at least after each milking.

Regularity in feeding and milking is essential to maximum production. The cow is a creature of habit, and irregularity in feeding or milking is liable to reduce the flow of milk and throw the cow off feed. The temperature of the barn in winter should be between 40 and 60 degrees F. Stalls dry, clean and sunny. Kindness and quietness with attention to the little things will result in the maximum production by the cow.



Alpha Gas Engines SAVE

Work Time and Money Fuel

No more operating your pump, turning your cream separator, running your churn or washing machine by hand.

No more hauling your feed to the mill to be cut or ground, or hiring someone to come to your place and grind it for you. A small cutter or grinder and your Alpha would always be ready.

The Alpha uses gasoline or kerosene, and much less of either than any other make of engine.

An Alpha Gas Engine will soon pay for itself on your farm

Write to-day for our catalogue which describes in detail all the twelve sizes of Alpha Gas Engines and shows why the farmer who buys the Alpha gets the most for his money.

THE DE LAVAL COMPANY, Ltd.
LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA.
Sole manufacturers in Canada of the famous De Laval Cream Separators and ideal Green Feed Silos, Alpha Gas Engines, Alpha Churns and Butterworkers. Catalogues of any of our lines mailed upon request.
MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

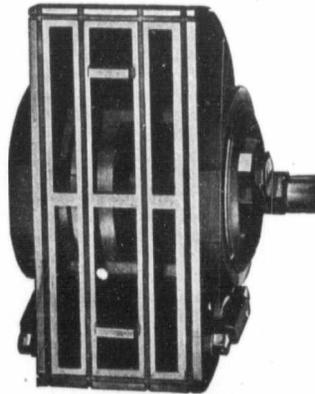
Baker Piston Balanced Valve

WILL increase the power of your engine according to the following statement:—

- 15 H.P. Engine 3-4 H.P.
- 20 H.P. Engine 4-5 H.P.
- 25 H.P. Engine 5-6 H.P.
- 30 H.P. Engine 6-7 H.P.
- 35 H.P. Engine 7-8 H.P.

Will also save fuel, oil and water, and a child can operate the reverse lever under full head of steam.

PLACE YOUR ORDERS EARLY.



Ridgeville, Man., Sept. 13, 1918.

Baker Valve Co., Winnipeg, Man.

Dear Sirs—Enclosed please find \$50 in full for Baker Valve. It is working well. Engine steams very easy and uses one tank less of water a day.

Yours truly,
J. EMPEY.

We also make a speciality of re-boring and re-ringing cylinders, both Gas and Steam Engines, using our Steam and Gastight Expansion Rings. We are the only firm in Canada making an absolute Steam and Gastight Expansion Ring.

Our prices are reasonable. Write us.

Baker Valve Co.
100 JAMES ST.
WINNIPEG MAN.

NORTHWESTERN LIFE POLICIES

Head Office: WINNIPEG "PERFECT PROTECTION"

"HORSEPOWER"—WHAT IS IT?

Continued from page 12

$$\frac{60}{150 \times 176} \times \frac{4}{33,000} = \frac{5}{5} \text{ horsepower.}$$

Consequently to develop one horsepower at the slower speed he must pull a larger load or he might travel faster and pull a lighter load.

To sum up, we have found that moving a load through a certain distance—it may be along the ground in a straight line, in a circle or up and down—gives us a pull in pounds, and multiplying this by the distance in feet gives the total number of foot-pounds of work. But whenever we mention horsepower, it means that 33,000 footpounds of work must be done in one minute.

**Seed Oats
Special Sale**

We have the largest stocks of Selected Seed Oats in the country—specially cleaned, bagged and prepared to meet the extreme shortage. ALSO

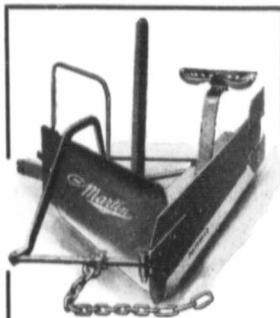
WHEAT, BARLEY, FLAX, RYE

Ask for Seed Grain Catalog and Special Prices on Carload Quantities.

WRITE TO-DAY

A postcard will bring our new Seed Annual—"The Red Guide Book for the West."

A. E. MCKENZIE CO. Ltd.
BRANDON, Man, CALGARY, Alta



**SCRAPER—DITCHER
GRADER—SNOWPLOW**

With a Martin you can keep the roads open in winter; drain the water off them in the spring and keep them in shape during the summer. It is without equal as a road and drainage machine. Get one now and have the benefit of it this winter.

The Canadian Fairbanks-Morse Co., Limited
CALGARY WINNIPEG SASKATOON

A THRESHING SYNDICATE

Contributed to "The Canadian Thresherman and Farmer" by a well known old time Thresherman who made good on the job.

A THRESHING machine or a stallion were the two things that seemed to be the great bugbears in the early days, and it was a common saying that to buy either one was to lose your farm. This was true in a great many cases.

I presume what you want to know in this article is the best way to thresh your grain where you have not enough crop to justify your owning a machine of your own. After all, a syndicate of one is really the best, because, generally speaking, a man will not quarrel with himself, and the two things to be considered above all others are, can our syndicate get along without quarreling, and are we capable of running the outfit?

Those two questions settled right, there is not much danger of the syndicate not being a success. Be dead sure you have someone in the syndicate who can run the outfit, and by that I do not mean someone who can start and stop it; but someone who can keep it running nine hours and sixty minutes out of every ten hours.

If you have no such man and do not know where you can hire one, then let the company keep the machine and send one or two of your boys to some place where they will learn to operate a machine, because, above all things, a threshing machine, if you do not understand it, will lose you money.

The kind of machine, steam or gas, is a question of choice; only, do not buy a steam outfit unless you have good water fairly handy. The size will depend on the amount of grain to be threshed. I think 1,000 acres a large enough syndicate, say, of three farmers. Let them buy an outfit to keep six team hauling to machine with portable bins to hold the grain, at least all that will be shipped out on cars later.

Each man will pay one-third of total cost, and a manager appointed who will keep track of all time of both men and teams, also amount of grain threshed. Each party will be paid at going wages for all men, and teams supplied and charged the going price for all grain threshed.

At the end of season he will be given an account showing the amount earned by him, also the amount due for his grain threshed, and will either pay or receive the difference. Then after the three have settled in this way, any surplus will be equally divided between the three.

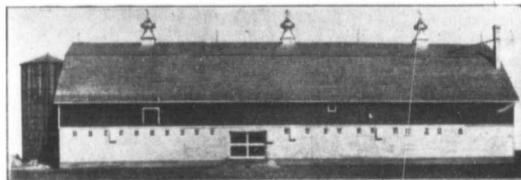
All repairs and costs to be kept out of profits, and if not

Townsley Ventilation

It has been proven that ventilation systems are one of the most effective money makers in modern farming. Stock thrive in properly ventilated stables where they do not have to contend with disease-producing conditions which retard their growth. They get the full benefit of their feed.

Study Any Barn Plan

prepared by an architect, government expert or practical farmer—it always includes a ventilating system. If you ask their advice they will specify the Townsley System. It embodies those features that science has discovered to be most useful in ventilation.



Barn of Andrew Wishart, Portage la Prairie, Man., equipped with Townsley System

Let us have a rough plan of your buildings and we will submit an estimate for a Townsley system of ventilation and lightning protection without obligation on your part.

Canadian Lightning Arrester & Electrical Company Ltd.
BRANDON, Man.

FRESH WINTER CAUGHT FISH

DIRECT TO CONSUMER

Lake Trout, dressed	12c	Jackfish, dressed	9c
Whitefish,	12c	Mullets	6c
Pickeral, round	12c	Tullibees	7c

BY FREIGHT OR EXPRESS. F.O.B. OUR STATION. NO CHARGE FOR PACKING

Terms: Cash with order. References, Royal Bank, Lloydminster

ALBERTA LAKES FISHERIES P.O. BOX 268 LLOYDMINSTER, SASK.

R. S. ROBINSON

Established 1883 Buyer and Exporter of Capital \$250,000.00

Buying Branches: Seattle, Wash. U.S.A. Edmonton, Alta. Le Pas, Man. Kenora, Ont.	HIDES WOOL No. 1 Large Winter Rats \$ 1.60 No. 1 Large Fall Rats 1.20 No. 1 Extra Large Dark Mink 12.00	RAW FURS WANTED IMMEDIATELY No. 1 Extra Large Fine Wolves \$22.00 No. 1 Extra Large Regular Wolves 20.00 Frozen Beef Hides .15
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SHIP PROMPTLY TO
 Head Office; 157 Rupert St., Winnipeg—also 150-152 Pacific Ave. East

enough profits to pay all costs, each party to pay equally. But if there is not some profit, better change your manager, unless crops are very poor.

Now, my reasons for a small, rather than a large, syndicate is that you do not want to be threshing all fall. And when the parties to syndicate have threshed their own, they may possibly thresh for one or two neighbors and thus earn enough to pay all hired help on their own job. So that their own threshing costs them only their time while at it.

Now, who is to be threshed first depends on who is ready first, but the main object should be to get a piece of ground cleared on each farm so as to be able to plow if it comes wet weather. I

would therefore recommend, say, one day more or less for each member, then finish as you go along, alternating each year as to who is threshed first.

Another question which sometimes gives trouble is that of board of men, because you not only have the three men to satisfy, but a still more serious matter—their three wives. The boarding car gets away from all this trouble. Build a caboose large enough to feed all the men at one sitting, hire a cook, get your supplies, and charge all expense of caboose to general account. (Now charge for threshing will have to be higher to cover this expense.)

The advantages of a caboose is that it entirely does away with the question as to who should board the men in wet weather, and I think gives you enough extra threshing time to pay for itself, because when the men board at home there is nearly always someone late in the mornings. My plan is to get your crew, as far as possible the men who will be on the job until finished. Get blankets for your horses; a feed box on the back of your rack, and camp right at the thresher until finished.

I will describe one of our days: Breakfast at 5 o'clock. After breakfast put feed of oats in feed box for noon, and then get loaded. We were always threshing by or before 6 o'clock; 9.30 lunch for men; 12 o'clock whistle for noon. Teams were tied behind wagon at feed box and men went to caboose, always beside the machine; 12.30, start to thresh again; 4.30 lunch; 7 o'clock, start to clean up. The teams did not go out again, but we had the eight loads to thresh after 7 o'clock. Teams were watered from tank as they got a chance while waiting for the team ahead to unload. This was a big outfit, eight or nine team, two men with each team, both pitch on and off. Rack 10x18 feet, belts were never allowed to break when machine running, as they were always fixed if any appearance of going wrong. The secret of success is start early, keep running all day, pay your men well (25c above average), feed them well, and work them well.

Perhaps what I should have put first as the advantage of a cooking caboose, is the fact that the women folk have a chance to live and are not worked to death at threshing time. Get a caboose and your wife will love you more and meet you with a smile, because she knows you are trying to make it as easy for her as possible. Be sure you can agree. Be sure you can run your outfit. Get a cooking caboose, thresh all the time, and you sure will meet with success.

UNION BANK OF CANADA

54th Annual Statement--30th November, 1918

The Fifty-fourth Annual Meeting of the Shareholders of the Union Bank of Canada was held at the Head Office of the Bank, in the City of Winnipeg, at twelve noon, on Wednesday, the 8th instant.

The President, MR. JOHN GALT, in the chair.

DIRECTORS' REPORT

The Directors have pleasure in presenting their report showing the result of the business of the Bank for the year ending November 30th, 1918.

During the year, owing to the depletion of the staff caused by enlistment for military service, the following offices were closed:—Coatsworth, Eastons Corners and Toledo in the Province of Ontario; Adanae, Guernsey, Jansen, Major, Netherhill and Salvador in the Province of Saskatchewan; of which all except Adanae have since been reopened.

The number of Branches and Agencies in operation on November 30th, 1918, was 299.

The usual inspection of all Branches and Agencies has been made.

Mr. S. E. Elkin, M.P., of St. John, N.B., has been elected to fill a vacancy on the Board of Directors.

JOHN GALT, President.

PROFIT AND LOSS ACCOUNT

Balance at credit of account, 30th November, 1917	\$106,624.34
Net profits, for the year, after deducting expenses of management, interest due depositors, reserving for interest and exchange, and making provision for bad and doubtful debts and for rebate on bills under discount, have amounted to	824,174.56
	\$930,798.90

Which has been applied as follows:—

Dividend No. 124, 2 1/4 per cent, paid 1st March, 1918	\$112,500.00
Dividend No. 125, 2 1/4 per cent, paid 1st June, 1918	112,500.00
Dividend No. 126, 2 1/4 per cent, paid 3rd September, 1918	112,500.00
Dividend No. 127, 2 1/4 per cent, payable 2nd December, 1918	112,500.00
Transferred to Rest Account	200,000.00
Written off Bank Premises Account	75,000.00
Contribution to Officers' Pension Fund	10,000.00
Contribution to Halifax Relief Fund	5,000.00
Contribution to Canadian Red Cross, Manitoba Branch	5,000.00
Contribution to Young Men's Christian Association Overseas	3,000.00
Contribution to Salvation Army Overseas	2,000.00
Contribution to Belgian Relief Fund	1,000.00
Contribution to Knights of Columbus, Army Hut Appeal	1,000.00
Contribution to Navy League of Canada, Sailors' Week	2,500.00
War Tax on Bank Note Circulation to 30th November, 1918	50,000.00
Balance of Profits carried forward	126,298.00
	\$930,798.90

General Statement of Liabilities and Assets as on 30th November, 1918

LIABILITIES	
Capital Stock	\$ 5,000,000.00
Rest Account	126,298.90
Balance of Profit and Loss Account carried forward	\$ 3,726,298.90
Unclaimed Dividends	10,261.43
Dividend No. 127, payable 2nd December, 1918	112,500.00
	3,849,060.33
	8,849,060.33
Notes of the Bank in circulation	12,134,649.00
Deposits not bearing interest	58,805,207.86
Deposits bearing interest	68,437,490.47
Balances due to other Banks in Canada	124,601.94
Balances due to Banks and Banking Correspondents elsewhere than in Canada	1,751,177.75
	141,553,127.02
Acceptances under Letters of Credit	2,706,467.06
Liabilities not included in the foregoing	72,797.11
	\$153,181,451.52
ASSETS	
Gold and Silver Coin	\$ 940,446.38
Dominion Government Notes	15,113,307.00
	\$ 16,053,753.38
Deposit with the Minister of Finance for the purposes of the Circulation Fund	260,000.00
Deposit in the Central Gold Reserves	7,800,000.00
Notes of other Banks	763,793.00
Cheques on other Banks	3,817,392.16
Balances due by other Banks in Canada	92,051.67
Balances due by Banks and Banking Correspondents elsewhere than in Canada	2,933,336.72
Dominion and Provincial Government Securities not exceeding market value	12,527,937.82
Canadian Municipal Securities, and British, Foreign and Colonial Public Securities other than Canadian	15,720,338.76
Railway and other Bonds, Debentures and Stocks not exceeding market value	2,501,824.71
Call and Short (not exceeding 30 days) Loans in Canada, on Bonds, Debentures and Stocks	6,508,728.64
Call and Short (not exceeding 30 days) Loans elsewhere than in Canada	3,389,150.00
	72,368,327.06
Other Current Loans and Discounts in Canada (less rebate of interest)	74,021,028.40
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)	1,944,112.28
Real Estate other than Bank Premises	268,152.80
Mortgages on Real Estate sold by the Bank	141,656.39
Overdue Debts, estimated loss provided for	327,941.58
Bank Premises, at not more than cost, less amounts written off	1,237,608.70
Liabilities of customers under Letters of Credit, as per contra	2,706,467.06
Other Assets not included in the foregoing	166,159.23
	\$153,181,451.52

JOHN GALT, President.

H. B. SHAW, General Manager.

Report of the Auditors to the Shareholders of the Union Bank of Canada.

In accordance with the provisions of subsections 19 and 20 of Section 56 of the Bank Act, we report to the Shareholders as follows:—

We have audited the above Balance Sheet with the books and vouchers at Head Office and with the certified returns from the branches.

We have obtained all the information and explanations that we have required, and are of the opinion that the transactions of the Bank which have come under our notice have been within the powers of the Bank.

In addition to our verification at the 30th November, we have, during the year, checked the cash and verified the securities representing the investments of the Bank at its chief office and principal branches and found them to be in agreement with the entries in the books of the Bank relating thereto.

In our opinion the Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Bank, according to the best of our information, and the explanations given to us, and as shown by the books of the Bank.

T. HARRY WEBB, E. S. READ, C. R. HEGAN.

Winnipeg, 20th December, 1918.

Auditors of the firm of WEBB, READ, HEGAN & CO., Chartered Accountants.

What the Tractor Boys say who are succeeding

We present the following brief extracts from a mass of letters which, for lack of space, we are unable to print in detail.

THE upkeep of the tractor is nothing at all as compared with harness for horses. The engine burns water with the kerosene, feeding from the water-jackets. It also has a water cooled system, and I use about two gallons of water a day.

It doesn't pack the soil any more than twelve horses would. The engine worked beside my twelve horses all summer. The engine would gain about one to two rounds a day, not counting the rounds I did when the horses were eating their dinner. In the hot days it makes no difference to the engine, it is just the same, and the beauty of it is that it never gets tired.

In harvest time you can hitch on to three binders just as good as with horses. I run a 24-inch separator, and ran it with four teams. We threshed as high as 1,000 bushels of wheat a day, and about 1,400 bushels of oats. When a wet day comes and stops the machine, I can give the men work to do on the farm, whereas, when you have a big machine, your crew is sitting looking at you.

I know that I can do my work cheaper with the engine than with horses. I know I can do so because I have proved it. I like my engine and would advise any farmer to have one. We pull grain to town, pulling three 150-bushel grain tanks.

—Mat Aitken, Riceton, Sask.

The tractor worked like a clock all the time; one farmer saying to me that it was the most complete little outfit he had ever seen, and it sure does a good job.

In my own case I can work a half-section of land alone, except in harvesting time, and as far as cost of operating a tractor goes, and repairs, it is by far the cheapest power for farming just now.

Feed oats are 80c a bushel, and horses are high in price. Besides, it cuts out an extra man at from \$60 to \$75 per month and board.

One can get over the plowing quick, getting it done at the right time, which means a lot. I contemplate breaking 120 acres this summer, pulling two 14-inch breaker bottoms and a home-made packer behind the two plows. I figure on doing all my seeding this spring, about two hundred and forty acres, with the tractor pulling a twenty-disk drill and a packer.

I may state in conclusion that I am well pleased with my investment in a tractor. I think this size (10-24) is ideal on a half-section farm, and having had no previous experience in gas engineering, I have had no serious troubles, the repairs have been trifles. I have a workshop and a shed for housing the tractor.

—John Johnson, Helmsdale, Alta.

Had been under the impression that a machine of that size might not be practical, but more or less of a novelty or plaything, but seeing it working I was soon convinced that it was a real machine capable of doing a considerable amount of work and doing it right. As for help the few men required can be employed to the very best advantage solving to some extent the problem of scarcity of labor at threshing time.

When through threshing I started plowing with a gang using five horses, but owing to lack of sufficient moisture at a proper depth I found it very hard on the horses, so I tried the use of the tractor instead. I could do much more work that way but it was no load so I took another gang and after removing parts of the frames, bolted the two gangs to-



Parson (delighted to find an allusion suitable to his hearer). "And now, John, I suppose the time has come to beat our sword into a ploughshare?"
Prosaic Smith. "Well, I don't know, Sir. Speaking as a blacksmith of forty-five years' experience, I may tell you it can't be done."

Announcement

The advent of peace, welcomed with joy in every home in the Dominion, brings to every one of us Canadians a new meaning, new opportunity, new responsibility, as regards our citizenship in this great and growing Nation.

To erry on during these reconstruction days, to build and rebuild for permanency, in everything that makes for peace, plenty and perpetual prosperity, is the ambition of every one of us. Every farm home in Canada must be made pleasant and comfortable. Every field, garden and lawn must be substantially, conveniently and pleasantly fenced. Our greeting to you at this time is to remind you of our joint in Canadian development in the past and the future. May we, therefore, direct your attention to some of the fence facts that should be known and rightly understood by every patriotic citizen desirous of making Canada a better place to live in these days of well-earned and well-deserved peace.

FIRST, the time to buy and build fencing is now. Our improved and enlarged facilities, giving us the largest Fence Factory in Canada, enable us to tender for Canadian farmers a superior, prompt, honest and efficient service—we are the "farmers' friends" first, last and all the time. Why? Because the farmer is our customer. We manufacture just such fencing as best meets the needs of the farmer.

SECOND, the purchasing power of every farmer is the highest ever. The farmer's medium of exchange—the crop he produces—is comparatively large. A bushel of wheat or a ton of hay will buy more fencing now than ever before. Prices will not remain so low for a long time to come. We mean prices of farm products. What the farmer produces and has to sell, that which represents his buying power, the world needs badly and the price is to go up. Nor will the price of materials used in manufacturing fencing be lower for a long time to come. Wire fences across the border are dependably fixed. That fixes the price for Canada. What real difference does it make as long as the parity is maintained? When the price of farm products is lowered, then and not until then will wire prices be lowered. It is to your advantage, therefore, to buy and build now.

THIRD, the Sarnia Fence Company has saved the farmer of Canada thousands upon thousands of dollars in actual money saved. Our plan of saving money for you is made possible under our selling system of direct dealing from factory to farm. Just two profits in the transaction—yours and ours. We are partners in the fence business. You buy and buy again, and others do the same. Satisfied customers mean a growing business. We pay nothing for your patronage, besides a good service rendered. You save by dealing directly with us on our direct dealing plan. It is a mutual co-operation between manufacturer and user of fencing that produces real fence satisfaction.

FOURTH, our price is always low—very low. If you could save twenty percent by buying from us, would you do it? We always quote lowest prices for just the kind of fencing you may need. Write us before you make up your plan. Our expert advice may help you to a wise selection and, perhaps, mean a great saving of money. It is safest to know the truth about fencing before you act. Remember, we are fence manufacturers. Our one moderate profit added to actual cost of production leaves a larger profit for you.

FIFTH, our business is built upon the service basis—a real service to our customers—the satisfaction kind, the kind that lasts and brings repeat orders and induces your neighbors to do likewise. We use the farmers of Canada the best fence service we are capable of giving. The farmers of Canada owe us their patronage as a consequence.

SIXTH, the Sarnia Fence Company saves money to every farmer who patronizes us. Our improved facilities, enlarged working capital, together with the fact that we have recently added to our management and working force the best fence talent obtainable, put us way in advance in fence production. Our guarantee is back of every promise we make. Everything is just as represented in our advertising literature. Thousands of farmers testify to the good quality of our fencing. The money you save and the satisfaction you get in dealing direct with us will be your compensation.

SEVENTH, we prepay freight on all fence orders over 200 lbs. Our prices are quoted on fencing delivered at your nearest station. You pay but once. That covers the price of the fence and the transportation to your home town, excepting electric lines and on steamboats.

This announcement will be followed by others in the Farm Papers of Canada from time to time. Do not wait, however, to omit this announcement and get our name and address correctly fixed in your mind. We want you to know the truth about Sarnia fencing. No trouble to answer questions. Write us about your fencing plans. We are specialists in the fencing line and are here to help our farmer friends. Our advertising literature describes in detail the Sarnia Fence and the best method of fence construction. It will make plain to you the Sarnia plan. We are yours to serve.

Bank reference—Bank of Montreal.

Sarnia Fence Company, Ltd.
WINNIPEG, MAN.
SARNIA, ONT.

SHIP YOUR

FURS AND HIDES

TO

McMILLAN FUR & WOOL CO.
277 RUPERT STREET
WINNIPEG - MANITOBA

WRITE FOR CIRCULAR
TRAPPERS OUGHT TO KNOW WHO
SHIP TO US.

Wolves, Minks Muskrats Weasel

We are paying higher than ever for the above furs. Ship at once; also your Beef Hides.

Northwest Hide and Fur Co. Ltd.
278 RUPERT AVENUE, WINNIPEG, O. Man.

gether in such a way as to make a four furrow plow of them, and the tractor seemed to handle it nicely.

On a small farm of a few hundred acres, and when there is a scarcity of labor, I think a small tractor of this size (10-20) will prove to be the right thing, and will very satisfactorily fill the bill of a long felt requirement.

—John A. Ferdland, Stockholm, Sask.

* * * * *

We figure that here is where a small tractor is of great advantage as we need only just about our ordinary amount of help, and if there is a day that the grain is not fit, we can do something else. We get a better job of threshing in this way, for if you have a big outfit threshing for you they want to thresh whether it is fit or not. I figured that we saved the price of our threshing by getting a cleaner job of threshing when the grain was fit, and we did not have the waste of 10 or 11 teams while the big outfit would be doing the threshing.

As for the tractor on the land I would not like to be without it, for I can handle so much more work by doing the heavy work with the engine. It works well along with the horses, and I can break cheaper with the tractor than I can with the horses. I figure that the small tractor has come to stay. I would not like one smaller than a 12-24 but they fill the bill very well. If we get a catchy season like 1916, when we didn't get the land into shape to work on, the engine could be run from daylight to dark where if you were depending upon horses altogether, they could do only an ordinary day's work. I think that the horses and engine should be kept together, as there is certain classes of work on the farm that can be done cheaper with horses than with an engine.

I may say that I knew absolutely nothing about an engine when I bought mine, and I had to hire a man to show me how to start and stop it. A day or two after that I ran it with very little trouble, but I was used to taking care of other machinery.

—W. G. Graham, Noremac, Sask.

* * * * *

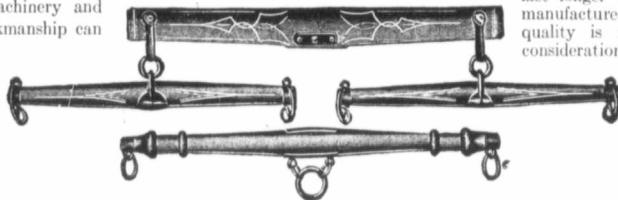
I have had my tractor one year and threshed two falls, and besides doing my own work I contracted 10 other jobs of threshing and had no complaints. In regard to the good use of a small tractor, I think it tends to put more and better crops in, thus greater production in view of labor shortage. One practical man and a good-sized 14 year old boy can handle a three-quarter section of cultivated land with an equal share of summerfallow, better than one 6 horse and 2-4 horse outfit on the same number of acres and dispense with the two hired men employed. One boy and myself do all the work easier on the land, save food and produce more wheat than ten horses and men could.

—James Patterson, Maypole, Sask.

You Buy *Westwo* Products

With a Guarantee

They are guaranteed to be the best that most modern machinery and expert workmanship can produce.



Because they are made well, they look better and last longer than others manufactured where quality is not a first consideration.

Almost any dealer can supply you. Only the best materials go into any product bearing the *Westwo* name. That's one outstanding reason why they will outlast others in their period of

usefulness. Be sure that you are securing the best your money can buy. If for any reason your dealer cannot supply you—write us direct.

WEST-WOODS LIMITED - - WINNIPEG



WALLIS

What is back of the Tractor?

A J. I. Case Plow, of course. But more than that—behind the Wallis and Case Plows stand the J. I. Case Plow Works and The Canadian Fairbanks-Morse Co., Limited—institutions, sound financially, reliable and permanent.

Such stability means much to you. It's the backbone of a guarantee. You are assured of service—you know that spare parts can be obtained in years to come.

Knowing that the firm is "good"—consider the machine. That's where the Wallis shines. Quality and strength in every inch of it. The Wallis wastes no power propelling useless weight—seventy-five per cent of the power developed is available at the draw bar. It is 1,000 to 5,000 lbs. lighter than most machines built for the same work.

The depreciation and upkeep are less, the service it gives is longer and better—the dollar is more wisely invested when you purchase a Wallis. Such an engine deserves to be hitched to the best there is in tillage implements—therefore the J. I. Case Plow.

The Canadian Fairbanks-Morse Company Ltd.

WINNIPEG

SASKATOON

CALGARY

GRAIN TO BE TESTED FOR SEED MUST BE SENT AT ONCE

Accurate Tests of Western Oats Require Two Weeks

S EED that matures under favorable conditions begins to grow in the laboratory during the first few days of the test, but grain, especially oats, injured by frost or matured under unfavorable conditions, requires very careful treatment, and the test, to be really reliable, must be continued for twelve days. Every precaution is taken to ensure accuracy, but occasionally the result of the first test is inconclusive, and a re-test, requiring twelve more days, must be made. If you are in doubt as to the vitality of your seed grain, mail us samples at least six weeks and preferably two months before seeding. Unless your grain gives an exceptionally high test in a few days it will be almost three weeks before you can expect a reliable result. If the test shows your grain to be low in vitality, you should know in time to look about and secure a suitable supply and have it tested before using it.

Sending samples now makes for efficiency and economy in the work of the seed laboratories.

The laboratories are maintained by government funds (persons and firms having more than twenty-five samples per year tested, pay twenty-five cents per test). When the work is received in a steady stream throughout the winter, it can be handled with greater accuracy by a smaller staff and with less equipment than when a large proportion of it comes during a few weeks towards spring. Assist us to carry this work on with the greatest possible economy consistent with efficiency. When farmers' testing is done early it permits us to give more attention to the inspection of seeds offered for sale by dealers towards spring, and to the testing of the seed handled by the Government Seed Grain Purchasing Commission.

Size of Sample.—When a vitality test only is required, a small handful of at least four ounces is sufficient. For a thorough seed test, including examination for weed seeds and other impurities, a one-pound sample is required.

I f you are interested in your home, or in the prosperity of your farm, WRITE FOR our illustrated CATALOG of Garden and Field Seeds, Trees, Shrubs and Plants, etc.

THE PATMORE NURSERY COMPANY
BRANDON - - MAN.

Mail samples in strong paper envelopes or cotton bags.

Address samples to the Dominion Seed Laboratory, Winnipeg, from Manitoba and Saskatchewan and Ontario west of Lake Nipigon, and to the Dominion Seed Laboratory, Calgary, from Alberta and British Columbia.

HOW TO PLAN THE FARMSTEAD

By Professor A. H. Benton

A WELL arranged farmstead both increases the number of dollars in the farmer's pocket-book and adds to the comfort of the family life. In the past farmsteads "just grew." Today farmers are realizing the necessity of having a definite plan for directing the farmstead development. Some of the features accepted as desirable are:

1. The farm house located near enough the public road to give the family the benefit of public travel, but far enough away to avoid undue publicity—150 to 200 feet is a good distance.

2. The buildings containing feeds and sheltering horses, cattle, hogs and sheep so grouped that the labor in caring for and feeding live stock is reduced to a minimum. A barn 150 feet to 200 feet from the house is easily accessible, yet not offensive from unpleasant odors if placed on the opposite side of the house from the prevailing summer winds.

3. The implement shed close to the barn and on the way to and from the fields. Little extra time is required in taking out and putting away machinery.

4. Hog pens, calf lots, cattle yards and horse paddocks so arranged in relation to the buildings and pastures that there is no loss of time in housing the stock or turning them into lots and pastures.

5. A water system that will supply the home and live stock with the least expenditure of time and energy. Elevated tanks, air pressure tanks and hydraulic rams merit consideration.

6. A small garden near the house where it can be easily reached from the house, as the major part of the gardening usually falls to the women folks.

7. A lawn in front of the house, small enough to be well kept, with shrubbery and trees around the edges, and an unobstructed view of the road.

Fixing the Labor Problem

"Heard you managed to get fifty men to help on your farm this summer. That settles your labor problem. How did you manage it?"

"Simply advertised that fifty of them Farmerette gals was comin' up to stay with us for a month."



Drink **Coca-Cola**

AT HOME

At meals and between meals!

Whenever you are hot, tired, thirsty or need refreshment open a bottle of sparkling COCA-COLA—you will feel better after enjoying its deliciousness

Get it from your dealer by the case and serve it in its sterilized bottle.

The Coca-Cola Company.
Winnipeg



STANDARD FORMALDEHYDE Full Strength

When bought in jugs like this, sealed by the Manufacturer. Protect your grain next year. Kill smut with Standard FORMALDEHYDE.

Analysis 1919 Stock

Samples taken from a number of barrels were tested on December 16th, 1918, by Prof. J. W. SHIPLEY, Associate Professor Chemistry Manitoba Agricultural College. All showed full strength of 40% or over.



STANDARD CHEMICAL
Iron and Lumber Co. of Canada, Limited,
WINNIPEG.

WANTED—Capable man to buy half interest and operate large Rumley threshing outfit in Canada, 2,500 acres to start on. Curtis Baldwin, Sparta, Michigan.

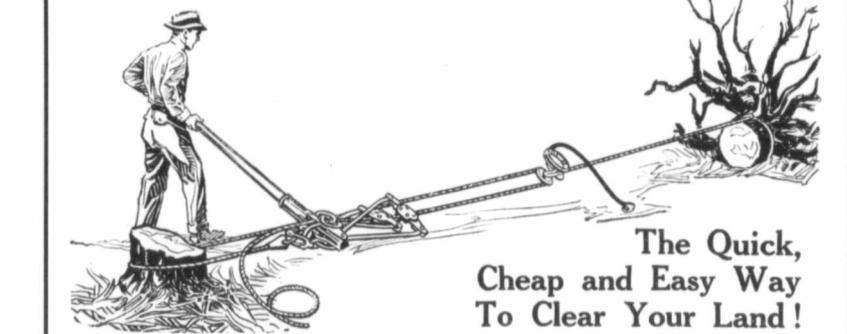
WANTED to hear from owner of good farm for sale. State cash price, full particulars. D. F. Bush, Minneapolis, Minn.
FOR SALE—Case Steel Separator, 36x38, and 25 H.P. American Abell engine. Box 189, Russell.

FITTING COWS FOR LACTATION

Experimental Farms Note

ALL mammals, when in proper environment and under normal conditions, naturally take on flesh during pregnancy, the reserve being used in milk production when the young is born. As we expect a dairy cow to give much more milk than her calf requires, it is only reasonable that she should be in extra good condition of flesh at calving time. A further consideration is the procuring of strong, well-nourished calves, which cannot be expected from poorly-nourished cows. Grain fed during the dry period has been found to give greater returns than the same amount of grain fed after calving, these returns being in the form of a more vigorous calf and increased milk production. To have the cows in proper condition of flesh, one of the first requisites is to give them sufficient rest between lactation periods. The cow that is milked up to within two or three weeks of calving may pile up quite a record for that year, but she will surely fall off in the next lactation period. Each cow should have from six to eight weeks of a rest period.

The feeding of the cow during this period will depend upon her condition when dried off. If she is in good condition of flesh, then very little more than a maintenance ration is necessary, but the feeder should watch that she does not lose her thrifty condition. If she has become thin and run down, then a liberal ration should be allowed. The character of the ration need not differ materially from that fed to the milch cows. Pasture, supplemented by silage or soiling crops in summer and roots or silage and legume hay in winter should be sufficient for the cow in good condition. Those in poorer condition should receive grain in addition up to six or seven pounds per day if necessary. It is important at all times that dairy cows receive a laxative ration, but particularly so just at calving time. To this end, the grain ration should consist of such laxative feeds as wheat bran and oil cake, together with either ground oats, barley, or corn, preferably the former, in equal parts. For every 100 pounds of the above grain mixture there should be added one pound each of ground rock phosphate, charcoal and common salt. The salt is a necessity in the ration, while the other ingredients act as a tonic. Cows not receiving the grain should be fed some of this tonic mixture separately, or the last day or two before calving, the regular ration should be replaced by bran alone, which should be fed up to calving time and for a few days afterwards.



The Quick, Cheap and Easy Way To Clear Your Land!

Now is the time to turn waste into gain by clearing your land of stumps. And scarcity of labor no longer need hinder you. The Kirstin—the wonderful ahead-of-the-time puller—enables one man, without horses and alone, to go into his stump-land and make the stumps FLY! Stumps can be pulled so quickly, so easily and with this machine so cheaply, that million of stumps ought to be pulled right away and the land planted in much-needed wheat! And just listen to this—No other stump puller is so economical to buy or easy

to operate. The tremendous leverage principle of the Kirstin One-Man Puller instantly gives any man the power of a giant. A few pounds pull on the handle means tons on the stump. When stump starts, throw machine into high speed and cut comes the biggest stump—roots and all. The Kirstin is remarkably easy to get into the field, and easy to handle among the stumps. It is a world-beater for pulling large stumps or small stumps, grubs, roots, saplings, brush, hedges. One acre can be cleared in a day—two acres from one anchor.

Kirstin ONE-MAN Stump Puller

Single—Double—Triple Power

Kirstin Pullers pay largest dividends on the investment—earn cost quickest in what they SAVE—are the kind of stump puller any smart farmer would buy if he needed a puller. They do the work. They do it cheaper and stand up under hard usage, under all conditions, even if other machines fail. But there are other reasons why you should investigate and choose a Kirstin puller.

the machine you want before the sale is considered closed or your money becomes ours.

3 Years' Guarantee, Flaw or No Flaw

We guarantee every Kirstin Puller to give perfect satisfaction or it can be returned at our expense, according to our 30 Days Free Trial Offer, and ALL MONEY paid us will be cheerfully refunded.

30 Days' FREE Trial

This is a big advantage in many ways. You can order your puller way ahead of time and have it on the ground right when you want it. You don't take any chance of late delivery by railroads, or other unavoidable but expensive delays. If you find the Puller unsatisfactory, notify us and we will refund every penny you have paid according to our guarantee.



We further guarantee to replace free of charge any castings that may break. Flaw or no flaw within 3 years. All buyers guaranteed against decline of price in 1919. We can make prompt shipments.

Get This Book FREE

In this book, we give you evidence of how farmers made \$300 to \$500 from a few acres of newly cleared land. Increases of 50% to 100% land valuation are not unusual. The book is filled with letters telling all about big profits.

Book also gives full particulars of Kirstin Free-Land Clearing Service—worth many dollars to any farmer. Contains pictures and describes all sizes and types of Kirstin Pullers. Write for it to-day—sure.

4 Easy Ways to Pay

If you like you can order on a No-Money-in-Advance Plan. Pay Cash and get discount—\$10.00 Deposit Plan—or on the Installment Plan, which gives you 6 months to pay. No other offers so liberal. Each enables you to know that the KIRSTIN is just

A. J. KIRSTIN CANADIAN COMPANY

1207 Dennis Street

Sault Ste. Marie, Ont.

To ensure the best results from the above method of fitting the cow for her lactation period, she should be allowed plenty of exercise. Running with the milch cows in summer and being turned out in the barnyard for an hour or two daily in winter, will meet requirements in this regard. This exercise will be found to do away with many of the calving and udder troubles experienced with cows highly fed on heat-producing foods just previous to calving.

"Now, boys," said the Sunday-school teacher, "our lesson to-day teaches us that if we are good while here on earth, when we die we will go to a place of everlasting bliss. But suppose we are bad, then what will become of us?"

"We'll go to a place of everlasting bluster," promptly answered a small boy at the back of the class.

EYES EXAMINED

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OPTOMETRIST 703 Boyd Bldg OPTICIAN

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THE PATTON OPTICAL Co. WINNIPEG

SPECIAL ARRANGEMENTS ARE BEING MADE TO SERVE
Bonspiel Visitors

GLASSES FITTED

Fighting the Smut Pest

MANY millions of dollars are lost to the farmer annually by the plant parasite known as smut, which attacks practically every small grain—oats, wheat, barley, rye, and even corn.

The smuts are produced by microscopic plants belonging to a group that botanists call fungi. These plants are reproduced by "spores," which serve the same purpose that the seeds do in higher plants. These fungi do not contain green coloring matter as do the higher plants, nor do they draw their nourishment from the ground, but are parasites, depending upon other plants for their food. It is characteristic of the smut fungi that they produce their spores in connection with the flowers or seeds of the host plants, and so cannot be seen without the aid of a microscope until the plant comes into blossom.

Take, for example, the smut of oats. When the oat seed is planted and germinates, the smut spore also germinates, and as the oat plant grows, sending up a stem, the smut plant also grows, sending up a thread-like, tubular cell. When the oat plant blossoms, the smut plant has put its spore cell into the blossoming head, and in place of a healthy oat grain there develops a head filled with black smut spores.

Many farmers do not realize what these black, smutty heads are costing them, for they do not make close observation of their fields until it is time to harvest. The smut is seen in its full development while the grain heads are green. It is surely worth while to observe closely at this time.

Several Kinds of Smut

It is necessary, however, to distinguish between various forms of smut. This is especially true when planning the treatment of small grain seeds. There is a great difference between the smut of oats, the smut of wheat and the covered smut of barley, as compared with the loose smut of wheat and barley. In the first group infection occurs only in the young seedling stage, when the plant is very small, while in the second group, the loose smuts of wheat and barley, infection occurs only through the flowers, and particularly when these are open. The spores of the fungi fall into the flower, where they germinate and infect the ovary of the wheat or barley seed, within which the vegetative threads of the fungus become well established.

When the study of the smuts was first begun, there were several methods of treatment advo-

cated, but these have now been narrowed by continued investigation and study to two—the formalin treatment for the smut of oats, bunt of wheat, covered smut of barley and kernel smut of sorghum, and the hot water treatment for the loose smut of barley and wheat.

Two methods are suggested for using the formaldehyde or formalin treatment, formalin being a 40 per cent solution of formaldehyde. These are the modified formalin treatment and the formalin method.

Modified Formalin Treatment

In the first method make a solution of one pint of formalin to forty gallons of water; sprinkle the grain with this solution until quite damp; shovel the grain over in order to get all the grains wet; cover with wet sacks or blankets for from four to six hours; or, if the work is done in the evening, leave covered over night. Dry out before sowing. This is the simplest method there is. The treatment can be given on the granary floor, on clean canvas, or even in a wagon box.

Allow about one gallon of the solution for every bushel treated. Do not let seed thus treated become heated by not being dried about four hours after treating. Covering after the application of the formalin solution is absolutely necessary, since it is the formalin gas which kills the smut spores, and the covering gives this gas an opportunity to reach the spores before being dissipated.

Another method of treating is known as the formalin method. The same solution is used—a pint of formalin to forty gallons of water. Place the seed in coarse sacks and immerse ten minutes; drain and remove the excess solution and empty on a clean floor or canvas; cover this treated grain with wet sacks or blankets for about two hours; then spread out and allow to dry before sowing.

Concerning the treatment of seed for the loose smuts of wheat and barley in which the hot water method is used, we can quote from a good authority that it is recommended principally in connection with the seed plat system. This method must be performed under what are practically ideal laboratory conditions. If your seed is so infected, it is better to buy new which you know is free from this particular type of smut.

The old "bluestone" method is still used in some localities, but the formalin method has been found superior to it.

A pint of formaldehyde should not cost at your drug store over 40



Manitoba Government Stallion Policy

Does your district require a good draft stallion?

If it does, the Government will aid you in securing one by selecting and importing good stallions of the respective draft breeds and selling them at actual cost.

If you contemplate the purchase of a stallion you should at once communicate with the Minister of Agriculture. Applications should be received not later than January 15th, 1919.

Hon. VALENTINE WINKLER

Minister of Agriculture and Immigration

Winnipeg, Man.



Four Ways to Cut Expenses With a Stroke of Your Pen!

Just take a postal card—write on it "Send me your free book for steam threshermen" and state the make and horsepower of your steam engine and whether double or single. We'll immediately send you, absolutely free and without obligation, our illustrated book which tells you how you can cut your repair bills way down—how you can make big savings in your oil, coal and water consumption—how you can increase the power of your engine from 15 to 30 per cent and thresh 200 to 300 more bushels per day without adding a dollar to your running expenses. Send the postal card now.

GOULD BALANCE VALVE COMPANY

300 Elm Street

KELLOGG, IOWA

OXY-ACETYLENE WELDING APPARATUS and SUPPLIES

We can supply a thoroughly practical outfit from \$100.00 up. There should be at least one plant in every district to repair breakages quickly and SAVE TIME and MONEY (Up-to-date farmers with Tractor Engines are cutting in welding outfits and doing their own and their neighbors' repairs. We give free instructions to purchasers. **BROKEN CASTINGS**

SEND YOUR Scored Cylinders or any kind of Repairs. We Re-hore Cylinders, True Up Crank Shafts, Re-tip Boiler Flues and are in a position to handle any repair job promptly. *Nothing too large or too small.*

GIEGER WELDING WORKS, SASKATOON

or 50 cents. It has gone up some in cost since the beginning of the European war. One pint will make a solution of forty gallons, and this forty gallons will treat from forty to fifty bushels of grain. The crop which needs treating most is oats, and, figuring from the oats point of view, the cost of material to treat the oats will be about 1 cent per bushel, and it has been computed that the labor will not cost over another cent. So you have your seed treated for about 2 cents per bushel.

It will require about three bushels of seed per acre when sowing. Thus it costs about 5 cents—"a measly nickel"—per acre for treatment, and increased yields of eight, ten and even twenty bushels have been obtained.

Formaldehyde has been well named "the farmers' friend." Its use is not confined to oats and other grain and to garden seeds, but it has been recognized as a valuable disinfectant about the barn and chicken house.

Potato scale is also completely routed by the use of formaldehyde if the uncut tubers are immersed for about two hours in a solution of one pint to thirty gallons of water, and not planted in soil which has previously yielded a crop of scaly potatoes. No seed potatoes should be planted without first having been treated, and the following winter you will use large, smooth ones. If you have not already done so, add formaldehyde to your friendship list; it will pay you dividends of interest at a hundredfold rate.

Treatments of seed of all kinds should be kept up year after year. A neighbor's field or a threshing machine may continue to be a source of infection. Would that the treatment of small grain seed could become universal practice. Results would be universally lasting.

INSPECTION AND TESTING OF SEED OAT SAMPLES FORWARDED TO WINNIPEG

THE Government Seed Purchasing Commission is anxious to obtain all surplus oats in good oat districts that will clean up and make suitable seed to supply the demands for seed from districts that had a partial or complete crop failure last season.

Farmers, elevator companies and others having oats which they can spare to meet this demand, for which the seed purchasing pays premiums on either one or two seed and commercial grades "A" and "B" are recommended to send samples to the Dominion Seed Laboratory at Winnipeg from Manitoba or Saskatchewan

\$5000.00 in Victory Bonds



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To the 50 Mail Order Customers from whom we receive the largest total amounts of money up to and including May 31st, 1919, we will give \$5,000.00 worth of Victory Bonds, divided into 50 prizes. You may send in your orders for any amount and at any time, but the total amount in cash of all your orders which you send us during that period is what counts. In addition to face value of Victory Bonds, all prize winners will get the interest at 5 1/2%, which is due on June 1st, 1919.

HOW TO ENTER CONTEST

SEND AT ONCE FOR A COPY OF OUR CATALOG, if you have not one already. Borrow your neighbor's book until your copy arrives. Don't lose a moment of time, as the sooner you begin sending orders the better your chances to win a bigger prize. Starting with the 15th of December, coupons to the full amount of your purchase will be sent with every order. Read the coupons for full instructions.

DON'T LOSE SIGHT OF THIS FACT

While you not only have a good chance to win a big prize, you are at the same time getting merchandise at rock bottom prices, correct, reasonable styles, and unquestionable value for your money.

REMEMBER

No coupons will be issued by us after May 31st, and, in order to participate in the contest, your orders must be in our hands on or before that date.

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We want to increase the number of our mail order customers, and also our catalog circulation. Send us a trial order—you have nothing to lose, as we guarantee entire satisfaction or refund your money. Do not delay your requests for our Mid-Winter Sale Catalog, and our Spring Catalog. A post card request is sufficient.

1st Prize	\$1,500.00 in Victory Bonds
2nd Prize	500.00 " "
3rd Prize	300.00 " "
4th Prize	250.00 " "
5th Prize	200.00 " "
To each one of the next 45 winners we will give a \$50.00 Victory Bond	
	2,250.00 " "
Amount of Interest due June 1st.....	
	137.50
	\$5,137.50

VICTORY BONDS ARE DEPOSITED IN DOMINION BANK

\$5,000.00 in Victory Bonds have been deposited in the Dominion Bank, Winnipeg, and these will be distributed to the lucky winners as soon as the judges have made their awards. If you wish to cash your Bonds you can do so at any bank, or we will give you face value for them.

JUDGES OF CONTEST

Mr. H. G. Thompson Editor, Farmer's Advocate
Mr. W. J. Healey Associate Editor, Grain Growers' Guide
Mr. J. T. Mitchell Editor, Western Home Monthly

ANNOUNCING WINNERS

The winners of the prizes will be immediately notified by letter, and their prize of Victory Bond or Bonds forwarded. The names of all winners and amounts of prizes will be printed in the papers.

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 Men's and Women's wearing apparel, shoes, underwear, hosiery, etc.

if in Alberta to the Dominion Seed Laboratory at Calgary to see if their oats are suitable and will pass for seed purposes.

One pound samples should be forwarded, and these should be representative of the bulk lots intended for sale. A note should be included in each sample giving the name and address of the sender, and the quantity of seed which the sample represents and which the shipper has for sale. Where farmers have less than car lots it is recommended that this matter should be talked over with their neighbors and endeavor to make up car lots of surplus oats suitable for seed. Samples of all these lots should be forwarded and advice received be-

fore mixing them together when shipping.

Samples will be examined and tested at the Seed Laboratory for purity and germination and a letter returned giving, in the case of samples found suitable for seed a provisional seed certificate and instructions where to bill the cars.

Seed inspectors working under the direction of the inspection division of the seed branch are stationed at all the cleaning plants handling the seed purchasing commission's seed, including the C.P.R. elevator at Transcona, Winnipeg, and elevator at Edmonton and the government interior terminal elevators at Saskatoon, Moose Jaw and Calgary. Unload samples of cars billed to

these points are inspected, and if the number of wild oats per lb. comes within 1 or 2 seed or does not exceed 100 to the pound for commercial grades, and if the germination is satisfactory they will be accepted, seed certificates issued and advice sent both to the shipper and the seed purchasing commission, whose headquarters are at Regina.

There will not be any charge for seed inspection for any samples forwarded to the seed laboratory, unless they exceed 25 samples, or for inspection of cars at the elevators.

Postage should be prepaid on all samples forwarded to the seed laboratory.

The Canadians at Ypres

(Continued from page 30 December issue)

"Comp'ny! 'Shun! . . . Form Fours! Right! At ease. Quick-k-k march."

The short spring day was drawing to a close, the air grew cold, the shadows deepened. They marched along the Ypres road, thrusting their way through the refugees, and turning off to the left near the asylum they crossed the canal just north of the doomed city. Clouds of white and black and red dust rose above it as shell after shell crashed down upon it, and died away in crayon upon the evening sky. In the west the sun was going down in a great conflagration. The air was still dry and clear, but to the north-east there was a faint greenish haze lying over the fields like a river-mist in the crepuscular light. In the fields, on either side of them, horses and cows lay dead on their backs in uncouth attitudes, with their legs sticking up towards the sky. A vast desolation brooded over the landscape. They were alone. Not a living man or beast was to be seen. Dead men in bleached uniforms lay about in contorted attitudes—their faces livid and on their lips little bubbles of foam. Except for the intermittent roar of the guns, the air was still as death. In this vast mortuary not a bird sang.

The road dipped into a hollow, and as the column descended the

advanced guard began to cough, then the connecting files coughed, and these phthical sounds were gradually taken up by the whole column. Night had fallen, and in the dark solitudes these hollow sounds were as loud and distinct as the hooting of owls in a wood.

"Silence in the ranks," said the captain, and then he began to cough. His eyes watered. He sniffed.

"This place stinks like a damned latrine," he said, irritably, as he blew his nose.

"It's like chloroform," said one subaltern.

Another wondered how long it was since he had tasted almonds.

As the column emerged from that sepulchral hollow and breast-ed the rise, they breathed more freely.

They neared the cross-roads at B—, and shells began to whistle over their heads. The night air was full of strange and sibilant voices. They crossed the canal, and at that moment a shell fell in the middle of the column. The men in the immediate vicinity stopped dead, while the men in the rear continued to march until, as they trod on the heels of the men in front of them, the whole column was pulled up like a horse that is suddenly thrown on its haunches. Confused voices were heard, and the groans of wounded



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"Thought you was goin' to join the Army."
"So I was. But the bloke arst me my age, and I said forty; then he arst 'ow many kids, and I said fifteen, so 'Git outside,' he says, 'we can git a bloomin' colonel for the money you'd cost us.'"

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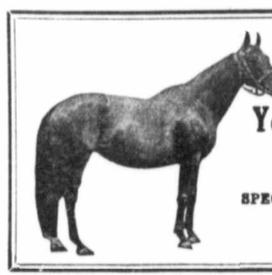
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men. The M.O. was down on his knees beside the prostrate forms, flashing an electric torch upon them, while he masked its light with his Burberry. The shell had wiped out a machine-gun team. The M.G. officer lay dead where he had fallen. The wounded were picked up and placed on the wheeled transport, and the battalion resumed its march. No one knew whose turn would come next. But they continued to march steadily, each man's eyes fixed on the pack of the man in front of him.

At midnight they halted by the side of the road, due north of St. J—, and waited for dawn. They found some deserted gun-emplacements, and established their battalion headquarters therein. Having put out outposts and dug themselves in, the men snatched an hour or two of fitful and uneasy sleep under the stars.

The morning broke cold and clear, and with the first flush of dawn the men were on their feet, stamping to keep themselves warm. In front of them was a dark wood, and in the middle distance a farm and its outhouses. It was a small wood, and if you look for that wood to-day you will never find it, but its name will go down to history. From this moment the battalion was split up; "C" and "D" Companies were ordered to march off in the direction of the wood, where they were to join up with the Third Brigade. As they marched off by platoons in file they waved their hands in salutation to their comrades; it was the last the latter ever saw of them.

As the sun came out, the air grew warm; but not a lark climbed the heavens. Of the two companies that remained, one was ordered to move straight on its trenches in open order by platoons, the other was to advance by sections towards the farm. They raced forwards, and as they approached their objective the German guns got the range and opened on them with shrapnel and high explosive. A dark grey mass of men was clustered round a farm about 900 yards away, on their left front, and, as they drew nearer, this mass opened on them with rifle-fire. Bullets licked the earth all around them, throwing up spurts of dust; but the shooting was poor, and they advanced steadily. The captain, who was signalling-officer and was in the rear, watched the waves of two other battalions advancing on the left to attack the ridge, and as the German machine-guns got to work on them he noticed that the first wave grew thinner and thinner. It struck him that it was extraordinarily like a cinema film; he was looking all the while at the same picture, and yet it was never quite the same. There was the



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MALTUM		MALTUM STOUT		ALE
6 dozen quarts (Barrel)	\$14.50	2 dozen pints		\$ 3.50
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wave, always there, but from moment to moment gaps appeared in it; flickers of flame came and went above it; little white clouds appeared from nowhere over it, hung about, and disappeared as though they had never been. But with each cloud another gap appeared in the line. Now and again it was wholly obscured by great patches of coal-black smoke like enormous ink-stains, and the earth shook. As the smoke cleared away, he was almost astonished to see that the men—some of them—were still upright, and still advancing, without haste and without rest.

"This is going to be some hell,

to-day; eh, what, Dickie?" he said to the M.O., who was on his way to a farm to get it going as a regimental aid-post.

"That's so," said the M.O., cheerful at the prospect of having something more professionally exciting to do than look at men's tongues in billets. "I guess I'm going to do quite a lot in the general practitioner line to-day. Say, old man, if you come my way I'll patch you up beautifully. I've quite a good bedside manner."

The M.O. had a disconcerting habit of envisaging everybody else as a possible casualty. Which was rather premature when you

came to think of it.

"Get along, Dickie, you old booby-snatcher. I'd sooner die a natural death," retorted the other. "The Boche has slain his thousands, but you M.O.s your tens of thousands."

"I'll never be slain by the jaw-bone of an ass," retorted the M.O., pugnaciously.

"Now, Dickie," laughed the signalling-officer, good-naturedly, "you're getting riled. You're better at giving chaff than taking it. You just hike away to your consulting-room."

The M.O. "hiked." And for no apparent reason they shook hands.

They were busy after that. The captain ordered field-telephones to be laid out from the farm, which was to serve the double purpose of aid-post and battalion headquarters. They were laid out to the lines of unfinished trenches which had now been occupied by the waves of infantry. It was neither open warfare nor trench warfare, but a curious combination of the two—a contest of positions which were only half-entrenched—while the German infantry hung about in clusters, like loafers at a street corner, apparently uncertain whether to advance or not. The truth was they were puzzled. They felt that by all the rules of the game the Canadians had no business to be there. The latter had one gun and no aeroplanes; they were being drenched with shrapnel and submerged with high explosive; their left was "in the air," and their allies had bolted the day before in a wild *saue qui peut* before a new and sinister weapon which the Boche knew to be his own peculiar and nasty secret. And yet here were these "verdammt" Canadians coming right up to them and making themselves extremely unpleasant with nothing better than two or three machine-guns and their rifles, though, to be sure, the rapid and accurate fire of those rifles was something to reckon with. The Boche, who had had things all his own way the day before, when he bayoneted inanimate men half-suffocated by his poisonous gas, did not seem to approve of this at all.

During the whole of that day a storm of iron beat upon the farm and the position in front of it. Shells ploughed up the trenches, burying men where they stood, and leaving not a trace behind. Some men were blown to dust, others were killed without a scratch; it seemed as if not the engines of war but some mysterious force of nature were blasting them out of existence. The survivors fired again and again at their fitful targets, until their rifle-barrels grew hot, their nostrils were filled with the reek of blood and burnt cordite, their ears stunned with concussion, their eyes half-blinded with showers of black dust, and their faces running with sweat. Shells formed huge craters round and about the farm, shaking it to its foundations and bespattering its walls with the filth of the midden-heap. The signalling-officer found himself wondering how long it would be before the battalion headquarters would be wiped out. As he sat there, with the C.O. receiving and transmitting messages, he felt as though he were dwelling in a haunted house. Soot fell in showers down the chimney on to the hearthstone, win-

dows rattled, doors opened and shut, pictures fell from the walls, and plaster pattered on the floor. Voices shrieked and whimpered overhead. And all the while he was conscious of waiting for something to happen—something was surely bound to happen. Would it be the next or the next but one? No! that was a "dud." Short! Over! . . . He got up and went out. There was a lull. Then the storm burst forth again. He began to count the shells falling in or near the farm and the trenches occupied by "A" and "B" Companies. After counting for fifteen minutes by his watch, he had reckoned ninety high-explosive shells.

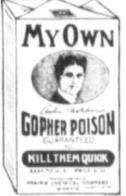
Night brought little or no respite from shell-fire; but the enemy's machine-gun fire died down, and they were able to get stretcher-bearers and ration-parties with water up to the trenches. The M.O. worked all night in his overalls, dressing the wounded, injecting morphia and anti-tetanic serum, and evacuating them on empty limbers and supply waggons. When dawn broke, the signalling-officer was ordered to occupy a disused trench near a private road on the right, facing the wood. He had not been there many hours before it struck him that something was happening in that wood. Shells were raining on it at intervals, and in the pauses he heard the rifle-fire of



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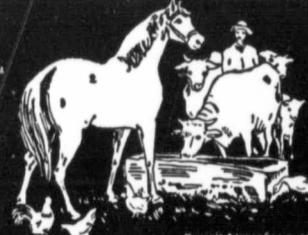
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"C" and "D" Companies, who were holding it. But each time the rifle-fire diminished in volume, and grew more and more fitful; dying down like a fire of twigs that crackle and consume. Meanwhile, he was busy collecting "details" and organizing the supports. At intervals an order would come in to supply "two N.C.O.s and forty men" to some hard-pressed position, and he had to start reorganizing all over again. Cooks, batmen, signallers—all were impounded. A military policeman passed on to him every straggler. Derelicts of every regiment in the divisions—Scottish, English, Canadian—came drifting in; and in that curious medley, drifting together like fallen leaves under a breeze after the storm has momentarily spent its fury, he saw only too clearly the evidence of what had happened the day before. There was no need to ask any questions. A morose Highlander, a company sergeant-major who had lost his battalion, volunteered the information that he was "fed up." He seemed dazed, and was argumentative in a dull, slow way like a drunken man.

"I thoct this was a war, d'ye ken, sorr?" he said, thrusting his face close to the captain. The latter noticed that his eyes were tired and blood-shot. "It iss not! It iss a bluidy massacre. And the Jair-mans call us mercenaries! As if there was siller in it! How many, bawbees d'ye think I'll be taking as company sergeant-major, now, sorr?"

But the captain had suddenly put a field-telescope to his eye, and was gazing hard in the direction of the wood about a thousand yards away. "Here, sergeant-major, stop jawing, and look through this," he said, thrusting the telescope into the hands of the N.C.O.

The effect was magical. "A cop, sorr; a fair cop. It's a sicht I dinna expect to see every day. Eight hundred, do you think sorr? Five rounds rapid will be enough to lay them out, I'm thinking."

What he had seen through the glass was a grey mass of men hanging irresolute about the corners of the wood. They had spiked helmets. The captain gave the word of command; the company sergeant-major repeated it. The improvised platoon, with their sights at 800, burst into a splutter of rifle-fire. The captain looked through his telescope. The grey mass had disappeared.

But the captain was uneasy. Something must have happened in that wood for the Germans to get through it. For over half an hour silence had brooded over it; Not an enemy gun played on it; not a sound of rifle-fire had come from it. . . . What had become

of "C" and "D" Companies? He was still revolving that question when he saw a man without a cap running from the direction of the wood, taking such cover as the ground afforded. As he drew nearer, the captain saw that he had bright red hair.

"By God, it's G——!" he exclaimed. It was the lance-corporal who had had charge of "C" and "D" Companies' end of the telephone.

"I've manag'd to bury it, sir," said the fugitive, as he arrived, breathless and exhausted.

"Buried what?"

"The telephone. I'm the only one to get through. "C" and "D" Companies were cut off and enfiladed. Sixty per cent casualties. All their ammunition exhausted. They were just snowed under. Could you lend me your water-bottle? Thank you, sir."

He took a long drink.

Overhead a Taube was circling like a hawk over its prey, flying as low as 200 feet, so low that they could see the observer looking over the side. He dropped a smoke-ball, and a few minutes later a "coal-box" landed just short of the trench, and threw up a spray of loamy dirt, which covered them from foot to head, and filled their eyes and nostrils, half-blinding them. At that moment a runner arrived with a message from battalion headquarters. They were to fall back.

As they approached the farm, upon which "A" and "B" Companies were retiring, a shell landed on the roof. When the pillar of cloud cleared, flames were seen coming from it as from the heart of the volcano. The barns, filled with straw, were blazing fiercely.

In the farm-yard stood a figure in overalls, bareheaded, and with arms bear to the elbows. His overalls were splashed with blood, his face was black as a nigger-minstrel's with soot, out of which his white eye-balls glared with a fierce glow in their irises. He was shouting orders, directing stretcher-bearers, and pushing in and out of the burning barn, carrying the limp bodies of wounded men in his arms. He was about to rush back, when the signalling-officer caught him by the arms. He tried to shake him off, but the other held him in an iron grip.

"Blast you, M——. Take your hands off me, or I'll trepan you." He raised his fist. "I've got men in there, I tell you."

"I know, Dickie," said the other softly. "I know. But look! You've done all you can, old man." As he pointed to the barn, the roof fell in with a crash, and tongues of fire and smoke burst from the doorway, scorching them where they stood.

The M.O. stood for a moment like one dazed. He shook his fist

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TORONTO

in the direction of the Germans. He was a master of language, but for once in his life words failed him. He uttered a choking sound, and turned away.

The next moment the farmhouse itself caught fire. There was a noise like the popping of corks, and brass-caps flew freakishly in all directions, as though a swarm of bees had been disturbed. The S.A.A. had caught fire and was going off in a fusillade. The signalling-officer and his men rushed to and fro, pulling out the boxes of ammunition and throwing them into the mud.

They fell back, and dug in again. There they held on. As the day drew to its close, the sky became obscured with clouds, and before night rain began to fall. It fell in a steady drizzle, wetting them to the skin as they hung on without flares, without wire, without sand-bags, waiting every moment of the night for an attack which never came. Two days later they were relieved by reinforcements, and, retiring by sections, they marched back to billets by the light of the moon. Out of the two companies that remained only 170 men were left. Of the four machine-guns, they had saved but one. The machine-gun officer who had umpired at the match was dead. Of the eighteen

men who had played the game of Machine-gunners vs. Ambulance men, only eight survived.

As they passed "Suicide Corner," the captain caught sight of a somnolent sepooy sitting against the bank on the side of the road, his face curiously grey in the moonlight.

"Lost his unit!" he said to himself. It was a common occurrence. He went up to him and, seeking to wake him, pulled him gently by the neck of his tunic. He fell forward stiffly against the captain. The back of the man's head was gone, and his face was merely a mask. He was dead.

They reached V— at dawn. The men unslung their rifles and packs, and threw themselves down heavily without taking their boots off. And for the first time for five days they slept.

MANITOBA GOVERNMENT STALLION POLICY

THE fact that the future of the horse-breeding industry is particularly promising (prominent stockmen predicting a good foreign demand following the restoration of peace), renders it highly important that every effort should be made to encourage the horse production of the country.

Unfortunately there is a marked scarcity of draft stallions of the proper type, and many sections have not been producing the number of horses they otherwise would, were good sires available.

In order to improve the stock of Manitoba, and insofar as possible bring within reach of every breeder stallions that will sire good marketable horses, the Manitoba Department of Agriculture will undertake the selection and purchase of stallions of the respective draft breeds required, and will sell same at actual cost to bonafide residents of Manitoba, to be used for breeding purposes within the province.

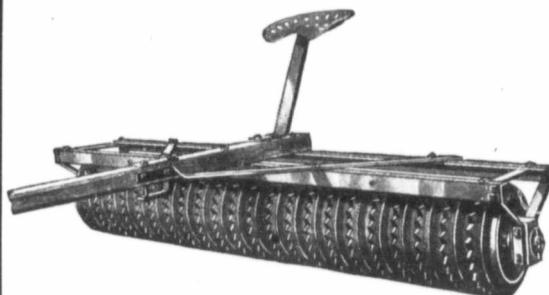
Such stallions will be selected by experts and will be purchased any place in the world where the best value may be secured.

Only sound animals of good breeding and individual merit will be considered.

Horses purchased will be placed on exhibition at some convenient point in the province where they may be inspected by prospective purchasers at least six weeks before the breeding season commences.

In order that the department may be informed as to the requirements of the province in this regard, it is important that those who contemplate the purchase of a stallion for the next breeding season should at once communicate with the Manitoba Department of Agriculture, Winnipeg.

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The Western Pulverizer, Packer and Mulcher pulverizes and packs down the soil and puts it in perfect condition for seeding in one operation, either a stubble ground or sod ground. It will not clog. Provides a granular mulch to the land which stops evaporation and preserves moisture.

Write for our full descriptive catalogue which gives in detail the many full, practical results obtained on the land when the "Western" is used in farming operations.

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THE "Eastlake" Round End Stock Tank is very popular. Made of highest quality, heavy galvanized iron; the heavy tubing is firmly locked on and the strong angle iron braces are formed around the tubing. Side seams have double row of rivets. Bottom is turned up inside—the strongest construction known.

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THE 100% Service Tractor that does all the things you want a tractor to do. Great power, compact construction,—extra strong and durable, but light and handy. It has great drawbar pull and economy,—and for belt work it is unsurpassed. Built of the finest materials,—Hyatt Roller bearings.

—Alloy steel,—Dust proof transmission, etc.—and all so simple and easy to operate that a small boy can do it easily.

The Gilson Standardized Tractor meets perfectly the demand for a high class, serviceable tractor to increase production, and is a money-maker for its owners. Sizes 10-30, 12-25 and 15-30 h.p. Write to-day for full particulars. 80

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WINDBREAKS Do you realise their value?

WINDBREAKS have three definite values on farms in this mid-western country. They break the force of the winds, thus reducing their velocity; they hold the snow on the fields and prevent its being drifted in the low places entirely; and they furnish timber in a land where timber is an item.

Probably the greatest service they perform is reducing the velocity of the winds. High winds are very destructive to crops; they will sap the moisture from the soil by evaporation and rapid transpiration through the plant leaves. I have seen winds that did not stop with the moisture, either, for after drying out the soil they just took it along. People who live in countries covered by trees have no idea of the force of the winds blowing over vast tracts without a check. The sooner farmers recognize the importance of breaking up these vast stretches by tree plantings, the sooner they will get a reasonable control of the moisture question on the plains.

Every farmer knows how important it is to have the snow remain on the fields and melt there, yet this is seldom possible unless a row of trees or a high hedge breaks the force of the wind that sweeps across the fields.

Stock, also, need protection from the winds that sweep across the prairies. Experienced stock raisers will all agree that nothing is more detrimental to the growth and development of horses, cattle, sheep and swine than to be exposed to chilling winds and beating storms. Milk cows increase from 15 to 25 per cent in their daily milk flow when protected from cold draughts, while it has been repeatedly proven that hogs can be fattened with far less feed if the pens are sheltered. Distemper, a much dreaded disease with both horses and sheep, is due largely to exposure in yards and runways.

Poultry must have outdoor exercise in the winter, and this, when given in cold and windy yards, is not only the cause of the fatal roup, but is also injurious to laying hens.

The fruit garden and orchard, to be an annual success, must have protection from both the cold winds of winter and the hot, dry winds of summer. The root system of all fruit stock, with few exceptions, is "surface feeding"; that is, the large part of the roots remain in the top soil instead of penetrating deep taproots like the

oak and many other native trees. For this reason the tree or plant is more quickly affected by temporary conditions in the top soil, and to make the home garden produce annual crops with a minimum of failures the soil condition must be maintained in as normal degree as possible. Garden vegetables are also surface feeders, and as these are nearly always combined with the fruit garden, a provision made for the success of one will have an equal effect on the success of the other. Early vegetables, like early fruits, have need of a tempered atmosphere, and thrive best during the first weeks if protected from the wind.

Evergreens make the best windbreaks, for they are more dense at all times, and especially in the winter, when their protection is most needed. To be effective, the belts should be four or five rows in width and the trees planted fairly close in the main, so they will grow up rapidly, though one row should be given more space so it will spread and form a dense low growth. The varieties most used for this purpose are the white pine, Scotch pine, Norway spruce and red cedar. Norway spruce is probably the most popular, for it is a good grower, though it will not make the fine tree that the white pine will in time, and it, also, is a rapid grower.

In buying evergreens for planting it is best to get the small transplanted stock, though some prefer to plant the little seedlings and cultivate them one year or two before planting where they are wanted. Nursery - grown transplanted trees of small size will be much more certain to grow than the seedlings, and they do not cost exorbitantly where purchased in large numbers. Consult some evergreen specialist advertising in your farm paper and you can get prices. Planted in April, the trees will have a chance to start growth at once, and yet be early enough to be well established before the hot weather. In transplanting be careful the roots do not get dry for a moment, for it will mean death to the tree. The resinous sap will harden in the roots and that will seal them so no moisture can be taken up, and so no growth can take place. Evergreens can be set out at any time from April to June, the only advantage in early planting being the extra time they have to grow before hot weather.



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The most complete showing of high grade furs in Western Canada.

SALE

Our mail order fur expert will make all mail order selections personally.

**Began Friday Morning, January 3rd
And Continues Until February 3rd.**

The entire \$300,000.00 stock, consisting of Ladies' Furs and Fur Coats, Men's Fur and Fur-lined Coats, Caps and Gloves, and Ladies' Suits, Coats and Dresses, have been placed on sale without reserve or limit at the most astounding low prices of our career.

LADIES' MARMOT COATS, Taupe shade, 45 inches long, Full loose back; large square collar and cuffs of Hudson Seal. Slash pockets and fancy buttons. **\$117.50**
Regular \$150.00, now.....

LADIES' MINK MARMOT COATS, 50 inches long, with full box back; large storm collar and deep cuffs of self fur. Lined fine Venetian. \$90.00 value, now..... **\$ 73.50**

DARK CANADIAN MUSKRAT LADIES' COATS, of full furred pliable skins, 50 inches long with full box back and square collar and reverses. Lined Skinner's satin. **\$113.50**
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LADY'S HUDSON SEAL COAT, 45 inches long, full ripple box back with Alaska Sable large square collar and deep cuffs. Slash pockets and fancy silk brocade lining. **\$298.50**
Regular \$400.00 for.....

TAUPE MONGOLIAN WOLF SET, large animal stole, trimmed with heads, tail and paws; lined with soft silk crepe. Large Melon Muff trimmed with tails and paws to match. **\$ 37.50**
Regular \$65.00, for.....

MEN'S GREY GOAT COATS, very heavily furred, 48 inches long. Has extra large deep shawl collar; lined with heavily quilted Farmer's satin. All sizes. **\$ 38.50**
Regular \$50.00 for.....

MEN'S FINE WOMBAT COATS. These coats are made from selected natural skins; well furred and very strongly finished with leather stays at all loops and vents at opening in back. Strongly lined with quilted Farmer's satin. **\$ 78.50**
Regular \$100.00, now.....

MEN'S BLACK DOG COATS. Has good appearance for town or country wear; a splendid driving coat; the skins are large, well tanned, and very soft and pliable. Has extra large shawl collar and well lined with quilted Farmer's satin. **\$ 38.50**
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MEN'S COON COATS, of superior quality, from heavily furred well matched Canadian skins; extra soft and pliable. Has full roomy skirt, and very comfortable for walking or driving. Has large storm shawl collar; lined with heavy superior quality satin. **\$198.50**
Regular \$300.00, now.....

MEN'S HEAVY BLACK BEAVER CLOTH OVERCOATS, chamois lined throughout, with good quality Otter shawl collar and strong Venetian lining. All sizes. **\$ 37.50**
Regular \$55.00, now.....

MEN'S DRESSY BLACK BEAVER CLOTH OVERCOAT, lined throughout with Mink Marmot and has real Canadian Otter shawl collar lining, is reinforced with leather arm shields and fastens with mohair buttons and loops. **\$ 67.50**
Regular \$100.00, now.....

MEN'S FINE BLACK BEAVER CLOTH OVERCOATS, lined with heavy Sealette, made very strong and warm, with large Persian Lamb collar and lapels. All sizes. **\$ 31.50**
Regular \$40.00, for.....

LADIES' HUDSON CONEY COATS, trimmed with large, square collar and deep cuffs of American Sable, lined with fancy poplin. Regular \$160 for..... **\$119.95**

LADIES' NATURAL MUSKRAT COATS, 50 inches long, full, loose back, large storm collar and cuffs. **\$ 79.95**
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MINK MARMOT COAT, 50 inches long, heavy, full furred and soft pliable skins, large storm collar reverses and deep cuffs. Lined with guaranteed linings. Regular \$100.00 for..... **\$ 77.50**

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OUR WOMEN FOLK

CONDUCTED BY
PEARL RICHMOND HAMILTON

A Baby in the House

Ella Wheeler Wilcox

I knew that a baby was hid in the house;
Though I saw no cradle and heard no cry,
But the husband went tiptoeing
Round like a mouse,
And the good wife was humming a soft lullaby;
And there was a look on the face of that mother
That I knew could mean only one thing,
and no other.

"The mother," I said to myself; for I knew
That the woman before me was certainly
that,
For there lay in the corner a tiny cloth shoe,
And I saw on the stand such a wee little hat;
And the beard of the husband said plain as could be,
"Two fat, chubby hands have been tugging at me"

And he took from his pocket a gay picture-book,
And a dog that would bark if you pulled on a string;
And the wife laid them up with such a pleased look;
And I said to myself, "There is no other thing
But a babe that could bring about all this,
and so
That one is in hiding here somewhere, I know."

I stayed but a moment, and saw nothing more,
And heard not a sound, yet I knew I was right;
What else could the shoe mean that lay on the floor,
The book and the toy, and the faces so bright?
And what made the husband as still as a mouse?
I am sure, very sure, there's a babe in that house.

RESULT OF BABY COMPETITION

WE are glad to announce the decision of the lady judges in the "Baby Contest" as follows:

1st Prize.—Mrs. Masterton, Emerson, Man.

2nd Prize.—Mrs. L. C. Milne, Makiwin, Man.

3rd Prize.—Mrs. S. K. Wilson, Seven Persons, Alta.

The first prize baby's photograph (Virginia Mary Masterton) was published on page 41 of our October issue. 2nd (Stuart Milne) on page 75 of July and 3rd (Frankie Wilson) on page 76 of August.

The utmost pains were taken by the judges to arrive at a perfectly impartial judgment and that they have done so there can be no manner of doubt. These ladies were Mrs. J. H. Evans, wife of the Deputy Minister of Agriculture for Manitoba; Mrs. J. H. Stanley, a prominent worker in the I.O.D.E., and one of the most active and capable members of the executive of the Children's Khaki Club, Winnipeg. The third lady judge is Mrs. D. Charles Coult's of Winnipeg, who, as the mother of nine healthy, bouncing babies is eminently fitted to give an opinion on this subject.

Recognizing as we do that the conservation of the child life takes second place to nothing in our national life, we are glad to give every line of space to the interests of any feature of this great work. We regret more than we can say that the contest just closed has suffered

so much because of the "flu" epidemic which is still rampant.

We feel that because of this many of our mothers who took part in the contest have been disappointed. They were unable to do justice to their little exhibits, and for this reason we are starting another contest exactly on the lines of that which has been held and in which all who have not succeeded at this time, are invited to take part if they care to try again.

Of course the prize winners in this case are barred from entering the new contest. In order to give the matter a good start we are not at the moment announcing a closing date. We beg the mothers to get busy right away and in next issue we shall no doubt intimate when the box closes for all competitors.

We might say that many of the snap pictures sent in did not by any means do justice to the fine babies they represented. Do your best will you please, mothers, to send us the very best picture you can of your little one. It is really worth while. The prizes will be as formerly \$25, \$10 and \$5, for first, second and third respectively.

Women and Reconstruction

By Elizabeth Becker in Woman's Century
The Committee on Canadian Industrial Reconstruction has placed in charge of its Women's Department, Miss Marjory MacMurehy, well known among journalists as a past president of the Canadian Women's Press Club. Miss MacMurehy will be remembered by a large body of the public, as a member of the Commission on Unemployment, whose findings have given us almost the only statistics available on women in the vocations and the industries.

"The New Era in Canada," a volume of essays by prominent Canadians on questions of national import, contains a fine chapter by Miss MacMurehy on "Women and the Nation."

The new era in women's work and citizenship has been significantly recognized in the first report of the Executive Committee of the Canadian Industrial

Reconstruction Association. The Executive Committee recommends that a "post-graduate scholarship or fellowship be offered in the departments of economics at McGill, Toronto and Manitoba Universities, successive, open to women graduates of any Canadian University, for the purpose of carrying on research work of an economic character in the industrial or home-making occupations of women." It is also proposed to offer a matriculation scholarship at various Canadian universities for essays by a girl matriculant on the economic importance from a national standpoint of household buying or on the training of girls for skilled employment. Prizes are to be offered in the different provinces for essays by school children on national industries or on the value of trade training in finding advantageous employment.

Miss Marjory MacMurehy, is in charge of the Women's Department of the Canadian Industrial Reconstruction Association. Women graduates, undergraduates, girls at schools, teachers, homemakers, and women belonging to organizations will be specially interested in the plans for reconstructive study in women's occupations proposed by the Women's Department of the Canadian Industrial Reconstruction Association.

Dr. Anna Howard says:

"Women are catching the great social vision while they labor in reestablishing the home ties for men in service, or while they help to remove unwholesome influences from the world—but women are all working together in a way that is most promising for our nation's to-morrow. There are awkward mistakes and cases of hasty and incomplete organization these days, perhaps, but the society and the individual open to self-reproach when it is all over will be that one which has remained indifferent to these great vital demands."

"I am now converted to the practical usefulness of women on the farm."—Dr. G. C. Creelman, Minister of Agriculture for Ontario and President of the Ontario Agricultural College, Guelph.—From Woman's Century.

Shorter Hours for Farmers' Wives

MANY experiments are being carried on in the industrial world to discover for a certainty, whether what has long been half believed, is not absolutely true, i.e. that the number of hours of work for almost every class of workers have been too many and by lessening the number, the output of work, instead of being decreased is increased.

A hundred women workers in a munition factory have been under observation for a year, in order to compare the variation of output and hours work, and while nothing has yet been proven, it has been found that when these women worked 66.2 hours a week, their relative hourly production was 100; when working 45.5 hours a week, their relative hourly production was 158.

Now so far, no one has attempted any investigation of the work of the women on the farm. It is well known that for most of the western women their hours in harvest time are like the old saw, from sun to sun, in both directions. It is up to the women themselves to discover whether or not what is likely to be proven in the industrial world, is not true in theirs. Could not the average housewife do more work in six hours, than in ten or twelve, if she absolutely refused to work more than the six hours a day. Two hours in the morning, two hours at noon, and two hours in the evening, with rest and recreation between, whether school kept or not.

I know it looks like an impossible proposition, and perhaps in harvest time it might be necessary to add a couple of hours, but there is no doubt in my mind, that the woman of average strength, cannot work more than eight hours a day, year in and year out, and do her best work. In fact it is only on the farm that she can work such long hours, without some change, and long holidays, for on the farm there is much fresh air and outside work that help to keep the body in good condition.

I wish some of the readers of this page would experiment on this suggestion. Try working many less hours a day than at present, and between times, rest or take some recreation that you have long wanted. Remember, that sewing, or gardening, or raising poultry is not rest, and will not provide the recreation needed, unless you find a real pleasure in the work aside from the monetary gain to be derived.

A woman in the business world goes to work at regular hours and leaves it at regular hours, and between times, not many of them even think of their work. They rest, or enjoy themselves in some way, but not in doing anything like the work at which they work all day. Men, unless the owners of the business, do much the same, and where they are wise, the owners of the business leave their business in the city when they leave at night and go home.

I was much interested in the difference between Canadians and Englishmen, when I was in England some years ago. I never heard an Englishman mention his business in his home, although some of them I knew were very successful businessmen in the largest cities in England. At home they talked of travel, or literature, or politics, or social work, but their business never. They locked it in the office when they left, or if not, their guests had no reason to think that they carried any of it about with them. Their lives were divided into two parts, business and pleasure, and one seemed about as important as the other.

But to go back to the question of shorter hours of labor, will not some farm women for the benefit of themselves and their neighbors, try working not more than



NOT HER FOLK.

Proud Mother: "Don't you think little Haig Foch is growing very like his father?"
Visitor: "Yes—but I shouldn't mind, dear, if he's healthy."

**Better biscuits
are best made with**

PURITY FLOUR

"More bread and better bread"

Flour License Nos. 15, 16, 17, 18

Government Standard

eight hours a day, and forgetting everything about the work for the rest of the day, and see what happens?

Corporal Punishment

SOME time ago I asked a mother if she believed in corporal punishment. She was quite young and the mother of two very stirring boys. She looked at me in a rather thoughtful way for a few seconds, and then she said, "I think it affords great relief for parents. It might be worth while to advocate it for that purpose. I would not advise it for the good of children." That same mother said that her children never struck each other until she struck them.

The other day I heard a shrill childish voice in a yard near the window where I was working. It was a complaining voice, a voice that seemed to show that the owner was suffering under a sense of injustice. The voice belonged to quite a small boy and he had evidently had a disagreement with his mother, in which he thought he had been badly used.

It was evident that his mother threatened to tell his father for he said, "I'll tell

him not to listen to you. I'll put my fingers over his ears, so that he cannot hear you," and later, "I hope he'll give you one in the eye."

It was all very naughty and I could quite understand that the young mother did not know what to do, but a second or so later when I heard the defiant young voice ring out in fear and protest, "Don't you hit me!" I found my sympathy going out to the child. It seemed an unfair advantage for a grown woman to take to hit him just because she had the strength.

I remember when I taught school feeling that I was a failure in some way, if I had to use the strap after I had been a month in a school. Of course, I will not deny, that I sometimes used it pretty freely during my first month. I often wonder now if I could have managed without it at all. I think the question of corporal punishment is one parents should consider seriously. Of course, if like my friend, they deliberately choose it as a relief for their feelings, regardless of the child, it might be worth resorting to at times. Parents deserve some consideration.

Will Women Preach?

THERE is a tradition among men, and some women have come to believe it, that women talk more than men. It is a proposition that cannot be proven, but one thing is well known and that is, that the public utterances of the race have been almost entirely masculine. A woman preacher is almost unknown, a woman lecturer is not so rare, but they still draw audiences from curiosity, and women in parliaments are so rare as still to be spoken of in the singular.

This condition is not the result of accident. Men with forethought have barred the doors to the positions where the ability to talk and influence people in the mass is an asset. The majority of the churches not only refuse to let women preach but refuse to let them have a position on the church board. College presidents, university presidents, and members of parliament, have until very recently been positions open only to the sex that is supposed to talk the least.

It may be that men have believed so fully that women talk more than men, that they have feared their competition

on the public platform. It may be that men have thought that if women once got on the platform they would take it all, and shove the less talkative men into the audience. That is another proposition hard to prove, but one thing is not hard to prove now, and that is that whether women talk more than men or not, they are going to do more of that talking from the public platform than ever before.

The City Temple, London, England, has taken a most radical step in opening the door to women, in appointing Miss Royden, as pulpit assistant, to the pastor, Dr. Fort Newton. The pastor says the appointment has been made because they want the woman point of view, the woman insight, the woman counsel especially for the young woman.

In the four months since it was founded the women's divisions of the U.S. Federal Employment Service have placed 45,000 women in employment. Twenty-three states and the District of Columbia now have branches.

Our Young Folks

When Mother Reads Aloud

When mother reads aloud the past
 Seems real as every day;
 I hear the tramp of armies vast,
 I see the spears and lances cast,
 I join the thrilling fray;
 Brave knights and ladies fair and proud
 I meet when mother reads aloud.

When mother reads aloud far lands
 I seem very near and true;
 I cross the desert's gleaming sands
 Or hunt the jungle's prowling bands,
 Or sail the ocean blue,
 Far heights, whose peaks and cold mists
 shroud,
 I scale when mother reads aloud.

When mother reads aloud, I long
 For noble deeds to do—
 To help the right, redress the wrong;
 It seems so easy to be strong,
 So simple to be true.
 Oh, thick and fast the visions crowd
 My eyes, when mother reads aloud.
 (The King's Own.)

MISSED IT—THE BIG IDEA

By Eugene Wood in Boy's Life

WHENEVER one of these "financial magnates" goes thundering by in his palatial limousine, big enough to hold all the family, including the kitchen stove, remorse just strikes through me.

Because if I had hung on to the big idea I had when I was young, hung onto it, I understand and not let myself be led away by things of minor importance, I, too, might be rich and respected. Oh, that's all right about the cartoons the artists draw depicting the capitalist as a big fat brute with diamonds as big as onions and his clothes patterned in dollar-marks. That'd be the least of my troubles if I had the money.

And I could have had it if I had just hung onto my Big Idea and worked it out. There was just one little obstacle to overcome, one little, little problem to solve and I let it beat me! It's too late now. That's the sad part of it. Too late! And there are thousands and thousands living in luxury on my money or what would have been my money.

When I was young, every year along about Christmas time I'd go into Mr. Case's toy and queensware store to look at wonderful things that I never in the round world expected to find in my stocking—that nobody was to find in his or her stocking, as the gender might be. That was one reason why Mr. Case busted up in business. He was a smart man but he busted up in business because, when he laid in his stock, he was thinking of the children and not of the parents. A great mistake!

That was why, Christmas after Christmas, there would be in his store the same delightful toys to look at that nobody was ever to have in his or her stocking.

One of the stickers he had perpetually on hand was a round pasteboard bandbox, that stood on a wooden base like a goblet's, only it was pivoted so that you could give it a whirl and it would spin like a top. Slots were cut in the wall of the bandbox creating a picket-fence effect. Just below the slots, standing up against the inside of the bandbox, were strips of paper that had pictures on them, you could take your choice of. Say you chose the strip that had on it the pictures of the fellow jumping over a fence. There would be eight or ten of him in different positions, one depicting him right after he said:

- One for the money;
- Two for the show;
- Three to make ready,
- And four to go!

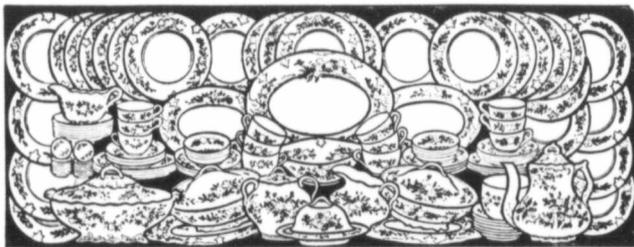
one where he was a quarter of the way up, one where he was half-way up, one where he was three-quarters of the way up, one where he was right over the top of the fence, and so on till he landed on the ground on the other side.

You gave the bandbox thing a whirl and looked through the slots, like looking through a picket-fence at a buggy going by, and I be blowed if the fellow didn't

97 Piece Dinner Set

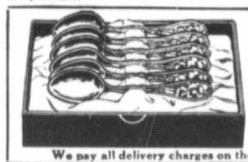
and lovely

Silverware Given To You



YOU can secure without a penny of cost this magnificent complete 97-piece English Dinner Service and a lovely set of half-dozen Wm. A. Rogers teaspoons. Each dinner service is guaranteed full size for family use. Its 97 pieces comprising 12 cups and 12 saucers, 12 tea plates, 12 dinner plates, 12 bread and butter plates, 12 soup plates, 12 sauce dishes, 2 platters, 2 oval covered vegetable dishes, a cream jug, covered sugar bowl, a gravy boat, pickle dish, and a salad bowl. It is handsomely decorated in rich floral design and will surely delight the most fastidious housekeeper. The beautiful set of Teaspoons are in the famous Wm. A. Rogers French Carnation design with French grey handles and brilliantly polished bowls.

Read our Wonderful Offer
 We are determined to establish a national reputation for Dr. Edson's Famous Life Building Blood Tonic and Nerve Pills and are sparing no expense to secure representatives in all parts of Canada who will help us by introducing this famous remedy to their friends and neighbors. That is why we offer to give away these magnificent premiums.



Carnation French Canadian Teaspoons

Genuine Wm. A. Rogers make—the most beautiful pattern ever seen. These magnificent spoons will delight any housekeeper and they are guaranteed to give every satisfaction in wear.

We pay all delivery charges on these Grand Premiums

Will you sell just 12 boxes among your friends at only 25c. per box?

You can easily do this because every one you know will be glad to learn of this grand remedy. It is one of the world's best known prescriptions, a tried and proven remedy for weak and impure blood, nervousness, indigestion, constipation and anaemia. In all run down conditions of the system it will be found a grand blood builder and revitalizer, and as a general tonic for blood and nerves it has no equal.

Send No Money—Just send your name and address to-day and we will send the 12 boxes postage paid. You will be able to sell them quickly and easily because every purchaser of a box can obtain a beautiful gift of fine silverware from us free. These return our money, only \$1.00, and we will promptly send you, all delivery charges paid, the beautiful set of spoons, and the handsome dinner set you can also receive without selling any more goods by simply showing your fine reward among your friends and getting only six of them to sell our goods and earn our fine premiums as you did. We pay all delivery charges right to your door.

REMEMBER YOU TAKE NO RISK. You do not spend a cent of your own money. We trust you with our goods until sold and if for any reason you cannot sell them we will take them back and give you beautiful premiums or pay you a big cash commission on the quantity you do sell. Write to-day if you wish to take advantage of this liberal offer. It gives you the opportunity of a life time. Address X31 The International Mfg. Co., Dept. D 11 Toronto, Ont.

jump over the fence as natural as life, pretty near. The pictures moved! You had to look through the slots, though. If you looked over the top, it was all blurred. You see, the slots that let you see the pictures in a kind of steady-by-jerks way, were cut so as to interrupt

because he wants to improve your mind. And that's a kind of slur on you. It's a sort of an insinuation, as Matt King says, that your mind could stand a good deal of improving and not hurt it any. It's no way to become popular, improving other people's minds isn't.

it was they were sent downtown after and bring home vinegar instead of molasses. I will not even try to conceal from you that I was that kind of a boy.

So I reflected words and figures substantially as follows:

"A picture is about the steadiest thing there is. It's just that same way all the time. And when you've got pictures that move, that move like they were alive, you've got something to make a show out of. Only, even if a person had it, a person couldn't make a show out of it because they can't but one person look at it to the one time. And that's no way to have a show."

"Why not," I reflected, "why not rig that up to a magic lantern," I reflects, "so's a whole lot of people could all see the pictures move? Then you could have a regular show, and charge to get in. Have it downstairs in the church, like the pictures of the Holy Land."

How to rig up the Zoetrope or Wheel of Life to the magic lantern was an absorbing mechanical problem. You'd have to make the thing go round, not like a handbox, but like a wheel. And cut the slots spoke-fashion instead of picket-fence fashion. The main thing, though, was to let the light shine through the pictures instead of on them. And, instead of just one picture on the piece of glass, like the regular magic-lantern slide, have a piece of glass with eight or ten pictures like the strip about the fellow jumping over the fence, and shove it through real quick and make it turn the



This is the picture sent in by Elizabeth Koetke showing a portion of the 200 pigs which she and her good folks reared for the soldier boys at Dayland, Alta. We regret this has been so long overlooked.

the vision about every one-twenty-fourth of a second, which is the time necessary for— But who wants to have things explained? A person has enough of that in school. More'n enough. When someone explains things to you it is

Now, many and many a boy would have let the spectacle of this rig-a-ma-jig (Zotrope, or Wheel of Life, its name was) go, in a manner of speaking, in one eye and out the other. But there are boys who think. They may not think what

Montreal Daily Star.

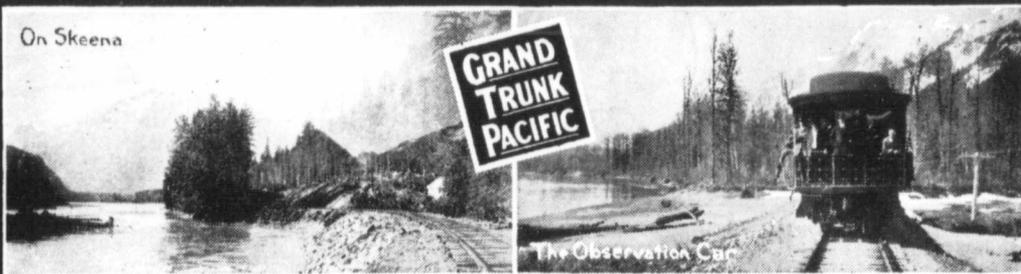
MONTREAL, WEDNESDAY, OCTOBER 2, 1910

WHAT SOLDIERS WANT.

A suggestion to those who are sending gifts to soldiers overseas comes from Lt.-Col. (Canon) Frederick George Scott, Senior Chaplain of the First Division, in a cable received by friends in Montreal. He says "The men want playing cards and chewing tobacco."

CHEW STAG TOBACCO

"Ever-lastingly Good"



As Others See Us

The following extracts from letters received, tell of some of the glories of the Grand Trunk Pacific route.

"The scenery on your railway route through the mountains is grand and inspiring."

"I shall never forget my trip on your excellent Steamships."

"We are indeed glad we made our trip over your system, and can cheerfully and unqualifiedly recommend it."

"The Grand Trunk Pacific has the best train service and most courteous employees."

"I have travelled extensively in Europe and America, but nowhere did I see such wonderful scenery, rail or boat, as by the Grand Trunk Pacific route."

"Magnificent scenery, matchless courtesy."

"The Grand Trunk Pacific boats, Prince Rupert and Prince George, are floating palaces."

"The grandeur of the country traversed from the wheat fields and grazing lands to the mountain scenery of British Columbia, leaves an impression never to be forgotten."

Reasons
for
patronizing
the
G.T.P.

AFTER THE HOLIDAYS! WHAT? THE PACIFIC COAST VANCOUVER AND VICTORIA

Through the Canadian Rockies, the beautiful Skeena River country, its historic Indian villages and ancient totem poles, with glorious short sea voyage through the sheltered waters of the Inside Passage, with meals and berth included while on steamer.

Escape the cold and enjoy the mild climate of the Coast.

TOURIST FARES. SPECIAL PRIVILEGES.
SPECIAL LIMITS. STOPOVERS.

Thence on to

CALIFORNIA

Full details may be had on application to any agent of the Grand Trunk Pacific Railway.

W. E. DUPEROW, Gen. Pass. Agt.,
Winnipeg

W. J. QUINLAN, Dist. Pass. Agt.,
Winnipeg



Mount Robson
The Highest Peak in the Canadian Rockies



Surf Bathing



Grand Trunk Pacific Steamship Prince Rupert

wheel with the slots in it—Hold on! Ho-o-old on! Oh, by jiminy crickets! Say! Have a long, long, long piece of glass— Oh, ever so long, with pictures of not just one little bit of a thing, like a fellow jumping over a fence, but whole lots of things, like a reg'lar show! Kind of a story like.

"Yes, but," you say, "if you got it too long, the glass would break."

"Well, don't you s'pose I thought of that? My land! Don't you think I got any sense at all? I thought of that right

away. And this is what I thought of and you didn't, I thought of limber glass!

Get glass that is kind of limber and have it on rollers, and roll it off of one roller and onto another roller, like they do to the Pammer-rammer of the Holy Land. What I had to do was to find something as clear as glass, but limber. Let's see. . . .

To this day a piece of mica has a thrilling fascination for me. I used to peel off slivers of it from the inside of the windows of the baseburner stove, in hopes that it would do for limber glass. I tried and

tried. But the blame stuff had specks in it and brown spots and your lantern slide has to be as clear as anything.

Right after mica I quit. But if I had had the real stick-to-it-iveness in me that a person ought to have, I would have found out that there wasn't then any transparent substance limber enough to roll up in a thin strip. And if I had been real bright, I would have seen that the thing to do, when there isn't the substance that you want, is to go ahead and invent it. Other people do that, so why

not you? Make it out of other substances not a bit like what you want. That's what you call chemistry.

I knew there was such a thing as chemistry because I had been in a chemical laboratory. But a boy's notion of chemistry is a good deal like that of the level, solid-headed business-man before the war—Tst! I got all twisted sometimes—the solid, level-headed business-man before the war. That's what I meant to say. That notion is: that chemistry is where it smells like the furnace didn't

draw, it is where you pour clear stuff out of a bottle into clear stuff out of another bottle and it all clouds up different colors; it is something you have to learn so as to get through college, but it ain't practical."

"There's no excuse for me—No! No! There's no excuse! It's all very well to say that the whole world is in league against the fellow with the Big Idea. Sure it is. It always is. And then it's up to you to slap the whole world sloneways and walk on it. Walk on it! You've got to show it you are its boss."

"If I had hung onto my Big Idea, stuck to my plan of litching up the magic lantern to the Zeestraps or Wheel of Life, look what I'd be to-day!"

"My own fault. Let this be a lesson to the young. It won't be, though. They'll go on being young whilst they are young. What a pity! What a pity!"

Girls' Prize Letter

Trossels, Sask., Can., Sept. 10, 1918
Dear Cousin Doris:—For some time I have been reading with great interest the letters of your page.

I notice you are giving a prize of two dollars each month for the best letter. Oh! How I should love to get it! I shall, anyway, try and as there are two subjects on which we may write I will write on my "Life Ambition."

My greatest ambition at present is to win the two dollars but my life ambition is a great one. I am a country girl eleven years old. I go to school every day and I am in grade seven. My sister teaches our home school and I like her fine. I just long for the day when I will be able to teach school like she is doing. A year from next June I intend to write on grade eight. I then want to go to High school for three years and obtain a second class certificate for life. After I get this I want to teach school for a long, long time and then if I get tired of teaching I should like to take a "business course." I do not believe I would ever get tired of teaching school for I love school so well.

It is my greatest ambition to get an education for which I am working every day. I also want to take a course in music. I have taken a few music lessons and I am very fond of music. I can play most any tune I hear after I know the tune off. While I am teaching school I hope I shall be able to help my younger sisters and brother to gain an education also. When my father and mother are too old to work I hope I will be able to help them and make them comfortable. If I can not help them in no other way I can be cheerful and kind and in order that I may be that when I grow old I must practise to be patient now. I want to be kind to friends, neighbors and especially to the old people.

This is my life ambition and if I am able to fill it why shouldn't I be happy? I have five sisters and one brother. One of my sisters is married and lives many miles from us. As this is all I can think of I will now draw this letter to a close. Best wishes to all.

Age 11. Bernice L. Swedburg.

Boys' Prize Letter

Lynden, Alta., September 12, 1918
Dear Cousin Doris:—Having read for some time the letters published in the young folks' column I have decided to try my luck at writing one for you.

I am a member of the First Claresholm Troop of Boy Scouts and I will try to tell you of some of the work our boys have done and are doing, to help the allies in the present struggle for democracy.

We began our role of war-workers by aiding on tag days for various societies: The Red Cross, Belgian Relief, Soldiers' and Sailors' Comforts, Prisoners of War—all these funds have come under our work. We held, ourselves, a tag-day for the Red Cross and the boys collected a very creditable sum for this cause. The other funds we worked with in co-operation with the Daughters of the Empire. A number of our Scouts tagged for the I.O.D.E. on their various tag-days and assisted them greatly in this manner.

We next turned our attention to the Red Cross work in our own town and were pleased to find that we could be of assistance to the ladies of our local unit.

The boys first busied themselves with the task of cutting slipper soles. This consists of marking from a pattern, and cutting from heavy cardboard, soles to be used in the hospital slippers furnished by the Red Cross Society. All during the winter of 1917, we were engaged on this



British Columbia Red Cedar SHINGLES

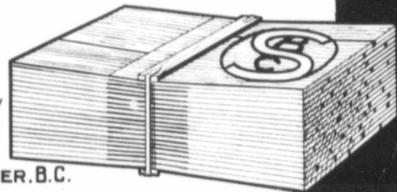
- THE PERFECT NON-CONDUCTING ROOFING MATERIAL.
- KEEPS OUT THE COLD IN WINTER—THE HEAT IN SUMMER.

The non-conducting casing of the Thermos Bottle makes it possible to keep the contents either hot or cold for long periods of time, regardless of prevailing extremes of temperature outside.

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If you own buildings or are planning to build, send for our "Roofing Facts"—a booklet which gives facts about roofs and roofing which you should know. Sent free on request.



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Save Sugar!

Don't use Sugar where Corn Syrup will serve your purpose as well or better. The ships that carry sugar are needed for soldiers and their supplies. Crown Brand and Lily White Corn Syrup are delicious, wholesome and economical alternatives for sugar in pies, puddings and preserves; as a sweet sauce and on cereals.

Use **CROWN BRAND CORN SYRUP**



The most nutritious part of the corn converted into its "sugar" or syrup form, with the added flavor of a little cane syrup.

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For use where the Food Board Bulletin calls for Corn Syrup (White) Delicious for table use and cooking.

In 2, 5, 10 and 20 lb. tins, at all dealers

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Write for prices, it will pay you

THE WHEAT CITY TANNERY
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Place Your Order Early for these Splendid Stocks.

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(Crops grown from our Registered Seed may be Registered by members and non-members of the C.S.G.A.)

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We are buyers of Bromo, Western Rye and Timothy. Send Samples.

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FOR SALE—One 32 H.P. Cross Compound Reeves Engine and one 44x66 Reeves Separator. Both in good shape. An up-to-date outfit for threshing and plowing. Apply Young Bros., Wainwright, Alta.

FOR SALE—One 27 h.p. Sawyer-Massey engine, run about 90 days, in first class condition; one 32-inch Aultman-Taylor separator, almost new. For particulars, write V. C. McCurdv, Moosomin, Sask.

FOR SALE—Small threshing outfit, complete, in good running order. Sykes, Russell, Man.

work and we cut several thousand soles. Each patrol in our troop had a patrol-room where meetings were held to discuss patrol work. In these the boys would meet and while half the boys marked the soles, the others would cut them. I recall occasions when we cut slipper soles till as late—or, I might say as early—an hour, as one o'clock in the morning. The boys would then clean up the left-overs, and when all was once more in order we would partake of a lunch, usually provided by the patrol-leader. There is little need of me saying the boys enjoyed these evenings as only boys could and besides we were helping, even though it was a small bit, to win the war.

When a large number of soles had been cut some of the boys found a new field of labor in helping the ladies pack the finished work in large bales for shipment to the central depot at Calgary. Others of our Troop even helped to sew button-holes and tack the Red Cross tags on the garments.

Of course we helped by distributing the National Service Cards and such work, as did all the other troops.

Now, I am getting down to the present time in our war-work. At the first call for "soldiers of the soil" last spring all the older boys of our troop "signed up" for farm work and the majority of them are still hard at work in the interests of increased crop production. The smaller boys were no less eager to go out on S.O.S. work but this was of course out of the question for them. We are now planning on raising money to buy war savings certificates.

Well, I guess I had better bring this "attempt" to an end or it may be severely handled by the Editor. Hoping some other Scouts will tell us of their efforts.

Your friend,
Charles Lyndon.

Dundurn, Sask.
Dear Cousin Doris:—Seeing that there is a prize of two dollars for the best letter I will try my luck and hope that I may succeed.

In this, my first letter to your page I will try and relate some of the incidents in our life when we first came here, and as that is now thirteen years ago it seems a long time to me.

As there was no school anywhere near us, when we came here we spent most of our time out on the prairie for it was our job to herd the cows. We roamed over the prairie at will for there were very few settlers around here at that time.

The time we liked best of all was threshing time for when the grain was all threshed we dug large rooms in the wheat straw stacks and it was here that we spent most of our time after threshing. I remember once when my sisters couldn't find the cows that they hid in one of these straw stacks. Fortunately the cows came home by themselves, and as it was growing dark my eldest brother went out to look for the girls and of course the first place he looked was in the straw stack.

Once we had two small gophers we kept tame and they grew up and would follow us all over upstairs and down. We used to have the greatest fun with them, but accidents will happen—for one fell down stairs one day and was killed and the boys, thinking the other one would be lonely at night, took it to bed with them, and of course slept on him and killed it. We tried several times afterwards to tame some more gophers. We even tried to tame mice but to no avail. Once we had a little crow but the turkey gobble killed it, and at present we have a coyote but he doesn't seem to be very tame so of course we keep him tied up, or else he would get all the chickens.

As the years went by more settlers came in and a school was erected and we had great times.

One day while the teacher was home for dinner we decided we would go upstairs. All ready! and my sister headed the procession and I following and a boy brought up the rear. There being no stairs and no step ladder around we had to pile up chairs, it took a long time but finally we were up there, then we commenced to throw down mice nests (and my sister had just swept the floor).

Half-past one the teacher appeared on the scene and rang the bell. We were too frightened to come down, but thinking better of it we all came down and faced the frowns of an angry teacher. She was very angry, and I don't blame her, and

BLUE RIBBON TEA

Don't waste your time and money in trying to find something "just as good" as BLUE RIBBON TEA

31

WIN This Real—Gasoline Auto for Boys and Girls SOLVE THIS PUZZLE



FIRST PRIZE

Real 6 horse power auto with high class air cooled 4 cylinder gasoline motor, just enough for any boy or girl. Built like big autos. Has artillery wheels, solid rubber tires, steering gear and wheels, 2 brake lock box, lock, cone clutch. Any boy or girl can run it easily. A real prize for boys and girls.

23	8	5	14	7	5	18	
13	1	14	25	9	19	-	
4	5	6	5	1	20	5	4
-	1	14	4	-	14	15	20
-	1	-	13	9	14	21	20
5	-	2	5	6	15	18	5

This foretold when the War would end. What does it say?

CAN you work this out? Do you want to know how it was decided long before peace came when the war would be over? The answer is contained within the 48 squares above. What is this answer? Solve it and valuable prizes await you.

HOW TO SOLVE IT

The above squares hold the answer. It is in one sentence of nine words, containing forty letters. Each letter is represented by a number, and that number is the position of the letter in the alphabet. For instance, A is represented by the figure 1, as it is first in the alphabet, and so on. Now, to help you get started, we will tell you that the first letter in the puzzle is "W," because W is the 23rd letter in the alphabet. Get to work and figure out the words in the sentence, and try to find the answer to the great question, "When will the war be over?" It is not easy, but it is worth while trying for.



You will be the Envy of all your Friends with this Car THE AUTO-MAN, EVERYWOMAN'S WORLD, Dept. 226 TORONTO, ONT.

THE PRIZES

- 1st—Five Horse Power Auto - \$150.00
- 2nd—Dandy Folding Camera - 25.00
- 3rd—Magnificent Gold Watch and Chain, or Girl's Watch - 15.00
- 4th—Lovely 36-inch Doll, hand-gowned, and beautiful English Doll Carriage - 10.00
- 5th—Electric Projectoscope. Better than a magic lantern. Will show any picture or post-card photo on screen - 7.50
- 6th—Full-size Football - 5.00
- 7th to 10th—Self-Filler Fountain Pens, each \$2.50 - 10.00
- Also 10 Extra Prizes for Boys and Girls, each \$1.25 - 12.50
- Total Value of Prizes - \$235.00

Copy your answer upon a plain white sheet of paper as neatly as you can, because neatness, spelling, hand writing, and punctuation counts if more than one answer is correct. Put your name and address in the top right hand corner of the paper. If you have to write a letter, or show anything else, put it upon a separate sheet of paper. We will write as soon as your answer is received, and tell you if your solution is correct, and also send you a complete illustrated list of the grand prizes that you can win.

What Others Have Done, You Can Do

Here are the names of only a few of the boys and girls to whom we have recently awarded big prizes: Sheldan Pony and Cart, Helen Smith, Edmonton; Beatrice Hughes, Hazenmore, Sask.; Lyle Denham, Hamilton, Ont.; \$20.00 Cash, Helen Demsch, Junkins, Alta.; \$20.00 Cash, Florence Nesbitt, Arnprior, Ont. We will send you names of many others too. Only boys and girls under 17 years of age may send answers, and each boy or girl will be required to perform a small service for us for which an additional valuable reward or special cash will be given. The contest will close on March 31st at 5:30 P.M.

Send your answer this very evening. Address: THE AUTO-MAN, EVERYWOMAN'S WORLD, Dept. 226 TORONTO, ONT.

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Don't Feed Gophers All Fall. Kill 'Em Now. Use KILL-EM-QUICK

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Price with Single Lens, \$17.50

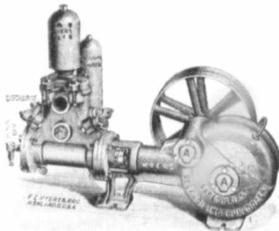
Here is a Kodak stripped for action. With the emphasis placed on simplicity of operation, nothing remains to confuse the beginner. Every essential for good picture-making is there — nothing else.

The 3A Autographic Kodak Jr. is a simply worked, thoroughly capable camera that will make the kind of pictures you want and the soldiers need.

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213 PACIFIC AVE., WINNIPEG, Man.

she scolded us, but we didn't feel any worse for it, but we never did it again, for it wasn't our method of doing the same thing twice.

Well I guess this letter is long enough, but I could write all day about the silly things we used to do. Oh well such is life; it all goes in to make up a life time.

Hoping that I am successful in winning a prize. I will remain, yours sincerely,
Hilda Hendrickson.

Box 96, Meota, Sask., September 5, 1915

Dear Cousin Doris:—Having seen that two dollars was given for the best letter to Cousin Doris I thought I would try my luck. I am a girl, thirteen years old and live on a large farm six miles from town. We have twenty-eight horses and eighteen cows. I raised two pigs this summer and they are quite big now. I have many pet cats and a pet hen. I am very fond of riding horseback and have a bucking-broncho that I ride twice a day. She does her best to throw me but has never succeeded. I passed out of public school a year ago and intend to go to high school as soon as I can. I have to help mother as much as I can and do some outside work, feeding pigs, horses, cows, pumping water and a few odd jobs.

I have one brother training for the army and another expects to go. I am afraid my letter is getting very long.

Hoping to see this letter in print, and wishing the club every success I am, your cousin,
Kathleen Fitzgerald.

Lucky Lake, Sask., September 7, 1915

Dear Cousin Doris:—Seeing that I have read the letters from the boys and girls in your interesting column I thought that I would try my luck of getting two dollars for a prize letter. I am thirteen years of age. I go to school to which I have to walk two miles, and in the spring when the snow is going off I have to walk two miles and a half because I have to cross a lake and the road does not get dry till about the last of July.

We are taking grades six and seven work. Last year we did not have much time to finish up our grade six work so now we are finishing the work. Of grade seven work we are taking British and Canadian history, narrative poem and prose reading and drawing, and the work which is left in grade six is arithmetic, grammar, geography and spelling. I like to go to school very much. I am living on a farm with my brother and his wife. In order to explain how I came here I will have to tell you of my life if you would like to hear it.

When I was about one year old my real mother died of the dreadful sickness of consumption. I was the youngest in the family. My brother and sisters were all big enough to work for a living, and as they were all away my father could not take care of me so another lady adopted me. Her name was Mrs. Andrew. I lived with her from the time I was one year old till I was ten years old, then she died in Outlook, Sask., on Thanksgiving Day, 1915. Then, as all of my sisters by adoption were single and could not support me, my brother with which I am living now was the only one who could take care of me because he had a farm.

We live about twelve miles from a town named Riverhurst; from one named Dunblane we live 28 miles and from the last named Elbow we live about thirty-five miles. So you can see we can have our choice. The one named Elbow and the one named Riverhurst to go to we have to cross the Saskatchewan River. We most always haul our grain to Riverhurst. I cannot tell you much about running a tractor nor driving horses because I have not done much of that. We have not a very good garden this year. The seeds that we planted did not seem to be very good, but one thing we have some pretty nice potatoes. They are thrashing around here now and we expect to be threshed soon.

Well as my letter is getting quite long I guess I will close and leave room for some one else. So good bye. Your new cousin,
Age 13 years Henry Andrew.

P.S.—Will you please excuse my rough writing. I will try to do better next time.

Pronounced "Phoney" not "Funny"

Johnnie: "Pop, what is 'phonetic spelling?'"

Father: "Phonetic spelling, my son, is what I was spanked for at your age."

Old Dutch Cleanser

Pots and Pans are easy for Old Dutch. It cuts the burnt-in grease like nothing else can do. Just try it once on something hard to clean.



"JUST-A-MINUTE!"
PUDDINGS
Gold Standard
THE ECONOMY DESSERT

Rich in protein—containing 10 flour—delightfully tempting—Gold Standard Puddings—eight flavors—the ideal economy food. Served in combination with Gold Standard Jelly Powders—dishes of unexcelled appearance and flavor—in an infinite variety—are possible.

"Custard Pudding"
Take two tablespoonfuls of Gold Standard Custard Powder to one pint of milk. Mix the powder to a smooth paste with a little of the milk. Set the balance of the milk to boil and when boiling add the mixture and cook for ten minutes; pour in a mould and allow to cool. This makes a most desirable dish when baked in the oven. If a thicker pudding is desired add more powder.

Our Cook Book is ready to mail.
What Address shall we use?
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Birtle, Man., Sept. 23, 1918
Dear Cousin Doris:—I have just been reading the interesting letters of your young folks' page. I saw in your page that you awarded two dollars as a prize for the best letter written. Well, I am going to have a try.

I am going to tell you how I have helped during the war. I am knitting a scarf for the soldiers. I herd the sheep every night when I come home from school. Then I get the cows up and help milk them. I stooked a bit this summer.

I am 12 years old, and I go to school nearly every day. I am in grade VI. We are going to knit socks, too, for the soldiers. Well, I must close, hoping to be a lucky one. From your friend,
Cissy Spencer.

Holmfild, Man., Sept. 23
Dear Cousin Doris:—This is my second letter to your club, but I did not see it in print so thought I would write again. We had a large garden of radish, corn, lettuce and many other vegetables. We had a fine crop of potatoes, some of them weighed two pounds. I caught quite a few gophers this year. We are threshing now, our wheat turned out from 10 to 12 bushels to the acre. I have to stay home from school now to do the chores. Please excuse writing.
Ceal Bennett.

Box 666, Regina, Sask., Sept. 23, 1918.
Dear Cousin Doris:—I have noticed a prize was offered every month so I decided to write. We are very busy on the farm now as it is harvest time. The hired help was very scarce so my girls did our bit. We did all our stooking and general outside work ourselves. We hauled sheaves for the winter and also some hay. I pitched off one load of sheaves at night, and it was fine.

Well, now is potato time. I dug potatoes about four days. We got about 125 bags from the one acre. The children did the peking which used to be my job. This year there was a large yield of potatoes, so there will be lots of potato cakes.

I live five miles east of Regina and four miles west of Pilot Butte, where I attended school. I am fourteen years old and am in Third Class Pt. II.

It is great fun to take your lunch and go berry peking. We got 44 quarts of raspberries this year and some red jam. The bluff is about 16 miles away. Well, I must close, hoping I might win a prize. I remain,
Your loving friend,
Emma Zinkhan.

Gibbs, Sask., Sept. 23, 1918
Dear Cousin Doris:—I have been an interested reader of the young folks' corner for the last five months. I live on a farm six miles from our post office which is Gibbs. This is my first year to say that I have done any more than a few chores, but since help was so scarce this year I worked harder. I helped prepare the seed-bed by harrowing before and after the drill. I helped in the haying season, also the harvest. My father says he is going to let me rake the fields this fall. I am going to fan the leavings from the threshing machine and then sell the wheat when clean of weed-seeds.

We have eight working horses and six colts, four of which were born this spring. We are also keeping four colts for a soldier who enlisted from the farm about two years ago. I can run our Titan 10-20 H.P. engine fairly well.

We had a good garden this year, plenty of radishes, lettuce, peas, carrots, onions, turnips, and also cabbage and corn. The flowers were fine even though they are not of any use in greater production. We will have lots of potatoes, too.

My brother was called on July 9th, but he is home this last month on harvest leave. I think that the club will do a lot in helping to educate the boys and girls of Canada. Well, my letter is getting quite long, so I will close, hoping to have good luck and win the October prize.

I remain,
yours sincerely,
Vernon Nelson.

Piney, Man., Sept. 24, 1918
Dear Cousin Doris:—In the August issue of The Canadian Thresherman and Farmer I noticed for the first time that you award prizes for the best letters.



On the Face of It
Jack: "Grandpa, we've been arguing whether the clock stands or sits on the mantel."

Grandpa: "It is half-past eight by the clock, and it is only a quarter to eight, therefore, I should say it lies on the mantel."

FREE PUZZLE PRIZE \$4500.00

In Cash has been Given Away FREE also hundreds of Merchandise Prizes \$200.00 more IN CASH will be Given Away as follows

1st Prize, \$50.00 in Cash.	2nd Prize, \$40.00 in Cash
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TOGETHER WITH MANY MERCHANDISE PRIZES

Herewith will be found the picture of an Aviator who has just dropped a bomb on a pile of S. S. S. At first glance the Airplane and the Explosion appear to be all there is in the picture, but by careful study the faces of several soldiers will be found. There are 7 of them in all. Can you find them? It is needless task but by patience and endurance can be accomplished.

You may win a cash prize by doing so. Many have done this as will be shown by the names and addresses which we will send you. If you find the faces mark each one with an X, cut out the picture and send it to us, together with a slip of paper on which you have written the words "I have found all the faces and marked them." Write these nine words plainly and neatly, as in case of ties, both writing and neatness are considered factors in this contest.



This may take up a little of your time but as TWO HUNDRED DOLLARS in cash and many merchandise prizes are given away, it is worth your time to take a little trouble over this matter. Remember all you have to do is to mark the faces, cut out the picture and write on a separate piece of paper the words, "I have found all the faces and marked them."



WE DO NOT ASK YOU TO SPEND ONE CENT OF YOUR MONEY IN ORDER TO ENTER THIS CONTEST

Send your answer at once; we will reply by return mail telling you whether your answer is correct or not, and we will send you a complete Prize List, together with the names and addresses of persons who have recently received four Thousand Five Hundred Dollars in Cash Prizes from us, and full particulars of a simple condition that must be fulfilled. (This condition does not involve the spending of any of your money.) Winners of cash prizes in our late contest will not be allowed to enter this Contest.

Upon receipt of your reply we will send a complete list of the names and addresses of persons who have won \$1,500.00 in Cash Prizes in recent contests held by the publishers of this advertisement. Although these persons are entirely unknown to us, they are our references. An enquiry from any one of them will bring the information that our contests are carried out with the utmost fairness and integrity. Your opportunity to win a good round sum is equally as good as that of anyone else, as all previous winners of cash prizes are debarred from entering this contest.

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Messrs. Savory & Moore, Chemists to The King, and makers of the well-known Infants' Food, issue a little Book entitled "The Baby," which gives a great deal of useful information on the Care and Management of Infants.

A USEFUL GUIDE

The book contains hints on Feeding, Teething, Development, Infant Ailments, and such matters as Sleep, Exercise and Fresh Air, which are so important for baby's well-being. It also contains a chart for recording baby's weight, a dietary for older children, and recipes for simple nourishing dishes. It forms, in fact, a useful mother's guide, which should find a place in every home. It is not intended to take the place of medical advice, when such is needed, but it will often serve to allay needless anxiety, and indicate the right course to be pursued.

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Those who are genuinely interested in the subject may obtain a Free copy of the Book by sending name and address on a postcard to Savory & Moore, P.O. Box 1001, Montreal.

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WRITE FOR PRICE LIST

B. LEVINSON & BROS.
281-283 Alexander Ave., Winnipeg

As I am a Line Scout the letter that Gerald Furber wrote attracted my attention, as my brother corresponds with him. I thought I would try my luck. If it don't turn to me I will write again.

I have a garden, which I have kept clean from weeds ever since the seeds came up. Now I am done canning all my vegetables; but turnips, etc., are yet in my garden. Besides my own garden I have kept some of my mother's garden, and most of her onions which was quite a patch. I also helped her to can lie, vegetables. Now I am helping my brother haying while my father is out working because there is a lack of men.

Soon the fairs for the boys' and girls' club will bring their chickens, pigs, calves and potatoes, and many more. "Hooray!"

What a hustle and bustle will be on the fair day. Our fair is on the 1st of October, 1918.

I think I will close now and give some other boy a chance as I am not selfish. I don't care whether I win the prize or not, someone else will get it, and that will be just as good, I should think. So if I win the prize you will surprise me.

Yours truly,
Oscar L. Freeman.

Dear Boys and Girls:—Your letters are very interesting. There are many that we cannot publish this month but will try to get them in the November issue. Every month the prize is offered. I want every boy and girl to read the boys' prize letter and learn of the noble work that particular club of Boy Scouts are doing. Will more boys and girls write of their club work? You cannot write too many letters to us. Wishing every boy and girl the best of success, I am, sincerely,
Cousin Doris.
Address all letters to Pearl Richmond Hamilton, 983 Grosvenor Ave., Winnipeg.

Hay Lake, Alta., September 3, 1918

Dear Cousin Doris:—I saw my other letter in print to-day, and also noticed I haven't been fortunate enough to win a prize this time. However, I'm not discouraged as an old proverb says: "Try, try and try again; those who keep on trying have made the world's best men."

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\$16,000.00 In Prizes for Horses, Cattle
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CATTLE SALES—Annual Sale of Pure-Bred Bulls and Females. Entries close February 1st.

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WRITE FOR PRIZE LIST.
Reduced Rates on All Railways.

J. D. MCGREGOR, President. W. I. SMALE, Secretary.

To us, as to many others, this year has been one of bad luck, and misfortune.

First, our grain dried out (partly) and the rest froze out the 10th of July, which was a very cold night. Have seen in the paper both Manitoba and Saskatchewan have also been touched by that horrible Jack Frost. All of our potatoes have frozen too, so it seems as if there is going to be starvation.

We have about 60 or 70 chickens but we will have to sell them on account of the shortage of grain.

If the grain wouldn't have froze, I would have started to raise pigs, and bought Liberty Bonds, or else Thrift Stamps. Dad would have given me a sow to get me a start. We have about 30 head of cattle, and we milk eleven cows. Last summer we had about sixty sheep, but had to sell them because we didn't have any pasture for them. We had some lambs last winter who left their mother so we took them into the house and fed them on cow's milk. They would suck out a bottle just like a baby. We fed them about the same time every day, and when that special hour came they would come up to the house and bleat until we had fed them. We used to call them by name and they came no matter how far away they were from the house. They were beautiful pets.

To be a Red Cross nurse would be my highest ambition in life. Then I could serve my king and country as my brothers are doing. How many girls would do the same?

I think the Red Cross nurses are doing some splendid work over in France, nursing the wounded boys, who have served their Motherland.

I have written a long letter this time, so I must close with heaps of love, from
Astrid Sikstrom.

P.S.—If Hilda Ohrn will write first I will answer all her letters.

First Aid

First Scout: "Did you hear of the chauffeur who ran over himself?"

Second Scout: "No, how did it happen?"

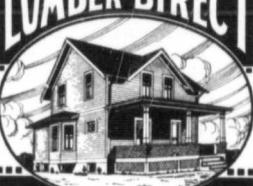
First Scout: "He wanted some chewing gum and there was nobody to go for him, so he ran over himself."

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320-ACRE FARM FOR SALE in the wonderful Dauphin Valley; 250 acres summer fallowed and ready for wheat next spring. Has frame house, one log granary, one from granary and log stable; all fenced; flowing well, good water. Price, \$11,000.00. Apply Owners, Sutherland & Stelck, Hardware Merchants, Dauphin, Man.

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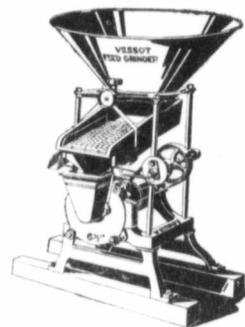
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are made of a special metal, the composition of which is controlled by the manufacturer. There is no Vessot plate except the original, and each one of those, for your protection, is marked plainly with the SV trade-mark. Look for it when you buy.

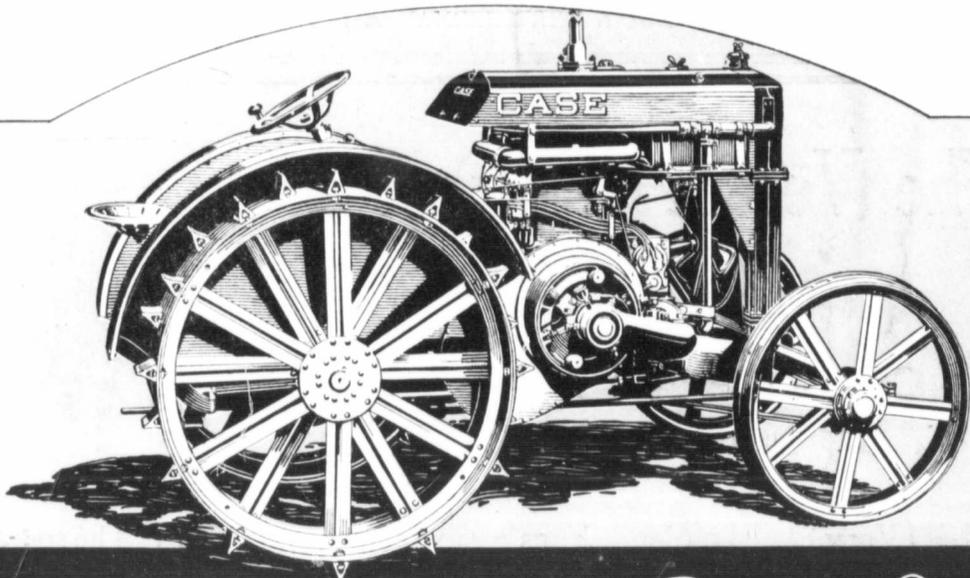
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