



SEEKING NEW FIELDS
TO CONQUER.

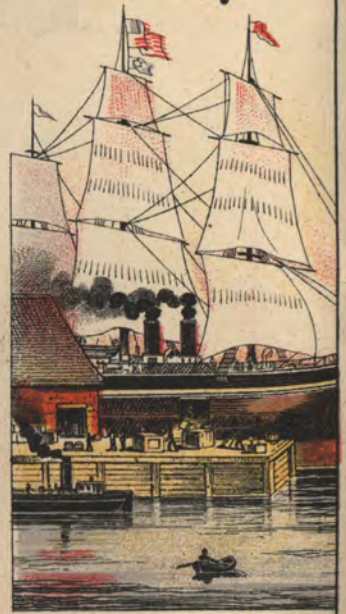
THE LARGEST ON EARTH.

THIS PYRAMID SHOWS
OUR WONDERFUL GROWTH
BEGINNING WITH 50
MACHINES SOLD IN
1844,

AND ENDING WITH THE
UNEQUALED NUMBER
OF 76,534 MACHINES
SOLD IN
1888.



FOR AFRICA,
AUSTRALIA AND
NEW ZEALAND.



FOR ENGLAND, FRANCE
ITALY, RUSSIA AND
SOUTH AMERICA.

1888
SALES
OF
Mc CORMICK
MACHINES
76,534.



THE Mc CORMICK WORKS,
CHICAGO.



THE Mc CORMICK MACHINES EN ROUTE TO ALL PARTS OF THE EARTH.



58TH YEAR

ANNUAL

THE MCCORMICK IS BUSY IN THE

THE LARGEST WORKS
ON EARTH

HARVEST FIELD EVERY DAY IN THE

CATALOGUE

WITH THE
LARGEST OUTPUT
IN THE WORLD

THE WORLD

AND ALL AROUND

THE YEAR

MCCORMICK

HARVESTING MACHINE COMPANY
CHICAGO.

EVER ONWARD.

 Our astonishing output of nearly eighty thousand machines the past year, an increase of twenty-five per cent over that of the previous twelve months, calls for an acknowledgement from us to the Users in the Field.

We take this opportunity to record our appreciation of the quickness with which the Farmers-the best of critics-always have perceived our new labor saving advantages. Their simultaneous discernment all over the world of the merits of our machines, leading to the Greatest Output on Earth, has, if possible, given an added impetus to our ceaseless and sleepless quest onward toward perfection, and at the close of the present year there shall again be witnessed the surpassing of all previous performances by the M^c Cormick.

We have pleasure now in announcing still further advances in simplicity, device, and construction, which are fully described in the following pages; by these advances, most costly on our part, the harvesting of grain and grass will be easier and more economical than ever before to the purchasers of the Best Machine in the World.

M^cCORMICK HARVESTING MACHINE COMPANY.

Chicago, U.S.A.

January 1st 1889.

THE

MCCORMICK LIGHT DRAFT STEEL HARVESTER.

LIGHT,
NEAT,
STURDY.

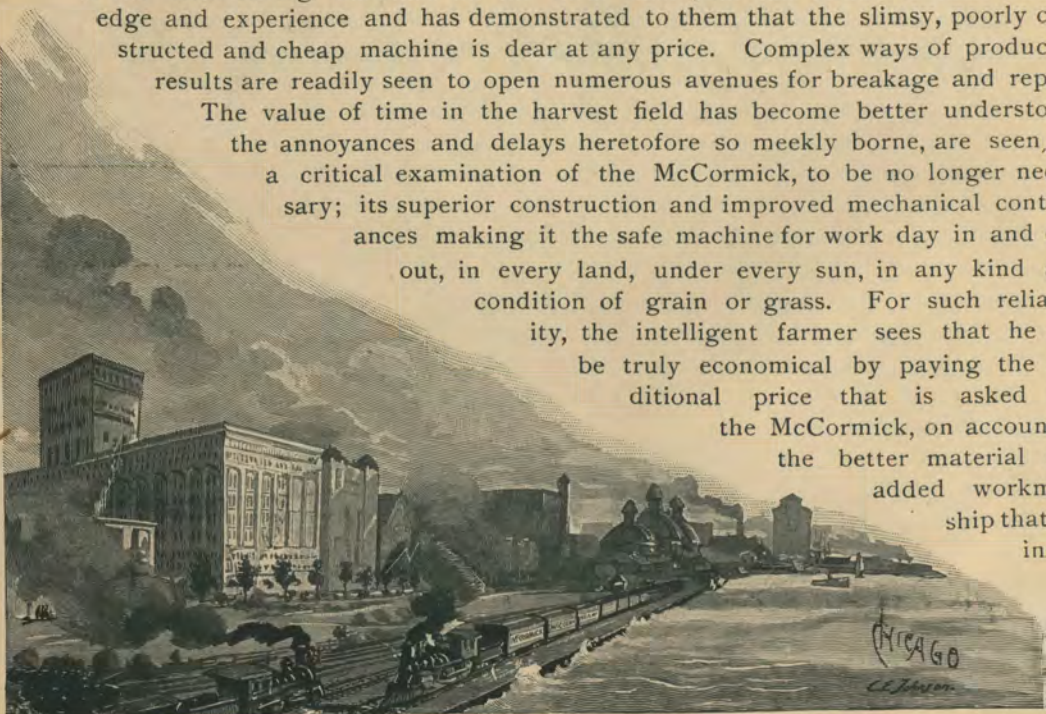
THE
QUALITY
IS IN IT.

LIGHT,
SURE,
CAPABLE.

This is distinctively McCormick's Harvester. For years the various makers of harvesting machines have copied and imitated, as near as they dared, all the many improved methods of operation and forms of construction which we have originated. So bold did they become that we were forced to defend our rights by bringing twenty-six suits against our many infringers, in the United States courts. It is our determination that our square-tube frame with its method of fastening, our steel sway bar in its common-sense position, our springs in the platform and adjuster apron, our improved canvas and our new Binder shall remain, each and all, distinctively McCormick.

The combination of these different features met with a remarkable appreciation during last season, and one-third of all the world's buyers of Harvesters and Binders saw in this unapproachable machine a greater value for their money than they could see in any of the twenty-eight different makes offered for inspection and sale in all parts of the earth. Such a demand as this can be no mere passing fancy on the part of the users of harvesting machines, as the farmers of all lands have become the thoughtful investigators and the expert judges of mechanical contrivances. Since the adoption of the labor-saving machines on the farm each year has added to their knowledge and experience and has demonstrated to them that the slimy, poorly constructed and cheap machine is dear at any price. Complex ways of producing results are readily seen to open numerous avenues for breakage and repair.

The value of time in the harvest field has become better understood; the annoyances and delays heretofore so meekly borne, are seen, by a critical examination of the McCormick, to be no longer necessary; its superior construction and improved mechanical contrivances making it the safe machine for work day in and day out, in every land, under every sun, in any kind and condition of grain or grass. For such reliability, the intelligent farmer sees that he can be truly economical by paying the additional price that is asked for the McCormick, on account of the better material and added workmanship that are in it.



**EXAMINE OUR
YET STURDY MAIN FRAME
DEPENDS THE LIFE**

The faults that a
the slimy foundat
a fatal way the work and life of the ma-
chine, that we desire again to refer to the
square tube that we have adopted, the method
that we have of uniting it, and the wonderful
success that has been attendant upon its use.
You who have run machines of other makes, and
have had their foundations springing, buckling,
bending and twisting, causing the shafting to
bind and the boxing to wear, do not need to be

warned against the slimy founda-
tion. It is to those who have
been so fortunate as to have had
no trouble of this kind
that we wish to sound the
note of warning. The agent
of the slimy machine is even now
on his round, trying to find some one
who will believe his oft told stories.

Last year he was agent for
a machine with a wooden
frame, and insisted that
the wood would
never rot,
shrink, or
warp, and was
far better than
iron or steel for any purpose.

75,000

IN ACTUAL USE.

NEVER ONE WARPED.

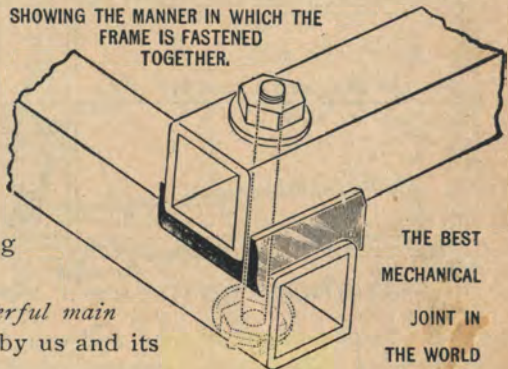
TWISTED OR SPRUNG.

The most plausible story he could tell, sup-
plemented by promises which he had no power to
fulfill and offers to discount his price so that it would be one-fourth lower than that of the
McCormick, all failed to make him any sales. This year, determined to have some-
thing that he could call a steel machine, he has got one with gas pipe sills, and is insist-
ing, totally disregarding facts, that its sills are of steel and that even though they are round
they will not twist and cut the bolts that are intended to hold them.

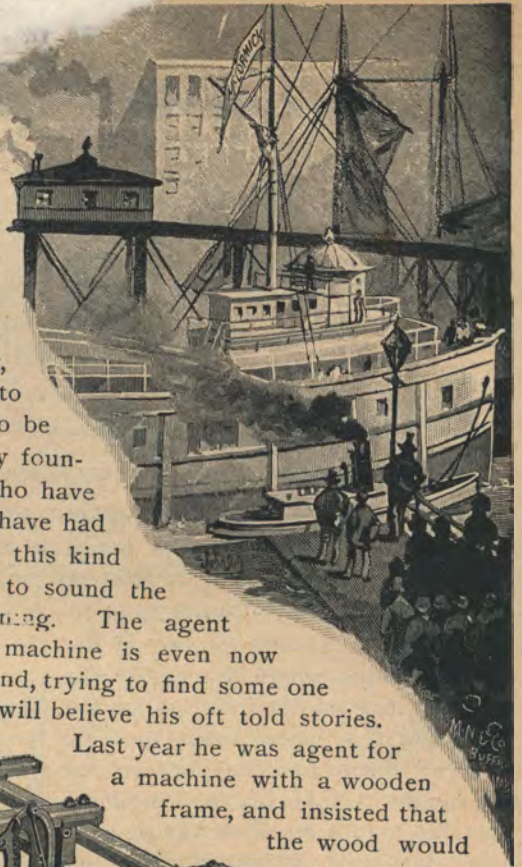
The mechanic, when he wishes to unite two
sticks of round timber, first hews them down so
that their faces will be plane surfaces; if he wishes
to keep them from twisting and moving, he will
mortise them so that they will fit one to the other.
All this has been done in our square tube frame.
The joints are mechanically made, and the mal-
leable iron joint plates render any twisting and sag
ging clearly impossible.

We wish to again remind you that it is a wonderful main
frame that the McCormick has its form fashioned by us and its
connections made under our patents.

SHOWING THE MANNER IN WHICH THE
FRAME IS FASTENED
TOGETHER.

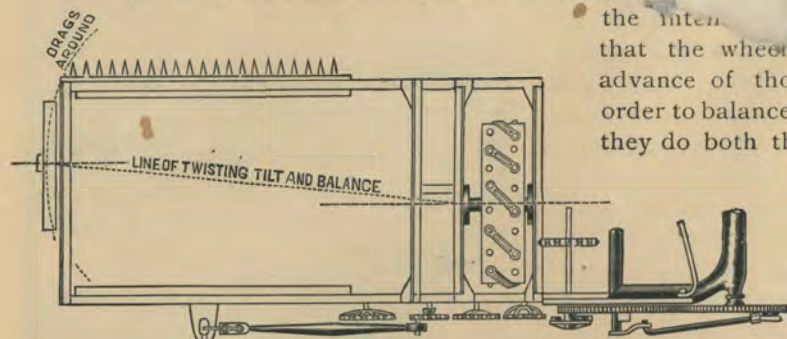


THE BEST
MECHANICAL
JOINT IN
THE WORLD



DOES THE MAKER OF WAGONS
ADVANCE OF THOSE UPON THE OTHER? We
could not find a customer at any price. The
construct their harvesters in this manner,

THE
E OF THE BODY IN
would be useless, and
Binder, however,
ators will prevent
the inten...ser from noticing
that the wheels upon one side are in
advance of those upon the other. In
order to balance their machines, having as
they do both the gearing of the Binder
and Harvester in the rear,
they are forced to place
the main wheel back in
the main frame, so that
it will be from twelve
to twenty inches be-
hind the grain wheel.



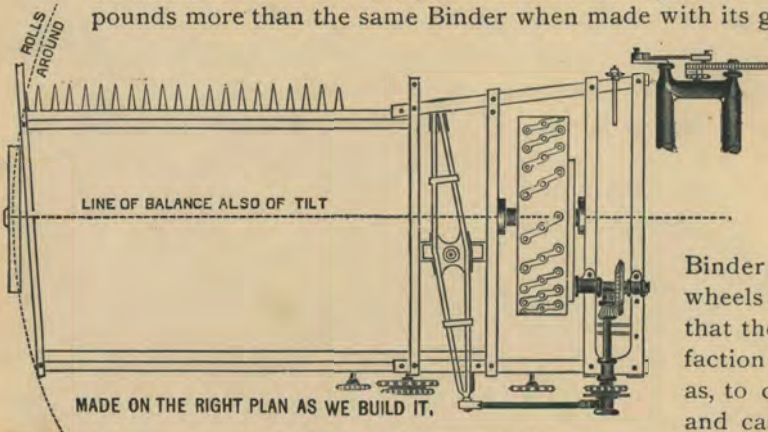
MADE ON THE WRONG PLAN AS OTHERS BUILD IT.

THE CART WITH WHEELS AT THE OPPOSITE CORNERS OF ITS BODY WOULD BE OF VERY SHORT LIFE. IN TURNING IT WOULD DRAG AND PLOW THE GROUND, AND THE STRAIN ON THE UNSUPPORTED CORNERS WOULD SOON CAUSE IT TO WARP AND TWIST, while in soft ground it would take an extra

horse attached to the ends of the shafts to keep it moving straight ahead. This is just as true, only in a greater degree, of the Harvester that has the rear-geared Binder. In such a machine, where the grain wheel is so far ahead of the main wheel, when the Harvester is tilted down to pick up lodged grain, the outside front corner of the frame will drop about four inches lower than the front corner of the grain-wheel side. When the wheels are out of line, the platform must always be kept level, to have the stubble all the same height. If it is not, and the machine is not cutting a full swath, the sickle at the elevator side of the machine will be cutting off the tops of the stubble of the swath before. These short ends will lie along the inner end of the bar, and clog the elevators. So great is this trouble in some rear-geared Binders that a relief rake is absolutely essential at the bottom of the elevator to throw these stubble ends back upon the grain so they will pass up the elevator. There is no need of saying more on this point.

IN THE McCORMICK HARVESTER THE GRAIN WHEEL AND MAIN WHEEL ARE UPON THE SAME LINE, THE MACHINE BALANCES AND TILTS UPON THIS LINE, AND TURNS WITH THE SAME FREEDOM AS THE CART.

The machine has the same tilt at all points, its balance is perfect, there being no weight upon the horses' necks, and, in turning, the grain wheel rolls around. We will explain, when we speak of our Binder, why it is that the rear-geared one must weigh at least sixty pounds more than the same Binder when made with its gear in front. This weight,



MADE ON THE RIGHT PLAN AS WE BUILD IT.

together with the bad effect of the twisting tilt, caused one of the oldest manufacturers of harvesting machines to discard and throw away a machine that had its

Binder geared in the rear and its wheels out of line; thus showing that there must be great dissatisfaction with such construction; as, to change the forms, patterns and castings of a whole factory

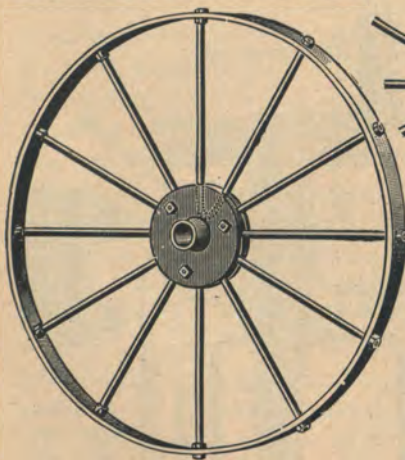
takes a large amount of time and can only be done at great expense. For stability and long life of the machine and for ease on the horses, the McCormick is built on the right plan.

value of such a wheel draft, yet our carries our present Harvester and Binder. We have done this with the old methods of other makers by casting steel spokes deeply into the hub and fitting wide jamb nuts upon their outer ends that are forced by means of powerful wrenches into holes made in the felloe of the wheel, so that it is perfectly round and rigid. After years of use, when the spur wheel has become worn, it can be removed from the hub and replaced by a new one. It is keyed to the end of the hub and rigidly held in place, being bolted to the felloe of the wheel by four double-nutted stay rods. When cast on the hub, as is done by others, it is as cheap to buy an entire new wheel as to undertake to replace it.

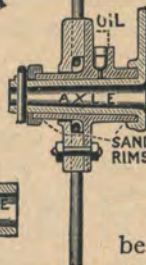
To be continually oiling the main wheel takes much trouble and time, as the holes are rarely in place and it is difficult to move the horses to bring them so. On this handy machine a large cup fitted into the central cavity of the hub holds sufficient oil for half a day.

WHAT PART OF THE OLD MACHINE OF OTHER MAKES WORE OUT MORE QUICKLY THAN ITS GRAIN WHEEL? There were a few, but not many. To

VIEW OF GRAIN WHEEL.



SECTIONS OF GRAIN WHEEL.



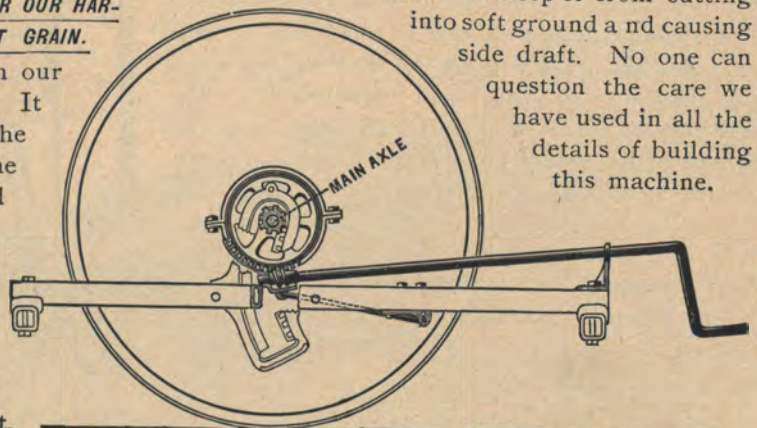
keep ours from wearing we protect the axle from the dirt by sand rims, and have a

large oil cup, to keep it always supplied with oil. We also make the box of the wheel removable, so that when it becomes necessary it can be replaced at small cost. The wheel is of our patented double-spoke construction. The spokes and tire are of steel, which allows the wheel to be very light, and still strong and rigid. It is very important to have lightness and strength in the grain

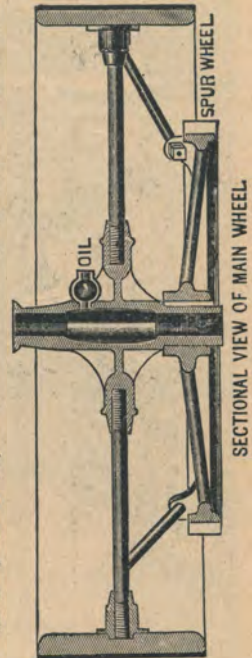
wheel to keep it from cutting into soft ground and causing side draft. No one can question the care we have used in all the details of building this machine.

IT DOES NOT REQUIRE THE STRENGTH OF A MAN TO RAISE AND LOWER OUR HARVESTER FOR LONG AND SHORT GRAIN.

A boy can now do it with our simple crank screw device. It is closely shielded so that the dirt can not work into the cogs, and the rubbish carried up by the main wheel will not, as it falls back, catch upon the handle and drag. The grain wheel is also as well fitted with a light malleable iron lever and ratchet for easy adjustment.



A small boy can turn this crank, it is so easy to raise and lower.



SECTIONAL VIEW OF MAIN WHEEL

**THE QUESTION OF
DURABILITY IS AN IM-
PORTANT ONE IN THE
CHASE OF ANY MACHINE.**

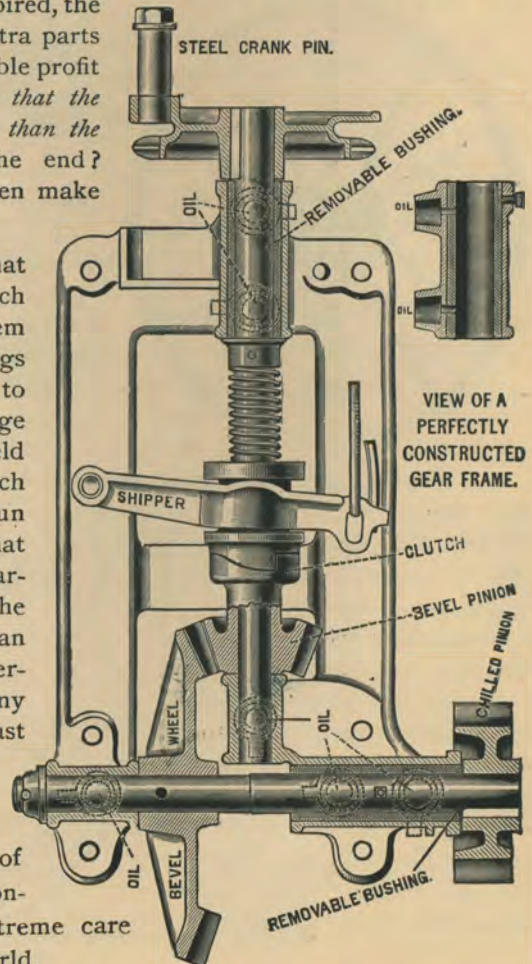
though the utmost care be taken, the dust rising from the dry ground and enveloping the machine will work into the boxes, and, unless they are fitted to hold large quantities of oil and to deliver it at all points of the bearings, great wear will ensue.

The friction consequent upon this wearing largely increases draft, and the many bad effects of boxes cutting and shafts binding, make the whole machine dependent upon a correctly constructed and well fitted gear. The machine with a cheaply cast main gearing is offered for sale with many boasts of its durability and frequent reiterations of, "It is just as good as the McCormick." For a year or two it does the work, and then it is necessary to go to a large expense to replace it. The time for which the

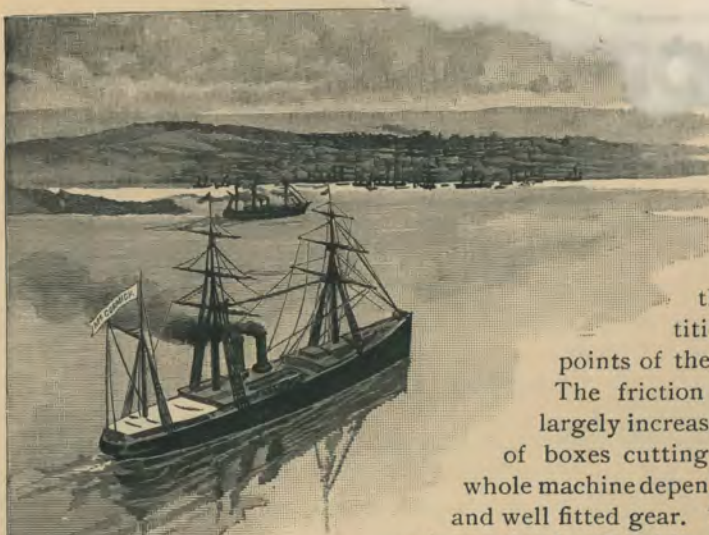
machine was warranted has expired, the purchaser has to pay for the extra parts and the manufacturer makes a double profit from his deal. *Is it any wonder that the cheap machine can be sold for less than the McCormick? Will it be cheaper in the end?*

Notice the construction of this gearing, and then make your own answer.

THE MAIN PINION IS CHILLED, which means that the cogs, being cast in a steel mold, cool much more rapidly than the center, thus making them as hard as steel. The bearings of the bevel and fly wheel shafts that are liable to wear are made very long and bored out large and fitted with removable bushings that are held in place by set screws. These bearings have each double oil cups, so that no part of them will run dry. The main box is cast in one piece, so that there can be no binding of the shafting nor wearing of the bevel wheel and bevel pinion. The bushings are easily removable, and new ones can be replaced at a small expense. It was our determination to make this the best gear upon any harvesting machine, and, while we could have cast the crank wheel and pin together in the same mold with no added expense, the feeling that the intelligent farmer wanted the best and only the best caused us to go to the added expense of fitting in the wheel a turned steel pin. The construction of this gearing is typical of the extreme care taken in building the best machine in the world.

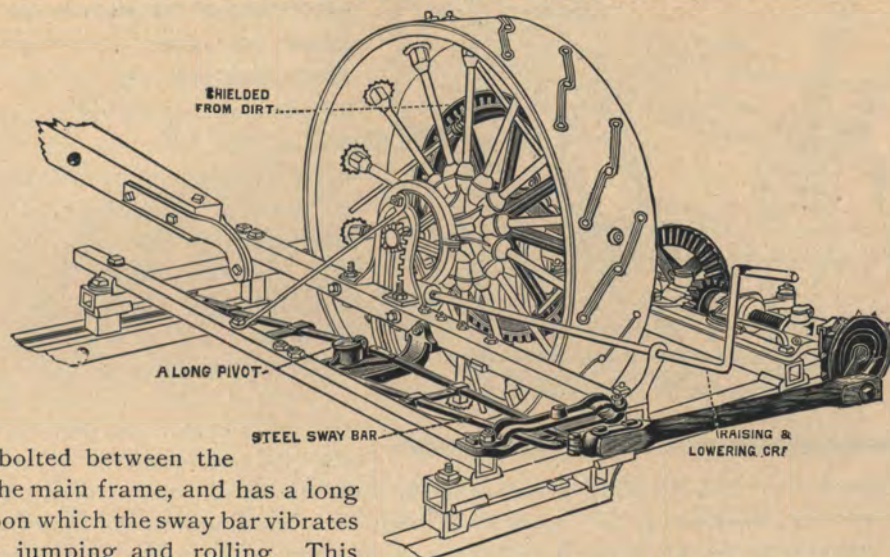


ENTERING
HARBOR
MELBOURNE.



WE ARE OVERWHELMED BY THE MANY TESTIMONIALS THAT SPEAK ESPECIALLY OF THE LIGHT DRAFT OF THIS ^{OF} ~~IN~~ PICKED UP AND many of our other special devices helped to produce this easy draft, yet our STEEL SWAY BAR IN ITS COMMON-SENSE POSITION did its share. Working as it does like the walking beam of an engine, always in the same plane, it moves the sickle back and forth with a smooth positive movement. Its center support is

STRENGTH WHERE STRENGTH IS REQUIRED.



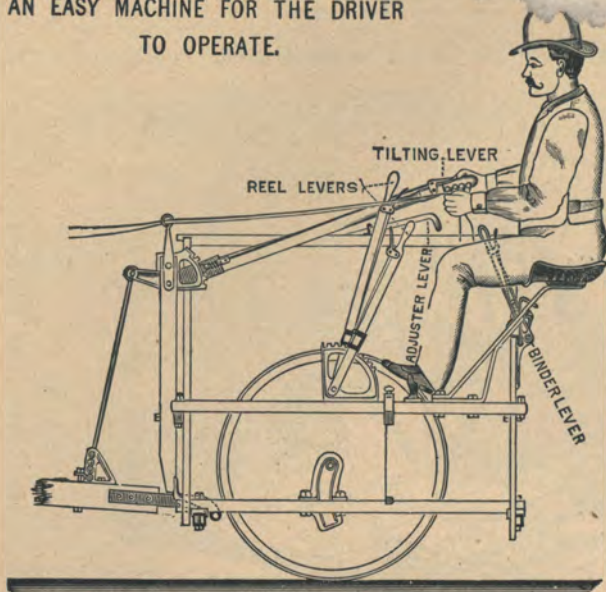
THIS WHEEL AND FRAME HAVE NEVER BEEN EQUALED.

rigidly bolted between the sills of the main frame, and has a long pivot upon which the sway bar vibrates without jumping and rolling. This center support can not spring and warp and thus allow the sickle to lose part of the stroke through the guards. The sway bar is trussed so that it will not spring and the sickle has a more positive movement than ever before. It is another one of our patented devices, and while more costly than the front drive and the slimy and continuously breaking wood sway bars in the center of the platform, it has, with other improved devices, been found necessary in order that the whole machine shall be kept to its high standard. A glance at the cut will show a small part OF THE SHIELD THAT COVERS THE SPUR WHEEL AND PINION, and which, being fastened to the axle, follows the spur gear in all its adjustments, keeping it free from dirt and trash. This shield is another one of the devices found solely upon the McCormick machine.

The above cut shows the neat and symmetrical arrangement of the main wheel, gearing and sway bar in the frame, and that there is plenty of room for any dirt that may be carried up by the wheel to pass back to the ground without catching on the frame and lifting device, and encumbering the machine. It also shows the gearing, lifting crank, pitman and sway bar in the rear of the machine where they are handy to get at and oil, and where they assist in balancing the reel and cutting mechanism, which are of necessity in front. No Harvester and Binder made is more symmetrical, and has its parts better arranged than this one.



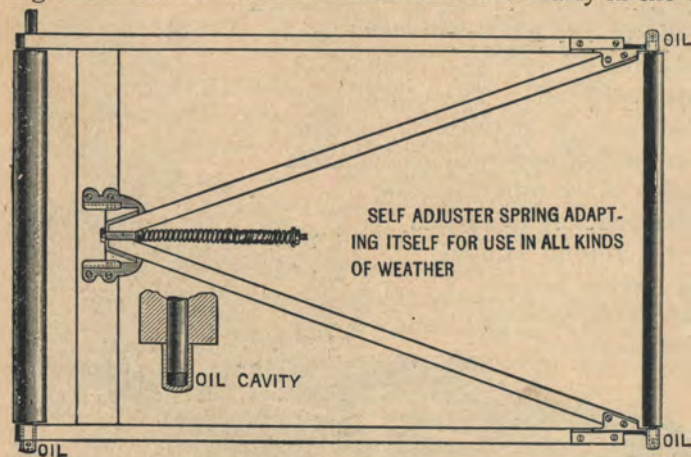
AN EASY MACHINE FOR THE DRIVER
TO OPERATE.



also the adjuster to carry it evenly down the deck, while the Binder has to be moved so that the band will be placed about the center of the bundle. Each and all the levers for these different movements are close at the driver's hand, and so arranged that they can be operated with the greatest ease. There is no excuse for the driver who does not make a good bundle when upon this handy machine.

WE LEAD IN THE IMPROVEMENT AND BETTER CONSTRUCTION OF ALL THE PARTS OF THE MACHINE THAT TEND TO MAKE IT LONGER LIVED, OF EASIER DRAFT AND MORE RELIABLE.

The extreme care we have taken with our platform rollers, canvas and guides justifies this statement. The contracting of the canvas when the machine is used early in the morning or at any time when the



grain is damp, causes great strain upon the rollers, straps and cloth, resulting in breakage and greatly increased draft. So troublesome has this continuous adjustment of the canvas been, that inventors for years have tried to substitute for it chain belts, vibrating boards and rakes, but without success. We have remedied all this by placing the small roller in an adjustable spring frame, so that it will remain perfectly true and keep the canvas always

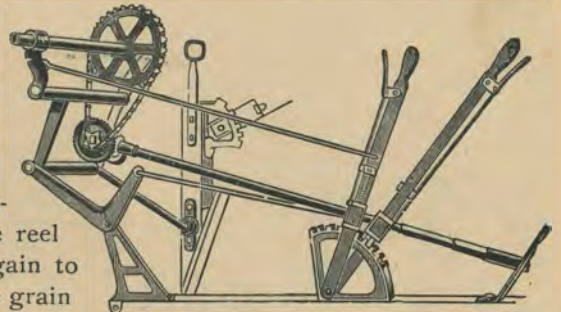
at the same degree of tightness. We have also fitted the guides with metal boxes, made long, to hold a large quantity of oil. The driver who has had to leave his seat several times during the course of a morning to tighten his canvas, or who has had the rollers cut into the wooden guides so that they have not run true, knows well the value of the improvements we have put upon this platform. It is another of our patented devices, for which we have been solicited to allow the use upon other machines. Its use means the saving of several canvases during the life of a Harvester, and its cost is another reason why we can not sell this superior machine at the same price as those of other makes.

WE PAID PARTICULAR ATTENTION TO THE DURABILITY AND THE PROPER CONSTRUCTION OF THE PARTS HERETOFORE DESCRIBED, STILL THE CONVENIENT ARRANGEMENT OF THE MACHINE, SO THAT THE DRIVER CAN EASILY ADJUST IT, HAS NOT BEEN FORGOTTEN.

In the old Reapers he had nothing to do but guide the horses, but now the good work of the machine is largely dependent upon his care in operating its different mechanisms. The grain must properly reach the Binder before a well formed bundle can be made, and upon the same field its condition is often such that the tilting lever is called into play to pick up down grain, the reel must be put into position to properly place it upon the platform, and

THE COST OF THIS MACHINE WILL BE RETURNED TO THE PURCHASER BY THE LODGED GRAIN THAT WILL BE PICKED UP AND SAVED BY ITS STURDY AND CAPABLE REEL. But this

saving of grain is not the only result accomplished, as with this reel that is capable of forty-five different positions, forward or backward, up or down, the grain can be placed upon the platform so as to be carried to the Binder and make a well-formed bundle. A single movement up and down is not sufficient, as the varied length and thickness of the straw, which frequently occur in the same field, require the reel many times to be well ahead, and then again to be back over the platform in order that the grain may be laid properly. The two levers close at the driver's hand enable the operator to quickly place it in any position.



ADMITTED TO BE THE BEST REEL IN THE MARKET.

Not only is it capable of these different adjustments, but its plan of construction is of the very best. Its bearings are very wide, made of malleable iron and steel, in a trim and tasty manner, to make them light. The wide bearings give the reel great strength in picking up tangled grain, and prevent the shaking and wobbling that are such faults on very rough ground with the poorly constructed reel. The shaft is of wrought iron, sleeved at its bearings, and while it would cost one-sixth less to use but five sets of arms and boards, we do not, after all the care we have taken in the construction of this reel, wish to attempt its cheapening in this manner. Not only this, but the five-armed reel has to be driven one-fifth faster, which in light grain causes much scattering. Do not forget when you are about to buy a machine what an essential element a capable reel like this of ours will be in its good work.

THE SUCCESSFUL MACHINES OF TO-DAY ARE ONLY MADE SO BY CAREFUL ATTENTION TO THE DETAILS OF THEIR CONSTRUCTION. The time of doing great things carelessly in reaper building has passed, and the age of doing small things carefully is rapidly approaching. Many a

small fault makes a worthless machine. The aprons that carry the grain to the Binder are more liable to become worn and to be replaced with new ones after three or four years of use than any other part of the machine.

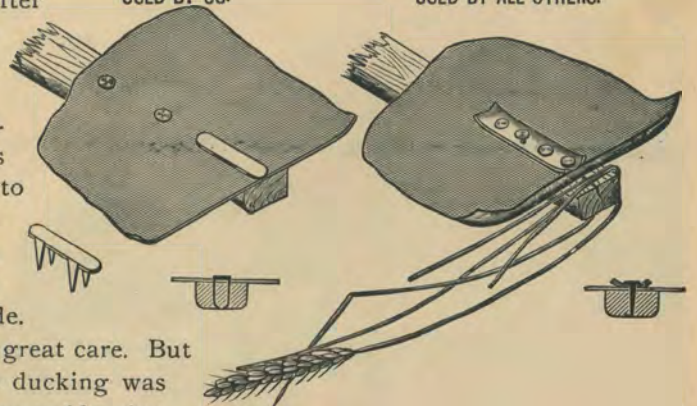
To make them more durable, we use the best grades of ducking—that in the platform canvas weighing twenty-seven ounces to the yard. Its cost is thus increased seventy cents on each apron above what it would be with ducking of the ordinary grade.

The straps are also selected with great care. But all this would avail little if the ducking was not kept from rolling up at the edge and leaving

the end of the slats exposed to catch on obstructions and to carry straw. We are again pioneers, **WITH A PATENTED FOUR-LEGGED CLIP** that can be driven close to the end of the slat without splitting it. The legs of the clip form a perfect lock, and make it impossible for the canvas to turn up or be torn from the slat.

**OUR PATENTED CLIP
USED BY US.**

**OLD METHOD OF FASTENING
USED BY ALL OTHERS.**



We are sure that this is a valuable improvement, as anything that will tend to increase the life of a canvas is worth money to the user of the harvesting machine.

When the grain is free from grass and weeds and its stalk is dry, it cuts comparatively easy, but when it is damp or filled at its roots with grass and weeds, the knife that does not fit closely on a sharp steel-faced guard, will only hackle it, and the machine in its forward movement must tear grain and grass apart. The stubble shows by its ragged appearance the additional power required to draw the machine, and its wavy appearance shows how the platform will sag as the guards become clogged, and when finally pulled loose, how it will jump forward again.

To make a perfect cut the sickle should lie closely upon the face of each guard, so that each section and its guard will have as smooth a cut as a well fitted pair of shears. We fully recognize the importance of this, and are using the utmost care in fitting our guards to the angle iron cutter bar, so that they will be perfectly true, and as the steel ledger plate extends to the rear of the guard, not only is the cut perfect, but the bar of the knife moving upon the steel surface, gives as near a

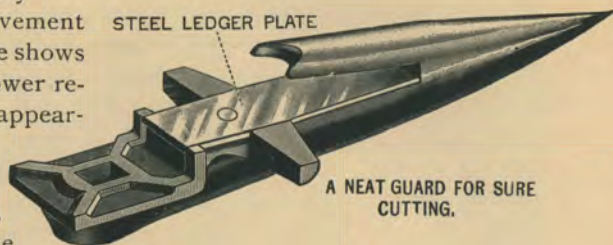
frictionless movement as can be obtained.

This improved cutting

guard and well fitted cutting mechanism have done their part with the many other special devices of which we have already spoken to make this Harvester of such light draft.

A FLAG AIDS IN THE GOOD WORK OF A MACHINE BY PREVENTING THE WIND FROM DISTURBING THE GRAIN AS IT FALLS UPON THE PLATFORM, AND ALSO IN PREVENTING A FEW LIGHT HEADS FROM BEING THROWN TOO FAR BACK BY THE REEL.

We show a cut of ours that you may see how neat and fast it is when compared with the clumsy ones upon other makes of machines. It is fastened to the seat plank, close to the driver, by a thumb nut clamp, and can be set in any position in a moment's time. It is rounded at the corners and set sufficiently above the platform apron so that it will not retard the heads of the grain in their movements toward the elevators.



**WE HITCH OUR HORSES
TO THE MACHINE SO THAT
THEY WILL DO EQUAL
SHARES OF THE WORK,
NOT ONLY IN
DRAWING IT BUT
ALSO IN TURNING IT
AT THE CORNERS AND
IN STEADYING IT ON ROUGH GROUND.**

The three-horse neck yoke that we have adopted will be appreciated by all users whose teams are not in the habit of working three abreast. It will keep the outside horse from crowding, lagging or forging ahead, and will make him do his share of the work in steadying and turning the machine. There has been many a good horse heated more than he should have been in some of the extremely hot days of harvest, because the outside one crowded him too much. The driver who has regard for his team can not afford to be without a McCormick machine.

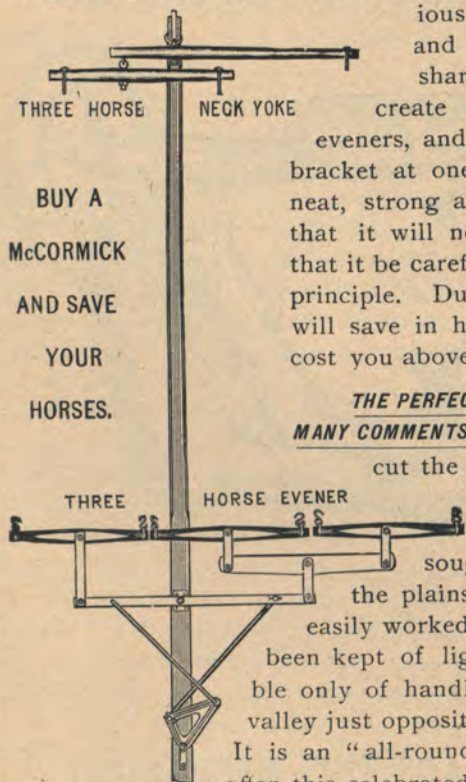
OUR EVENER HAS A DIRECT TONGUE DRAFT, being attached to the tongue, close to the main frame of the machine. By an ingenious arrangement of the triangle and draft rods, the horses do equal shares of the pulling. It does not create side draft, as do most other

eveners, and especially those that are set upon a bracket at one side of the tongue. This evener is neat, strong and still very light, and is so attached that it will not split and cut the tongue. We ask that it be carefully examined, as it is built upon the right principle. During the life of the machine, this evener and yoke will save in horse flesh what this durable, well arranged machine cost you above the cheap one of slimy construction.

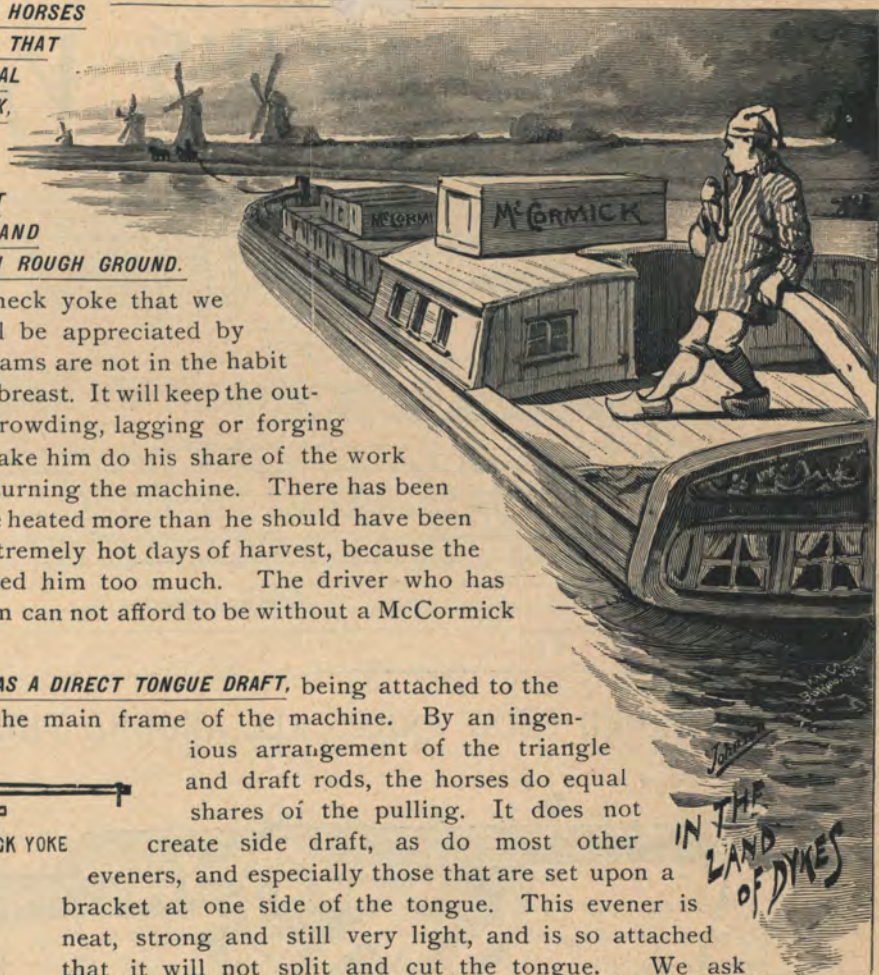
THE PERFECT SYMMETRY OF THIS MACHINE AS A WHOLE HAS CALLED FORTH MANY COMMENTS. It is a machine of stability and durability, fitted to

cut the grain of any country, whatever be its kind or condition. It has always been a victor in the fields of lodged and tangled rye, and has been equally sought after to handle the lighter stalk of the wheat of the plains. Its improved, well fitting mechanisms make it easily worked while by the use of steel and malleable iron, it has been kept of light weight. The user does not want a machine capable only of handling the light grain on the top of the hill, because the valley just opposite is liable to have a growth that will tax the sturdiest. It is an "all-round" machine that the farmer wants, and as such we offer this celebrated one of ours. When fitted with our light steel Binder,

which we will now describe, we are proud to mark it **McCORMICK**, a name victorious for the last fifty years. It is the best machine we have ever built, and with confidence we inscribe upon it, **THE BEST IN THE WORLD.**



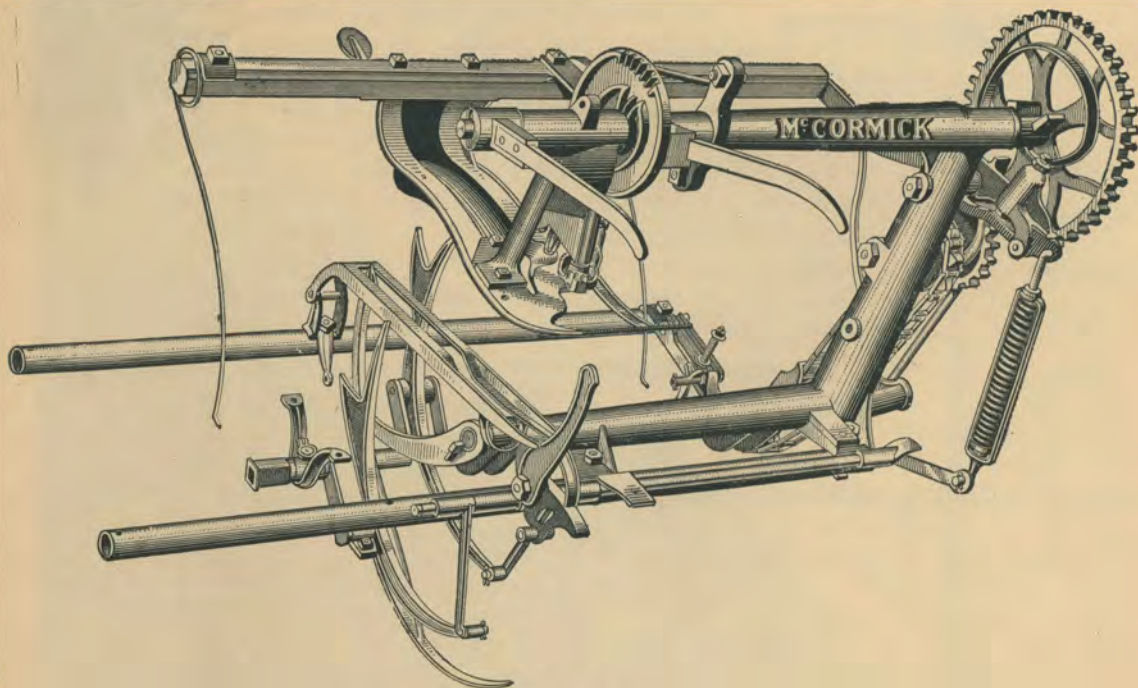
**BUY A
McCORMICK
AND SAVE
YOUR
HORSES.**



THE WORLD'S VICTOR

TELEGRAM			
RECEIVED AT			
Office of McCormick Harvesting Machine Co.			
NO. 212 MARKET STREET, CHICAGO.			
RECEIVED	SENT BY	MESSAGE	TIME RECEIVED
15	Pm	41 Pd	8 1/2 and
Dated Melbourne Australia 7/15 1889			
McCormick Harvesting Machine Co.			
Chicago USA.			
McCormick light steel Harvesters and Binders wins the grand gold medal also awarded special mention for new device and simplicity at Melbourne 1889 Exposition in competition with all American Canadian and English manufacturers			
Ackerman			

AWARDED FIRST PRIZES ALL AROUND THE EARTH!



OUR UNAPPROACHABLE BINDER LEADS THIS MECHANICAL AGE IN GRAIN BINDING!

THE MCCORMICK LIGHT BINDER

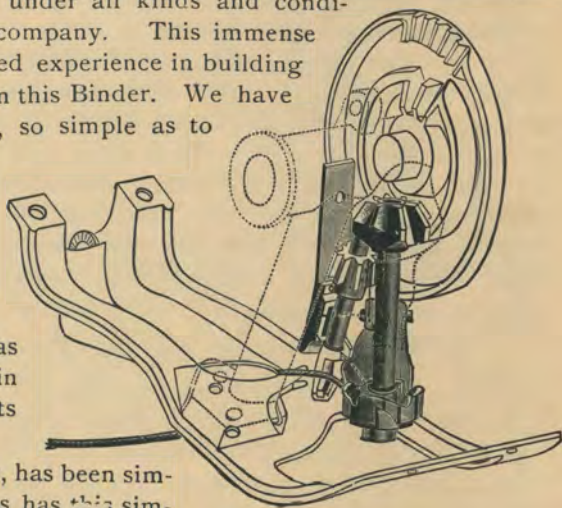
YEARS IN ADVANCE IN ACCURACY.

A SHORT DESCRIPTION OF THIS SUPERLATIVE DEVICE.

This is most distinctively McCormick's Binder. What we have to say will be applicable only to it.

The fundamental requirements of a Binder are simplicity of construction, accuracy in tying the knot, and the formation of a bundle that can be set into the shock and finally taken to the stack and threshing machine without waste and loss. The necessity of having simple machines upon the farm is well understood. The complicated mechanism will do for the work shop, where the conditions and work are always the same, and where the operator is the trained mechanic. Upon the farm, however, where the conditions under which the work is to be done are never twice the same, and where the operator, though he may be the trained locksmith, has nothing but his monkey wrench and hammer with which to adjust complicated devices, they will be useless. For years we have been building Harvesting Machines, and we have more Binders running to-day, cutting the different grains in every land, under all kinds and conditions of circumstances, than has any other company. This immense number of machines has given us an extended experience in building and in the field, all of which has been utilized in this Binder. We have made it a machine for work upon the farm, so simple as to be easily understood, and with so few parts, arranged upon the most improved plans, that it is impossible for them to get out of fix. The earlier Binders weighed 800 pounds. The first Appleby weighed 400 pounds. *The present McCormick weighs less than 200 pounds.* This decrease in weight has been followed by a corresponding decrease in parts. By a glance at our new knotter, its wonderful simplicity can be seen.

The whole Binder, in all its many details, has been simplified and improved to as great an extent as has this simple knotter, and we now unhesitatingly say that it is lighter, more simple and will do better work than any Binder made.



TRULY A SIMPLE KNOTTER.

THE FORMATION OF A SQUARE BUNDLE— bundle that can be set into a shock that will stand—is dependent upon the getting of the grain to the Binder in the best shape. The reel of the Harvester, of which we have heretofore spoken, can be so set for any kind and condition of grain as to throw it properly upon the platform, and the flag at the rear of the platform prevents the scattering of any loose heads. Upon no machine made are these mechanisms so fitted for this work.

As the grain passes down upon the deck of the Binder, **THE APRON UPON OUR IMPROVED ADJUSTER MOVES WITH THE BUTTS** and makes the grain flow evenly

between the breastplate and retaining springs, where it is held for binding. **NO PART OF THE MECHANISM FOR FORMING A SQUARE BUNDLE IS SO IMPORTANT AS THIS LONG ADJUSTER.** In

our continuous experiments in the field for years past, we have tried all the many devices for getting the grain in a position to make a square bundle when bound, but have found none that is so satisfactory as this long adjuster in the special

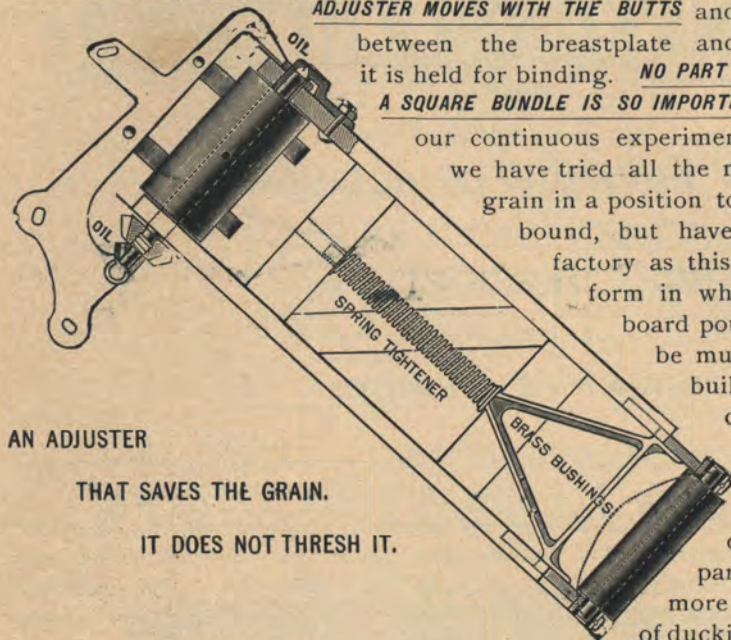
form in which we build it. A vibrating board pounding the grain back would be much cheaper; in fact, we could

build this endless apron adjuster of ours for half the money, but

it is in such places as this, where good work and durability are required, that our

construction challenges comparison. To make the adjuster

more durable the apron is of the best of ducking, which is especially made for



AN ADJUSTER

THAT SAVES THE GRAIN.

IT DOES NOT THRESH IT.

the purpose, and the slats are tacked to it with our patented clips. The end of the apron is kept from fraying by two straps of iron that pass outside of the large roller. They close the flap over the opening in the apron so that it will not fill with straw, and thus the very annoying fault in other adjusters of the straw wrapping about the rollers is avoided.

THE LOWER ROLLER IS SET IN AN IMPROVED SPRING FRAME THAT KEEPS THE CANVAS ALWAYS TIGHT AND RUNNING. This roller runs in brass bushings, and the large one at the upper end

of the frame being also bushed, the buyer need have no fear that this very essential part of the machine will be giving him trouble. Do you ask what this all amounts to, and why so much has been said? We answer, that it is such places as these that cause worry and annoyance to the user, and many times force him to throw away his machine while all the other parts are still in good condition. The making of these different parts of the machine, in a workmanlike manner, also means thousands of dollars to us in the cost of

the output of our machines during a season. **WHEN THE POORLY CONSTRUCTED MACHINE IS OFFERED FOR YOUR INSPECTION, AND ITS PRICE IS MUCH BELOW THAT OF THE McCORMICK, DO NOT FORGET THAT ITS PRICE SHOULD BE LESS, BECAUSE IT COSTS LESS TO MAKE IT,** and also remember

that price never depreciates in as great a ratio as quality.

IN ORDER TO HAVE THE BEST BOUND BUNDLE, THE BAND MUST BE AS NEAR THE CENTER AS POSSIBLE. The adjuster should be so set that it will move the butts of the grain forward

and even them while the whole Binder should be placed by the driver in such a position that the middle of the grain will pass beneath the breastplate. The Binder being mounted upon rollers, and its movement being so easy and rapid, there is no excuse whatever for any driver to allow the bands to be choking the heads or slipping from the butts when he is using one of these well arranged and convenient machines.

IN ORDER TO HAVE THE BEST BOUND BUNDLE IT MUST BE TIGHTLY COMPRESSED AND THE SMALLEST AMOUNT OF TWINE POSSIBLE USED TO ENCIRCLE IT. Upon all other Binders

the needle from the upper side of the bundle and the compressor from the lower side compress the bundle into a certain fixed space between the breastplate and the deck.

In addition to this amount of compression, we have a device beneath the bundle that compresses it toward the breastplate. This compression is

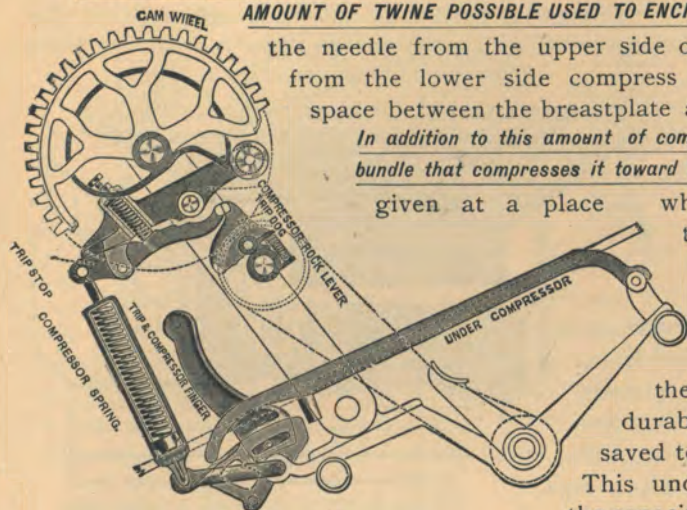
given at a place where a still further compacting of the bundle can be made with but little power. The saving of twine made in each bundle is but small, but in the thousands of bundles of a harvest and during the many harvests of the life of this durable machine, sufficient will be saved to more than pay its additional cost.

This under compressor not only acts in the capacity which we have named, but also PERFORMS THE VERY IMPORTANT FUNCTION OF A SUPPLEMENTAL TRIP. In badly lodged and tangled

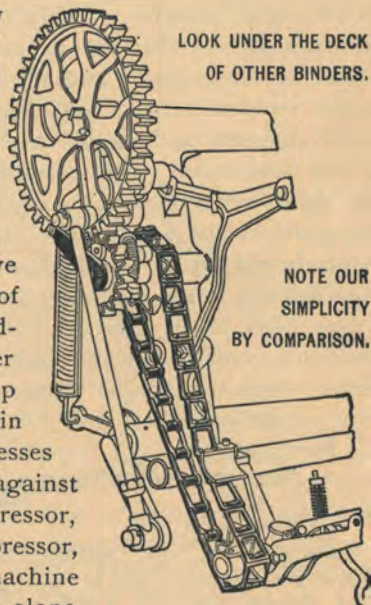
grain that is liable to clog on the average Binder before it reaches the trip finger, the pressure of such clogging on this supplemental trip and compressor will lift the trip stop and the trip dog will be engaged, thus throwing the machine into action, and the needle will then clear the clogged place so that no stoppage need result. *This important device is another of our many patented contrivances.*

The work is all right, and now a few words on how we have so simplified it. WE HAVE REPLACED THE LONG ROW OF HEAVY COGGED WHEELS THAT ALL OTHER MANUFACTURERS USE FOR TRANSMITTING POWER BY A CHAIN, which has not only greatly decreased the weight, but has also made the machine more successful in operation. THE TRIP SHAFT, SWORD ARM AND SIXTEEN OTHER PARTS HAVE BEEN ENTIRELY REMOVED FROM BENEATH THE DECK OF THE BINDER, AND THE ENTIRE MECHANISM OF THE MACHINE, EXCEPT THE PACKERS, IS NOW IN SIGHT.

A glance at the cut above will show our ingenious and yet simple method of allowing the grain to automatically start the binding devices. The grain moving down upon the under compressor and against the trip finger, lifts the trip stop from the trip dog, and the binding mechanism is set in motion. The needle rises through the table, compresses the grain against the finger, which is moved forward against it by the track on the cam wheel as it acts on the compressor, rock lever; the lugs upon the needle lift the under compressor, and the bundle is compressed as it can be by no other machine with three times the number of parts. By our knotter alone thirty-nine useless pieces have been discarded, and seven simple ones now accurately do the work. Twenty pounds of iron that other makers of Binders put into intricate and complicated mechanisms, cease to annoy and cause trouble, and the knotter, once so complicated, has become the simplest of devices. *Can it be possible that the intelligent farmer will buy the complicated and heavy Binders, drag them day after day through the field and keep their numerous parts in motion when this simple Binder of ours can be obtained?* We say not, and with pride point to our stupendous sale of 1888.



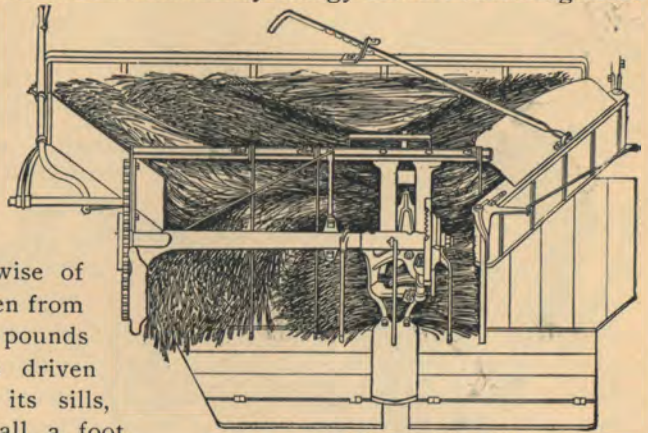
A COMPRESSOR AND A TABLE TRIP IN ONE.



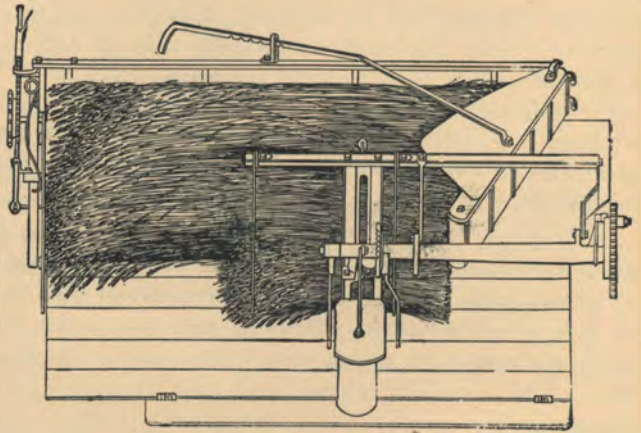
END VIEW OF BINDER, SHOWING OUR SIMPLE CHAIN DRIVE.

THE REAR GEARED BINDER IS A RELIC FROM THE OLD DAYS OF CLUMSY, POORLY BALANCED MACHINES.

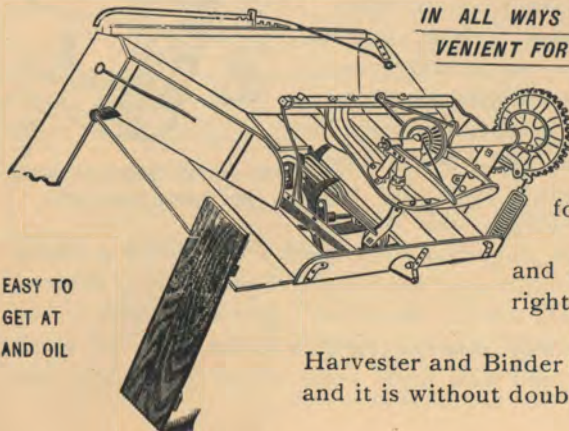
Since our invention and patenting of a successful method to utilize the chain drive, the manufacturers of the rear-driven Binder have turned every energy toward obtaining some sort of a device that will enable them to discontinue its manufacture. They have tried many without success, and in making the application for a patent on some of them, have stated under oath to the Patent Office that "the rear-geared Binder seriously retarded the discharge of grain," was very heavy, and otherwise of poor construction. The Binder driven from the rear must always weigh sixty pounds more than the same Binder when driven from the front, as it must have its sills, its main frame and its shafting all a foot longer than is necessary for the similar parts upon the front-driven machine. The reason for this is that the gear, frame work and compressor link will retard the heads of the grain, cause great waste by shelling, and prevent the discharge of the bound bundle in tangled grain, if the frame is as short as it is upon the front driven machine. The butts may scrape against the frame in front without harm, but the heads should have as little slashing and pounding as possible. Again, when the rear-driven Binder is moved ahead for short grain, and the Harvester suddenly enters high grain it will lodge and pack against the rear of the Binder and make it necessary for the driver to clear it by drawing the grain out by hand. The spring wind-board upon the McCormick steadies the heads of the grain and drops back when a tangled bunch suddenly comes down the deck, and never clogs the Binder under any circumstances. The McCormick is at home in any kind of grain.



ONE BAD EFFECT OF SUDDENLY ENTERING LONG GRAIN WITH A REAR-DRIVEN BINDER.



THE BETTER WAY—McCORMICK'S PLAN.



EASY TO
GET AT
AND OIL

**IN ALL WAYS WE HAVE TRIED TO KEEP THIS MACHINE CON-
VENIENT FOR THE OPERATOR.**

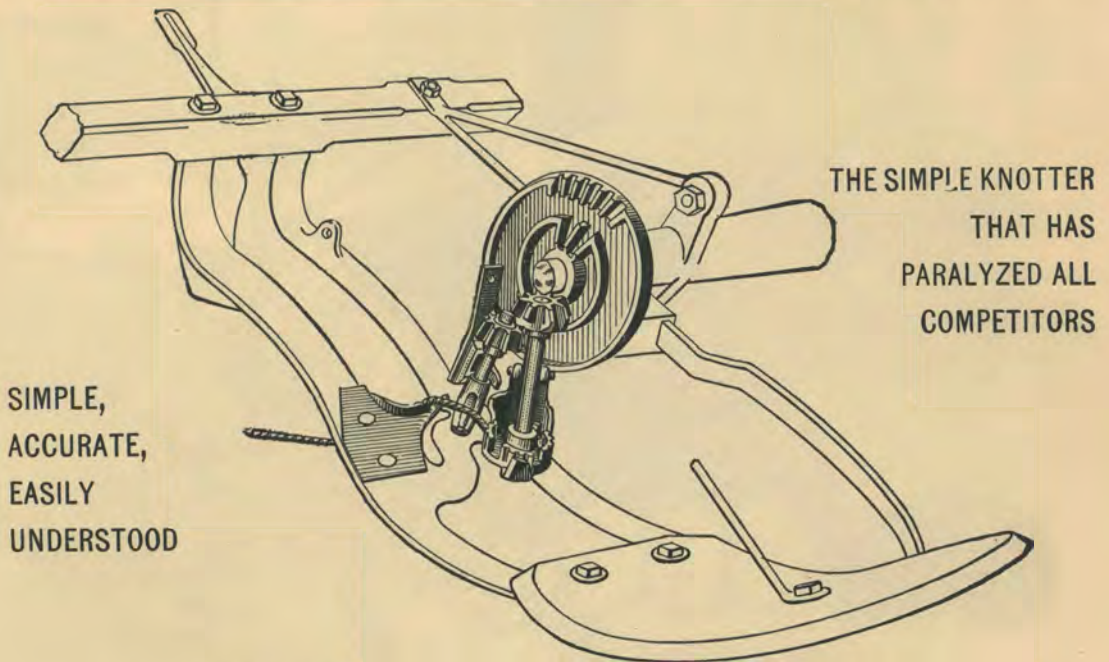
A section of the deck is held in position by a spring catch, and can quickly be removed, so that the packers, together with the main wheel and gearing of the Harvester, can easily be reached for oiling.

Our tension and twine weight are simple and convenient, and always give the twine the right tension.

In all these many ways we have made our Harvester and Binder lighter, simpler, more compact and reliable, and it is without doubt, **THE BEST IN THE WORLD.**

THE MCCORMICK **NEW ONLY 7 PIECES SIMPLE** KNOTTER.

Can the knot, to form which the inventors struggled for so many years, be unfailingly tied by seven simple pieces? We answer, Yes. It is the same answer that was heard from 30,000 harvest fields during last season. Never in the history of so important an improvement has such success attended the first year's work. From forty-six pieces to seven seems almost impossible, and yet this is the change that we offered to the people of the world last season as our simple knotter. The season's work has again clearly shown that



SKELETON VIEW OF KNOTTER WITH SURROUNDING PARTS OF THE BINDER IN POSITION

accurate devices must be simple ones. Complex movements are liable to disorders. No part of the whole machine has caused more worry and annoyance, more delays and more trips for the expert than the complicated knotter. The tucker jumping from its cam or falling too quickly to catch the string; the knife arm cutting too quickly or too slowly; the plunger bolt failing to throw the disc far enough; the bending of sway bars and the slipping of pawls, have all been too common in other complicated knotters. Our simple device has but two movements: the knotting hook, making but a single turn to form the knot, and the disc, making but half a one to sever the cord and retain its hold upon the end. A wonderful success is the outcome of this simplicity. The certainty of tying every knot, the formation of the knot close to the bundle, the use of a less amount of twine than by any other knotter, are important points that are peculiar to our simple mechanism. It is needed to fitly equip our simple Binder, and when they are together placed upon our celebrated Harvester, the machine leads the world, everywhere victorious.



"This McCormick is giving me and the team
an Easy Time this Harvest!"

THE McCORMICK LIGHT STEEL HARVESTER AND BINDER.

THE BEST MACHINE IN THE WORLD.

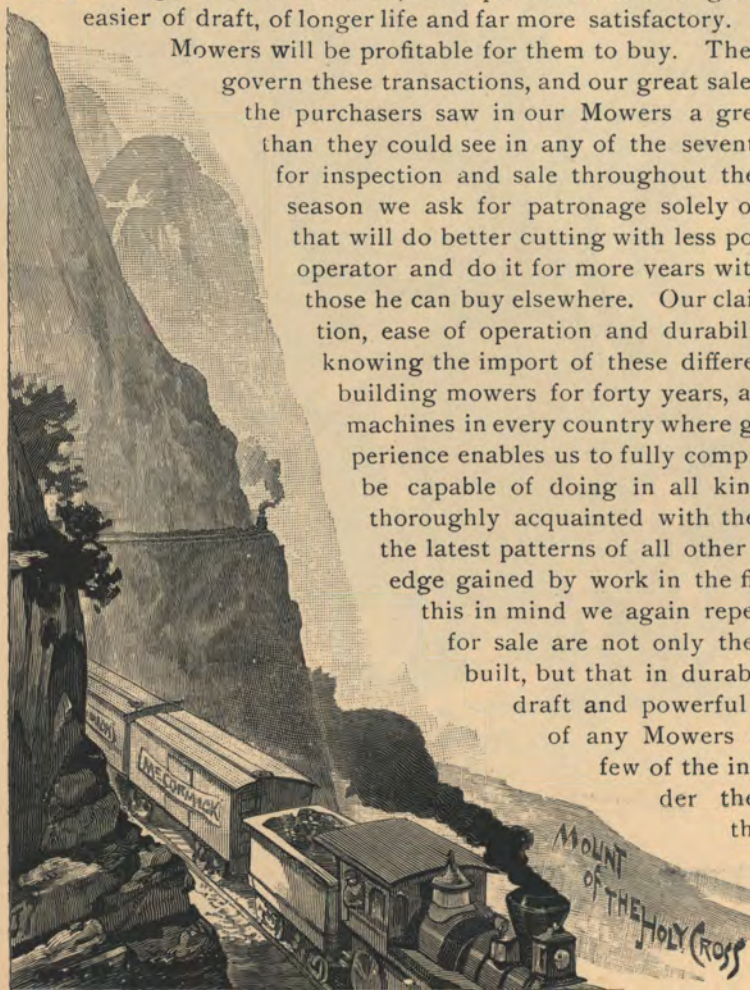
THE McCORMICK No. 3 STEEL MOWER

ADMITTED BY FRIEND AND COMPETITOR

TO BE THE BEST MOWER EVER BUILT.

Our Mowers met with an unprecedented demand last season. More of them were sold than of any other make. The principal reason of this great sale is that the users of farm machinery are daily becoming better judges of mechanical devices, and are recognizing that machines built upon the best plan for cutting grass, that combine the very latest ideas in Mower building and have these ideas incorporated into devices in simple and effective ways without regard to cost must be, when put into a field of grass, better working machines, easier of draft, of longer life and far more satisfactory. They at once see that such Mowers will be profitable for them to buy. The common principles of trade govern these transactions, and our great sale of last year resulted because the purchasers saw in our Mowers a greater return for their money than they could see in any of the seventy-eight other makes offered for inspection and sale throughout the country. For the coming season we ask for patronage solely on whether we offer Mowers that will do better cutting with less power, with greater ease to the operator and do it for more years with less outlay for repairs than those he can buy elsewhere. Our claim of superiority in construction, ease of operation and durability is not made without fully knowing the import of these different qualities. We have been building mowers for forty years, and they have been successful machines in every country where grass is grown. This long experience enables us to fully comprehend what a Mower should be capable of doing in all kinds of cutting. We are also thoroughly acquainted with the qualities and capacities of the latest patterns of all other makes of machines, a knowledge gained by work in the field, day after day, and with this in mind we again repeat that the Mowers we offer for sale are not only the best machines we have ever built, but that in durability, ease of operation, light draft and powerful cutting, they are in advance of any Mowers ever built by anybody. A

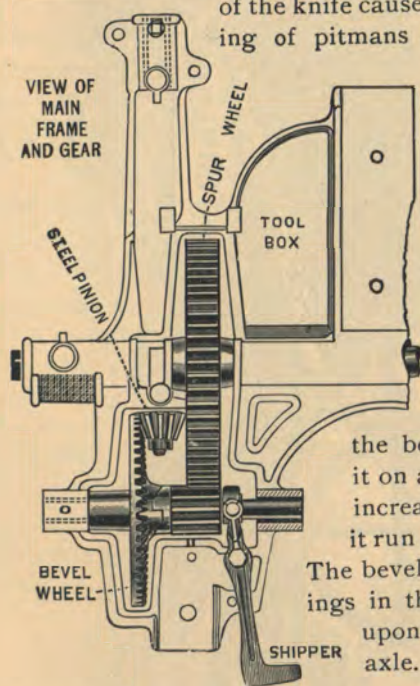
few of the innumerable qualities that render them so available and make them peculiarly fitted to easily cut any kind of grass upon any ground where horses can travel, will be found in the following pages.



**THE MAIN FRAME IS BUILT
IN THE RIGHT WAY FOR
STRENGTH AND FOR LONG LIFE.**

A frame that is always springing will make the shafting bind and the machine run heavy. And one that warps and springs when cooling, and is then bored for the shafting one hole at a time, will always make the gearing fit badly and the shafting run at an angle. All our Mower frames are rigidly clamped upon a form, and are then bored by a **SPECIAL DRILL OF OUR OWN MANUFACTURE THAT MAKES ALL THE HOLES AT THE SAME TIME AT ONE OPERATION.** There is probably no other factory in the country making mowing machines that has this essential piece of machinery.

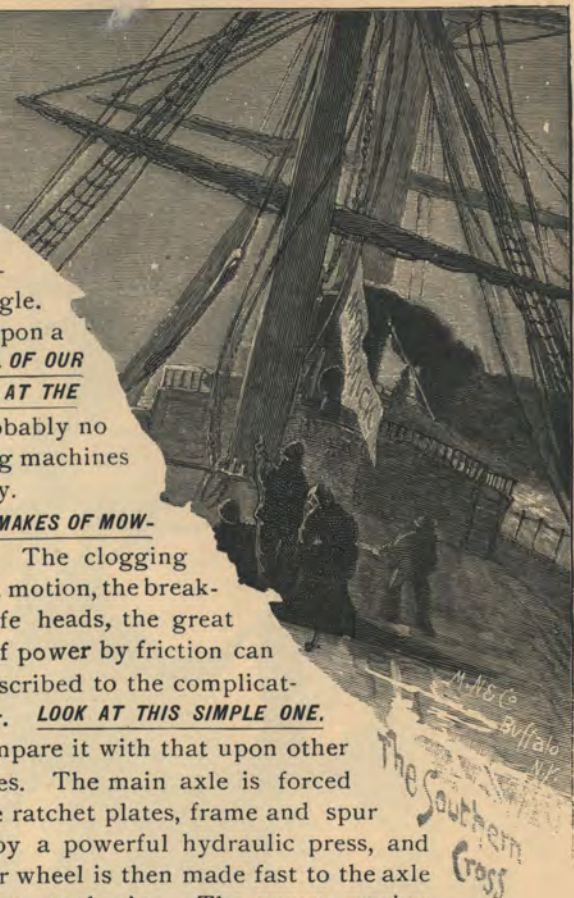
MANY OF THE CHRONIC COMPLAINTS OF OTHER MAKES OF MOWERS RESULT FROM THEIR COMPLICATED GEARING.

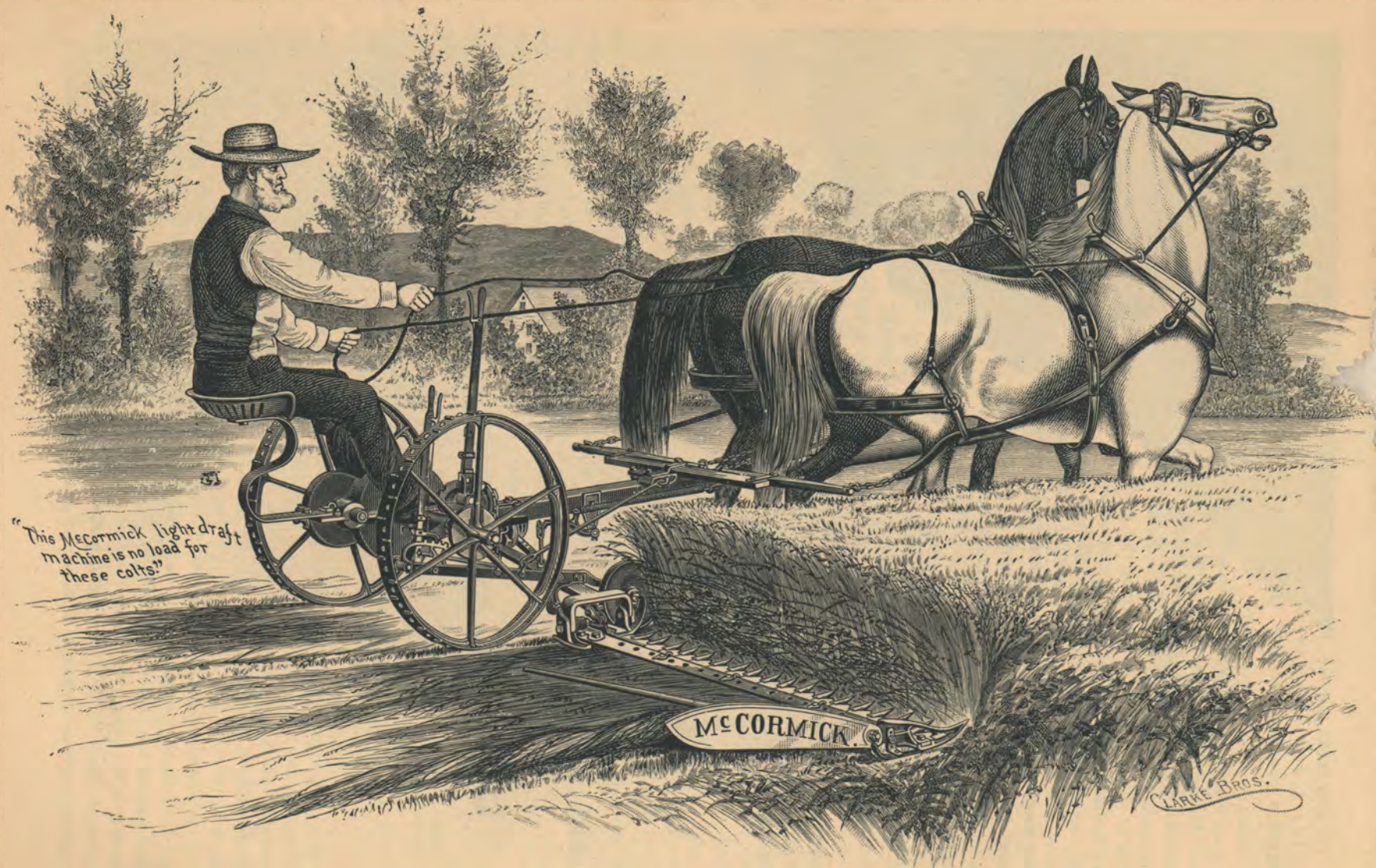


of the knife caused by lost motion, the breaking of pitmans and knife heads, the great waste of power by friction can all be ascribed to the complicated gear. **LOOK AT THIS SIMPLE ONE.** and compare it with that upon other machines. The main axle is forced into the ratchet plates, frame and spur wheel by a powerful hydraulic press, and the spur wheel is then made fast to the axle with two steel pins. The power reaches the fly wheel shaft with but the intervention of the bevel wheel. In other enclosed gear Mowers, there are two wheels that intervene, which necessitates that the bevel wheel be placed upon the main axle. By placing it on a steel shaft in the rear of the axle, we have been able to increase the length of the fly wheel shaft a foot, which makes it run much more steadily than the short shaft of other Mowers. The bevel wheel is keyed to its shaft, which turns in bushed bearings in the frame, thus preventing any tendency for it to bind upon the shaft as it frequently does when it is upon the main axle. The steel pinion keeps the whole gear up to standard.

When the machine starts to move, the main wheels each having three pawls, and the gearing being so simple and well-fitted, the knife at once begins its movement through the guards. Contrast this with opposition machines that have complicated gears and so much lost motion that they can be moved six inches without any motion reaching their knives. Such loose machines may appear to be of light draft when drawn on a warehouse floor, but after cutting a short time they will be unfit for further use.

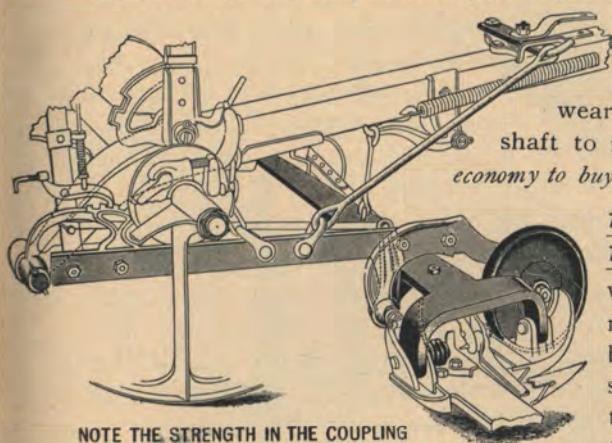
The shipper case that moves the clutch back and forth is one of the little points on all Mowers that wears and causes trouble. To prevent this we have fitted ours over the entire end of the clutch, boring it for the passage of the shaft. While this appears a small point, it is a very difficult one to fix in the field when it gives trouble. *We have endeavored to construct all the little points like this, that so frequently cause stoppage and worry, in such a manner that they will be as durable as the rest of the machine.*





THE McCORMICK No. 3 STEEL MOWER.

WE HAVE FITTED EACH BEARING OF THE MAIN FRAME WITH A BUSHING that can quickly and cheaply be replaced when worn. It is an expensive operation, and because it is, most manufacturers do not adopt bushings, but prefer to try and dispose of their machines at small



NOTE THE STRENGTH IN THE COUPLING ARM AND PUSH BRACE.

prices and then mulct the purchaser when he must have repairs. These bushings being of a softer material protect the shafting from wear and make nearly a frictionless surface for the shaft to run in. *There can be no question but that it is economy to buy a McCormick machine.*

THE MANNER IN WHICH THE CUTTER BAR IS ATTACHED TO THE GEARING CARRIAGE IS VERY IMPORTANT. The good

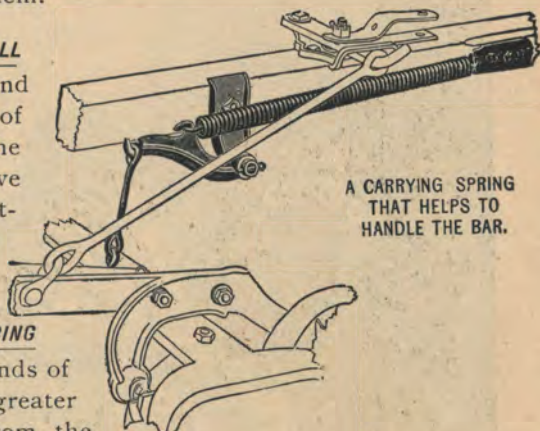
work, the light draft and the long life of the machine depend upon it. The coupling must be of sufficient strength so that it will not be sprung when the cutter bar is brought with the full force of the team against an obstruction, and so hinged that the bar will automatically conform to the surface of the ground,

floating lightly upon it. To insure strength, our coupling arm is made of wrought iron, forged into proper form. Compare it with the thin sheets of wrought or the malleable iron of some makers or the cast-iron coupling arm of the more ancient machine and the care we have taken with this essential feature is seen at a glance.

NOTICE THE MANNER IN WHICH THE STEEL PUSH BRACE IS HINGED TO THE COUPLING ARM, BEHIND AND BELOW IT, BY A BALL AND SOCKET CONNECTION. It is this connection that has given the bar its automatic floating quality, and, together with the lead wheel, that is always resting upon the ground, has made this Mower a wonderful success in cutting rough meadows. This connection was planned when we conceived the ideas incorporated in this Mower, and the bar automatically floats because it has been built in a way that allows it to do so. It is amusing to hear the makers of antiquated machines talk about floating bars and describe some small feature that they have added to their old machines that only allows the operator to turn up the points of the guards. THE DRAFT OF THE HORSES TENDS TO CARRY THE BAR LIGHTLY ALONG ON THE GROUND, at the same time allowing the points of the guards to follow the surface, dropping into the depressions and rising for the obstructions. Almost any machine will cut light grass on a smooth meadow, but it is in the bogs and upon the rough prairie land that the quality is tried. Test our Mowers in such places; the merit is in them.

A CUTTER BAR DRAGGING ALONG THE GROUND WILL MAKE THE MACHINE OF HEAVY DRAFT. The cutter bar and

coupling arm should be carried upon the wheels of the machine to increase their traction and give the machine more power to move the knife. We have therefore by means of a heavy coiled spring, acting upon a pivoted lever, carried sufficient of the weight of the bar upon the frame, so that the bar lies but lightly upon the ground. The outer end of the bar is supported by A HEAVY COILED SPRING IN THE HEEL OF THE SHOE. The relief of five pounds of weight from the outer end of the cutter bar is a greater saving in draft than twenty-five pounds taken from the main frame. These springs are costly, but the saving of draft and the increased power

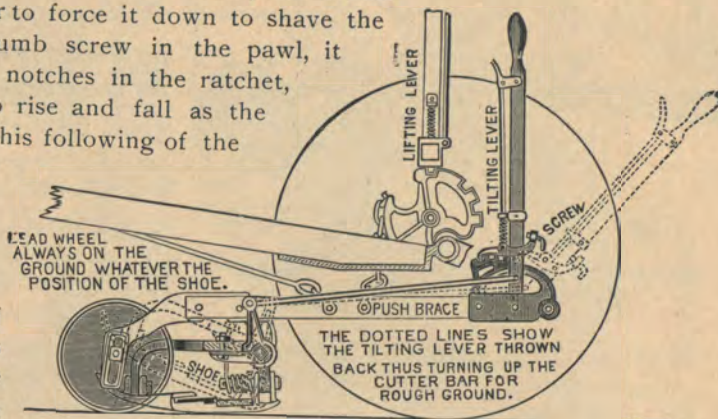


A CARRYING SPRING THAT HELPS TO HANDLE THE BAR.

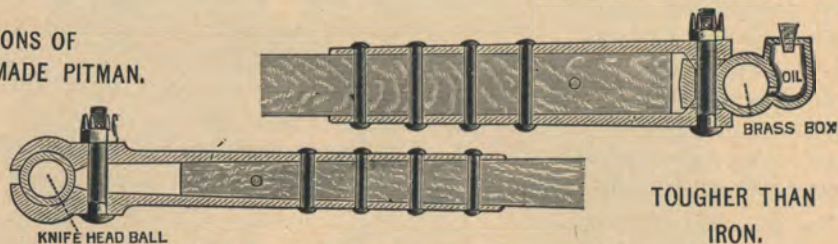
of cut that result from their use would more than compensate the intending purchaser if he had to pay half the price of the machine for them.

THE DRIVER WILL APPRECIATE THESE CARRYING SPRINGS because they will aid him so much in lifting the bar to pass obstructions and in turning at the corners. There are cutter bars on some machines that require all the driver's strength to raise them from the ground. A nine-year-old boy can easily handle those upon any of the McCormick Mowers. **THE TILTING LEVER** close at the driver's hand, allows him to turn up the bar to cut high or to force it down to shave the ground. By turning in the thumb screw in the pawl, it will be kept from engaging the notches in the ratchet, and the bar will be left free to rise and fall as the surface of the ground varies. This following of the surface conforming to all the irregularities is what makes a clean cutting machine.

A LEAD WHEEL IS USEFUL only when it carries the weight of the bar in place of allowing it to drag upon the ground. Whenever it is attached to the point of the shoe, it impedes the movement of the bar, and hinders the good work of the machine. A large number of manufacturers so attach it because it is the cheapest way, even though it is of use only when the bar is flat upon the ground. In this famous machine of ours, it is always on the ground whatever be the position of the shoe, carrying the bar over obstructions.



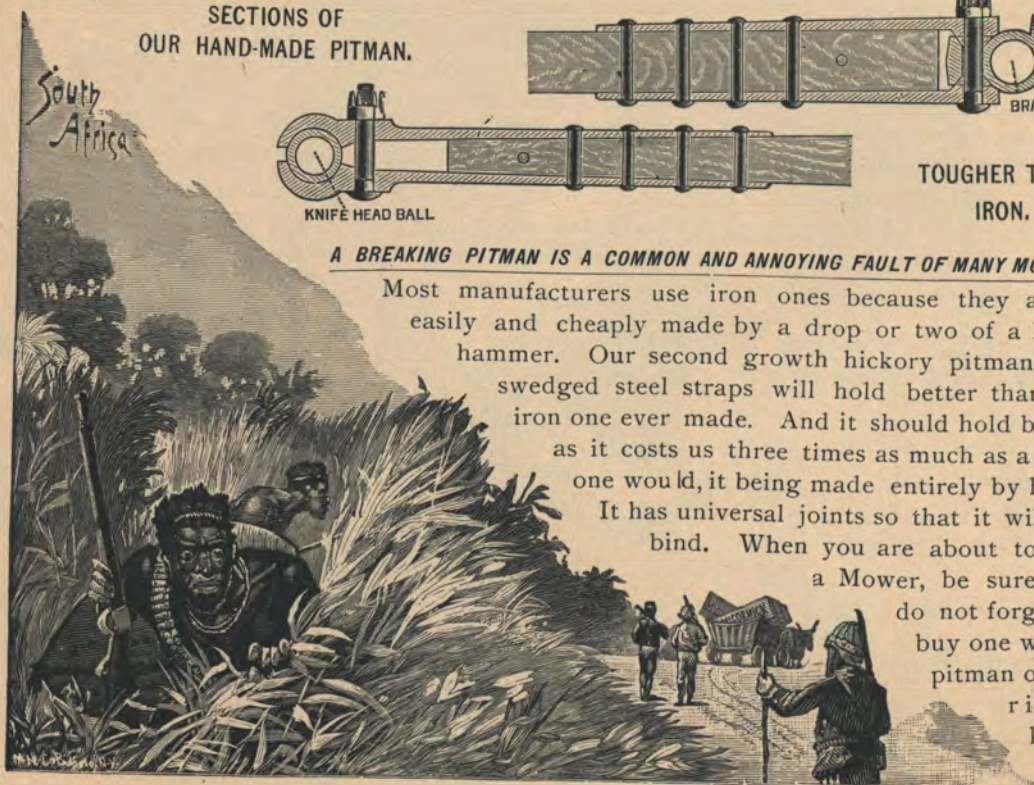
SECTIONS OF OUR HAND-MADE PITMAN.



A BREAKING PITMAN IS A COMMON AND ANNOYING FAULT OF MANY MOWERS.

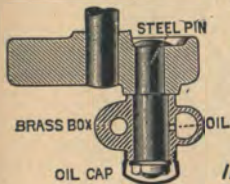
Most manufacturers use iron ones because they are so easily and cheaply made by a drop or two of a heavy hammer. Our second growth hickory pitman with swedged steel straps will hold better than any iron one ever made. And it should hold better, as it costs us three times as much as a steel one would, it being made entirely by hand.

It has universal joints so that it will not bind. When you are about to buy a Mower, be sure and do not forget to buy one with a pitman of the right kind.



THE STEEL CRANK

PIN is fitted with a brass box of our patented construction, containing a large oil cavity.



The cap on the end of the box prevents any waste of oil, and there is little necessity for attention.

IN MOST CONDITIONS OF GROUND

a shoe upon the outside divider will work better than a wheel, but in a few a wheel will work better than a shoe. Our outside divider is so built that either can be used. We keep extra wheels and shoes on hand with our

repair agents, and the purchaser can obtain

both and use either as the condition of his ground necessitates. An extra attachment is needed on most

machines in order to

raise the bar high enough to

cut weeds, but on this Mower, by means of the supplemental shoe, lead

wheel and tilt, it can be carried to a height of six inches. This will save much

power and in a great degree prevent chipping the

sections on the dried roots of the larger weeds.

WE HAVE A PRIDE IN THE GUARDS AND CUTTER BAR OF THE McCORMICK MOWERS. Our

guard is peculiar to our machines, and its form has been fashioned by us after repeated trials in the field. The curvature on the bottom is perfect, throwing the point above the line of cut and making it almost impossible to plow up the ground with the point, however rough and filled with hummocks it may be. This curvature also allows the

guards to be pressed upon the ground near their points by the tilt-

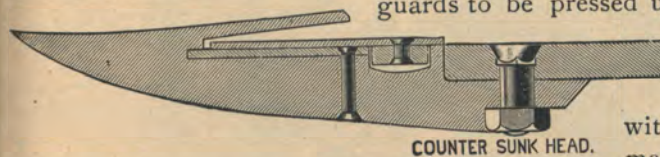
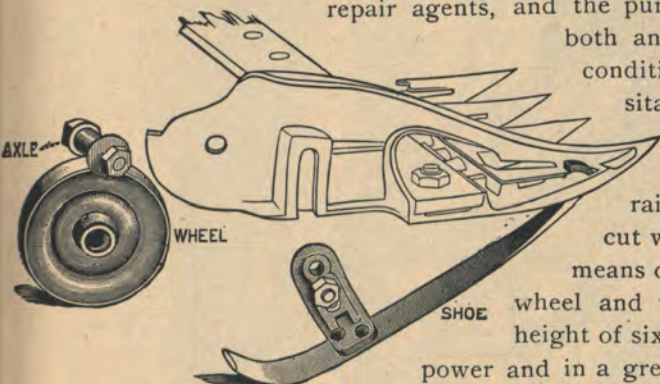
ing lever, without plowing, so as to pass under and pick up lodged grass. The

guard is made of malleable iron and fitted

with a steel plate beveled at its edges, so as to make with its section a perfect shear cut.

This steel plate is oil-tempered with as much care as the blade of a knife, and has a cutting edge such as can not be obtained on the wrought iron guard where they try to temper the face of the guard and leave the shank untempered, that it may have the strength and toughness to stand the hard knocks continually being received in the field. The mechanic knows how impossible it is to evenly temper each guard under such circumstances. We keep these steel plates in our repair stocks all over the country, and when they become worn, can be ground or the whole set can be replaced for the same amount that it costs to upset and resharpen one of the wrought guards. No guard is so strong and tough as the malleable one, and none is so well fitted for use on the farm. There are many other important points upon this Mower which assist in making it capable of doing better work for more years than any other; make it of lighter draft and easier upon the horses, easier operated for the driver and, all in all, a machine that will be profitable to the owner.

North America





THE McCORMICK No. 4 STEEL MOWER.

THE M'CORMICK N°4 STEEL MOWER

A LIGHT MACHINE BUILT FOR ANY KIND OF CUTTING.

ITS GOOD WORK AND LIGHT DRAFT ASTONISH THE CRITICS.

This not only is, but it should be the lightest draft and most powerful cutting Mower made. We have always been pioneers in new and useful devices, and in this period of remarkable progress in the mechanical arts we are still in advance with simple and effective means that combine all the latest ideas. So great has this progress been in Mower building that the machines of even a year ago are not moving in the front rank with the McCormick Mowers built to-day. AS WE DEVELOP NEW AND USEFUL DEVICES THE ONES THEY REPLACE BECOME OLD.

To meet the demand for lighter, neater, more modern Mowers, we built this machine, and its great sale has demonstrated our success. It was last season (with our No. 3 Steel Mower) the lightest draft of all the many Mowers upon the market, and in the most difficult cutting it could not be clogged. We are aware these are broad statements to make, but the general plan of the machine, its lightness, its simplicity of working parts, its method of draft and its well fitted cutter bar will demonstrate them to be facts.

The users of mowing machines do not care to drag a great weight through the field, nor do we care to use more material in the construction of the machine than is necessary to give it strength to stand any strain and traction to do the most difficult cutting. We have therefore discarded all the useless parts possible, and have attached those parts that are essential to the gearing carriage in such positions and in such ways as will make them most available. The gearing has been placed on the outer side of the machine, where it is necessary, as in heavy cutting the coupling arm tends in some slight degree to lift this part of the machine from the ground, and as the carrying spring places much of the weight of the cutter bar upon the inside of the machine, the necessary traction is thus obtained for both wheels, and the machine is perfectly balanced.



Johnson

INDIA

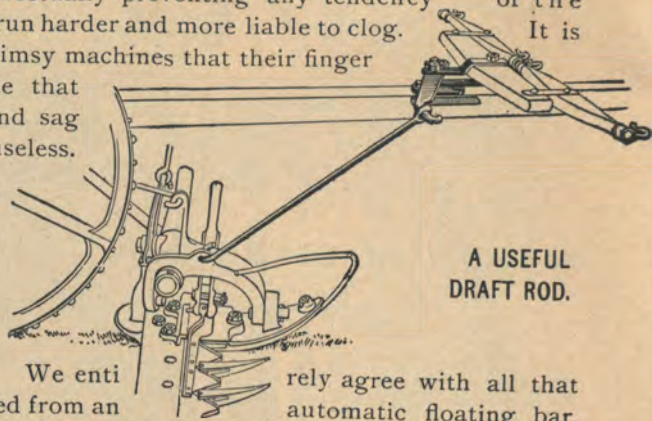
MCCO
BUFFALO, N.Y.

THE ROUGHEST OF USAGE WILL NOT SPRING THE WROUGHT IRON COUPLING ARM, as the draft rod is attached directly to the shoe, thus effectually preventing any tendency of the bar to sag back, which makes the machine run harder and more liable to clog. It is one of the worst faults of the cheap and slimy machines that their finger bars are so attached to their main frame that rough work and long usage will twist and sag them so that the machine becomes almost useless.

AS A MACHINE FOR ROUGH AND BOGGY GROUND IT CAN NOT BE BEATEN.

The pull of the horses upon the draft rod tends to lift the cutter bar from the ground, allows the guards to turn up when they encounter an obstruction and thus makes a perfect automatic floating bar.

We entirely agree with all that is being said about the benefits to be derived from an automatic floating bar. Every mowing machine that we have made for the last twenty years has contained one. We patented the first really successful one, and the employment of a lever to tilt the bar by most makers of mowing machines at the present time shows their appreciation of our device and that they are groping to find means for its full adoption.



A USEFUL DRAFT ROD.

THE ENTIRE CROP OF LODGED AND MATTED CLOVER CAN BE SAVED by locking the points of the guards close to the ground by means of the tilting lever so they will pass beneath and pick up the stalks. In rough bottom lands, filled with bogs or small stones, the guards can be turned up and locked so that they will pass over the obstruction. The thumb screw in the tilting lever pawl when left out allows the driver to lock the cutter bar in any position, but he can regulate the screw so that the points of the guards will not pass below a certain angle and will be left free to raise if they encounter an obstruction. By turning the thumb screw clear in, the pawl can be held so that it will not engage in any of the ratchets, and the bar will thus be left free to float on the surface of the ground. It takes a capacity to float when left free to do so, together with such a mechanism as we have described, to make a perfect working machine. All our Mowers have these essential movements.

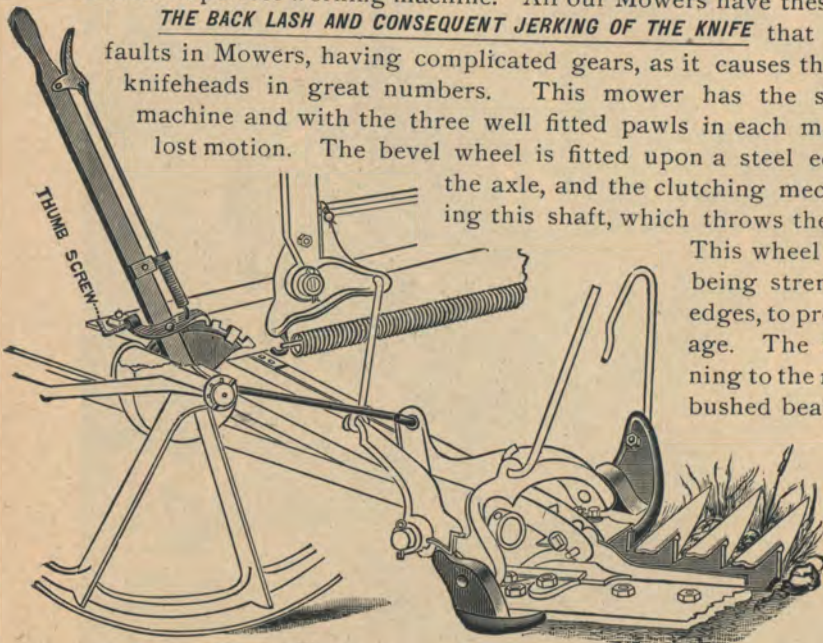
THE BACK LASH AND CONSEQUENT JERKING OF THE KNIFE that is caused by it are bad faults in Mowers, having complicated gears, as it causes the breakage of pitmans and knifeheads in great numbers. This mower has the simplest gearing upon any machine and with the three well fitted pawls in each main wheel, there can be no lost motion. The bevel wheel is fitted upon a steel eccentric shaft in the rear of

the axle, and the clutching mechanism is operated by turning this shaft, which throws the gear into or out of mesh.

This wheel is made with care, the cogs being strengthened by a rim at their edges, to prevent any tendency to breakage. The fly wheel shaft is long, running to the rear of the axle, and has wide bushed bearings, thus giving the crank

wheel a steady, true movement. There can be no springing of the crank shaft projection from the main frame, as the tool box is cast between it and the tongue. With these

several parts, together



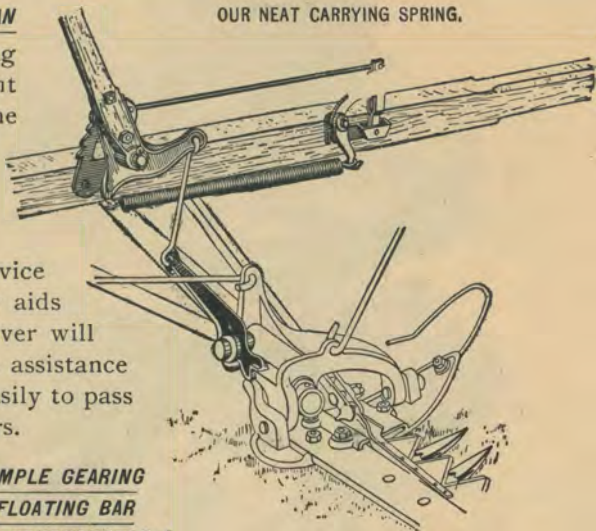
AN EFFECTIVE TILTING LEVER.

with our long hickory pitman, a strong and powerful movement of the knife is obtained.

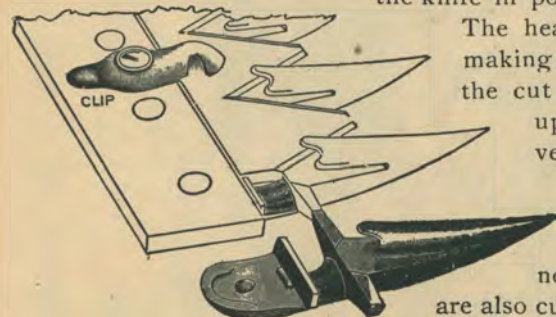
A CART WILL ALWAYS RUN EASIER THAN

A DRAG, and so, by a strong spring and gag lever, we carry much of the entire weight of the cutter bar upon the wheels. The gag lever is so pivoted to the sleeve that it rests upon a projection from the shoe, which tends to carry the outer end of the bar. There is no Mower built to-day with so neat and simple a device for this purpose. This spring not only aids in carrying the cutter bar, but the driver will find it worth three times its cost in the assistance it will give him in making the bar lift easily to pass obstructions and in turning at the corners.

OUR NEAT CARRYING SPRING.



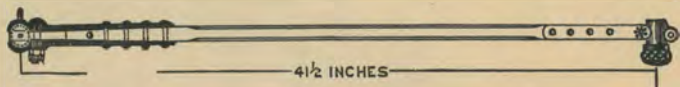
BUT ALL OUR STUDY TO GET THE MOST SIMPLE GEARING
POWERFUL CUTTING MECHANISM AND PERFECT FLOATING BAR
would amount to little with a **POORLY CONSTRUCTED AND**
DEFECTIVE FINGER BAR.



We have taken great pains with this essential part upon all our mowing machines. The cutter bar is of cold rolled iron, and the guards and clips to hold the knife in position are bolted to it with the nuts below. The heads of all the bolts are countersunk, thus making the top of the bar perfectly smooth, so that the cut grass will pass back over it and not carry upon the bar and clog the machine. To prevent the bar of the knife gumming, we have cut the guards away beneath it, sloping the cut both ways from the center, so that any dirt that may possibly reach them can not stick and become gummed. The guards are also cut away at the rear of the knife bar, to let any dirt that may work in from behind the knife fall through to the ground. This construction leaves the knife bar clear and the sections perfectly flat upon the steel ledger plates with which each guard is fitted, thus making a shear cut and as near a frictionless movement of the knife as it is possible to obtain. The method of the construction of these cutter bars is the very latest and best known, and being supervised as it is by the best cutter bar maker in the country, we can assure all purchasers of our Mowers that this very essential part of their mechanism will be found the very best that has ever been put upon any mowing machine.

THE HEAVIEST SWATHS OF CUT GRASS AND ALFALFA WILL PASS UNDER THE MACHINE WITHOUT DRAGGING, AND OBSTRUCTIONS OF CONSIDERABLE SIZE WITHOUT STRIKING,

as the crank wheel and front of the machine are set well above the ground. The pitman is bowed up at the knife end, and its great length, it being the longest on any Mower (except our Big 4), prevents the pounding that necessarily follows the use of the short pitman and the high crank wheel.



The steel shafting, the Babbitt metal bushings, the main wheels, the steel fitted pitman with its universal joints and patented brass box for holding the oil, are the same as on our unrivaled No. 3 Steel Mower heretofore described. We are confident that this machine for 1889 will stand the roughest of usage and the hardest of knocks. We give it our broadest warrant, and invite for it the most difficult tests and the hardest cutting upon the farm.



There goes the Dinner Bell! but fifteen minutes more will finish
Ten Acres cut today. This McCormick Big 4. is a Daisy.

THE McCORMICK BIG 4 STEEL MOWER.

THE M'CORMICK *BIG 4* MOWER.

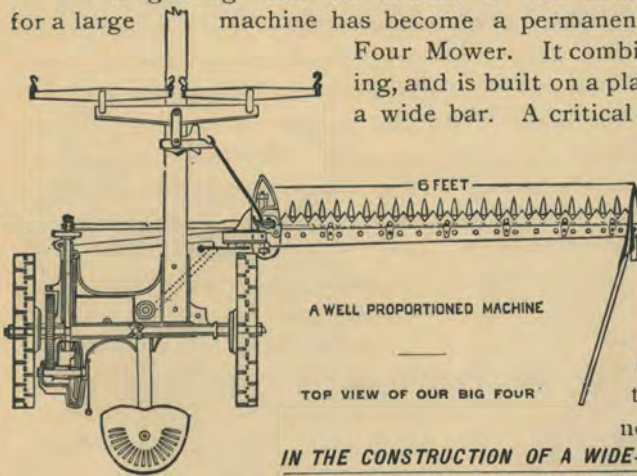
A WIDE-CUT MACHINE FOR LARGE FIELDS,

CONTAINING ALL THE LATEST IDEAS IN MOWER
BUILDING. SUPERIOR IN CONSTRUCTION,
OPERATION AND EASE OF DRAFT.

For some years we have been building wide-cut Mowers. Scattered over the country can now be found an occasional large farmer who raises but little else than grass. While such farms are at present very scarce, they are slowly increasing each year, as the demand for fodder becomes greater and the facilities for baling and shipping are improved. On a farm of this kind a wide-cut Mower will be found to be a desirable machine, as the care of the hay crop is the harvest of the year, and the farmer has gathered about him sufficient teams and help to take care of the grass as fast as it can be cut with a large machine. On the average farm, however, where the haying is done with the ordinary help, our smaller machines will be found far more desirable. They will cut in a few hours all that can be cared for during the remainder of the day. They are lighter draft, easier for the team to handle, and more convenient in the field of average size.

Recognizing that the demand of the farmer who grows many acres of grass for a large machine has become a permanent one, we offer to all such our Big Four Mower. It combines all the best ideas in Mower building, and is built on a plan that is the best suited for carrying a wide bar. A critical examination will show the machine to

be remarkably well proportioned. It has special devices, without which a wide-cut Mower can not be a successful machine. Its draft is the lightest upon any yet made, and is no greater than the draft of some small machines. A few of the special devices that make this Mower superior to any other wide-cut machine will now be spoken of:



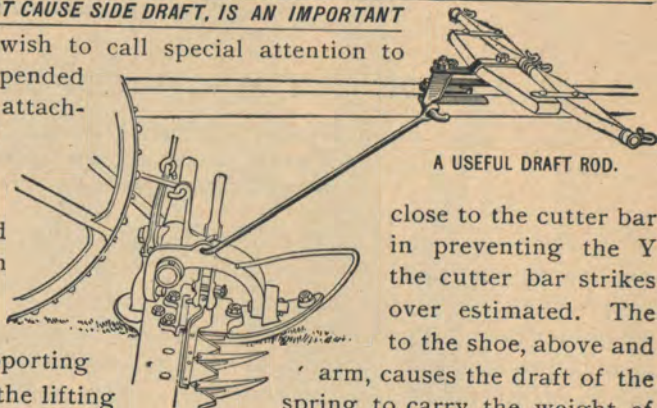
IN THE CONSTRUCTION OF A WIDE-CUT MOWER, THERE ARE CERTAIN FEATURES THAT ARE VITAL TO ITS GOOD WORK, EASY DRAFT AND LONG LIFE.

It is essential that the traction be sufficient to get the power demanded to move a long knife; that the gearing be so simple and well fitted that there be no lost motion and back lash; that a lifting device be so arranged that it will not only act as a sustaining spring to carry the bar, but will also make the handling of the bar by the driver an easy task; that the attachment of the long cutter bar to the main frame shall be so constructed that the bar will not sag back, thus causing side draft; and that the construction of the cutter bar shall be such that the friction of driving the knife shall be at a minimum. The plan of our No. 4 Mower, which has proven to be such a successful cutter, allows us to provide for all these essential requirements

IN ORDER TO GET THE NECESSARY TRACTION TO DRIVE THE LONG KNIFE, the frame has been increased in weight, and widened six inches and the wheels increased in height. This added weight in the wheels, frame and gearing, combined with the weight of the cutter bar, which we carry upon the wheels by means of an improved spring device, will, whatever the kind and condition of grass, maintain a steady movement of the knife. The position of the gearing upon the extreme outside of the widened frame acts as a balance to the wide cutter bar upon the other side and prevents any skipping of the wheels when the machine is in difficult cutting.

THE MANNER OF ATTACHING A WIDE CUTTER BAR TO THE GEARING CARRIAGE SO THAT IT WILL NOT SPRING AND SAG, AND SO THAT IT WILL NOT CAUSE SIDE DRAFT, IS AN IMPORTANT QUESTION ON A WIDE CUT MOWER.

We wish to call special attention to the manner in which this bar is suspended upon a wrought Y frame and to the attachment of a draft rod from one end of a lever upon which the horses draw to a point upon the inside shoe as as is possible. The effect of this rod frame from being sprung when an obstruction, can not be attachment of the rod in front of the Y supporting horses with the aid of the lifting the bar largely upon the wheels, to make it float lightly over the ground and to make it conform to uneven surfaces, without plowing into their obstructions.

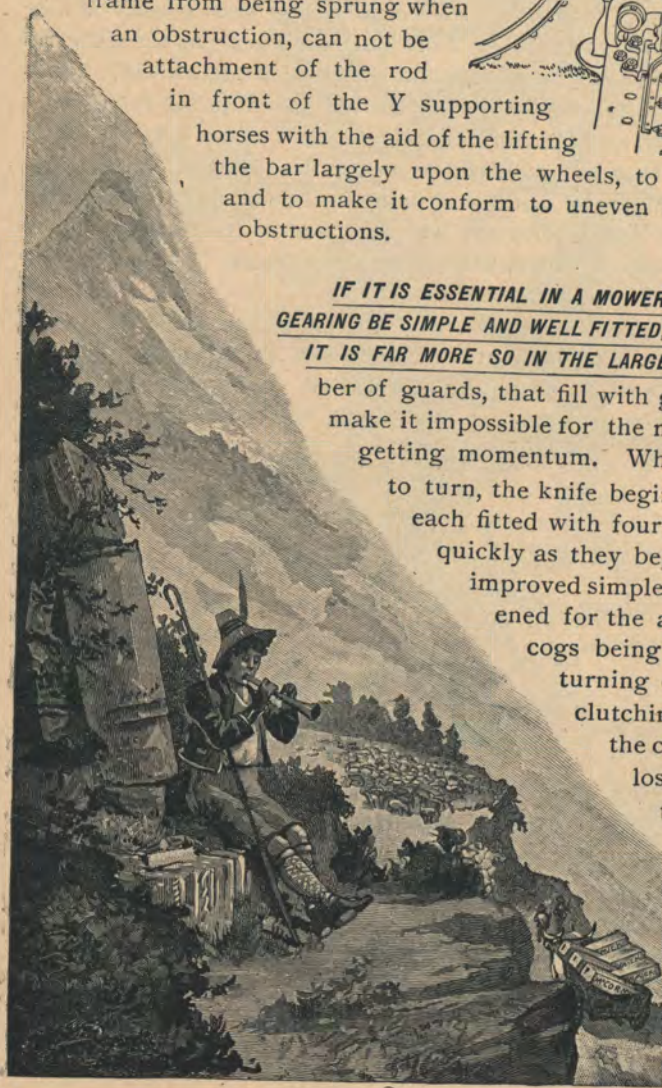


close to the cutter bar in preventing the Y the cutter bar strikes over estimated. The to the shoe, above and arm, causes the draft of the spring to carry the weight of the bar largely upon the wheels, to make it float lightly over the ground and to make it conform to uneven surfaces, without plowing into their obstructions.

IF IT IS ESSENTIAL IN A MOWER OF THE ORDINARY WIDTH OF CUT THAT THE GEARING BE SIMPLE AND WELL FITTED, SO THAT THERE WILL BE NO LOST MOTION, IT IS FAR MORE SO IN THE LARGE MACHINE

where the increased number of guards, that fill with grass before the knife starts to move, make it impossible for the machine to work without backing and getting momentum. When the wheels of this Mower start to turn, the knife begins to move. The ratchet plates are each fitted with four pawls, which engage the wheels as quickly as they begin to turn. The gearing is of our improved simple construction, increased and strengthened for the added work it has to perform. The cogs being released from engagement by the turning of a steel eccentric shaft, there is no clutching mechanism which, together with the complicated gearing, results in such a loss of motion. This simple gearing, together with the improved pawls, will be found of great value, especially after the third or fourth year, when the wearing of the knife and guards makes any lost motion fatal to the work of the machine.

ON ROMAN
Soil



IT REQUIRES NO DEMON-
STRATION TO PROVE THAT
A WIDE CUTTER BAR AT ONE
SIDE OF THE MACHINE SHOULD
REST AS LIGHTLY UPON THE GROUND AS
POSSIBLE, AND STILL DO CLOSE WORK. Es-

pecially is this true of the outer end of the bar. It is a strong point in favor of this machine above other wide-cut Mowers that our improved sustaining spring acts upon a patented gag lever that is hinged to the sleeve, one end of which bears upon a projection from the heel of the shoe, and thus carries the outer as well as the inner end of the bar. This gag lever rocks with the shoe and sleeve, and hence there is no binding when the bar is tilted. There are some manufacturers that, for the sake of economy, do not use sustaining springs upon their small machines, but there are none but what try to use them on their large Mowers. They are essential to the good work and light draft of the machine, and, all other things equal, the wide-cut Mower which has the best spring, that not only sustains the bar throughout its entire length, but that assists the driver in handling it, will be much the more successful machine in the field. Notice carefully the construction of our patented device. The spring acts upon the lifting lever quadrant, which is loose upon the lifting lever pivot, and thus tends, by its action on the gag lever, to sustain the cutter bar throughout its entire length. BUT YOU SAY THAT THE SPRING WILL LOSE ITS REACTIONARY POWER WHEN THE BAR IS RAISED A SHORT DISTANCE, AND THE DRIVER WILL HAVE TO LIFT THE ENTIRE LOAD OF THE COUPLING ARM AND CUTTER BAR BY THE LEVER. True, but in this, our pat-

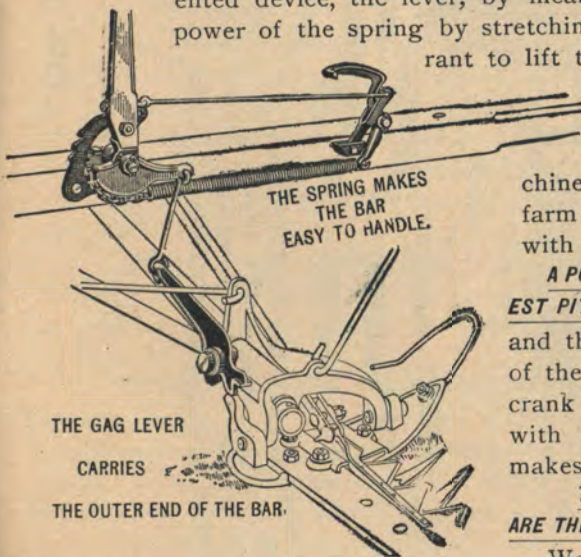
ented device, the lever, by means of the tightening rod, first increases the power of the spring by stretching it before it begins to act upon the quadrant to lift the arm and frame. The spring is then so tightly stretched that it will sustain the bar and arm with but slight assistance from the driver. This device is peculiar to this machine, and renders it possible for the boy upon the farm to drive and handle this wide-cut machine with much ease.

A POWERFUL STROKE OF THE KNIFE IS GIVEN BY THE LONG-EST PITMAN EVER USED UPON A MOWER. The wide frame and the position of the gearing upon the outer side of the machine require a long pitman to connect the crank wheel and knife. This long connection made with our famous second growth hickory pitman makes a drive that has never been equaled.

THE COLD-ROLLED CUTTER BAR, GUARDS AND KNIFE ARE THE SAME AS UPON OUR STEEL MOWERS.

We have spoken only of features that are special and peculiar to this machine. Its construction in every other detail is of the best, and we unhesitatingly place this Mower upon the market as the latest addition to our celebrated line of machines, feeling confident that it will proudly carry, as do each of the others, that banner which has now become distinctively McCormick's, "The Best in the World."

ON THE
MEDITERRANEAN





"I am pleased with the McCormick Daisy.
Yesterday I cut that lodged clover, the
rakes picking it up for the knife, and today
it handles this wheat just as nicely."

THE MCCORMICK DAISY.



A MACHINE SOLELY FOR REAPING.

The manner of constructing a machine for the sole purpose of cutting grain has varied greatly since the founder of this corporation, the late Cyrus H. McCormick, invented and made the first successful Reaper in 1831. His machine was then a single Reaper, and though there have been great and wonderful changes in the manner of harvesting grain, there has been during all this time a constant demand for the Light Reaper. Those who grow grain in small quantities have found it the most available machine that they could have, while the large farmer has often found one of them desirable to supplement his Harvester and Binder. It will be found almost invaluable when there is grain to be cut that has to be cured in the bundle. It has been found equally valuable in some sections of the country, where the clover becomes badly lodged and so closely matted to the ground that even a mower will run over it; the whole machine can, for such work, be dropped and tilted forward, and the reel arms will straighten and hold the stalks for the knife.

IN BUILDING THIS MACHINE, OUR AIM HAS BEEN TO MAKE ONE ADAPTED TO CUT ANY GROWING CROP THAT THE RAISER DESIRES TO HAVE LEFT IN BUNDLES UPON THE GROUND. In order to have the machine of light draft, and to have it handle easily, it has but two wheels, the same as the cart, both being upon the same line, so that the machine easily tilts, and balances without straining, and turns without tearing up the ground.

The operator in his seat, by means of a lever convenient at his hand, lifts the whole machine so as to cut high, or drops it so as to cut as low as he may desire. Both sides of the machine are raised or lowered by this one movement, and the machine need not be stopped, but raised for the high grain and dropped to pick up the worst lodged and tangled without a moment's delay, and so quickly as to save any crop, however bad its condition.

TO PICK UP LODGED GRAIN leaning from the machine, by the use of the tilting lever requires but little effort on the part of the driver.

THE MAIN WHEEL IS THE LARGEST, and has the widest face of any upon any single Reaper, and the whole machine being driven by the main axle, there is no necessity for gearing near the rim of the wheel, to grind and wear and to fill with dirt and rubbish.

THE DRIVER CAN MAKE THE BUNDLES ANY SIZE HE MAY CHOOSE. When the machine leaves the shop, it is set so that only one of the arms acts as a rake. If the bundles are then too large two of the arms can be made to rake, or by means of the foot-lever the driver can allow the machine to rake as he may desire. Gavels of suitable size for binding can thus be laid, or large bunches can be accumulated on the platform and left in windrows.

Its cutting mechanism is of the best. The guards are steel-faced and are attached to an angle iron cutter bar. A serrated knife is furnished for grain and a smooth one for flax and other crops which are difficult to cut.

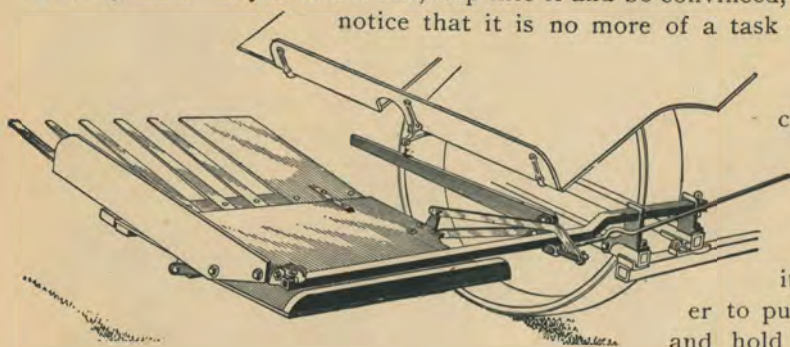
This machine is so capable, so easily handled, and of such light draft that it cannot fail to please any purchaser.

THE McCORMICK BASKET CARRIER

A PERFECT BUNDLE TRANSPORT. NONE SO EASILY OPERATED.

What the user wants in a bundle carrier is a device that will allow him to easily windrow any kind of bundles, whatever be their condition.

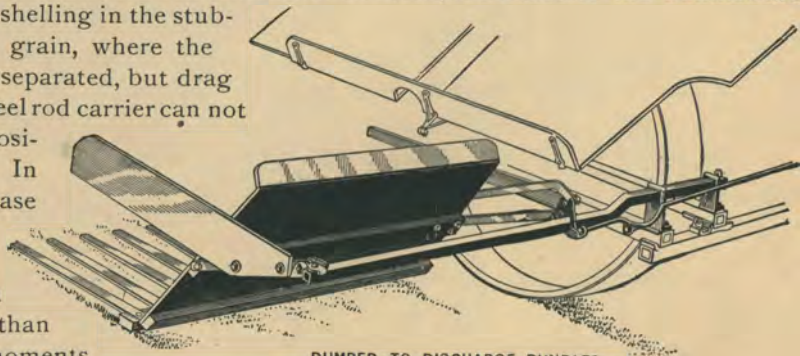
OUR NEW BASKET CARRIER WILL MEET ALL REQUIREMENTS. It is strong enough to carry a heavy man. If you doubt this, step into it and be convinced, and when you are in it take notice that it is no more of a task for the driver to hold it in position and to dump it than it would be if it only contained a single bundle.



IN POSITION TO RECEIVE BUNDLES.

This will be appreciated by the users of certain carriers of other makes, to hold which when loaded, it is necessary for the driver to put the reins about his neck and hold himself in the seat with both his hands. The square pipe that carries it is fastened high above the ground in two brackets upon the main frame, and the carrier being dependent from it by links, should an obstruction be encountered, either side or all of the carrier will rise and pass over it without harm and without the load being dumped.

It is so easily brought back into position after dumping that a boy can handle it, and its bottom being rule-jointed and the rear extension elevated, the heads of the bundles are kept from dragging and shelling in the stubble. In badly tangled grain, where the bundles are not entirely separated, but drag after the machine the steel rod carrier can not be brought back into position to receive its load. In such a place as this, the ease with which this carrier can be recovered and the good work that it can do will many times more than compensate for the few moments that it will take to remove it from the machine to pass through a gateway. It is neater, lighter—weighing but fifty-five pounds—more tasty, will carry more bundles, and do it easier and make a more even windrow than any carrier upon any machine made.



DUMPED TO DISCHARGE BUNDLES.

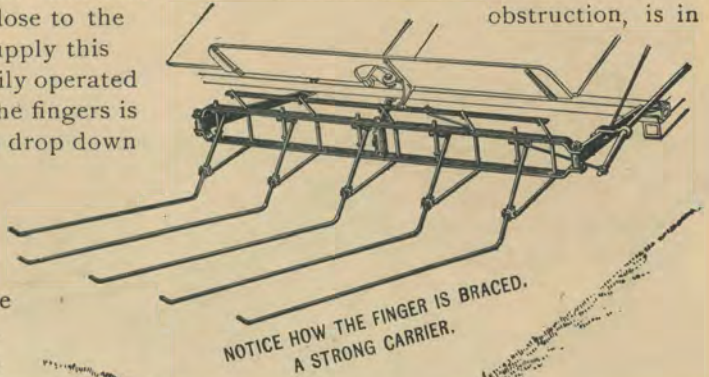
WE STILL HAVE FOR SALE OUR PLATFORM AND CANVAS CARRIERS which have proven so successful and satisfactory in the past.

McCORMICK'S FLAX DUMP. We have a light attachment for carrying flax and other crops that the user desires to leave in unbound bunches on the ground, that can be had upon order.

THE McCORMICK STEEL-FINGERED CARRIER.

THE BEST TRANSPORT FOR STUMPY LANDS.

In a few sections of the country, where the fields are badly filled with stumps and other obstructions, a carrier that will fold beneath the deck of the Binder, and thus allow the machine to pass close to the demand. We have built, to supply this trade, a very neat, strong and easily operated carrier, of steel rods. Each of the fingers is swung backward and allowed to drop down ward beneath the deck of the Binder, in order to discharge the bundles and to pass obstructions, by a series of cranks under the control of the driver. These cranks act as a brace to the fingers, and are so hinged that the driver has a better leverage upon the fingers to drop and recover them than he has upon any other finger carrier.

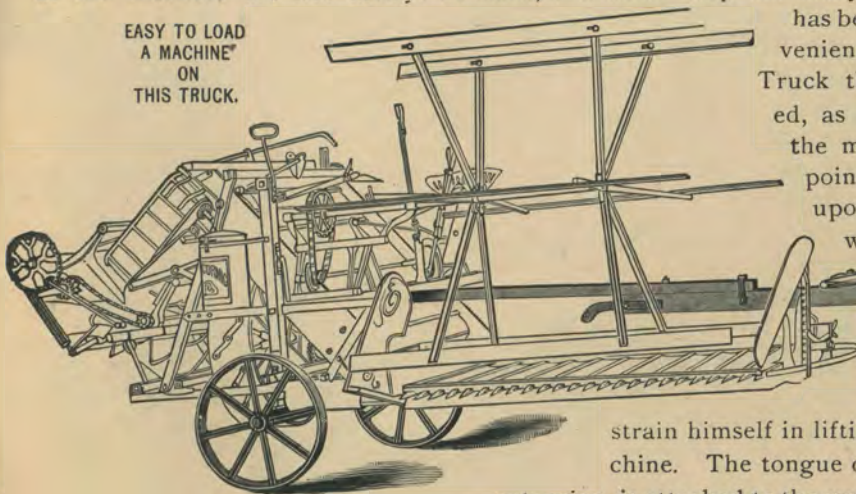


This carrier has been thoroughly tested, and will be found the best of its kind.

THE McCORMICK BINDER TRUCK.

We have a Binder Truck that the operator of the machine will appreciate. Heretofore it has been necessary to get help in order to get a machine upon the truck, and as the shockers are not always at hand, and other help not easily attainable, the driver

EASY TO LOAD
A MACHINE
ON
THIS TRUCK.



has been put to much inconvenience. With our present Truck this difficulty is avoided, as he has only to raise the machine to its highest point, clamp the steel axles upon the sills, put on the wheels and attach the tongue of the

Harvester and go ahead. There is no necessity for him to

strain himself in lifting any part of the machine. The tongue of the machine, with its

extension, is attached to the grain wheel slide and seat

plank, thus keeping the whole machine the same height from the ground as it is at the axle, which prevents any springing and straining of the machine when passing over rough ground. When the platform is swung high in the air without being supported, and the road is rough, the machine must be strained more than it would be by years of usage in the field. The truck wheels are high and neat, and altogether it is a handy, tasty device.

Our Standard Truck, which we have made for years, will be supplied to all who wish it.

THE RECORD OF THE MCCORMICK



MORNING
A Twenty Acre Field

Noon
Ten Acres Done



NIGHT
All in Shock



IT NEVER DISAPPOINTS
THE FARMER IN THE MIDST OF HIS
HARVEST

MATTHEWS,
HARTFORD, CT.
BURLINGTON, VT.

We tie every Bundle

— A FACT —

Worthy the Attention of Every Scholar:

THE McCORMICK OUTPUT OF TWINE

WAS
8000 TONS
IN 1888,

EQUIVALENT TO
64 TIMES ROUND
THE EARTH.



Every farmer knows that the McCormick Harvesting Machine Company have more at stake in their reputation for making machines than in twine, and to insure the good working of their machines it is important that their patrons use none but good twine. This fact is a guaranty sufficient that no poor twine with the genuine McCormick brand upon it will be offered to the public. Not so with the jobber and cheap twine vender, for they only have the one object, i. e. to get the farmer's money at a profit to themselves, not caring a fig about the results. That is the reason why one should buy of a reliable house like the McCormick, that has the proudest of reputations to maintain with an honest desire to give customers value received, rather than foster upon their patrons a cheap and worthless article for sake of a profit. This fact is clear to every one and accounts for the mammoth and unprecedented sales in a single season of eight thousand tons. Think of it! Enough to reach sixty-four times around the world, a fact worthy the attention of every scholar, young or old, and still the demand is almost greater than the McCormick works can supply. Leave your orders early with the nearest McCormick agent. You will not pay dearly for an experiment. The three brands which bear the McCormick trade mark are Pure Manila, Blue Jay and Pure Sisal. The Blue Jay brand is a mixed twine designed by the McCormick Company and is the best mixed twine on earth. Beware of imitations, and buy twine only which bears the McCormick Tag.



WHICH WAS ONLY A FEW YEARS AGO, THE EERING SCOTCHMAN
OF THE EFFIELD, IS NOW THE HORN OF THE MCCORMICK.

THE LAST OF HIS PAGE.