January 1903

Advertising Brochure: 1903 McCormick Farm Equipment

Follow this and additional works at: https://digitalcommons.unl.edu/tractormuseumlit

Part of the Applied Mechanics Commons

https://digitalcommons.unl.edu/tractormuseumlit/466
A Model Machine

The McCormick
MAKING A MODEL MACHINE
THE McCormick has been one of the chief constructive forces in developing the agricultural resources of the world and uplifting the farming business to its present high plane of profit and of pleasure. The machine that bears the name McCormick is a model machine, an international machine—a model machine in its construction—an international machine in its scope of usefulness.

Throughout the world the name McCormick has become a household word, and for more than three score years has represented the highest attainment in the manufacture of harvesting machines. The international renown of the McCormick is due to the genius that could originate and maintain one of the world's greatest enterprises, which, in the seventy-two years of its history, has grown from a small blacksmith shop to the mammoth world-centre works now embracing 170 acres of industrial activity.

Today we have increased confidence in the excellence of the McCormick; and, believing in the intelligence of the agriculturists, who are the wealth producers of the world and upon whom rests the prosperity of the future, we have been encouraged in our efforts to furnish machines that are original in design and modern in construction—machines that are model machines—machines that satisfy the world's demands.

McCORMICK DIVISION
INTERNATIONAL HARVESTER COMPANY
OF AMERICA.

Chicago, U. S. A.
January 1, 1903.
All history points to the fact that wheat is of Asiatic origin. Strabo and other ancient writers assert that it was found growing spontaneously in that country and in India. Egypt claims it as one of the important products of the Nile from the earliest dawn of civilization—a fact clearly proven by the engravings on the tombs at Thebes, twenty centuries B.C. Sicily claims it to be indigenous to her soil—more perhaps because the soil is so well adapted to its successful growth. One thing is certain—from time immemorial it has been known and cultivated as the most important and valuable cereal in all civilized countries.”

McCormick Light Draft Binder for 1903

The season of 1902 has demonstrated more forcibly than ever that the new McCormick binder is the machine that agriculturists can depend upon for successfully harvesting their small grain crops. The McCormick binder is offered to the agriculturists of the world as a machine with the latest improvements, and one that can be relied upon to successfully harvest and save grain even when it is in the most unfavorable condition. That agriculturists realize and appreciate the sterling qualities of the new McCormick binder is attested by the extraordinary demand for these machines, the capacity of the McCormick works having been taxed to the utmost to meet the requirements. Agriculturists require a machine that is easy to operate, for both team and driver—a machine that not only cuts all the grain, but also binds it into well-formed, evenly butted bundles—a machine that is correctly designed and substantially built of the best material—a machine that embodies all the modern improvements in binder construction—a machine that begets confidence alike in the minds of buyer and seller—a machine that requires no other recommendation than its name—such a machine is the new McCormick binder for 1903.

An exact duplicate of this binder is built in a left-hand cut

Rear view of the new McCormick right-hand binder.
McCormick Wide-Cut Binder with Tongue-Truck

On extraordinarily large farms there is some demand for a binder wider in cut than the average machine. This demand is fully met by the McCormick wide-cut or tongue-truck binder. The tongue-truck on this machine enables the team to easily do more work, and at the same time it gives the binder a steadier and smoother motion, thereby reducing the strain on the machine and team. It is, therefore, apparent that the operator of this large machine, which cuts a wider swath and which is equipped with a tongue-truck, can do more work in large fields of grain in a given length of time than is possible with a binder of ordinary size. There is absolutely no neck weight or side draft, and no tongue lashing against the horses. Corners are turned easily and quickly. When moving this binder, it is mounted on the transport in the usual manner, the tongue-truck fastening to the under side of the platform with spring catches, the castor wheel running on the ground and steadying the machine when passing over rough roads. The pole extending upward from the castor wheel serves as a guide for the lines, preventing them from becoming entangled in the reel.

The tongue-truck is built especially for the McCormick wide-cut binder, and is included in the price of same, but this truck can also be used on any regular McCormick binder, and will be supplied for such machines on special order.
**Main Wheel** One of the principal features of a binder, and the one that so strongly emphasizes the great worth of the McCormick, is the high and wide main wheel—the highest and broadest wheel ever built for a binder, and this fact explains the success of the McCormick in the most unfavorable conditions of wet and muddy ground. The main wheel on the new McCormick binder for 1903 is specially designed to secure the necessary strength and rigidity to support the machine and furnish ample power to operate the working parts. All these qualities are well combined in the McCormick main wheel which is shown in the accompanying illustration. A large part of the machine is supported on this wheel which is so constructed that the strain is equally distributed upon all the spokes, enabling it to withstand sudden and severe jars without affecting its perfect alignment and stability. The rim is made of cold rolled heavy steel plate, and it is impossible to bend it out of shape even under the roughest usage. These features are specially valuable when it is necessary to harvest grain on rough or stumpy ground.

**Binder Frame** Both sides of the main frame on the McCormick binder are composed of heavy square steel tubes; and the front and rear sills are made of heavy angle steel which makes the frame exceptionally strong and substantial. This form of construction secures absolute rigidity of the machine and perfect alignment of the bearings.

A noteworthy feature of the McCormick is strong construction. To work successfully a binder frame should be built to withstand the strains to which it is frequently subjected. The main frame and the main wheel on the McCormick form the strongest kind of a foundation for a machine that is strong throughout.
**Countershaft Adjustment**

On all bevel gears the natural tendency is for the cogs to work out of mesh, caused by the end thrust of the shaft, on which the bevel gear is mounted. This end thrust is entirely overcome, however, on the McCormick by means of the countershaft adjustment, which makes it impossible for the bevel gears on the countershaft of the McCormick binder to work out of mesh. The accompanying illustration shows a sectional view of this effective device, and by adjusting the threaded portion at the outer end, the bevel gears are held in perfect mesh during the lifetime of the machine. This most practical device is found only on the new McCormick.

**Roller Clutch**

The roller clutch on the McCormick is the simplest and most compact device of its kind made. By means of this clutch it is extremely easy to throw the machine in or out of gear instantly. The covering prevents the winding of straw in the clutch, and shields this part of the machine from all kinds of dirt and trash.

**Drive Chain**

The drive chain on the new McCormick binder has excellent wearing qualities. Each link has a large bearing surface, and the steel pins on which the links turn are made of a special grade of steel. For these reasons the chain is the strongest and most durable found on a binder. The drive chain is also provided with a practical tightener which is readily adjustable and which keeps the chain in perfect tension, besides protecting it from undue strain in case a cornstalk or other rubbish is caught between the wheel. This tightener insures the chain running true and prevents it climbing the sprockets. More relieves the countershaft of any sudden strains to which it otherwise would be subjected.
Elevators  In examining the construction of the elevators on the new McCormick binder it will be noticed that the tube yoke extends from the front to the rear and back again. This yoke holds the lower end of the elevators perfectly rigid so that there is no binding or twisting to rip off the slats or choke the canvas. This excellent feature insures the elevator canvas running free and prevents the machine from choking in heavy or tangled grain.

Another excellent feature of the elevators is their great width, enabling them to deliver grain in good shape for binding, no matter how long the straw or in what condition the grain may be. The deck roller on the McCormick is of great assistance in delivering light or tangled grain to the binding attachment. In short, the elevators on the McCormick are designed throughout to handle any kind of grain without waste. Furthermore, the upper and lower elevator canvases are speeded exactly alike so that the grain while being delivered is not rolled or pulled about, but simply carried to preventing the threshing and uniform delivery of the McCormick to form symmetrical and well-bound bundles.
Automatic Tightener for Elevator Chain  The simplest and at the same time one of the most useful devices found on the McCormick binder is the automatic tightener for the elevator drive chain. When the machine is in operation the chain is always kept running at the proper tension, the adjustment being automatic, thereby relieving the chain and sprocket wheels of all unnecessary strains. In one season's use this McCormick invention has thoroughly demonstrated its practicability. Should it for any reason be necessary to remove the elevator drive chain, the operator has only to press down on the spring tightener to loosen and remove the chain. The action of this device is clearly shown in the accompanying illustration.

Elevator Canvas Tighteners  It is well understood that by loosening the canvases at night they are not affected by dew or sudden rains. The interests of agriculturists are looked after by giving them a machine on which is found a practical device for loosening and tightening the canvases without tugging at the straps. The elevator canvases are tightened by simply lifting up the lower rollers, which are mounted on hinged boxes fitted with maple bushings, as illustrated herewith, and the canvases may be readily buckled to secure any degree of adjustment. The rollers are then dropped back into their normal position thereby properly tightening the canvases. This method of tightening the canvases insures a great saving of time and perspiration, and is a most valuable feature on a binder.

Platform Canvas Tightener  The platform canvas tightener on the McCormick is a very practical device. To manipulate the tightener the operator simply turns the small lever which loosens the canvas for unbuckling, and reversing the lever, after rebuckling, tightens the canvas again. The spring makes it impossible to move one end of the roller forward without the other end moving an equal distance—both ends must move together. Should the grain be wet and dampen the canvas to any considerable extent, causing it to shrink, the spring will allow the entire roller to give or yield in a uniform manner, thus keeping the canvas from running out of line, and also preventing unusual strains to this part of the machine by the shrinkage of the canvas.
Reel In every particular the McCormick reel is both strong and efficient. A doubly strong heavy tube frame supports the shaft on which is mounted a double set of arms to which the slats are securely fastened. The levers are always within easy reach of the operator, making it possible to adjust the reel instantly, thereby saving all the grain, no matter in what condition it may be found. This is a most valuable feature, as is attested by agriculturists everywhere. There is no condition of grain to which the reel can not be adjusted, for it can be raised high and dropped low, and can be swung forward or back without any unusual effort. In other words, the McCormick reel can be placed in any position the operator desires, according to the condition of the grain, enabling him to regulate the machine so that all the grain is brought into the sickle.

Binder Levers The tilting and shifting levers, as well as those controlling the reel on the McCormick binder, are so placed that they are convenient to the operator at all times. This arrangement, together with the ease of operating the levers, makes the McCormick an easy machine to handle in the harvest field. These levers are used quite often, especially in cutting uneven or lodged grain, and their rapid and easy adjustment enables the operator to successfully cut and handle grain in all conditions.
Raising and Lowering the Binder

The McCormick binder is easily adjusted to cut long or short grain, the operation of raising or lowering the machine being very simply and quickly performed. To raise or lower the binder, the operator turns the crank connected with the main wheel, and raises the worm gear supporting the binder for cutting a stubble any desired height. The grain wheel is also fitted with a worm gear for raising and lowering the outer end of the machine. These devices are very convenient not only for adjusting the machine to cut any height of stubble, but also for placing the binder on the truck when it is desired to transport it from field to field or along the roadway.

Folding Dividers

It is only necessary to see the folding dividers on the McCormick binder operated to appreciate the advantages of this splendid feature in binder construction. By folding the dividers, the width of the machine can be materially reduced, whenever it is necessary to transport the binder during harvest or over. This new device not only affords protection to the dividers when storing the machine in a limited space, but also is very convenient for placing the binder on the truck when it is desired to transport it from field to field or along the roadway.

Both outside and inside dividers fold easily
The binding attachment on a machine must necessarily be so designed and constructed that it will form and bind well-shaped bundles at all times, no matter whether the grain be tall or short, thick or thin, straight or tangled. This desirable result is secured on the McCormick by the ample range of adjustment, and the ease with which these adjustments are made by the operator. By means of a lever connected to the machine, convenient to the driver, the binding attachment can be shifted to bind long, short, or medium grain, making it possible for the bands to be placed in the middle of the bundle. The butt adjuster is fitted with an extension reaching almost aids materially in forming bundles that stand well in the shock, which is of vast importance. The adjustable wind board can be instantly changed to accommodate the longest or the shortest growth of grain found in the harvest field.

Reversible Trip Hook

The owner of a McCormick binder can make bundles of almost any desired size. In regulating the size of bundles a considerable range is secured by means of the trip hook adjuster, and, in addition to this, the hook itself may be reversed and thus reduce the size of the bundle considerably more. This feature is found only on the McCormick, and proves specially valuable when cutting grain not fully matured or where there is a heavy undergrowth of weeds or grass, for, when bound in small bundles, there is little or no danger of such grain spoiling in the shock or stack.
Roller Twine Tension

The roller twine tension found on the McCormick binder is exceedingly simple in construction and is unequaled in its practicability. It consists of two corrugated rolls held together by a spring, and is the one tension through which the twine passes freely without tangling or kinking. With this tension it is not necessary to even rethread the binder when a ball of twine has been used, for after tying the ends of twine together, the knot passes through the tension without hindrance. This roller twine tension is another of the numerous exclusive and excellent features found only on the new McCormick binder.

Improved Binder Needle

By the introduction of case-hardened wearing parts in the needle, and eyes through which the twine passes as it is drawn from the twine can to the needle, a great saving is affected for the owner of the McCormick. The accompanying illustration shows the point of the new needle in which is inserted the case-hardened steel roll. This roll will outwear several ordinary needles, and in the aggregate saves a great amount of money in the matter of extra or new needles, in addition to the time that would otherwise be required in repairing this part of the machine. The excellent work of the McCormick binder in the harvest fields of the world is largely due to the perfection and introduction of such improvements.

Knotter

The McCormick knotter embodies in the fullest degree the qualities which are necessary to secure uniform regularity in binding, namely: Accuracy, simplicity, and durability. All wearing parts are made of the best material and are case-hardened. The McCormick knotter has only two moving parts. Each piece is accurately made and every completed knotter thoroughly tested before leaving the works, thereby insuring perfect knots and well-bound bundles. Owing to the simplicity of construction, the McCormick knotter is easy to keep properly adjusted, is not liable to need repairs, and costs practically nothing to maintain it in good working order as long as the machine is used. The accompanying photographic illustration shows the McCormick knotter being tested—binding bundles at the works under practically the same conditions as they are bound in the harvest field.
**Pitman Shield** An improved pitman shield and holder is another noteworthy feature of the new McCormick binder. This shield has several advantages to which special attention is directed. As the accompanying illustration shows, it is very easy to connect or disconnect the pitman by means of this improved device. The shield also protects the knife-head from dust and dirt, and is filled with an oil reservoir from which the lubricant is constantly fed to the bearing.

**Roller Bearings** Particular attention is called to the material and construction of the McCormick roller bearings. The rollers are made of the highest grade of specially hardened steel, having a uniformly smooth surface which makes the bearings run freely and without friction.

In the McCormick roller bearing the construction is such that each individual roller runs entirely free and independent of the other rollers, so that there is no loss of power caused by the rollers rubbing together, as is the case where the rollers come in contact one with the other. The cage is made of high grade material and its great strength keeps all the rollers in perfect alignment, insuring light draft and long life to the machine. Roller bearings are used in the main and grain wheels, and in all other important bearings throughout the machine.

**Bundle Carrier** There are several points of excellence which characterize the bundle carrier on the new McCormick binder. In the first place, the carrier is exceedingly strong and durable—furthermore it is easily operated by the driver—it does not throw the bundles on the ground, but simply lowers them to the stubble and slides out from under them as the machine moves forward—it can be swung around out of the way when oiling the binder or when opening up a field—with this carrier the farmer can readily place the bundles in symmetrical rows, thereby rendering the work of the shockers easy, and enabling them to do more work with less effort.
**Binder Truck**

Whenever it is necessary to transport the binder from place to place or to store the machine in a narrow shed, the McCormick binder truck is of very great value. The operator has only to turn the raising device of the machine, place the wheels in position and change the tongue, which is fastened by spring catches, and the binder is ready to be moved. The whole operation of trucking the machine requires only a few moments of the driver's time.

**Flax Dump**

The McCormick flax dump can be readily attached to a McCormick binder in place of the binding attachment, and affords a practical means of harvesting the flax crop. A flax dump, illustrated herewith, is used with the McCormick header and also the various McCormick machines. The flax dump is an extra at the present time, and is not included in the price of McCormick header-binder. A flax dump is somewhat similar to the one supplied for the McCormick header-binder, but it is not included in the price of the machine.

**McCormick Header-Binder**

A very practical as well as economical machine for harvesting large areas of wheat is the McCormick header-binder. This machine harvests and binds the grain into bundles in a splendid manner that compares favorably with a regular binder. The McCormick header-binder has about double the cutting capacity of the regular binder, and as it only requires one man to operate it, its economy for harvesting large crops is self-evident. Should any purchaser of this large McCormick binder desire a header only, a header spout for the same will be supplied on special order, and this spout will enable the operator to quickly convert the header-binder into a machine for heading. The McCormick header-binder is unsurpassed in general excellence, and is fully up to the high standard maintained in McCormick machines for more than seventy years.
McCormick Header

The McCormick light draft header is also designed for use where agriculturists devote large areas to the growing of wheat, and prefer to harvest only the heads. It is exceedingly strong, being constructed throughout on scientific principles, which in sure good work, light draft, and durability. All important journal boxes are fitted with McCormick improved roller bearings which decrease the draft still further, and make the McCormick header the most popular machine of its kind. Wherever used, it has given thorough satisfaction, and the present season will add many more to the ranks of those who use the McCormick light draft header.

In ease of handling and steering, the McCormick header is unexcelled, and wherever used has proved to be eminently successful, as is evidenced by the increased demand for this machine. Its distinctive features are high and wide wheels, strong steel elevators, large canvas rollers, and substantial platform. In finish and equipment it is all that the name McCormick implies.

Write for beautifully illustrated header pamphlet

The McCormick light draft header
McCormick Daisy Reaper

In some localities agriculturists prefer to harvest their grain with a reaper, leaving the gavels on the ground until the grain is thoroughly cured and dried, and the McCormick Daisy reaper is specially designed to meet the requirements of such localities. In addition to wheat and oats, the machine is well adapted for cutting flax, clover, and buckwheat. The McCormick Daisy is light in draft, being easily drawn by two horses. For transporting through narrow lanes or roadways the reaper can readily be folded up into a small space, as shown in the accompanying illustration. This feature is specially appreciated by the owner when he desires to store his machine for the winter. The rake arms on the McCormick can be regulated to deliver gavels of any size, or to make a practically continuous swath, should the grain be very green or damp. If there should happen to be a thin spot in the field, the operator can prevent the discharge of a gavel by holding his foot on the trip lever until enough grain has accumulated on the platform desired size. The reaper wheels are fitted with roller bearings and serrated knife are furnished with each machine. Other valuable features, among which may be mentioned the ball and socket tilting device, the truss platform, high rake head platform joint, and strong construction throughout.
"Grass is the forgiveness of Nature—her constant benediction. It invades the solitude of deserts, climbs the inaccessible slopes and forbidding pinnacles of mountains, modifies climates, and determines the history, character, and destiny of nations. Its tenacious fibres hold the earth in place and prevent its soluble components from washing into the wasting sea. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose."

McCormick Mowers

Agriculturists throughout the world have long placed well-merited confidence in the McCormick line of mowers. Excellent material, combined with perfect design and splendid construction, make the McCormick mowers not only light in draft, but also exceedingly durable machines. In the following pages the different McCormick mowers are shown complete and in detail, accompanied by a brief description of each machine and its constituent parts.

McCormick Vertical Lift Mower

The McCormick Vertical Lift mower, a view of which is presented herewith, is specially designed for cutting on rough and stumpy ground, but is also well adapted for general use. This machine combines all the essential features of the most perfect grass-cutting machine. By virtue of its achievements on rough and uneven fields, as well as on smooth and level meadowlands, the Vertical Lift mower is generally recognized as being the best all-purpose mowing machine manufactured. The McCormick is equipped with devices by means of which the cutter-bar can be raised to a vertical position and lowered by the driver, the machine being thrown in and out of gear automatically without stopping the team. This form of construction is found invaluable, as it enables the operator of the McCormick Vertical Lift to cut close up to a tree, stump, or rock, and save all the hay.

The cutter-bar is easily raised for passing any obstruction, and the machine is thrown out of gear automatically.

Sizes: 4½-foot and 5-foot cut
without any loss of time that would otherwise be consumed in operating an ordinary machine under such adverse conditions. The Vertical Lift mower can be operated successfully and satisfactorily on any land and under any condition suitable for operating a machine where the mower can be drawn by the horses, and, furthermore, can be handled on ground and under conditions where an ordinary mower can not be run. It is the only mower designed both for general cutting and for rough and stumpy lands.

**McCormick New 4 Mower**

For general use on smooth or even ground the McCormick New 4 mower has never been excelled. This machine can be depended upon to cut grass easily, and cut it well—and as a grass cutter has attained a world-wide reputation. There is to-day a larger number of these mowers in general use than any other pattern, which is positive evidence of their popularity. The New 4 mower is equipped with many features which will continue to commend it to the world's grass growers. Among those worthy of special mention are the perfect and frictionless bushings, symmetrical and staunch main frame, simple and powerful gears, direct stroke pitman, and long steel wearing plates for the knife. This mower is made up of good features throughout, and for cutting on well cleared farms is unexcelled. The McCormick New 4 mower is identical Lift mower, with the single exception of the the cutter-bar, and throwing the machine in and

**Strong in construction**

Sizes: 4½-foot and 5-foot cut

**Light in draft**

*McCormick New 4 mower*
McCormick New Big 4 Mower

Built on the same principle as the McCormick New 4 mower with the essential parts proportionately larger and stronger, the McCormick New Big 4 mower is the most powerful grass cutter in the McCormick line. It is specially designed for, and fully meets the requirements of, agriculturists who are extensive grass growers. As the name indicates, it is a big mower, being furnished with either a 6 or 7 foot cutter-bar, and will cut half again as much as the ordinary sized mower.

Bevel Gear and Clutch

Among the more salient features of McCormick mowers are the superb gearings. The spur pinion is securely keyed to the countershaft which turns in removable bushings. The bevel gear is very accurately made and bored, thereby insuring an easy running and almost noiseless machine. As will be seen by reference to the illustration, the gear is entirely separate from the spur pinion, the machine being thrown into gear by means of the four clutch pins which pass through holes in the hub of the spur pinion. The handle which is operated by the movement of the shipper engages the ratchets immediately when it is thrown in gear, as the shipper foot of the operator.

Sizes: 6-foot and 7-foot cut
McCormick Little Vertical Mower

In design and in construction the McCormick Little Vertical mower closely resembles the regular Vertical-Lift mower, the chief difference being in the size of the machine. It is specially built for use with one horse, and is particularly adapted for use on small farms or lawns, and in parks, orchards, and cemeteries. This Little Vertical mower will meet all the requirements on the farm where only a limited amount of grass is grown. As it is drawn with one horse, this machine can be used for cutting in places where a large machine with two horses could not be operated. Chief among the noteworthy features of this mower is the device for raising the cutter-bar, and throwing the machine in and out of gear automatically without stopping the horse.

This machine is equipped with a simple and effective foot-lift which enables the driver to pass small obstructions without using the hand lever.

Another noteworthy feature is that the thills can be readily shifted to either side of the machine as the conditions may require to keep the horse off the cut grass.
Main Frame  A strong and rigid foundation is required for a successful mower, and the main frame, the foundation of the McCormick mower, has extraordinary strength. It is cast in one piece, and to insure absolute accuracy in the fitting up of the counter and crank shafts a special machine is used for boring the holes. Roller bearings, as shown in the illustration, are supplied for the main axle, while the crank shaft turns in removable steel babbitt-lined boxes, this style of bushing being the most satisfactory bearing for such a shaft. The outline of mower frame with illustration of forked coupling emphasizes one of the strong features of the McCormick. This coupling is hand forged, one prong of which connects at the side with that part through which the crank shaft passes, the other prong, extending to rear of frame, being securely fastened in the center; and the following illustration shows the forked coupling separately and its manner of attachment to the main frame. This construction gives great strength and rigidity to the cutter-bar and keeps it in line. The forked coupling being forged by hand and with great care, the most perfect joint is the result. The end of the coupling bar is accurately turned to receive the inside shoe hinge, furnishing a long horizontal bearing, and thus enabling the cutter-bar to be tipped up or down easily without throwing it out of line. The front fork is threaded to afford a strong and firm connection with the main frame. By means of this arrangement, the knife is accurately adjusted and centered in the guards. The rear fork is securely hinged to the main frame under the axle, and by its position secures great strength and rigidity where it is most needed, that is, at the inner end of the cutter-bar.
Correct mechanical principles are followed in the construction of McCormick mowers, and this is of vital importance, especially in the shoe and cutter-bar connections. An extra heavy double-hinged joint connects the cutter-bar to the machine. This hinge is mounted on the long horizontal bearing at the end of the forked brace and holds the bar in perfect alignment, no matter whether the guards be tipped up or down. Moreover, the shoe sets out sufficiently far from the mower to always insure cutting a full swath without the off horse being crowded into the standing grass.

**Tilting Shoe**

By means of the long horizontal bearing on which the inner shoe hinge works, the cutter-bar on the McCormick mower can be readily tipped up or down, at the same time keeping the bar in perfect alignment with the pitman. This construction, therefore, secures an easy running knife in whatever position the guards may be placed. The long horizontal bearing and the double-hinged shoe are simple in construction, and are made very strong and durable, thereby insuring long life in this vital part of the machine. By means of a thumb screw on the tilting lever, it can be adjusted to allow the cutter-bar to tilt automatically, following the surface of the ground and enabling the machine to cut uniformly.
The foot-lift on the McCormick mower is efficient and easy to operate. Its construction is such that the driver has great leverage, and the entire bar is readily lifted from the ground whenever necessary. The action of the foot-lift is facilitated by means of a powerful spring which acts in conjunction with the pressure exerted on the lever by the foot of the operator. The mechanism is extremely simple and strong, and the action is positive, which, combined with its ease of manipulation, makes the McCormick foot-lift the most practical device of its kind.

With the foot-lift the cuttermediate height with ease, hence backing up the mower the driver experiences no trouble whatever in handling the bar with his foot, while he has both hands free to guide the team.

To sum up, the principal features of the McCormick foot-lift which have made it popular throughout the world are its simplicity, practicability, and efficiency.
Draft Rod  On all McCormick mowers the inner end of the cutter-bar is connected directly to the double-tree by the draft rod, and hence the direction of the draft of the team exerted on the cutter-bar is such that the machine is held in perfect balance, and there is no tendency to force the off horse into the uncut grass. The team really pulls from two points, first where the tongue connects with the mower frame, and second where the draft rod connects with the cutter-bar. The draft rod on the McCormick also exerts an upward pull which carries the cutter-bar lightly over the ground, thereby greatly reducing the draft. The doubletree is connected to the draft-bracket by means of a spring clevis, which relieves the horses' shoulders of severe jars and jerks occasioned by passing over rough ground, or coming in contact with some unseen obstruction.

Cutter-Bar  In order to produce a successful mowing machine special attention must be given to the construction of the cutter-bar, and hence great care is exercised in designing and manufacturing this part of the McCormick mower.

The bar itself is made of heavy cold rolled steel, with a thick rib extending the entire length of the bar. This construction results in a cutter-bar which is unsurpassed in strength, rigidity, and durability.

Long wearing plates

The bar is securely fastened to the inside shoe, which, together with the hinge and coupling, forms a combination of parts that keeps the knife and pitman in a straight line.

The bar is fitted with very long wearing plates, insuring easy running and smooth cutting action in the knife.
After the grass is cut and cured, the McCormick hay rake will be found to meet every requirement of the agriculturist for gathering it into windrows. McCormick rakes have become exceedingly popular throughout the world. They combine many excellent features. The best material is used in the construction of McCormick rakes, and each part is specially designed to perform its particular functions well, the whole resulting in a strong and substantial rake.

The wheels have staggered spokes, and are fitted with a heavy two-inch channel steel tire. The hubs are removable and after years of use can be replaced at a very small expense, thus practically renewing the wheel. The frame is made of high carbon angle steel, and the rake head is strongly and scientifically trussed, which prevents sagging. Strong and heavy malleable hinges of special design are used to connect the frame and rake head.

Specially selected spring steel is used in the manufacture of the teeth used on the McCormick rakes, combining great strength and resiliency, qualities which are essential in a successful rake. The points of the teeth are so shaped that they get all the hay without digging into the ground or picking up stones. McCormick rakes can readily be operated with either one or two horses by simply adjusting the shafts accordingly.

Following are the sizes in which McCormick rakes are made:

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 1/2-foot</td>
<td>20 or 24</td>
</tr>
<tr>
<td>8 foot</td>
<td>20 or 26</td>
</tr>
<tr>
<td>9 foot</td>
<td>23 or 29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th>No. Teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-foot</td>
<td>26 or 32</td>
</tr>
<tr>
<td>12-foot</td>
<td>32 or 40</td>
</tr>
</tbody>
</table>

*The McCormick is a strong and substantial hay rake*
Rake Wheels

Particular attention is given to the construction of the wheels used on the McCormick hay rakes. They are designed to have the maximum strength and rigidity, and at the same time be light in weight. The spokes are staggered and are set in the hub in such a manner that it is practically impossible to loosen them, even under the most adverse conditions.

The tires are composed of heavy two-inch channel steel, which gives the wheel great strength and rigidity.

The wheels are fitted with removable hubs which are readily replaced at slight expense, the result being a practically new wheel, and it may safely be said that they never wear out.

Rake Head and Frame

The highly carbonized angle steel rake head and frame are hinged together with heavy malleable hinges to the head and frame. This construction makes it very durable. The rake head is trussed in such a manner that it does not sag, and a single glance will convince anyone that there is no danger of the breaking down at any important point.

The axles are made of special steel, having fine and even texture which insures easy running of the rake at all times. Taken altogether, the McCormick hay rakes stand high in the favor of the grass growers throughout the world.
"Corn is an American plant, its original home probably having been the portion of the North American continent now known as Mexico. The Indians were cultivating it in a rude way when America was discovered, and it has been found in the mounds built by the people who evidently roamed over this country in prehistoric times. Although unknown in Europe, Asia, and Africa, until taken there after the discovery of America by Columbus, corn has outstripped the other grains in yield, and is now the king of all cereals."

**McCormick Corn Binder**

Only within recent years has corn become the king of American cereals, and it is needless to say that the McCormick vertical corn binder has been an important factor in making corn king and enabling agriculturists to save the giant crop. The McCormick corn binder is built on correct principles, and operates successfully in all conditions of corn. The foundation of the binder, the main frame, is very strong and rigid, enabling the machine to withstand severe strains without injury. The main frame consists of heavy square steel tubing, with angle steel arms, and forms a solid foundation to support the entire machine. The width of the McCormick conforms to the average width of the corn rows, making its use practical in the field. The machine is fitted with roller bearings in the principal journals. The conveyor chains have patented lock joints; the dividers are wide between the points; the band adjuster has a range of twelve inches; the cutting mechanism comprises two stationary knives and a sickle; the bundle carrier is simple in design and strong in construction.

The McCormick corn binder works successfully in all conditions of corn; it opens lands and picks up the down rows; it handles butted bundles; in short, it simplifies the handling of the corn crop and makes corn growing profitable.

*Write for special pamphlet describing the McCormick "King Corn" binder*
The value of the corn crop is materially increased and in many instances doubled by using the McCormick husker and shredder. This machine husks the ears and at the same time converts the stalks and fodder into very excellent and nutritious roughage which, when properly handled, is equal to or better than hay for feeding purposes. With the great and growing demand for well-fed cattle, it behooves corn growers to utilize all of the corn crop, and the best method of saving the stalks and fodder is to shred them with the McCormick husker and shredder. A conservative estimate places the value of cleaned stover at more than three times the value of the same amount of unshredded stalks and fodder.

The McCormick "Little Giant" husker and shredder has met with deserved success wherever introduced, its many excellent features recommending it to all corn growers. A larger-sized machine, known as the McCormick Big husker and shredder, is built for large farms and custom work.

Ask for special pamphlet illustrating and describing the McCormick huskers and shredders

It is a "Little Giant"

The McCormick husker and shredder enables you to double the value of your corn crop

McCormick husker and shredder
McCormick Knife and Tool Grinder

It is impossible to obtain the best results with a mower unless the knife be kept sharp, and the McCormick grinder has proved to be an excellent tool for this purpose. As shown in the illustrations, the McCormick can be operated either as a knife or tool grinder. With this grinder a knife or tool can be sharpened in considerably less time than is possible with the ordinary grindstone. The grinder is convenient for use in the field, as it can be readily attached to the mower wheel. The second illustration shows the grinder being operated as a tool grinder. A stone is furnished on special order for the gumming of saws, and is valuable for this purpose. A cylindrical stone is also furnished with each grinder, and it requires only a few moments to sharpen a hatchet, chisel, or other tool. The McCormick knife grinder as a foot-power machine is also supplied on special order.

McCormick Reaping Attachment

For agriculturists who do not require a binder or a reaper to handle their small grain, the McCormick reaping attachment gives general satisfaction when properly handled. This attachment is very easily connected to the mower, and the farmer, with the aid of a helper, can harvest several acres of grain in a day.

The attachment consists of a slatted platform, inside and outside dividers, seat, and rake. The gavels of grain are formed on the platform which is held obliquely by the operator. When enough grain has accumulated, the platform is dropped to a horizontal position, and the gavel is discharged. The rake is of material assistance in forming and dropping the gavels of grain. This reaping attachment is constructed for use with the McCormick Vertical Lift and McCormick New 4 mowers.
McCormick Binder Twine

Next to a good binder, like the McCormick, there is nothing which contributes more to a successful harvest than good binder twine. The chief characteristics of good twine are evenness of strand, full strength, and full length, and no effort is spared to make the various brands of McCormick twine the very best that can be produced. In the McCormick twine mills is installed the most modern machinery for manufacturing binder twine. This, together with the unequaled facilities for obtaining the best grades of raw material, makes possible the production of the highest quality of binder twine, as is represented by the various brands bearing the McCormick tag. The grain grower who buys McCormick twine is always assured that the twine is just what the tag says it is, the different brands of McCormick twine being Sisal, Standard, Standard Manila, Manila, and Pure Manila, which are represented by differently colored tags.
**Repairs** When buying a machine the question of securing repairs should be considered. McCormick machines are built to last, but wearing parts must sometimes be renewed and accidents may cause breakage. As these things occur in the midst of harvest, it is a great saving to the agriculturist to be able to secure needed parts at once. To provide for all such emergencies, there is a complete supply of all necessary repairs to be found at the many general agencies for the McCormick, as well as at the thousands of local agencies throughout the world. With each new machine there is furnished free a complete list with illustrations of all parts to serve as a guide in ordering repairs. The facilities offered the purchaser of a McCormick are unequalled, and the saving of time in the matter of securing even a small part for a machine may mean the saving of a crop or portion thereof. All parts entering into the construction of McCormick machines are duplicated with accuracy, and can easily be fitted to the machine for which they are made. This result is attained by employing only the most approved methods of manufacture by means of which every piece turned out is an exact duplicate of the original pattern.

**Care of Machines** In manufacturing McCormick machines great care is exercised. Materials are carefully selected and the various processes through which they pass in the construction of machines are carefully super-intended. In order that agriculturists may benefit by this rigid inspection before and during construction, we make the suggestion that the machines be well taken care of during and after harvest. The operator of a machine should keep all bearings well oiled and free from dirt, and thus prolong the life of the machine, and at the same time avoid delays and expense caused by burnt-out boxes — besides, a well oiled machine runs smoother, cuts easier, and saves the team.

Wherever possible, harvesting machines should be housed during the winter months. A little care in this particular will effect a great saving in expense and annoyance when the machine is again desired for use. Thus it is by giving attention to the care of harvesting machines that the amount of work performed may be largely increased and the best interests of the owner conserved.
McCORMICK

BINDERS  MOWERS  RAKES
CORN BINDERS  HUSKERS & SHREDDERS  CORN SHOCKERS
HEADERS  HEADER BINDERS  REAPERS
RICE BINDERS  BINDER TWINE  KNIFE GRINDERS