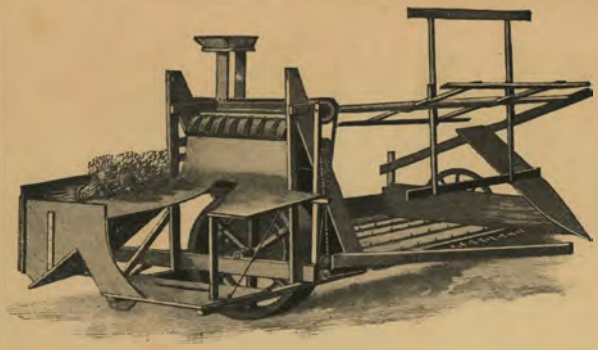
FORTY HARVEST SEASONS

1858 1898

Forty Harvest Seasons.



1858.

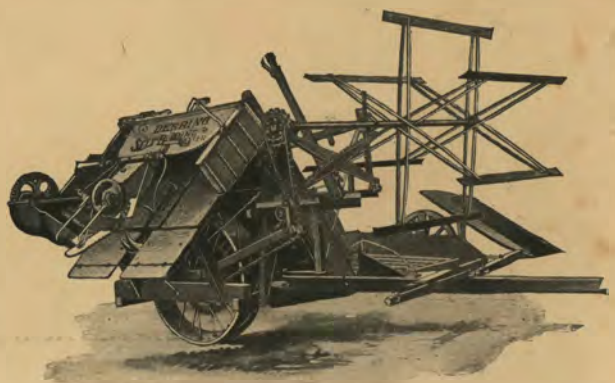
Deering-Marsh Harvester.

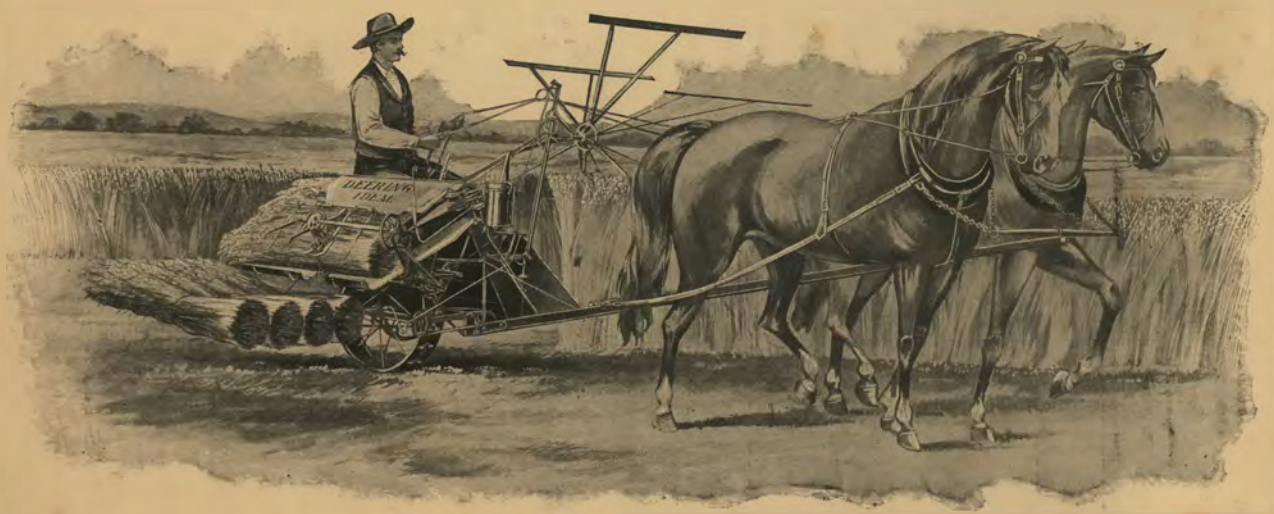
THE forefather of every successful grain or corn binder of the present day. Born in obscurity, fostered in poverty, it yet became the crowned monarch of the early-day harvest fields.

1878.

Deering Twine Binder.

SECOND and greatest step in the growth of modern harvest perfections. Born of necessity —the mother of all invention—opposed in its youth by organized competition, it triumphed over all and swept non-binding harvesters out of sight forever.





1898. Deering Ideal Binder. 1898.

CLIMAX of forty years of study, forty years of experiment, forty years of effort, forty years of success. The highest ideal of this age of mechanical perfection. Back of it a record of four years of harvest experience; before it uncounted years of triumph over competition.

DEERING HARVESTER CO.,

CHICAGO, ILL., U. S. A.

January 1, 1898.

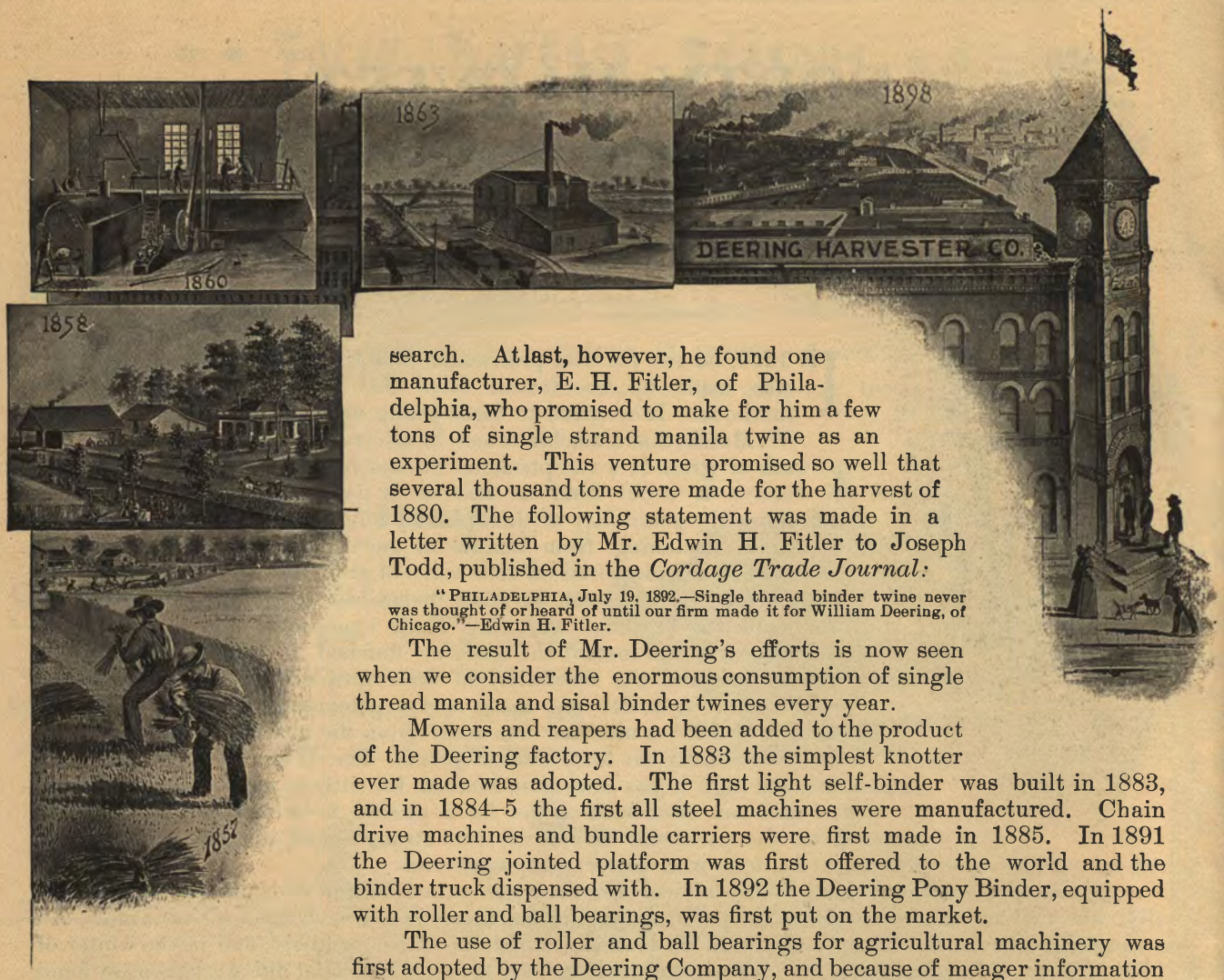
FORTY HARVEST SEASONS

The great chief Shabbona, the friend of the whites, on the last visit to his old reservation, sees with wonder the ripened wheat falling before the first Marsh harvester.

IN 1857, on the yet wild prairies of Shabbona Grove, Ill., an invention was made by two farmer boys that has revolutionized harvest methods. It occurred to these young men, Charles W. and Wallace W. Marsh, that a machine could be so constructed that it would deliver a swath of grain to a receptacle on the machine where two men standing to receive it could bind as fast as it was cut. They attempted to determine the possibility of their plan by binding rapidly as they followed a reaper, hastening from bundle to gavel and making the band on the run. They measured off four acres of grain and the reaping machine was started; the two men exerting themselves to the utmost found they were able to keep up with it. Their experiment was so successful that almost at the instant the machine finished its stint the last bundle was bound and the feasibility of their proposed machine was almost established. A model was made and a patent was taken out. For the harvest of 1858 a machine was built from the gearing of an old reaper, that successfully cut forty acres of grain. The dawn of a great enterprise seemed fair, but high hopes were soon blasted, for without mechanical experience the twelve machines later built on the farm proved to be faulty. The machine operated by the inventors themselves was strengthened up, however, and was run enough to show what might be done with better made apparatus.

Fortunately an enterprising and practical neighbor was called in for consultation. This new ally, who had had much experience in operating reaping machines, encouraged them with his aid. An arrangement was made whereby Mr. John F. Hollister aided one of the brothers, and in the winter of 1861–2 in an old engine room the first perfect machine was made. Financial aid was then at hand and a company, Marsh Bros. & Steward, was formed.

In 1864 twenty-four practical machines were built in a little sash factory, which was used as a machine shop. In 1865 twenty-six machines were built. In 1866 the number grew to 100, in 1867 150, and so on until 1874 when manufacturers of reapers found their trade so seriously affected that without leave or license they began building Marsh harvesters. E. H. Gammon and William Deering early became interested in the business. Mr Deering, it is now seen, foresaw better than all others the future demand for an automatic binder attachment. He kept closely in touch with inventors in this line, and as soon as a practical wire binder was accomplished he undertook its manufacture. Experimental machines were operated in 1872–3 and orders were taken to be filled for the harvest of 1874. In 1875 the most practical wire binder ever produced was extensively sold by this company, but wire was objectionable and every effort was made to find a suitable substitute for it. Thousands of dollars were spent in efforts to get a straw-band binder and then attention was turned toward the possibilities of a twine binder. Very early in the year 1878 a preliminary arrangement was made with John F. Appleby. Subsequent to the harvest this was ratified by a written agreement and the manufacture of Appleby twine binders was begun on a large scale by William Deering. The two following harvests proved the tremendous value of the great invention, and other manufacturers began to awaken to the new and extraordinary demand. In 1879 the conclusion was reached that no twine suitable for binding grain had yet been produced. Mr. William Deering attempted to secure a suitable rope yarn for this purpose, and visited all the twine factories in the country in an almost fruitless



search. At last, however, he found one manufacturer, E. H. Fitler, of Philadelphia, who promised to make for him a few tons of single strand manila twine as an experiment. This venture promised so well that several thousand tons were made for the harvest of 1880. The following statement was made in a letter written by Mr. Edwin H. Fitler to Joseph Todd, published in the *Cordage Trade Journal:*

"PHILADELPHIA, July 19, 1892.—Single thread binder twine never was thought of or heard of until our firm made it for William Deering, of Chicago."—Edwin H. Fitler.

The result of Mr. Deering's efforts is now seen when we consider the enormous consumption of single thread manila and sisal binder twines every year.

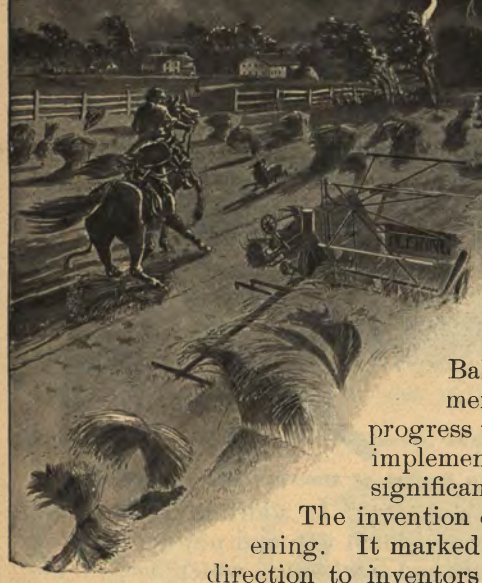
Mowers and reapers had been added to the product of the Deering factory. In 1883 the simplest knotter ever made was adopted. The first light self-binder was built in 1883, and in 1884–5 the first all steel machines were manufactured. Chain drive machines and bundle carriers were first made in 1885. In 1891 the Deering jointed platform was first offered to the world and the binder truck dispensed with. In 1892 the Deering Pony Binder, equipped with roller and ball bearings, was first put on the market.

The use of roller and ball bearings for agricultural machinery was first adopted by the Deering Company, and because of meager information and experience that was to be had at that time from other sources, the experimental work was exhaustive and thorough. The Deering Company, with the same steadfast conviction that resulted in the development of the Marsh harvester and the twine binder, sturdily battled for the light draft principle, and in 1897 machines of some other makers were partially equipped with rollers. The perfection of these bearings is now found in Deering machines, and by the use of large steel balls and cold drawn steel rollers in properly made cages, the friction produced in the machine has been very greatly reduced. The horizontal principle for binding corn has also been vigorously espoused by this company with a determination that resulted in its complete victory over other devices during recent harvests.

The latest product of the Deering factory, the Deering Ideal Binder, is announced in the following pages. This machine has the qualifications necessary to place it far in advance of anything of its kind, as a careful examination will demonstrate.

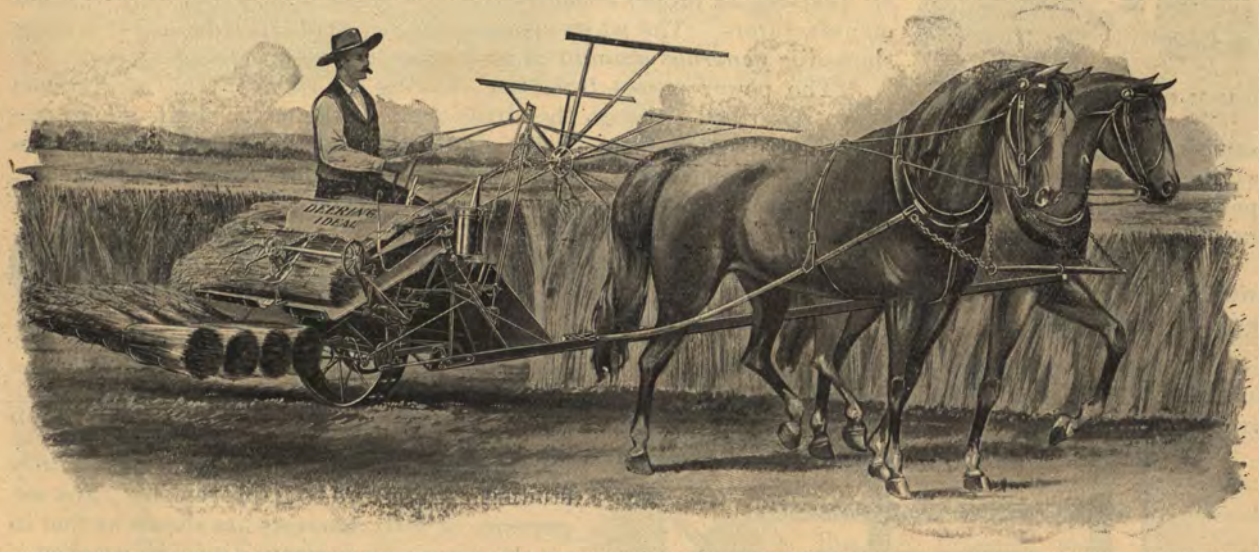
Forty harvest seasons have rolled around since the memorable year of 1858, forty years of effort, forty years of success. The development of the twine binder by Mr. Deering was hedged about by difficulties that seemed insurmountable, for none believed as he did that this was the solution of the problem and he worked alone and at great odds. It is fitting on this double anniversary that reference be made to these two important improvements in the art of harvesting. The same enterprise that perfected the first harvester and the first twine binder is seen today in the various machines made by the Deering Company, which are fully described in this circular.

DEERING IDEAL BINDER



A REVIEW of the history of the Nineteenth Century, which is just drawing to a close, brings with it a feeling akin to surprise to the younger generation at the discovery that the development of the practical sciences, those of most direct benefit to mankind, had hardly begun when Prof. Morse flashed the first telegraphic message from Washington to Baltimore, hardly more than fifty years ago. To those others whose memories go back to that elder day, especially to those pioneers of progress who broke the virgin soil and gathered their crops with the crude implements of the time, the words of that historic message have an added significance—***"What hath God wrought?"***

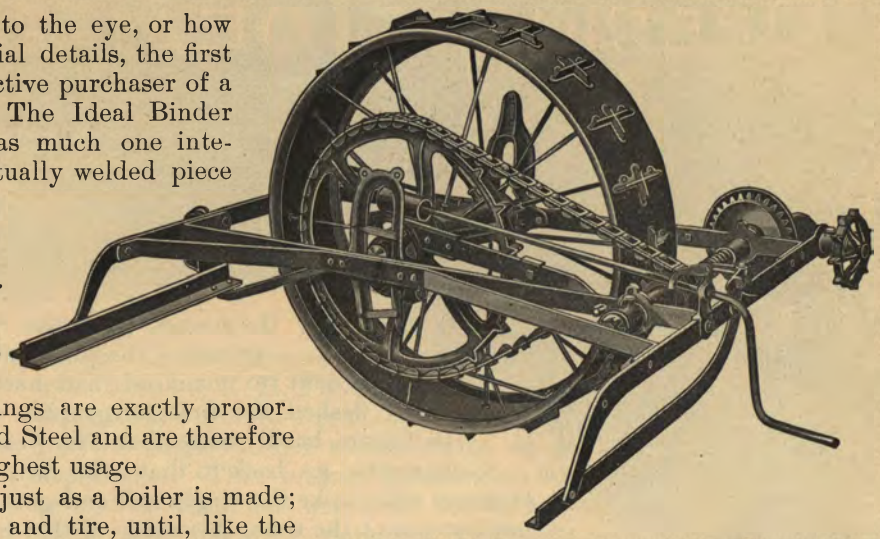
The invention of the Marsh brothers was almost coincident with the new awakening. It marked the beginning of an epoch of great achievements, it gave a new direction to inventors in the field of agricultural machinery, and it was the inauguration of a steady, step-by-step development that has produced at the beginning of the fifth decade a machine for harvesting grain that has proved itself to be ***ideal*** in construction and operation. The Deering Ideal Binder is the direct descendant of the first harvester through a long line of honored ancestors. It combines their sterling qualities with the finer attributes resulting from the mature experience of forty harvest seasons. It embodies tested material, careful construction and graceful



THE LIGHT-DRAFT, NOISELESS-RUNNING DEERING IDEAL BINDER.

design, with the brilliant ideas of practical inventors who have devoted their talents and their lives to the work in the harvest field and in the shop. This machine has followed the harvest ***four times around the globe,*** and has proved itself fit under the most severe and trying conditions wherever grain grows. True as its own sturdy steel, fashioned on lines of surpassing symmetry and grace, it has no rivals, and for a time, at least, can have no imitators. Never before have we launched a new creation of our factory with greater confidence or more genuine pleasure, and no word can describe our estimation of its virtues better than the name it bears.

NO matter how pleasing to the eye, or how attractive are the special details, the first concern of the prospective purchaser of a binder is the frame. The Ideal Binder frame is ***practically a unit,*** as much one integral part as though it was actually welded piece to piece. The entire structure forming the foundation for the machine is carefully fitted and then it is ***hot riveted together*** by powerful pneumatic riveters that completely fill every rivet hole and make an absolutely perfect joint. The side castings are exactly proportioned to those of the Improved Steel and are therefore amply insured against the roughest usage.



Main Frame of Deering Ideal Binder.

The drive wheel is made just as a boiler is made; the spokes are riveted to hubs and tire, until, like the frame, it is earthquake and cyclone proof. It revolves on a polished shaft equipped with Deering bearings, frictionless and true. In addition to the "cold rolled" rollers a new light draft feature has been added to the wheel, which is found nowhere but on Deering machines. The hubs revolve against ***hardened and polished steel balls,*** which act in the place of washers and take away the last vestige of resistance in the bearings. The method of applying ball bearings to the main wheel is clearly shown in the engraving on the next page.

Before we pass to the shafting we want to call attention to another special point about the Ideal Binder. Around the drive wheel is a wide, open space, so ample that no accumulation of mud on the wheel can ever give trouble. This construction will be appreciated in all quarters, as proper consideration has never been given to it by other manufacturers. The white space in the cut at the bottom of this page shows the ***generous amount of mud room*** on this machine.

Ball Bearing at end of Main Gear Shaft.

The power passes from the Deering bearings in the main wheel above described through the drive chain to the cross shaft, where the same Deering bearings are found, the balls at the end of the shaft resisting the end thrust and thus saving a considerable amount of power usually worse than wasted. From the cross shaft the power passes through a pair of ***gears carefully shielded,*** as shown in the cut, to the crank shaft, also provided at its rear end with roller bearings.

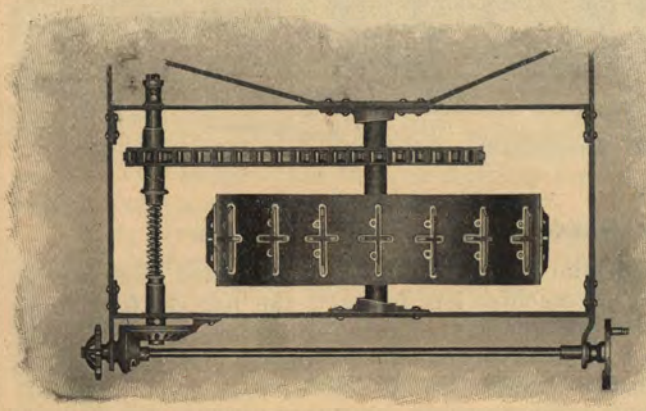
Please mark the various ***provisions for renewing the life*** of the machine which are apparent everywhere in its construction. It is, for instance, very easy to remove the bushings of the cross shaft and renew them if it should ever be necessary. It is very convenient, indeed, to do the same to the crank shaft.

Main Gear Shaft has Removable Bushings.

No matter how small the part or how unimportant it may appear to be, it is carefully studied with an eye to improvement. The experience of forty harvests has shown us that in no other way can perfection ever be reached.

Every last little point that an up-to-date farmer can really ask for will be found in the Deering Ideal Binder.

Shielded Gears.



No Mud can Touch the Frame

IN the pages of harvester history are chronicled the following words in regard to ***roller and ball bearings,*** taken from an old Deering catalogue:

"With the bicycle as a guide we were the first to apply such bearings to harvesting machinery in a practical way. Remember the date—the year of our Lord 1892. As it is impossible to patent the application of a principle we shall, no doubt, be imitated. Not only this, but, judging from the past, there will be certain unscrupulous people who in time will claim to have been the original inventors of this device."

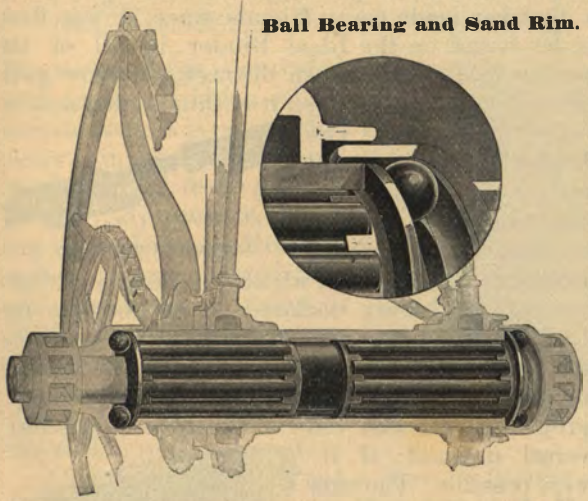
Deering Frictionless Roller Bearing.

This extract was republished in our last year's catalogue with the following comment:

"The first part of this prediction—the imitating—has been verified, though it may be several years yet before these people have the effrontery to claim the device as their own. Give them time."

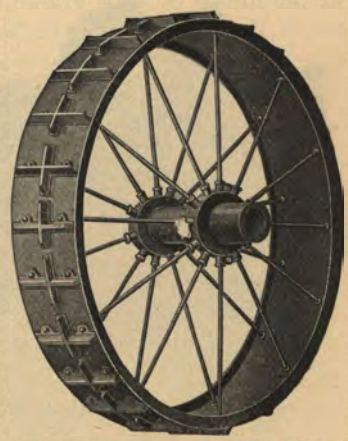
They have had time. Even while the above words were being written the claim was in type, and in due process the whole prophecy was fulfilled. The same hand that reached out and snatched away for a time the glory of the invention of the reaper from Obed Hussy has greedily sought to appropriate another practical success without regard to the vivid recollections of the bitter fight made against Deering bearings so fresh in the memory of farmers everywhere. It was ***certainly very awkward*** to be obliged to defend the imitation of Deering bearings by attempting to make such a claim as this. The absurdity of the proposition makes further comment unnecessary, save to call attention to the reluctant ***endorsement of the Deering Company's enterprise*** after an obstinate opposition of five years.

Ball Bearing and Sand Rim.



Ball and Roller Bearings on Main Axle of Ideal Binder.

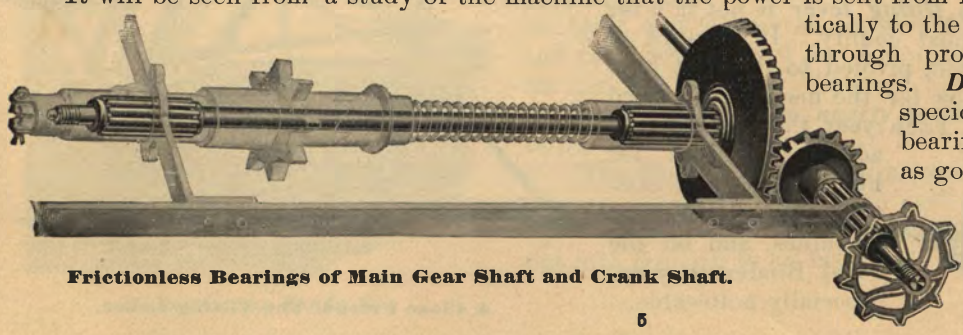
Please bear in mind, however, that roller bearings are not necessarily ***Deering roller bearings.*** There are no other bearings made like Deering bearings.



The Up-to-date Main Wheel.

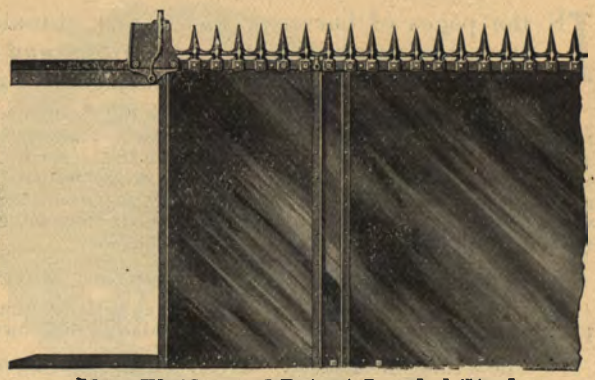
It is natural to suppose that we should know more about the practical application of the principle to harvesting machines after ***six years' experience*** with them than some of our covetous friends after the brief lesson of a single season. Ball bearings for taking up end thrust are found only on Deering machines and have not yet been imitated. Hardened and polished ***steel bicycle balls*** of the size we use are expensive—they are likewise ***very useful.*** We want to emphasize the truth that ball bearings play a much more important part in the economy of power than is commonly supposed, and the thousands of farmers who hitch up to the Deering Ideal Binder next summer will find it out the minute the horses straighten out the traces.

It will be seen from a study of the machine that the power is sent from its point of origin practically to the place it is to be applied through properly made Deering bearings. ***Do not be misled*** by the specious claim that other bearings are in any respect as good as Deering bearings when the very principle has been persistently decried and discredited by the claimants themselves for half a decade.



Frictionless Bearings of Main Gear Shaft and Crank Shaft.

WHEN we said that the main frame was solidly hot riveted together we neglected to call attention to the fact that the platform sills are really a ***part of the main frame*** and are bound to it in the same substantial manner. There are no nuts to work loose; there can be no twisting of the platform frame and the structure will be stiff and unyielding as long as the steel lasts. To give it still greater stiffness the platform ***bottom is made of sheet steel,*** "patent leveled" steel without kink or twist, a special product for particular purposes such as this. While this precaution is not really needed, it gives complete assurance to the most conservative critic and is permissible because of the perfection of the material used for the purpose, which has at last been obtained in this the Age of Steel.



Ideal Platform of Patent Leveled Steel.

One of the features of the Deering Binders that is protected from pirating imitators by United States patents is the famous ***Deering jointed platform*** that has made many friends since it was first offered by us in 1891. This feature will, of course, be found on the Ideal Binder in all of its mechanical perfection. It allows the machine to be quickly folded and driven through a narrow gate just as handily as a hay wagon. It transforms the machine into a vehicle when it is thus folded and is driven on the road. The binder can be narrowed for transportation in less time than it takes to hunt up the ***"back number" binder truck*** which the history of harvesting machinery declared to be obsolete far back in its early pages. Like Deering bearings the Deering jointed platform has won its victory by sheer force of character and it would be appropriated far and wide in response to the universal demand, if it were possible. The cuts show the detail of the platform couplings with which our readers are already perfectly familiar.

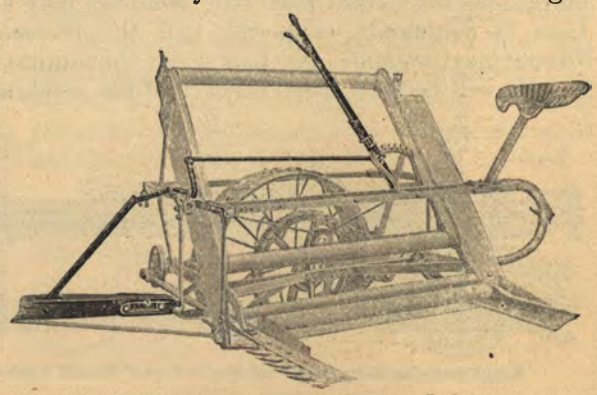
Front Coupling.

Rear Coupling.

Ideal Folded.

The grain wheel revolves lightly on Deering roller bearings and the divider is similar in construction to that of the Deering Improved Steel Binder. The platform is as light as is consistent with ample strength, which is a partial explanation why even the first tendency to ***side draft is unknown*** to the Ideal Binder. The delicate poise of the machine leaves out every consideration of neck weight and renders the manipulation of the platform an easy matter. Please notice the position of the tilting lever as shown on this page. The tilting arrangement is decidedly new. The ***tilting lever*** is not in a far away land or in the next county. It is right at hand where it is wanted, pivoted to the seat support, and no matter how far the machine is tilted the lever is near by. Each year the farmer finds added provisions for his comfort and convenience on Deering machines, and on the Ideal Binder they are especially noticeable.

As a Solid Piece.

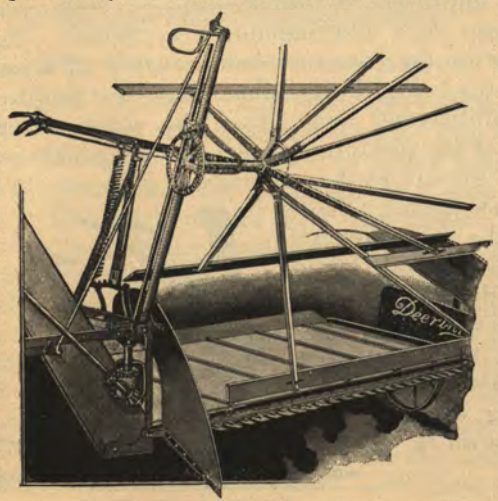


A Close Friend—The Tilting Lever.

THE reel is to the binder what the hands are to the body—"useless each without the other." With it the ever hungry machine is fed and an improperly designed reel is responsible for a great deal of ***harvester indigestion*** which is such a frequent and troublesome malady. The Deering reel, as used for years on the Improved Steel machine, lightened and perfected for the Ideal Binder, is anything but complicated and possesses a range of flexibility far beyond the reach of any of its competitors. It can be made to graze the ground far in advance of the machine, picking up the prostrate grain and placing it properly on the platform. It can be adjusted high and low, backward and forward, so that the Deering Binder is enabled to cut clear around a field which a competing machine could handle but one way. It becomes almost ***second nature*** to adjust this reel to the requirements of the crop, because it is well balanced and is controlled quickly with a minimum of effort. The reel itself slides vertically on a piece of gas pipe hinged at its lower end.

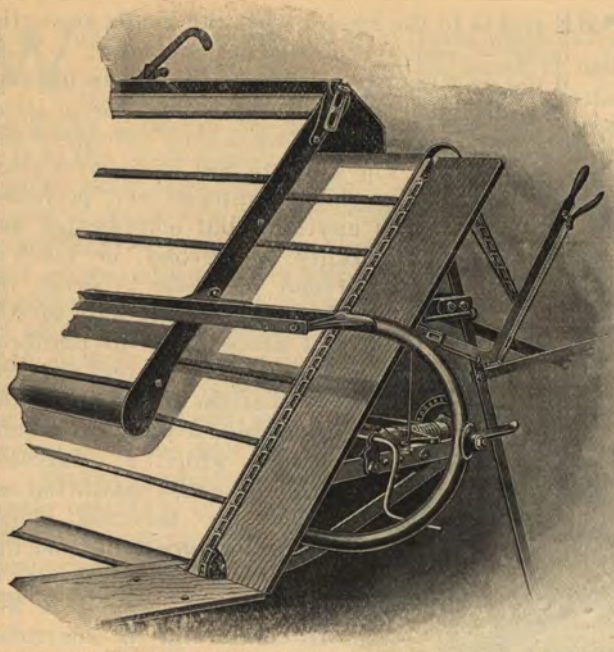
The reel carriage is provided with two anti-friction rollers and its weight is balanced at every point by a spiral spring. ***A single reel lever*** governs its many adjustments, throwing the reel in any direction at the pleasure of the driver, and the ease of doing it further insures good, clean, field work, because the exertion to be made is so trifling that the proper handling of the reel is not neglected.

This description is not a fanciful picture. The reel has been used for many long years on the Deering Improved Steel Binder, and is one of the reasons of the great success of that reliable machine. The reel is positively driven and comprises ***a world of utility*** in a very simple and ingenious combination. No grain is too short and none is too long or tangled to be properly handled by it, and the driver can give full attention to his team and yet throw the reel just where he wants to, hardly giving the action a thought. The reel has been so simplified and improved that it is as ***nearly automatic*** as it is necessary to be.



No Grain Can Elude It.

The flag is supported by a good, solid stick of straight grained ash pivoted under the seat plank and held in place by a latch ***operated by the heel*** of the driver. It can be put into position in an instant.



The Ideal Elevators.

THE seat plank is made of two strong steel bars supported by a heavy ***tubular steel yoke,*** the seat being easily reached from a step attached to the bend of this yoke. The upper elevator is supported at the rear by the seat plank, and the lower one is as firmly braced as engineering skill can devise. The elevators are generously broad and have too many points of excellence to be fully touched on here. The practical agriculturist will see in them wonderful capacity and a scheme of bracing that effectually prevents any change in their position. The lower elevator is further provided with an extension to protect the heads of the very longest grain while on the way to the binder. The method of driving the elevator insures the ***least waste of power,*** and all of the boxes have ample oiling facilities.

In many respects it will be noticed that the Ideal Binder has been modeled on the lines of the Improved Steel, and is, therefore, nothing of an experiment. The crank wheel and pitman, as shown in the engraving, are similar to the same parts of the Improved Steel, which of itself is sufficient commendation. The thrust of the pitman is in ***a straight line*** with the movement of the sickle, and ***not an ounce*** of power is thrown away in wasteful angular thrust.

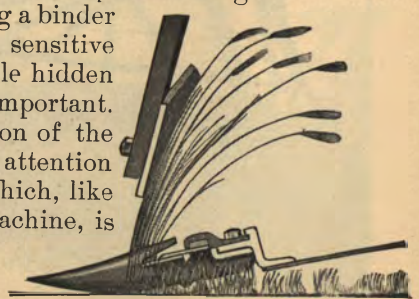
A Stroke Straight from the Shoulder.

The ***cutting apparatus*** is the advance guard of the binder, and unless its work is done without fault the other parts of the machine can do but imperfect work at best. Nowhere are the results of the experience of forty harvests more forcibly shown than in the combination of the Deering sickle and finger bar. The cutting apparatus is of the regular Deering type, improved in small respects from year to year, and apparently as perfect as human skill and ingenuity can devise. The sections slide across the ledger plates with the precision and accuracy of ***a pair of shears,*** the whole apparatus being designed not alone for faultless work, but with an eye to stability and long life. The shape of the guards and the construction of the platform is such that the sickle can be lowered as close to the ground as it is possible to get.

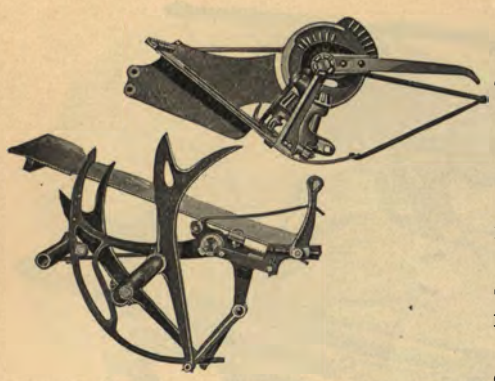
Short Grain Ahead.

Always bear in mind when selecting a binder that the sickle is one of the most sensitive parts of the machine, and it is the little hidden things, the trifles, the details, that are important.

In passing on to the consideration of the binder attachment, we want to call attention to the lever for ***shifting the binder,*** which, like the other levers for governing the machine, is just where it should be, as shown in the cut.



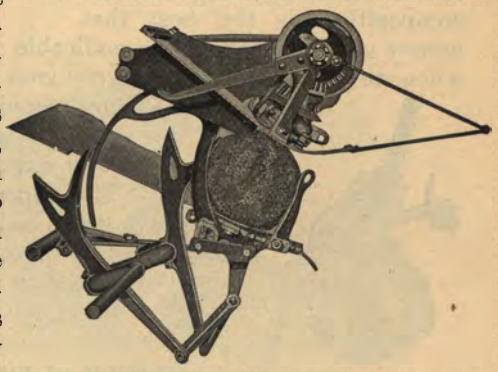
Almost to the Roots.



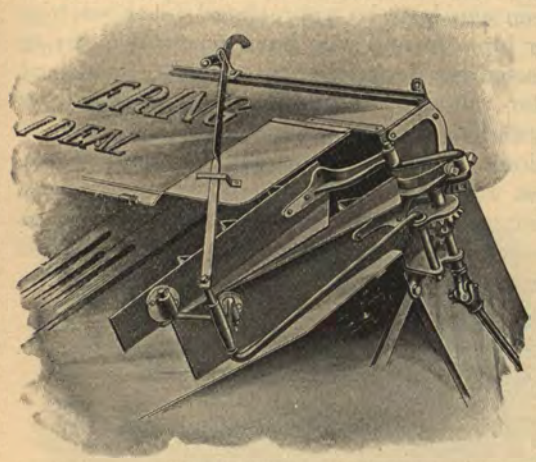
Ready for Business.

ALTHOUGH the grain is delivered to the deck by the elevators in the best shape possible, it finds here a roomy space to straighten itself out still further, and is greatly assisted by the ***slope of the deck.*** The construction of the latter is worth careful consideration and it is particularly captivating to judges of harvesting machinery. An examination will show that there has been a happy departure from the stereotyped and antiquated customs of binder building which adds to the conviction already fixed in the mind of the observer that this new Deering machine inaugurates a new era in the art.

Most noticeable among the improvements of the binder end of the machine is the ***double butt adjuster,*** which alone gives the Ideal Binder an individuality at once. It is nothing more than a two part board adjuster perfectly balanced and otherwise correct, so designed that it gives the grain a ***continuous movement*** toward the binder, and for this reason makes a handsome and symmetrical bundle. What a simple thing to think of and yet what an astonishing metamorphosis, transforming the eccentric, unbalanced, unreliable and almost impotent butt board into a continuous adjuster, working the grain down evenly and without intermission. It is obvious that this adjuster requires decidedly less power than the "slam-bang" variety found on other machines, which need a portion of a horse power to do little else than make a noise. The new ***balanced*** Deering butt adjuster is but one of the many excellent innovations found on this incomparable little machine, all of them based on the experience of forty harvests and all of them exhibiting progressive development, original thought and self-evident utility.



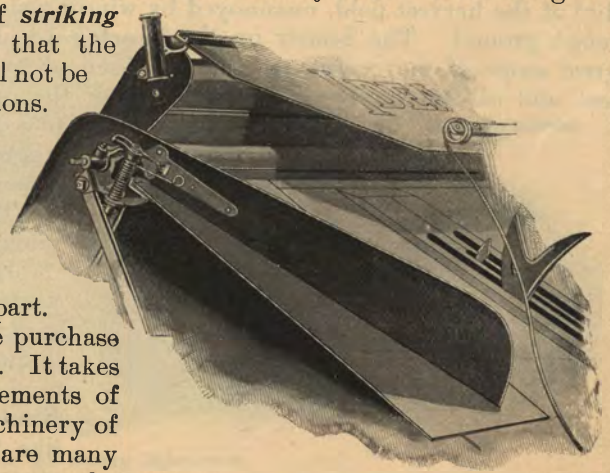
A Tight Bundle.



Wide Balanced Double Butt Adjuster.

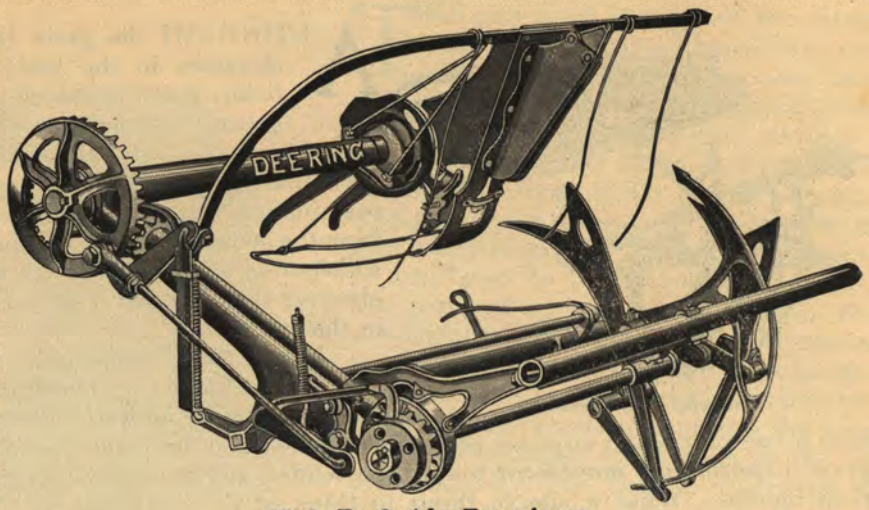
The adjuster works on a double crank at the upper end, the lower ends of the two parts rocking on two radius links. They are very wide, as will be seen, and do beautiful work. The balanced butt adjuster is one of the good points of ***striking interest*** that the machine contains. There are many of them that will not be observed, but which nevertheless fill important missions.

When you are in quest of a new binder to harvest your grain for years to come, stop and think how the machine will look and behave when the brightly varnished ***paint wears off.*** Think of the quality of material that makes it durable or ephemeral. Think of the repairs and breakdowns that may come if every part is not as reliable as every other part. Think of the expense and lost time sure to follow the purchase of machines that are not thoroughly reliable all over. It takes long years of binder building to meet all the requirements of the varied harvest fields of the world, and farm machinery of good repute is beyond value. We have said there are many essentials in Deering machines that are not apparent on the surface. ***Think on these things.***



Look at it on the Machine.

THE Deering ***binding apparatus*** is a synonym for ***integrity*** the world around. It was not invented yesterday nor last year—it has been before the world for many years and is the perfect evolution of the original device, first used on Deering Binders. It has bound grain in every principality and power on the face of the globe, and wherever it has gone, under all circumstances and amid all conditions, it has rendered an excellent account of itself. The ***quality*** of the material entering into its composition is the best that money can buy, and as the malleable iron is made in our own foundries we know whereof we speak when we vouch for it.



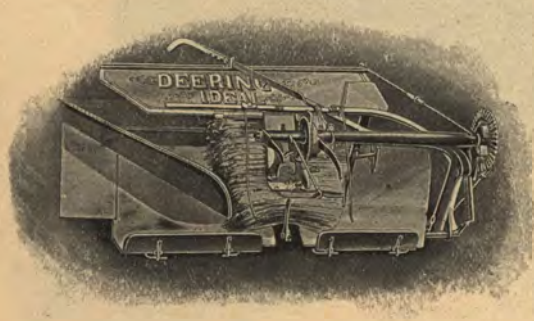
Made Perfect by Experience.

No grey iron is stronger and no malleable iron is tougher than that found in Deering machines. The crucible steel used in the binding apparatus is made for this purpose and for this purpose only, and is of just the degree of hardness that ***long experience*** has shown to be best.

Shielded Binder Clutch.

The superiority of its mechanism can best be appreciated by those who have had a sad experience with other binders and who have resolved never to desert the Deering. It has a long, sensitive deck trip that gauges the size of the bundle to a nicety, having greater range of regulation than ever before. The bevel driving gears are carefully shielded, as shown in the cut. The knotter is not changed in any small particular, because we do not believe that it is possible to make it more perfect or more durable. It is shown in the engraving on page 16, and a glance is sufficient to demonstrate its simplicity of construction and its ***wear-defying permanency.*** It is as sure as the precession of the equinoxes and it ties the knot with perfect accuracy and precision, even amidst the dust and dirt of the harvest field, unannoyed by winding straws or rough ground. The binder on the Deering Ideal has a great scope of movement, as will be observed by actual test, and will tie the band almost wherever the operator pleases. In connection with the balanced butt adjuster it takes good care of both ***long and short*** grain. It binds either with equal ease, and exactly to the farmer's liking.

No Grain too Long.



None too Short.

The Deering Ideal Binder attachment has a greater range of adjustment than any other.

Forty seasons of harvester experience and fifteen years' successes with this incomparable Knotter have given the public unbounded confidence in it. It has the unqualified endorsement of every farmer who has ever used it. It needs nothing more. The first simple Knotter was used on Deering Binders in 1883, and, like the Marsh Harvester, it became ***the standard*** for others to copy.

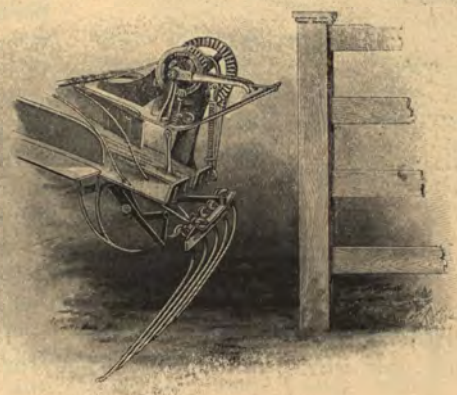
The Bundle Carrier Can Take Care of Itself.

THE IDEAL BINDER is equipped with the regular ***Deering bundle carrier*** attachment which is without a peer in the field. It is operated by the driver's foot with the greatest comfort and ease. Its fingers fold more closely than those of any other make, and there is nothing superfluous in its composition. On striking an obstruction the teeth ***automatically*** fall out of the way, and the driver hardly has to give this attachment a thought.

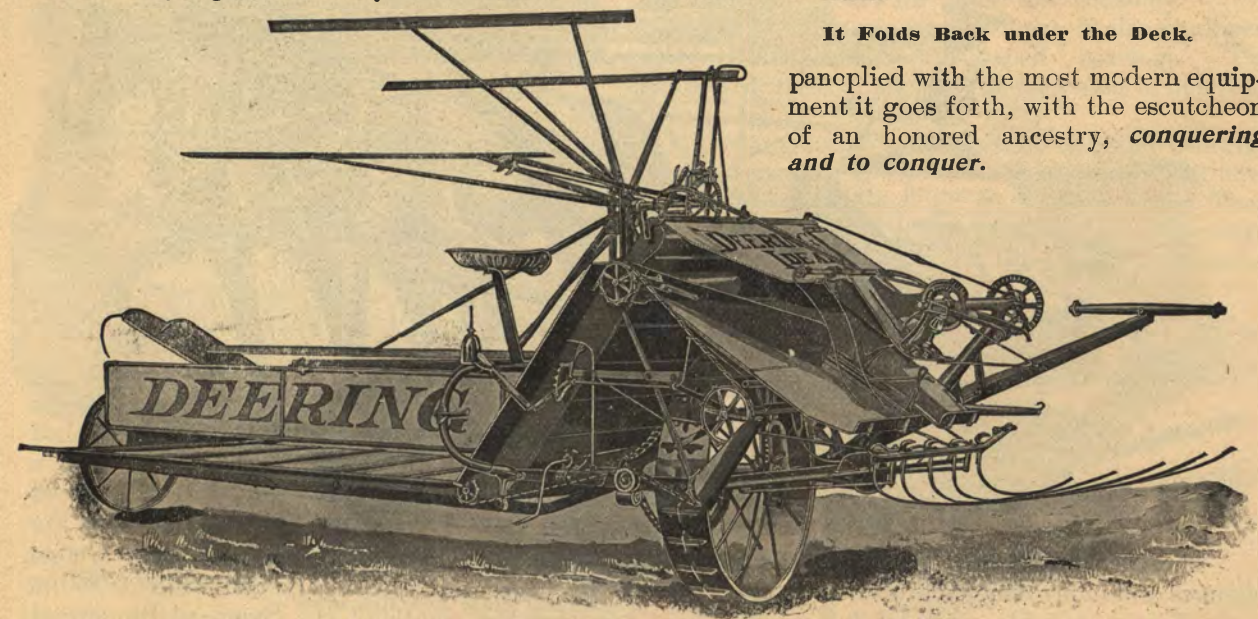
This bundle carrier has an important place in the history of forty harvests. It was given to the world by the Deering Company, and the courts have decided that this, the simplest and most perfect device, is our exclusive property.

In closing this description of the Deering Ideal Binder there is a feeling that we have hardly given an adequate idea of the machine. It will certainly pay you to see it for yourself at our nearest agent's and ***study it carefully.*** It will appeal to you most, however, when you see it as we have seen it, at work in the field, and have observed how quietly and easily it does its task. It is the ***lightest draft binder*** that the world has ever seen, and is a signal triumph of the anti-friction doctrine first expounded by the Deering Company.

Our new knight errant is blessed with a ***strong constitution,*** an ***excellent digestion,*** an even and ***unruffled disposition,*** and is ***handsome and goodly to look upon.*** It has heard from its venerated elders the inspiring legends of forty harvest seasons, and panoplied with the most modern equipment it goes forth, with the escutcheon of an honored ancestry, ***conquering and to conquer.***

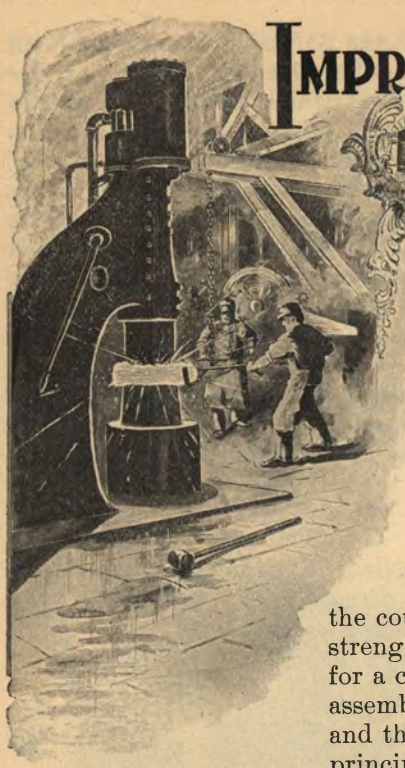


It Folds Back under the Deck.



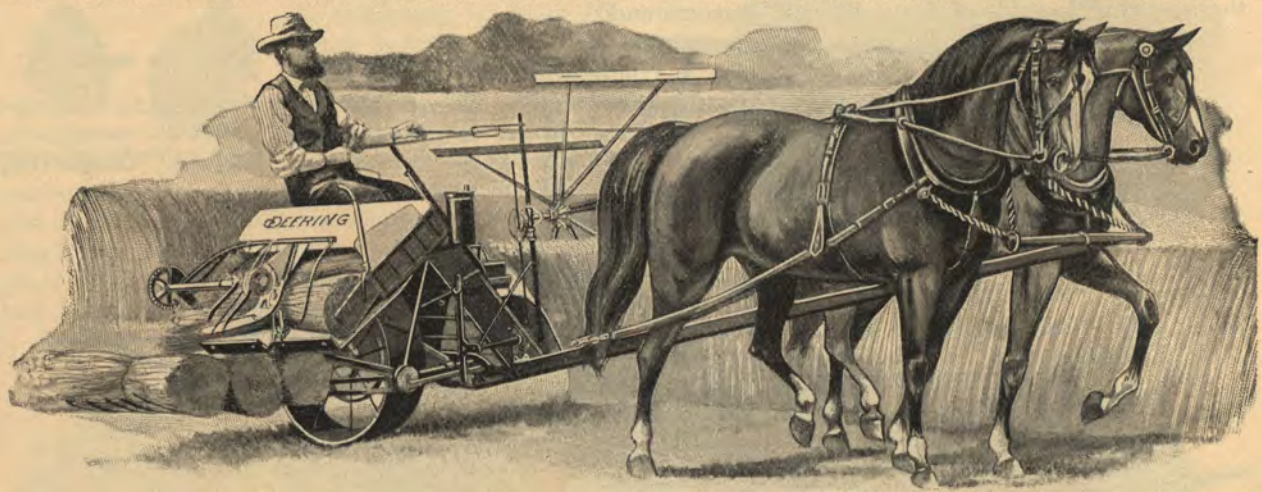
Built on the Experience of Forty Harvests.

IMPROVED STEEL BINDER



TO the farmers of the two Americas who have recognized the Deering Improved Steel Binder as the standard of excellence for so many years, it needs no introduction. Thousands of these ***trustworthy*** machines, that have seen generations of binders come and go, will bind the golden sheaves long after generations yet to come have gone and been forgotten. Its ribs of steel are wrought from flawless bars, critically inspected at each step in the course of manufacture, and so bound and braced as to give the utmost strength and the greatest durability. Its various parts are leagued together for a common purpose, and they are proportioned with such nicety, and assembled with such care and skill, that ***repairs are almost unnecessary*** and therefore uncommon. It is built on a broad gauge plan, correct in principle, ample in scope, and powerful in action. No task is too difficult for it to perform, and never grain grew that was too long or too heavy for its capacious elevators.

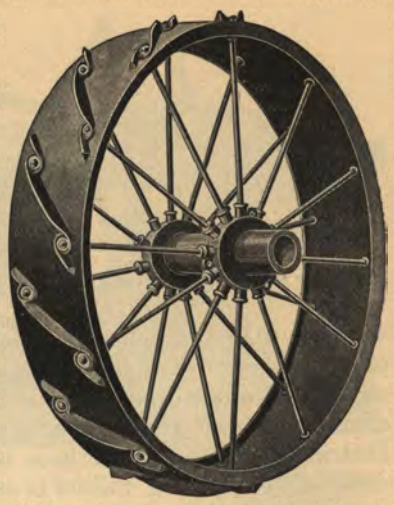
From its precursor, the good old Deering Standard Binder, to the Improved Steel, the changes were gradual but progressive, and when the World's Fair Commissioners gave it the ***highest award within their power,*** they saw in it the qualities that have won admiration from the farmers of the new world, and have earned for it an honored place in the history of the art.



THE DEERING IMPROVED STEEL BINDER. 5, 6 and 7 ft. cut.
With Roller and Ball Bearings and Jointed Platform.

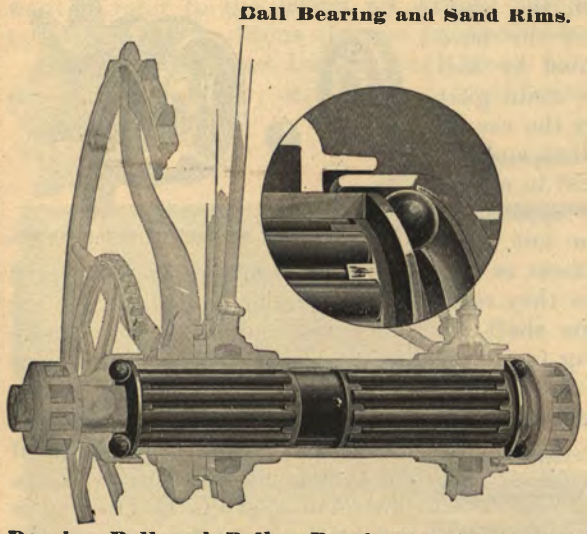
The Deering Improved Steel Binder basks in the sunshine of ***perennial youth***. Each year such changes and improvements are made as are approved by conservative admirers, and while it is the same staunch, reliable, wear-defying machine as it was when the mantle of the Standard Binder fell upon it, it has been brought up to date in every little particular, and is today the ***measure of value*** in grain harvesting machinery.

THE DEERING IMPROVED STEEL BINDER has been before the agricultural public so long that it is better known than any other piece of farm machinery made. Its ***truss frame,*** braced and reinforced like a railroad bridge, has stood the test of hard usage, and gives it an air of solid worth which its good works fully bear out. The angles that form the trusses are hot riveted together, and are so bound and secured to the ***tubular steel sill*** that the foundation of the machine is impregnable. The drive wheel is of the pattern adopted by us, designed to give lightness and great strength. It is of the suspension type, with spokes riveted inside the hub and outside the lugs and tire. The edges of the tire are bent over and ***flanged inward*** at an angle with the face of the wheel, making the tire as strong as a plain piece of boiler plate of several times the thickness. The lugs are set diagonally on the face of the wheel, so that two of them are always in contact with the ground, and there is therefore no jar to the machine when it is running on a hard road. The lugs are well proportioned and are made of the toughest malleable iron, so that they will not break. This wheel is worth consideration.



Made on Honor.

Ball Bearing and Sand Rims.



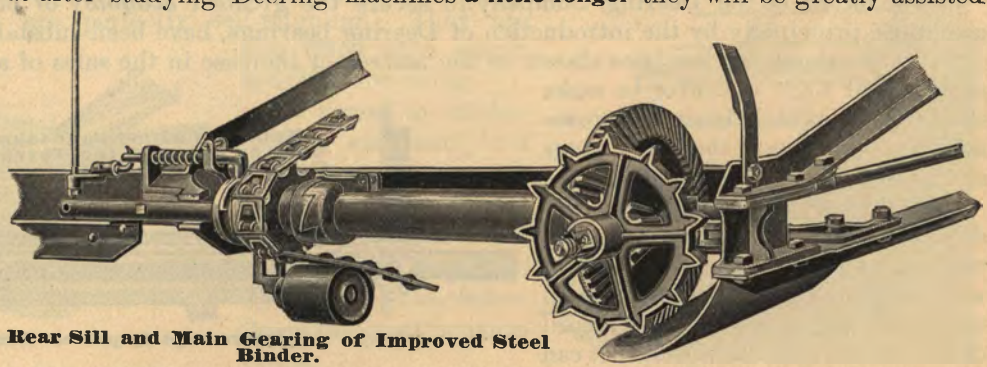
Deering Ball and Roller Bearings on Main Axle.

One very important improvement is the addition of the ***Deering roller and ball bearings*** to the drive wheel. The roller bearings cover the entire length of the axle, as shown in the engraving. The balls are found at the ends of the hub, where they prevent all the end friction. These bearings not only cut off all the power that was formerly lost by the grinding of the hub on the axle, but they ***lengthen the life*** of the machine. The enterprise of the Deering Company has made Deering bearings essential to harvesting machines, and this Company is ***still alone*** in the use of hardened and polished steel balls, which are absolutely necessary for power and economy.

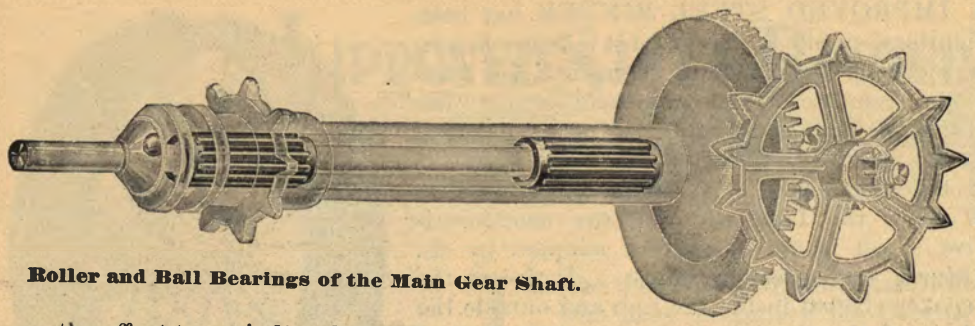
The main gearing here shown is also equipped with Deering roller and ball bearings. The method of their application is presented in detail on the next page.

Certain would-be authorities on roller bearings have acknowledged the error of their way and have at last adopted a sort of a ***friction bearing*** fitted up with rollers for their main wheel axle. They now mildly assert that these bearings are good for the axle, but not good for the main gear shaft. We feel quite sure that after studying Deering machines ***a little longer*** they will be greatly assisted in their experimenting along this line.

There is no reason why any farmer should not have the benefit of the latest and best forms of harvesting machinery so long as there is a Deering agent within writing distance.



Rear Sill and Main Gearing of Improved Steel Binder.

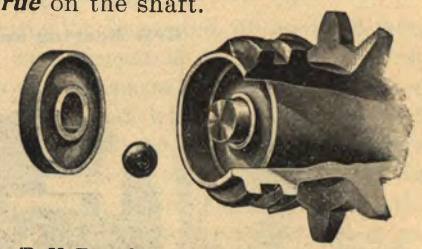


Roller and Ball Bearings of the Main Gear Shaft.

THE triumph of a right principle over desperate opposition was never more complete and irresistible than the overwhelming victory of the Deering roller and ball bearings. ***Cheap and small*** as was the effort to prejudice the public against Deering bearings, yet cheaper and smaller was the attempt to seize the glory of the achievement while the facts were yet fresh in the memory of all. On a par with these unavailing methods is the claim that the ***crude imitations,*** more primitive than our first experimental efforts years ago, are as good as Deering roller and ball bearings. Furthermore, the Deering Company alone uses large bicycle balls for cutting off the last vestige of friction, and our method of applying rollers is essentially different and infinitely superior. Deering roller bearings are so made that any dust that may find its way into them is worked out at once and at the same time the rollers are kept ***straight and true*** on the shaft.

Main Gears.

As has been already pointed out, the large $\frac{3}{8}$-inch rollers cover the entire length of the drive wheel axle and these are supplemented by ball bearings at the ends of the hub. The main gear shaft where the most power is lost by the use of grinding bearings turns freely on rollers and the end thrust which was always very great in a gear shaft is annihilated by ***ball bearings*** applied at the end of the shaft, as shown in the cut. We have found that ball bearings, as we apply them, are almost as useful as roller bearings, and the light draft of Deering machines is partly due to the service they render. Like roller bearings they are ***especially valuable*** in the main gear shaft because this shaft runs very fast and is therefore more sensitive to friction. The fact that those who are trying to follow in the wake of Deering enterprise and Deering ideas do not even claim to apply rollers to the main gear shaft is sufficient evidence that they do not really intend to give farmers the benefit of this improvement. The failure of these imitations to reduce the draft of competing machines to even approximate that of the Deering is a significant commentary on the construction of the ***one little insignificant set*** of friction bearing rollers on competing machines which are so made that they are an impediment rather than an advantage.



Ball Bearing at End of Gear Shaft.

Exact Size of Rollers in Bearing of Main Gear Shaft.

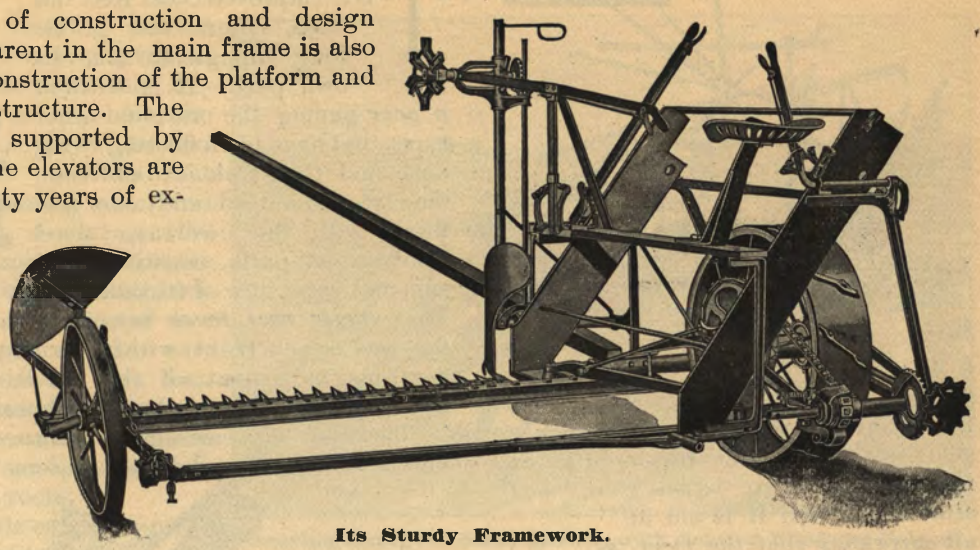
The efforts of the Deering Company to secure the greatest ***economy of power*** in agricultural machines, principally by the introduction of Deering bearings, have been substantially recognized by our farmer friends, as has been shown by the marvelous increase in the sales of all our machines. It shall be our high endeavor to make the future as prolific in real improvements as have been the forty years since the business was founded.

The Improved Steel Binder, endowed with all the draft saving devices and equipped from year to year with all that is ***good and modern*** in the binder art, holds a proud record of real, downright usefulness that can never be taken away from it.

Method of adjusting to take up wear by means of the Threaded Cross Shaft.

Gears kept in perfect Mesh.

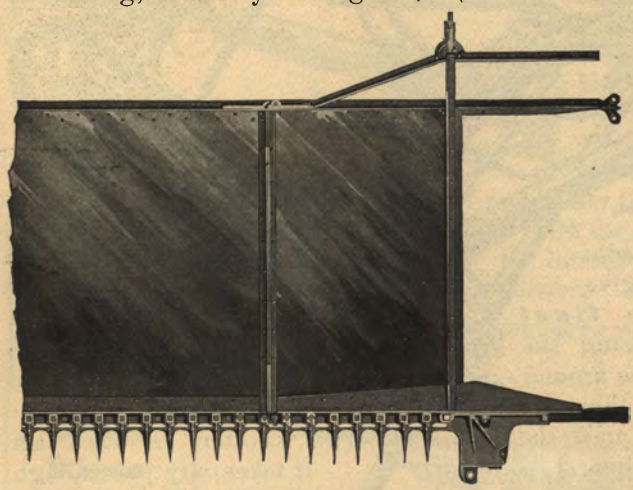
THE integrity of construction and design which is apparent in the main frame is also seen in the construction of the platform and in the superstructure. The A-frames are firmly supported by steel angles so that the elevators are ***perfectly rigid.*** Forty years of experience in harvester building is shown in its construction. All the parts are co-related and so proportioned that each has its share of work to do and yet is in harmony with the design of the whole.



Its Sturdy Framework.

While the machine is before us we want to refer to the ***levers,*** all within convenient reach and all of them taking but little effort to operate. The positions of these levers are shown in the engraving.

The platform has been through many harvests and has never shown a weak point. It is stiff and strong, faithfully serving its purpose because it is so built that it cannot fail. The platform bottom is now built of steel, not ordinary sheet steel as it comes from the mills, but of absolutely flat sheets made perfect by a peculiar process of cold stretching and known as ***"patent leveled"*** steel. The ***grain wheel and divider*** are light and strong and offer but little resistance to the onward motion of the machine.



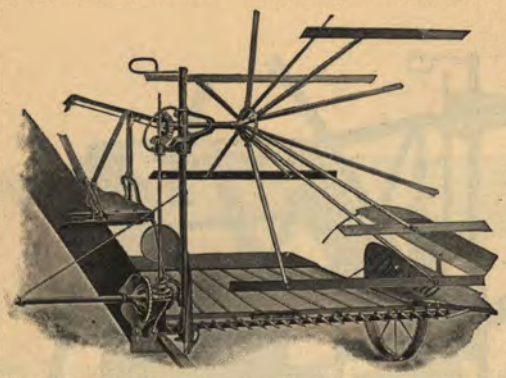
Improved Steel Platform.

The Improved Steel Binder has earned a great reputation in countries where heavy grain is grown, especially on the wheat farms in the northwest, because of the broad elevators that ***do not know what failure is.*** The most tangled grain goes up the great throat of the machine without a stop or a choke. All the boxes for the elevator rollers are perfectly self-aligning. They are also fitted with ample facilities for oiling.

Front Platform Brace.

We want to emphasize the statement that there is ***no weak point*** in the Deering Improved Steel binder, and because there is so little breakage it is the favorite on the great bonanza farms.

All the Modern Conveniences.



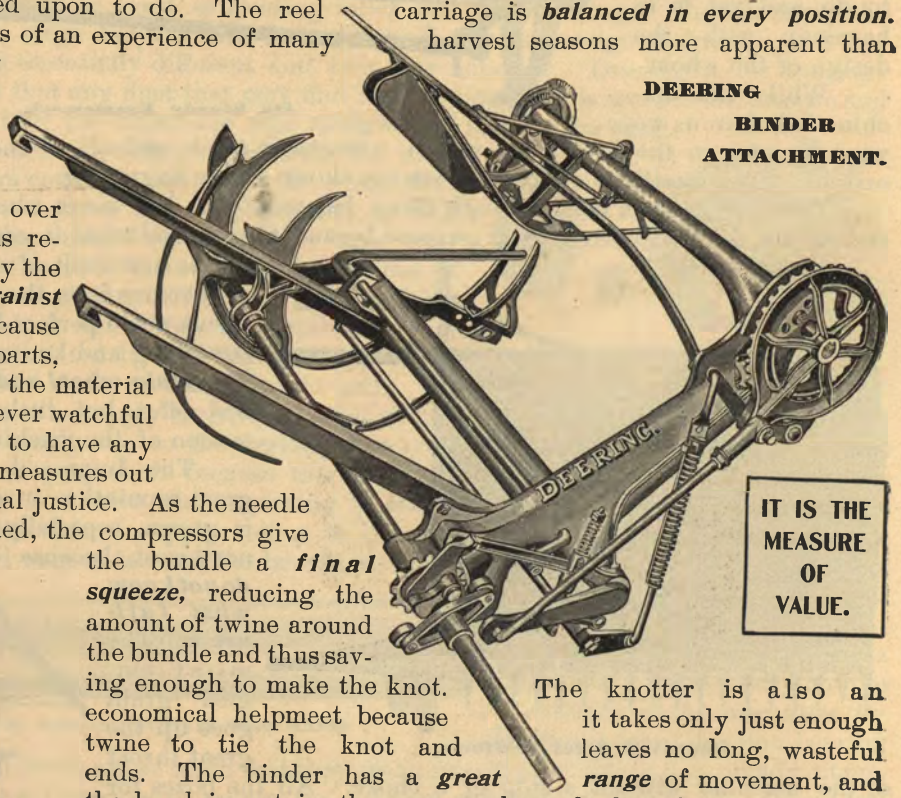
An Effective Reel.

THE Improved Steel Reel has been before the public long enough to take its own part. It is ***without a peer*** among the various other types that have but a fleeting existence and then sink into oblivion. One reel standard and one reel lever, with the carriage and wooden reel parts, constitute the sum and substance of its make-up. The ***single reel lever*** is easily manipulated, throwing the reel to any point within its ample range by a quick, dextrous movement of the driver. It does wonderful work in tangled grain, and is more than equal to the important service it is called upon to do. The reel carriage is ***balanced in every position.***

See the Lock Nut.

Nowhere are the results of an experience of many harvest seasons more apparent than in the Deering binder attachment, and it is not at all surprising that the Deering Company, which developed the first twine binder, should have a great prestige over other manufacturers in this respect. In point of durability the binding apparatus is ***proof against time and wear,*** not only because of the proportions of the parts, but because of the quality of the material from which it is made. The ever watchful deck trip makes it possible to have any size of bundle desired, and it measures out each one of them with impartial justice. As the needle comes over and the knot is tied, the compressors give the bundle a ***final squeeze,*** reducing the amount of twine around the bundle and thus saving enough to make the knot. The knotter is also an economical helpmeet because it takes only just enough twine to tie the knot and leaves no long, wasteful ends. The binder has a ***great range*** of movement, and the band is put in the proper place whether the grain is long or short.

DEERING BINDER ATTACHMENT.



IT IS THE MEASURE OF VALUE.

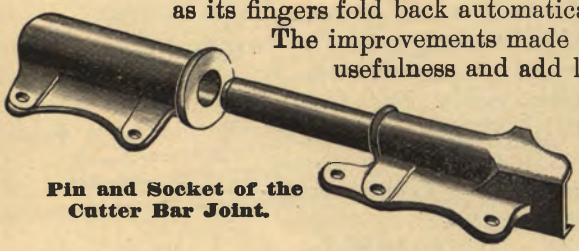
The Deering Knotter.

Twenty years ago but one man fully foresaw the possibilities of the future and had the courage to foster and develop the Appleby twine binder. It was accomplished in spite of the threats of infuriated farm laborers, the sneers of reaper makers, and the prejudice of conservative agriculturists. His pluck and determination overcame all the obstacles that lay in his path, and in later years, when the Deering Company again and again led the way, their improved machinery was sought for because of the confidence inspired by ***continued successes.*** The Deering binder attachment has been successful beyond the reach of argument; it has become the standard of excellence and the measure of value.

WHEN the Deering jointed platform was first invented and applied to the Improved Steel machine, the same methods were employed to discredit this important invention that were used against Deering roller and ball bearings and with similar results. Its value was self-evident and it became a popular feature of Deering machines. With it the binder is ***transformed to a vehicle*** in a very few moments and narrowed down to a width of less than nine feet, so that it can follow a farm wagon anywhere. It can also be stored in the barn in a very small space, thus economizing valuable room.

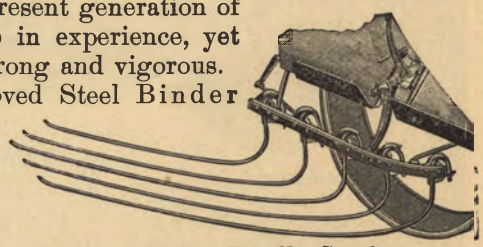
Deering Improved Steel Binder, with Jointed Platform Folded.

The Deering bundle carrier is made on ***an original plan,*** which insures ease of operation and faultless work. No harm can come to it if it accidentally strikes a stump or stone, as its fingers fold back automatically well under the deck.



Pin and Socket of the Cutter Bar Joint.

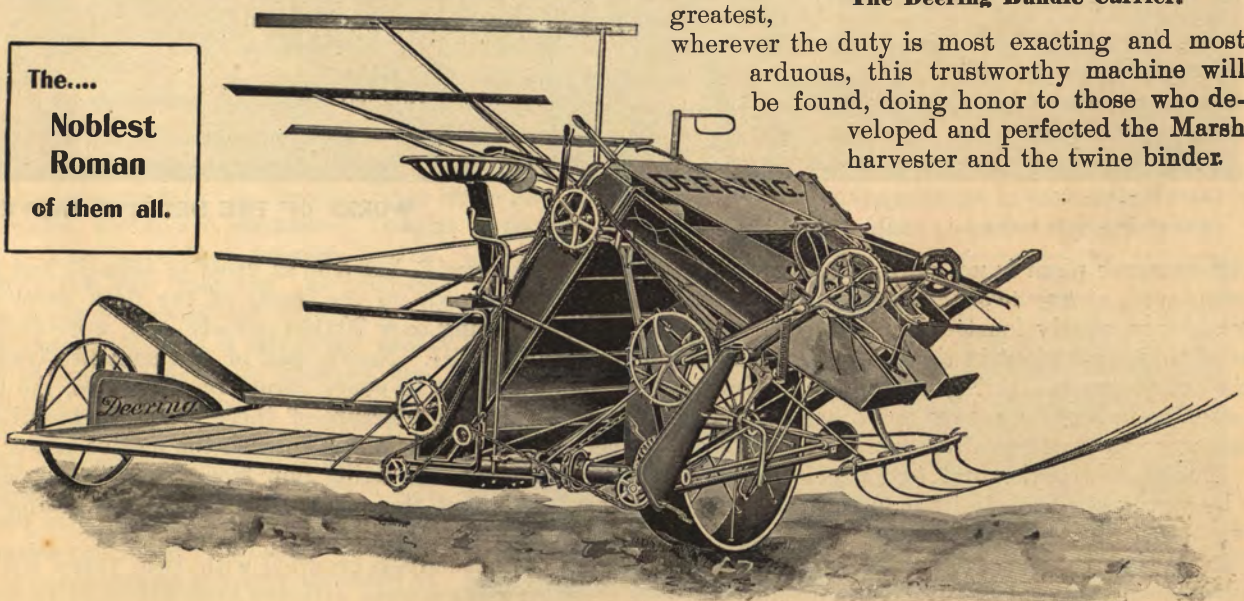
The improvements made in the Improved Steel Binder for 1898 will expand its usefulness and add luster to its already brilliant record. We speak with the greatest assurance, because we believe in it. It is the Nestor of the present generation of binders, mature in experience, yet clean limbed, strong and vigorous.



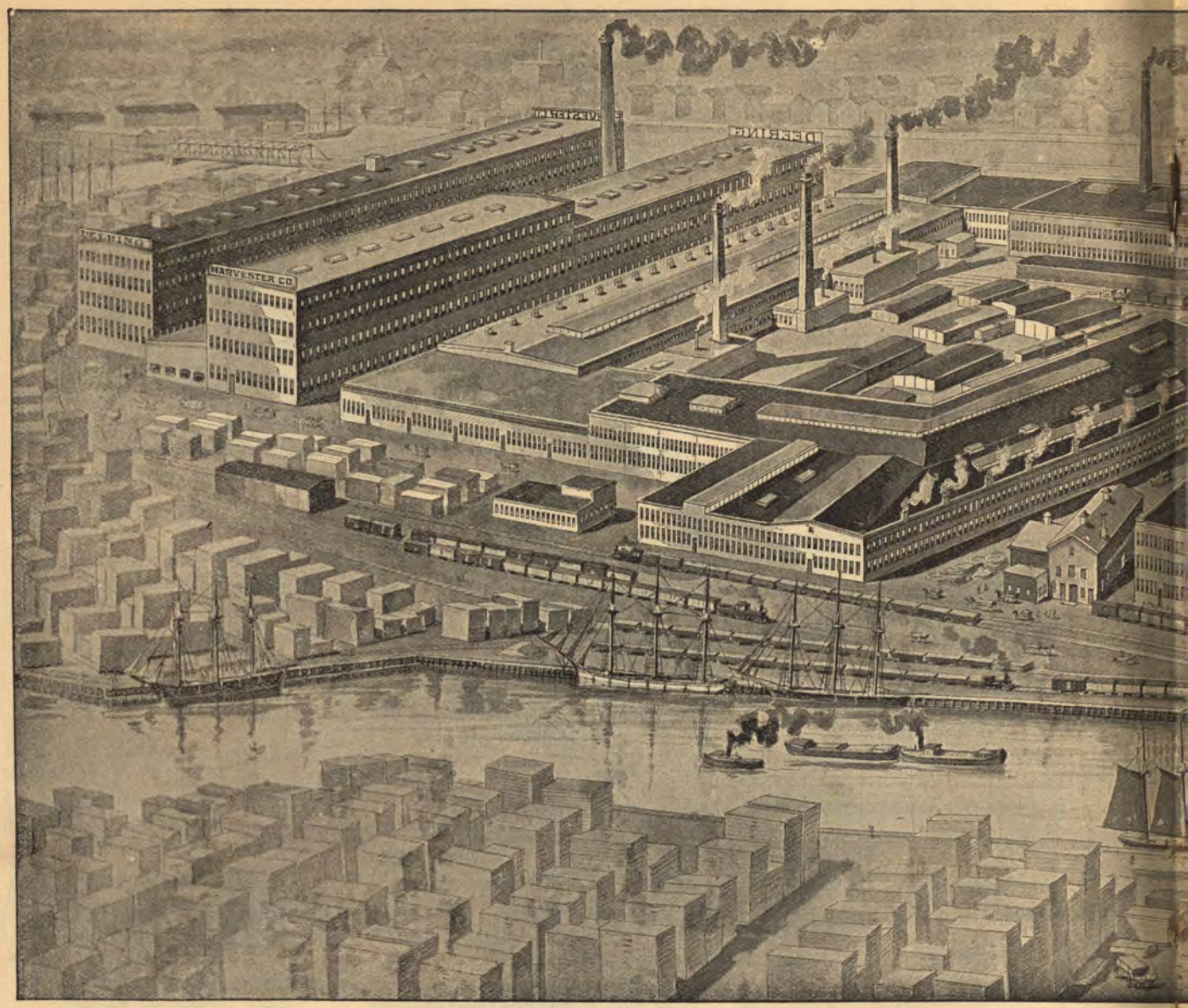
The Deering Bundle Carrier.

The Improved Steel Binder is true to its name. It has within it the elements of perpetuity that develop and expand to meet the required service. With majestic sweep ***it leads the great industrial procession,*** the intrepid exemplar of indomitable courage and genius. Whenever the need is greatest, wherever the duty is most exacting and most arduous, this trustworthy machine will be found, doing honor to those who developed and perfected the Marsh harvester and the twine binder.

The....
Noblest Roman
of them all.



THE DEERING IMPROVED STEEL BINDER. 5, 6 and 7 ft. cut, with Roller and Ball Bearings and Jointed Platform.



WORKS OF THE DEERING HARVESTER COMPA

THIS immense plant is not only the greatest of its kind in the world, but it is as great in acreage and in men employed, as ***any two harvester works in existence.*** As is shown on the inside of the back cover of this catalogue, nearly fourteen thousand American carloads, averaging over 30,000 pounds each, were shipped in and out of this great plant in the twelve months ending Angust 31, 1897. Nearly half of this immense traffic consisted of completed harvesting machines and binder twine shipped out to every corner of the globe, the balance being steel, iron, lumber, canvas and other raw materials used in the manufacture of these products, together with fuel necessary to feed the all-devouring appetite of the score of furnaces, which furnish the motive power of the plant. The sketch on the first two pages shows how this great plant was built; how from a modest beginning it leaped by yearly strides into its present prominence. A few facts about the plant itself will be interesting to our readers.

The Deering Harvester Works is a city in itself. The vast enclosure is crowded with two, three and four-story brick buildings. The streets and avenues between these structures teem with the busy life incident to transferring materials from step to step of their progress toward completion. Several locomotives busily shunt their

Prince Bismarck examining a sheaf made by his Deering Binder.

THE satisfactory performance of Deering machines in the field and their wonderfully light draft have attracted the attention, not only of the general agricultural public, but also have created a marked interest among men of the greatest international prominence.

Prince Otto von Bismarck, upon whose judgment has hung the fate of nations, purchased a Deering Binder last summer for use on his beautiful Friedrichsruhe estate, himself spending a full half day in the field with the machine, and exhibiting the liveliest interest in its operation. He expressed his admiration at the faultless way it gathered every spear of grain and bound it in tight, even bundles.

Prince Otto Von Bismarck.

The Marquis of Salisbury, Premier and Foreign Secretary of England, has purchased a Deering Binder and two Deering Ideal Mowers for his estate at Hatfield, near London, and his farm manager has expressed his satisfaction at the operation of these machines in the highest terms.

Lord Salisbury.

It will thus be seen that Deering harvesting machines are recognized as the standard abroad, as well as at home, not entirely because of their mechanical superiority, but also because they have stood the test of time and have not been found wanting. This reputation has been gained only by conscientious selection of materials, rigid inspection during every process of manufacture, and by having every part ***made in our own factory by our own workmen.*** Deering knives and sections are made in the Deering knife works, of the best cutlery steel. Deering malleable iron parts are made in our own malleable iron foundries, and extras are guaranteed to be of the same material and finish as the part furnished with the machine originally. All the drop forgings used on Deering machines are made in the Deering drop-forge department, and so we might enumerate in each department articles which are commonly bought outside and assembled by the other so-called manufacturers.

The inspection process begins with the raw material and follows each piece through the various operations to which it is subjected until it at last reaches the finished machine. For the reasons stated above we have the greatest confidence that the harvesting machinery which we send broadcast all over the world will add each satisfied purchaser to the number of those who recognize Deering machines as the true standard of excellence.

Deering Binder on Lord Salisbury's Estate.

JUST as the Deering ball and roller bearing principle was scoffed at by jealous competitors, so has the Deering horizontal Corn Binder been derided by those who contend with the desperation of continued failure that the vertical machine combines all the virtues extant, and unless history fails to repeat itself, these same manufacturers will later appear on the scene and pose as the ***first and only*** original exponents of the ***horizontal principle*** for binding corn.

The decisive victory of the Deering Corn Binder during the season just past is well known because of the widespread interest that was taken in the great struggle for supremacy in this new field. The machine won on its own merits; it won because its general construction is best adapted to cutting and handling corn; it won because it has ***Deering ball bearings*** and is incomparably lighter in draft than any in the field.

The machine we shall offer for 1898 will be ***improved in many respects,*** although in general design it will not be materially changed. It will be able to cut the tallest and the shortest corn and to bind it in even butted bundles, large or small, as may be desired. It will do its work with far greater ease, with ***less friction and less breakage*** than any other machine that will be presented for your consideration.

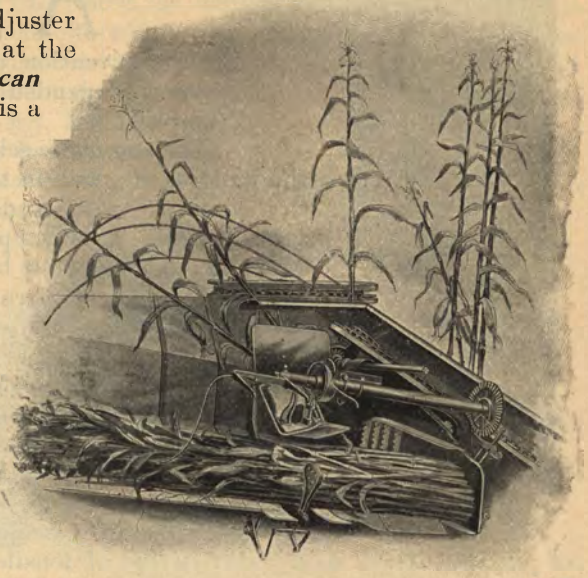
Deering Horizontal Ball Bearing Corn Binder with Bundle Carrier.

Nothing too Short for the Lower Chain.

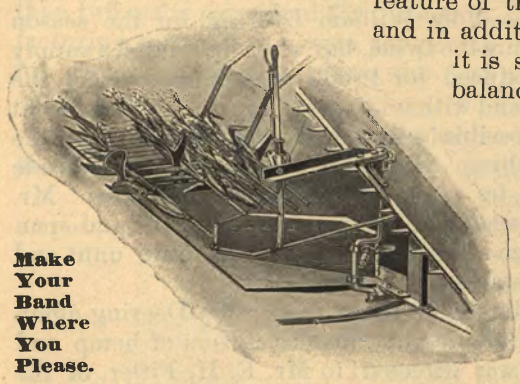
WITH the Deering Corn Harvester the corn is cut, and falls of its own weight on the deck. The butts are made even by means of a strong and efficient wood butt adjuster. The bundle is bound in a horizontal position slightly elevated above the ground, and is discharged in a bundle carrier, the entire process being ***analogous to*** the operation of ***a grain harvester.*** There is small loss of ears, because the crop is handled gently and easily, and the bundle falls but a few inches to the ground. The regulation of the adjuster for various lengths of corn is controlled by a lever at the driver's left hand, and with it the position of the ***band can be varied*** at will. The range of this adjustment is a great point in favor of the Deering when compared with other machines which have little or no adjustment whatever.

Please notice the ***lower chain*** on the outside divider but a little distance above the knife. This chain allows the machine to handle the shortest corn, and carries it well back on the deck.

The absence of all side draft is a distinctive feature of the machine, and in addition to this it is so perfectly balanced that the tongue will hardly touch the horses even when the machine is run with the neckyoke removed.



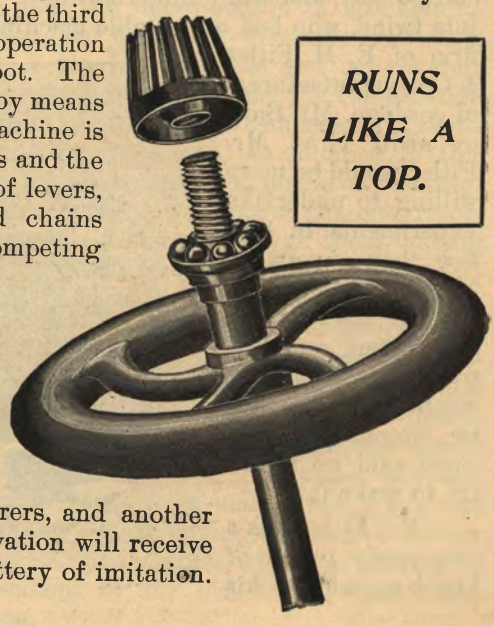
The Horizontal Idea.



Make Your Band Where You Please.

The addition of a ***bundle carrier*** saves a large amount of the labor of shocking, as it allows the driver to carry two bundles until just as the third is discharged. Its operation is instantaneous, and it requires but a slight pressure of the foot. The raising and lowering of the machine is accomplished quickly by means of a crank and raising worm. The whole principle of the machine is extremely simple, and it lacks the multiplicity of moving parts and the complication of levers, sprockets and chains found on competing machines. In a few short years the principles of the horizontal corn binder will be adopted by all manufacturers, and another Deering innovation will receive the sincere flattery of imitation.

Like a Grain Binder.



BINDER TWINE

AN important factor in the developments of forty seasons of machine harvesting was the invention of the binder twine that is now depended upon to bind the grain of the world.

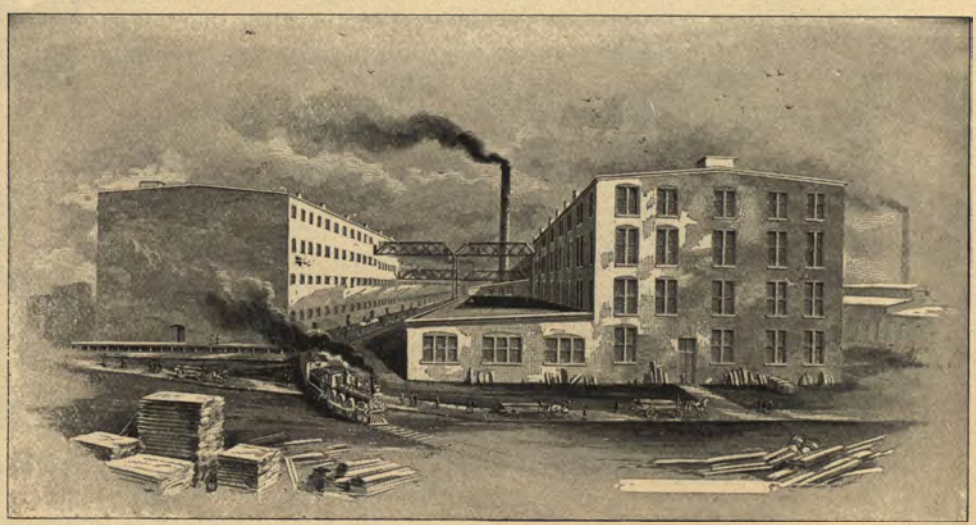
The automatic self binder using twine for tying the bundles of grain in the harvest field was adapted to the use of twine made from the tow of American grown hemp. This hemp is generally known as "Kentucky hemp," that state being the chief producer. This tow was first carded and then spun into three-strand twine, adapted to use on the self-binder. At this time there were but three small mills in the entire country provided with cards for the purpose and the entire production was only a few tons.

For the twine binders produced by William Deering for the season of 1879 it was easy enough to procure the twine, but when he wanted a supply for the much larger number produced for 1880 it was much beyond the capacity of those mills to supply it, and without twine the further development of the twine binder would be impossible. A visit to the east and to all the twine factories availed little or nothing. He obtained samples of twine made of jute, but it was so soft and devoid of tensile strength as to prove useless for the purpose. Mr. Deering then visited the manufacturers of Kentucky hemps and arranged for a quantity of hand-spun twine from long line hemp, which proved so irregular in size and so uneven as to be quite unfit and unusable, and this had afterward to be disposed of to dealers as wrapping twine.

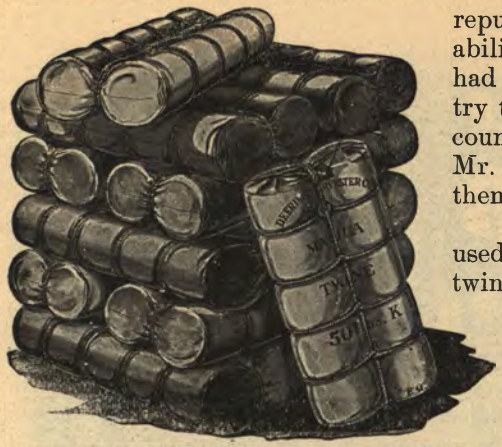
Being quite at his wits' end for a full supply for the binders already made, Mr. Deering again started east, and while interviewing J. T. Bailey & Co., of Philadelphia, manufacturers of hemp and jute twine, who had no suitable machinery for the purpose, was directed to Mr. E. H. Fitler, of the firm of E. H. Fitler & Co., manufacturers of cordage. Mr. Bailey said that Mr. Fitler would be more willing to undertake experiments in that line than anyone he knew.

Mr. Deering saw Mr. Fitler and explained what he wanted, and the latter becoming interested said he would try to make it.

Mr. Fitler was a man justly proud of his business, his



Deering Twine Mills.



SOMETHING NEW.
5 lb. Balls. 50 lb. Bales.

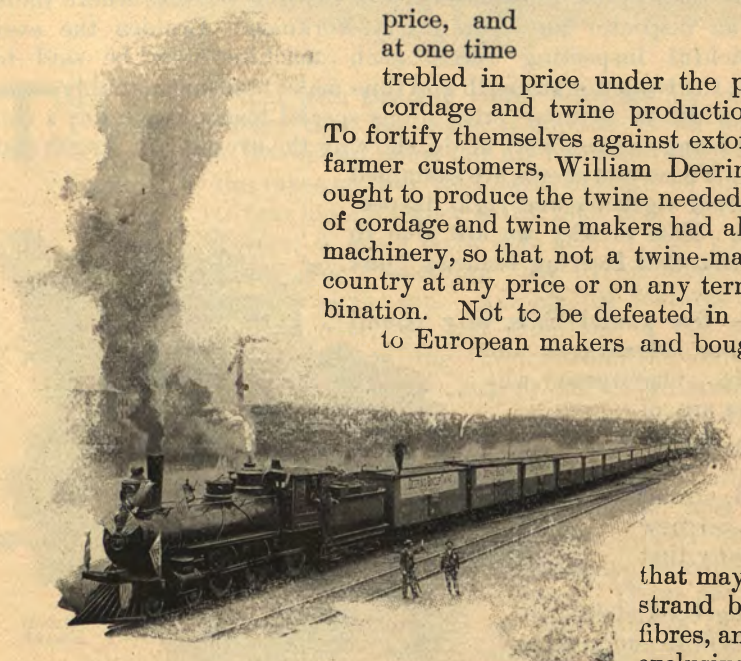
reputation and his product, and seemed glad to demonstrate his ability to produce the new article of manufacture, though he then had very little conception that he was helping to pioneer an industry that would soon be as large as all the cordage business of the country; and it may be pleasant to add that, for several years, Mr. Deering took from E. H. Fitler & Co. at a good profit to them all the twine they could produce.

It may also be of some interest to mention that Mr. Fitler used to relate that he looked over his visitor, who was wanting twine, and concluded he might require 15 or 20 tons; but when Mr. Deering had tested the sample twine and pronounced it satisfactory, and offered to give him then and there an order for several hundred tons, he was astonished, and, as he said afterwards, doubted if his customer was in his right mind. Suffice it to say, Mr. Deering obtained his twine, and both parties were satisfied. It may be of interest to note in this connection that Mr. Deering was a willing purchaser of the twine at 20c, which is now supplied to dealers for about one-third that price.

When binder twine made its advent it was understood among the manufacturers that twine should not be sold in large quantities at less than two cents per pound for the manufacturing cost and two cents per pound for profit or four cents above the cost of the fibre.

The demand soon became so large as to exceed the supply of fibre, which more than doubled in price, and at one time trebled in price under the pressure of the double demand made for cordage and twine production and the manipulation of speculators. To fortify themselves against extortion, and to protect themselves and their farmer customers, William Deering & Co. began to see and believe they ought to produce the twine needed for their machines, but the combination of cordage and twine makers had also included the American makers of twine machinery, so that not a twine-making machine could be obtained in this country at any price or on any terms for use by any one outside of this combination. Not to be defeated in their purpose, Deering & Co. had resort to European makers and bought their first machinery of them, having it made to their order and paying 45 per cent. import duties upon the same. This machinery was put in operation in 1886, and was the first factory outside of the cordage combination and entirely independent of it, so that to Deering & Co. belongs any credit that may attach both to the introduction of single strand binder twine from manila and from sisal fibres, and the building and operation of a factory exclusively for manufacture of twine outside of and independent of the old cordage and twine combination.

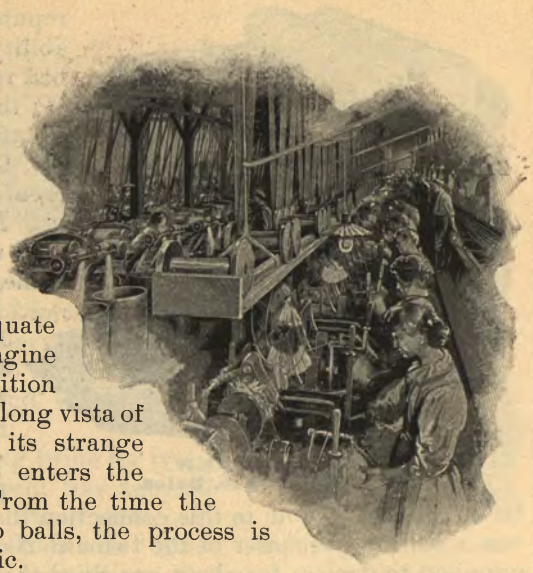
Spinning, Mill No. 2.



Forty-two cars of Deering Twine for Omaha, Neb., June, 1897. Largest single shipment of Binder Twine ever made.

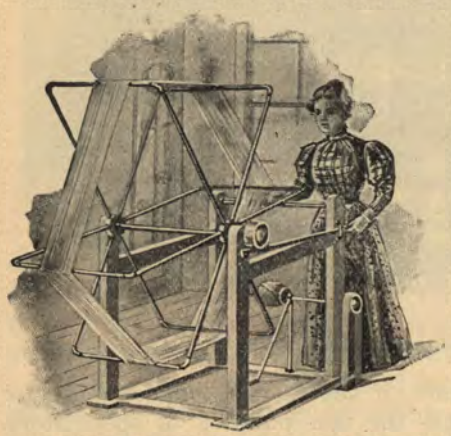
It may be well to add that Deering & Co. also bought and tried machinery for making twines from American grown hemps, and even planted and harvested the hemps for this purpose. They also made and sold jute twine, and tried flax tows, New Zealand flax, and Italian and Russian hemps. This company also sent representatives to different tropical countries in search of suitable fibre plants, and after many experiments and field tests have settled down to the exclusive use of manila and sisal fibres for the production of twine.

No written description can give the reader an adequate idea of this great new twine plant. The immense engine which furnished power at the World's Columbian Exposition is impressive beyond description. The great mill, with its long vista of seemingly never ending machinery, its busy life and its strange sights, has a wonderful fascination for the visitor as he enters the building, and the roar of the spindles fills his ears. From the time the fibre is taken from the bales until it is at last made into balls, the process is continuous, and to the eye of the beholder almost automatic.



Balling.

The solicitous care that is bestowed on every foot of Deering twine insures a product that is as nearly perfect as human skill can make it. The first care is the selection of the fibre, and, although it is grown and packed in foreign climes, our hemp experts know from the brands of the packers just what quality of hemp to expect. On arrival at Chicago it is carefully inspected. The men who are selected for this work are so skillful that they can generally name the packers' grade mark by merely seeing a small sample of the hemp. It will thus be seen that the quality of the hemp entering into Deering twine is practically guaranteed. Of necessity the number of inspectors is proportionally larger here than in the other parts of the Deering factory, where there is an inspector for every thirty workmen. Besides the ever watchful inspecting force, each machine may be said to test the twine for strength and thus make assurance doubly sure. In addition to these precautions special tests of each day's run are being continuously made, showing the averages of length and strength and the general quality as well. These test sheets are examined at the main office and in this way, by eternal vigilance and rigid inspection, is the standard always maintained. This is why we are able to state without fear of successful contradiction that Deering twine is "just what the tag says it is."

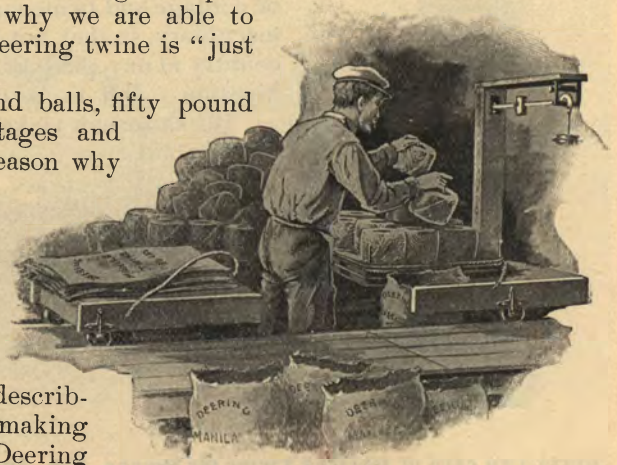


Testing for Length.

This year we offer something new—five pound balls, fifty pound sacks. This style of package has obvious advantages and will be quickly appreciated by the trade. One reason why farmers will like it is because the bales are of such shape that they can be handily stowed under the seat of a buggy.

Deering Twine is long to the pound, strong and even. It is all made in new mills, on new and modern machinery by the same company that first introduced binder twine to the world.

You will be interested in an interesting booklet describing the method of securing sisal and manila fibre and making twine, which can be had for the asking of the nearest Deering agent.

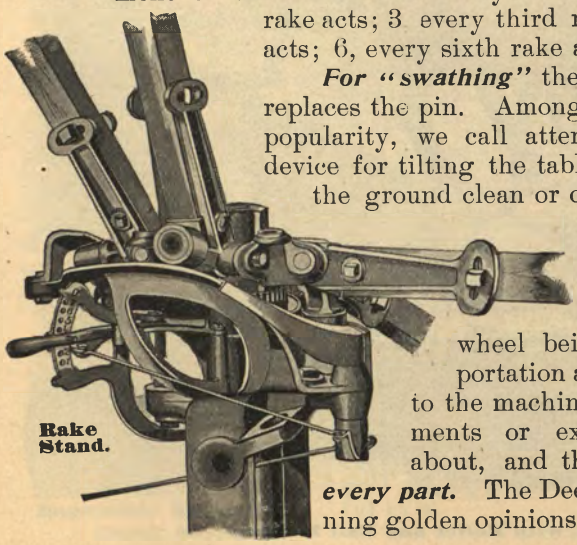


Weighing.

DEERING IDEAL REAPER

THE Ideal Reaper with ***Deering roller bearings*** has an enviable prestige wherever it has gone. Another feature that has made it popular is its ease of manipulation. Without leaving his seat the driver can reach out his hand and operate the device for regulating the movement of the rakes so that they will operate as follows: 0, no rake acts; 2, every other rake acts; 3 every third rake acts; 4, every fourth rake acts; 5, every fifth rake acts; 6, every sixth rake acts; 7, every seventh rake acts.

For "swathing" the driver simply draws out a pin, turns a switch and replaces the pin. Among the features of the Ideal Reaper that have given it popularity, we call attention to the convenient raise-and-lower devices, the device for tilting the table and the ability to shave the ground clean or cut a high stubble at will. The platform is very ***handily folded,*** the inside divider folding with the platform and the grain wheel being slipped on a transportation axle permanently attached to the machine. There are no attachments or extra pieces to be carted about, and the machine is ***strong in every part.*** The Deering Ideal Reaper is winning golden opinions abroad as well as at home.



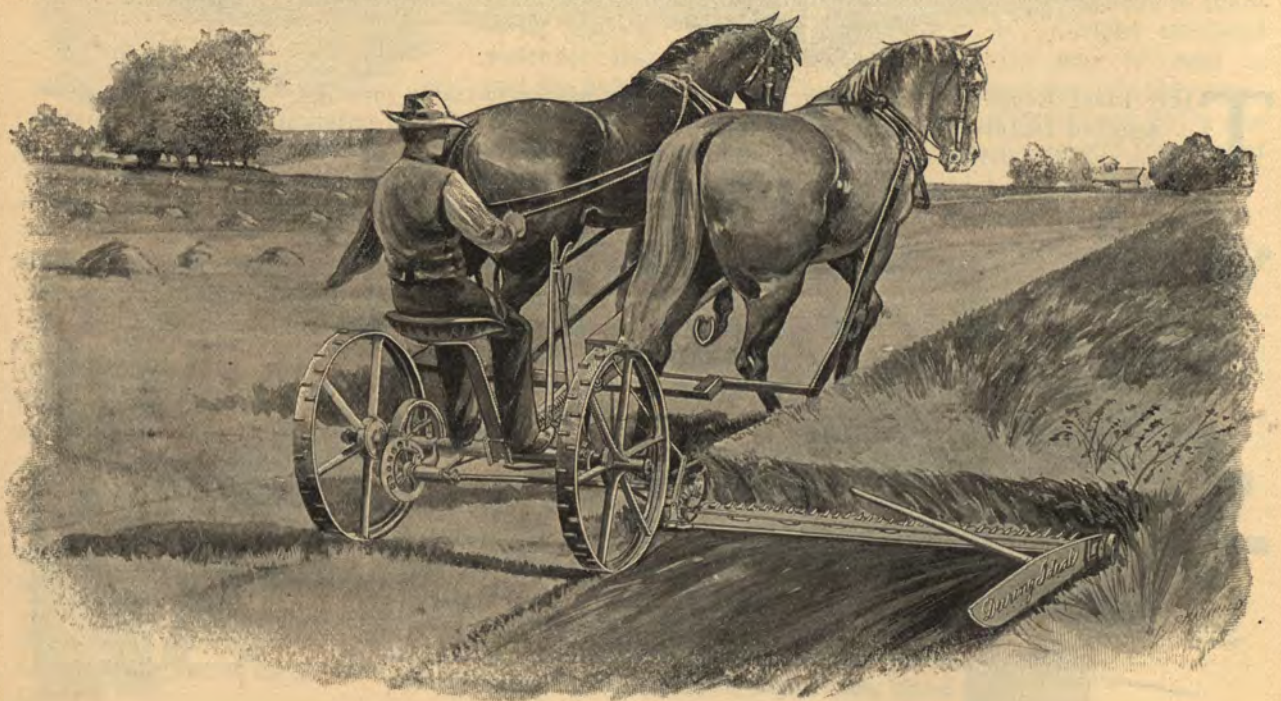
Rake Stand.

Roller Bearings in Ideal Reaper

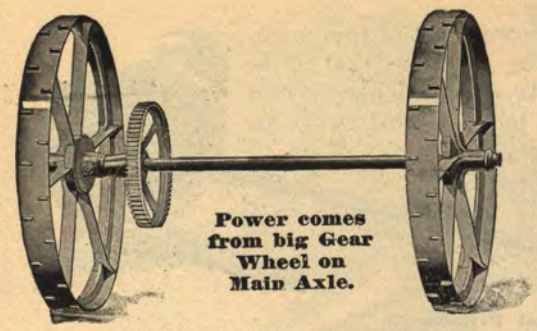
DEERING IDEAL MOWER

ALTHOUGH the ***ball and roller principle*** was only one of the many points of superiority possessed by the Ideal Mower when it was first offered by the Deering Company, it was appreciated at once because of its genuine novelty, and carried the machine into popularity almost at a single bound. It was discovered that the Deering Ideal was modeled on ***new and original lines,*** and that it possessed excellencies which became more and more apparent after it had undergone several years of crucial service. It has stood the test of time; it has been tried as by fire, but it has been only refined and improved by the experience. Every machine sold is a ball and roller bearing missionary, carrying a glad message of emancipation to every delighted purchaser and expounding the Deering principles of light draft and noiseless operation to every nation and to every people.

The sales of these machines have risen like an ***overwhelming tidal wave,*** sweeping aside opposition with resistless power. Even the most insignificant detail of construction has been the subject of solicitous study, and the model for 1898 will possess every good quality that long experience and exhaustive experimenting can suggest.

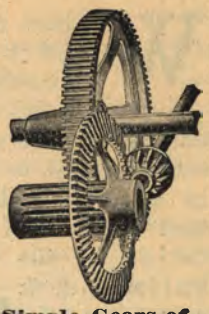


DEERING IDEAL MOWER, 4½ and 5 ft. cut, with Roller and Ball Bearings.

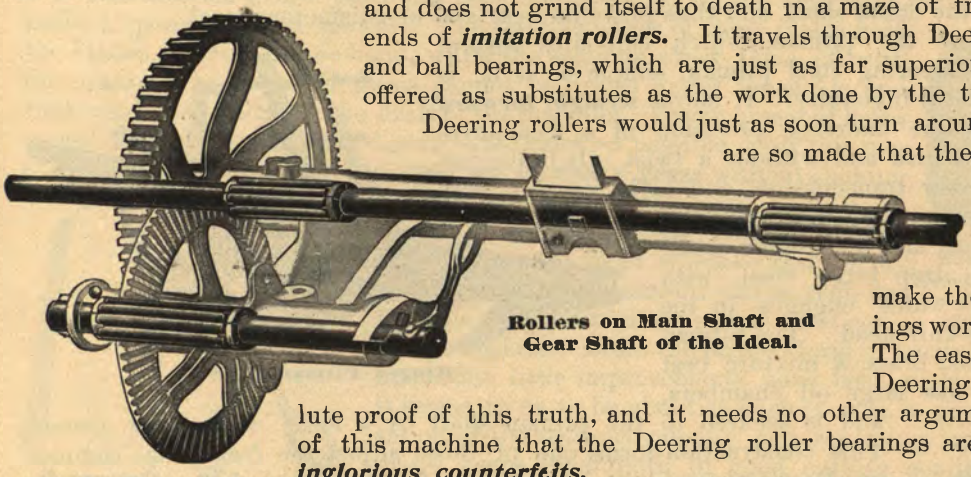


Power comes from big Gear Wheel on Main Axle.

THE first feature that strikes an observer when he sees the Deering Ideal Mower at work for the first time, is the total absence of the ***rattle and bang*** that seems to be part and parcel of the make-up of all other mowers. There is no friction, no clatter, hardly a sound, as the sickle glides with equal ease through obstinate wire grass or heavy alfalfa. The question is often asked, "Why is the Deering Ideal Mower so far in the lead; other mowers look like it on the floor but are outclassed in the field?" That is just the point; the Deering Ideal Mower is in ***a class by itself.*** It is almost as much of a departure from the beaten track as the Deering Marsh Harvester was when compared with the early reapers. From the time the power is taken at the wheels until it snips off the grass at the sickle it finds a direct, easy path and does not grind itself to death in a maze of friction bearings at the ends of ***imitation rollers.*** It travels through Deering frictionless roller and ball bearings, which are just as far superior to the abominations offered as substitutes as the work done by the two types of machines. Deering rollers would just as soon turn around as stand still; they are so made that the dust and dirt find no lodgment in them. There are no inviting hiding places for grit to accumulate and make the so-called roller bearings worse than no rollers at all. The ease of operation of the Deering Ideal Mower is absolute proof of this truth, and it needs no other argument to convince users of this machine that the Deering roller bearings are infinitely superior to ***inglorious counterfeits.***

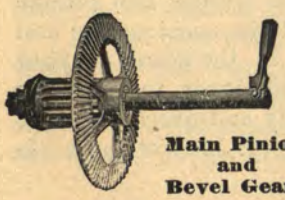


Simple Gears of Ideal Mower.



Rollers on Main Shaft and Gear Shaft of the Ideal.

There is no frictional end thrust whatever, as the pinion at the end of the crank shaft rotates on three large hardened and ***polished steel balls.***

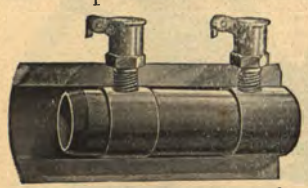


Main Pinion and Bevel Gear.

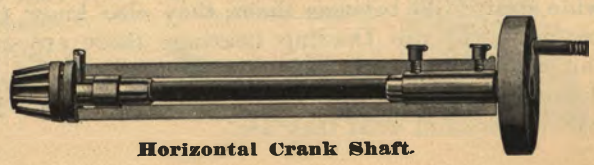
The cut at the upper right hand corner of this page shows all the gears. Count them—just two gears and a pinion, made to fit and made to wear. There is ***no lost motion*** at any part and this is one of the secrets of the noiseless operation of the machine. The scheme of power transmission seems almost too simple to talk about—and yet everybody does talk of it!

Ball Bearing at end of Crank Shaft.

Because of the roller and ball bearings and the reduction of gears on the Ideal Mower its action is positive and instantaneous and the knife starts at the same instant the wheels start. At the World's Fair tests this machine with a five foot cutter-bar registered a total draft of $85\frac{2}{3}$ lbs. while its competitor recorded almost double that amount. A similar disparity must always exist between these two machines, for the Ideal is being ever improved in its mechanical features and perfected in all the niceties that make it what it is. ***For every thirty men there is an inspector*** and it is hardly possible for an imperfect part to pass their watchful eyes.

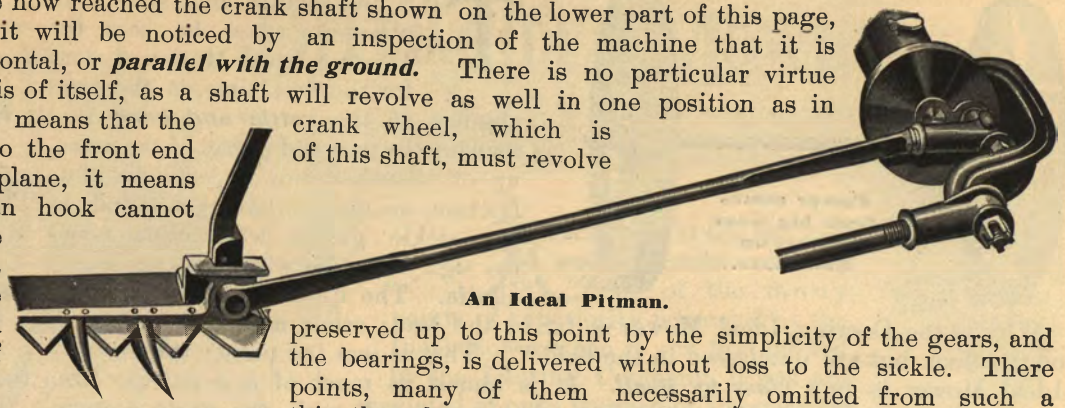


Removable Bushing of Crank Shaft.



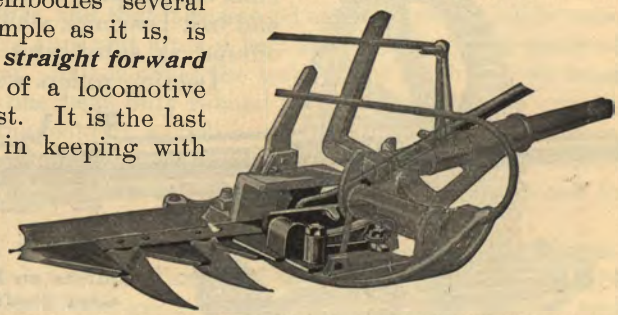
Horizontal Crank Shaft.

WE have now reached the crank shaft shown on the lower part of this page, and it will be noticed by an inspection of the machine that it is horizontal, or ***parallel with the ground.*** There is no particular virtue in this of itself, as a shaft will revolve as well in one position as in another; but it means that the crank wheel, which is solidly keyed to the front end of this shaft, must revolve in a vertical plane, it means that the pitman hook cannot twist in the knifehead, it means that the power saved and preserved up to this point by the simplicity of the gears, and the perfection of the bearings, is delivered without loss to the sickle. There are several little points, many of them necessarily omitted from such a description as this, that play an important part in the harmonious working of the Ideal Mower. We have a device, for instance, for truing up the crank pin so that it is absolutely parallel with the crank shaft, and thus prevents wear and unsatisfactory work.

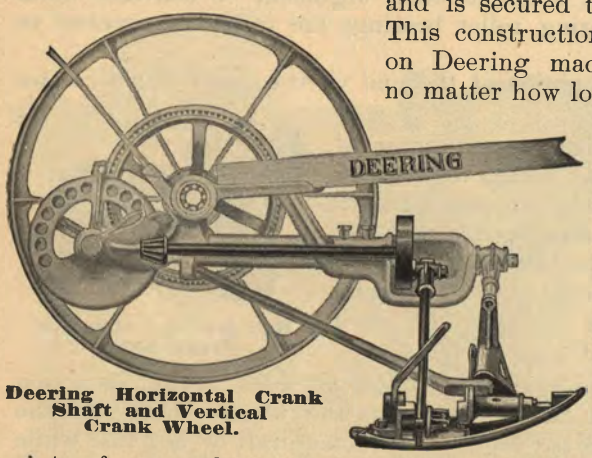


An Ideal Pitman.

This is also true of the pitman, which embodies several important details. The Deering steel pitman, simple as it is, is a masterpiece of mechanical ingenuity. It moves ***straight forward and straight back,*** with the unerring precision of a locomotive connecting rod, without a turn and without a twist. It is the last link in the chain of power transmission, and is in keeping with the general plan. The pitman is composed of but two parts, the pitman head and the pitman shaft; the latter is made of drop forge steel, with a tempered steel hook, which engages in the case-hardened eye of the knifehead. The pitman head is made of hard, red brass, a mixture best adapted for boxes. It has large oil chambers, and is secured to the pitman shaft by a long, deep screw thread. This construction forms one of those adjustable features so common on Deering machines. It allows of a ***perfect register of the knife,*** no matter how long the machine has been used.



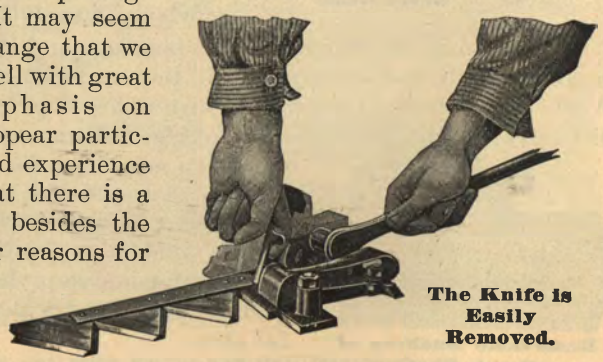
Hinged Pitman Guide.



Deering Horizontal Crank Shaft and Vertical Crank Wheel.

Among other improvements on the Ideal Mower we wish to call your attention to the new pitman head guide, both in regard to its construction and convenience, as clearly shown in the accompanying engraving. The latch is held firmly in place by a ***flat steel spring.*** It is easily and quickly raised, however, when it is necessary to remove the knife for sharpening.

It may seem strange that we dwell with great emphasis on points of material and construction that may not appear particularly forcible to some readers. Those who have had experience with the Ideal Mower and its competitors, know that there is a wide gulf fixed between them; they also know that besides the perfection of the Deering bearings there are other reasons for the remarkable work they do. If you look up the definition of the word "ideal" in the dictionary you will understand what they are.

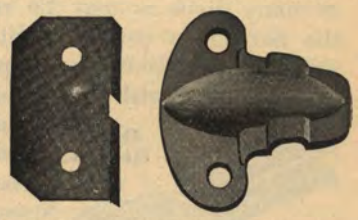


The Knife is Easily Removed.

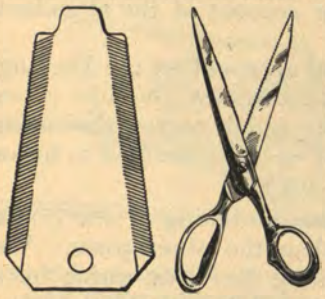
WHEN the power reaches the knife it is safe; it could not get lost if it tried. It is ***all expended in cutting grass*** and not a single spear escapes. The little bar of steel that forms the backbone of the knife is of no ordinary quality. It is a special product made for Deering Mowers, straight and accurate to a thousandth of an inch throughout its length.

Of even greater importance, if possible, are the sections. Grind one of them to a sharp, thin edge and turn up the edge with a wire nail. You will notice it does not chip off like the ordinary knife steel, but possesses a peculiar quality of ***toughness and elasticity*** that is best shown by this experiment or by actual service in stony fields. Deering sections are made from a particular grade of steel which we have found best adapted for this purpose, and this is one reason why they give so much satisfaction.

The serrated ledger plate has been demonstrated by the Deering Company to be essential to the perfect operation of a mower. The file-like edges of these plates hold the blades of grass in one hand, while the sections shear them off with the other. The spears of grass cannot be drawn under the sickle and thus needlessly increase the draft of the machine. Every ounce of horse power is carefully husbanded, and it is therefore possible with this machine, and with this only, to ***start up in heavy grass*** without choking the sickle or backing the team.



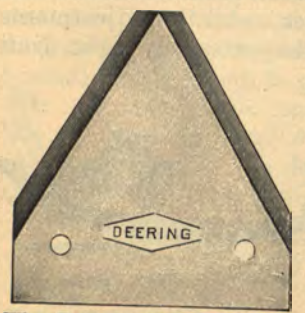
Tempered Steel Wearing Plate. **Spring Steel Clip.**



Serrated Ledger Plate. **Deering Mowers have a Perfect Shear Cut.**

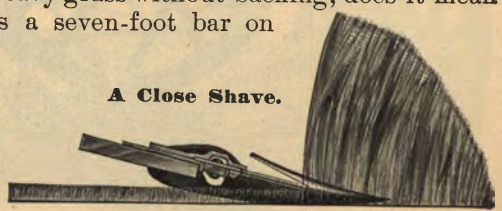
It is needless to say that the cutting apparatus is the most sensitive and important feature of the mower, and as such has had the critical attention of our most competent experts. Since the present form of cutting apparatus was devised, numerous little improvements have been made from time to time, until it seems to us to be about as perfect as it is possible to make it. The action of the sections passing and repassing upon the serrated ledger plates keeps them both in good cutting condition, almost giving the impression that they actually ***sharpen themselves.*** The Ideal Mower leaves an extremely short stubble when desired. Because of the peerless mechanism and durable qualities of the Deering cutting apparatus it has won for itself a name, of which we are justly proud.

Please bear well in mind the fact that old things are passing away and that a new era of light draft noiseless running machines has opened. It has ever been our aim to give the farmer the benefit of the best inventive skill that could be had, and we feel that in the Ideal Mower we have reached our full expectation. It runs almost like a sewing machine. It takes everything that comes and makes no fuss about it. There is a business like air to it that inspires confidence and marks the great disparity with its fellows. Look to the cutter bar and you will see that it contributes a great deal to the measure of success achieved by the Ideal Mower.



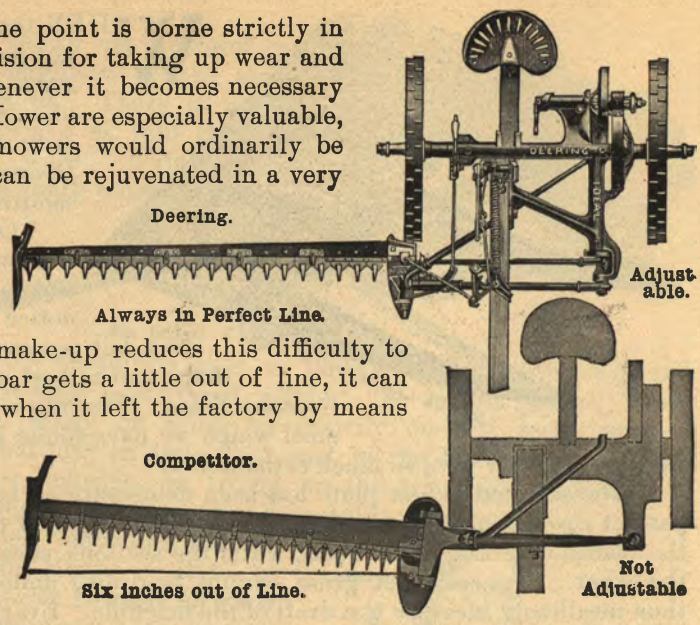
The Deering Trademark.

When a mower takes a full swath without noise, does it mean anything? When one can start it in heavy grass without backing, does it mean anything? When the team pulls a seven-foot bar on rough sod without effort, does it mean anything? When the great majority of the farmers of the country use Deering Ideal Mowers, ***does it indicate anything to you?***



A Close Shave.

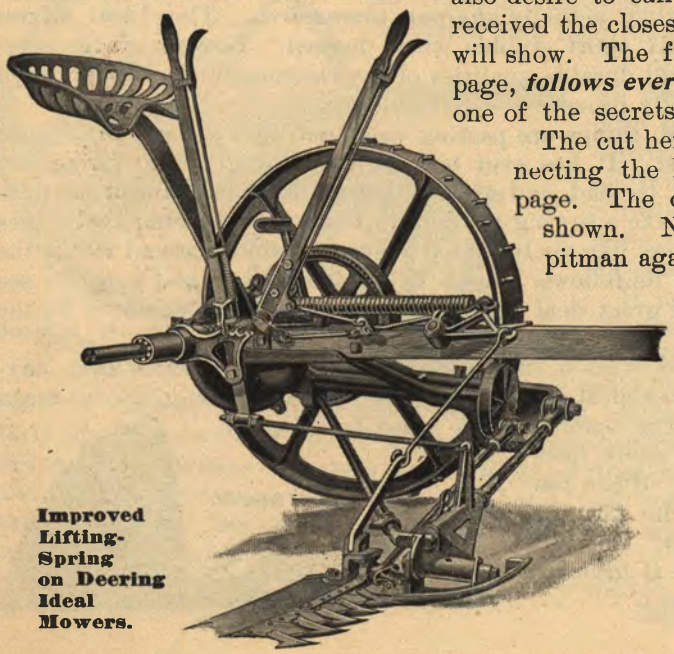
IN the design of all Deering machines, one point is borne strictly in mind, and that is to supply ample provision for taking up wear and renewing the life of the machine whenever it becomes necessary to do so. These features of the Ideal Mower are especially valuable, because, after years of wear, when other mowers would ordinarily be ***worn out and worthless,*** a Deering Mower can be rejuvenated in a very short time by making the adjustments provided for the purpose. In most machines the sagging back of the cutter bar is a grievous fault, and there is no way to prevent it or remedy it. In Deering mowers the quality of the material going into their make-up reduces this difficulty to a minimum, and when perchance the cutter bar gets a little out of line, it can be brought back to the same position it was when it left the factory by means of the ***adjustment on the drag bar.*** It is only necessary to unscrew the nut at the upper end of the drag bar and give the head as many turns as may be required to bring the bar to its proper position. The effect will immediately become apparent. Deering Mowers carry with them their own remedies, and the adjustable features provided for the purpose of renewing their life and usefulness are of the utmost importance. Cheaper machines cannot be fitted with these money-saving provisions on account of the attendant expense, and are therefore ***dear at any price.***



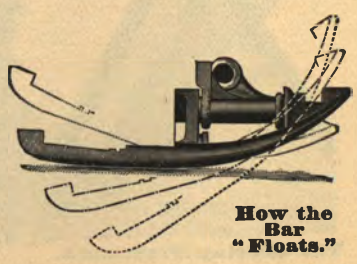

Deering Drag Bar.

This sagging back of the cutter bar is seldom apparent on the Deering machines until a period has elapsed that would compass the life of an ordinary mower. This is because the hinge pin which carries the cutter bar has always been of generous proportions, and we have decided to make this pin ***even longer for 1898.***

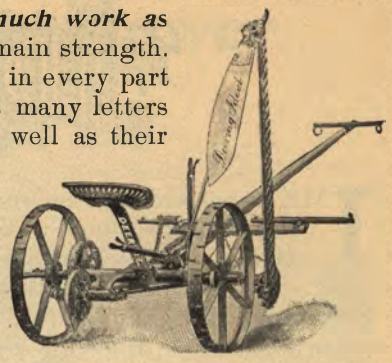
Before passing on to other considerations, we want to speak of the case-hardening of the crank pin, the pitman hook and knifehead eye, which are subject to more wear than the other parts. We also desire to call attention to the oiling facilities, which have received the closest attention, as an inspection of the machine will show. The famous double hinge inner shoe shown on this page, ***follows every slope,*** and unevenness of the ground, and is one of the secrets of the popularity of the Deering floating bar.


Improved Lifting-Spring on Deering Ideal Mowers.

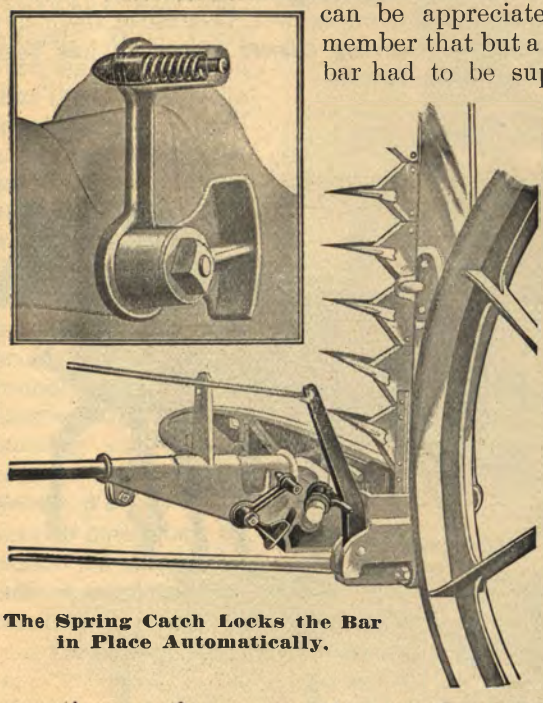
The cut here shown explains clearly the manner of connecting the lifting spring, further described on the next page. The connection with hand and foot lever are also shown. Notice also how the heavy drag bar guards the pitman against accidents from stumps and stones. The Ideal Mower is reduced to a roller and ball bearing basis all over. All the adjustments are on a par with the extremely light draft of the machine, leaving nothing to be desired in the way of convenience. It is all the name ***Deering*** insures and all the word ***Ideal*** implies.


How the Bar "Floats."

TIME was when the man in the mower seat had to do about ***as much work as the horses,*** and the chief requisite of a driver was grit and main strength. The Deering Ideal Mower is so nicely balanced and adjusted in every part that a boy can operate it with little effort, and we get a great many letters from proud youngsters who have learned to manage the machine as well as their elders. The weight of the bar is carried by a large lifting spring through the medium of a lever so designed and constructed that it ***balances the bar*** in every position and allows it to skim along the ground almost suspended by the tension of the spring, but yet with no tendency to leave the ground except to obey a pressure on the foot lever. The great improvement in this feature of the machine can be appreciated by those who will remember that but a few years ago the heavy bar had to be supported by two strong wheels, one at each end. Today the bar of the Deering Ideal Mower is so perfectly balanced that the light wheel on the outer shoe barely rests upon the ground. The Ideal foot-lift is well worthy of the name. It is so sensitive that a slight pressure on the foot lever brings an instantaneous response ***all along the length*** of the bar. We cannot recommend this foot-lift too highly; it is on the machine and speaks for itself.



Convenient to Fold.



The Spring Catch Locks the Bar in Place Automatically.

The adjustments of the bar not only insure the best kind of work because it is about as easy to make them as not to, but they often avoid ***expensive accidents.*** Notwithstanding the range of adjustment these machines are capable of, they are divested of all superfluous parts, and are extremely simple in construction as well as amply strong all over.

The bar is easily and quickly folded for transportation and is held in place by an ***automatic spring catch,*** which holds it securely as shown in the engraving.

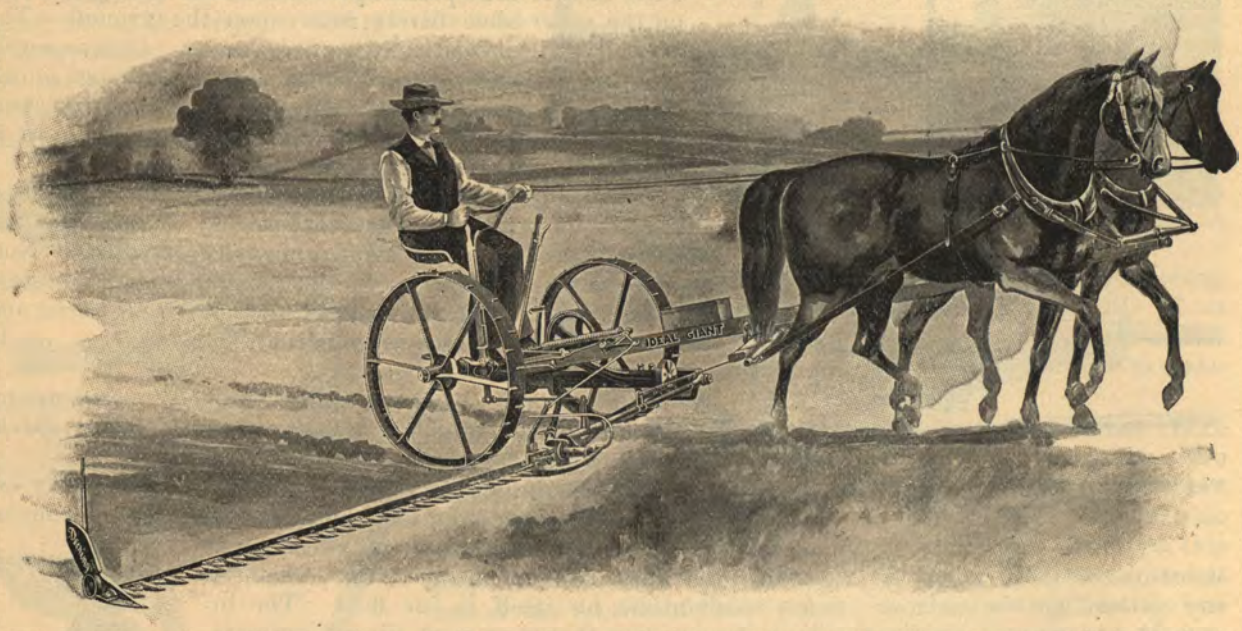
Those intending purchasers who conscientiously examine all competing machines can reach but one conclusion. We have made no extravagant assertions on these pages in regard to the Ideal Mower, nor have we advanced any claims that the machine cannot substantiate for itself in the field. The increased sale of these mowers has been far greater than our most liberal estimate, and our mower department has been ***repeatedly enlarged*** to keep pace with the marvelous demand. The day of cheap machines, made only to sell, has passed.

If you will but believe the evidence of your eyes and ears, if the testimony of thousands of delighted owners of these machines has any weight with you, and if you are truly and honestly determined to get the best machine made, you will buy the ***Deering Ideal Mower.*** So widespread is the fame of this machine that the great majority of the readers of this circular can corroborate the claims we make for it from personal knowledge.

Improved Foot-Lift on Deering Ideal Mowers.

The IDEAL GIANT

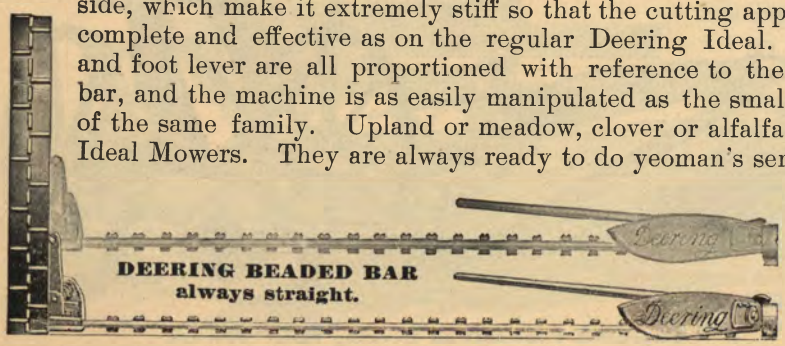
THE use of wide cut mowers has increased very rapidly since the advent of the frictionless Deering bearings, which make it really a ***lighter draft machine*** than the narrrow cut mowers of other makes. The Deering Ideal Giant has every excellent feature of the Deering Ideal Mower. Wherever the character of the land will allow, especially when there is a large acreage to be cut, the Deering Ideal Giant Mower is a great money and time saver and is giving complete satisfaction wherever it has been used. But a few years ago prejudice existed against a wide cut mower, because of the heavy draft of friction bearing machines, but the ***enormous sale of Deering Giants*** last year has been sufficient proof to us that it is to become a very popular size in the future.



DEERING IDEAL GIANT MOWER, 6 and 7 ft. cut, with Roller and Ball Bearings.

This machine has all the excellencies of the Deering Ideal Mower, but it has been expanded and strengthened wherever necessary. The wheels are placed wide apart, and it is amply strong for the service it is intended to perform. The cutter bar is strengthened by ***two ribs or beads*** on the under side, which make it extremely stiff so that the cutting apparatus is as complete and effective as on the regular Deering Ideal. The spring and foot lever are all proportioned with reference to the size of the bar, and the machine is as easily manipulated as the smaller members of the same family. Upland or meadow, clover or alfalfa, wet or dry, it makes no difference to Ideal Mowers. They are always ready to do yeoman's service in season and out of season.

The Beads.



DEERING BEADED BAR
always straight.

By adding one foot to a five-foot cutter bar we save the turning of thirteen corners and traveling over a third of a mile in cutting an acre.

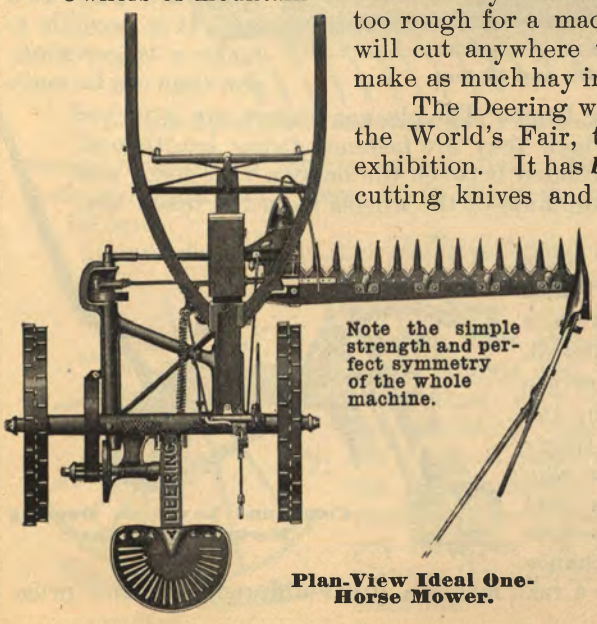
Deering Ideal One-Horse Mower.

ALL that has been said of its elder brothers is true of the Deering One Horse Mower, as far as general construction and special features are concerned. It is, however, lightened up so that it is a mere trifle for a horse to pull, and is used largely for ***small farms, lawns and cemeteries,*** for which purpose it is the most competent and useful machine in the market. It will be found to be an extremely useful tool to have on the farm in mowing out fence corners or ***stumpy fields*** where the shorter cutter bar, by reason of its greater ease of manipulation, will be found a real saver of time, because it does just as thorough work and can handle just as difficult crops as the larger mower

DEERING IDEAL ONE-HORSE MOWER, 3½ and 4 ft. cut.

Owners of mountain farms who scythe their grass because they have the idea that their land is too rough for a machine, will find that the Deering One-Horse Mower will cut anywhere where the grass will grow worth cutting and will make as much hay in a day as ***five able-bodied men*** could do with scythes.

The Deering was the only one-horse mower to receive an award at the World's Fair, though almost every other manufacturer had one on exhibition. It has ***ball and roller bearings,*** horizontal crank shaft, shear-cutting knives and serrated ledger plates, and is an epitome of the Ideal mower in every particular. The particular advantage of the Deering Ideal One-Horse Mower is the fact that it will shave the ground so closely and it leaves such an even stubble. The work is almost equal to that of a lawn mower, and the draft is so extremely light that a pony can easily handle it. An engraving of a plan-view of this machine will be seen on this page, where the method of attaching the shafts is clearly shown.



Plan-View Ideal One-Horse Mower.

The members of the ***Ideal Mower family*** are the only ones using ball bearings, and the only ones having correctly made roller bearings. Their value is easily determined by their good works, and their economy of time, labor and repairs.

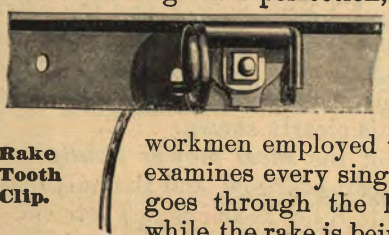
Deering Hay Rakes

DEERING rakes are on the same plane in point of material and design as our other harvesting machinery. The teeth are independently attached to the rake-head by means of a bolt and a small casting, and are easily removed in case of breakage. It is only fair for us to say, however, that we not only exact tough, pliable, springy material from the best manufacturers in the country from which to make our rake teeth, but the quality is analyzed in our laboratories and tested in machines devised for that purpose, not only before the teeth are made, but during the process of manufacture and after they are finished and ready for shipment. This process of ***inspection,*** which is a feature religiously observed at the Deering factory, is an expense which, although considerable, is wisely laid out, because it ***yields large returns*** in after years.

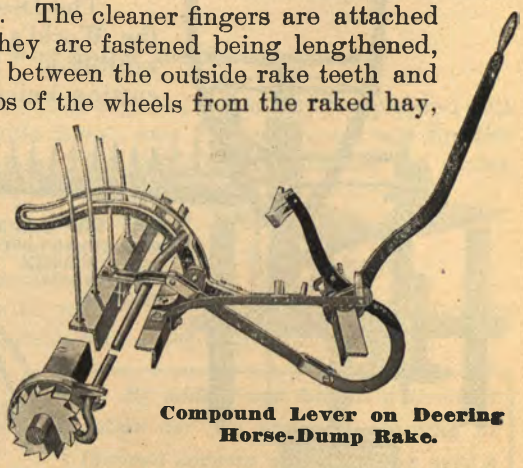
DEERING HORSE-DUMP HAY RAKE, 8½, 10½ and 12 feet.

The Horse Dump rake is operated by power transferred from the wheels to the dump rod, which is placed in action by a convenient foot lever. It will be provided for the year 1898 with a ***new under cleaner,*** which will win favor for it everywhere. This device cleans every vestige of hay from the teeth with perfect ease, and because the teeth are carried high it is possible to make a larger windrow than can be made with other rakes. This rake can also be dumped by hand. The cleaner fingers are attached to the rear member of the hound frame, the bar to which they are fastened being lengthened, of course, for that purpose. The outer fingers are situated between the outside rake teeth and the wheels and serve an added purpose—they shield the hubs of the wheels from the raked hay, to ***prevent it winding*** thereon.

From a mechanical point of view as well these rakes attract notice. Nowhere is the interchangeability of parts carried out to greater perfection, The greatest attention is paid to quality of material, which must stand severe strains every day in the field. For every thirty workmen employed there is an inspector who examines every single piece, and as each part goes through the hands of many inspectors while the rake is being made, there is no chance of its failure. The quality of the material going into a rake makes a great difference in the price. Beware of cheap rakes.

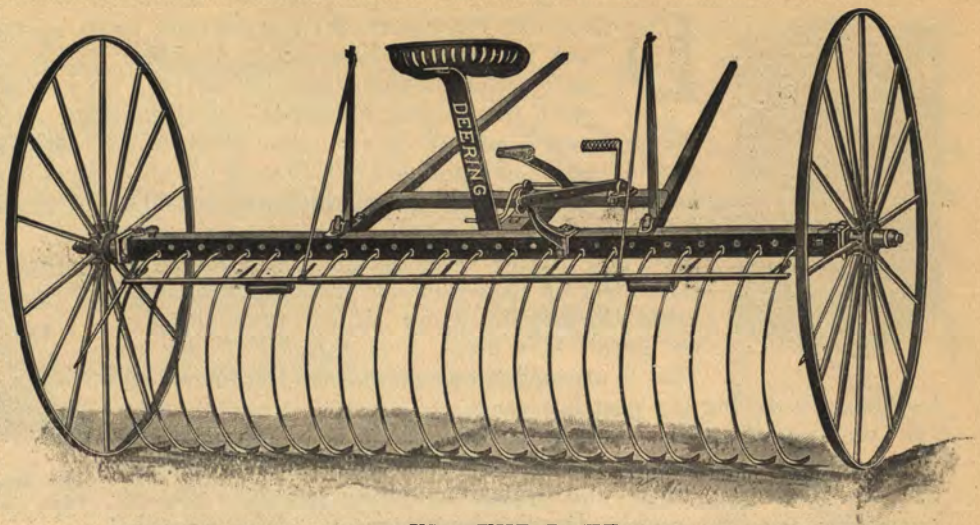


Rake Tooth Clip.



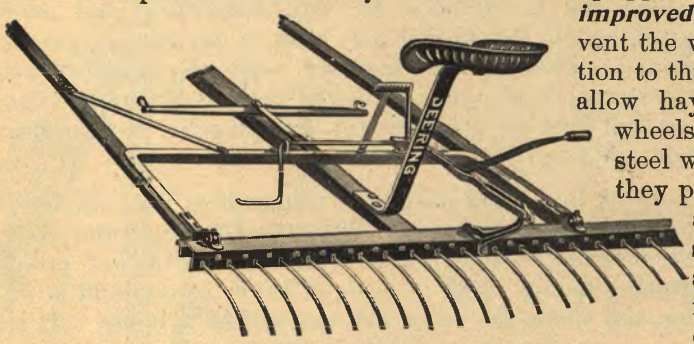
Compound Lever on Deering Horse-Dump Rake.

THE Hand Dump Rake for 1898 will possess all the good features of last year, but in addition will have points of superiority which will make it even more popular than ever. It will be built with a ***substantial overhead cleaner,*** which has been pronounced complete in every respect by our experts, who have had it in the most difficult work during the past season. This is the most perfect lock lever rake on the market, and the levers for dumping are convenient and require but little effort to operate. It is so handy to use the foot lever that the hand lever is in reality seldom needed.



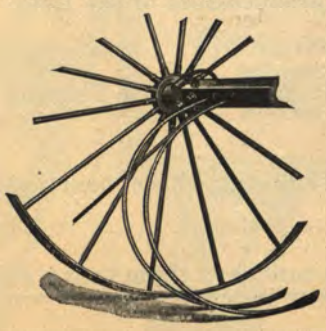
HAND DUMP RAKE.

The height to which the teeth are carried in dumping allows the Deering Hay Rakes to make ***larger bunches*** than any other rake now manufactured. For the same reason the windrows can also be made larger, points which make it a very efficient help in the hay field. These rakes are furnished in all sizes with combined pole and shaft so that either one or two horses can be used at pleasure. Both styles of rakes are equipped with ***cleaner teeth of an improved pattern,*** which effectively prevent the wheels from wrapping. In addition to this, shields are provided which do not allow hay to wind upon the hubs of the wheels. The wheels are constructed of steel welded and riveted together so that they practically are of one solid piece, and although they are of graceful design they possess great strength and rigidity. To the practical iron worker the excellent quality of the steel used in these wheels is evidenced by even a superficial examination. The Deering Hay Rakes, both hand and horse dump, are made in the following sizes: 8½ ft., 20 teeth; 8½ ft., 26 teeth; 10½ ft., 26 teeth; 10½ ft., 34 teeth; 12 ft., 30 teeth.



Perfect Lock Lever and Hand and Foot Dump.

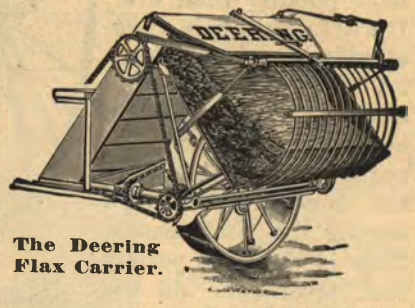
It will be noticed that we have added a new rake to the ***10½-foot size, which has 34 teeth.*** This rake will be appreciated by farmers who would like to have the teeth closer together. Deering Hay Rakes are better known and better liked than any other rakes made, because they are the most modern and the most capable. No pains have been spared to put them on the same plane as the other Deering machines.



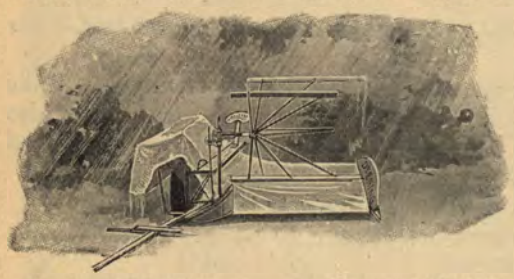
Dumps Easily, Cleans Perfectly.

DEERING ***Harvester Oil*** has become justly celebrated for its uniformity and its superior lubricating qualities. It is not a thick oil, but is of such a consistency as is most adapted for field work, and most important of all it cannot gum. It is a straight run product, and by this we mean that it is not a mixture in any sense of the word. It is known among machinists as red engine oil, and as such is used for all sorts of machinery except the very heaviest kinds. For use in the harvest field where there is dust and grit, oil of this consistency is much better than any other kind, and in this category there is none better than Deering harvester oil. Because of its character Deering harvester oil will never thicken, no matter how much it is exposed to the air. This is attested by many thousand farmers who have used it during the past few years.

We also offer this year a superior quality of thick oil, which will be known as ***Deering Extra Harvester Oil.*** This oil will satisfy the wishes of those who desire something having a heavier appearance than the regular Deering harvester oil. It is prepared with the greatest care and the best of material is used. Beware of cheap, unreliable compounds called oil, but in reality having the character of soaps and having little or no lubricating power whatever.



The Deering Flax Carrier.



Waterproof Binder Cover.

Deering Flax Carrier.—The Deering flax carrier is made both for the Deering Ideal Binder and the Deering Improved Steel Binder. It is easily attached to the machine and is intended for flax, buckwheat and seed grasses, which the farmer may wish to lay in neat gavels unbound. Deering machines are especially adapted for particular work of this sort as the grain is brought to the deck in such excellent condition. A convenient foot lever is provided for dumping the flax carrier. This is sold at a slight extra cost with the binder, or separately.

Deering Waterproof Binder Cover.—Farmers of the world sustain a tremendous loss annually because they do not protect their farm machinery from snow and rain. With the Deering waterproof binder cover many years may be saved in the life of the machine, because even steel is not proof against the insidious ravages of rust. The Deering binder cover is made of heavy canvas and is so shaped that it covers and protects the machine and sheds the water like the roof of a house. It is made so that it will fit any make of binder.

. . . *PLEASE REMEMBER* . . .

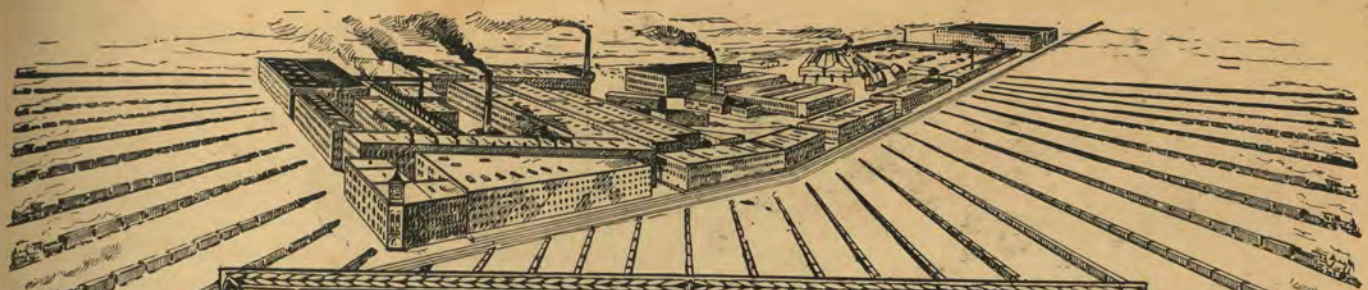
That the Marsh Harvester was invented, developed and sold by the predecessors of the Deering Harvester Company while the reaper makers were yet criticising it.

That the Twine Binder was fostered, developed and first put on the market by the Deering Company long before competitors realized its great value and adopted it.

That the Deering Company introduced Roller and Ball Bearings in 1892 and these bearings have now become indispensable to harvesting machinery.

Why wait five or six years for copied Deering good things when you can have them today on Deering machines ?

PRESS OF W. B. CONKEY COMPANY, CHICAGO.



13,852 Carloads in 12 months handled in the Great Deering Harvester Works.

Forty Harvest Seasons

Marvelous Growth of the Deering Company.

UNPRECEDENTED in the annals of even this age of industrial progress is the growth of the DEERING COMPANY. Beginning forty years ago with half-a-dozen workmen, in a single room in a little country village, the business grew till to-day it employs 5,000 men, 3,500 of whom are daily toilers in the 62-acre Deering Harvester Works in Chicago, the largest plant of the kind in the world.

An idea of the rate of growth may be obtained from the following figures:

1858	employed	6	men,	shipped	½	carload of machines.
1868	"	50	"	10	"	"
1878	"	400	"	371	"	"
1888	"	2,200	"	2,467	"	"
1897	"	3,500	"	6,000	"	"

And it is certain that the 1898 shipments of machines and twine will aggregate 7,000 carloads.

A Certificate.

This is to Certify That between Sept. 1, 1896, and Aug. 31, 1897, acting for the Western Weighing Association, I weighed the following number of loaded cars in the Deering Harvester works:

Entering—loaded with raw material and fuel, - - - 7,377
Leaving—loaded with Deering machines and twine, - 5,475
Or a total of full carloads averaging 30,000 lbs. or more, 12,852

W. J. McCORD,
Weighmaster.

Subscribed and sworn to before me, at Chicago, Ill., Oct. 1, 1897,

M. E. HOLTON,
Notary Public, Cook County, Illinois.

Add to this 1,000 carloads of "less-than-carload" shipments handled by wagons and you have 13,852 carloads of materials and machines shipped in and out in a single year.

This is nearly double the business done by any other harvester works in the world.

Roller and Ball Bearings.

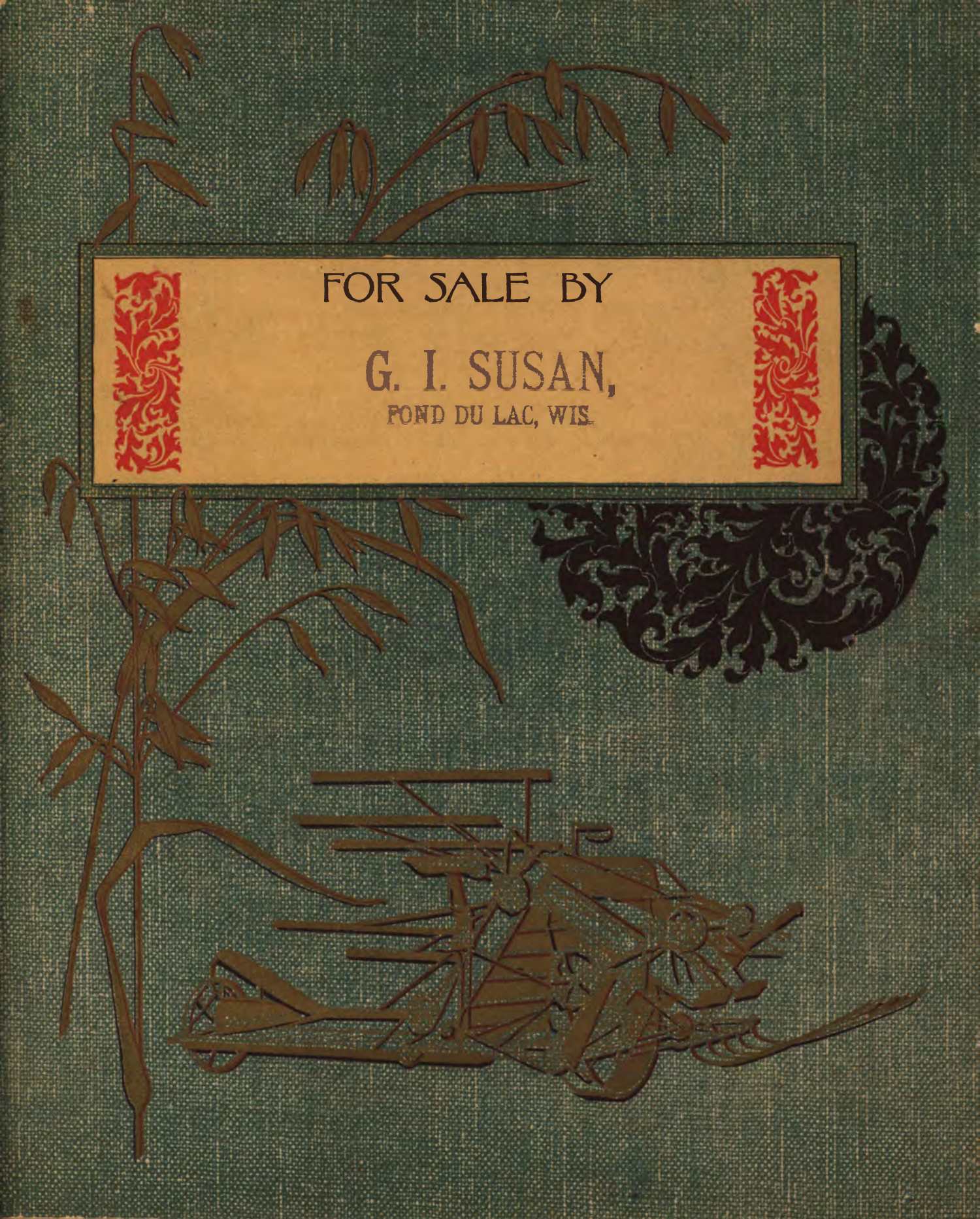
THE Deering sales have increased at the rate of more than 20,000 machines annually since the general application of roller and ball bearings to Deering Machines. This marvelous growth, occurring in years of agricultural depression, when competing firms were standing still or retrograding, speaks volumes for the popularity of the Deering Light Draft machines.

1895	sales were	16,744	machines	more than in	1894.
1896	"	23,256	"	"	1895.
1897	"	28,777	"	"	1896.

And it is certain that the 1898 shipments will exceed those of 1897 by more than 30,000 machines.

Nothing can check the triumphant progress of Deering Machines.

Deering Harvester Co.
Chicago, U. S. A.


FOR SALE BY
G. I. SUSAN,
FOND DU LAC, WIS.