

DEERING

Twine Binders

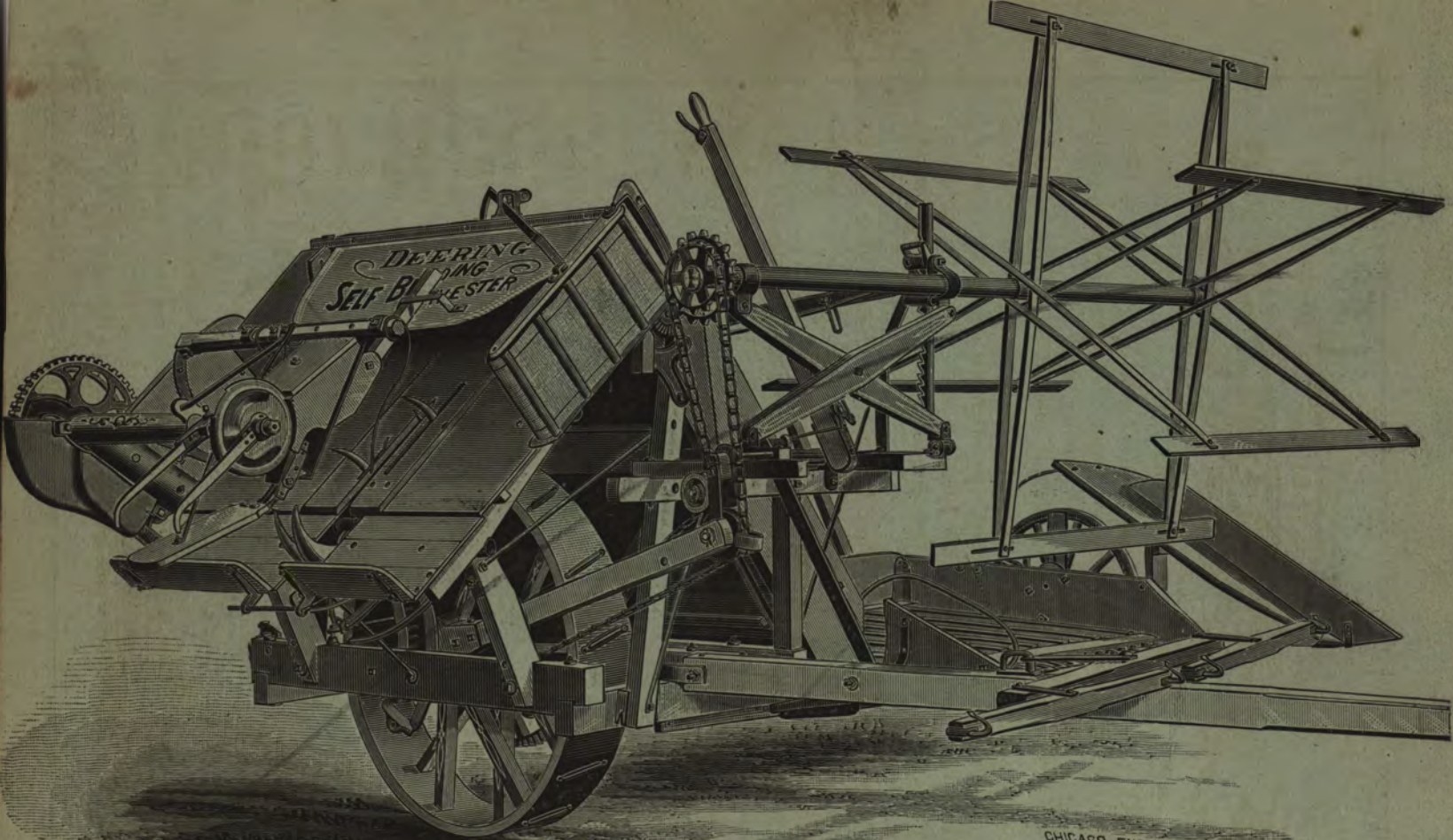
IN A DAKOTA WHEAT FIELD.

Reapers

AND

Mowers.

WILLIAM DEERING,
CHICAGO, ILLINOIS, U.S.A.



CHICAGO-ENGRAVING-CO

THE DEERING TWINE BINDER.



THE year of 1882 has closed upon a record of great success for the Deering Harvesting Machinery, which has been rendered possible only by the prosperity of the farming public.

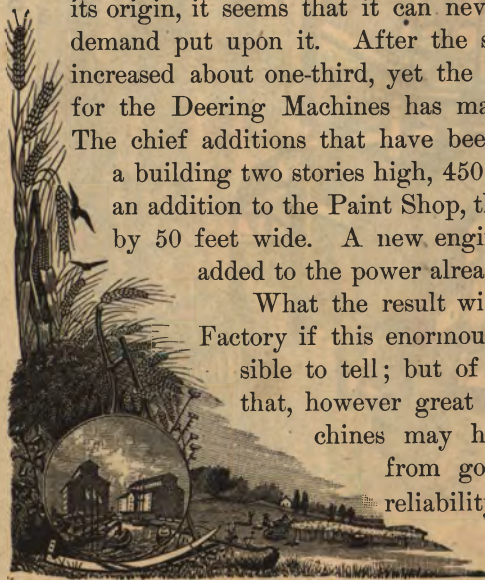
The grain crop, in which the interest of the harvester manufacturer touches most nearly that of the farmer, has been abundant, and the manufacturer takes great pleasure in congratulating the farmers on this pleasing fact; and, following his annual custom, with much pride calls their attention to the important part that the Deering Machinery has taken in their labors.

Nearly twice as many Deering Machines were manufactured and sold in 1882 as in 1881; yet, in spite of this fact, many orders for machines were refused because there were none to be had.

The territory in which the Deering Machinery is known and appreciated has spread with amazing rapidity during the past four years, not only into the West, with the opening of new territory, but also into those Eastern States where, but a few years ago, machines of the oldest fashion were in common use.

Though the Deering Factory has been enlarged every year since its origin, it seems that it can never be large enough to meet the demand put upon it. After the season of 1881, its capacity was increased about one-third, yet the enormous increase in the demand for the Deering Machines has made it necessary to build larger. The chief additions that have been made during the past fall are a building two stories high, 450 feet long by 100 feet wide, and an addition to the Paint Shop, three stories high and 87 feet long by 50 feet wide. A new engine of 350 horse power has been added to the power already in use.

What the result will be to the size of the Deering Factory if this enormous demand continues it is impossible to tell; but of this the public may be assured, that, however great the success of the Deering Machines may have been, as they have grown from good to better in the past, so their reliability and success will, under the same or greater watchfulness, increase in the future.





THE DEERING TWINE BINDER.

The Deering Twine Binder.



PROBABLY never before in the history of harvesting machinery has there been so perfect accord in awarding supremacy to a machine as in the confession made by farmers, agents, and even competing manufacturers, that the Deering Twine Binder is, in perfection of work, ease of management and general excellence, without a rival.

First made in 1879, and at that time an entire success, it has come out at the close of every harvest season further in advance of all competition, until, at the close of 1882, everyone in a position to know the relative merits of the various self-binders must admit that the Deering is justly the machine most liked by the farmers.

Far more of them have been made and sold than of any other kind, yet in no year of their manufacture have there been enough to supply the demand.

At the present time all manufacturers are striving to copy its methods, admitting the superiority of the principles introduced by the Deering of using twine instead of wire—of using packers to compress the grain—of automatically sizing the bundles—of making a perfect separation—of placing the weight of the binder at the rear, thus relieving the horses' necks from any strain.

Yet, it would be repeating what is universally acknowledged to say that none of these rivals have met with the success of the Deering Twine Binder.

The draught of the Deering Twine Binder is said by owners to be at least *one horse* less than that of any other machine.

The perfection which has been attained by years of experience in making the Deering is such that it is common for the machine to run through the entire harvest without more adjustment than the tightening of a screw or a spring.

The Deering Binder does most perfect work, and does it in every respect automatically.

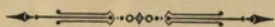
Automatically the bundles are made always of the same size, and always bound with the same degree of tightness. The knot-tyer makes a perfectly secure knot. The separation of the bundles even in the worst grain is complete. No grain is lost by the Deering, as from the time it is cut until it is bound and dropped on the ground, it is held securely and is protected from the wind.

The wear on the Deering is reduced to the smallest point, as the binder remains perfectly at rest until the packers accumulate the bundle, when it takes but a few seconds for the binder to compress the bundle, put the twine around it, and tie the knot.

The simplicity of the Deering is one of its most noticeable features. It has fewer parts than other binders, and everything is in plain view and may be easily understood, even by those inexperienced with binders.

The great care exercised in the manufacture of the binders is perhaps the best explanation of their wonderful success. No anxiety to turn out a large number of machines in order to fill the demand, and no desire to reduce the cost, is allowed to interfere with the perfection of the workmanship. Only the best workmen are employed and the best material used. Every binder is run by steam and tested carefully, and is then securely packed, so that it is prepared to do good work from the first start.

The manufacturer is justly proud of the great popularity that the Deering Twine Binder has won, and is determined, at whatever cost of pains or money, that it shall maintain its position at the head of all machines of its class.



❖ THE DEERING HARVESTER. ❖

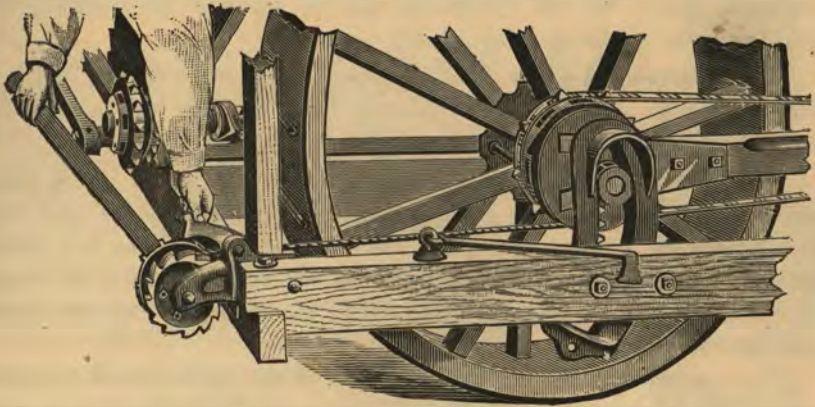
THE Deering Harvester, to which the Twine Binder is attached, is wonderfully light, and at the same time strong in its construction.

Its reputation for durability and strength has been won in over twenty years of good service among the farming public. Many of them are still doing good service after a lifetime of ten to fifteen years.

One of the chief reasons for its great popularity is that the only strain that the Deering Harvester brings on the horses is in the direct draught—which is far lighter than that of any other harvester—as the balance of the machine is so perfect that there is no weight on the horses' necks, while the freedom from side draught is complete.

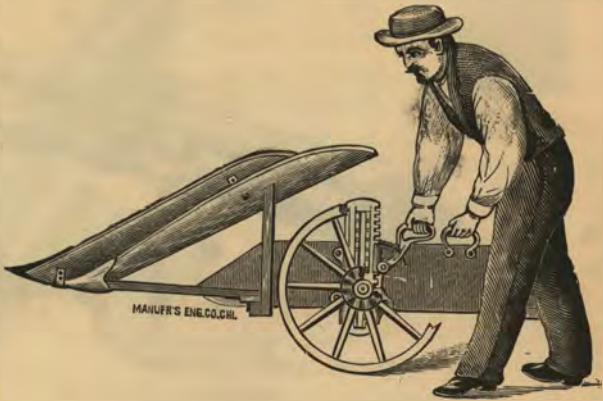
Yet, perhaps the most notable feature of the Deering Harvester is its completeness. It has every feature of adjustment and adaptability that could possibly be desired, and in more convenient and perfect form than can be found on any other harvester.

The devices for raising and lowering the Harvester are the most perfect in their work of any yet devised. The machine is raised at the main wheel a distance of *twelve inches*, exclusive of the tilt, by

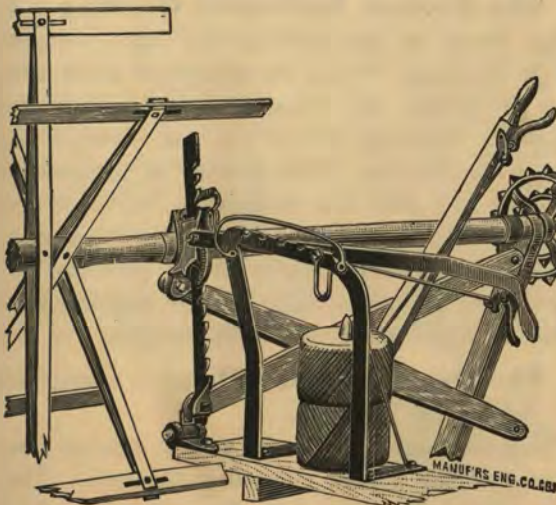


RAISING DEVICE AT MAIN WHEEL

a few turns on the ratchet wheel, thereby winding up the wire rope connecting with the disc on the main wheel. The machine is instantly raised at the grain wheel by an easy pull on the lever and the handle on the divider board shown in the accompanying cut.



RAISING DEVICE AT GRAIN WHEEL.



THE DEERING REEL

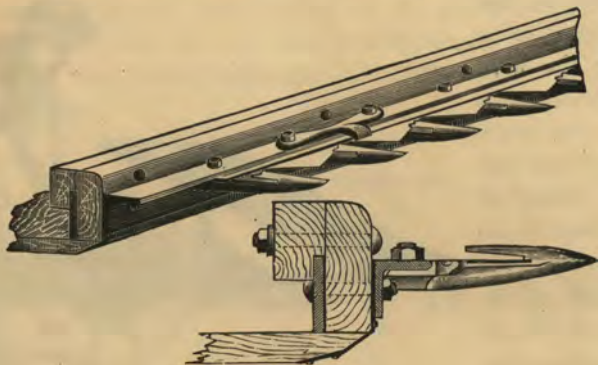
The Deering Reel is the most perfectly adjustable reel in the market. With but a *single lever* it can be moved up or down and placed in any position required. It does not follow a fixed path, but can be moved forward and back at any desired height, and can be set so as to pick up the worst conditions of lodged grain. The

speed with which the reel travels can also be adjusted by changing the chain from one of the sprocket wheels to the other.

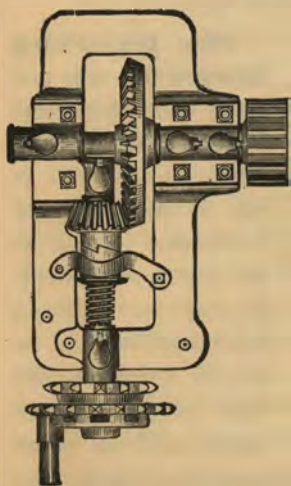
The Tilting Lever which appears in the cut with the reel is so arranged that the driver, without moving from his seat, can readily tilt the harvester down to pick up lodged grain.

The Cutter-bar of the Deering Harvester is one of its finest features. It is made of iron and wood, and has the strength of iron with the lightness and stiffness of wood. Back of the wooden bar is a heavy iron plate running the entire length of the bar, and in front is the angle iron cutter-bar of cold rolled iron, to which the malleable iron steel-faced guards are attached.

The cutter-bar is thinner than they are usually made, which, together with the tilting apparatus and the reel, allows the Harvester to deal with grain lying almost flat on the ground.



THE DEERING CUTTER-BAR.



HARVESTER GEARING.

The Perfect Harvester Gearing is a large factor in the wonderfully light draught of the Deering. When the gearing of a machine cuts or grinds, the draught is very greatly increased. Nothing of this sort can possibly occur on the Deering. The gearing is completely inclosed by a solid iron frame-work, to which the boxes are solidly bolted. The boxes themselves are about twice the length usually provided on harvesters, giving a long, smooth bearing, and effectually preventing any hard draught.

The Deering Main Wheel is a triumph of strength and lightness.

A is the axle; the main gear is cast in one piece with the sleeve encircling the axle. The spokes, B, are held in place by the flange, E, and by the hub, G, on the

other side, both of which are secured firmly by the bolt, D.

At the outer end the spokes are deeply sunk in the felloe. The wheel is provided with diagonal lugs, which make it run easily on a hard road or on a floor. The face of the wheel is broad, which, with the light draught of the machine, allows it to run on ground where other machines would not be able to move.

The Canvas Elevators of the Deering Harvester are remarkably successful in attaining the perfection desired in this part of the harvester. They never choke or fail to carry up to the binder every spear of grain that is cut.

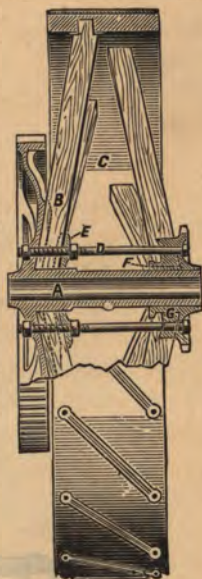


SECTION OF CANVAS ELEVATORS.

under by the roller B against the lower canvas, which yields and allows the grain to pass up, and whatever the quantity may be, it can never be stuck in the elevators. On the other hand, if the grain is thin the canvases naturally pressing together will carry it all up.

The arrangement of the Deering Elevators is as near perfection as could well be attained in this most vital part of a harvesting machine.

The Deering Harvester has played a very important part in the success of the Deering Twine Binder, as, without its fine features, the binder attachment, however well made, would never have been so large a factor in the spread of the grain-raising industry of this country and others.



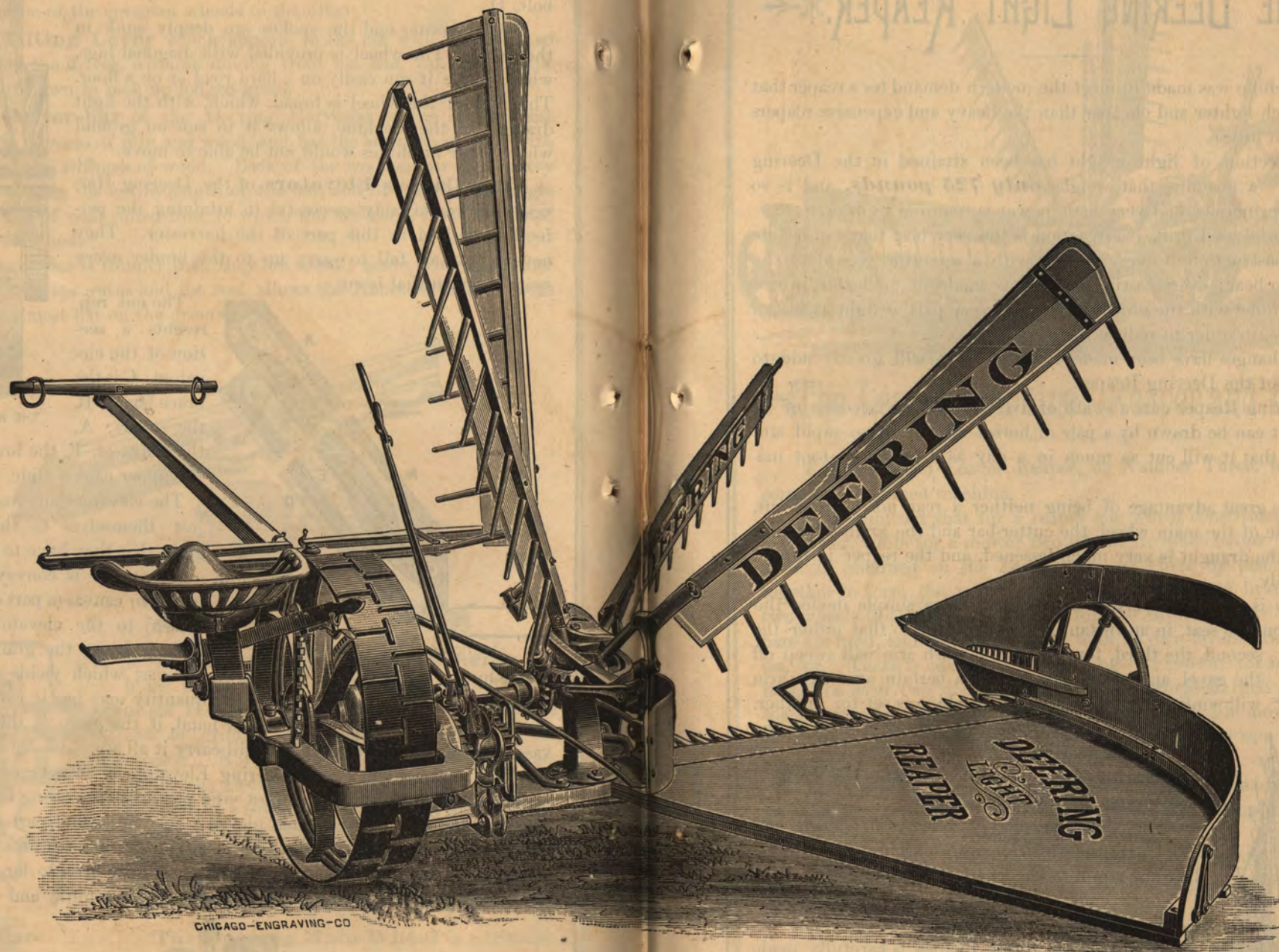
THE MAIN WHEEL.

The cut represents a section of the elevators. C is the brace board; B, the rollers; A, the canvases; E, the lower, and F, the upper canvas slide.

The elevators automatically adjust themselves to the bulk of grain that they have to handle.

The grain is conveyed by the platform canvas (a part of which is shown) to the elevators. If the bulk is large, the grain is rolled





THE DEERING LIGHT REAPER.

THE DEERING LIGHT REAPER.

THIS machine was made to meet the modern demand for a reaper that should be much lighter and cheaper than the heavy and expensive reapers that have been in use.

The perfection of light weight has been attained in the Deering Light Reaper—a machine that weighs *only 725 pounds*, and is so perfect in its principles that very little power is required to draw it.

The material used in its construction is the very best that can be obtained; the construction of every piece is with a scientific regard to the strain it has to bear; every casting possible is made of malleable iron—everything is done with the object of having every part as light as it can safely be made, in order to reduce the weight.

Several changes have been made for 1883 that will greatly add to the efficiency of the Deering Reaper.

The Deering Reaper cuts a swath of five feet, but on account of its light weight it can be drawn by a pair of horses all day at so rapid and steady a pace that it will cut as much in a day as a heavy six-foot machine.

It has the great advantage of being neither a rear nor a front cut, but, as the axle of the main wheel, the cutter-bar and the grain wheel are all on a line, the draught is very much lessened, and the reaper is turned or backed easily.

The rake is the most perfect one made. By a simple device the driver can, from his seat, in an instant set the machine so that either the second, the third, fourth, fifth or sixth arm will sweep off the gavel, and when once set for a certain arm that arm will continue to rake until the machine is set for another.

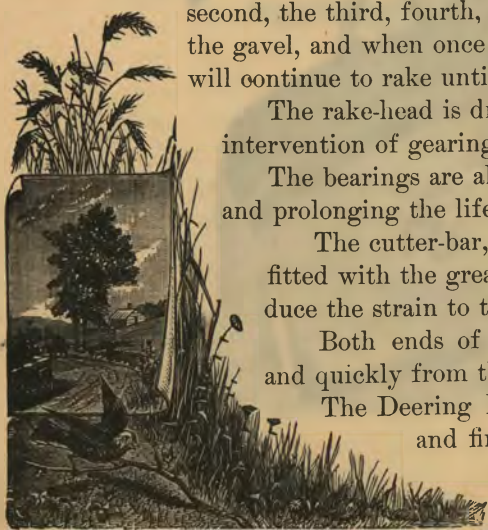
The rake-head is driven from the axle without the intervention of gearing.

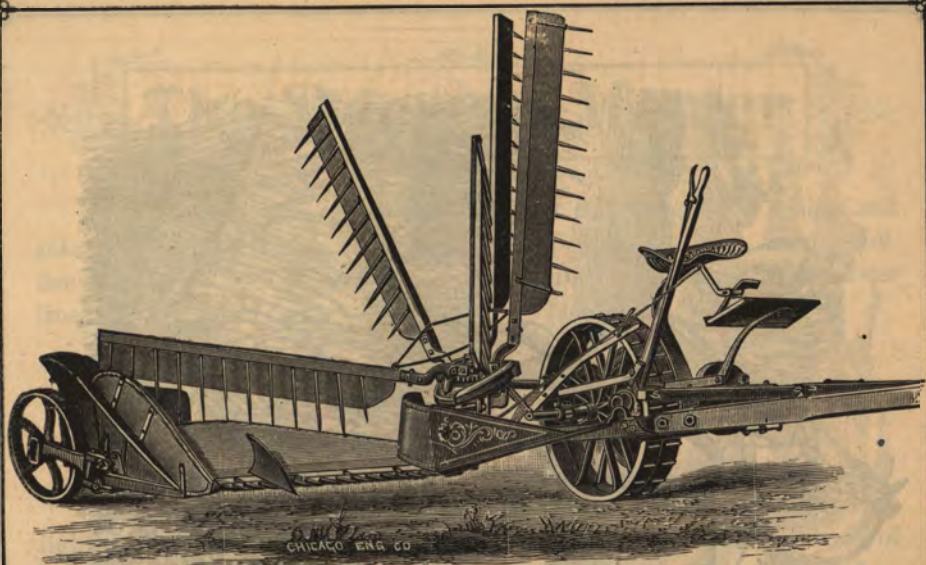
The bearings are all chilled, reducing the draught and prolonging the life of the reaper.

The cutter-bar, of cold rolled iron, is made and fitted with the greatest care, so accurately as to reduce the strain to the smallest possible point.

Both ends of the reaper can be raised easily and quickly from the driver's seat.

The Deering Light Reaper is carefully made and finely finished, and is a machine of which the owner might well be proud.





—The Leader Combined Reaper and Mower.—

THE combined Leader Reaper, or Number Three, is an unusually complete combined machine.

It is admitted that for a reaper one wheel constitutes the best driving power, while for a mower two wheels are much better. This combination is obtained on the Leader Number Three by placing two wheels together to form the main wheel of the reaper, and by changing these two wheels to the ends of the axle for the Mower. Two distinct cutter-bars are used, and each is provided with its own levers, attachments, sickles, &c. There is one speed for reaping and another for mowing. Thus it will be seen two distinct machines are provided, each embodying all the features respectively of a single Reaper or a single mower.

The Leader is made as a 6-foot or wide cut, and as a 5-foot or medium cut.

The Leader is a wrought-iron Reaper. The frame is made double, of two pieces of wrought iron riveted together and strongly braced, so that it is impossible that it should bend or spring.

The cutter-bar does not support the grain platform, which rests instead on a steel rod which acts like a buggy-spring on rough ground. The grain wheel is not attached to the cutter-bar.

The entire cutting apparatus may be raised or lowered from the driver's seat, by the use of a single lever.

The rake is a five-armed Johnston Rake.

The Leader Combined Mower is in appearance like a single mower, and it is admitted by owners to do as good work as any of the best single mowers.



THE DEERING MOWER.

The Deering Mower

THE Deering Mower was made to meet the demand for a light and substantial mower. It is in every respect up with the times, and is confidently believed to be an advance on any of its predecessors in the mower line.

It is an Iron Mower throughout.

It is a Front Cut Mower.

It is not a heavy, clumsy machine.

It has an inclosed gearing.

In short, it is in every way just what the modern demand calls for.

Its weight is only 575 pounds. Every part is designed to combine lightness with a sufficient amount of strength to avoid any chance of breakage, even under rough usage, and at the same time to avoid wear.

Yet, all those parts which may wear in the course of years are so made as to be easily and cheaply replaced.

The draught of the Deering Mower is said by those who have used it to be far less than that of any other mower.

There is a notable freedom from side draught on the Deering Mower, no trace of it being observable. When the driver is in his seat the machine will balance itself, keeping every vestige of weight off the horses' necks.

The shafts are made of cold rolled iron, the best and most costly material that could be used.

The nuts on the Deering Mower are locked, so that it is impossible for them to work loose with the vibration of the machine.

The oil cups are made in a way peculiar to this machine, and, while admitting the easy introduction of oil, exclude all sand or dirt.

The connection of the pitman to the crank is by a ball and ball box. The pitman itself is of steel, and the box of brass.

The clutch is placed on the intermediate gear instead of on the axle, and this fact, together with the use of four pawls in the ratchet of the driving wheels, and other peculiar arrangements, allows the Deering to be stopped when cutting and to start again without backing up or clearing the sickle.

The cutting apparatus which has been used so long and with so great success on the Warrior Mower is provided with the Deering.

On this cutter-bar the guards are only $2\frac{1}{4}$ inches apart, and the sections of the sickle $2\frac{1}{4}$ inches wide. Long experience has shown that in certain kinds of grass the large number of divisions that are thus made in the swath causes it to be cut with remarkable ease.

But, in order to provide for all kinds of cutting, and to meet every taste, a cutter-bar with guards 3 inches apart and sections 3 inches wide is manufactured; thus allowing the purchaser his choice. The Mower is so made that the cutter-bars may be readily changed from one to the other. Both these cutter-bars are made of cold rolled iron, and are provided with malleable iron steel-faced guards.

At each end of the cutter-bar is a small wheel, which causes the bar to run easily over the ground

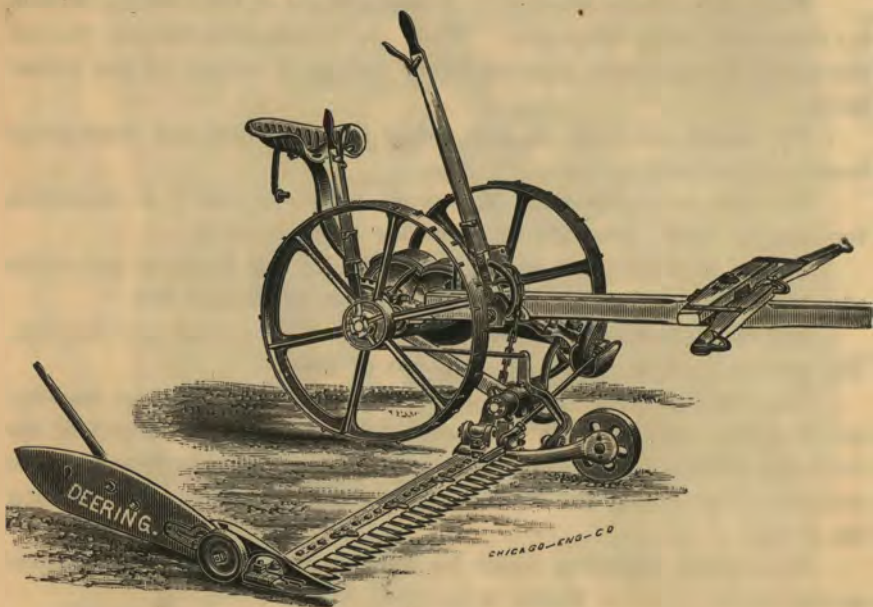
The cutter-bar is so connected with the frame that if it runs on a knoll or a stone the guards automatically turn up and ride over the obstruction.

Improvements of much value have been made in the Deering Mower for 1883.

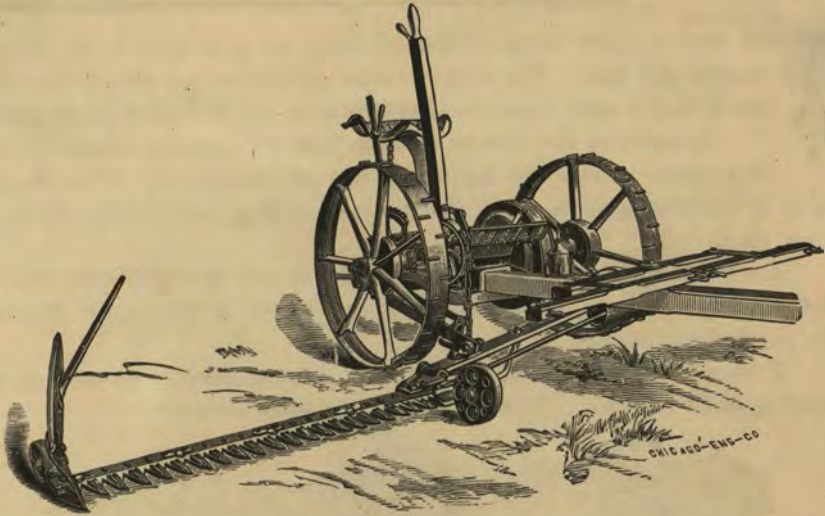
Great care is taken in the manufacture of the Deering Mower, none but the best of all kinds of material being used in making it, and every Mower being put together and run by steam at the factory.

Wherever it can be done, the castings are made of malleable iron, in order that they may be at once light and strong.

The Deering Mower is handsomely finished, and is in every respect a very efficient and desirable machine for a grass-grower.



THE DEERING MOWER.



❖ The Warrior Mower. ❖

THIS machine, by many years of faithful service, has won a very enviable position in the esteem of the farming public.

The Warrior Mower needs no words of commendation from the manufacturer, as wherever it has been known and used nothing but praise of it is heard.

Its durability and freedom from breakages are very notable points in the reputation of the Warrior, many of which are still in use after a service of many years.

But the feature in which it most excels is in its cutting qualities, which are remarkable. This is accounted for by the fact that the cutting surface of the Warrior sickle is $93\frac{1}{2}$ inches instead of 70, which is the usual extent. The guards being $2\frac{1}{4}$ inches apart, and the sections $2\frac{1}{4}$ inches wide, makes this difference in the cutting surface, which causes so great advantage in cutting power and draught that the Warrior goes easily through grass in which many mowers cannot cut at all.

The cutter-bar is so hinged that the moment it runs against an obstruction it rises easily, thus protecting the guards and the sickle.

The tilting and lifting levers on the Warrior are handy and effective. There is no trace of side draught or neck weight.

In short, the Warrior is a Mower which may be bought with an absolute certainty of good service and satisfaction.

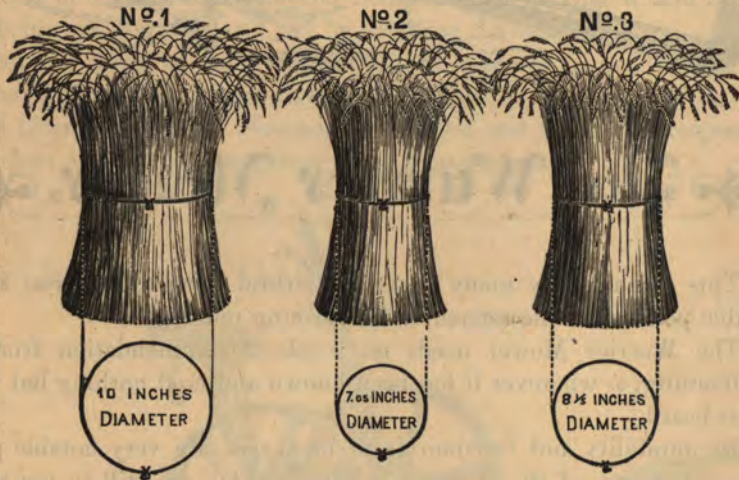
OF THE GREATEST IMPORTANCE.

THE two kinds of twine commonly used are pure manila and mixed manila and sisal. The manila twine costs more per pound than the other, but it runs more feet to the pound, and will bind more grain.

It has been the custom of some manufacturers of binders to sell this mixed manila and sisal twine as pure manila, and either charge for it as for manila, or to claim that they are selling pure manila twine at a low price.

The twine sold with the Deering Binder is sold strictly for what it is. Both varieties are sold, but each has its own price; no attempt to deceive the purchaser is made.

A large amount of binding material is unnecessarily consumed by binding small bundles. To illustrate this examine this cut:



3 FT. 2 $\frac{3}{8}$ IN. TWINE REQUIRED FOR ONE BUNDLE No. 1.

4 FT. 10 $\frac{1}{8}$ IN. TWINE REQUIRED FOR TWO BUNDLES No. 2.

Two bundles the size of No. 2 contain exactly the same amount of grain as one bundle of No. 1. Therefore, when it takes 3 ft. 2 $\frac{3}{8}$ in. of twine to bind a certain quantity of grain in one large or medium-sized bundle, it takes 4 feet 10 $\frac{1}{8}$ inches to bind the same quantity of grain in two small bundles, or **ONE-HALF** more twine.

Again, four bundles No. 1 contain same quantity of grain as six No. 3, but it takes only 12 ft. 9 $\frac{3}{8}$ in. to bind four No. 1, while it takes 16 ft. 4 $\frac{1}{8}$ in. to bind six No. 3.

These figures are not overdrawn, but taken exactly from measurement.

Thus it will be seen that to make bundles of the size ordinarily made by the Deering, rather than smaller bundles, makes a saving of nearly or quite **one-third of the binding material.**

MEDALS, PRIZES AND PREMIUMS,

TAKEN BY

The Deering Machines

IN 1882.

Over 45

IN NUMBER.

IN 1881, the Deering Twine Binder alone captured over thirty first prizes and premiums at the autumn fairs, which was far more than were won by any other machine; but in 1882 the Deering Machines have fairly outdone themselves, and have taken more than forty-five first awards.

Not only in North America, where the Deering Twine Binder has established itself as master of the harvest field, but also from South America comes record of its victories.

The Deering Twine Binder was awarded the

GRAND SILVER MEDAL, the Highest Award Given at the Great Continental Exhibition at Buenos Ayres, in the Argentine Republic of South America,

over the Wood, Osborne, Buckeye, and Hornsby (English) Self-Binders, and at the following fairs:

BURLINGTON COUNTY, N. J., Agricultural Society. Gold Medal.

ST. JOSEPH, MO., Industrial Exposition. "Grand Silver Medal."

DARKE CO. FAIR, Greenville, O. Medal.
FARGO AGRICULTURAL ASSOCIATION, Fargo, Dak. Silver Medal.

CALIFORNIA STATE FAIR, San Francisco.

STOCKTON FAIR, California.

KANSAS STATE FAIR, Topeka.

ONONDAGA CO. FAIR, Syracuse, N. Y.

SENECA CO. FAIR, Waterloo, N. Y.

ORLEANS CO. FAIR, Albion, N. Y.

KUTZTOWN AGRICULTURAL SOCIETY, Kutztown, Pa.

DAUPHIN CO. FAIR, Harrisburgh, Pa.

CUMBERLAND CO. FAIR, Carlisle, Pa.

CHESTER CO. FAIR, West Chester, Pa.

LAWRENCE CO. FAIR, New Castle, Pa.

KENT CO. FAIR, Worton Sta., Md.

FREDERICK CO. FAIR, Frederick, Md.

MONTGOMERY CO. FAIR, Rockville, Md.

WEST JERSEY AGRICULTURAL SOCIETY, Bridgeton, N. J.

WOODSTOWN FAIR, Woodstown, N. J.

SHENANDOAH VALLEY AGRICULTURAL SOCIETY, Winchester, Va.

BALDWIN AUGUSTA AGRICULTURAL SOCIETY, Staunton, Va.

MEEKER CO. FAIR, Litchfield, Minn.

BOONE CO. FAIR, Lebanon, Ind.

MONITEAU CO. FAIR, California, Mo.

GASCONADE CO. FAIR, Herman, Mo.

FRANKLIN CO. FAIR, Washington, Mo.

NODAWAY CO. FAIR, Marysville, Mo.

LIVINGSTON CO. FAIR, Pontiac, Ill.

LOGAN CO. FAIR, Lincoln, Ill.

ADAMS CO. FAIR, Quincy, Ill.

HANCOCK CO. FAIR, Carthage, Ill.

KNOX CO. FAIR, Galesburg, Ill.

OGLE CO. FAIR, Oregon, Ill.

CLAYTON CO. FAIR, Elkader, Ia.

The Deering Mower was awarded the first prize at the following fairs:

CALIFORNIA STATE FAIR.

LIVINGSTON CO. FAIR, Pontiac, Ill.

OGLE CO. FAIR, Oregon, Ill.

GASCONADE CO. FAIR, Herman, Mo.

BOONE CO. FAIR, Lebanon, Ind.

NODAWAY CO. FAIR, Marysville, Mo.

The Deering Light Reaper was awarded the first prize at the

CALIFORNIA STATE FAIR, San Francisco.

Those who expect to purchase grain or grass-cutting machinery, should send for or obtain from agents, the Deering Testimonial Circular for 1882, and learn what owners think of the Deering Machines.

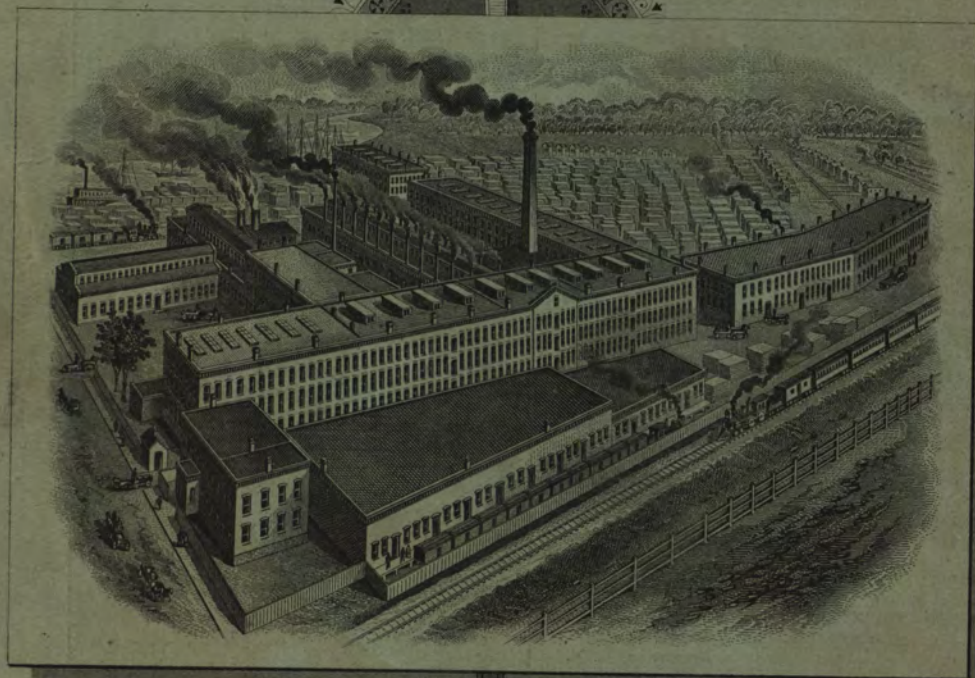
The Deering Agents may be found everywhere. Call on them, and examine the machines described in this circular.

WILLIAM DEERING.

WORKS AND OFFICE.

Corner Fullerton & Clybourn Avenues.

CHICAGO, ILL.



FOR SALE BY

**Silas F. Wheeler, Agt,
Reddick. Ills.**