

WILLIAM DEERING & CO
HARVESTING MACHINERY CO
CHICAGO, U.S.



IN the year 1879, William Deering undertook to build the first twine binder. Every rival manufacturer of harvesting machinery prophesied for this bold innovation complete failure and confusion, but the faith of the Deering Factory in the great idea was firm, and the binders were built. If the manufacturer himself—not to mention those who so confidently predicted failure—could have foreseen to what proportions this industry was to grow in his own factory alone, in six short years, his own astonishment would have been scarcely less than that of those who were clinging so firmly to their old traditions.

In 1879 the number of twine binders turned out by the Deering Factory was so small as now to appear almost ridiculous; in 1884 the number was many thousands.

Since 1879, the works already large, have been replaced by new works, enormous in size and capacity, and year by year, to the present time, these have grown by a wing here, an addition to this wing, a new building and a wing to that, until the Deering Factory has reached proportions that fall little short of enormous, whence more harvesters are yearly sent into the grain fields of the world, than come from any other in existence. Yet in spite of the extent and vast capacity of the Deering works, they have not in the past year been able to supply the demand put upon them. It is impossible to say exactly how many thousand Deering machines were short of the demand made for them, but the number ran into thousands. During the past summer, in preparation for the manufacturing season of 1885, with the hope of at last doing all that our agents shall ask of us, we have added the following buildings to our factory: a warehouse, 210 x 97 feet; a building 70 x 40 feet; another 70 x 25 feet; another building 50 x 45 feet; and another 50 x 16 feet.

The year of 1884 has been a glorious one for the Deering Machines, and has surprised even those who have had the strongest faith in them. We sincerely believe that we state no more than the exact fact, when we say that there are no harvesting machines so popular, none that work so well, or sell so readily, and none of which so many are made and sold.

The reliable Standard Deering Binder is known throughout America, and on almost every Continent as the King of its class. Of the Junior Deering Binder, we hardly know how to speak in measured terms. It has been one of the grandest and proudest successes in our history. It stands to-day unmatched and unrivalled in the harvest field.

The Giant Mower has proved even more than we confidently asserted that it would prove. We have had not one word of criticism for it, and praise from all who have seen its work.

The Deering Mower has maintained for itself its good reputation, and the Deering Light Reaper has been made a machine that works to the high satisfaction of all who own it.

For the season of 1885, our novelty will be a wide front cut Mower, cutting six feet and drawing even lighter than the Giant; for this careful experiment has assured success.

We thank the farming public with deep sincerity for their appreciation of our endeavors; we beg that they will accept our good wishes for the coming season, and remain,

Their Friends,

WILLIAM DEERING & CO.



The Standard Deering Twine Binder.

THE Deering Factory was the birthplace of Twine Binders, and the Standard Deering Twine Binder was the result of its fostering care. Never has child done greater credit and honor to those to whom its existence is due. Successful at the first in 1879, from year to year the Deering has been made better until it is admitted that, when the grain harvest is finished by the Standard Deering, it could not have been better done. The two greatest features of the Deering Binders, shown first on the Standard and now incorporated in the Junior, are: that **THE WEIGHT AND GEARING OF THE MACHINES ARE AT THE REAR**, and that they have the **GREAT SIMPLIFIED DEERING KNOTTER**. No binders lacking these features can rival the success of the Deering.

Of late years the Deering having admittedly solved the question of perfection in balance and in tying, has devoted its attention to the perfection of the bundle. This is attained, as in the Junior, by the combination of the Long Deering Adjuster, and the Adjuster Extension. The result is the only *perfect* bundle made by any machine.

The Standard Harvester is probably the strongest machine of its class that has ever gone into the harvest field. There are many instances in which it has done successful work for a period of from fifteen to twenty years.

It is, and has been, the model for all of its class. It showed the first Adjustable Reel, which remains unexcelled by that of any competitor to-day. It has an Iron Main Wheel on which all the most successful wheels have been modeled. Its Canvas Elevators were the first to be made automatically adjustable, as they thoroughly and successfully were.

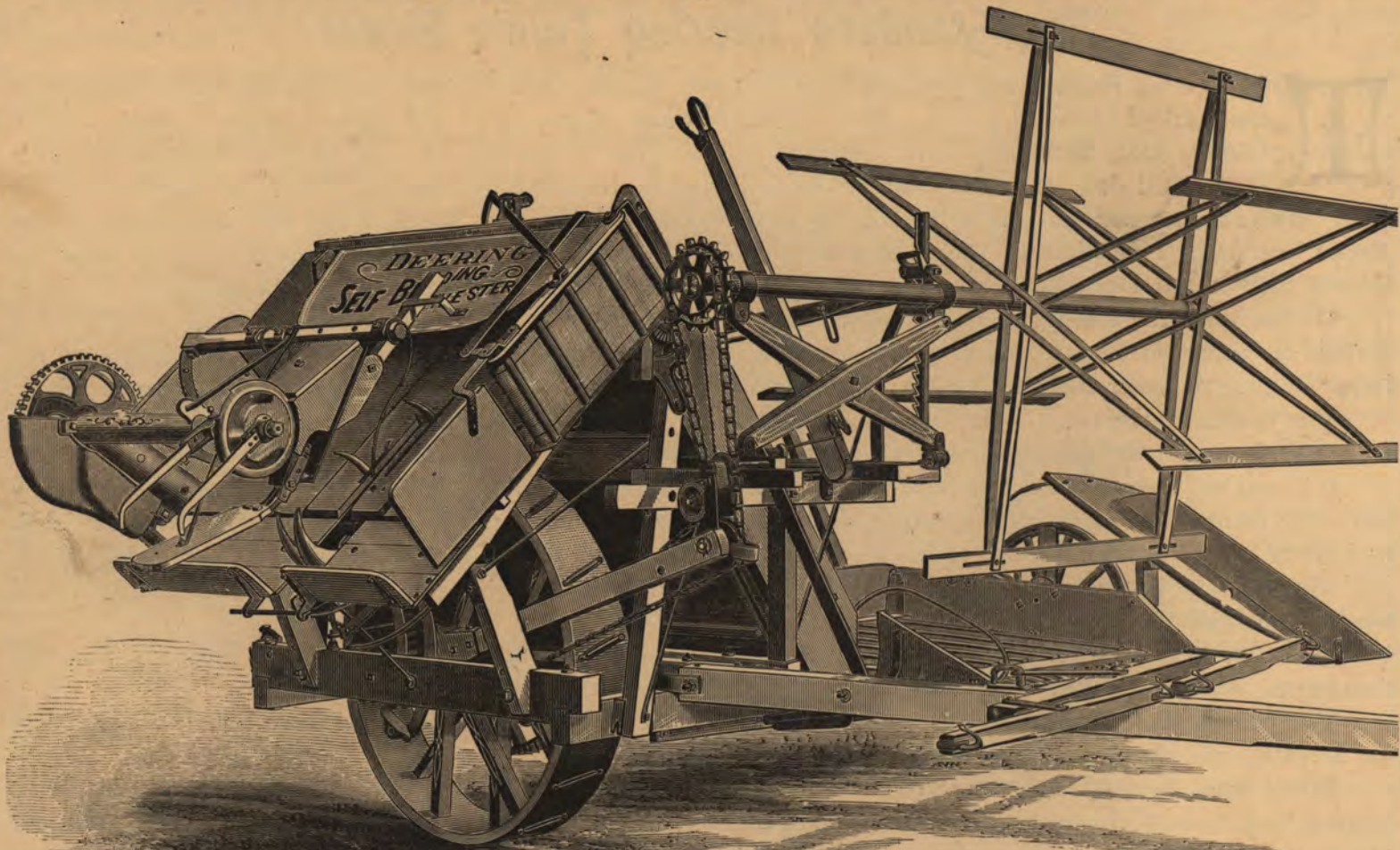
The Deering Cutter-bar is a combination of wood and iron, one giving stiffness, the other strength and wearing qualities.

The Raising and Lowering Devices, both at the Main and at the Grain Wheel, have given greater satisfaction than any of which we know. They are light in weight, simple and always ready for work.

The perfect Reel and the thin Cutter-bar allow it to pick up any grain, not rolled down by a land roller, and the Elevators will elevate anything that comes to them.

When once elevated and presented to the Binder, it makes little difference whether the grain is straight or tangled, long or short, the packers straighten it out, the twine is placed in the middle and the bundles are thrown out all the same size, the butts straight and even, the twine tight; in short, perfect in every way. No owner of the Standard Deering can ever regret his choice.

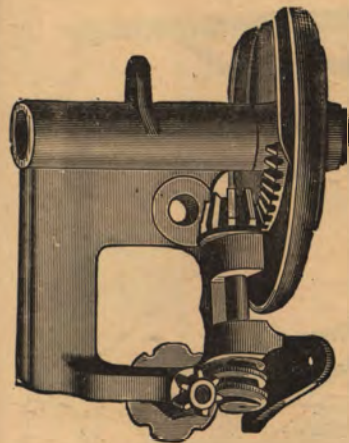
Many thousands of them in the hands of farmers, speak for themselves of their perfection.



THE STANDARD DEERING TWINE BINDER.

1885

The Junior Deering Twine Binder.



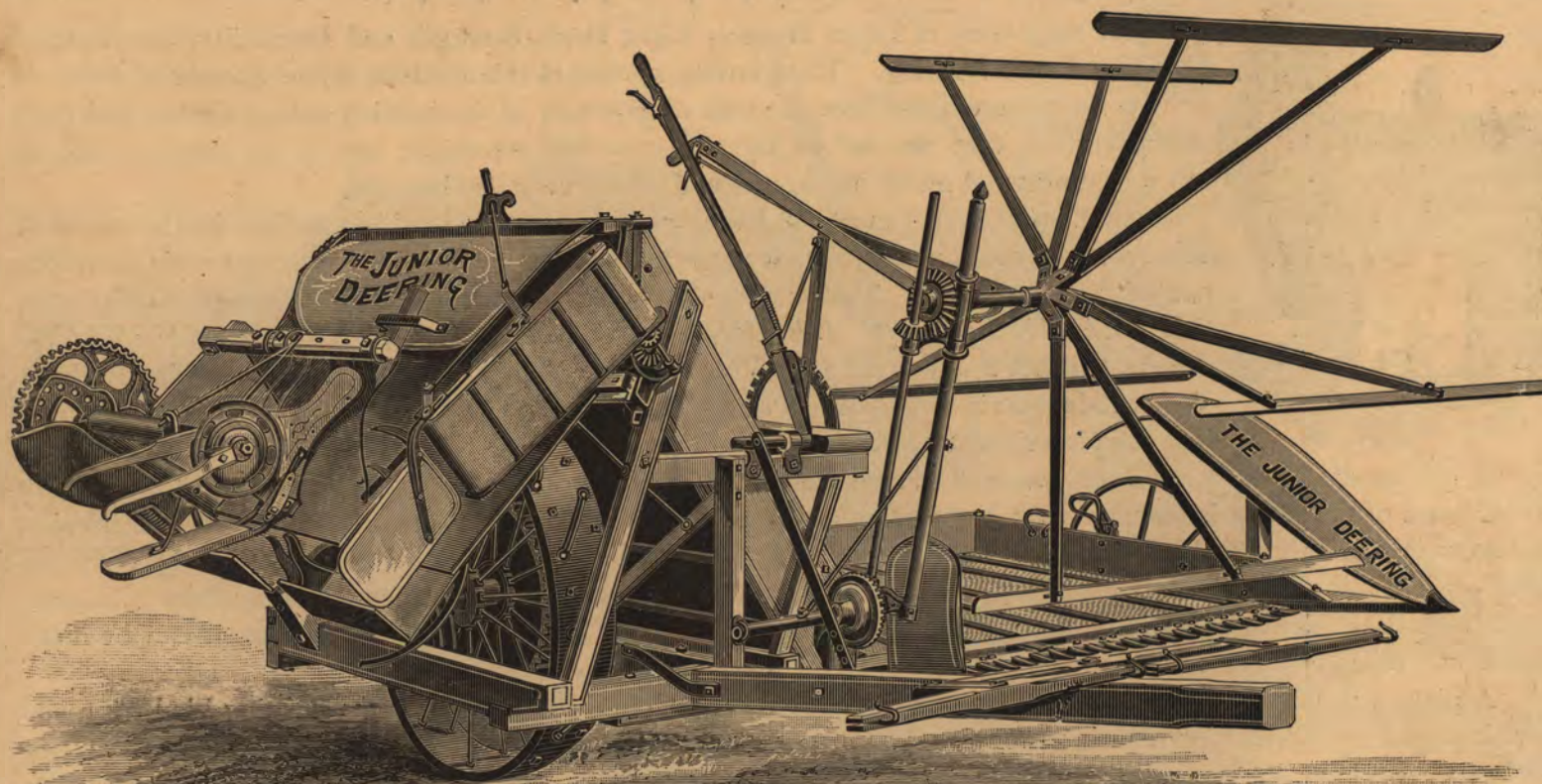
THE very acme of Light Weight, Light Draft, Strength and Durability, are found in the Junior Deering. The glorious success of this machine in the harvest of 1884, is so well known, has been the talk so generally of the farming public, dealers and rival manufacturers, that we feel as though whatever we might say in its praise, would be but repeating what every one knows and what every one has said.

After careful experiment the Junior was first manufactured in quantity, for the season of 1884, and the result was an instant appreciation of its extraordinary merits and an enormous number made and sold. To-day the answer is coming back to us from thousands of farmers, that "*THE JUNIOR DEERING IS THE GREATEST HARVESTING IMPLEMENT IN EXISTENCE.*" The Junior Deering is, *First*—The Lightest Weight Machine in existence; *Second*—The Lightest Draft Machine in existence; *Third*—The Simplest Machine; *Fourth*—One of the very Strongest and Most Durable Machines made.

It will handle grain in any condition, and will work on any soil. It cuts a swath of 5 ft. and 6 feet. The Binder Attachment of the Junior is based on that of the Standard Deering, but it has fewer pieces, its construction is simpler, and its weight is lighter. First and Most Important: **THE WEIGHT AND GEARING OF THE MACHINE ARE AT THE REAR**, thus doing away with neck weight and preserving the balance of the machine. Second, **THE SIMPLIFIED DEERING KNOTTER IS USED**; without this device no binder attachment can be made as safe and reliable as the Deering.

A picture of the well-known Knotter that has contributed so much to the supremacy of the Deering Binder is found on this page. In the matter of binding the bundles certainly and tightly, the Deering Machines have long been perfectly successful and, of late, our energies have been bent to making every bundle of perfect shape and appearance, and we are pleased to say that unqualified success has been the result.

The **LONG DEERING ADJUSTER**, in connection with the **DEERING ADJUSTER EXTENSION**, combine to lay every straw in its proper place, and to make each bundle **ROUND, STRAIGHT, EVEN AT THE BUTTS**, and of **UNIFORM SIZE** with each other. Whatever kind or condition of grain is presented to the Binder Attachment of the Junior Deering by the Harvester, the former will never fail to do its work well and faithfully. *See following page for Harvester.*



THE JUNIOR DEERING TWINE BINDER.

The Junior Deering Harvester.

WE feel confident that no apology is needed in devoting a full page of our circular to the Harvester of the Junior Twine Binder, for it is in the wonderful efficiency of this part of the machine that its success largely lies. This Harvester was not made in one day nor in one year, but it is on the contrary, the growth of many years. The predecessor of the Junior Harvester, the Standard Deering Harvester, has had for many years a reputation for strength and durability unequalled by any machine of its class, and on this as a direct basis the experiments by which the Junior was produced have been founded. The reason why the Junior Harvester is at once light and strong, are as follows: FIRST—It has all the wooden parts equally strong as the Standard, and all its other

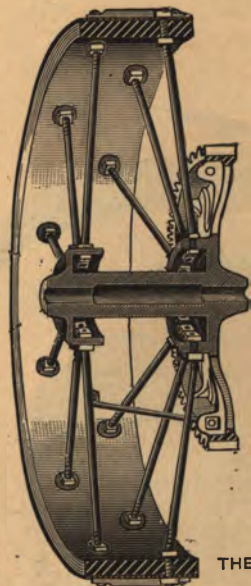
parts are of Malleable Iron, Wrought Iron, or Steel. SECOND---It has the lightest Reel and the lightest Wheels made. THIRD---It does not elevate so high as the ordinary machine. FOURTH---The Binding Attachment is lighter than any other.

The Junior Harvester has come into the market to stay there, and in the past year it has well proved its staying qualities. In 1884, wheels

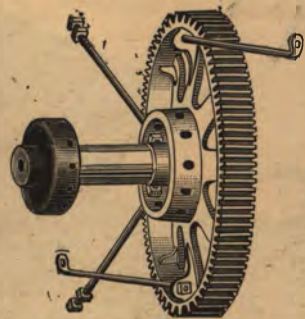
made entirely of steel were used on the Junior. For the season of 1885, we have decided to use a wheel based on one that we have been making for several years, which all agree is the best development known in the wheel line. This wheel is made entirely (with the exception of the gear and hub) of steel, steel tires, steel spokes, etc., the felloe being made of wood. This wheel is extremely light and its

EQUAL FOR STRENGTH HAS NEVER BEEN IN THE HARVEST FIELD.

On this page is shown a cut that will give a good idea of the wheel, the gear being shown on the wheel, and shown again at the right as removed from the wheel, in order to convey an idea of how easily it can be replaced in the improbable event of breakage or wear. The Grain Wheel is made of steel with malleable hub and a replaceable axle. The Reel of the Junior was so great an innovation that its construction has been thoroughly examined by all, and is well known. It is run without the intervention

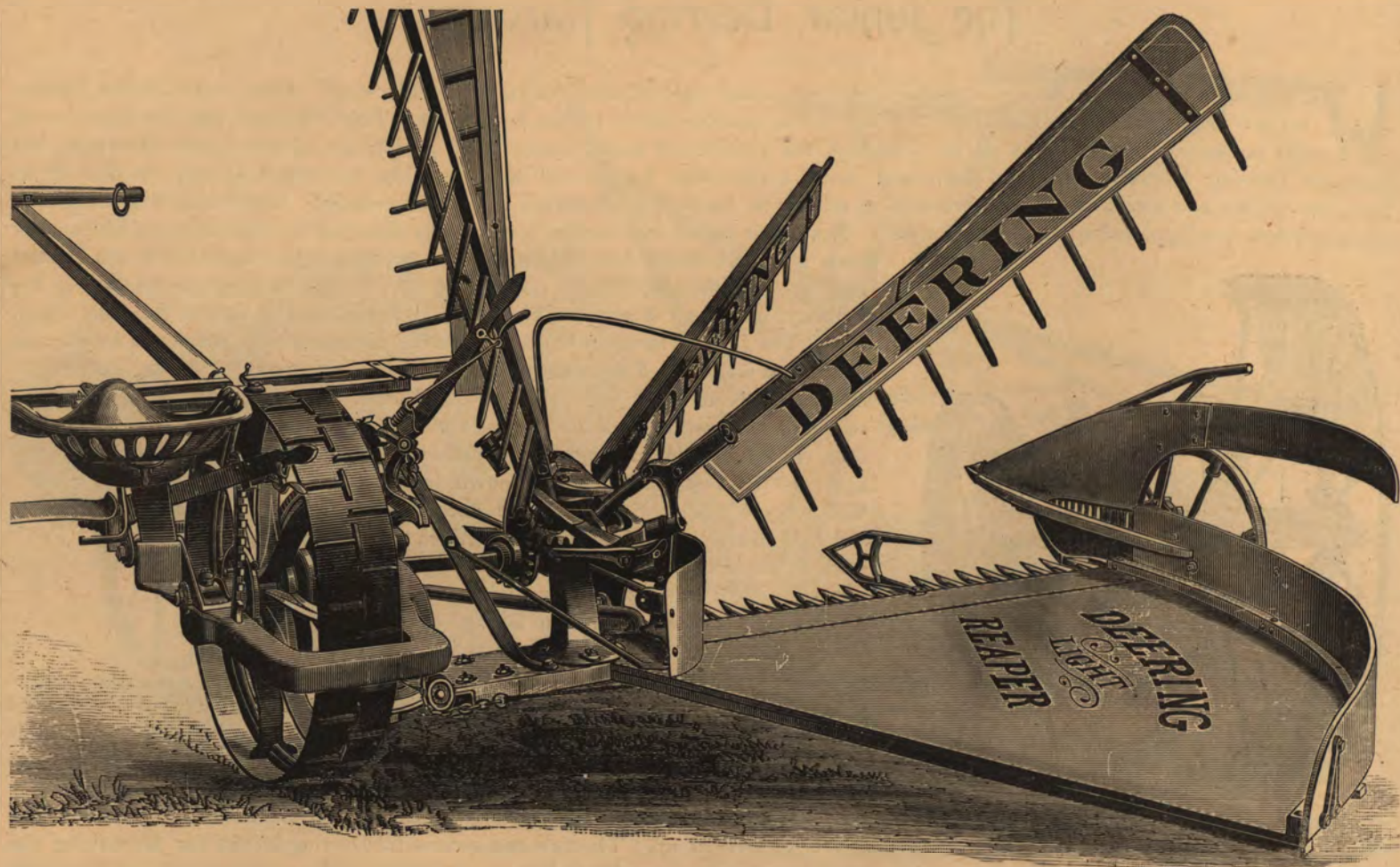


THE JUNIOR MAIN WHEEL.



THE JUNIOR GRAIN WHEEL.

of a single chain. The Tilting Device is of wrought iron, light and durable. The Raising and Lowering Device is the simplest and most effective in use. It forces the machine down positively as well as up. The new and successful Deering Device for Removing the Sickle is used on the Junior. In the matters of cutting and elevating any kind of grain, of binding tightly and securely, of handsome uniform bundles, of adjustment, of strength, of light weight and draft, the Junior Deering Twine Binder leaves nothing to be desired.



THE DEERING LIGHT REAPER.

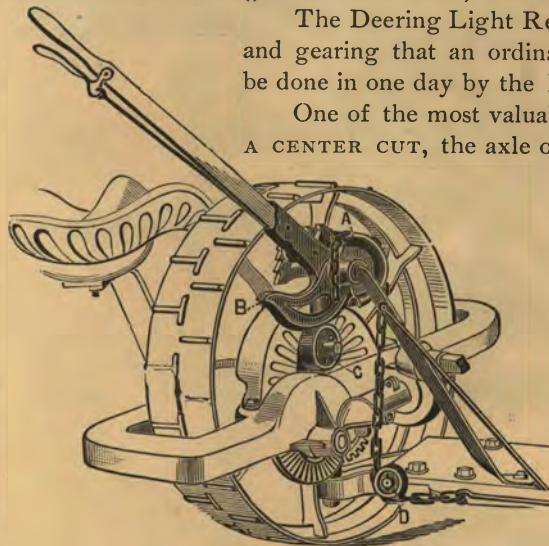
The Deering Light Reaper.

NOWHERE more thoroughly than in the Deering Factory, is it realized that only by constant and unremitting care, is a harvesting machine made to be a machine that can be always relied on to do the best possible work and to yield the longest service. Since the introduction of the Deering Light Reaper, in 1882, we have bent our best exertions to the aim of making it the most successful reaper in the field. We have no hesitation in saying that these exertions have been rewarded by complete success. In the harvest of 1884, the Deering Reaper has made for itself a most enviable record. It was an unqualified success and every comment we have had on it, has been in words of praise.

The Deering is in every sense, a Modern Reaper. It unites in itself those three essentials of the modern demand; **STRENGTH, LIGHTNESS AND CHEAPNESS.** Its weight is only **750** pounds and, in its construction, strength is obtained by the use of Malleable and Wrought Iron and Steel, wherever they can be introduced.

The Deering Light Reaper cuts a swath five feet wide, and is so light in weight and so perfect in its construction and gearing that an ordinary pair of horses can draw it all day without fatigue, thus allowing as much work to be done in one day by the Deering, as could be done with any of the six-foot cut machines, formerly used.

One of the most valuable features of the modern reaper is shown in great perfection on the Deering—IT IS A CENTER CUT, the axle of the main wheel, the pitman, cutter-bar and grain wheel being in the same straight

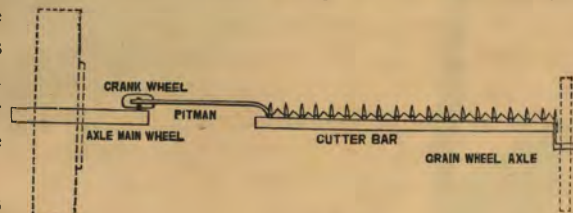


THE RAISING DEVICE OF THE DEERING REAPER.

This is done without effort, requiring no more than the strength of a sixteen year-old boy. The Rake is thoroughly adjustable. The Cutter-bar is made with remarkable care. The Deering Light Reaper has proved itself in every way a most successful machine. We say with confidence that it is now the **STRONGEST AND MOST DURABLE** of all the light reapers on the market, and there is none that will do better work.

line. This construction lessens the power required to draw it, enables the machine to be backed or turned easily, and places all the working parts of the machine under the eye of the operator.

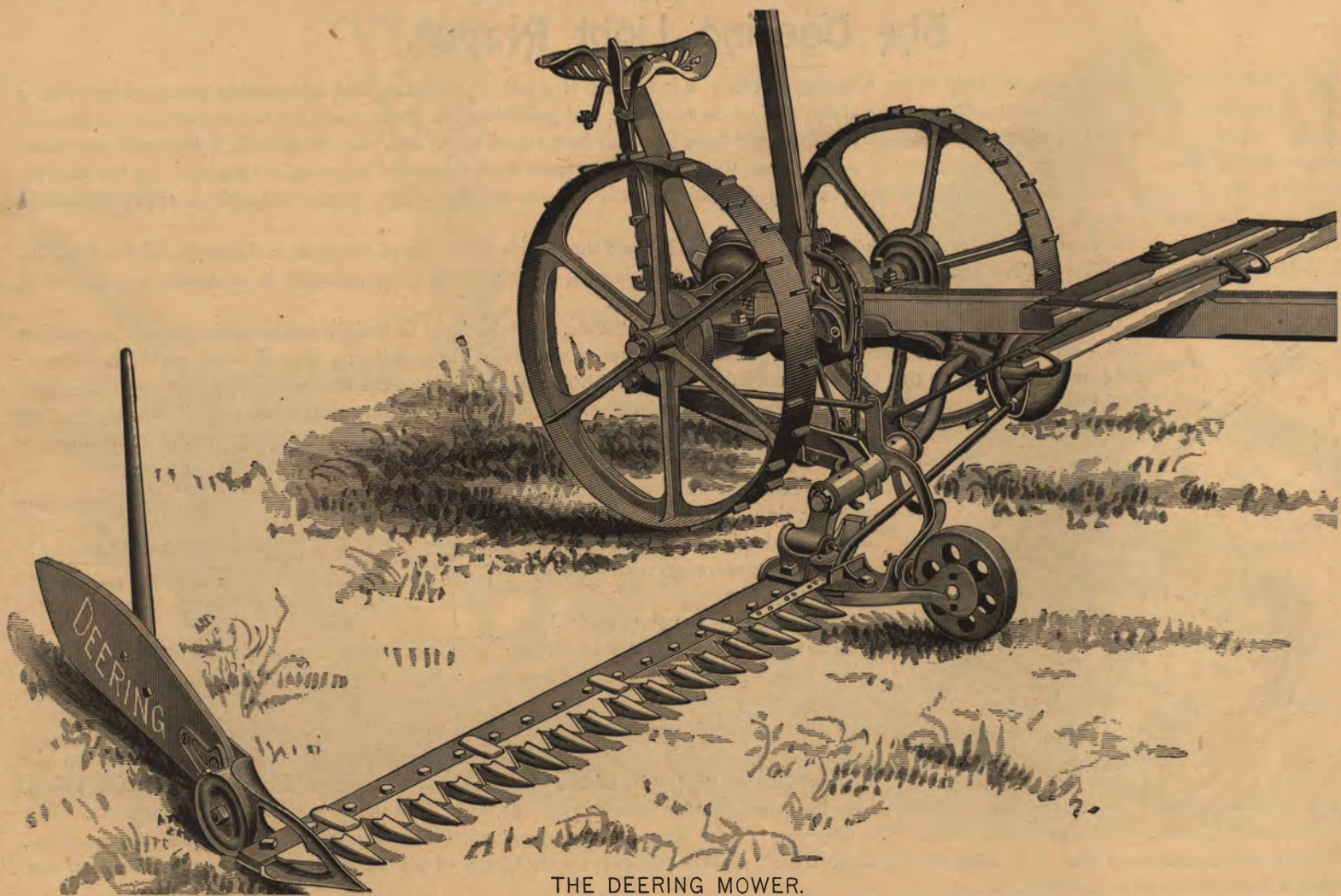
One of the greatest difficulties encountered by the manufacturers who have been trying to make a successful light reaper, has been in devising a Raising Device.



THE WORKING LINE OF THE DEERING REAPER.

The greatest success so far as we know in this line is shown on the Deering.

The cut on this page illustrates the Deering device. By a single pull on the lever shown at the right of the driver's seat, the *entire Machine* is instantly raised.

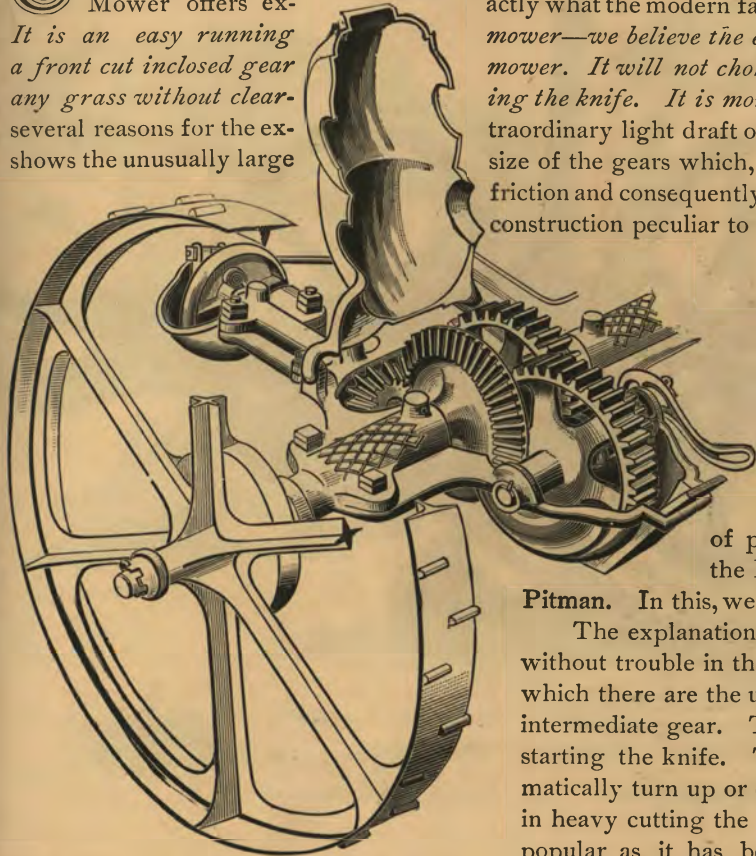


THE DEERING MOWER.

1885

The Deering Mower.

THIS machine has grown very steadily and very rapidly into a full measure of public favor. In 1884 about twice as many of them were sold as in 1883, and in the latter year twice as many as in 1882. The reason for this popularity lies in the fact that the Deering Mower offers ex-
It is an easy running
a front cut inclosed gear
any grass without clear-
several reasons for the ex-
shows the unusually large

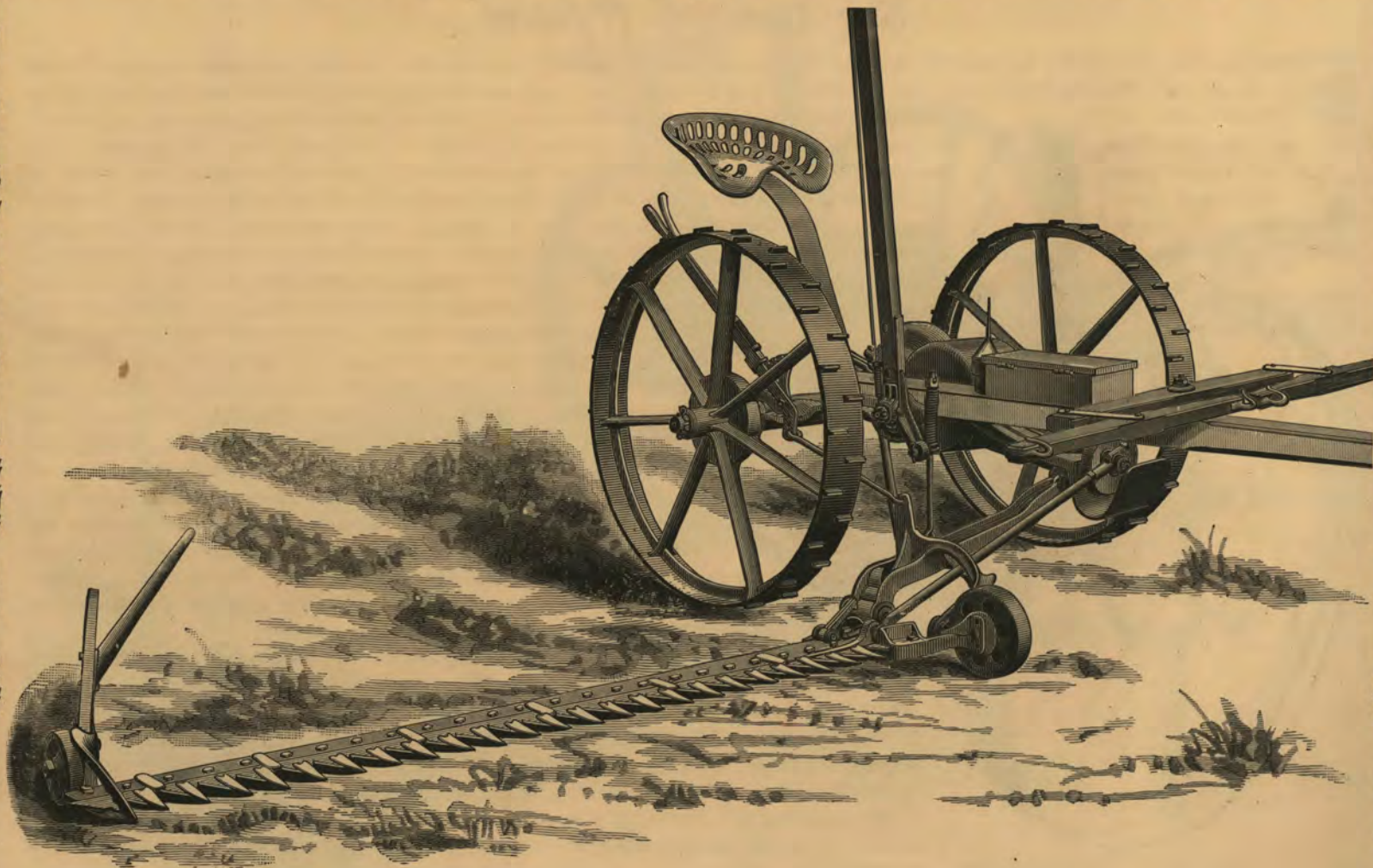


GEARING OF THE DEERING MOWER.

actly what the modern farmer wants in a mower. *It is a light mower, weighing only 575 pounds. It is made of iron throughout. It is a mower. It will not choke or clog in any kind of cutting, and can be stopped and started in ing the knife. It is more durable and lasting than any other mower in the market.* There are traordinary light draft of the Deering Mower. **First**—An examination of the cut on this page size of the gears which, with the great care in their construction, has a great effect in decreasing friction and consequently the draft of the mower. **Second**—The draft-rod of the mower has a construction peculiar to this machine. It is so made that it has no tendency to lift the cutter-bar off the ground, but makes a direct pull on it; the cutting thus being done by the direct pull of the horses, leaving all the traction of the mower for driving the knife. **Third**—The light weight of the mower has a notable effect in reducing the draft. **Fourth**—The bearings of the shafts are unusually long, thus decreasing the friction. **Fifth**—the cutter bar is provided at both ends with friction wheels that prevent all friction on the ground. The reasons given above, taken together with the fact that the Deering Mower is in every respect most carefully and conscientiously built, cause it to be drawn with much less expenditure of power than any other machine on the market. The only thing used on the Deering Mower of 1884 that was not entirely satisfactory to us was the

Pitman. In this, we have made a complete and satisfactory change.

The explanation of the fact that the Deering Mower can be stopped and started again without trouble in the heaviest grass, lies in the construction of the ratchets of the wheels, of which there are the unusually large number of four, and in the fact that the clutch is on the intermediate gear. There is no lost motion and the wheels can not be stirred without at once starting the knife. The Deering Mower has a perfect floating cutter-bar. It will automatically turn up or down to conform to any irregularities in the ground. At the same time in heavy cutting the bar can be locked so as to be perfectly rigid. The Deering Mower, popular as it has been, is destined to attain even greater popularity, for it is a machine that can always be relied upon.



THE FRONT CUT "DEERING GIANT" MOWER.

1885

The Front Cut Deering Giant Mower.

One year ago we presented to the farming public what was then considered a novelty in grass cutting machinery, namely, a Giant Mower, cutting the unusual swath of 6 feet and 7 feet. Every effort previous to this to make a successful wide-cut mower had proved to be impractical and unsuccessful. The Deering Giant Mower was a decided success. The popularity of the wide-cut mower was such as to warrant us in introducing for 1885 a FRONT-CUT GIANT MOWER. This mower cuts **a six foot swath**, and draws very little, if any, heavier than a common narrow-cut mower. The reason the Front-Cut Giant can take so wide a swath, and still pull light for two horses is as follows [each point will be clearly understood by referring to the two cuts on this page]:

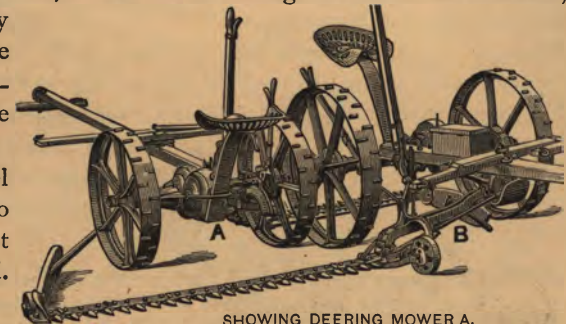
- 1st. The drive wheels are very high.
- 2d. The gearing is large, increasing power and decreasing friction. The gearing is very simple, and is nicely fitted, to avoid all lost motion on account of grinding.
- 3d. The bearings are very long, and there is no possibility of the steel shaft springing and running hard.
- 4th. The greatest reason, however, to account for the light draft of this machine, while cutting such an unusually wide swath, lies in the fact that the cutter-bar does not rest with its entire weight upon the ground while cutting, as explained below.

SHOWING SUPPORTING SPRING B, AND OTHER POINTS OF CONSTRUCTION.

In Fig. 1 is shown a strong steel supporting spring, B, which is so connected with the Drag-bar at the point F, that all the weight, or a part of the weight (as may be desired) of the Drag-bar and the Cutter-bar is taken from the ground. This economizes power, saving from **25 to 40 per cent. of the power.**

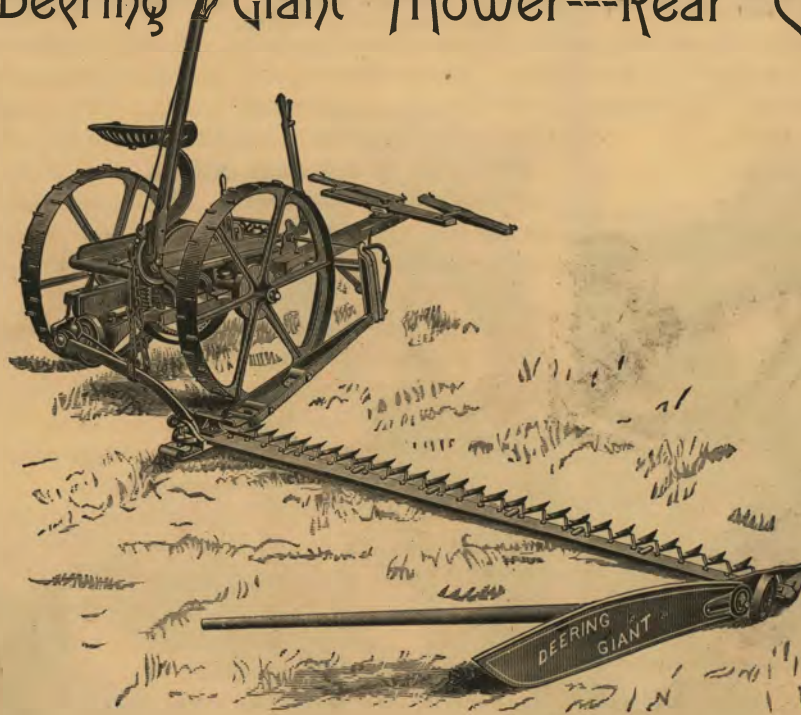
5th. The traction is largely increased, and consequently the cutting power, by having the weight of the Cutter-bar on the wheels instead of on the ground, as is the case in common mowers.

The Front Cut Deering Giant Mower weighs only about 700 pounds. Its Cutter-bar is hinged, and adapts itself to the inequalities of the ground. It has efficient Tilting and Lifting Levers; it has a device for throwing the machine in and out of gear without the use of a clutch. It will easily cut from 15 to 20 acres of grass a day. It leaves the grass in better shape for drying than the ordinary mower, since the swath, being wider, there is less bunching of the grass by the swath board, and less treading on the grass by the horses. The reason for the existence of the Giant is **ECONOMY**. It does the work of two mowers, and costs very little more than one. It will prove a very efficient and profitable machine on reasonably level land, to which it is best adapted.



SHOWING DEERING MOWER A. IN COMPARISON WITH THE DEERING GIANT FRONT CUT B.

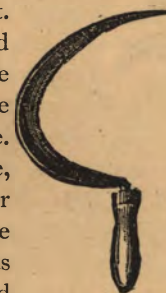
The Deering Giant Mower---Rear Cut.



THIS mower, introduced first for the season of 1884, met with an instant and enthusiastic reception. A large number of them were made and sold, and we have yet to learn of the first owner who is not thoroughly pleased with his purchase. The Deering Giant cuts a swath of 6 feet and 7 feet, and it draws very little, if any, heavier than ordinary mowers. The reasons for the latter fact are as follows: **FIRST.** The drive-wheels are extraordinarily high. **SECOND.** The gearing is very much larger than usual, giving power and decreasing friction. **THIRD.** The shafts are made of a fine quality of steel, and are, of course, very strong. But in order to decrease the friction, and consequently the draft, the shafts where they enter the bearings are turned down to be somewhat smaller than elsewhere. This has a marked effect in decreasing the draft. **FOURTH.** It is a rear-cut machine, and it probably draws somewhat easier for that reason. **FIFTH.** As in the Front-Cut Giant, the cutter-bar in working is supported by a spring. This removes all friction of the bar on the ground. **SIXTH.** The weight of the cutter-bar on the wheels increases the traction power. Yet the Deering Giant weighs only about **SEVEN HUNDRED POUNDS.** It is as complete in every matter of adjustment as any mower made. There can be no doubt that the Giant has proved itself an unqualified success.

The History of Grain Harvesting Machinery.

WE propose to give in the few following pages some outline of the growth of machinery used for the purpose of gathering grain. The older readers will, many of them, readily recall some of the crude devices that we shall describe, and the younger will certainly be interested in learning by comparison what modern invention has done for them, and what they have to be thankful for. The appliance that seems to have the remotest antiquity to commend it, if it has nothing else, is the sickle, which may even now be occasionally seen. We find this implement referred to both in the Old and the New Testament. The implement called the *Ani Ani* is so old that it may have been the invention of the first inhabitant, and never found its way to that part of the world, this contrivance is doubtless, in the minds of the finest implement known to the world. The method of using it is shown in the cut. From these devices we come to one almost as simple, though of the Ancient Gauls (now the French). A picture working, is shown on this page. It was doubtless, from its long popularity,



THE SICKLE.

In the Island of Java an implement called the *Deering Binder* has inhabitants of Java, the primitive and simple device. This is the machine used by showing its method of four hundred years, and same hold on the affections the *Deering Twine Binders* on the American farmers. granted in England for a

more scope. of this machine, used for over had much the of the Gauls as have obtained The first patent The same man obtained a second patent in 1815, and seems to have carried the art further than anyone else of his immediate time.

In 1814, an actor by the name of Dobbs, invented a machine for gathering grain, and used to advertise, that, in his great farce, Fortune's Frolic, he would introduce his wonderful invention, with a field of grain in exact imitation of the genuine thing.



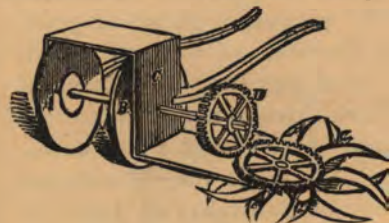
THE ANI ANI, ISLAND OF JAVA.



MACHINE USED BY THE ANCIENT GAULS, (NOW THE FRENCH) A.D. 23-391.

Fortune's Frolic, he would introduce his wonderful invention, with a field of grain in exact imitation of the genuine thing.

Perhaps some of the owners of the Deering Binder may wish to take this hint and use it in a like manner at school or other exhibitions. We shall not charge them anything for the suggestion, at any rate. In 1822, Henry Ogle, a schoolmaster of England, in-



GOMPERTZ MACHINE 1852.

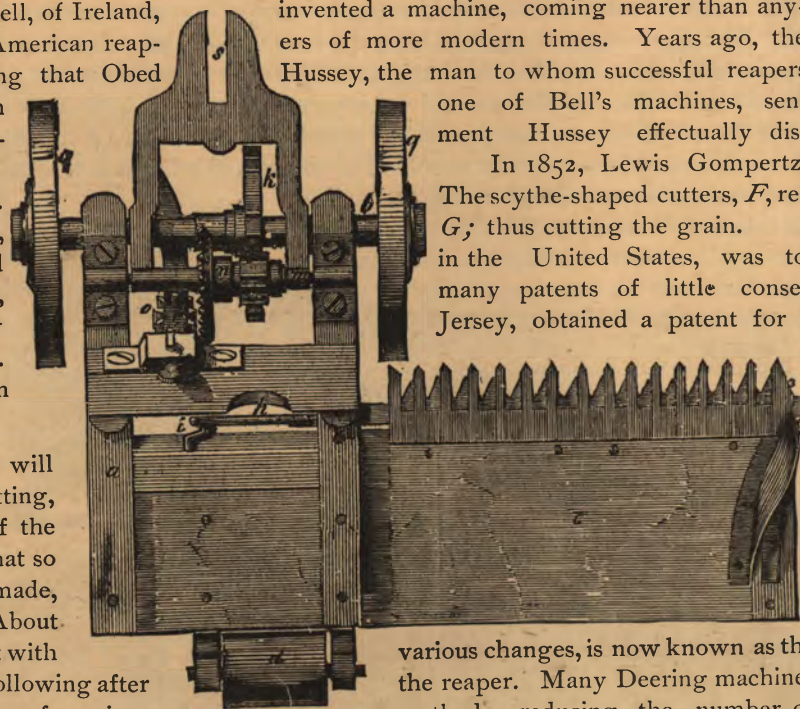
vented a machine with a reel, something like that of the present day, but as Mr. Ogle pathetically declares, the working people threatened to kill him and burn his machine, so his experiments were given up. In 1826 the Rev. Patrick Bell, of Ireland, thing else preceding it, to the American reapers

AMERICAN REAPERS

—The first patent granted French & Hawkins, of New Jersey. From this time, up to 1831, quence were granted. In this year Wm. Manning, of New machine having cutters something like those of modern times. With the next patent begins the history of modern reapers. In 1833, a patent was granted to Obed Hussey, of Maryland.

The resemblance of this machine to the modern reaper will be readily seen. Hussey ascribed his success to his method of cutting, which was, in matter of guards and sickle, essentially that of the present time. From his machine as a groundwork the reapers that so lightened the toil of the American farmer up to 1860 were made, patents to Manny, McCormick, and others being granted. About 1858 the Marsh Harvester was patented. This is the machine that with Deering. On it the binders rode and bound the grain instead of following after of this variety are still in use. This was an enormous stride in advance of previous hands required, and lightening their labors. It was manufactured in the Deering Factory, and sold largely up to 1875, as a hand binder in which year the self-binding attachment was added. The first patent for a machine to gather grain and bind it into bundles was that granted to J. E. Heath in 1850; subsequently Watson & Renwick, who had aided Heath, improved on the latter's machine and secured patents in 1851 and 1853. It is a curious fact that in this old machine, many of the most valuable features of modern binders are found. The period from 1853 to 1875 shows more than 173 patents granted by the Patent Office for various varieties of Grain Binders, and it is a curious and interesting fact that about 125 of these were for what is now known as a low-down or platform binder. No binder however, in all this time had any practical success.

are due, took his ideas from to this country; but this state-proved.



HUSSEY'S REAPER 1833.

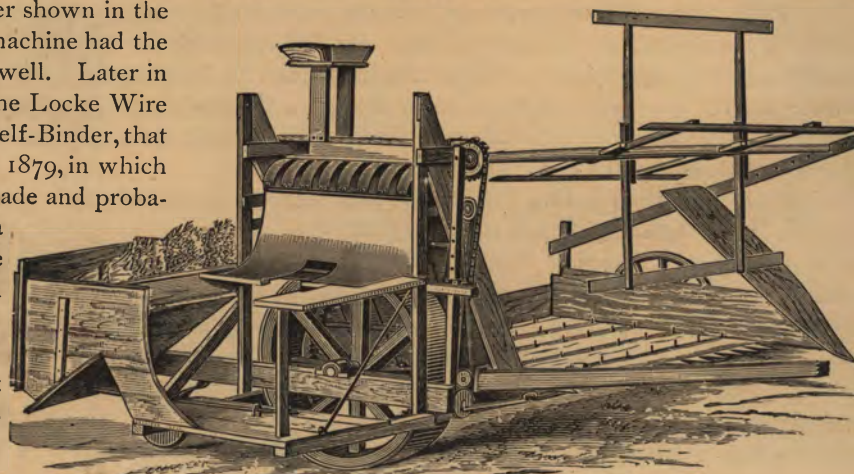
invented a machine, coming nearer than any-ers of more modern times. Years ago, the Hussey, the man to whom successful reapers one of Bell's machines, sent ment Hussey effectually dis- In 1852, Lewis Gompertz, The scythe-shaped cutters, *F*, re-*G*; thus cutting the grain.

in the United States, was to many patents of little conse-Jersey, obtained a patent for a

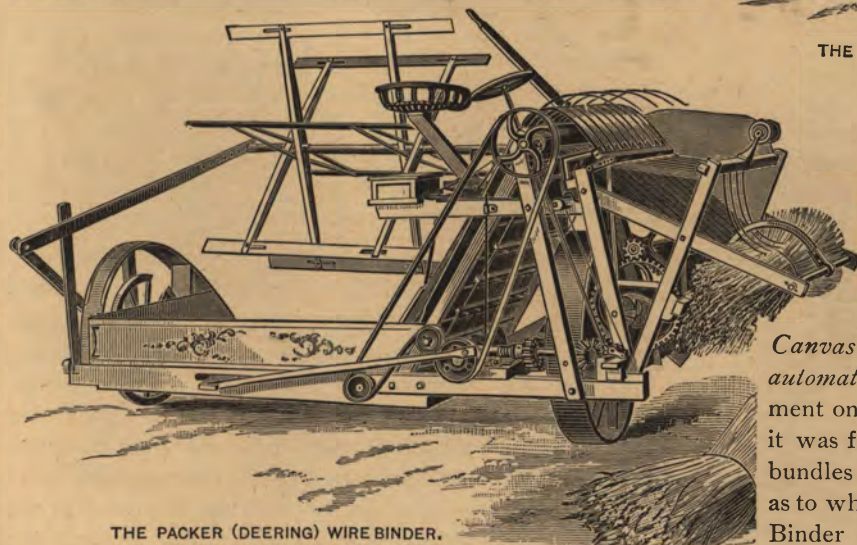
various changes, is now known as the the reaper. Many Deering machines methods, reducing the number of

In 1875, The Deering Factory put out the Self-Binder shown in the accompanying picture, known as the Packer Binder. This machine had the elements of a most successful binder and it did work very well. Later in the same year, Wood introduced what became known as the Locke Wire Binder. In 1877, The Deering Factory introduced a Wire Self-Binder, that was a successful machine. It was made better each year, till 1879, in which year it bound with as great certainty, as any machine ever made and probably with greater tightness; but wire binders never took a strong hold on the farming public. There were others beside the Deering introduced later, but they had when compared with the sales of to-day a limited popularity.

In 1879, the Deering Factory—where many of the modern advances in the art have been made—took the great step, that has changed the method of grain harvesting throughout the country. In this year William Deering introduced the



THE MARSH HARVESTER, (NOW THE DEERING,) 1858. (SEE PREVIOUS PAGE.)



THE PACKER (DEERING) WIRE BINDER.

The competitors of the Deering Factory met this machine

Deering Twine Binder. This machine was a radical out and out innovation on previous methods of work. It had just the features that a successful binder needed, it lacked nothing, and it is hard to see how any great improvements on its methods can be instituted.

It used twine, an unobjectionable article, instead of wire, as a binding material. It received the grain from the elevators of the harvester, and by means of its *Packers* and its *Canvas Adjuster* straightened it out and laid it into even bundles. It *automatically* made all the bundles of the same size—a great improvement on the older binders. In the matter of getting rid of the bundles it was far ahead of any machine previously known. Heretofore the bundles after being bound had been almost left to their own notion, as to whether they should fall off the binder or not. On the Deering Binder they were absolutely and unfailingly forced away.

with the bitterest taunts and opposition.

From their offices they sent all over the country information that it was a complete and utter failure. By the telegraph, by circulars, by the newspapers, they announced that the Deering Twine Binder was even worse than a failure. *In from two to five years all of them were building a Twine Binder modeled as closely as possible on the Deering.*

Since 1879 the Deering Binder has been steadily improved. In 1884, Wm. Deering & Co. took another long step in introducing the Junior Deering Twine Binder. This machine was made for the purpose, which it answers completely, of filling the demand for a binder of light weight and light draft. Following their usual fashion, we understand that for the season of 1885, some of the competitors of the Deering will venture to put out experimental machines modeled on the Junior Deering.

It is to be hoped for the sake of those who buy them, that they will be more successful in this imitation than they were at first in copying the original Deering Twine Binder.



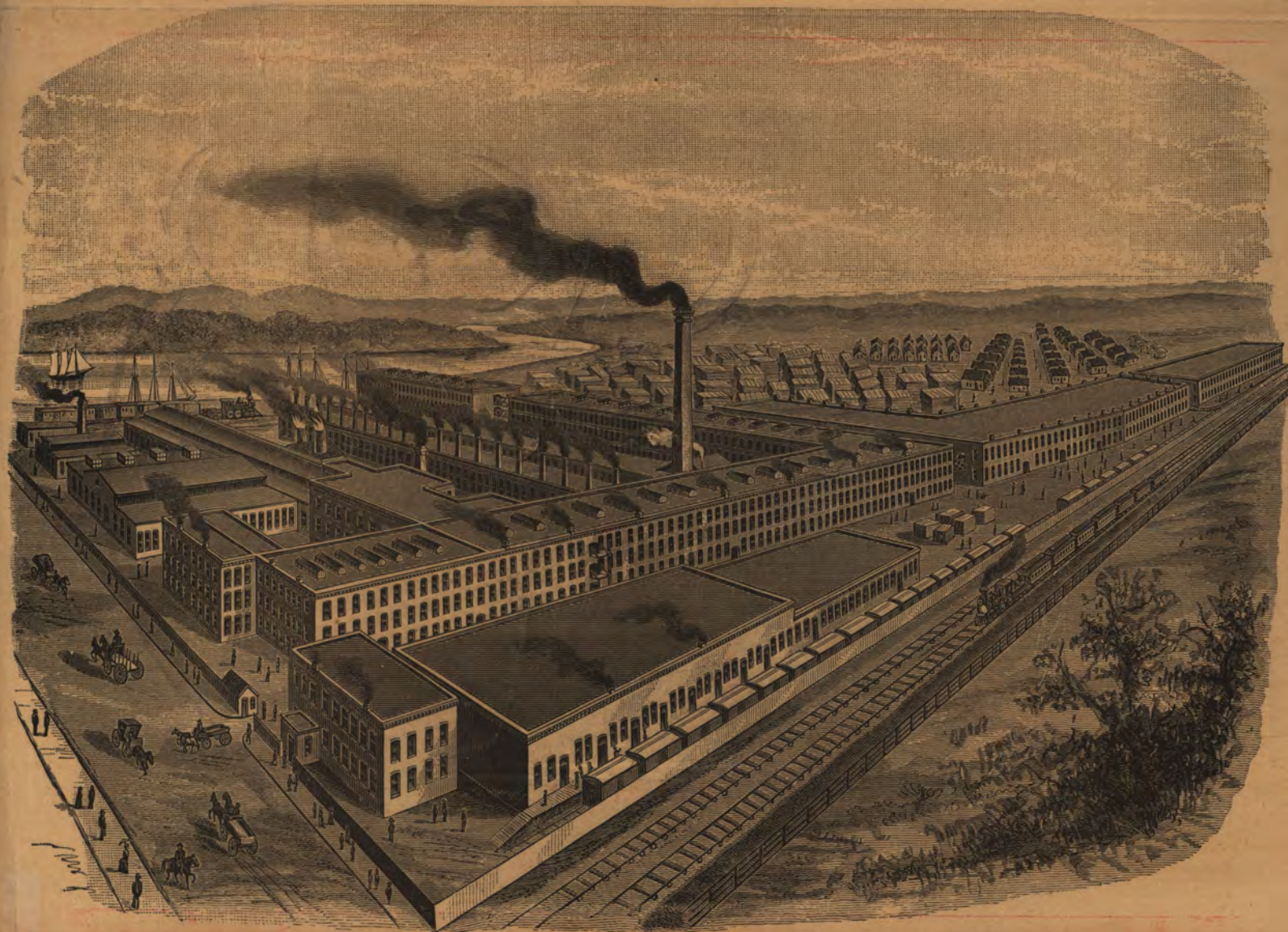
THE DEERING TWINE BINDER, 1879.



THE DEERING WIRE BINDER, 1877 (SEE PREVIOUS PAGE.)

What the future will bring forth in the way of improvements, of course we cannot tell; and whether they will come from the Deering Factory or not, we do not know. But of this we are certain, that if the enterprise and skill of the past will enable the Deering Factory to keep its lead in advancing the art of harvesting, it will always be foremost in the race.

The successive steps as known in America in the art of grain harvesting, some of which have not been referred to in this brief history, have been as follows: (1,) The Sickle; (2,) the Gathering Stick; (3,) the Grain Cradle; (4,) the Hand-Rake Reaper; (5,) the Self-Rake Reaper; (6,) the Marsh Harvester; (7,) the Automatic Wire Self-Binder; (8,) the Automatic Twine Self-Binder. In America many men have contributed to this glorious progress; some as inventors, some as manufacturers, and many as intelligent farmers, whose suggestions have been of the greatest value. In the American Patent Office over 4,572 patents for grain gathering machines have been granted.



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