

THE Davis
ANNUAL CATALOGUE
Platform Binder
Co.



CLEVELAND, OHIO.

U. S. A.

ANNUAL CATALOGUE

OF THE

Davis Platform Binder Company,

MANUFACTURERS OF THE

FIRST AND ONLY SUCCESSFUL

PLATFORM



CLEVELAND, O., U. S. A.

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SECRETARY AND TREASURER, A. E. SUMNER.
SUPERINTENDENT, JOHN S. DAVIS

TO THE FARMING PUBLIC.

WE come before the farmers of America with that which elevator binder tradition has pronounced impossible, a practically perfect **Steel Platform Grain Binder**, and the only one in the world whose operation in a field of grain renders it worthy of a second thought by a farmer who wants a machine that will handle his grain, week in and week out, year after year, in an entirely satisfactory manner. We can readily demonstrate that our binder will take care of any conceivable kind and condition of grain in a manner far superior to any other harvester manufactured, as regards economy, despatch and every other element that enters into the operations of a thoroughly successful harvesting machine.

The *Cleveland Leader*, of May 26th, 1888, in an able and exhaustive review of the methods now in vogue for harvesting grain, has the following brief, but clear and comprehensive paragraph, which we take the liberty of quoting:

“Without undue disparagement of the binders now in the market, it is nevertheless a well-known fact that all elevated binders are necessarily more or less cumbersome affairs, requiring three and four horses to operate them easily, but they have performed a wonderful work and will occupy an enviable place in the history of this century of marvelous inventive achievements; they were so far in advance of the old method of binding by hand that the farmers hailed their advent with delight, and their annual manufacture has now reached the stupendous number in this country alone of nearly 200,000 machines. But having secured a self-binder, it was then but a few years until the cry went up from the tillers of the soil for a machine that would not kill their horses by the heavy draft that was unavoidable with the complicated and cumbersome machinery necessarily entering into the construction of an elevated binder. It was finally agreed that the only way to overcome these difficulties was to dispense entirely with the elevation of the grain, which is carried up five feet or more above the platform, and to simplify the whole operation of binding by confining it to mechanism located on a level with the platform on which the grain falls when cut.”

The Davis Binder complies to the letter with this view, and, in addition to the important fact that it does not elevate the grain above the platform, either before or after binding, it is far superior in many other vital points to any and all of the binders now in the market.

It is a complete departure from the old plan of construction, and its fundamental principles are entirely independent of all the elements entering into the Appleby, Wood and all other machines.

Farmers and agricultural implement dealers are well aware of the fact that for six years there has been the most indefatigable effort on the part of manufacturers, with unlimited means and the highest order of inventive talent at their disposal, to produce a harvester on the platform binder principle, and it is a fact equally well known that, with one exception, absolute failure has been the result.

This leads very naturally to the skeptical query, "How could one inventor, with comparatively small means, meet with success in this venture, while scores of others, with practically exhaustless resources, have been doomed to failure and disappointment?"

A word of explanation will answer the question clearly and to the satisfaction of any unbiased mind.

In 1879 about 150,000 elevated wire binders were made and sold in this country alone, and it was without question a wonderful machine in comparison with its predecessors, reducing the cost of harvesting grain more than one-half. But the wire was objectionable for various reasons that need not be outlined, as every farmer is familiar with them.

For some time, Jno. F. Appleby and H. A. Holmes, two men whose names will be accorded most exalted places on the monument of harvesting fame, had been at work on contrivances for tying cord by machinery. In 1880 their inventions for binding grain with cord tied by metal fingers were given to the public, and farmers welcomed the elevated cord binder with such enthusiasm that in 1881 there was not a wire binder made throughout the length and breadth of the land.

The *ne plus ultra* in harvesting machinery had been attained, inventors were sent on a vacation, and manufacturers went to work in dead earnest to reap a financial harvest in the manufacture of elevated twine binders.

It, however, was not long before murmurs arose from the agricultural districts because of the heavy draft of the binders, due to their weight and complicated mechanism, and before the close of the harvest of 1881 John S. Davis, who had been inventing and manufacturing

mowers and reapers for twenty-five years, set out to overcome these and many other difficulties necessarily attributes of the elevator binder.

After two years of the closest study and most laborious effort, he evolved the foundation plan upon which to build a binder that would throw away the entire elevating machinery and confine the whole binding mechanism to the level of the platform.

The issuance of a number of his patents had then begun to attract the attention of elevated binder manufacturers, their inventors and mechanical experts were recalled from their furloughs, and all hands were put vigorously to work to get up a platform binder.

Fortunes were expended and every possible means applied to the work, but dismal failure was the universal result. Why?

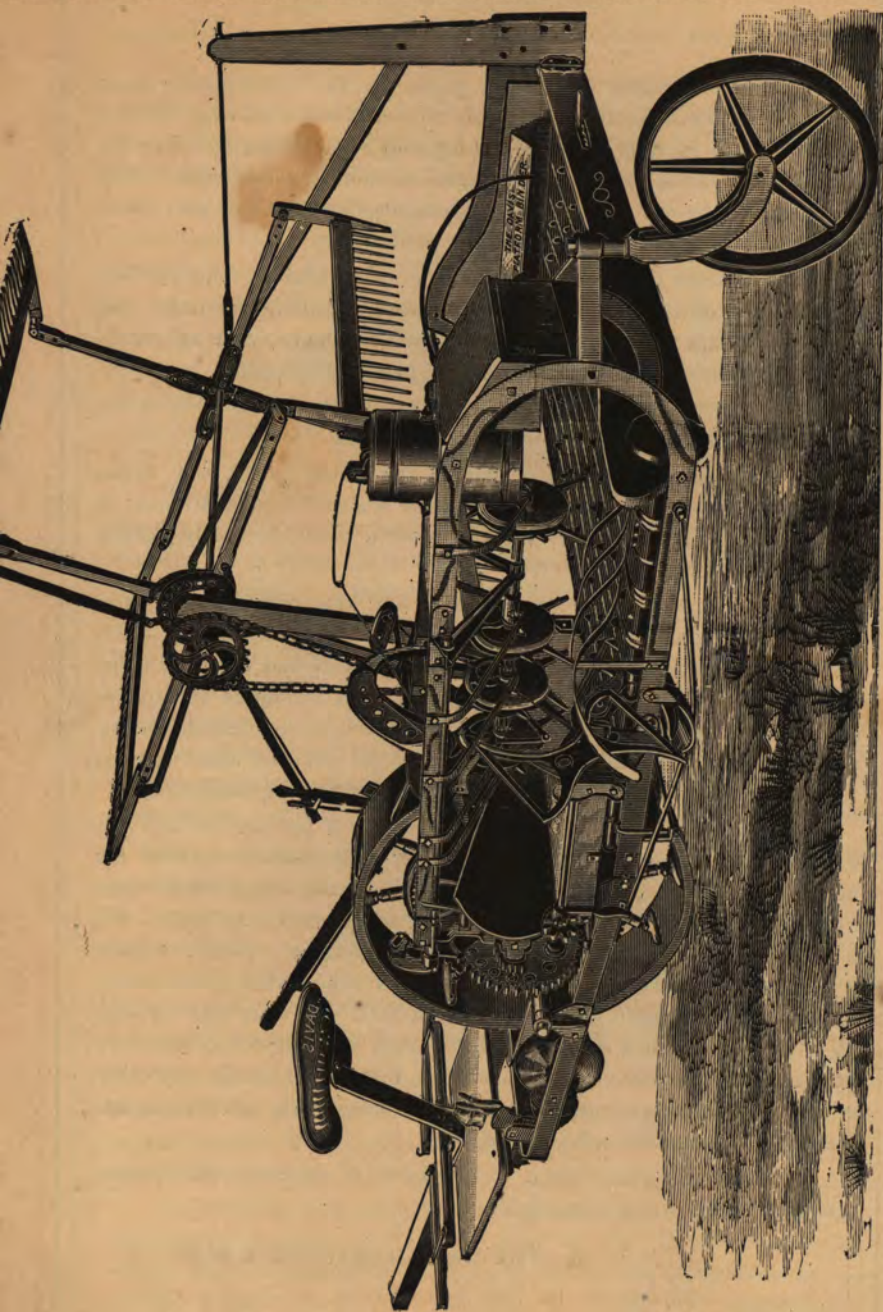
Mr. Davis had a two years' start in the Patent Office, and, as his patents broadly covered the only available basis for the construction of a practical platform binder, the doors were thus effectually barred against all other inventors

All kinds of plans were followed, but, one after another, the efforts were abandoned and elevated binder men finally united in declaring the platform binder idea a failure, and devoted all their energies to reducing the weight and height of their machines, but necessarily retaining all of the old features which occasioned the heavy draft and the innumerable other disadvantages that are absolutely inseparable from the elevator plan of building harvesting machinery.

In the meantime, Mr. Davis, by the most patient toil and the expenditure of a large amount of money, successfully reduced his machine to practice, and we now have a binder that weighs from three to six hundred pounds less than any other successful binder made, will handle longer, shorter, heavier and more tangled grain (with complete separation of bundles) than any machine in the market, absolutely avoiding threshing out grain, can be operated day after day through an entire harvest by a team no heavier than is required to handle a light reaper, and more easily than three horses will handle any other binder in the market, and which has very many other advantages that are outlined in detail in this catalogue.

Soliciting the most critical examination of what we offer to the public, we are, Respectfully yours,

THE DAVIS PLATFORM BINDER CO.



THE DAVIS STEEL PLATFORM GRAIN BINDER.

A MOST CORDIAL RECEPTION.

WE desire to express our fullest appreciation of the hearty welcome extended by the farming and machine public last year, the first season our perfected binder has been on general exhibition in the field and at the fairs.

It has amounted to a continued ovation, from the day the first machine was placed in the field to the close of the last county fair.

Many hundreds of farmers and implement dealers came from all over the country to witness the operations of our machines in the field, every man imbued with a deep-seated prejudice, born of the repeated failures of "low-down" binders, and ready to magnify any comparatively trifling fault that in any old established machine would be passed by unnoticed. Every detail of operation was most rigidly scrutinized and discussed, but diligent inquiry has failed to locate a single man that expressed any but words of praise and commendation.

And it could not well be otherwise.

No matter what the test, our machines fully maintained the standard set for them in our introductory pamphlet of last year. And there was no disposition to favor the machines or smooth their pathway, but they were placed in the hands of farmers, some with experience in operating harvesters and some who had never handled them before, with instructions to "put them through" and subject them to the most severe tests that grain and ground could offer.

And this they did, in the presence of scores of witnesses, day after day, through the entire harvest, the season's work resulting in a most gratifying triumph for the first and only successful platform binder in the world.

When the fact is taken into consideration that last season was, perhaps, the hardest on harvesting machinery that we have had for

about ten years, the significance of the great success of our binders is very marked. The oats crop, especially, was in such condition throughout the Lower Lake region that many farmers harvested their oats with their mowers or self-rakes; the oats were so heavy and badly lodged that elevator binders were practically useless. The Davis Binder, however, was in its element in "down" oats, and invariably left a field as cleanly cut as if it had been run over by a mower.

Farmers and machine men have been waiting so long and eagerly for a relief from elevator binder bondage, that the news spread rapidly and everybody wanted more information about the binder that *didn't elevate and thresh out* the grain, that *would pick up lodged grain*, that *would not choke under any circumstances*, that *was easily operated by two light horses* and that possessed a multitude of other advantages—in fact, a binder which had attained an altitude of superiority in the harvester world that every manufacturer had been striving to reach for years without success.

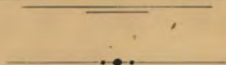
In less than three weeks after the first machine was placed in the field our letters of inquiry averaged fully fifty a day, and then orders for machines and applications for agencies poured in faster than we could answer them.

At the fairs the interest was very marked, crowds of people surrounding our machines while adjoining elevator binder exhibitors were left in comparative solitude.

We do not speak of these things to boast, but merely to show what a cordial welcome has been tendered our machine upon its initial appearance before the public—a full justification of all the claims made by this company in its catalogues and correspondence.



THE PEOPLE'S VERDICT.



It is no exaggeration to say that every man that has witnessed the operations of our machines in the field has been "captured" by their simplicity of construction, thorough and economical work and almost phenomenal lightness of draft.

If any spectator last season vouchsafed any material criticism the circumstance is not known to this company.

The universal expression was that success had at last been attained in the construction of a practical platform binder.

The publishers of the *Ohio Farmer*, the leading agricultural journal of Ohio, and one of the best in the land, became much interested in the report that a successful platform binder had been put on the market, and sent their editor-in-chief, Mr. M. E. Williams, to our works to investigate.

In company with a number of practical farmers and machine men he gave one of our machines a most thorough test in a field of badly lodged oats, and the verdict was embodied in the leading editorial in the next issue of his paper, August 11th, 1888, of which the following is a copy:

A Most Flattering Endorsement.

"Our readers will remember that a few weeks ago we published an extended notice of the incorporation of the 'Davis Platform Binder Co.' of this city, giving an outline of their plans and a brief description of the new machine. From the fact that this is the first platform binder put upon the market, a wide interest has been awakened throughout the country, and more recently considerable anxiety has been manifested to know how the new binder would perform in 'down' grain resulting from the many severe storms of the past six weeks.

"On Thursday, last week, learning that one of the machines was at work in an oats field, in Rockport, five miles west of this city, we went out there and spent a good part of the afternoon in following the machine around and witnessing its work. The oats were heavy and badly down and tangled, so that the test was about as severe as it possibly could be in that kind of grain. To say that we were surprised and delighted, is to put it mildly. In common with many others we were rather faithless in regard to the practicability of a "low down" binder, and were fully prepared to pick any number of fatal flaws in this new candidate. But we give it up and take off our hat to the Davis. It is constructed upon correct principles and is a success. It picked up the down oats, straightened out the tangled straw, packed it into sheaves, tied them securely and threw them off with the precision of clock-work. The machine was drawn by a light team of horses that were below the average quality of farm horses; the ground was soft from recent rains; the machine had to be pulled up hill going across the field both ways; and yet that team worked the machine, not with ease, but without a strain. We have no hesitation in saying that a good team of ordinary horses, in fair condition, will pull one of these machines with as much ease as three such horses will pull an average elevator binder.

"So much for our own impressions. Inquiry reveals the fact that this is the universal testimony of all who have seen it work, and machine men and wide-awake farmers from different parts of this State and from other States, have made the journey hither to see it for themselves. Its operations in tangled and heavy rye, that other binders have absolutely failed to handle, are really wonderful. It makes no difference how long the straw, this machine will handle it.

"It would be impossible, in an article like this, to describe this machine. Suffice it to say that it dispenses with all elevation of the grain; completely separates the incoming grain from the bundle being tied; has a 'reel rake' that is adapted to any length of grain and straightens out tangled straw; weighs from 250 to 600 pounds less than other successful binders; and is the simplest in construction of any machine yet put upon the market. After so many failures in this direction, it is a matter of sincere congratulation to the inventor, Mr. John S. Davis, as well as to farmers, that a reliable and thoroughly practical platform binder has been placed in the field."

Short, but Comprehensive.

J. W. Imler, of Imlertown, Bedford county, Pa., wrote to the publishers of the *Ohio Farmer* for their opinion of the Davis Binder, and, by permission, we publish their reply, as follows :

CLEVELAND, O., Dec. 1st, 1888.

J. W. IMLER, Imlertown, Pa.

Dear Sir : The Davis Platform Binder is a good one, in our opinion. We saw it work last season. It will work on any ground that is workable.

Yours truly,

M. J. LAWRENCE & BRO

Farmers' Testimonials.

A large number of voluntary testimonials from farmers have been received, of which we here print a few of the most comprehensive :

ROCKPORT, Aug. 20, 1888.

THE DAVIS PLATFORM BINDER CO., Cleveland, O.

Gentlemen : It is with pleasure that I certify and testify to the general utility and practicability of your Platform Binder. I placed the machine in a field of oats with strong doubts as to its ability to do good work, from the fact that the oats were heavy, badly lodged and the ground soft. I was happily disappointed the first time the machine went around the field. I operated it with two light horses, weighing about nine hundred pounds each, with no greater demand on their strength than with my light Buckeye mower.

In fact, they did not have to work as hard as my three heavy horses on an Osborne elevator, No. 11, in the same field and on the same grain, the Davis Binder doing better work, picking up all lodged grain and binding and laying it in well-made, compact bundles.

I have owned and operated many different reapers and binders, from the original dropper to the self-binder, and, after thoroughly testing your machine on thirty acres of oats in all kinds of condition can truly say that it does the best work with the least labor for man or horses of any machine I have ever seen.

Wishing you success in being able to manufacture sufficient machines for every farmer in the country, I am,

Yours truly,

H. A. MASTICK.

ROCKPORT, O., Aug. 21st, 1888.

THE DAVIS PLATFORM BINDER Co., Cleveland, O.

Gentlemen : I take pleasure in testifying to the good qualities of your Platform Binder. I have operated one for two seasons, and I have no hesitation in pronouncing it the best harvester in the market. The draft is lighter than any other binder, two horses handling it easily ; in down grain it does very much better work than any other binder I ever saw ; it will handle longer and shorter straw than any other, and it is practically impossible to choke it even where there are more heavy weeds than grain, as was the case in several fields I cut this season. The knotter I regard as more reliable, under all circumstances, than any in the market, and the whole machine is more practical in every way.

I have cut, this season, nearly one hundred acres of wheat, rye and oats.

Yours truly, C. W. BROWN.

EAST ROCKPORT, July 16th, 1888.

THE DAVIS PLATFORM BINDER Co., Cleveland, O.

Gentlemen : I worked one of your Steel Platform Binders this season with two light horses to my perfect satisfaction. The draft in tall, green wheat was no heavier than that of my mower, and it handled with equal ease very short grain in the same field with the tall grain.

I regard your machine as far superior to any binder I ever saw.

Yours truly, A. M. WAGAR.

ROCKPORT, Aug. 13th, 1888.

THE DAVIS PLATFORM BINDER Co., Cleveland, O.

Gentlemen : I cut my oats harvest with one of your Platform Binders, this season, to my entire satisfaction, with a team that did not weigh over seventeen hundred pounds. Some of the grain was very badly down, but the binder waded through it with the greatest of ease, picking up down grain better than any elevator binder I ever saw in the field.

We had a large number of visitors every day, and we were all of the opinion that your binder is the simplest in construction, lightest in draft and the most complete binder in every respect we have ever seen.

Yours truly, C. H. PERKINS.

ROCKPORT, Feb. 4th, 1889.

THE DAVIS PLATFORM BINDER CO., Cleveland, O.

Gentlemen : I cut about thirty-five acres of oats last season with one of your Platform Binders, using two ordinary horses, and I have no hesitancy in pronouncing it a complete success.

Badly lodged grain, that an elevator binder could not pick up, your binder secured without difficulty, and, considering the bad condition of the grain, my fields were cut clean and without scatterings.

There have been so many failures in low down binders that I had serious doubts about yours, but I am now thoroughly convinced that you have been entirely successful.

Yours truly,

C. P. WEST.

ROCKPORT, O., Sept. 4th, 1888.

THE DAVIS PLATFORM BINDER CO., Cleveland, O.

Gentlemen : I cut with your Binder this season about eighty-five acres, with a team of five-year-old colts, weighing 800 pounds each, and did it with ease.

Your Binder is so geared and has such a large master-wheel that it saves at least one horse-power in draft.

The rear castor-wheel prevented any side thrusts by the pole and there was no chafing of, or weight upon, the horses' necks.

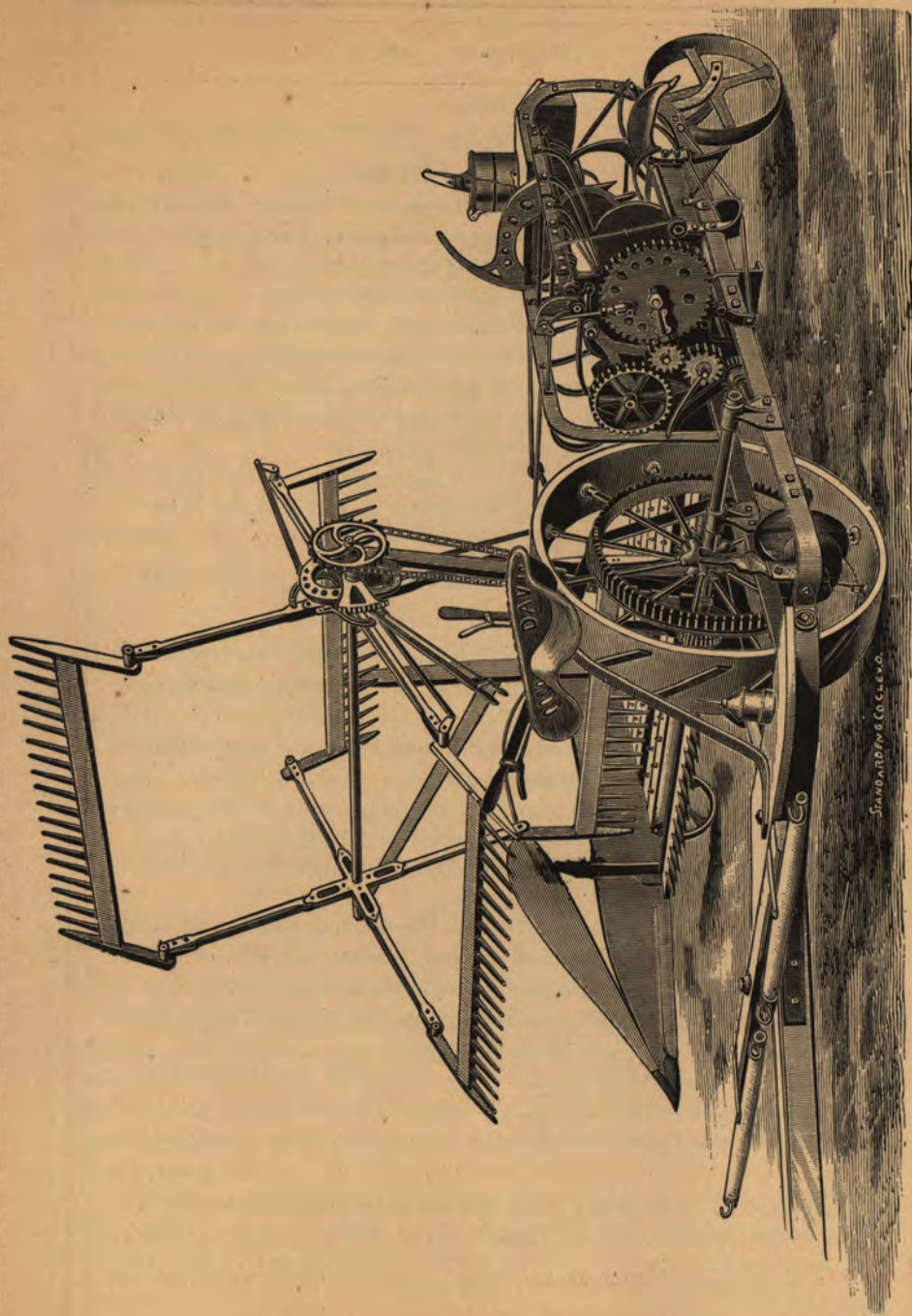
The Binder is so easily handled that the driver does not need to leave his seat to operate any part of it.

I have cut grain that laid flat on the ground and bound it and left a nice field. Men that had elevator binders saw the work done and said their machines could not handle grain so badly lodged.

I have run machines for fifteen years, but the Davis is my choice of them all.

Yours truly,

E. F. HOLZWARTH.



STANDARD CO. CO. CO.

THE DAVIS PLATFORM BINDER, FRONT-LEFT VIEW.

OUR "COMPETITORS."



OMPETITORS?

The Davis Platform Binder has no competitors.

True, there are other binders in the market, and they have been manufactured and sold at the rate of nearly 200,000 a year, but their day is waning and their sun will soon sink to rest.

A few years ago the best and only way to make a long journey was by the old lumbering stage-coach or in a canal-boat, but travelers now go by rail and are quite willing to pay a little extra for the service. The railroad has superseded the old means of travel. A man would get to his destination all right as they used to travel fifty years ago, but at what an expense of time, patience and comfort. The stage-coach and canal-boat *were not competitors* of the steam railroad, although passengers were carried safely and delivered in reasonably good condition at their destination by either route.

Grain was harvested fifty years ago by "cradling." It was cut all right, and the yield per acre was just as good as when, a little later, the reaper was used, but, because of the extra cost inseparably connected with slow and expensive methods, the farmer realized less net revenue per bushel for his crop.

The old-fashioned "cradle" *was not a competitor* of the reaper, although both successfully harvested grain.

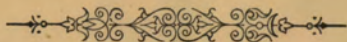
It did not take the elevator self-binder long to supplant the reaper, because it was a much cheaper and quicker way to accomplish the same result, and as a successful *platform* binder, in point of economy (as well as in many other respects), is as far superior to the elevator binder as that surpassed the reaper, the former will take the place of the latter as surely as a radical improvement in any branch of industry supersedes the old-fashioned methods.

It is simply a question of the time necessary for the introduction of the machine and its manufacture.

In any community where our machine has been operated there is no sale for elevator binders (as letters received by us daily clearly show), and with this company the only question of moment is how to most rapidly increase its facilities for manufacturing.

We have an unqualifiedly successful platform binder, and we have such an unprecedented demand for it that it has been our unpleasant duty during the past few months to decline a great many orders, simply because within a little more than a year from the time we began our buildings it has been physically impossible to perfect a plant with a capacity for turning out more than about 2,000 machines a year.

As fast as possible, however, we are enlarging our plant and increasing our facilities, and we desire to assure our many friends whose orders cannot be filled this year, that we are making rapid progress in the preparatory work necessary to a larger output for the trade of 1890.



A DISTINCTIVELY

"PLATFORM" BINDER.

SOME of the older concerns, not being able, on account of our prior patents, to construct a practical "platform" binder, and hearing the clamorous call from all quarters for a platform binder, have endeavored to satisfy this demand by offering their patrons a "low-down" binder.

This is nothing but a low-down "elevator" binder, and, possessing as it does very many objectionable features that the standard elevator is free from, it has proven a most disastrous failure; and it is a fact well known to machine men that not less than ninety per cent. of these machines came back upon the hands of the manufacturers.

These machines were so constructed as to have the appearance of lightness, but the whole thing was an ingenious deception. The grain was elevated about two-thirds as high as by the standard elevator (in one kind of machine before binding, and in another after the bundle was bound), thus requiring substantially as much power for handling the grain; and then, with a surprising absence of calculation, a fatal blow was struck at the very seat of power, the drive-wheel.

In order to lessen the height of the machine and the elevation of the grain (which *must be carried over the master-wheel* by every machine not a distinctively platform binder) the manufacturers reduced the diameter of their main wheel from 40 inches to 33 inches, thus losing, as any one can readily see, a very large percentage of its driving power.

They had then secured what they were after—a "low" machine, but *one requiring four horses* instead of three to operate it.

We do not wish to discuss these machines in detail, and waste time and space in pointing out, as could readily be done, their many features inferior to the standard elevator binder, for the reason that their repeated failures have resulted in a practical discontinuance of their manufacture, but our object is simply to correct a very natural misapprehension which obtains in some sections of the country.

The unsavory reputation of these "low-down" binders has resulted in a more or less deep-seated prejudice against any harvester that does not operate on the old elevator-binder plan, and we find this skepticism in some localities where the principles of our binder are not well known.

Our machine is just as different in construction and operation from that currently known as the "Low-Down," as it is distinct from the standard elevator binder; in fact, there is not a single feature approaching similarity in either its construction or function.

We do not elevate the grain at all, either before or after binding, and, instead of adding one horse to the draft, we reduce the draft by not less than one and one-half horses, as two light horses will operate our binder more easily than three heavy horses will an elevator binder, or than four horses will handle what is known as the "low-down" binder.

In short, the Davis is a distinctively "platform" binder, and the only successful platform binder ever put on the market.

We refer to these things for the benefit solely of people in remote sections, as the operations of our machines last year have already served to thoroughly dissipate any mistaken ideas before current in the central portions of the country.

 ACTUAL CASH SAVED.

Y using a Davis Binder a farmer will save enough in actual cash, in from two to three years, to pay for his machine.

He saves the interest on the value of one horse and the cost of keeping it, besides the wear and tear of an extra harness.

He saves the value of one bushel of grain for every acre of his harvest.

He saves the difference in the expense of keeping in repair a heavy, complicated machine and a binder several hundred pounds lighter and with less than one-half as many parts. (This is especially noticeable in the cost of renewing every season the expensive elevator aprons, which are not used at all by the Davis Binder.)

He saves a large amount of uncut grain that an elevator binder cannot pick up (where badly lodged), and that a Davis Binder, with its reel-rake, is perfectly adapted to secure.

He saves from two to three inches of cord for every bundle his machine binds.

He saves a vast amount of worry, impatience and delay, and a careful reading of this catalogue will show many other ways in which he saves money, directly or indirectly.

All of the above statements are fully explained and verified elsewhere in this publication.

❧ "BUNCOMBE" ADVERTISING. ❧

EVERYBODY knows that all of the binders now in the market are of the same general type, and that no particular "brand" of the elevator binder has very many features of superiority over the others. The whole business has, in fact, been reduced to competition in price and to a highly inflated method of advertising.

If one manufacturer of an elevator binder makes the slightest alteration in his machine, confined though it may be to a simple change in rod or lever or spring, his catalogue announces a "grand and indispensable improvement in harvesters," that places his machine several leagues in advance of all competitors. Competing elevator binder concerns "fire" back with the same kind of ammunition, until catalogues and circulars have gradually become an aggregation of exaggerated claims of superiority, which are based largely upon "wind," and limited only by the scope of the very versatile imaginations of advertising agents.

We honestly believe that there is very little choice between elevator binders, one does equally as good work as any other, and all possess in about like proportions the multitude of disadvantages that have induced their makers during the past six years to exert every effort to invent a platform binder.

In our circulars we do not propose to fall into the current error of elaborating upon the superior qualities of minor parts of our binder, which all machines, if properly built from a purely mechanical standpoint, must possess in about the same degree, and which can be plainly seen by any man of ordinary intelligence in a casual examination of a machine, but we will confine ourselves to presenting a few of the chief points of difference between our platform binder and the current elevator binders, which no man can comprehend fully without an honest conviction that the DAVIS PLATFORM BINDER is veritably a "leap in advance," and as far ahead of the elevator twine binder as that was superior to the wire binder, or the latter in advance of the self-rake or dropper.

POINTS OF EXCELLENCE

OF THE

Davis Steel Platform Grain Binder.

The Chief Point

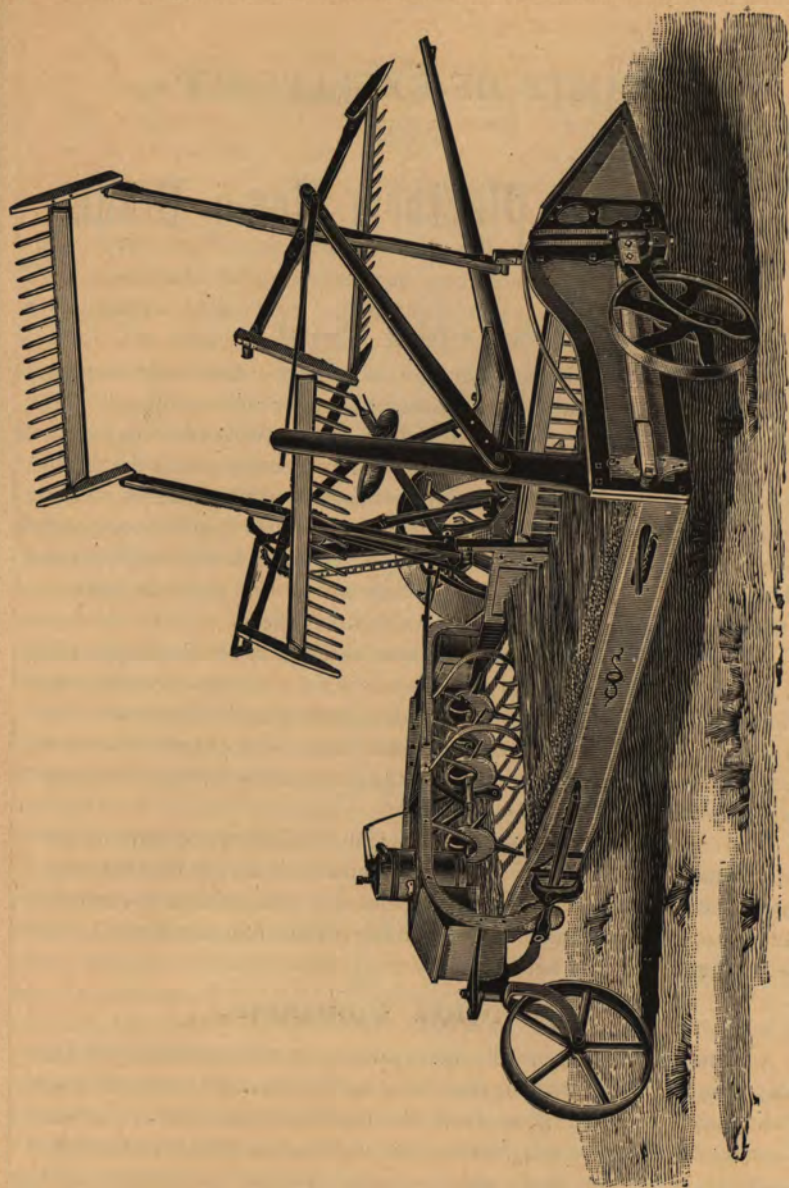
Of superiority is unquestionably the fact that we absolutely dispense with all elevation of the grain, either before or after binding. The grain falls on the platform, glides smoothly in the rear of and across the path of the drive-wheel into the binding receptacle at the end of the platform, is bound and the bundle discharged, the grain at no time being more than *nine inches* above the stubble, the binding receptacle being provided with a gently inclining steel spring bottom which raises the grain gradually about four inches above the platform belts, to enable an easy and clear discharge of the bundle.

It would be impossible to delineate a tithe of the advantages such a method of handling grain possesses over the cumbersome machinery that elevates the grain five feet or more, between friction aprons, over a structure whose weight on the scales is not less than five hundred pounds, and whose complicated mechanism adds from one to one and a half horses to the draft.

We could fill a volume with this feature of our machine alone, but are content to make but this brief statement, knowing that the plain, naked fact will itself speak volumes in its own praise to the mind of any man in the slightest degree familiar with the operations of a harvesting machine in a field of grain.

Separation Complete.

A most vital requisite in the construction of a platform binder (or any other, for that matter), must necessarily be some means for separating the incoming grain from the bundle being bound. Elevator binder men, apparently losing sight of the fact that their machines make no separation at all, and that a very common occurrence is the hanging together of several of their bundles, have a dismal story to



THE DAVIS BINDER, SHOWING COMPLETE SEPARATION OF THE GRAIN.

tell about the impracticability of the platform binder idea, because of the impossibility of separating the grain on the platform.

The fact that they are so unwise as to "throw stones" when they themselves live in "glass houses" of non-separation of grain, will insure the infliction upon them of the proverbial punishment that invariably attends such folly. But we are content to allow such inconsistencies to work out their own destruction, and proceed to explain how the Davis Binder makes a *separation of nearly three feet* between the grain on the platform and the grain in the binding receptacle.

After the series of continuously running spudded platform belts have carried sufficient grain into the binder to form a bundle, and the binding mechanism, automatically tripped by the bundle, begins to operate, its first work is to raise to an upright position between the belts five cut-off arms about twelve inches long, which are fastened to a shaft located in the platform beneath the belts, thus effectually arresting the stream of moving grain on the platform until the bundle is bound and discharged, when they drop back to their hidden position in the platform and allow enough grain for another bundle to go into the binder.

During the operation of binding the continuously revolving rotary packers, in connection with the spudded belts beneath, gather every spear of grain within the compass of the needle-arm, so that the latter descends in *an absolutely clear space* to pass the cord around the bundle, unlike the elevated binder whose needle-arm pierces the stream of moving grain. By actual measurement there is invariably a space of two feet and eight inches between the grain on the platform and the bundle in the binder absolutely free from straw.

This is a feature of incalculable benefit in many ways, and would furnish material in itself for a second volume, but the mere statement that we make a *complete separation*, something that no other machine pretends to accomplish, is sufficient to impress its importance upon any one understanding the necessities of the harvest field.

A Most Wonderful Feature

Of the Davis Binder, and the only invention of the kind ever put on a grain binder, is its REEL RAKE. One of the most serious difficulties to be overcome in the construction of a harvesting machine is to adapt it to handling with equal facility all of the various kinds and conditions of grain. After many years of observation and experience in the field, Mr. Davis conceived the idea of attaching rakes to the ordinary

reel arms in place of the usual "blade" or "bat," and so constructed as to "dump" at any point in front of or above the platform that the driver may elect, and it is no exaggeration to say that this one invention overcomes more obstacles than any other one improvement in the harvesting line. By the manipulation of a light lever within easy reach, the driver adjusts his reel rake to handle the shortest grain ever bound by a machine, and in one second he can change it to lay in the proper place on the platform the longest straw ever grown in the most fertile soil. He has a scope of about two feet for adjusting his band; or, to be more explicit, he can put a band around the sheaf within 6 inches of the butts, or at any greater distance up to 2 ft. and 6 inches. Any boy old enough to drive a team, and with strength enough to lift six ounces on a lever, can operate the rakes while the machine is in motion, and so place his grain on the platform that the cord will be tied around every bundle at a uniform distance from the butts. This, any farmer can readily see, is immeasurably superior to the complicated and cumbersome "shifting binder" of the elevator type of harvesters, which is limited in its scope to a maximum of 8 inches.

Another very important function of the reel rake is its adaptability to handle "down" and tangled grain. Every man who has seen an elevator binder at work knows that tangled grain falls on its platform in great confusion, and that the straws in the bound bundle are no straighter than they were when thrown on to the platform. Butt-guides will even the butts of straight grain, but they are powerless to bring order out of the chaos of tangled grain. We challenge any man to produce a field of grain that the Davis Binder cannot harvest better and make every sheaf straighter and more symmetrical than can be done by any other binder.

An elevator binder reel is five to six feet in diameter, and if grain is down, tangled or short, it cannot touch it; the Davis reel rake is eight feet in diameter, and can be adjusted to reach far ahead of the cutter-bar and comb the grain out straight before the cutter-bar reaches it.

The season of 1888 was especially calculated to demonstrate the merits of our rake for picking up lodged grain. A succession of severe storms of wind, rain and hail put many fields of oats throughout the Lower Lake region in a worse condition than had been known for ten years. Farmers, in many instances, despaired of securing their crop and were finally compelled to cut their oats with their mowers. Elevator binders, owing to their necesarrily cumbersome and complicated

construction, were utterly unable to secure the grain where badly lodged, and farmers throughout the entire region named are well aware that in a great many instances, last year, these machines were pulled out of lodged oats because of their inability to harvest them.

The Davis Platform Binder harvested many hundred acres of as badly lodged oats as a machine was ever put into, and, without a single exception, left the stubble as closely cut as could be done with a mower, and the field as free from scatterings as would have been the case had the grain stood up straight.

A farmer has but to see this really wonderful device to find in it the solution for many of the most annoying and most disastrous evils attending the use of the elevated binder.

Operating in close sympathy with the reel-rake in the straightening of grain is the series of

Spudded Carrier Belts.

These consist of eight belts, three inches wide, running over one roller at the extreme grain end of the platform and another at the extreme stubble side of the binder. They are provided with malleable spuds, one inch high and placed seven inches apart, which enables them to readily move the grain toward the binder. If by any possible circumstance the rakes have failed to straighten all of the grain before it falls on the platform, these continuously moving belts carry it against the cut-offs, so that by the time the bundle being bound is discharged every straw on the platform that will be a part of the next bundle is straightened, and the result is a thoroughly symmetrical bundle. The heads of the grain are thus saved the inevitable "crushing" that an elevated binder inflicts upon tangled grain, and the plumpest, finest kernels are saved for the market instead of being scattered along the ground.

Right here we want to call attention a little more fully to this subject that appeals with peculiar force to every farmer's pocket, the

Threshing Out of Grain

By the grain harvester. There is no disputing the fact that the more you handle ripe grain the larger will be the percentage of kernels threshed out and lost. We have just noticed the loss incident to the binding of grain without first straightening it. This is serious enough, but a still more potent factor of loss of this character, and one that applies with about equal force to straight grain, is the system of elevation by all binders of the elevator type.

The grain is carried by elevated binders five feet or more above the platform between two canvas aprons. How?

Solely by friction.

Imagine the effect of "crunching" ripe grain between two unbroken surfaces, which must necessarily press it very tight in order to carry it up at all. How is it possible to subject ripe grain to such an ordeal without shelling out and losing a very large percentage of its best kernels?

This evil is so patent, and has caused so much complaint, that elevator binder men have actually begun to devise some means to catch the grain they thresh out in the act of binding.

We have their own statement to the effect that *the loss is not less than a bushel to the acre*, as will be seen by the following paragraph, which appears in the catalogue for 1888 of the Milwaukee Harvester Co., in describing their "grain-saving attachment:"

"Experience has shown that there is a large percentage of loss caused by the threshing out of ripe grain with all machines. We have, therefore, devised this plan for saving all the grain usually wasted in binding. The amount lost on the average farm is astonishing, and hardly to be believed, unless one has had the good fortune to use our Grain Saving Attachment one season, thereby acquiring the knowledge; but it is a well proven fact that in cutting wheat of the usual ripeness, one bushel per acre can easily be saved, and that of the very best quality, as the plumpest and heaviest grain shells out the easiest.

In all cases, the amount required for seeding the land can be taken out of the receiver. This is one of the most important inventions for harvesting machines since we built the first successful Binder. It will, in cutting one harvest, save the entire expense of team, driver, and twine, and return to the user the seed necessary to sow for another crop."

The most conclusive evidence against a criminal is his voluntary confession, and here we have the voluntary confession of an elevator binder manufacturer that machines of the elevator type *waste enough grain to pay for the entire expense of harvesting, and in addition to pay for the cost of seeding the next year.*

As a substitute for this dismal picture, what does the Davis Platform Binder offer? Simply this: from the time the grain is cut to the discharge of the bundle there is absolutely no undue compression on any portion of the straw, except when the knot is being tied, and then the pressure is wholly on the middle of the stalk and has no effect upon the head.

Let us return to the carrier belts and note another important saving to the farmer, for which they directly deserve the credit.

An examination of an elevator binder will disclose the fact that between the end of the platform apron and the beginning of the elevator apron there is a space of from two to four inches, and any casual observer of an elevator binder at work in the field will see a constant wasting of straw through this wide space. Individual straws will not only scatter out, but frequently a veritable "rope" of grain will form and trail out behind the machine.

The carrier belts used on the Davis Binder entirely prevent this serious waste, in the fact that they extend clear under the binding receptacle, and every straw that falls on the platform is positively carried into the binder and cannot leave the machine except as part of a bound bundle.

These carrier belts, by their perfect construction, play an important part in contributing to the lightness of draft for which the Davis Binder is noted. We

Dispense Entirely with Buckles,

Fastening the ends of a belt together with malleable iron clamps, securely bolted together and rising above the surface of the belt to the same height of the spuds, one inch. This secures a perfectly smooth surface for the under side of the belt and enables it to pass over the rollers where its ends are joined together with as much ease as at any other point. Thus, it will be seen that the belts can be operated with very much less tension than if buckles were used, as the tension must necessarily be very taut to pull the buckles over the small rollers that are used in all machines.

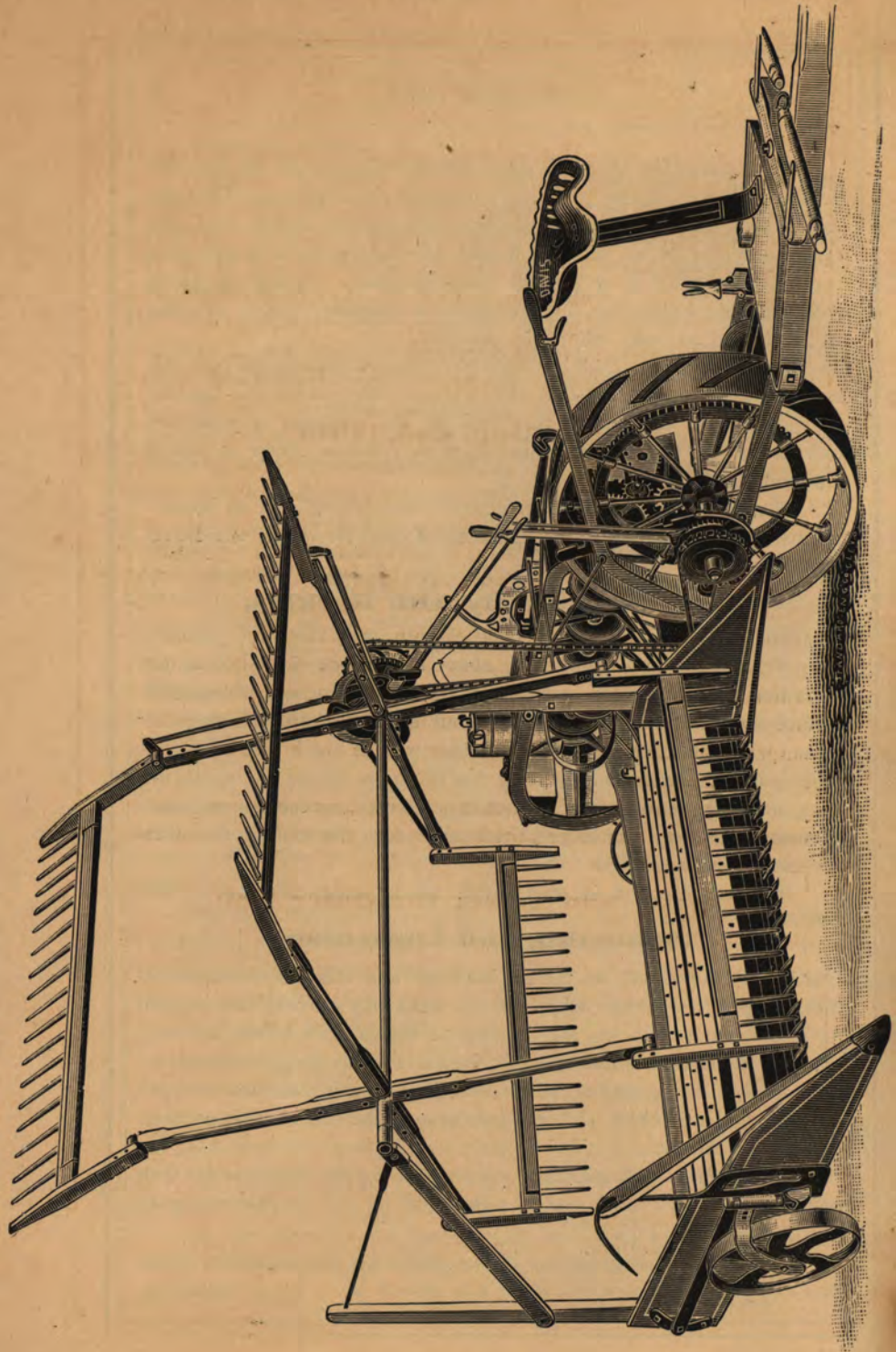
In this connection we wish to call special attention to our device for

Tightening and Loosening

Our belts. As stated, we use no buckles, and this simple statement means much to a farmer who, after a hard day's work, has tugged for half an hour to loosen the buckles of his elevator binder aprons; or, if he neglects to do so at night, works twice as long in the morning to unbuckle his canvas, which the dew or rain has shrunk so tight that the buckles will not pass around the rollers at all without tearing the canvas.

It takes just one second, and no more, to loosen the Davis carrier belts at the end of a day's work, and the same length of time in the morning to tighten them.

The roller at the grain end of the platform is journaled in a frame that can be moved back and forth in a groove by a lever extending



THE DAVIS PLATFORM BINDER, FRONT-RIGHT VIEW.

through the rear side of the platform, and which fastens on a ratchet bolted to the platform. Thus it can be seen that "undogging" the lever and pushing it to the left loosens every belt instantly and at the same time, and by pressing it to the right it can be placed in any tooth of the ratchet in an instant and secure any tautness of the belts desired. In the morning the dew or rain will have caused some shrinking of the belts and they will need to be tightened but little, and, as the warmth of the sun dries and expands them, it is the work of but a moment to push the lever one or more notches and the slack is all taken up.

The Lifting and Tilting

Device of the Davis Binder challenges the world for simplicity and effectiveness. It consists of but one lever rigidly attached to the angle steel finger-beam and sliding up and down a wrought steel standard attached to the main axle. Without stopping his team the driver, *by lifting less than ten pounds*, can place his cutter-bar to cut in stubble or raise it to cut as high as may be desired for the tallest grain, at the same time *perfectly tilting the platform*.

It is only necessary for a farmer to compare this simple, instantaneous method of lifting and tilting in the same operation with the complex raising and lowering and tilting mechanism of an elevated binder to decide how far superior our system is to any ever before given to the public.

Another most essential element in this connection, and one entirely new to the harvester world, is the fact that the driver can, *without leaving his seat*,

Raise and Lower the Outer End,

Independently of the inner end of the cutter bar. This is done by means of a wire cable running under the platform and attached to a lever placed on the main axle, that can be operated with the greatest ease by the driver from his seat. By this simple device either the grain wheel or the main wheel can run clear across the field in a furrow and the cutter bar at the same time may be kept *at a uniform height from the ground at both ends*.

The great advantages of such an arrangement are too palpable to need elaborating.

Every feature of our machine outlined thus far is an entire innovation in the harvesting line and all of very great importance; one, however, that we think will not fail of the fullest appreciation is the fact that it has

A Loose Tongue,

Like that of a wagon. No matter what the character of the surface of the ground, the team are as free from annoyance as if the binder were running over a smooth road.

It can readily be seen how the loose tongue prevents any strain or pressure, up or down, on the horses' necks when the binder is going up or down hill, thus avoiding chafing by the collar, a most harassing affliction that inevitably attends the use of a rigid tongue that all elevator binders must necessarily use.

There is absolutely

No Side Draft,

Because there are three wheels instead of two, and the rear wheel is a castor wheel. If the grain wheel runs over a stone, or across a furrow, it is necessary for the rear wheel to castor before there is the slightest lateral movement by the tongue, and before the castoring is fully accomplished the grain wheel is over the obstruction. The castor wheel thus invariably *takes the entire shock* of side draft, and the grain-side horse is relieved from the severe thumps on the side that an elevator binder is continually worrying him with.

The Davis Knotter

Is the *simplest* and, at the same time, the *most positive knotter ever made*. It has *fewer pieces by one-half* than any other knotter, and every movement is of the most positive character. It is simply a marvel of mechanical perfection, and, all conditions being equal, it will tie more bundles in a given time than any other knotter in existence. It is essentially different from any other type of knotter, the old system having so many disadvantages that a much simpler, entirely new plan was adopted, and with the most gratifying results.

The Davis knotter *will bind tighter and with less cord* than any other, and works with such ease that there is no perceptible increase in draft when the bundle is being bound.

As the Davis knotter discharges the knot against the bundle, instead of two to three inches away from it, as do the Appleby and Wood knotters, we can bind tighter and with far less compression, saving at least half a horse in draft and the binding mechanism from undue strain.

The Main Frame,

As well as the wheel frame, is made entirely of steel and so braced and trussed that every part of the gear and other mechanism is rigidly held in its proper position.

In this connection we wish to call particular attention to a simple and substantial arrangement for keeping the drive-wheel gear

Constantly in Proper "Mesh"

With the "bull" or spur pinion that runs the beveled gear, which drives the entire binding and cutting mechanism.

In all other binders the pole is attached to and pulls directly on the front of the wheel frame, in which is located the beveled-gear and its "bull" pinion. As the wheel frame is more or less likely to spring, the result is a tendency to pull the "bull" pinion a little ahead of its normal position. At the same time, the entire resistance of the binder being centered in the main wheel, the tendency of this wheel is backward, and its "boxes" are gradually but surely worked backward from an upright position. The inevitable result is that the "bull" pinion and the gear on the drive-wheel, being constantly strained in opposite directions, are slowly separated, and the cogs coming in contact near the points will rapidly wear out. As the elevator binder people provide no means to remedy this serious difficulty, it soon becomes necessary for the farmer to get a new main wheel or a new "bull" pinion, or both.

We have guarded against such an annoying and expensive contingency, by a wonderfully simple yet very important arrangement.

We run a half-inch rod from each "box" in which the drive-wheel axle runs, to and through the front of the wheel frame at the points where the pole and pole brace are attached to this frame. *The strain is thus taken entirely off from the frame and placed directly on the main axle*, and the front bar of the wheel frame and the main drive-wheel axle are thus kept positively in the same relative positions, no matter how long the machine may be in use.

These two "tie" rods are provided with "jam" or "lock" nuts, thus enabling any farmer, with a wrench, to either separate or bring closer together the drive-wheel gear and the "bull" pinion, and he can thus regulate the depth of their "mesh" to the utmost nicety.

This may appear at first glance to be a very simple and ordinary device, and yet it is so entirely new and such an important invention, that the Patent Office has insured our monopoly of its use by granting us a very strong and broad patent on this construction.

The Drive Wheel

Is 40 inches in diameter and 8 inches wide, thus insuring lightness of draft in very soft ground.

It is made of grey-iron, hub and gear, which are cast around wrought-iron spokes, and the latter are securely fastened to a wooden rim, around which is bound a tire of the best steel, to which steel spuds are bolted, making a wheel combining beauty and lightness with the largest percentage of strength and durability.

The Cutting Apparatus,

Consisting of angle steel cutter bar, with malleable guards lined with steel, is of the most improved type, and its capacity is equal to that of the best mowers.

The Main Gear Shaft

Is so located as to drive the knife, carrier belts and whole binding mechanism, so that one main shaft performs all the operation of cutting and binding the grain.

The Position of the Driver

Is most convenient, the seat spring standard being placed on the rear of the tongue, in front of and to one side of the binder frame, where he can easily see and control the whole operation of his machine, and be within easy stepping distance of the ground. The levers are within easy reach of his right hand, and he is at the same time in a position to exercise the most perfect control over his team.

The Davis Binder *needs no "folding" apparatus* to permit its transportation about a farm, as it will pass readily

Through any Eleven-foot Gate,

And it *needs no transportation trucks*, because it can be moved from place to place as easily as a common reaper, and requires no more room for storage when not in use. The tongue even will not take up an inch of room on the barn floor, as it can be folded back over the machine without detaching.

Every working part depends entirely upon

Steel and Malleable Iron,

Thus securing strength and durability with lightness.

Many other points of excellence could be enumerated, but we have already outlined enough, we think, to convince anyone that the elevator binder is not to be compared with this, the first and only successful platform binder in the world. *We have for six successive harvests subjected the machine to the most severe tests of every character*, beginning with the early harvest in Georgia and following it north to Minnesota and Upper Michigan. The experimental stage has long since been passed, and we present a binder perfect in its construction and operation.

WARRANTY.

Every machine is warranted to be well made, and of good materials, and to do good work with proper management when set up and operated as per printed directions. If, upon starting the machine, it should not work well, immediate written notice must be given to **The Davis Platform Binder Co.**, or the local agent from whom it was purchased, and reasonable time allowed to get to it and remedy the defects, if any (the purchaser rendering necessary and friendly assistance); when, if it cannot be made to do good work, it shall be returned, free of charge, to the place where received, and the payment of money or notes will be refunded. Failure to immediately give notice as above, or continued possession of the machine, whether it is kept in use or not, shall be deemed conclusive evidence that the machine fills the warranty. No one has any authority to add to, abridge or change this warranty in any manner.

We are very particular to have every part of our machines properly made, and carefully adjusted, and every machine run with steam power before leaving the shop, but if through any carelessness, or defect in material, any part is not up to the highest standard, we will promptly repair the defect or reimburse the purchaser.

PRICE-LIST.

Appended are the prices of our Binders, and Agents are not permitted, under any circumstances, to deviate from them:

	CUT.	PRICE.
The Davis Steel Platform Binder,	6 feet,	\$155 00
" " " " "	5½ "	150 00



STANDARD ENGINE CO. CL. F. V. D.