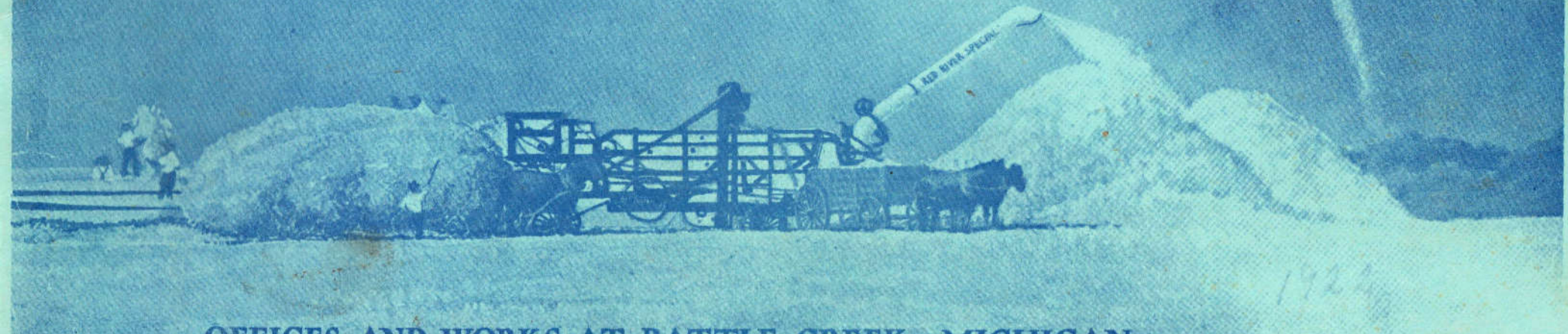


IN CONTINUOUS BUSINESS SINCE 1848

NICHOLS & SHEPARD COMPANY

THE RED RIVER SPECIAL LINE

*THRESHING MACHINERY
EXCLUSIVELY*



OFFICES AND WORKS AT BATTLE CREEK, MICHIGAN

Our Branch Houses

YOU can purchase RED RIVER SPECIAL machinery from any of the Branch Houses or Sales Agencies listed on the following page with the full assurance that it is backed up by the strong and ample guaranty we place upon the RED RIVER SPECIAL Line.

Our Branch Houses are owned and controlled by the Company as a part of its field organization. When you deal with them you are dealing direct with the Company.

Our Managers are men who have been a long time in the threshing-machine business. They are thoroughly familiar with conditions in your vicinity, and especially well qualified to carry on their work and render our customers the very best service known.

Machinery and Repairs are carried in stock at each Branch House and each Sales Agency listed. This assures quick, careful service to our friends and customers.

NICHOLS & SHEPARD COMPANY, Battle Creek, Michigan

(In Continuous Business Since 1848)

Builders EXCLUSIVELY of Threshing Machinery

Red River Special Threshers, Feeders, Wind Stackers, Steam and Oil-Gas Traction Engines

**IT SAVES
THE FARMER'S THRESH
BILL**

#3502

IN CONTINUOUS BUSINESS SINCE 1848



Nichols & Shepard Company

Builders EXCLUSIVELY of

THRESHING MACHINERY

MAIN OFFICE AND FACTORIES AT BATTLE CREEK, MICHIGAN

BRANCH HOUSES WITH FULL STOCK OF REPAIRS

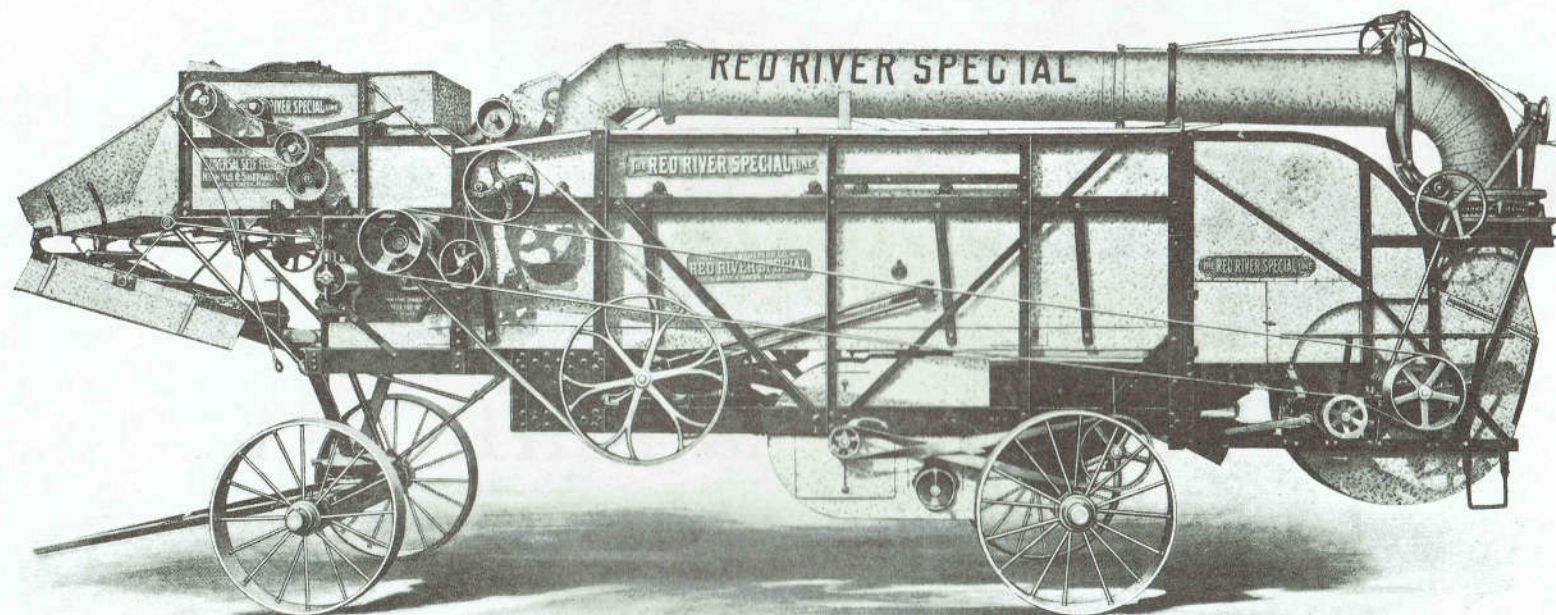
KANSAS CITY, MO.	PEORIA, ILL.	FARGO, N. DAK.	WINNIPEG, MAN.	BILLINGS, MONT.	MINNEAPOLIS, MINN.
DES MOINES, IOWA.	REGINA, SASK.	LINCOLN, NEBR.	MADISON, WIS.	INDIANAPOLIS, IND.	
HOUSTON, TEXAS: R. B. GEORGE MACHINERY Co.	BLAIRSVILLE, PA.: C. S. WAINWRIGHT	WATERTOWN, S. DAK.: BASKERVILLE & DAHL			
DALLAS, TEXAS: R. B. GEORGE MACHINERY Co.	CALGARY, ALBERTA: NORTHERN MACHINERY Co.	AUBURN, N. Y.: QUICK & THOMAS			
SALT LAKE CITY, UTAH: CONSOLIDATED WAGON & MACHINE Co.	EASTON, MD.: THE SHANNAHAN & WRIGHTSON HARDWARE Co.				

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The Steel Red River Special

IT SAVES THE FARMER'S THRESH BILL



Built in Six Sizes: 22 x 36 and 28 x 46 Juniors, 30 x 52, 32 x 56, 36 x 56 and 36 x 60 Big Cylinder.

CYLINDER AND WIND STACKER FAN SHAFTS EQUIPPED WITH ROLLER BEARINGS.

Rockwood Paper Drive Pulley is Regular Equipment.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

Threshing Machinery Exclusively

TO OUR FRIENDS:—

It is with pleasure that we place this catalogue in your hands. Read it carefully.

We believe we build the best machinery of its kind on the market.

Our Company has been in business, with its Factory and Main Office here at Battle Creek, Mich., continuously since 1848. During these seventy-four years of constant endeavor we have confined our efforts and devoted our entire resources strictly to the development and manufacture of threshing machinery, its attachments and the power to drive it, believing that by so doing we would succeed to a greater degree than would be possible if we should scatter our efforts over many different lines and kinds of machinery.

Our aim has always been to build the best machinery of its kind in the world, and to sell it to our friends and customers at as reasonable a price as we can and still have a fair profit for our stockholders.

The measure of our success can be seen in the steadily increasing demand for RED RIVER SPECIAL machinery, which has compelled us to enlarge our manufacturing plant extensively during the past few years. Among the additions and extensions provided very recently are a large, modern power plant; a big, up-to-date machine shop; numerous warehouse extensions and erection shops, which have put our Company in position where it can now supply the steadily increasing demand for RED RIVER SPECIAL machinery.

In the RED RIVER SPECIAL Line we furnish our customers with the best that engineering genius and a modern manufacturing plant, manned by expert mechanics and directed by a Board of Managers with many years of experience in all branches of the threshing machinery business, can produce.

Our engineering staff is the best that can be had—each individual a specialist in threshing machinery and threshing power. Our workmen and mechanics are experts who have spent practically their entire lives in this business. Our Factory is located in a beautiful little city that is peculiarly free from labor troubles. Most of our men own their own homes. Many are stockholders in our Company. They are contented and interested in their work. The natural result is that the workmanship found in RED RIVER SPECIAL machinery is of the highest quality. Our Board of Managers are men of many years' experience in the industry,—men of foresight and vision,—all practical threshermen who know and understand the peculiar conditions and problems confronting the thresherman in the field. Their constant aim has been to assist him in successfully solving his problems by furnishing him the best threshing machinery built.

We know that we can prosper only as our customers prosper; that their interests are our interests; that their problems are our problems; that our success depends upon their success, and we therefore must furnish them machinery that will enable them to succeed and make a profit.

The result of our united efforts is the RED RIVER SPECIAL Line. It has many exceedingly advantageous features not found in other makes. It has proven to be the greatest money-making and most profitable threshing outfit built.

We tell you these things because we consider our customers are really our partners and should know them.

We have prepared this catalogue to show you by picture and description just why and wherein the RED RIVER SPECIAL Line is superior to all other makes, and we shall be pleased to have you give it your careful consideration.

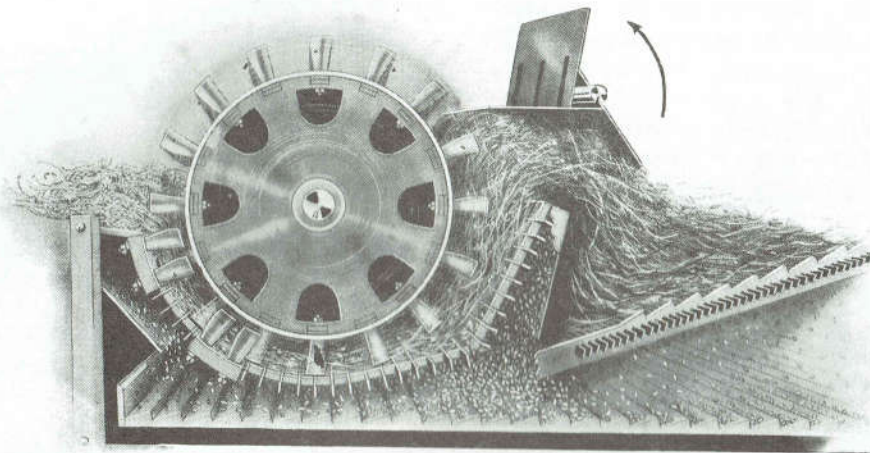
NICHOLS & SHEPARD COMPANY.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The "Man Behind the Gun"

The One and
Only Method



That Gets the
Big Results

Size for size, no machine built without this appliance can thresh, clean and deliver the same amount of grain in marketable condition in the same amount of time without increasing its waste to an extent that no competent thresherman or grain raiser will tolerate.

Record-breaking performances are everywhere made by the Man Behind the Gun. It is an invention exclusively controlled by the Nichols & Shepard Company, and it is through this device that the astonishing work of the Red River Special separator is made possible, as it more than doubles the capacity of the cylinder separation that may be done in an ordinary machine. Its work is done without the

slightest increase in operating cost; for it is accomplished without motion or power and entirely without waste.

If the Man Behind the Gun is not in the machine that you purchase, or in the machine that does your work, you are not getting an adequate return for the money which you spend. This fact, plainly stated, is found in the warranty that accompanies every separator that is made and sold by the Nichols & Shepard Company.

No other machine can meet the Red River Special in competitive test without coming out in second place.

IT SAVES
THE FARMER'S THRESH
BILL

The Steel Red River Special

In certain territories and certain climates a real demand has arisen for a thresher constructed of steel—a machine so designed that very few wooden parts are required in its construction, yet one that will do the work for which it is intended as well and effectively as a wood machine, and in addition give just as good, long, continuous, satisfactory service. To fill that need we have added the Steel Red River Special to our line.

The Steel Red River Special was designed by our engineers several years ago. From the start they were so successful that a larger number were built each following year until we now have several thousands of them distributed throughout the small grain sections of the United States and Canada—from Texas to Alberta.

Without exception they are doing the finest kind of work and giving the best of results. They have proved to be, in construction, operation, and work accomplished, the equal of our celebrated Wood Red River Special threshers.

Our Steel Red River Special is the best steel thresher built.

Design

In design and principles of operation they are patterned after our wood machines, which have headed the list of threshers for a great many years. The important dimensions, proportions, speeds, and principles of operation are identically the same. The Steel Red River Special has the same Big Cylinder, the same Man Behind the Gun, and the same Beating Shakers found in our wood machines. They save the farmer's thresh bill just as our wood machines do.

The only practical difference between them and our Wood Red River Special is that they are built entirely of steel and iron, with the exception of a few inside parts. The only wooden parts used are those which cannot, practically, be made from steel or iron, such as the shakers, the frame of the chaffer, the chaffer extension, sides of the shoe and the fan blades and wind boards in the mill. Experience has taught us that better results are obtained by making these few parts of wood.

The Frame

The frame of any steel separator is the foundation upon which the finished machine is built. No completed machine is better than its frame. It must be absolutely rigid so that each individual working part is held firmly in its proper place. It must be properly balanced to avoid vibration. Each joint must be absolutely tight. It must be strong and durable.

All these requirements are met by the frame of the Steel Red River Special. That same rugged, strong construction so noticeable in other machines of the RED RIVER SPECIAL Line is found here.

It is made of heavy angle and channel irons securely riveted together with hot rivets. Each joint is riveted absolutely tight. In addition the frame is liberally reinforced by strong plates. These plates are riveted to the angles and channel irons of the frame with hot rivets.

Hot riveting means tight joints. Tight joints mean long life. And our Steel Red River Special is hot riveted throughout.

The result is the best frame ever put into a steel grain thresher. Study its construction in the picture. It will last a lifetime. It cannot sag or warp out of shape or alignment. It is absolutely rigid—perfectly balanced—does not vibrate—and thus enables every working part to perform its duty properly.

The body of the machine is supported by sills of heavy channel iron.

Sturdy Construction

The cylinder is supported by extra large boxes set in brackets that are securely riveted to heavy steel side plates, and runs in roller bearings. These side plates, in turn, are riveted to the front sills of the frame proper. A glance at the picture of the frame will convince you of the strength and rigidity of this construction. It provides strength and weight right at the cylinder where it is needed to do away with vibration and possible breakage.

These heavy steel side plates also carry the concave and grate holders.

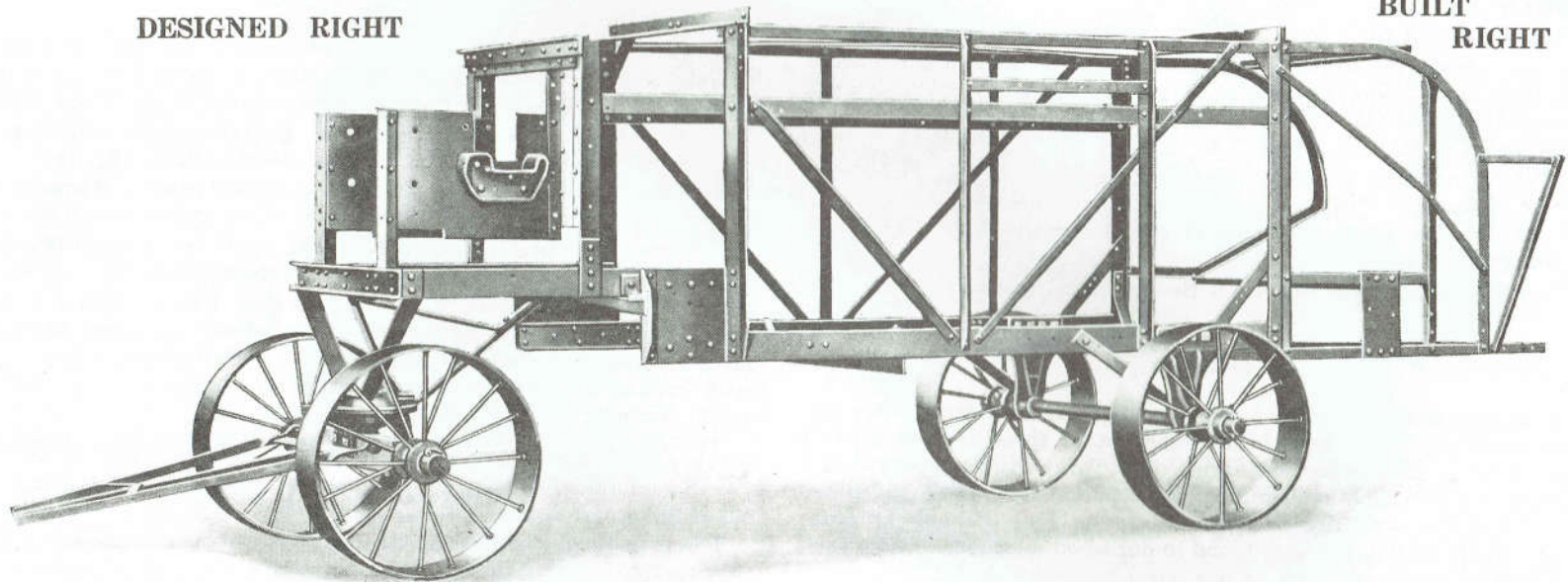
THE
RED RIVER SPECIAL
LINE

Frame of the Steel Red River Special Separator

NOTE ITS STURDY CONSTRUCTION

DESIGNED RIGHT

BUILT
RIGHT



STRENGTH AND DURABILITY BUILT INTO EVERY FEATURE — SHOULD LAST A LIFETIME

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The front end of the machine, carrying the Big Cylinder, concaves and grates, is supported by heavy bar steel braces securely riveted to the separator frame above and bolted to the half sand plate below. This sturdy construction insures long wear and good service.

The separator sides and deck are of heavy gauge galvanized iron fitted to the frame in such a manner that there are no projections inside to hinder the movement of straw through the machine.

The grain pan frame is made of channel and angle irons, securely riveted and strongly braced. The grain pan sides are made of heavy sheet steel plates built onto this frame. Its bottom is of galvanized sheet steel. This entire grain pan construction is thorough and strong, and it cannot shake to pieces.

All shafting, boxes, axles and other parts are strong and durable, to conform to the general design of the separator.

All angle irons and channel irons that carry bearings or a load of any kind are straight and in the same line, leaving nothing to pull out of alignment.

All shaker bearings are carried by the frame, insuring perfect rigidity and the impossibility of their getting out of place.

The grain pan is hung from the frame by pitmans on the outside of the machine.

The deck of the Steel Red River Special is sloped from center to

sides. Every main bearing is provided with both soft and hard oiling devices.

The Steel Red River Special is provided with every convenience for the operator. Access is easily gained to the inside of the machine from the deck and either side at the rear.

The Steel Universal Feeder tips up, making the cylinder easily accessible. Sieves, chaffer, mill and concaves are adjusted from the ground.

Every bearing can be properly lubricated from the ground. A large tool box is provided with each machine.

In short, nothing is lacking to make this separator efficient, durable, economical, and convenient to operate.

Steel Red River Special Separators are provided with Wind Stackers, that run in roller bearings, and Universal Self Feeders which conform to the separator in materials and construction.

Nothing but the best of materials and workmanship are employed throughout.

Cylinder and wind stacker shafts both run in roller bearings, which means a big saving in power, and a very smooth running machine.

Notwithstanding the fact that our Steel Red River Special is built almost entirely from metal it weighs, on an average, only about five hundred pounds more than a wood machine of the same size.

**THRESHING IN KANSAS WITH A STEEL RED RIVER SPECIAL DRIVEN BY A
NICHOLS-SHEPARD OIL-GAS TRACTOR**

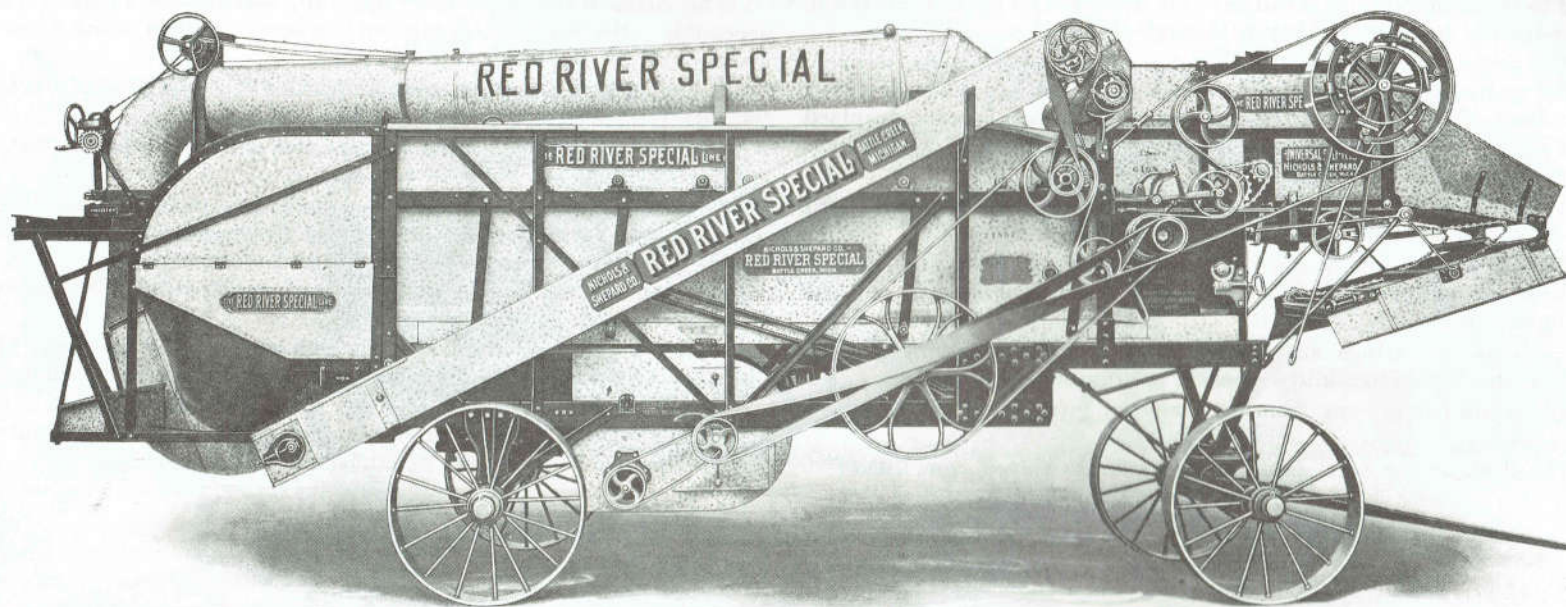


IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The Steel Red River Special

IT SAVES THE FARMER'S THRESH BILL



Built in Six Sizes: 22 x 36 and 28 x 46 Juniors, 30 x 52, 32 x 56, 36 x 56 and 36 x 60 Big Cylinder.

CYLINDER AND WIND STACKER FAN SHAFTS EQUIPPED WITH ROLLER BEARINGS.

Rockwood Paper Drive Pulley is Regular Equipment.

IT SAVES
THE FARMER'S THRESH
BILL

The Mechanics of Good Threshing

It was a great many years after the threshing machine had been invented before the true principle upon which its best work could be done, was discovered and applied in the "Vibrator," as invented and manufactured by the original Nichols & Shepard Company.

Scotland has the honor of producing the machine that made the first successful runs in mechanical threshing, due largely to the application, as far as seemed practical, of the methods employed in hand work. Without the cylinder, which was the chief feature of the new invention, power threshing could not have been accomplished at all, then or now; for this part is the one essential in the work.

The extension of the beating principle did not occur to any of the numerous manufacturers who followed the Scotch lead, and the endless apron and raddle persistently appeared in every mechanical device for grain separation for more than a hundred years, and, as a matter of fact, is still used in many machines that can lay no claim to original inventive ability.

The founders of the Nichols & Shepard Company were engaged in an agricultural implement manufacturing business that naturally focused their attention upon problems connected with the farm. The heavy toll of waste in threshing convinced them that there must be a better and more economical way of doing this work, and, with the resourceful courage of the pioneer, they set out to provide the means that would accomplish the end desired.

It has year by year improved upon its own best work, and through never-lagging energy and inventive skill kept in the forefront with apparatus that would unfailingly meet every need that might arise in securing a grain crop of any condition or size, wherever it might be grown.

In producing the matchless capacity and speed of the Red River Special, not a single point of economy in operation has been sacrificed. Work without waste was the incentive for the beginning of the Company's career, and work without waste is still the distinguishing feature in any comparison of its product that may be made today with other machines that endeavor to rival its performance.

In the following pages the intending purchaser will be given a description of the means by which wasteless threshing may be accomplished. Should he be an expert at the business, he will know that no fact is overstated.

Getting the Grain

The Red River Special separator is built for no other purpose than that of threshing. It gets on to the job the minute the straw enters the machine and it is not through with it until the last straw has been sent to the stack robbed of the last seed that it grew.

The Big Cylinder is the first thing that tackles the work. It is a big cylinder and it does big work. There are more teeth, more bars, more weight and more motion than has ever before been built into a threshing cylinder. This means that it will go right along under conditions that will slug and stop an old-style machine. This big cylinder is housed and mounted in the strongest possible manner. It is equipped with roller bearings, doing away with old-time friction. Its shaft and pulleys are ample enough and strong enough so that it must work when power is applied, and, with good feeding or bad feeding, it can't be stopped and is bound to get results.

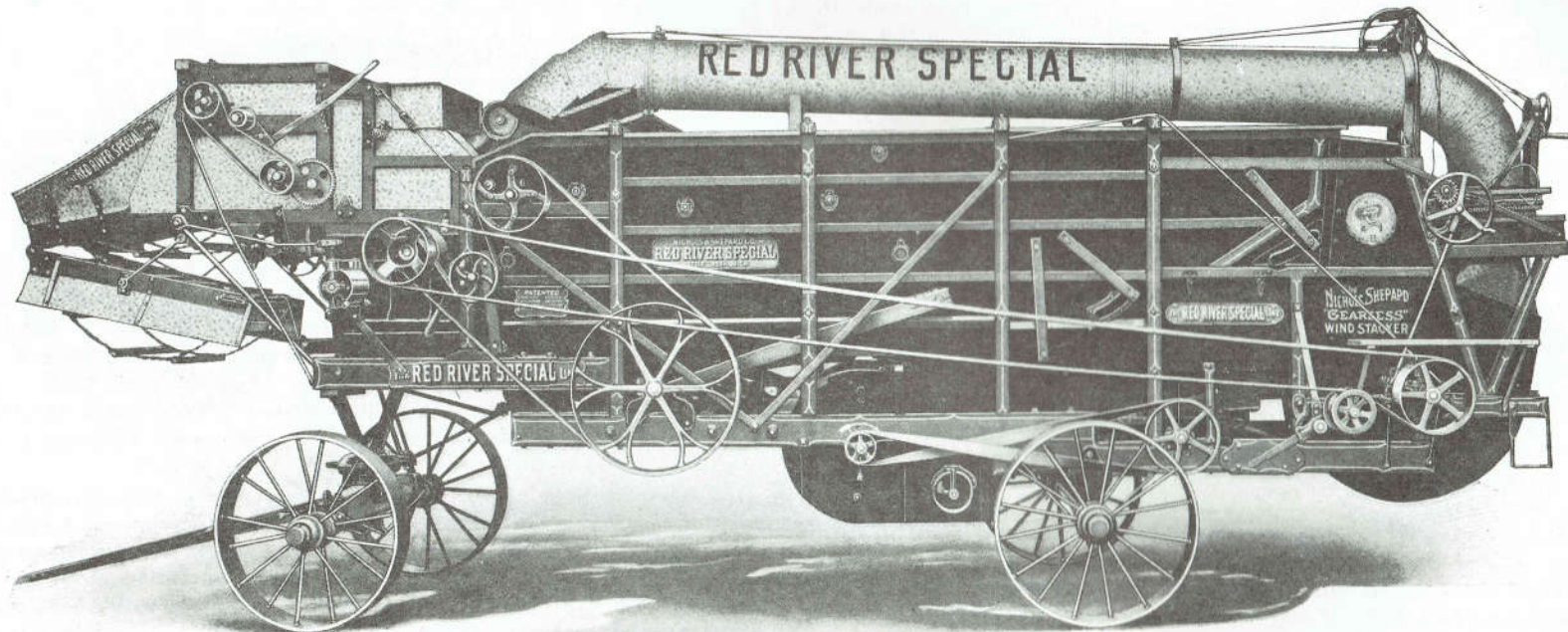
Working with it, and with capacity increased in the same manner, are the concaves. There is room provided for ten rows of teeth and every one of these rows can be put in and made to work when it is necessary. Grain in the worst possible condition for handling can be sent through with paying returns when machines without the Red River Special capacity for difficult work must be stopped because of ridiculous waste.

Added to the Big Cylinder with its bigger concave and grate surface is the Man Behind the Gun, an exclusive Nichols & Shepard device, that makes the big cylinder do most of the work of separation instantly, where every other machine takes more time and more power to get inferior results.

THE
RED RIVER SPECIAL
LINE

The Wood Red River Special

IT SAVES THE FARMER'S THRESH BILL



DRIVE-BELT SIDE. View with Gearless Wind Stacker and Self-Feeder Loaded for Travel.

Built in Five Sizes, viz.: 22 x 36 Junior, and 32 x 52, 32 x 56, 36 x 56, and 36 x 60 Big Cylinder.

CYLINDER AND WIND STACKER FAN SHAFTS EQUIPPED WITH ROLLER BEARINGS

IT SAVES
THE FARMER'S THRESH
BILL

Better Threshing with Bigger Returns

The whole story of the Red River Special is told in these words. No buyer wants a machine that a rival operator can outclass on every job. No user will knowingly hire an outfit that robs him through waste in performing the work that he must have done.

In buying or hiring the Red River Special there is every safeguard against both evils. In the application of the beating principle, as used by the Nichols & Shepard machine alone, the one method that will thoroughly thresh is at command. It *beats* out the grain at the cylinder; it *beats* it through the separating grate against the check plate; it *beats* it down to the grain pan and right here at the cylinder, before the old-style machine has really begun its work, the task of this *beating* machine is nearly completed. What little grain is left in the straw after passing the big beating cylinder, with its immense concave surface and instantly acting Man Behind the Gun, can be secured with certainty by the beating shakers, that would do the work alone were the better method not provided. Nothing that is grain can escape; nothing that is waste can interfere.

When the methods of other makes, with their attempts to secure the grain by gravity, by gentle agitation, by traps and pitfalls in imitation of the Man Behind the Gun, are compared with the Red River Special system, the real effectiveness of the beating force that is continuously applied by the Red River Special will be fully appreciated.

Grain once separated is separated for good in the Red River Special. It is not knocked out by the cylinder and thrown back with the straw to be separated again. The Man Behind the Gun is there to prevent this and to save the power that is required to do the same work twice. The greatest work is done at the cylinder, but in no other machine aside from the Nichols & Shepard is there mechanical provision that will take advantage of the ease with which cylinder separation may be accomplished. The Man Behind the Gun does most of the work without the use of an inch of motion or an ounce of power. The Nichols & Shepard *beating* shakers would by themselves thresh more grain than any rival machine, but they are not called upon to do it, as the Big Cylinder and Man Behind the Gun have most of the grain out of the straw before it gets past the cylinder.

Speed in the Work

There is no money in slow work. A big day's run at small expense must be secured if money is to be made with a separator. No fact is better known to the builders of the Red River Special and no appliance that will hasten perfect work is omitted from the machine. The grower demands speed in getting his grain, but he will not tolerate waste with haste. He wants all that is coming to him and he wants a machine that will produce it with certainty as well as speed.

High speed under other conditions means wear and waste. The thoroughness of shop tests and shop methods in the Nichols & Shepard factory have produced a machine that makes waste a thing of the past.

How Wear and Waste Are Avoided

No material that will not pass the most rigid quality tests is allowed to enter into the construction of the Red River Special separator. Frames are built from air-seasoned lumber, trussed and braced at every point of strain. Flawless iron is used in every place where iron should be employed. Steel is substituted where iron lacks strength. Steel truck wheels take the place of wooden ones, and these are made with extra wide and extra heavy tires that no road work can break down.

More money can be made with this class of machinery than with any other, for the reason that no item is neglected that can in any way better the work that it will be called upon to do.

It is known before the first timber is set in position that the finished machine must be able to stand crowding to its full capacity without breakdown or waste. It is known that the finished machine will be sold under a warranty that no other machine of like size can do more or better work under the same conditions. It is known that fast threshing and good threshing is to finally determine the real worth of the machine to the owner or user, and every precaution is taken to make this worth so apparent that it will speak for itself.

Clean Work as Well as Fast

The problems of threshing are so great in machines that do not use the beating principle that scant attention is given to the work

THE
RED RIVER SPECIAL
LINE

of cleaning the grain for market. The actual separation of the grain from the straw is so quickly and easily done in the Red River Special that much more space and time may be given to its cleaning by the mill, with the result that little or no re-cleaning is ever required, while its product invariably commands the highest market price, with little docking at the elevator. This item alone makes its work more than ordinarily profitable to the growers.

An ample mill will do good work. The one in the Red River Special has all needed capacity and every controlling device that can in any way assist its work.

When grain is heavily mixed on the grain pan with short straw and chaff, the opening in the graduated chaffer can be increased so that just the right blast from the mill will pass through to loosen the mass. This graduated chaffer is attached to the end of the grain pan, where it will give the operator absolute control of the flow of grain to the sieves, and he is never bothered by clogging or interruption of the supply.

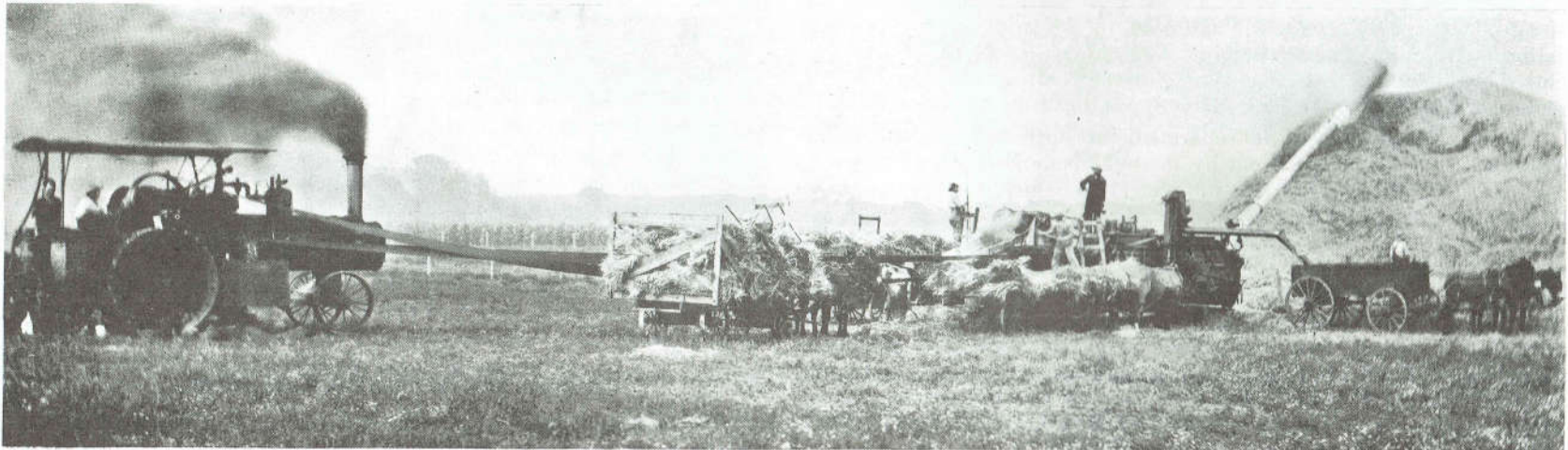
Two wind-boards can be set to direct the blast to the exact point where it will do the best work, and the wind is evenly distributed the

entire length of the shoe. The blast may be regulated from full force to none at all.

Chaffer, end shake shoe, sieves and mill—all have adjustments that can be set to clean grain in any condition that it is possible to handle in the greatest quantity that the machine will separate. Six-thousand-bushel runs are by no means uncommon in the grain-growing region of the Northwest—with every bushel clean, marketable grain direct from the machine.

The sieve equipment that is furnished with the Red River Special is perfectly interchangeable. The operator does not have to climb on or into the machine when a change is to be made. The proper sieve is slipped into place from the ground, an automatic lock that never lets go, holds it when crowded down, and the run may be started without waste of time. The sieve opening is at the side of the machine and within handy reaching distance, as is shown in the description of the shoe, further along in this catalogue.

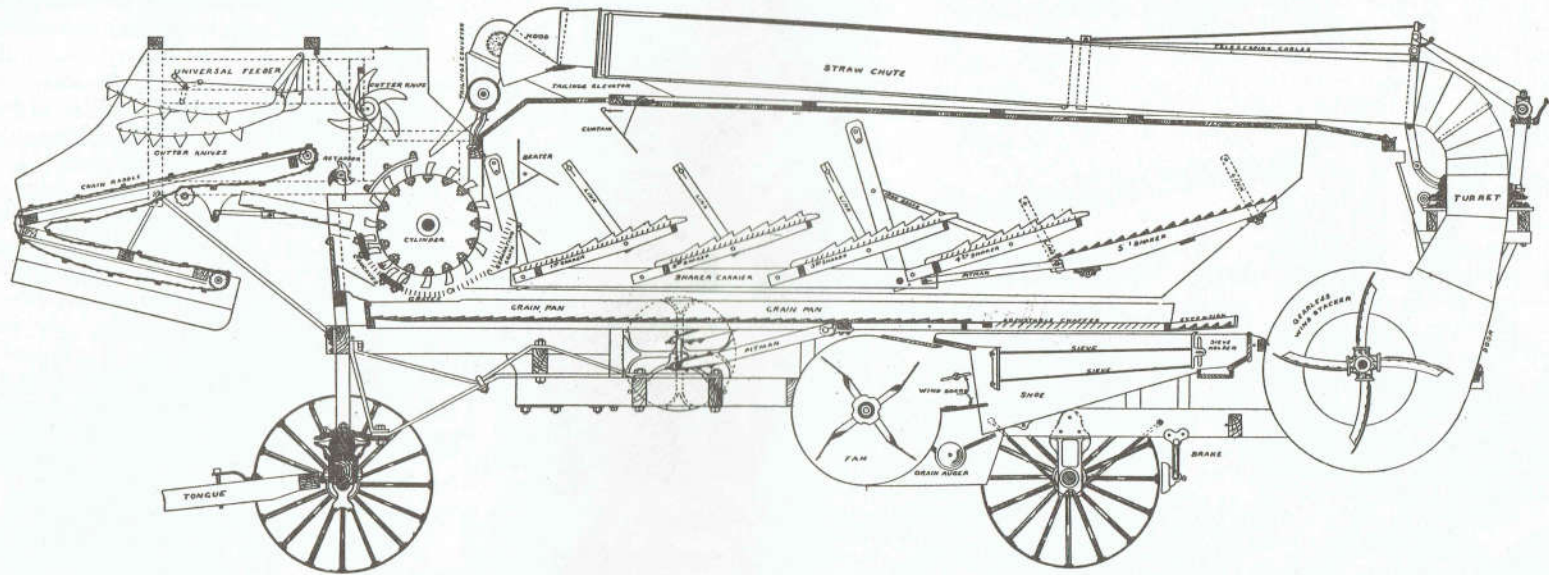
The closest possible comparison with other makes and methods is requested. *Where a choice is made upon merit alone, the Red River Special never loses a sale.*



IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

IT SAVES THE FARMER'S THRESH BILL



THE RED RIVER SPECIAL.

(Sectional View.)

Look This Over Carefully. There's More, Faster and Better Grain Separation Done by This Plan Than by Any Other Yet Devised.

CYLINDER AND WIND STACKER FAN SHAFTS EQUIPPED WITH ROLLER BEARINGS

IT SAVES
THE FARMER'S THRESH
BILL

The Big Cylinder and "Man Behind the Gun"

While the reader has been informed in a general way as to the vital differences between the Red River Special separator and other makes, it will be well to take up, one by one, the superior features that the Nichols & Shepard Company provide to give to it its real efficiency. When this is done and all of them are thoroughly understood, the buyer's choice of a machine is materially simplified. Point by point, his own good judgment may be relied upon to clearly indicate to him which machine will best serve him for every threshing need. When such a decision is reached, it is safe to predict that one more Red River Special will then be booked as sold.

The Big Cylinder, with which so much of the marvelous work of the Nichols-Shepard machine is done, is naturally the first part to engage attention.

Other makers have attempted to use the Big Cylinder, but without the Nichols & Shepard Company's construction to make it effective, have merely succeeded in increasing the trouble and the waste which overcrowding will produce in any type of machine for threshing where gravity instead of beating must do the work.

An immense amount of grain may be threshed by a big cylinder in any machine, but, unless it is immediately saved and taken out of the straw, overcapacity at the cylinder soon clogs inadequate separating devices at the rear. The Man Behind the Gun is the only device that can hold this balance right. Ninety per cent of the grain is threshed out at the cylinder in the Red River Special and is well on its way to its cleaning mill before other makes can begin their work of getting it out of the straw.

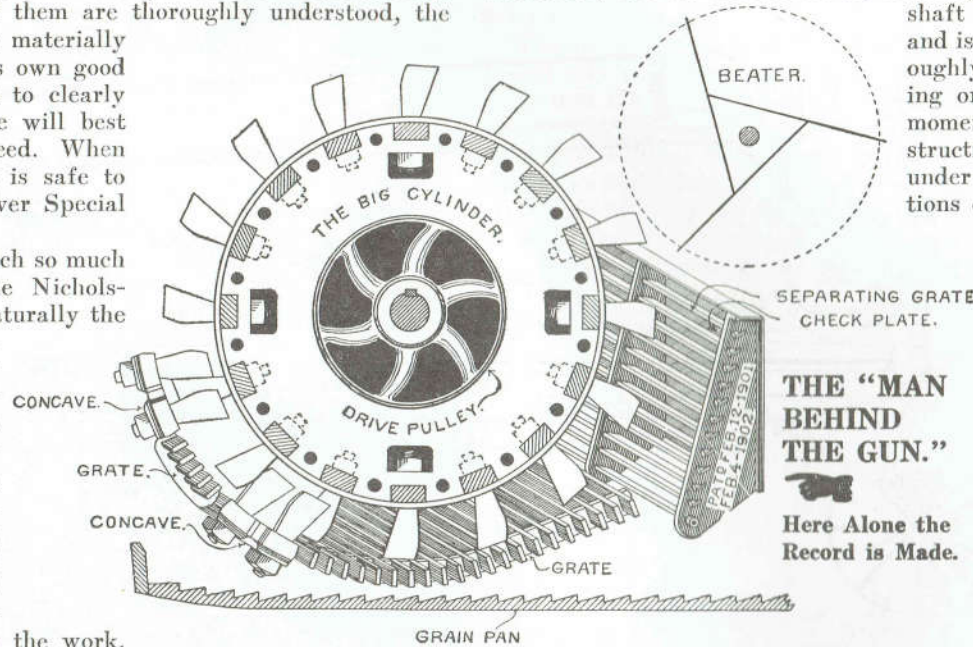
The cylinder teeth are of special shape and thickness, so heavy and strong that they seldom break. They are also heavily grooved, which still further increases their threshing capacity. The bars in which they are set are double the ordinary weight and strength. The shaft is of extra large diameter and is run in roller bearings, thoroughly lubricated, to prevent heating or getting out of line. The momentum of this massive construction keeps motion steady under the worst possible conditions of grain or feeding.

There is so much strength in the shaft that no yoke is required outside of the drive pulley. This cuts out all loss of time in getting the main belt on or off. It can be done instantly. The belt reel enables the operator to quickly roll his belt and keep it where it is needed for use.

Big pulleys and wide belts transmit ample power to the cylinder, and a proportionate increase

of belt surface is made throughout the machine. With belt slippage reduced to the least possible amount, the working capacity of the machine is everywhere increased. It does more work because lost motion is practically done away with. It works to the limit in every part while the machine is on the job.

The Big Cylinder permits the use of more concave surface. In bad conditions six, eight, or ten rows of concave teeth can be used. This means that the Red River Special can be kept at work when other



**THE "MAN
BEHIND
THE GUN."**

**Here Alone the
Record is Made.**

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

machines must shut down and wait. This is important when threshing must be done quickly to take advantage of high prices. Ability to run at critical times will often more than pay the thresherman's bill in the extra profit that can be secured. An idle machine on a falling market means a loss that may never be regained.

The Red River Special separates most of the grain at the cylinder. There is no bother at the rear when bad conditions must be met. The Big Cylinder, together with the Man Behind the Gun, disposes of the bulk of the grain so quickly that it is impossible to overtax the rest of the machine.

This means constant and profitable work. Beater and shaker motion can be kept up to the speed needed to get the grain out and get the straw through to the stacker after it has been threshed clean. No part is strained and no power is wasted.

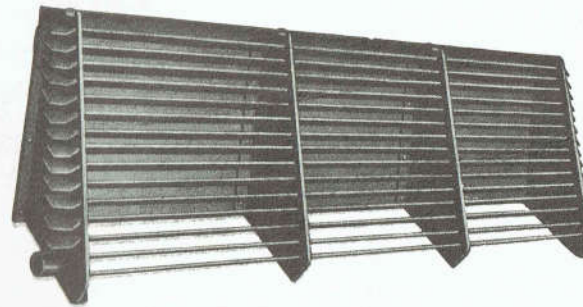
This perfect balance of mechanical parts gives unusually long life to the machine as a whole.

Hundreds of Red River Special separators that have been in active service for ten years or more are holding their own against new machines of other makes, and doing their work in such an acceptable manner that competition is out of the question.



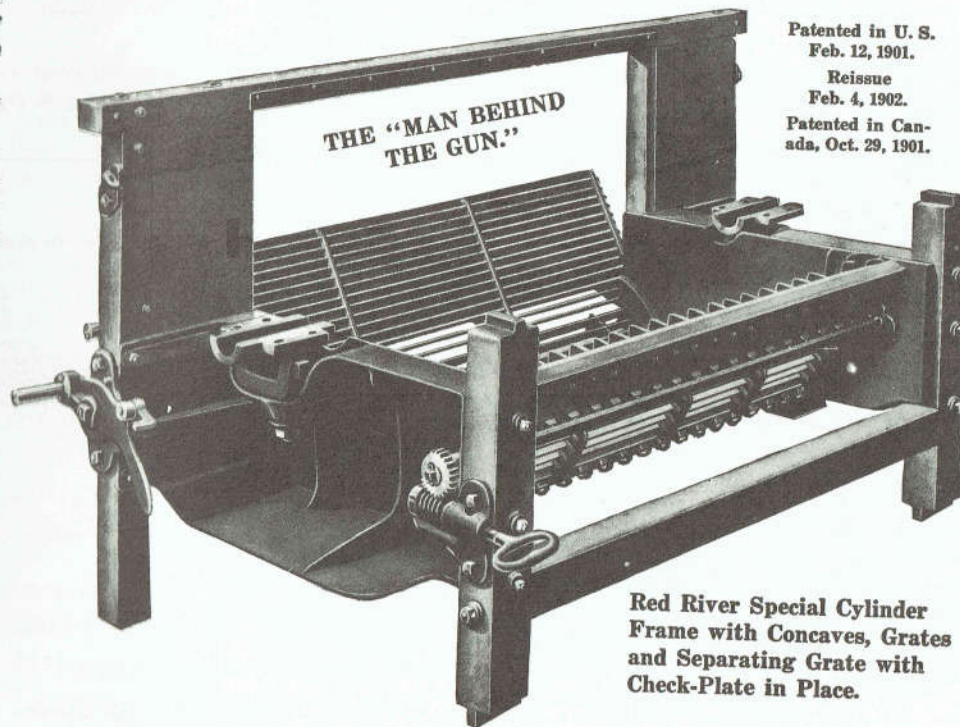
THE "MAN BEHIND THE GUN"

Big Grate Surface



For Threshing with Profit. Preparedness is Here.

Nichols and Shepard's Separating Grate and Check-Plate.



Patented in U. S. Feb. 12, 1901.

Reissue Feb. 4, 1902.

Patented in Canada, Oct. 29, 1901.

THE "MAN BEHIND THE GUN."

Red River Special Cylinder Frame with Concaves, Grates and Separating Grate with Check-Plate in Place.

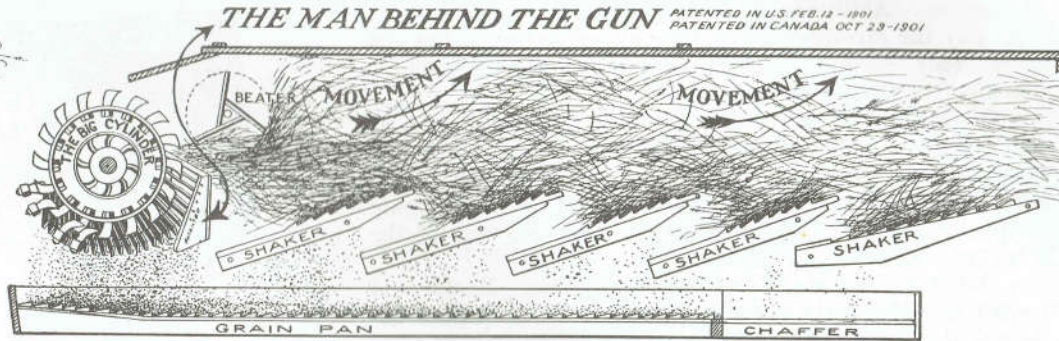
IT SAVES THE FARMER'S THRESH BILL

**THE
RED RIVER SPECIAL
LINE**

This is the Whole Story of Modern, Clean and Successful Threshing.



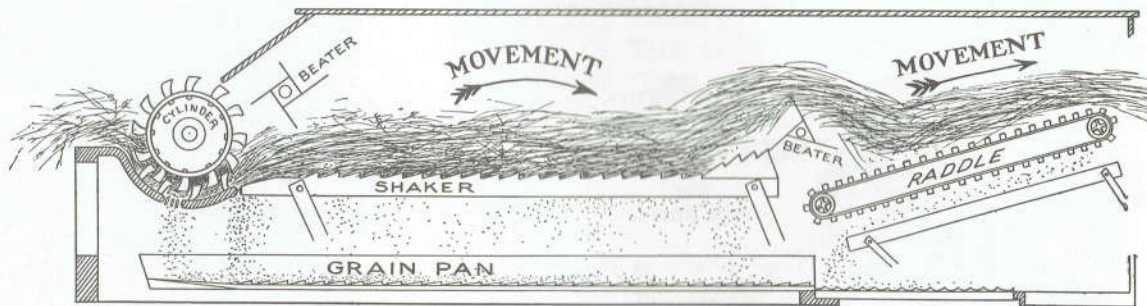
This is the way to Separate by hand with a pitchfork



*This is the way the RED RIVER SPECIAL Separates
IT BEATS IT OUT - like you do with a pitchfork*



This is the way the Lazy Man tries to Separate with a pitchfork



*This is the way OTHER KINDS try to separate
THEY DON'T BEAT OUT THE GRAIN*

BEAT OUT THE GRAIN, or You'll Find It in the Stack. It Won't Fall Out When You Thresh.

**IT SAVES
THE FARMER'S THRESH
BILL**

Proving the Red River Special Way

The Red River Special is the only separator that uses the correct method of separation—*beating the grain out of the straw*—from the time the grain is threshed out of the heads by the Big Cylinder until the last kernel is beaten out and saved. Other machines seem to expect the grain kernels to fall out, of their own weight, but *all* of them don't. In order to save it *all* the grain must be *beaten* out.

Prove that for yourself.

Scatter a bundle of intermingled straw, chaff and grain upon the barn floor and try by hand all of the methods that are used in the different threshers. You will need a pitchfork to do the work.

Try the old-style methods first because they are of the "coaxing" kind, as opposed to the methods using force.

Stick your fork in the straw and draw a good forkful of it across the floor. This is the way a well-behaved riddle machine goes about its work. The straw moves along quietly, and *some* of the grain falls out. You don't see very much grain? Neither do we, but that is the way your threshing is going to be done if you use that type of separator.

You don't think much of that method?

Here's another: Collect the straw, give it a few thumps, and pitch it across the floor, well up in the air. The grain is heavy. It is loosened by your thumping, and a lot of it falls out before the straw strikes the floor, but not *all* of it. Many of the well-known machines have forks right behind the cylinder to do this kind of work, and it takes a lot of power to drive them. But on examination you find altogether too much grain left in the straw! You say there is too much wasted grain. So do we.

Now let's try the Red River Special way. It's rough on the straw, but it sure does get *all* the grain,—and that's what you want.

Take off your coat, roll up your sleeves, and go to it!

Take a large forkful of your straw, beat it thoroughly, like the Big Cylinder does, toss it up in the air and strike it four or five sharp blows from beneath with your fork before it touches the floor—just as the Beating Shakers in the Red River Special constantly *beat* the grain and straw from below.

The grain showers through the tines of your fork and collects in a heap on the floor. That's more like it! The reason is that you are

now applying a *beating* force to separate the grain from the straw. By continuing this method of separation you are able to obtain the last kernel there is. That's the only way *all* of it can be secured.

This method is the one used in the Red River Special separator. You have had to work hard and lively, but the results were sure, and results are what you want in a thresher.

Here's the way this method works in the Red River Special.

The straw and grain are fed into the Big Cylinder, which threshes all the kernels of grain loose from the heads, and then throws the intermingled straw, grain, and chaff against the open grates of the Man Behind the Gun at a speed of more than a mile a minute.

Nine-tenths, or 90 per cent, of the grain goes through the grate, is stopped by the check plate in the Man Behind the Gun and falls down onto the grain pan. This 90 per cent of the grain can never again become mixed with the straw and chaff. *It is separated right at the cylinder.*

This leaves 10 per cent of the grain still in the straw, which goes over the Man Behind the Gun onto the Beating Shakers. These Beating Shakers have an upward swing, as indicated by the arrows in the picture, and toss the straw and what little grain remains in it up towards the deck of the machine, and as it falls strike it violent blows from beneath. They continue this *beating, beating, beating* until the grain is all beaten out and saved.

Shakers in the ordinary machine have a rocking motion, which hurries the straw back through the machine. They do not beat the straw from below like the Red River Special shakers do. They seem to expect the grain to drop out of its own weight, but *all* of it doesn't.

No so-called pickers, forks, riddles or aprons are used in the Red River Special. The straw does not bunch or clog, and does not need to be hurried out of the way. It takes care of itself. There's nothing in the Red River Special to interfere with *big* capacity. The Grain is *all* saved. The Red River Special *beats it out* and saves all of it.

To get all of the grain you must beat it out.

The Red River Special is the only machine that does beat it out. That is why it does *more* and *better* work than any other machine on the market. It is the most profitable machine to own and use.

The Small or Junior Red River Special

There are plenty of farmers who grow enough grain to make it pay to own a threshing machine. Not a big 40 x 60, of course, but a small outfit that can show from 700 to 1,000 bushels, well threshed and cleaned, for a day's run.

The Junior Red River Special was built to meet this demand, and its success has been of the same wonderful character that has made the larger Nichols & Shepard machines world-famous.

Other manufacturers have attempted to build small machines in competition, but have found it necessary to make such radical changes in construction that their capacity has been reduced out of all proportion to their size.

No such changes are required in the Red River Special plan of beating out the grain. Nothing need be changed in making the machine more compact except the size of the various parts. The working principle is exactly the same as in the largest separator of the line.

The cylinder has twelve instead of sixteen bars, but it is built upon the same large lines as used in the big machine.

The Man Behind the Gun is proportionately reduced in size, but it still is able to separate its 90 per cent of the grain at the cylinder.

The Beating Shakers are just the same in action, but are smaller in size to fit the smaller space in which they must do their work of saving all the grain.

Grain pan, chaffer, shoe and mill are all of the exact pattern that does more but no better work in the big machine. Up to its full capacity the Junior delivers its product equally well cleaned.

Most farmers now own a general purpose power plant that will easily drive the Junior machine. Only 12-horse is required for the 22 x 36 size, with hand-feed attachments and common stacker, and it may be anything that is regularly used on the farm—gasoline, steam, or horse-power.

A small crew is ample to get the full amount of work out of the Junior Red River, so that it is not necessary to provide a gang of extra helpers to get through the threshing season. This makes the expense of securing the grain crop exceedingly small.

In commercial work for profit it can always make a fine showing where big machines are outclassed. It will move more easily over bad roads or through hilly country to clean up the work of out-of-the-way farms that owners of larger machines do not like to tackle. It can travel faster, set quicker and work better, permitting its owner to make money where rival outfits would fall down on getting to the job.

The absence of waste makes the best showing possible when crops are poor. Like any Red River Special, it will get all of the grain that is grown.

In reducing to the Junior size no item of strength or long life is sacrificed. The same care is exercised in the selection of material and the same excellent workmanship is employed in its manufacture. The frame is made in proportionate strength, thoroughly and fully braced. Shafts are heavy and belts are wide, just as in the largest size. It will easily do the work of many makes which have a much larger rated capacity but do not beat out the grain.

Three sizes are made in the Junior style, a 22-inch cylinder with 36-inch rear in the wood machines, and a 22-inch cylinder with 36-inch rear and a 28 x 46 in the steel machines.

Any good-sized barn will take the Junior in to work, which is a great advantage when the weather is bad. The length over all is a little over thirteen feet and the center of the cylinder is but five feet from the ground.

The little machine goes out with the same big warranty that is given to full-sized namesakes; that is, that "with proper management it is capable of doing more and better work than any other separator made of like size and proportions, working under the same conditions and on the same job."

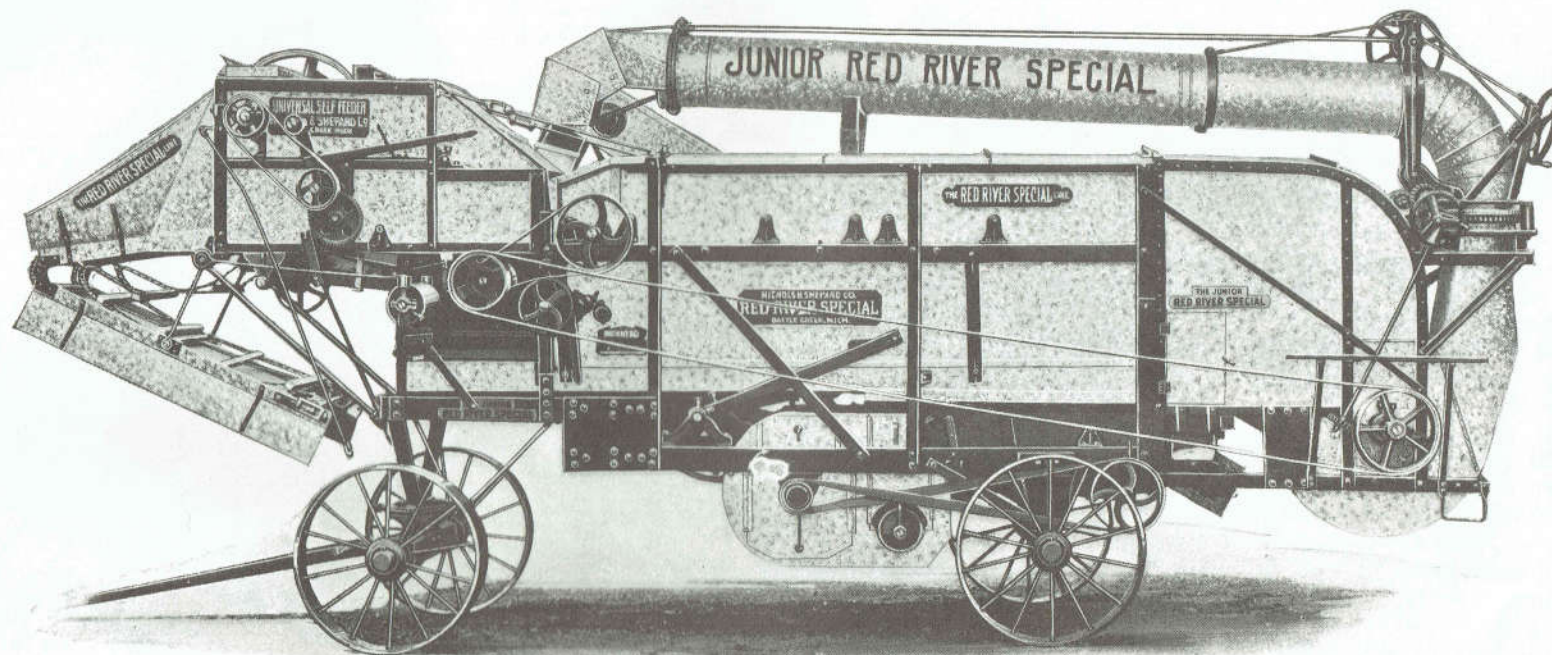
It lives right up to this confident assertion without effort, and can often stretch a point and get away with the work of a much larger rival machine.

It is principle, rather than proportion, that makes the Red River Special what it is. Results are the same in every size that is built and are in exact ratio to the dimensions which are used.

THE
RED RIVER SPECIAL
LINE

The Steel Junior Red River Special

IT SAVES THE FARMER'S THRESH BILL



Built in Two Sizes: 22 x 36 and 28 x 46.

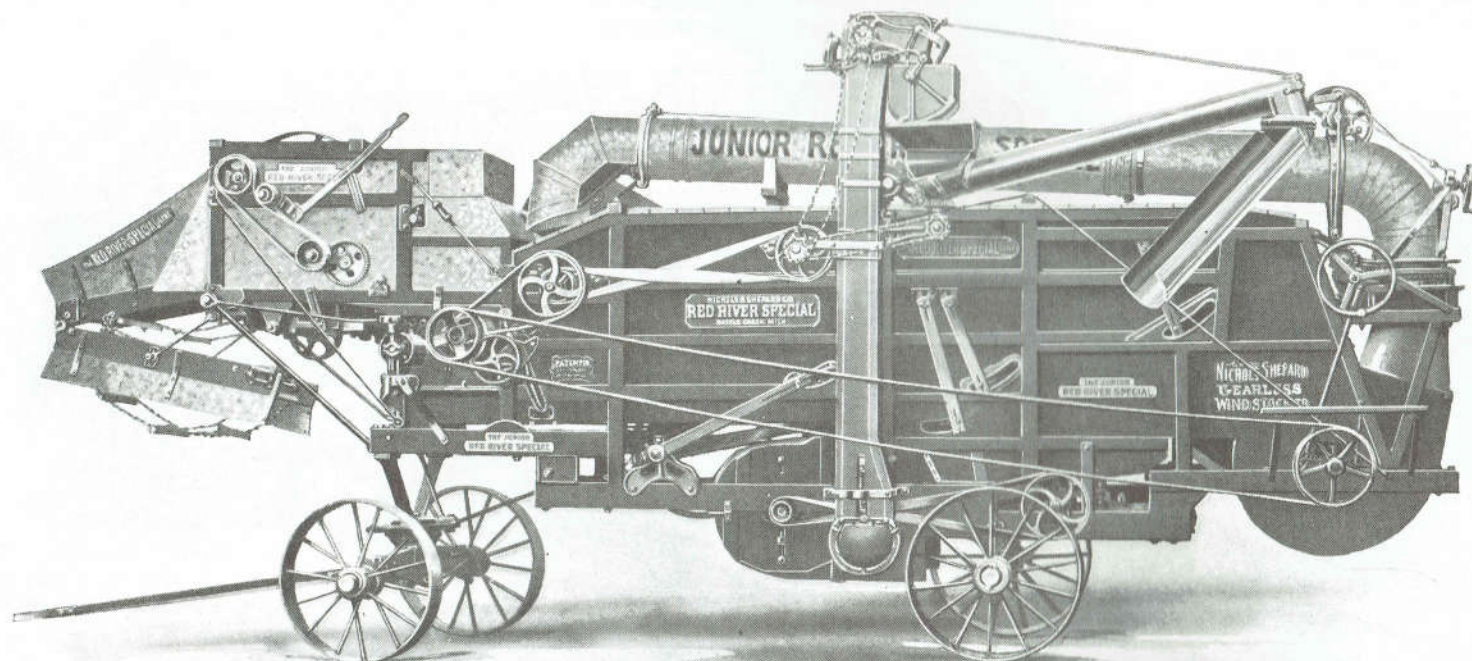
CYLINDER AND WIND STACKER FAN SHAFTS EQUIPPED WITH ROLLER BEARINGS.

Rockwood Paper Drive Pulley is Regular Equipment.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The Junior Wood Red River Special—The Little Thresher Which Does Big Work



DRIVE-BELT SIDE OF FULLY EQUIPPED MACHINE

One Size: 22 x 36.

Can also be Furnished with Hand-Feed Parts and Common Stacker.

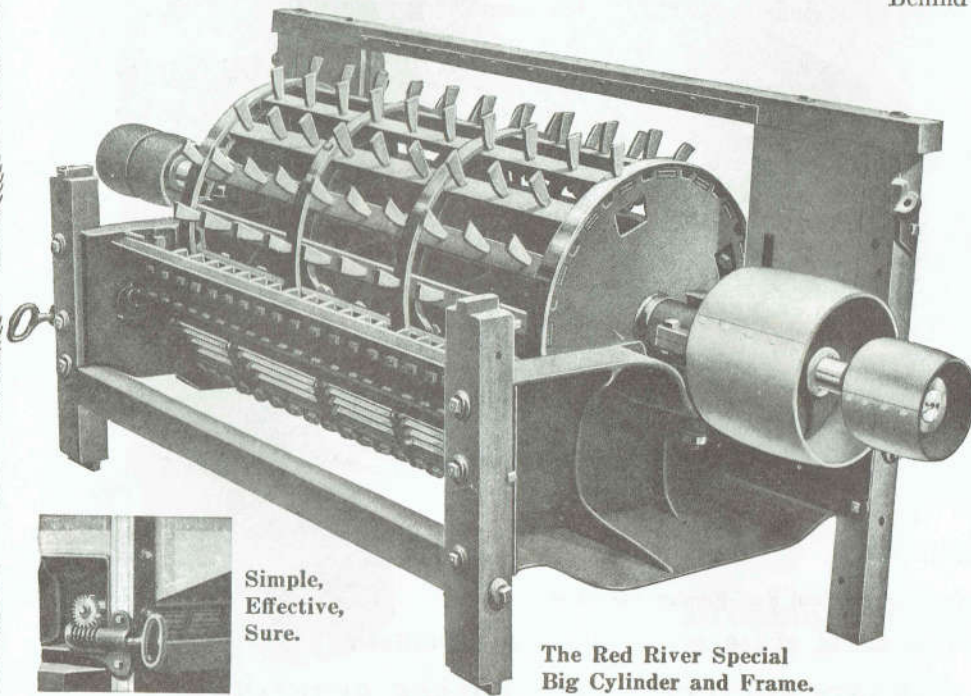
CYLINDER AND WIND STACKER FAN SHAFTS EQUIPPED WITH ROLLER BEARINGS

IT SAVES
THE FARMER'S THRESH
BILL

The Man Behind the Gun

A Big Cylinder, equipped with this single piece of apparatus, will thresh and save more grain than many an old-style machine can do with its complete outfit of beaters, forks, pickers, shakers, raddles, and contrivances without name, which are used to get the grain out of the straw.

Clumsy imitations of the Man Behind the Gun have also been tried and have failed, because its work can be well done by no method aside from the one which the Nichols-Shepard device provides.



Concave Adjuster.

The Red River Special
Big Cylinder and Frame.

Simple,
Effective,
Sure.

It is a simple part, but it marks the greatest advance in threshing machine efficiency which has been invented.

Its invention and application by this company is but another of the many improvements in threshing operations which have resulted from the development of its one great principle of beating out the grain.

The Big Cylinder, with its enormous increase of capacity, cannot be used to advantage without the Separating Grate and Check-Plate, the Man Behind the Gun, to supplement its work. With this device in place a cylinder of any size and capacity may well be used, for, no matter what amount of grain the cylinder is able to separate, the Man Behind the Gun will save the last kernel that is beaten against its face.

It is this, and this alone, that makes it possible in the Red River Special to separate fully ninety per cent of the grain the moment the straw enters the machine. The regular grates connected with the concaves take a portion of this, the same as in any machine, but without the Separating Grate and Check-Plate much of the flying grain would pass on with the straw.

The Separating Grate, with the Check-Plate behind, stands close in the rear of the Big Cylinder, so that nearly one-half of its diameter is covered by concaves and grate surface combined, but the major portion of the work of separation is done by beating force instead of by gravity, as in all other separation.

Grain thrown back by the high speed at which the Big Cylinder is driven, is flung through the slats of the Separating Grate, to strike the Check-Plate and fall to the grain pan beneath. The revolving beater also beats out much of the loosened grain just as the straw is passing to the first shaker, which still further increases the separation at this point, where it is most easily taken care of in the Red River machine.

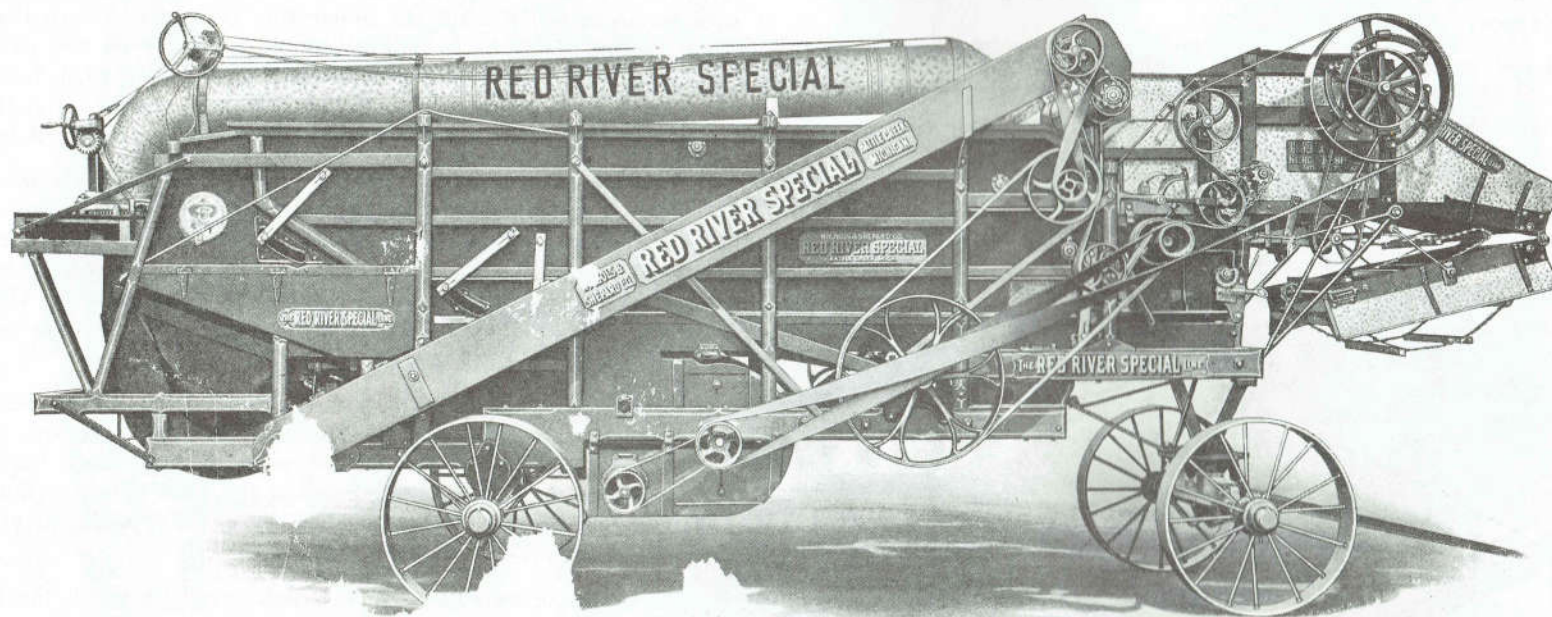
Fast, thorough and clean threshing is done this way.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The Wood Red River Special

IT SAVES THE FARMER'S TURFS' BILL



Ready to Travel. Wind Stacker and Self-Feeder Attached.

Built in Five Sizes, viz.: 22 x 36 Junior, and 32 x 52, 32 x 56, 36 x 56, and 36 x 60 Big Cylinder.

CYLINDER AND WIND STACKER FAN SHAFTS EQUIPPED WITH ROLLER BEARINGS

IT SAVES
THE FARMER'S THRESH
BILL

Big Teeth

The Big Cylinder requires big teeth. Short of the best material will stand up to the work. Both are proved and both give the necessary good results.

The Red River Special teeth are made from high-grade steel and are subjected to the most thorough tests for possible flaws before being placed in the machine for use.

This reduces the possibility of breaking to almost none at all. The heavy groove in the side of the tooth, peculiar to the Nichols & Shepard pattern, doubles the threshing capacity. The thick shark, heavy threading and spring-locked nut keep the teeth in place when once properly set.

Concave teeth are equally large and strong, and equally well secured. Working together with the Big Tooth of the cylinder they thresh more and thresh better than any other kind.

The illustration shows the actual size and shape.

**Thick, Heavy and
Strong
Breakage Almost Unknown**

IT SAVES
THE FARMER'S THRESH
BILL



Actual
Size.



Actual
Size.

The End Shake Shoe

By the time that an ordinary separator is lazily stirring up the straw for the last time, in the hope that a little more grain may fall through the raddle before it escapes to the stack, the Red River Special has beaten the straw innumerable times over shakers where violent agitation has been repeatedly applied to thresh out all of the grain. This process gets results. There is nothing left to be done but to clear away the short straw and chaff.

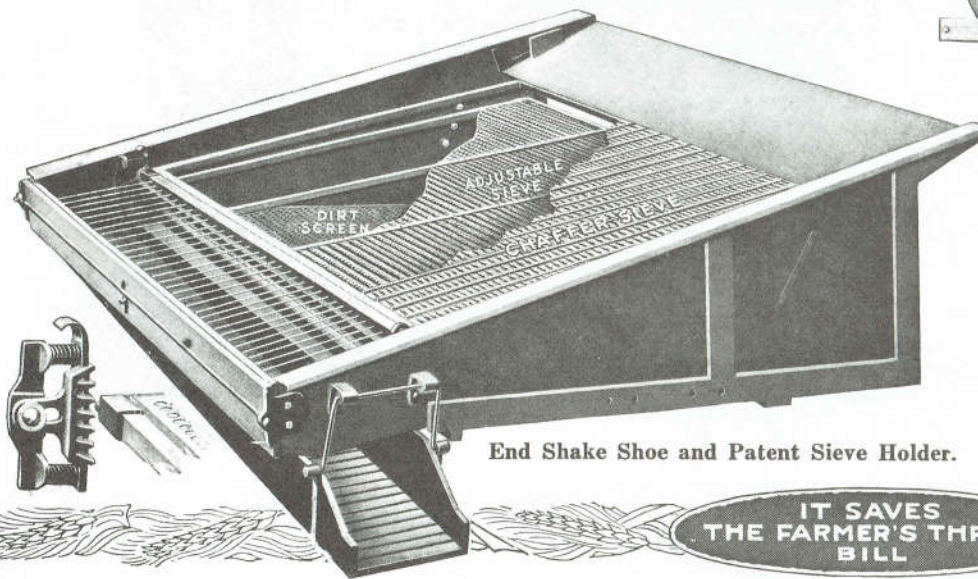
As the mass of grain and waste reaches the end of the grain pan it passes to the chaffer, where a regulated blast from the fan quickly disposes of the light chaff and refuse. The slats in the chaffer being graduated and adjustable, the grain is dropped to the sieves with just the right distribution to clean it perfectly. A full set of sieves is furnished to meet every condition. The grain can be so thoroughly cleaned that far less docking is given it than to the product which comes from any other machine.

Sieves are interchangeable. No trouble is encountered in placing or removing them when a change is to be made. An automatic lock holds them securely in the shoe.

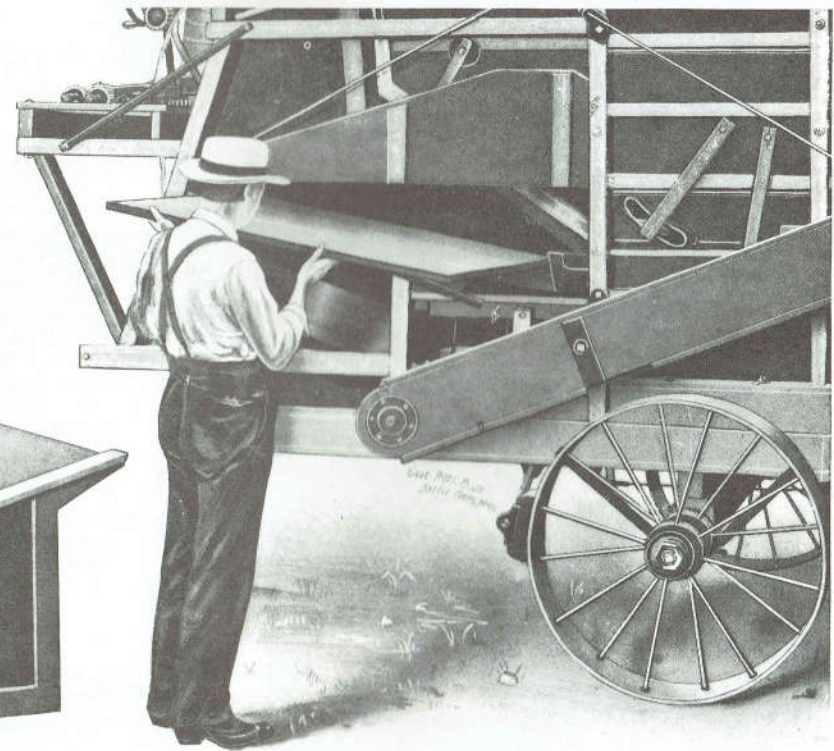
Two wind-boards are provided with which the blast to the shoe

may be regulated to suit conditions. Much or little wind may be evenly distributed across its entire length. When needed to improve results it may also be directed to any part of the sieve.

Sufficient shake is given to keep the grain at all times moving in the shoe. Bad weather or good, there is no clogging here. Cleaning, in common with every other operation which the Red River Special performs, is well and thoroughly done without stoppage or waste.



End Shake Shoe and Patent Sieve Holder.



Changing Sieves in the Red River Special.

IT SAVES
THE FARMER'S THRESH
BILL

The Adjustable Graduated Chaffer

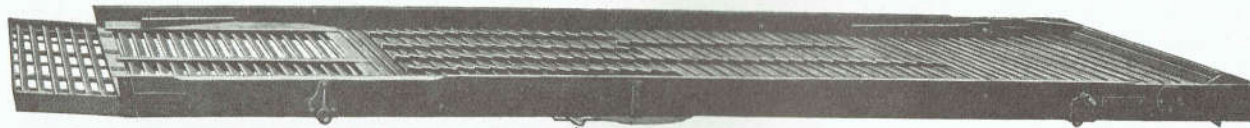
Well-cleaned grain has much to do with the profit that is made by the farmer. When heavily docked by elevator or warehouse for re-cleaning, there is more than enough loss in this item to pay for the first-class threshing and cleaning which may always be depended upon from the Red River Special machine.

Good cleaning is as much a matter of well-designed apparatus as any other part of the work. With so much of the separation accomplished at the cylinder, greater attention can be given in the Nichols-Shepard machine to making this cleaning thorough.

On the back of the grain pan is placed an Adjustable Chaffer, with graduated openings, which is so constructed that it will give to the operator perfect control of the flow of grain to the sieves. A single

lever will open or close a series of movable slats so that the grain is distributed exactly right for the mill. When these slats are properly set, just enough of the blast comes through to loosen up the short straw and chaff, at the same time allowing the grain to fall properly distributed to the sieves, where it is finally cleaned. A folding extension upon the end of the grain pan secures all of the grain that other machines so often lose to the stack.

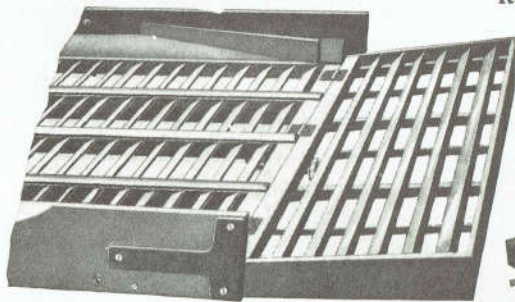
The grain pan is easily accessible. When the deck is raised and the shakers disconnected and turned back, its whole length can be reached. This convenience will appeal to any operator who has tried to get at this pan in other machines.



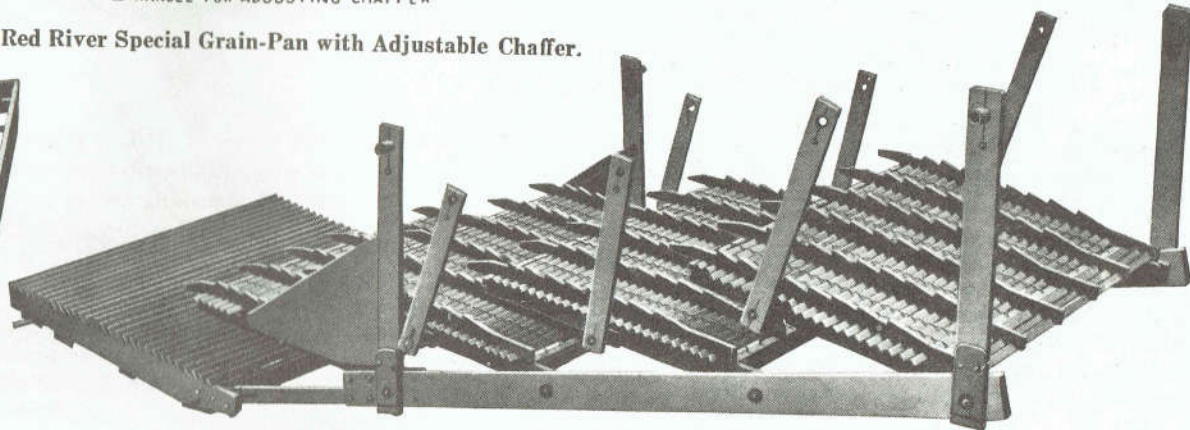
HANDLE FOR ADJUSTING CHAFFER

Red River Special Grain-Pan with Adjustable Chaffer.

The Beating Shakers Catch All the Grain That Escapes "The Man Behind the Gun."



This Extension to the Grain-Pan Sends the Last Kernel to the Mill.



IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The Universal Self-Feeder

The Nichols-Shepard Universal Self-Feeder, as improved and built by this Company, cannot be equaled by any other device or any other method for getting the grain to the separator. The feeder is firmly attached to the machine, supporting legs being entirely unnecessary and therefore dispensed with. The cylinder can be so easily reached by tilting it out of the way that this important feature is practically no different than when feeding by hand.

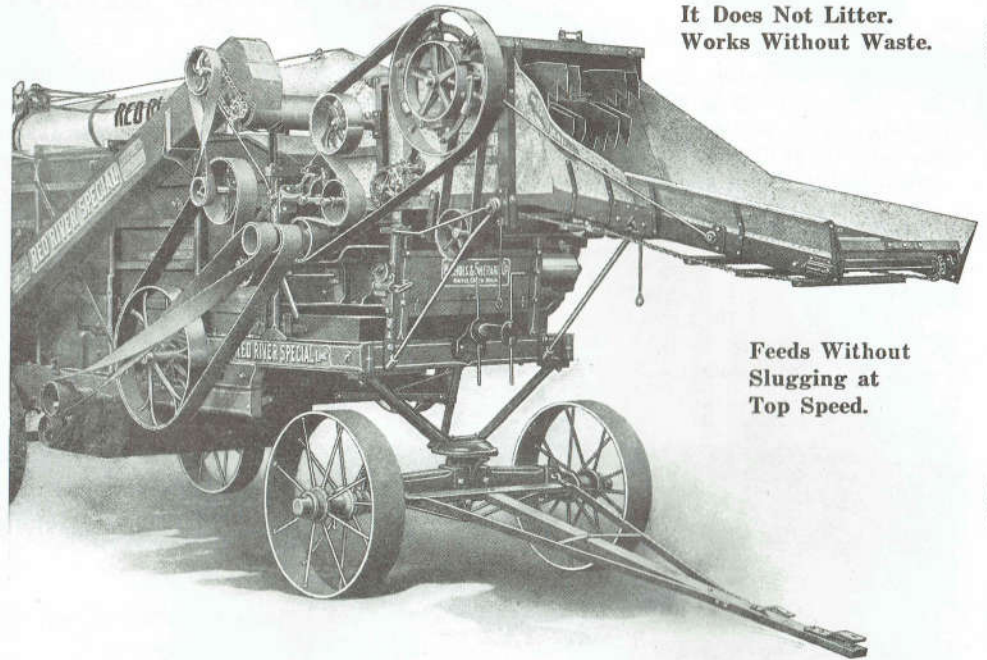
The Universal can handle more grain without slugging than any other feeder that has yet been made. Headed and bundled grain is properly fed with no loss of speed. A strong carrier of endless links, with slats attached, runs over sprocket wheels at each end of the feeder. Bundles are forcefully and steadily carried forward to the band-cutter knives, the retarder and the cylinder. Two styles of knives, rotary and reciprocating, permit no bundles to pass without the bands being cut and the grain evenly spread.

There is a dividing board in the large sizes which helps in fast work when bundled grain is thrown on to full capacity. It can be easily taken out when not needed.

The grain must pass under both sets of knives before it gets to the cylinder. These, with the feeding arms, thoroughly straighten tangled and matted straw, while the retarder, over which it next passes, holds the bottom of the bundle and sends it in top first, as is always done by the experienced hand-feeder. There is no bunching, the governor being so sensitive that motion is steady and feeding is always even with pitching fast or slow.

The bearings are large for crank-shaft and arms; moving parts work smoothly and in line. A steel oscillating pan with fish-back risers extends from carrier to cylinder. There is no scattering of loose grain, straw and chaff, which always means waste. Everything must go to the cylinder, to be separated and disposed of in the regular way.

The Universal Self-Feeder is found on no other machine but the Red



It Does Not Litter.
Works Without Waste.

Feeds Without
Slugging at
Top Speed.

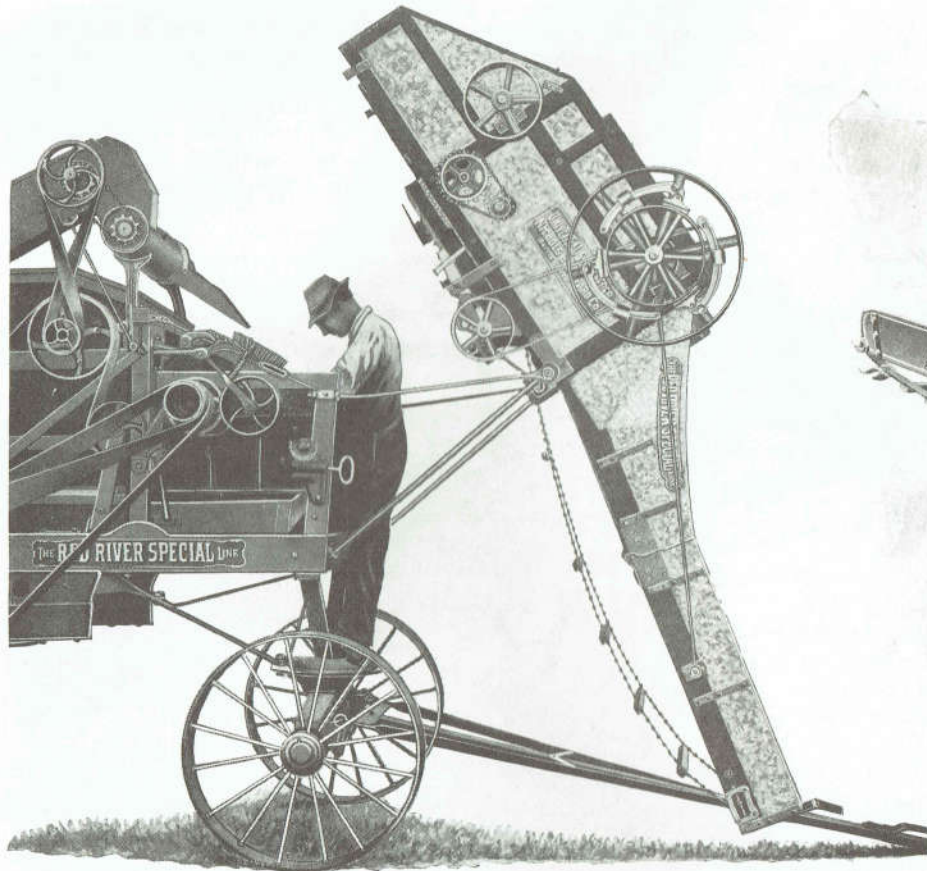
River Special. It is a properly designed and highly improved part of this wonderfully effective system. Thoroughly tested under every condition of threshing and in comparison with every known feeding device, the Universal has proved itself to be the best yet invented and a most dependable item in saving the farmer's thresh bill. In fact, it comes the nearest to using human intelligence of any feeding device.

When not in use it can be folded for travel by removing the side rods and folding the carrier under. The business end is left attached to the separator proper, of which it becomes a part.

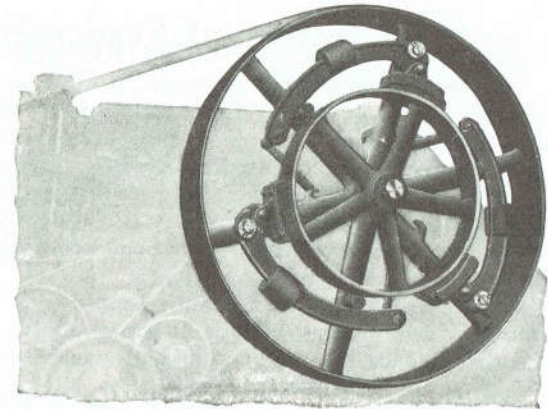
IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

The Governor is Sensitive and Maintains an
Even Feed without Slugging
or Stops.



The Universal Self-Feeder Raised to Gain Access
to Cylinder and Concaves.



Universal Feeder Governor.



Universal Feeder Extension for Headed Grain.
An Extra That Helps in Bad Conditions.

IT SAVES
THE FARMER'S THRESH
BILL

The Universal Feeder Extension

The Universal Feeder Extension is of great assistance in handling headed grain. It is an extra attachment that many experienced threshers consider necessary when doing difficult work.

It is very difficult with wet or badly headed grain to keep a uniform supply at the cylinder in proper condition to thresh. Unless some means is provided to have at all times the right amount of grain on the feeder, uneven feeding is bound to occur, which will decrease the threshing capacity.

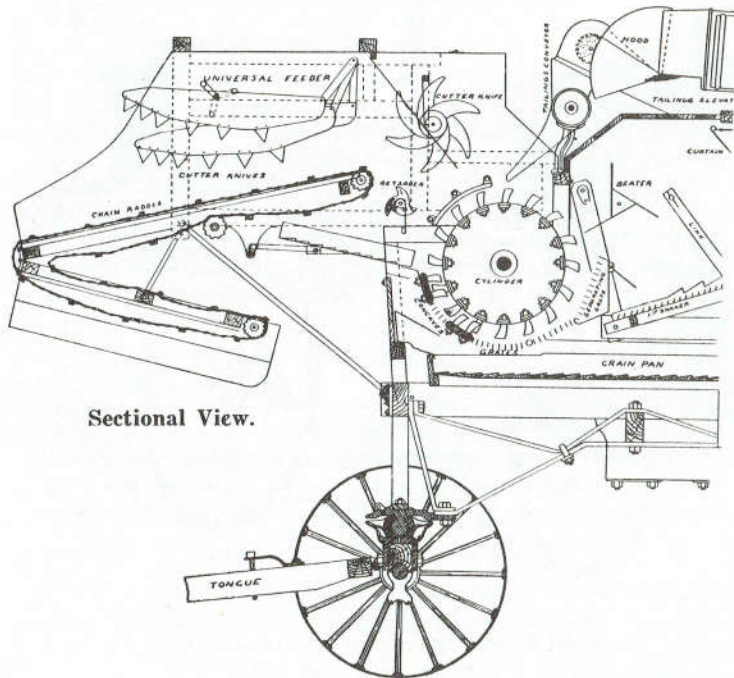
The extension to the feeder is therefore of value in keeping up a sufficient and steady supply. It gives ample space for handling the quantity needed to keep well spread straw constantly at the cylinder

and permits threshing to go ahead rapidly when little work would be possible with any other machine.

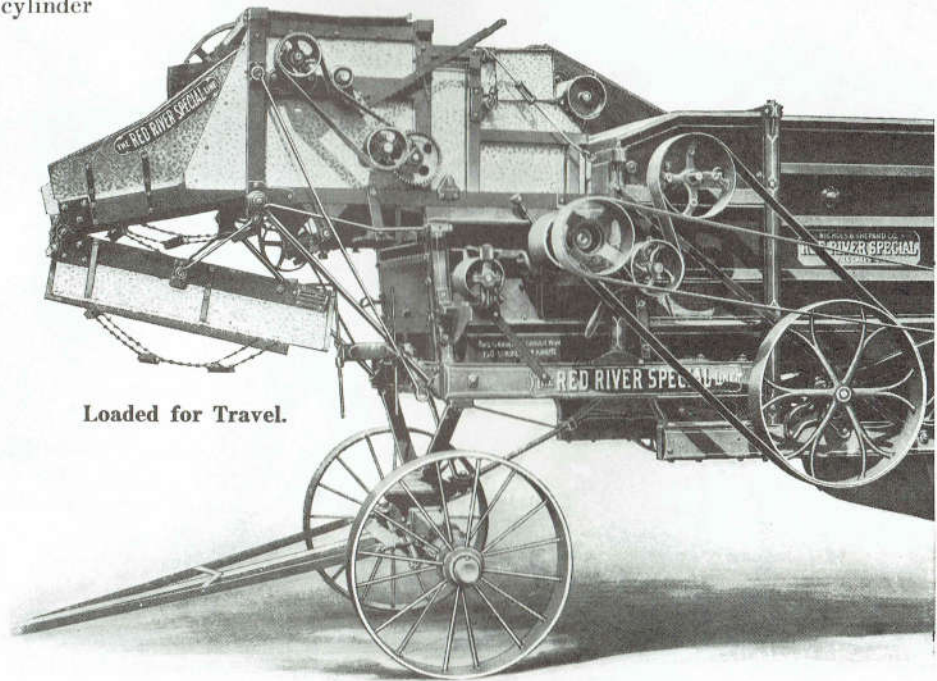
The carrier extension is adjusted and speeded in exact time with the Universal Self-Feeder attached to the separator and requires no special attention to keep it at work.

It soon pays for itself when threshing must be done under bad conditions, and is another one of the tested attachments that do so much to make the Red River Special go right along when other makes stand still.

It may be purchased as a part of a complete outfit, or it may be added at any time the thresherman desires to ease up on the hard and trying work which a bad season does so much to increase



Sectional View.



Loaded for Travel.

The Universal Feeder—Inside or Outside—Right All Through.

IT SAVES
THE FARMER'S THRESH
BILL

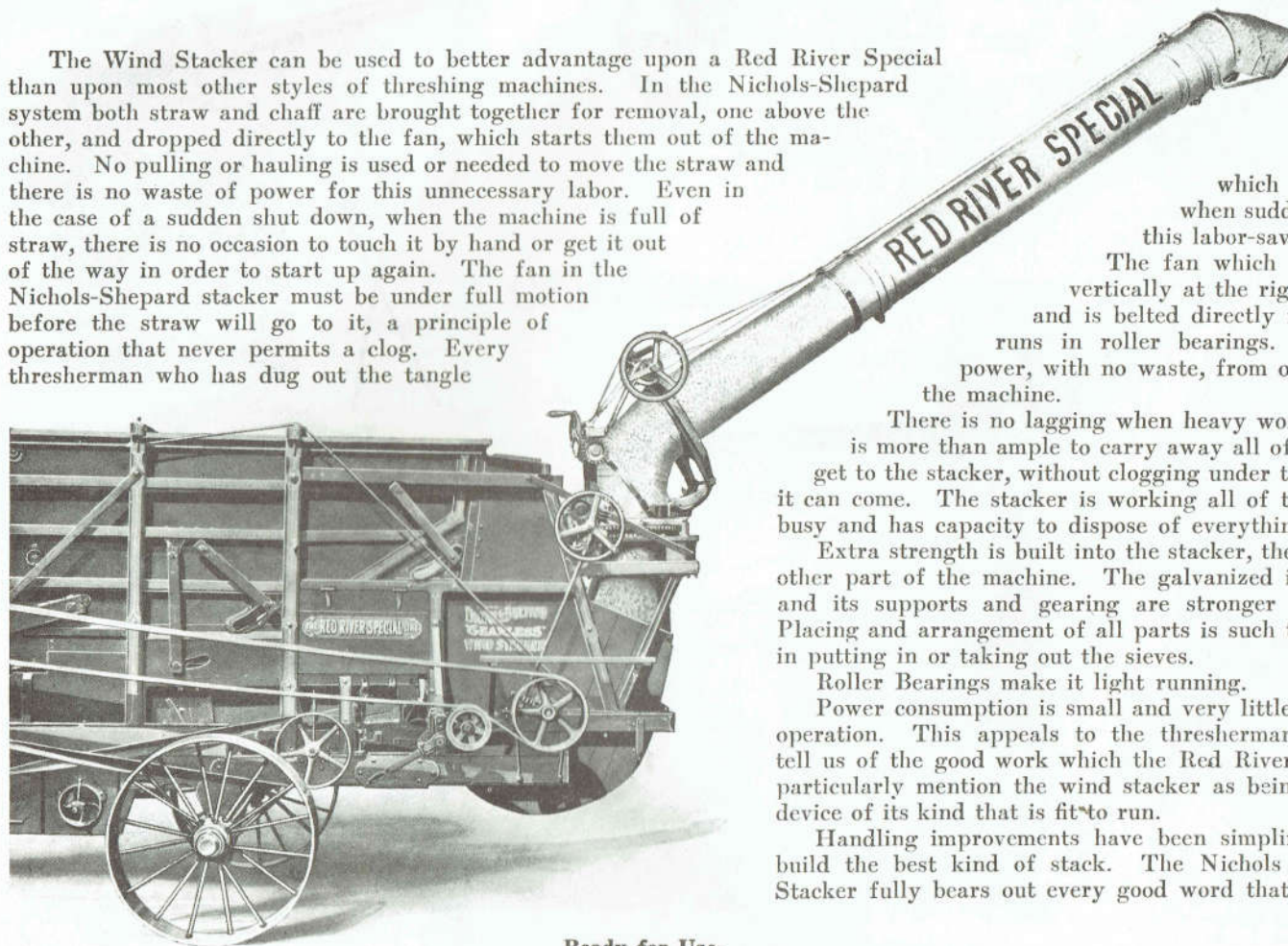
THE
RED RIVER SPECIAL
LINE

Nichols-Shepard Gearless Wind Stacker

Fan Shaft is
Roller-Bearing
Equipped

—
Saves Power

The Wind Stacker can be used to better advantage upon a Red River Special than upon most other styles of threshing machines. In the Nichols-Shepard system both straw and chaff are brought together for removal, one above the other, and dropped directly to the fan, which starts them out of the machine. No pulling or hauling is used or needed to move the straw and there is no waste of power for this unnecessary labor. Even in the case of a sudden shut down, when the machine is full of straw, there is no occasion to touch it by hand or get it out of the way in order to start up again. The fan in the Nichols-Shepard stacker must be under full motion before the straw will go to it, a principle of operation that never permits a clog. Every thresherman who has dug out the tangle



Ready for Use.

IT SAVES
THE FARMER'S THRESH
BILL

which an ordinary stacker makes when suddenly stopped will appreciate this labor-saving device that saves delays.

The fan which operates the stacker stands vertically at the right-hand side of the thresher and is belted directly from the cylinder shaft and runs in roller bearings. This gives ample driving power, with no waste, from one of the strongest parts of the machine.

There is no lagging when heavy work is to be done. The blast is more than ample to carry away all of the straw that can possibly get to the stacker, without clogging under the worst conditions in which it can come. The stacker is working all of the time that the machine is busy and has capacity to dispose of everything that comes its way.

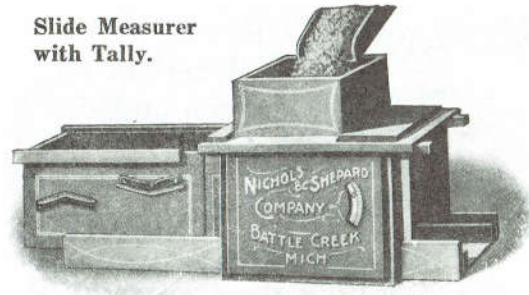
Extra strength is built into the stacker, the same as it is done in every other part of the machine. The galvanized iron of the chute is heavier and its supports and gearing are stronger than other makes provide. Placing and arrangement of all parts is such that there is no interference in putting in or taking out the sieves.

Roller Bearings make it light running.

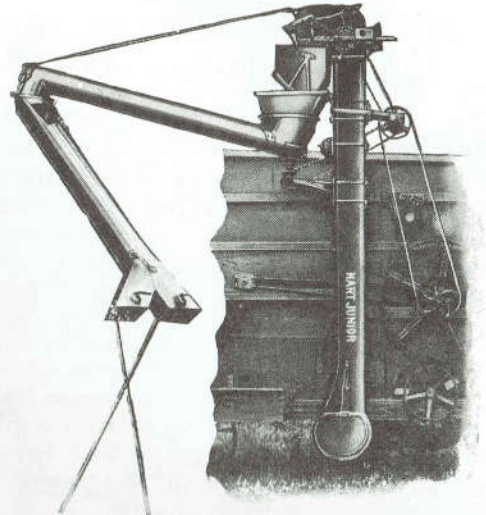
Power consumption is small and very little noise is made when in full operation. This appeals to the thresherman, and many who write to tell us of the good work which the Red River Special is doing for them, particularly mention the wind stacker as being in their opinion the only device of its kind that is fit to run.

Handling improvements have been simplified until any operator can build the best kind of stack. The Nichols & Shepard Gearless Wind Stacker fully bears out every good word that has been said in its favor.

Slide Measurer
with Tally.



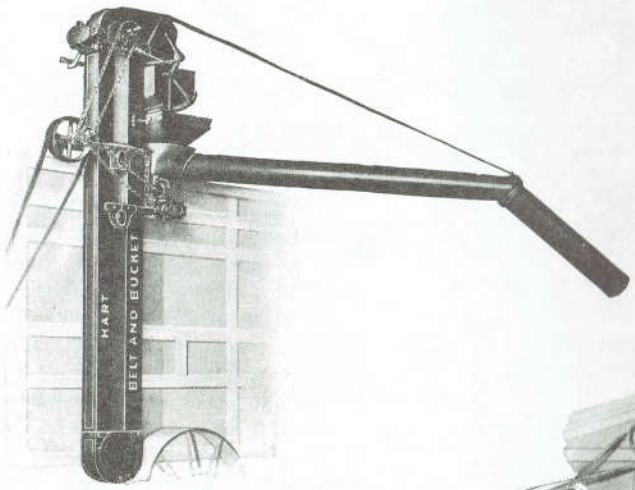
Accurate, Efficient Weighing
and Measuring Devices
for Red River Special
Separators



The Hart Junior Weigher with
Swinging Conveyor and
Bagging Attachment.

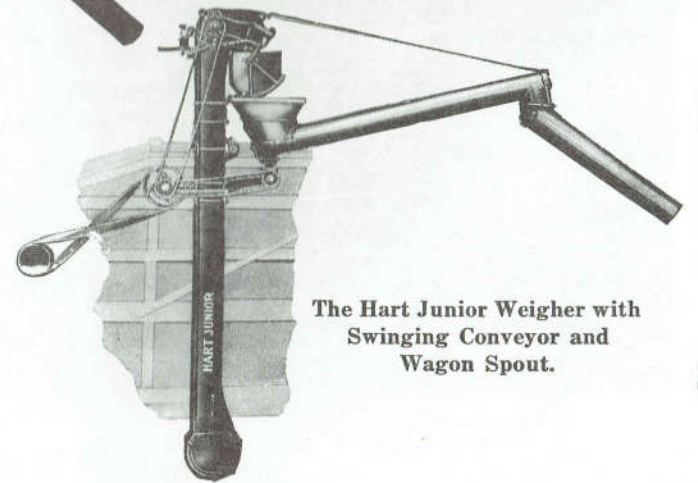


The
Dakota
Perfection
Weigher.



The Hart
Belt and Bucket Weigher with
Swinging Conveyor and
Wagon Spout.

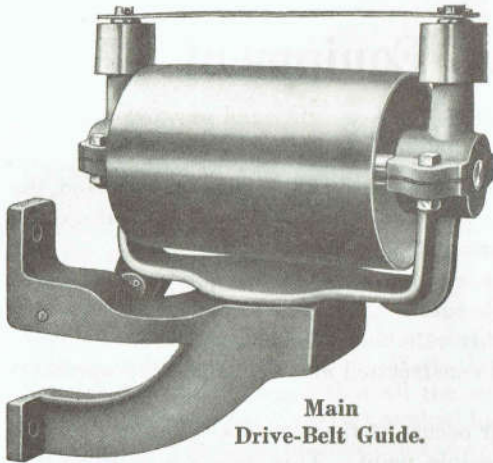
Cross Conveyor Can be Furnished.



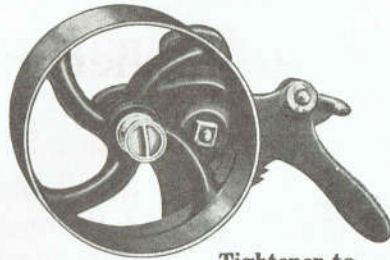
The Hart Junior Weigher with
Swinging Conveyor and
Wagon Spout.

IT SAVES
THE FARMER'S THRESH
BILL

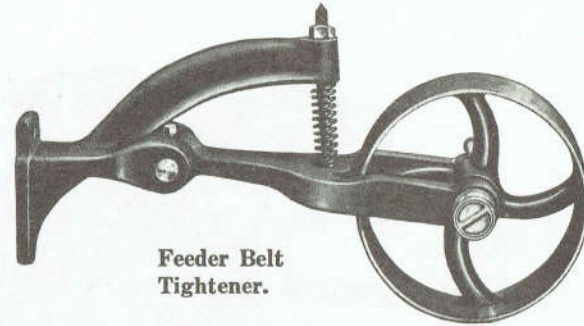
THE
RED RIVER SPECIAL
LINE



Main
Drive-Belt Guide.



Tightener to
Shaker Belt.

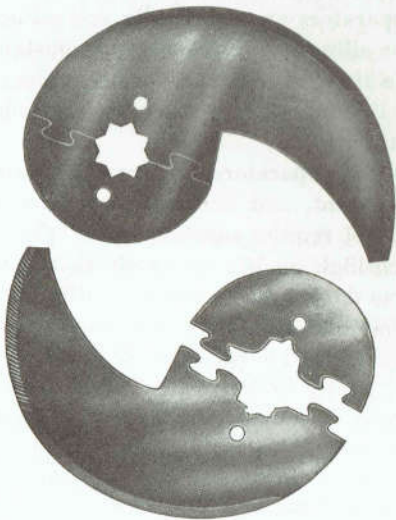


Feeder Belt
Tightener.

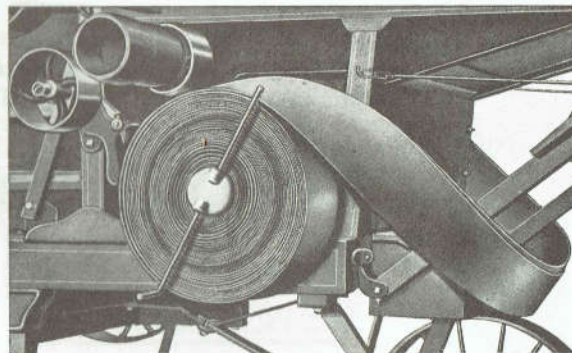
Conveniences Everywhere

Time-Savers, Little and Big,
Are Placed Where They Count in Doing
Fast and Perfect Work

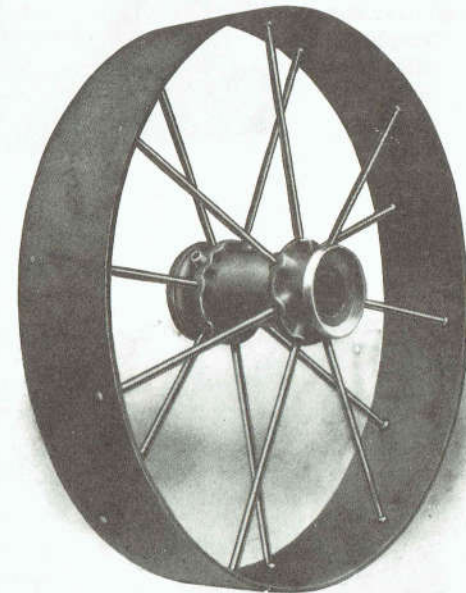
It Will Pay to Have Them



Interlocking Feeder Knives Quickly
Removed and Returned with-
out Removing Shaft.



This Belt Reel Carries the Main Belt.

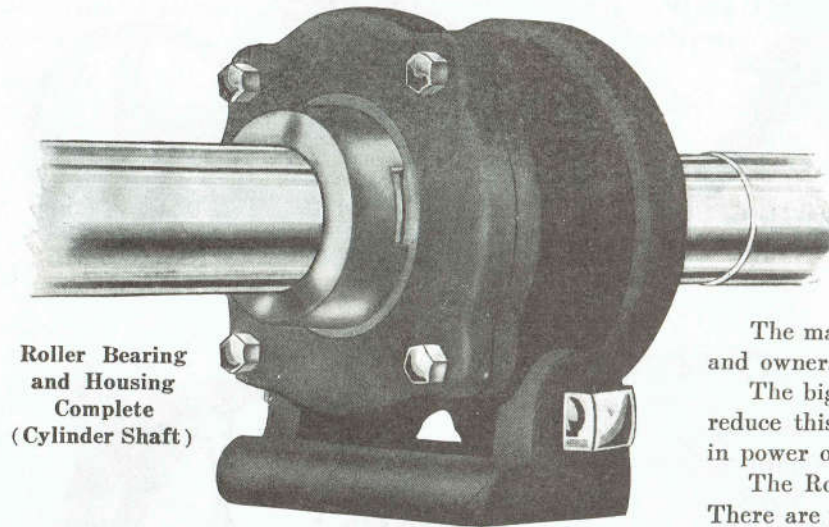


Steel Rim Truck-Wheel Doesn't
Break Down on the Road.

IT SAVES
THE FARMER'S THRESH
BILL

Roller Bearing Equipment

SAVES IN POWER



Roller Bearing
and Housing
Complete
(Cylinder Shaft)

At the points of hardest service—on the cylinder shaft and the wind stacker fan-shaft—all Red River Special separators are equipped with Roller Bearings.

These bearings have been thoroughly tried out on Red River Special machines in all the grain growing sections of the country and proved to be thoroughly reliable and successful.

The many advantages of this improved construction are well known to operators and owners of threshing machinery.

The biggest friction load on a separator occurs at these points. Roller Bearings reduce this friction load to the lowest possible point. This means a great saving in power over the machine equipped with ordinary babbitt boxes.

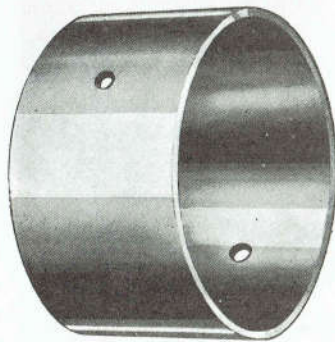
The Roller Bearings on Red River Special separators are practically self-oiling. There are no stops on account of hot boxes or for oiling up, which assures constant operation when every minute means money to the thresherman and farmer.

Roller Bearings make a much smoother and lighter running machine, and add to the general dependability of the threshing outfit.

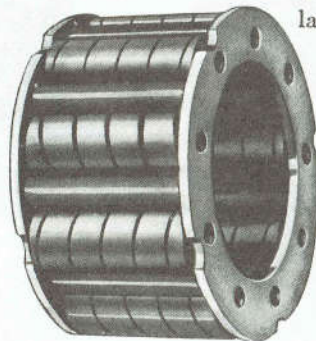
The Roller Bearings used in Red River Special separators are trouble proof. They are self-aligning, simple, require no adjustment, and because they have a large capacity for retaining the lubricant they do not require constant oiling. They are so well constructed and made from such high quality materials that they last the lifetime of the thresher. There is no danger of the rollers cutting the shaft because they roll on a heat-treated and hardened steel inner race.

Roller Bearings are just one of the many money-saving features found on Red River Special separators.

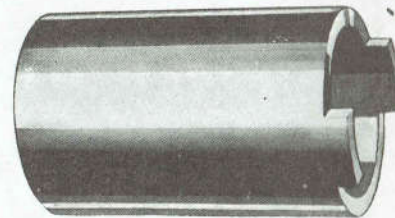
They make money for you by saving your time and power.



OUTER RACE



ROLLER BEARING



INNER RACE

IT SAVES
THE FARMER'S THRESH
BILL

Rice Threshing

Rice-growers have always had a serious problem in the threshing of their crop. The ordinary machine has a particularly hard task in the separation of this grain, as the conditions of its growth have a natural tendency to make it unusually difficult to remove from the straw. The hard and brittle kernel is easily cracked when threshed by the swiftly revolving small cylinder of a common separator. The value of the crop is much lessened by this imperfect work.

Special machinery has always been largely used for rice threshing, the work usually requiring several distinct operations to put the crop in marketable condition. With the first trials of the Red River Special it was discovered that all the work could be combined in this one machine and that a perfect method had at last been found to secure and clean the grain at an expense far below the usual cost.

The beating system of separation which is peculiar to the Red River Special is exactly right for rice. The motion of the Big Cylinder can be slowed to give a thorough thresh to the straw, while the easy control of the concaves permits an adjustment that avoids cracking the seed. The Man Behind the Gun will secure the same

percentage of the crop at the front of the machine and the Beating Shakers prevent the escape of any that may pass the cylinder in the straw.

The Adjustable Chaffer, which controls the flow of grain to the mill, is particularly useful in the handling of rice, its fine regulation insuring that the cleaning will at all times be thorough and complete. The grading from Red River Special Separators is always much higher than can be had from any other type of machine.

Rice-planters throughout the growing regions of Arkansas, the Carolinas, Louisiana and Texas are now insisting upon the use of the Red River Special in preference to all others, and it bids fair to take the same lead in rice threshing that it has secured in the separation and cleaning of the more ordinary grains and seeds. That its work is of unequalled merit many special testimonials from rice-planters go to show, and it will afford the company pleasure to submit them upon application. They will be found even more enthusiastic in commendation of the Red River Special than the many thousands which voluntarily come each year from the growers of standard grain.

Threshing Alfalfa and Small Seeds

The use of a special huller is easily avoided by the owner or user of a Red River Special. He does not have to invest in an extra outfit to do this class of work.

The Big Cylinder, with its grooved teeth and the unusually large concave area which can be so easily added, makes the threshing and hulling of alfalfa, timothy, orchard grass, millet, red-top, flax, etc., so thorough and complete that a regular huller is a useless expense in regions where this class of work represents but a small portion of the crops which must be threshed.

The beating system of separation secures more of the seed than any other known way. The Adjustable Chaffer, with its close control of the blast, will prevent any waste or loss, and the overshot mill will clean all kinds of seeds better than most of the special hullers.

Alfalfa growers everywhere have found that this is so, and many of them prefer the use of a Red River Separator to any other device. The beating principle secures the seeds without the usual large percentage of waste, and the quality of the work is equal to that which is done by hand.

Gravity systems of threshing are more wasteful than ever when applied to light and small seeds. Beating the straw is the only way to get first-class results. The Red River uses no picking or dragging methods, but always beats the straw to release and secure the seeds from any kind of crop. Long experience has proved that beating is the best way to thresh and that nothing is to be gained by attempting to do the work with systems that produce indifferent results in comparison. Attachments for small seed hulling are a paying investment.

Clover-Hulling Attachment

The beating system of the Red River Special will hull clover in a manner that is practically equal to the work of a special clover-hulling machine.

An extra set of concaves, fitted with corrugated teeth of a special pattern, is the important part of this extra outfit. The sieves which are designed for clover seed make separation and cleaning fast and sure.

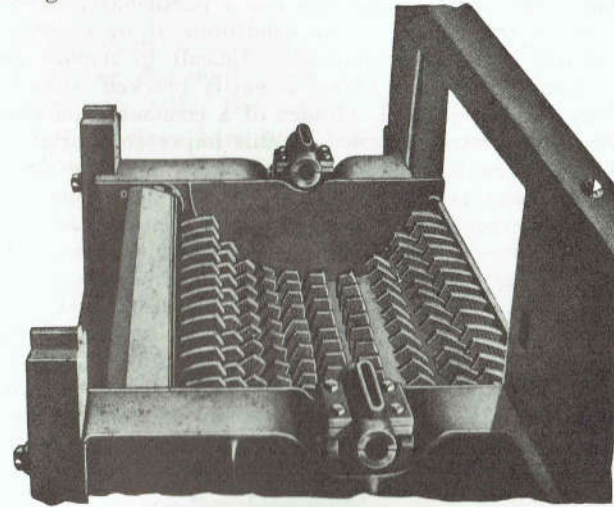
It is not claimed that the Red River Special possesses all of the features of a regular clover huller, even when specially equipped, but it will do the occasional job without the expense of an additional machine and will do it well and thoroughly. The small cost of the extra attachments is next to nothing in comparison with the purchase price of a hulling machine that is built to do this work alone.

With the clover-hulling attachment as a part of his outfit, the thresherman can go out in competition with special machinery and do profitable work for himself and the farmer as well.

The great capacity of the Red River Special enables it to do much more work in a given time than any regular clover huller, and the use of the attachment is becoming very general.

Terms of purchase are so liberal that owners find in its use a profitable means of increasing their revenue from the separator, and are ordering and using more of them each year.

That it is in every way practical is a fact that goes without saying. It is a popular part of Red River Special equipment for increasing the amount of paying work that can be done by the possessor of the only beating machine.



Clover Huller Concave.

Extra Attachments

NICHOLS-SHEPARD GEARLESS WIND STACKERS
COMMON STACKERS, 18 feet long, with Raddle, Canvas Sides,
Rope and Windlass for hoisting.
HART BELT & BUCKET WEIGHERS, with Swinging or
Cross Conveyors
PERFECTION WEIGHERS, DAKOTA STYLE
HART BELT & BUCKET LOADERS
HART JUNIOR WEIGHERS AND LOADERS
CLOVER HULLER ATTACHMENTS
BEAN AND PEA ATTACHMENTS
RICE ATTACHMENTS

BRAKES UPON TRUCK WHEELS
UNIVERSAL SELF-FEEDERS
HAND-FEED PARTS
FEEDER EXTENSIONS, 14- and 20-foot lengths
DRIVE BELTS
CANVAS COVERS
WAGON TANKS
MOUNTED TANKS
TANK PUMPS AND HOSE
LIFTING JACKS

Threshing as a Business

The money that can be made from operating a threshing machine is the chief reason which prompts its purchase. To the buyer this is the most important element that enters into the transaction. He must make money if he is to stay in the business, and to stay in the business he must have a money-making threshing outfit.

The same elements govern in this as in any other occupation, and they should be as carefully weighed before a decision to buy is reached. In making this decision the four great points of successful mechanical production should be well considered, as success or failure lies in them as applied to the selection of his machine. These are, the Cost of Production, the Value of the Work Produced, the Loss through Idle Time and the Expense of Depreciation. With these points settled, his choice becomes automatic; he will naturally buy the machinery that will serve him best and for the longest time.

1. The Cost of Production.—Low cost is dependent upon continuous operation. The ability of the Red River Special to work under any and all conditions when threshing is possible and to keep at it when bad weather and the state of the crops will shut others down, gives sufficient guaranty that running expenses will be low.

While costs are low it is still possible to do the largest amount of work. The only limit to the season's run is the amount of grain to be threshed. Rain or snow do not stop operations, nor does out-of-season work mean poor work—the Red River Special never wastes—weather good or bad.

Crowding does not send the grain to the stack, the cost of production does not rise with the speed at which the separator is driven.

2. The Value of the Work.—This is measured by production capacity. It must follow that the Red River Special, doing more work and better work than another in the same or a less amount of time, has a greater earning capacity. This means profit for the thresherman and also enables the farmer quickly to reach his market.

The profit from his crops may lie in his ability to catch a high market. In order to do this he now demands speed. He knows that his grain is safer when threshed and in storage than it is in the field, and that the real value of the threshing is in having it quickly done.

3. The Cost of Idle Time.—Every unnecessary shut-down while the season is on increases production cost and decreases the value of the work that is done. No money can be made by loafing on the job or waiting for better conditions. Wage expense and interest on the investment are always with you; income alone can help the balance. The Red River Special saves idle time.

Fast threshing and good threshing suit everybody concerned.
Time is money to thresherman and farmer as well.

4. The Expense of Depreciation.—The best machine built can but delay the expense of this item.

The Red River Special fights wear and waste with the Man Behind the Gun, which holds both at bay with hard and lasting service.

The bulk of its work of separation being done by this single part, which has no movement whatever, the wear on working parts is reduced to a degree that is impossible in machines that must be over-driven to produce inferior results.

Nichols & Shepard Company have ever tried to build long-lived machinery. Their records, covering two-thirds of a century, prove that it is a good way to offset the loss by depreciation and the most successful way that has so far been discovered.

Back of this system is their warranty that "with proper management the Red River Special is capable of doing *more* and *better* work than any other machine made of like size and proportions, working under the same conditions and on the same job."

This fact and this challenge no rival has yet disproved.

In those few words you will find the real *business end* of buying or hiring a threshing machine.

SIZES AND DIMENSIONS OF NICHOLS-SHEPARD SEPARATORS (SUBJECT TO CHANGE) WITHOUT NOTICE
WOOD SEPARATORS

	22-36 Jr.	32-52	32-56	36-56	36-60
Cylinder Length	22"	32"	32"	36"	36"
Cylinder Diameter, End of Teeth.....	21"	28"	28"	28"	28"
Cylinder, Average Speed	1065	850	850	850	850
Cylinder Teeth	57	120	120	136	136
Separator Width, Inside	36"	52"	56"	56"	60"
Separator Width over All.....	73"	96"	102"	102"	106"
Separator Length	13' 5"	17' 3"	17' 3"	17' 3"	17' 3"
Separator Add. for Windstacker.....	3' 3"	3' 9"	3' 11"	3' 11"	3' 11"
Separator Add. for Feeder, Folded.....	5' 6"	5' 10"	5' 10"	5' 10"	5' 10"
Separator Height	7' 1"	8' 1"	8' 1"	8' 1"	8' 1"
Concaves and Grates.....	22" x 32"	32" x 45"	32" x 45"	36" x 45"	36" x 45"
Concave Teeth	18 to 54	27 to 135	27 to 135	31 to 155	31 to 155
Chaffer on Grain Pan.....	28" x 28"	44" x 37"	48" x 37"	48" x 37"	52" x 37"
Sieves	31" x 35½"	47" x 46"	51" x 46"	51" x 46"	55" x 46"
Shaker Separator Surface.....	3' x 10' 3"	4' 4" x 13' 3"	4' 8" x 13' 3"	4' 8" x 13' 3"	5' x 13' 3"
Shaker, Average Speed.....	160	160	160	160	160
Wheels	6" x 32"	8" x 38"	10" x 38"	10" x 38"	10" x 38"

STEEL SEPARATORS

	22-36 Jr.	28-46 Jr.	30-52	32-56	36-56	36-60
Cylinder Length	22"	28"	30"	32"	36"	36"
Cylinder Diameter, End of Teeth.....	21"	21"	28"	28"	28"	28"
Cylinder, Average Speed	1065	1065	850	850	850	850
Cylinder Teeth	57	72	112	120	136	136
Separator Width, Inside	36"	46"	52"	56"	56"	60"
Separator Width, over All	6' 2"	7' 1"	8' 2"	8' 7"	8' 7"	8' 11"
Separator Length, Front Post to Rear of Wind Stacker...	16' 6"	16' 6"	21' 5"	21' 5"	21' 5"	21' 5"
Separator Add. for Feeder, Folded	5' 6"	5' 6"	5' 10"	5' 10"	5' 10"	5' 10"
Separator Height	7' 1"	7' 1"	8' 1"	8' 1"	8' 1"	8' 1"
Concaves and Grates ..	22 x 32	28" x 32"	30" x 45"	32" x 45"	36" x 45"	36" x 45"
Concave Teeth	18 to 54	24 to 72	25 to 125	27 to 135	31 to 155	31 to 155
Chaffer on Grain Pan	28 x 28	38" x 28"	44" x 37"	48" x 37"	48" x 37"	52" x 37"
Sieves	31 x 35½	41" x 41¾"	47" x 46"	51" x 46"	51" x 46"	55" x 46"
Shaker Separator Surface	3' x 10' 3"	3' 10" x 10' 3"	4' 4" x 13' 3"	4' 8" x 13' 3"	4' 8" x 13' 3"	5' x 13' 3"
Shaker, Average Speed	160	160	160	160	160	160
Wheels	6 x 32	6" x 32"	8" x 38"	8" x 38"	10" x 38"	10" x 38"

Separators furnished with full set belts, sieves, adjustable chaffer, wrenches, oil can, can of grease, tongue, belt reel, belt guide, grease cups, extra concaves, cylinder and concave teeth without extra charge.

The Nichols-Shepard Double-Cylinder Engine

With heavier work to be done, more power must be furnished with which it may be accomplished. The demands for quick plowing, with gang-plows, the moving of thousands of yards of earth upon grades, the hauling of wagon trains, when tons of heavy material must be carried over dirt roads, have all become common problems of modern working conditions which makers of traction engines are called upon to solve.

The double-cylinder engine has been successfully applied by the Nichols & Shepard Company in doing every variety of these classes of work. Without materially increasing the bulk of the engine or in any way adding to its consumption of fuel and water, they have provided, in the large size which they build, one hundred horse-power that can be used for traction purposes, plowing, threshing, or any of the general work to which a portable steam engine may be adapted.

For many of the purposes named the single-cylinder engine is also used, but the double-cylinder has been found, in most of them, to possess many advantages on account of its steadier power and entire absence of dead center. It is cheaper because the same running expense develops greater energy. There is none of the jerky motion which the best single-cylinder engine will give when overloaded.

There is greater wear and longer life in the double-cylinder. The clutch and the main-shaft pinion are made to balance the band-wheel by placing them upon opposite ends of the shaft. This stops one-sided strain or unequal wear. The clutch pulley is faced for belting and may be used for driving slow-speed work.

The double-cylinder engine, in each size in which it is built, has ample boiler capacity to generate an abundance of steam for all working conditions, but handling facilities are as simple and as easily operated by the engineer as in any engine that is made.

Compactness, convenience and perfect control are of the same type that has made the Nichols & Shepard single-cylinder engines the thresherman's favorite. Platform control is retained for the engineer. The same ideas of strength, economy and reliable operation have been worked out to apply to the double-cylinder, and many of them are substantially improved. It is the ideal engine for steam plowing, because no other draw-bar and hitch can equal the one here built.

In their desire for more profit many makers have removed or have never applied the conveniences that are regularly given at no extra expense with a Nichols-Shepard engine. Quick work cannot be done without these conveniences. Liberality on the part of the maker in providing them makes more money for the user. They guard against the little delays so that more work can be done by those who purchase the machine. Shut-downs to tinker the power make no money for anyone concerned. Time is money where an engine is used—this one saves the time.

The recently adopted practise of rear mounting all engines of the double-cylinder variety has proved another step toward ideal construction.

Distribution of weight is now placed so that every pound of pulling power can be exerted. The faults of other attempts to get the engine back on the boiler have been studied and avoided. Weight is distributed so that guiding and handling may be done as easily as before, with none of the tendency to "buck" that this form has developed in the hands of less skilled designers. The gear train is direct with the elimination of the extra power required to drive the intermediate; countershaft and driving axle are both of massively heavy, solid steel, and construction as a whole has been improved upon the well-known standards of the Nichols & Shepard Company, long recognized as the best in the field.

The double-cylinder can be had in three sizes:—

16-60 H. P., burning either coal, wood or straw.

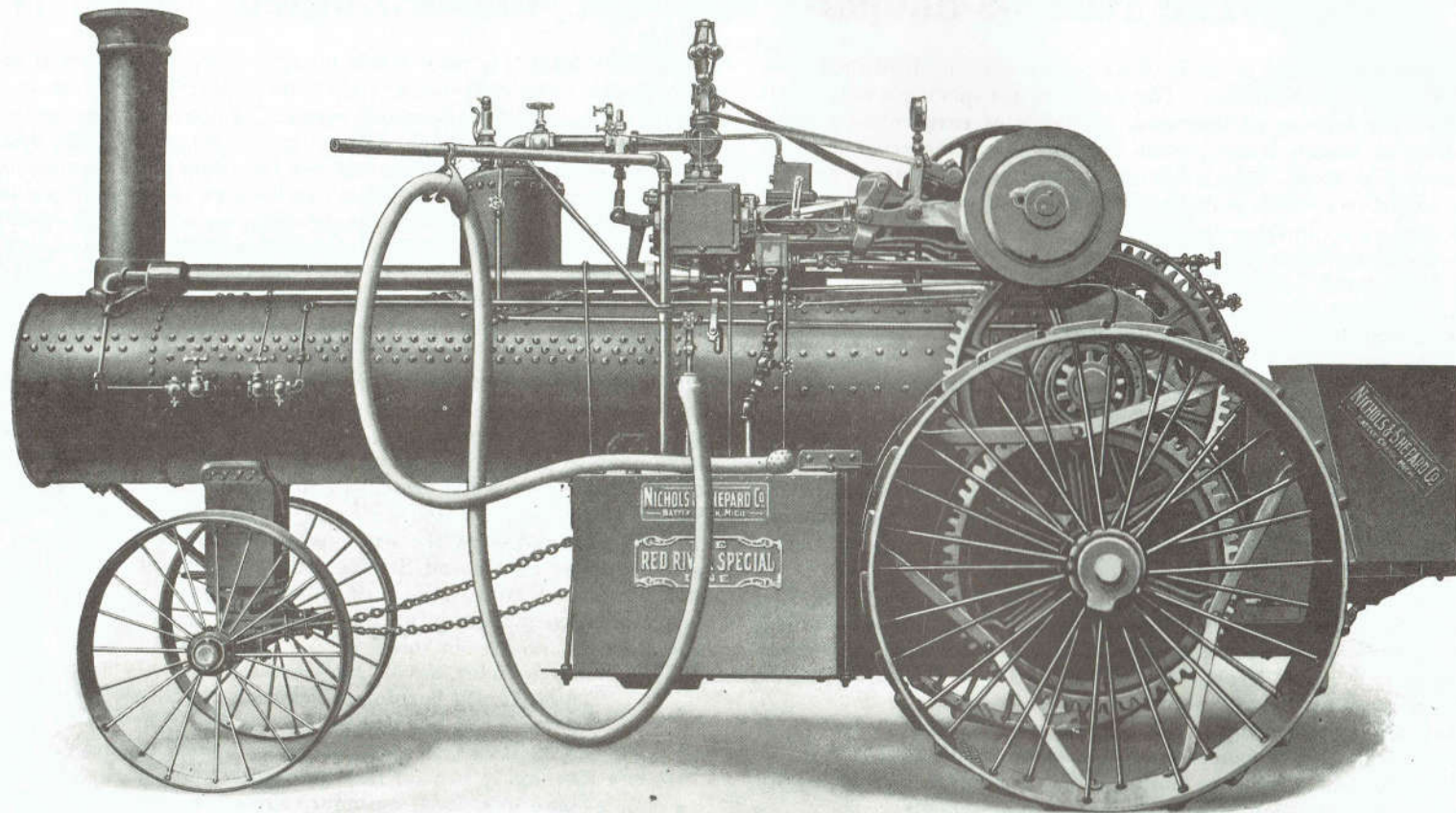
20-75 H. P., burning either coal, wood or straw.

25-90 H. P., burning either coal, wood or straw.

It is a thoroughly proved fact that while more parts are employed in a double- than in a single-cylinder engine, the wear is so much more distributed that the same or even less attention is required to keep it in perfect adjustment.

Experienced judgment generally dictates the purchase of this type of engine where heavy work of a miscellaneous character is to be done, and practical use has demonstrated that there is no work where a tractor is employed that this heavy and solid engine cannot readily accomplish.

THE
RED RIVER SPECIAL
LINE



NICHOLS-SHEPARD DOUBLE-CYLINDER, REAR-MOUNTED PLOW ENGINE, 16-60, 20-75 H. P. and 25-90 H. P. (Gear Side).
Every Convenience—Note Arrangement for Taking Water on the Move.

IT SAVES
THE FARMER'S THRESH
BILL

An Absolutely Reliable Engine

What the Boiler Must Be

The first step in the making of a dependable traction engine is to be sure that the boiler is right. This must be certain or all else will fail—it is the rock foundation upon which a safe structure may be built.

Working, as it must, under conditions that are often hazardous when the slightest factor of safety is omitted, no purchaser of a farm or traction engine should for a moment consider anything but the best that can be produced.

There is but one unfailing way in which this may be secured and that is by buying where nothing but the best has ever been produced or offered for sale.

The Nichols & Shepard Company is one of the few manufacturers of traction engines whose boilers have never been questioned. Quality, strength and productive long life are all well known as being the features that distinguish their outfits. Years of good work in per-

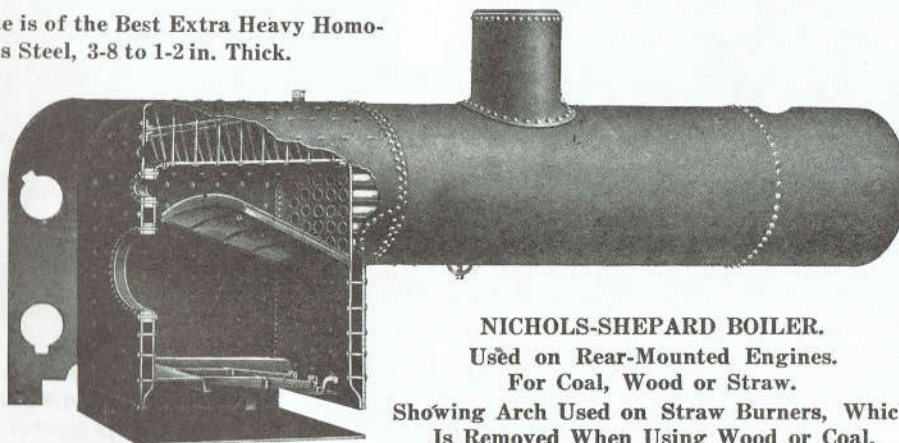
forming every possible service for which a traction engine may be used, have shown that they never slight or overlook a single item that will produce the best results in the making or use of steam.

It is easy to understand why this is so. Everything in the boiler, from plate to finish, must meet or surpass the highest standard tests. No doubt is permitted. If material or workmanship fails in any particular, the defect must be removed or the boiler must be discarded from use. It must not possess a single-known blemish when it is sold. There is too much dependent upon it to take any chances by slighting the job.

Homogeneous boiler-steel is used for the plates. The flue-sheet is double-thick. Double or triple lines of rivets will be found at every point of greatest strain. The thickness of outside sheets is increased at the fire-box so that brackets can be securely bolted with no chance for a leak. Thick sheets do not spring; more threading can be given to

The Boiler-Plate is of the Best Extra Heavy Homogeneous Steel, 3-8 to 1-2 in. Thick.

Long Life and Easy Steaming
Make the
Nichols-Shepard the Favorite Among
Threshermen



Fire-Box Extra Large.

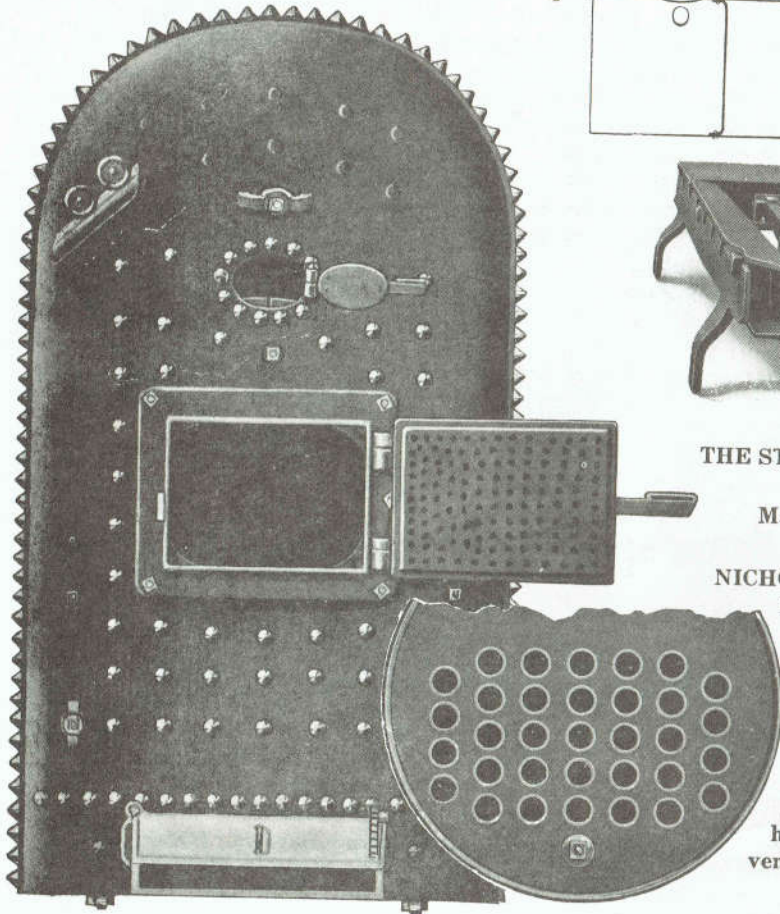
NICHOLS-SHEPARD BOILER.
Used on Rear-Mounted Engines.
For Coal, Wood or Straw.
Showing Arch Used on Straw Burners, Which
Is Removed When Using Wood or Coal.

IT SAVES
THE FARMER'S THRESH
BILL

**THE
RED RIVER SPECIAL
LINE**

bolts and a tighter fit given to the engine so that it does not work loose or out of line. Boiler openings are oval in shape and reinforced with heavy wrought-iron rings to prevent the possibility of cracking the sheet which square corners invite. Massive stay-bolts are placed at every point that caution can suggest.

Strength and power are everywhere present in material, while manufacture is guarded by precautions that have never yet been known to fail. Nothing but the best kind of a boiler can result from all of this care, so nothing else is made or used here, thus insuring an engine of unquestionable dependability.

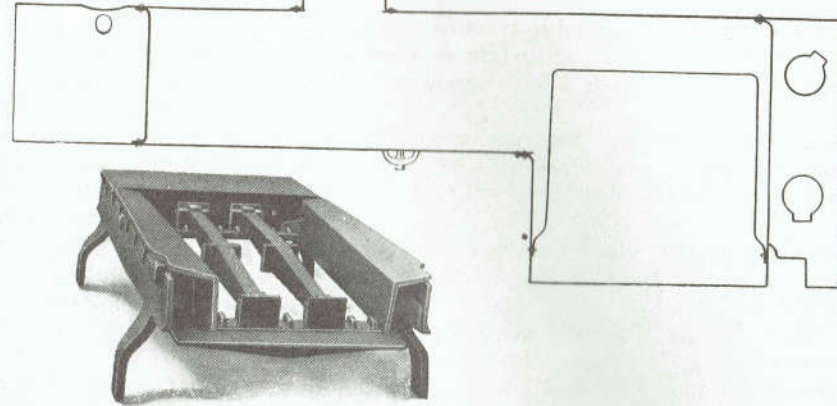


**THE STRAW-BURNING
GRATE.**

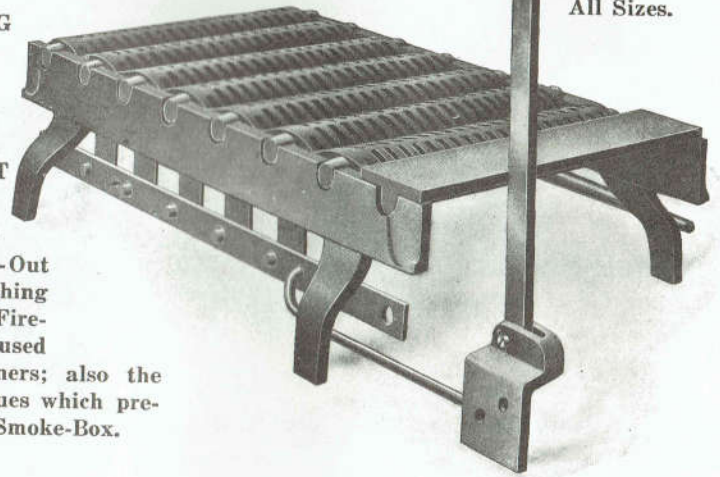
Makes a Quick,
Hot Fire.

**NICHOLS-SHEPARD
BOILER FRONT
AND
FLUE ENDS.**

Note Clean-Out
Door for Reaching
the Top of Fire-
Brick when used
as Straw-Burners; also the
heavily rolled flues which pre-
vent leaks in the Smoke-Box.



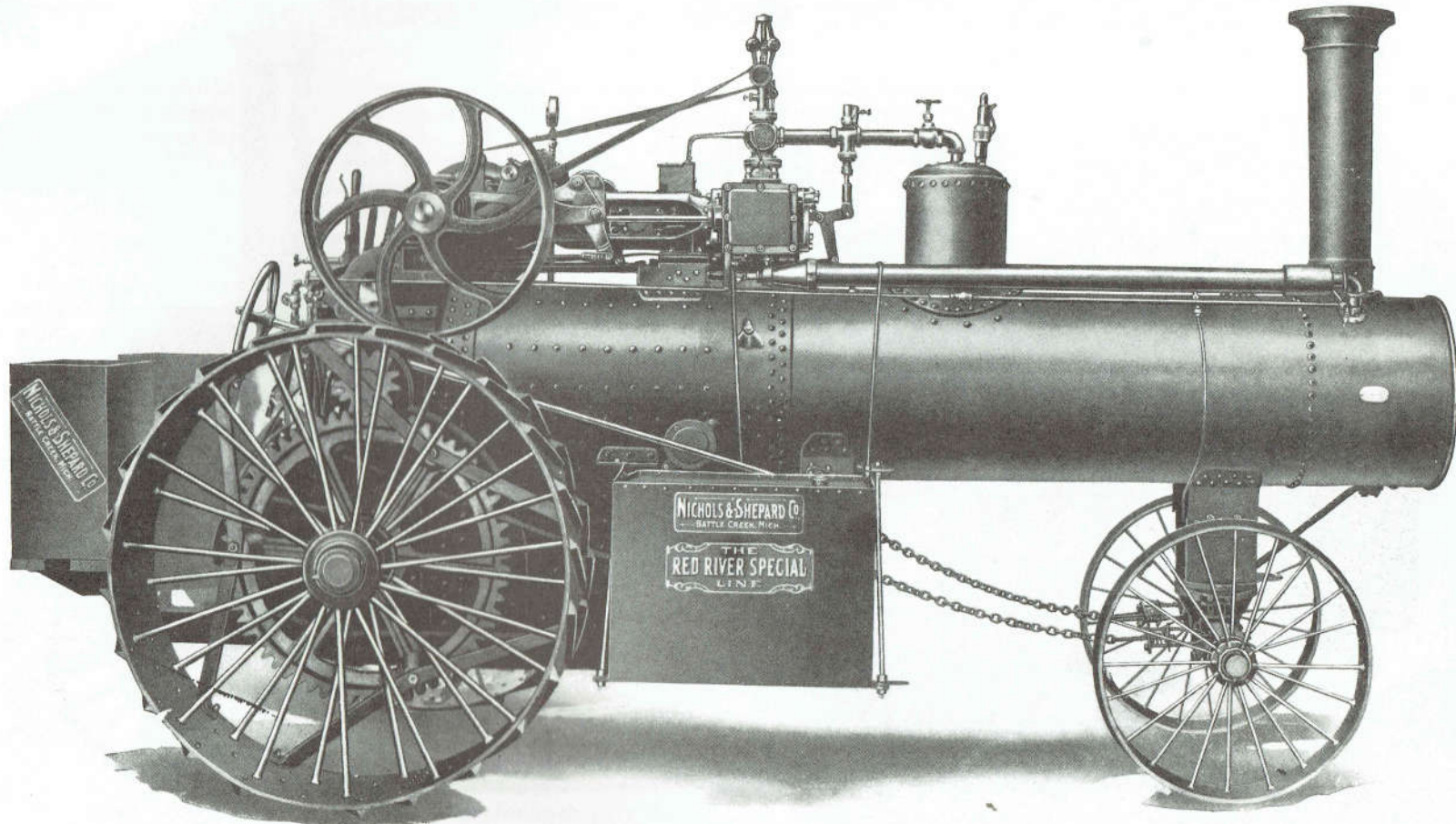
**Diagram Showing
Boiler and Fire-Box
Construction.**



**SHAKING
GRATES.
Used for Coal.
All Sizes.**

**IT SAVES
THE FARMER'S THRESH
BILL**

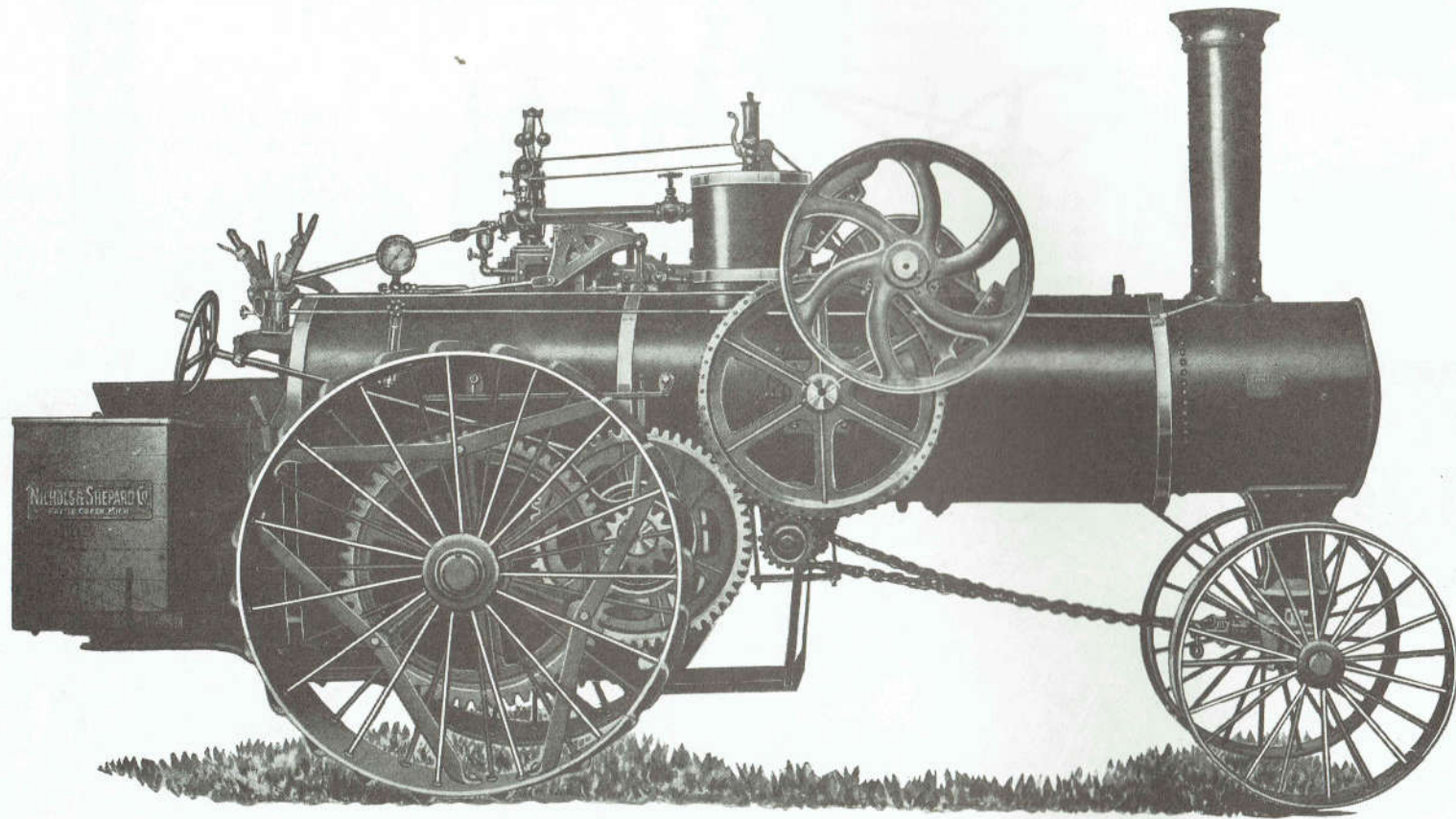
THE
RED RIVER SPECIAL
LINE



NICHOLS-SHEPARD DOUBLE-CYLINDER, REAR-MOUNTED PLOW ENGINE, 16-60 H. P., 20-75 H. P. and 25-90 H. P. (Fly-Wheel Side).
Rear-Mounted Engines Are Fastened to the Boiler by the Use of Heavy Steel Flanges Securely Riveted to the Boiler.
No Bolts Go into Steam or Water Space.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE



NICHOLS-SHEPARD SINGLE-CYLINDER TRACTION ENGINE (Gear Side)—Jacketed.

Built in Three Sizes, viz.: 16-50 H. P., 20-70 H. P., 25-85 H. P.
20-70 H. P. and 25-85 H. P. Adapted to Coal, Wood or Straw.

IT SAVES
THE FARMER'S THRESH
BILL

The Nichols-Shepard Farm and Traction Engine

It has been shown that the boiler must be but one quality, and that the best, for the engine which the Nichols & Shepard Company build and sell as a part of their threshing outfit.

The engine, if it is to do the work for which it is designed, must be constructed under equally rigid tests. No doubtful material or no poor work must ever be passed, for the engine must be in keeping with the machinery which it is intended to drive, and render many years of hard and faithful service to the purchaser.

These rigid tests are applied. The Nichols & Shepard Company know, and the buyer of their engine will know when his engine goes in service, that no feature that will produce the last rated ounce of power is lacking or is of any other quality than the best that is known for the purpose for which it is intended.

This condition is never found where slipshod methods of construction are tolerated—quality, like character, has a standard, and the standard that Nichols & Shepard and their successors since 1848 have maintained, is the highest type that money and brains can produce. The name of this company in the threshing world has always been better than many a written guaranty from concerns of less repute. The engine that it builds is in every way worthy of its name.

With strength and durability no convenience is neglected. The man upon the platform has control right under his hand. No accident can occur through lack of facilities to prevent it, if the engineer is on the job.

The heavy fire-box is large. It is provided, at no extra cost, with an easily operated shaking grate that keeps the fire clean and lively. Capacity is ample to make steam and plenty of it at all times. There is always enough for emergency calls when overload is necessary for a short time.

Steel of the best quality is everywhere used for each part that is under heavy duty. The wheels are steel; the platform and draw-bar are steel; the main and countershafts are cold-rolled steel of a selected quality that has proved to be better than the varieties ordinarily used. Weight is added, strength is added; boxes are large and perfectly

adjusted; lubrication is thorough and automatic at every portion of the main drive.

While the prediction has been made that the introduction of the gas tractor would banish the single-cylinder steam engine from farm work, it has not, as yet, been realized.

This company is yet furnishing hundreds of single engines each year to customers who will consider no other kind. This fact is scarcely remarkable when its long-established reputation for good work is remembered. The N. & S. engine of the single-cylinder variety, as made for the last thirty years, is everywhere known as one that seldom breaks and never wears out when properly cared for. Many of the oldest ones are yet in use and doing dependable and profitable work for the people who own them.

It has made friends who stand by it, and friends who would feel lost were they to try to do business with any of the more modern types. For this reason the old reliable single-cylinder engine is regularly built and furnished in all sizes. It is practically impossible to discontinue it.

The lubricator, the injector and the speeder for the governor can all be reached and operated by the engineer without leaving the platform. The steam-gage and water-gage glasses are so placed as to be plainly visible from the platform or the ground.

Convenience, with absolute safety, is the main feature of operating control. Nothing that can help secure them has been neglected, cheapened or placed where it is not in reach when needed.

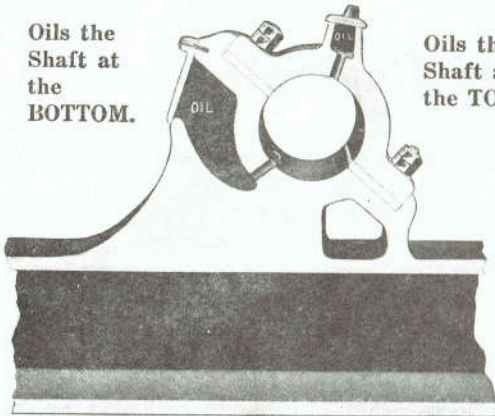
Reserve power on the capacities at which the engines are rated, is always to be had. Three times the nominal power is developed under brake test before the engine is permitted to leave the factory.

Nichols & Shepard Company engines are never stalled by any reasonable demand for work in the field. They are built for service, and will give it when other makes of the same rating will "lay down" on the job.

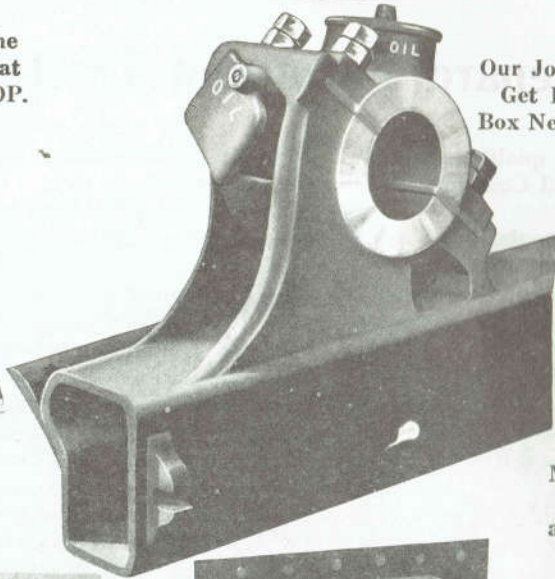
Here you secure the financial value of the real worth that is built into the machine.

THE
RED RIVER SPECIAL
LINE

Oils the
Shaft at
the
BOTTOM.

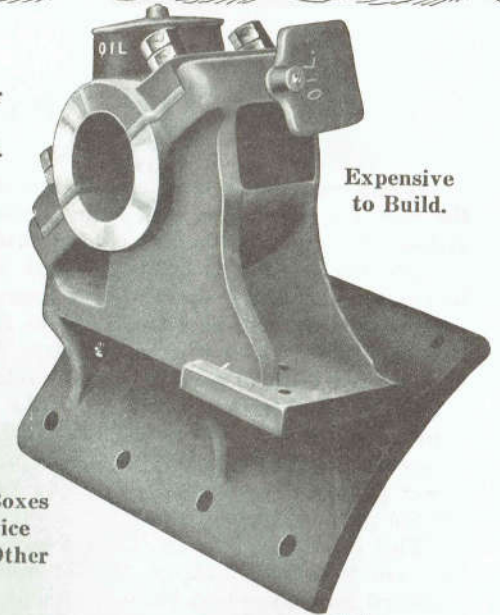


Oils the
Shaft at
the TOP.



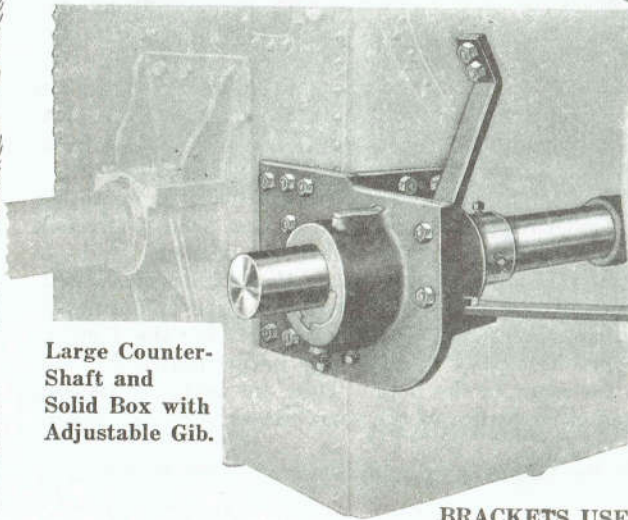
Our Journals Never
Get Dry or Cut.
Box Never Gets Hot.

Expensive
to Build.



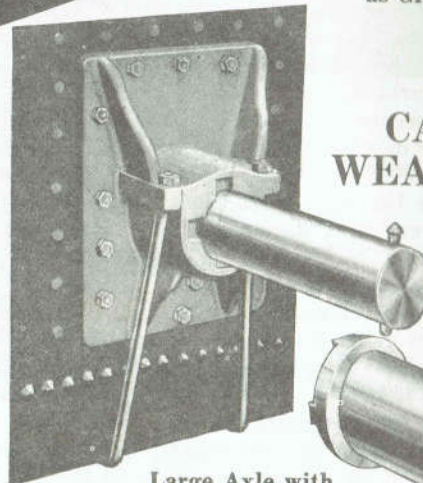
The Massive Main-Shaft Always
Runs in Oil.

Main-Shaft Boxes
Bearing Twice
as Great as Other
Makes.



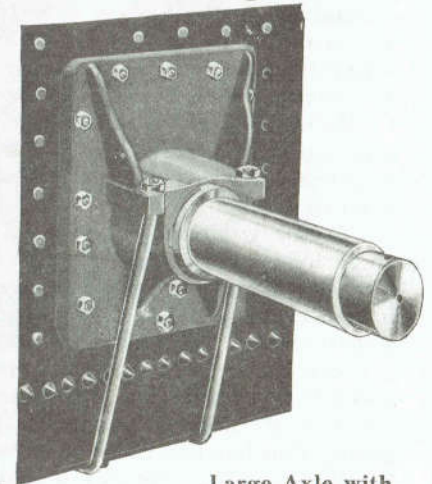
Large Counter-
Shaft and
Solid Box with
Adjustable Gib.

CAN'T
WEAR OUT



Large Axle with
Sleeve OFF.

Sleeve.



Large Axle with
Sleeve ON.

BRACKETS USED ON NICHOLS-SHEPARD SINGLE-CYLINDER ENGINES.

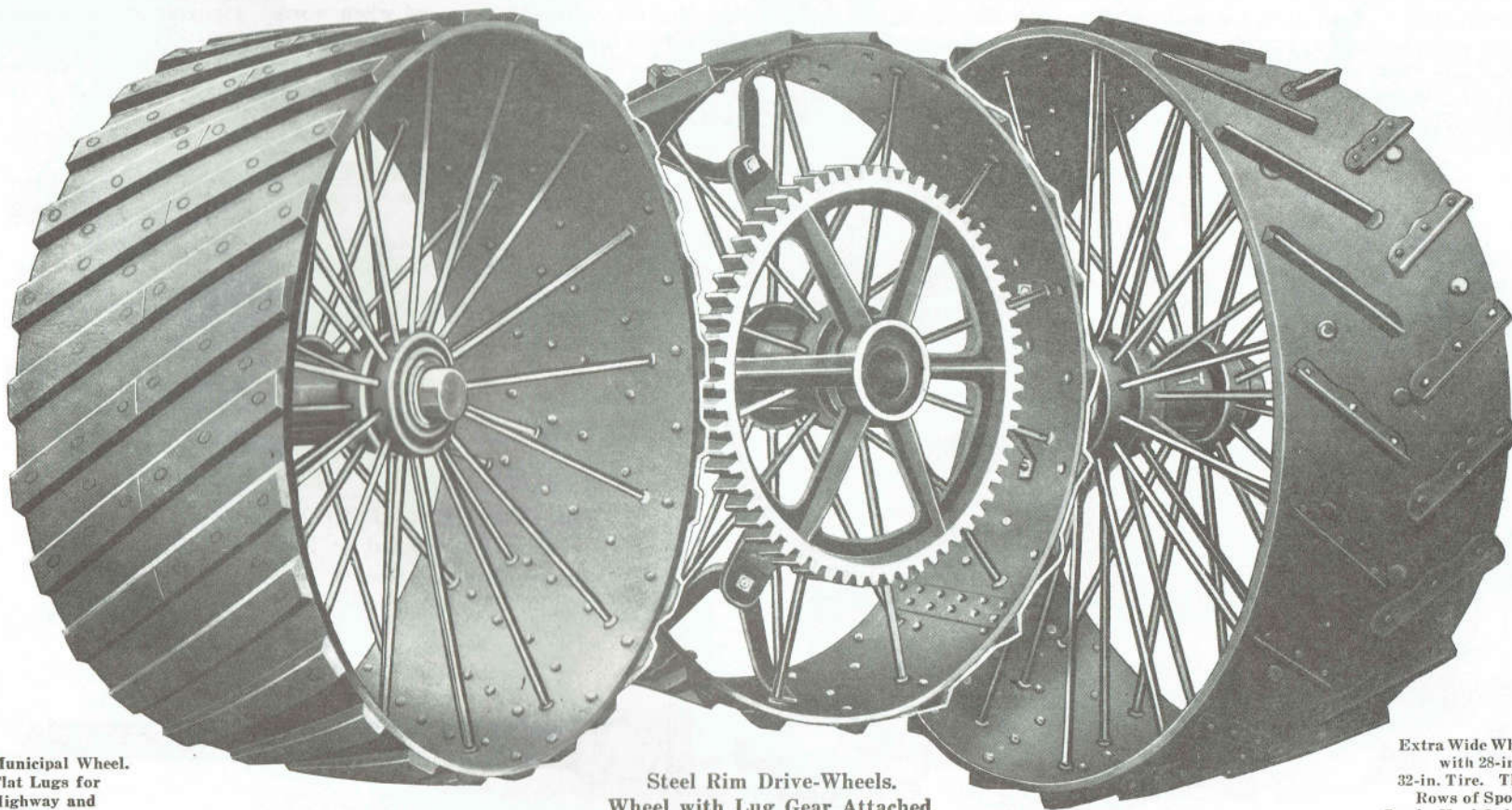
IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

Steel Rim Drive-Wheels—the Strongest Made

Some makers of traction engines must believe that there is no such thing as a bad road. Some purchasers of light-wheeled engines know better, because they have been stopped in getting to a profitable job

which was on a bad road where the cheaply constructed drive-wheels of their engine would not take them when the work was waiting and the customer fretting over delay.



Municipal Wheel.
Flat Lugs for
Highway and
City Use.

Steel Rim Drive-Wheels.
Wheel with Lug Gear Attached.

Extra Wide Wheel,
with 28-in. or
32-in. Tire. Three
Rows of Spokes.
Can be Used Only on
25-85 H. P. and 25-90 H. P.

IT SAVES
THE FARMER'S THRESH
BILL

**THE
RED RIVER SPECIAL
LINE**

A big threshing outfit on a muddy or sandy road can use up a lot of costly energy when it gets stuck. With the right kind of drive-wheel on the tractor it need not get stuck or stop to dig out. The engine will keep traveling and bring along the rest of the rig.

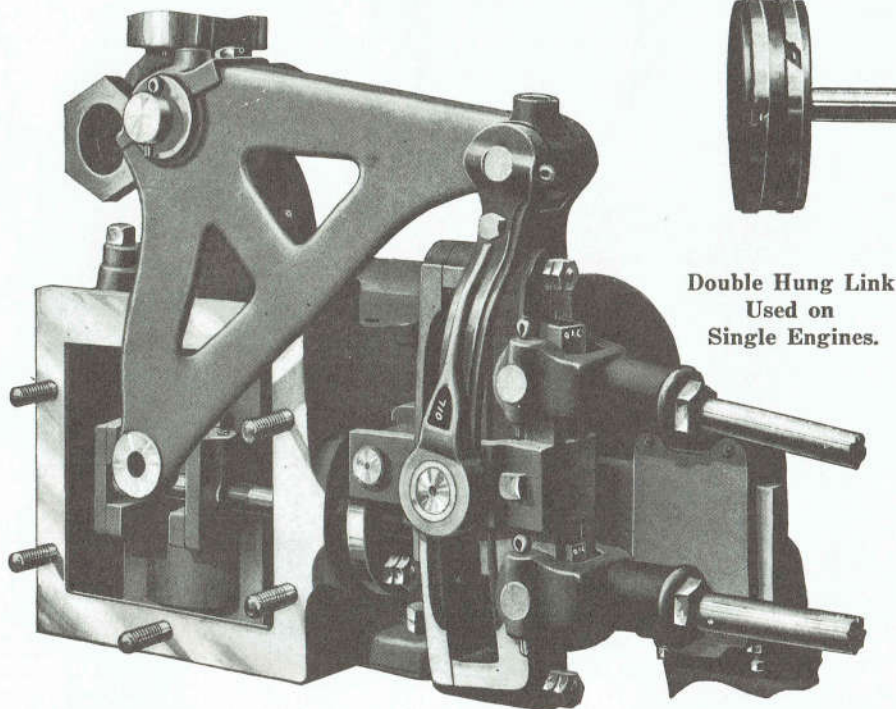
The Nichols & Shepard Company engines have drive-wheels that are made to do this work on anything that resembles a road. They are wide, high, heavy and strong. Power is applied to the rim through the lug gear instead of to the hub and the wheel has got to move.

The wide tires are made from steel. The spokes are hot-riveted into the rims and beaded heavily on the outside. An expanded shoulder is brought firmly against the inside of the rim by this operation. The hub is of heavy iron. The spokes with enlarged ends are

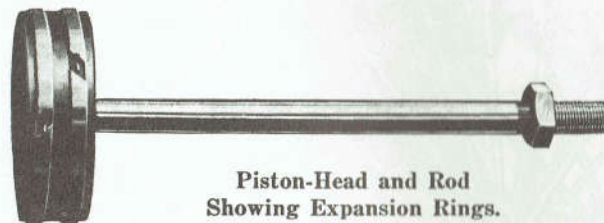
set in the mold and the hub is cast around them. This welds them to place at the center. They can never come out or push in, even should they be loose.

In comparison with the usually used built-up wheel the Nichols-Shepard wheel will be found indestructible. It is one of the features of construction that never gives trouble; it has the strength necessary to take the engine anywhere that its power can propel it.

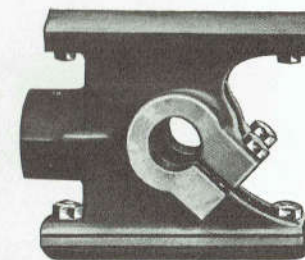
Mud-cleats can be replaced when worn. The rest of the wheel is there to stay until the engine is through working. The axle bearings can't wear out. The axle sleeve is removable and when it begins to show wear can be turned to get a new surface. There are few owners who ever call for renewals.



**Double Hung Link
Used on
Single Engines.**



**Piston-Head and Rod
Showing Expansion Rings.**



Cross-Head.

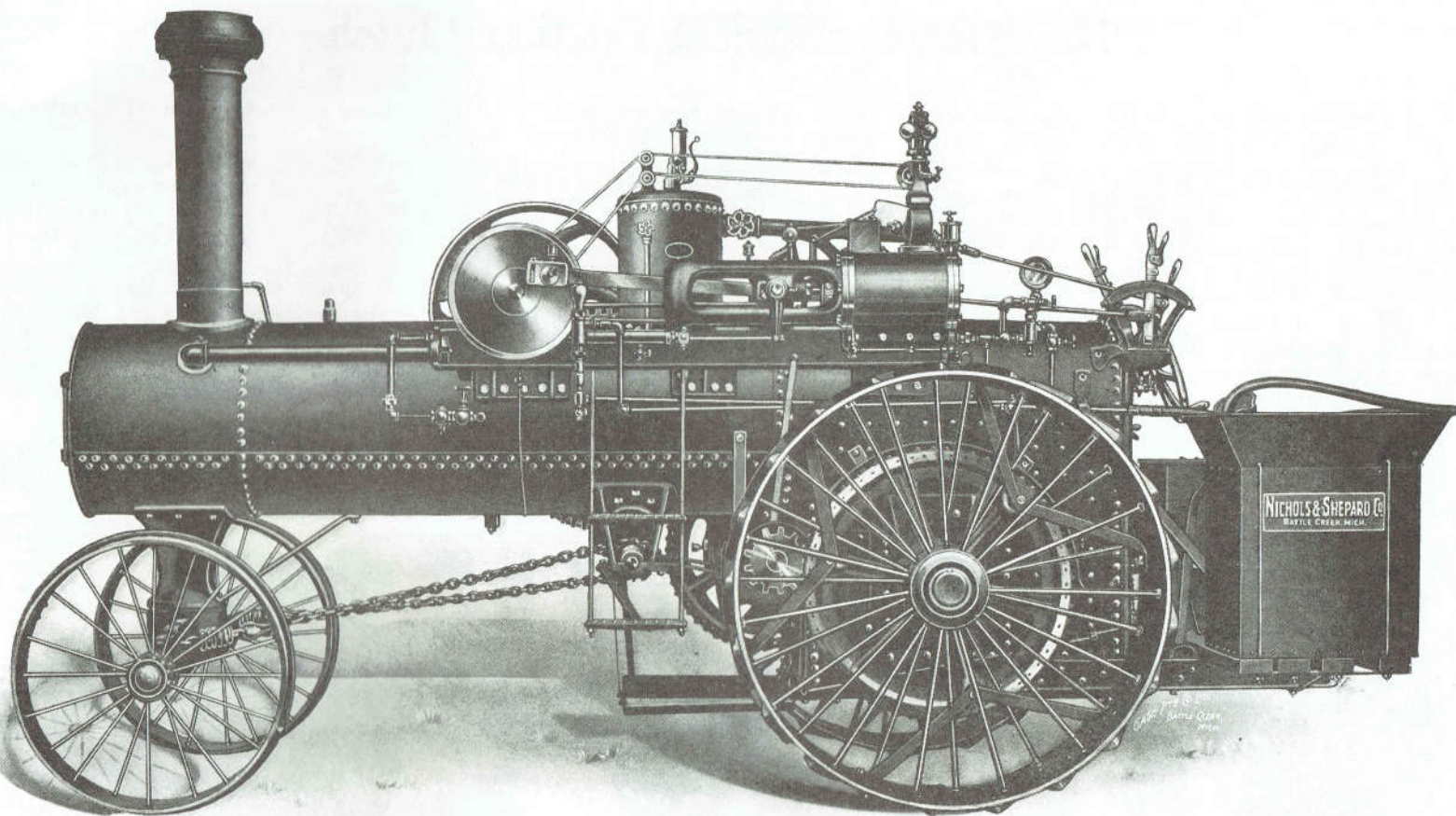
Good Material and Most Excellent Construction are Found in Every Part of the Nichols-Shepard Steam Traction Engines.



Connecting Rod.

**IT SAVES
THE FARMER'S THRESH
BILL**

THE
RED RIVER SPECIAL
LINE



NICHOLS-SHEPARD SINGLE-CYLINDER TRACTION ENGINE (Engine Side).

Built in Three Sizes: 16-50 H. P., 20-70 H. P. and 25-85 H. P.

20-70 H. P. and 25-85 H. P. Adapted to Coal, Wood or Straw.

IT SAVES
THE FARMER'S THRESH
BILL

The Nichols-Shepard Friction Clutch

As the traction power which the engine develops is transmitted to the work through the medium of the friction clutch, a poor or weak design of this part means constant expense and waste of energy.

The Nichols & Shepard Company have spent much time and thought upon the improvement of the clutch which they use upon their engine and they now believe that they have the safest, strongest and most reliable device that is known for the purpose for which it is intended, and one which possesses every desirable feature that is of use.

Its grip upon the band-wheel, when fully engaged, is equal to that of a solid connection and it conveys to the gearing all of the power that is produced by the engine.

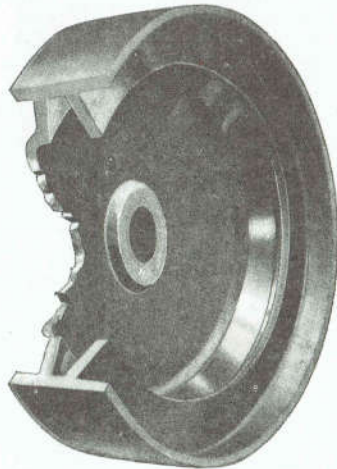
It is engaged and disengaged with ease and certainty and when

kept in proper working condition will not fail in its operation under any condition of work.

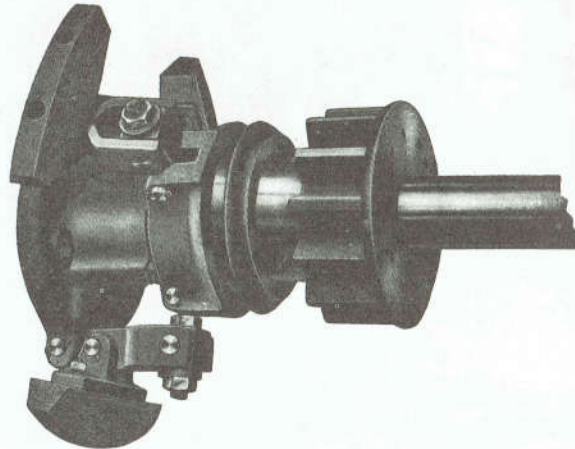
As the illustrations show, it is easily accessible for examination or adjustment, a convenience that is appreciated by every user of the engine who makes a point of keeping his power plant at its best. No form of construction that will in any way interfere with doing so is permitted.

The small clutch pulley, which is used to balance the main-shaft and band-wheel on double-cylinder engines, is faced for carrying a main belt. It makes a fine drive for slow-speed work without in any way changing the adjustments of the engine and does much to reduce unequal wear.

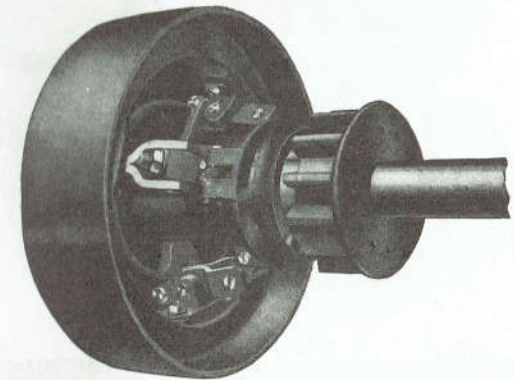
SAFE.



DEPENDABLE.



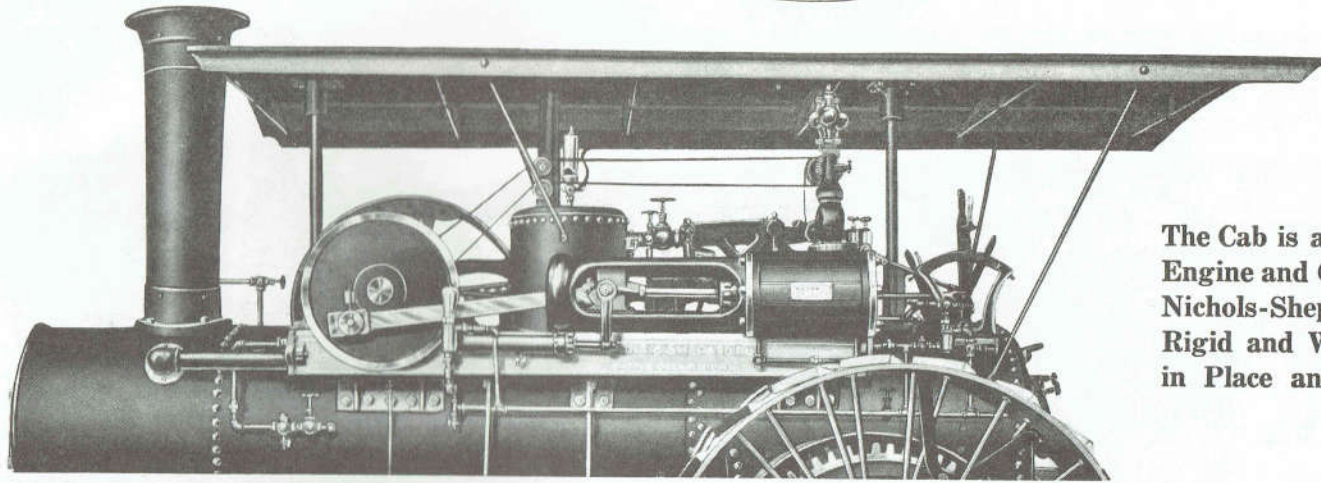
SURE.



Nichols-Shepard Friction Clutch for Double-Cylinder Engines.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE



The Cab is a Great Protection to Engine and Operator Alike. The Nichols-Shepard Cab is Strong, Rigid and Well Built. It Keeps in Place and Holds Its Shape.

The Steel Platform and Draw-Bar

The platform support in Nichols-Shepard Engines is steel of the I-beam or structural type, the strongest and most rigid that is known, and it is used upon every engine that the Nichols & Shepard Company build. Single pieces are bent to shape where practicable and all bolting for attaching is made below the water-line of the boiler. No leaks can come where the platform is fastened to the shell.

Heavy braces keep the platform in position. There is no sagging when tanks and coal bunkers are fully loaded and the engineer is in place to drive.

On double-cylinder engines provided with plow hitch, strength and bracing are both increased. No stronger construction can be devised

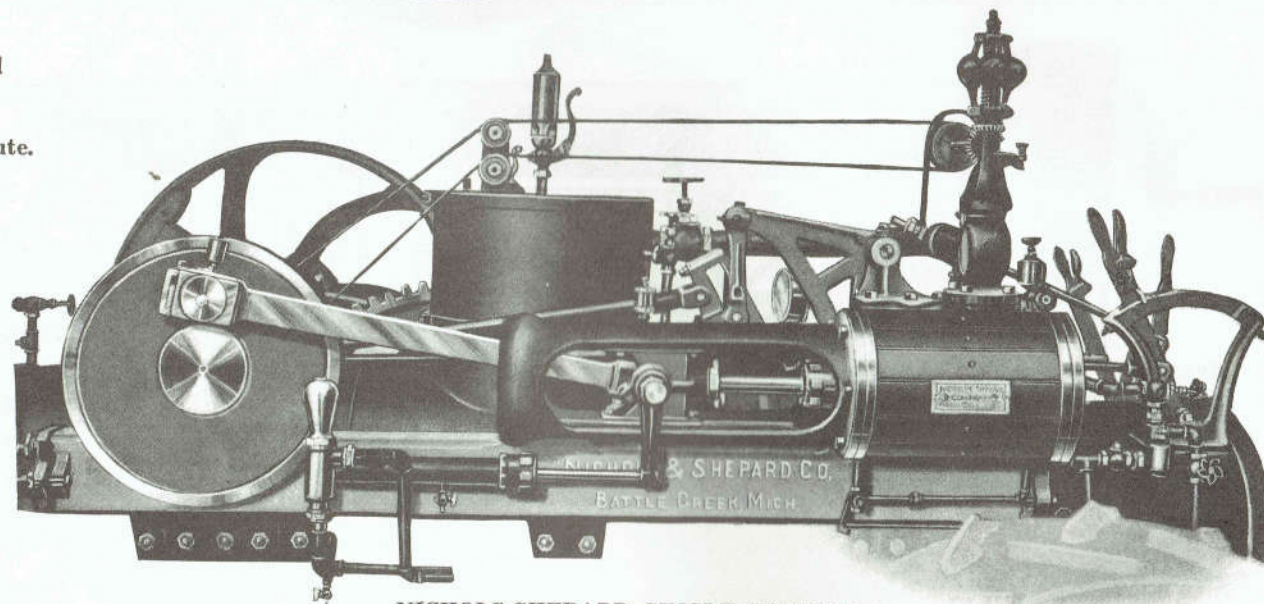
than that which is here furnished without making it clumsy and unwieldy when the engine is at work.

Any number of plows that can be pulled by the engine may be attached and used with no fear of breaking the plow hitch. Soil that is free from rocks or other obstructions that the plows cannot turn can be worked with an economy that no light traction rig can equal. The engine has strength to spare; the plow hitch will not fail when it is desirable to use all of the power that the engine can produce. The modern farmer who wishes to do work on a scale that will yield big returns for his efforts will find that no part of a Nichols & Shepard outfit will ever disappoint him, and that the platform and draw-bar of his engine is one of its best conveniences.

IT SAVES
THE FARMER'S THRESH
BILL

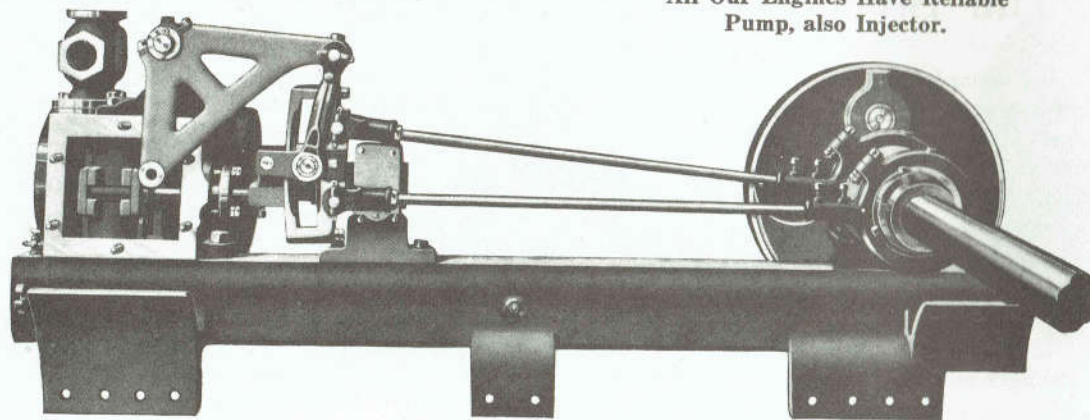
THE
RED RIVER SPECIAL
LINE

Governor
Can be Adjusted
to Run Engine
100 to 300 Revo-
lutions per Minute.



NICHOLS-SHEPARD SINGLE-CYLINDER
ENGINE AND BED.

All Our Engines Have Reliable
Pump, also Injector.



Link and Valve Connection in
the Above Engine.

IT SAVES
THE FARMER'S THRESH
BILL

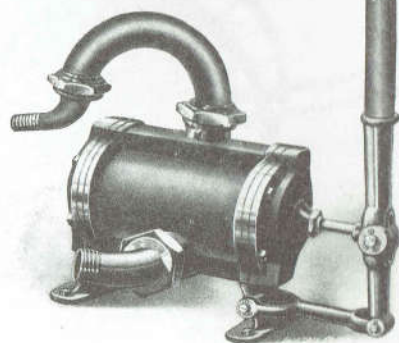
THE
RED RIVER SPECIAL
LINE

**Strength in Essentials
Convenience in Accessories**

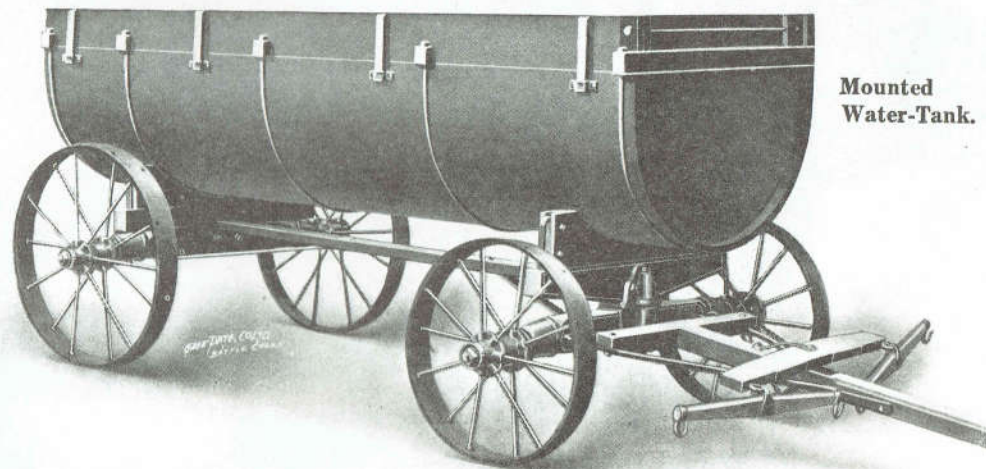
**Long Life, Lasting Activity,
Economical Up-Keep**



Spur Differential Gear
Used on All Engines.



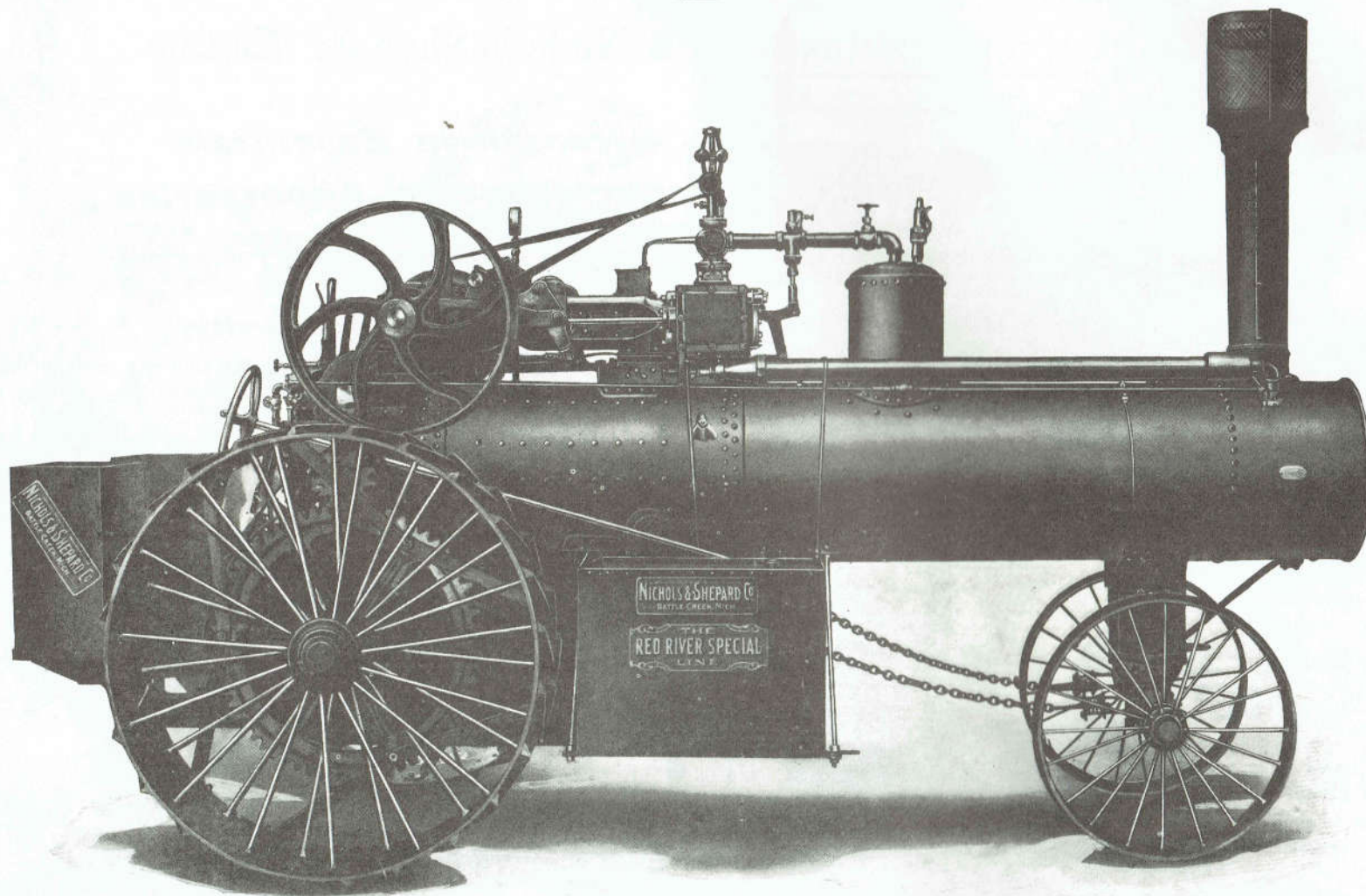
Low-Down
Tank Pump.



Mounted
Water-Tank.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE



NICHOLS-SHEPARD REAR-MOUNTED STRAW BURNER, 16-60 H. P., 20-75 H. P. AND 25-90 H. P. (Fly-Wheel Side).

IT SAVES
THE FARMER'S THRESH
BILL

Some of the Advantages of a Nichols-Shepard Engine

That the many advantages secured in the purchase and use of a Nichols-Shepard traction engine may be seen at a glance, they are briefly brought together upon this page.

The real value of an engine lies in the work that it will perform after the newness is gone. You don't buy one every season. You must, if you buy wisely, buy dependable long life. Money saved in the purchase price is soon lost in the upkeep and repairs which a second-rate engine requires.

With this understood, we invite the most careful consideration of the following items, which clearly show the main points of superiority possessed by a Nichols-Shepard engine:

The Boiler.—High pressure, homogeneous steel-plate, selected stock, extra thick and extra strong, is employed in every boiler that carries a Nichols & Shepard Co. engine. The safety and working life of the power plant are dependent upon the superior quality of the boiler—a fact never forgotten or overlooked in the construction of any type of engine that is a part of the Red River Special Line.

The flue-sheet is half an inch thick.

The flues are seamless steel and extra long.

The fire-box is extra large, insuring easy steaming.

Long smoke-box to aid draft and catch the sparks.

Shaking grates in the fire-box for burning coal.

Double- or triple-riveted seams where the greatest strain comes. Amply stayed by numerous large stay bolts.

Steel-plate on the bottom of the fire-box in place of the pan used in other makes.

The Engine.—The link is made with oil boxes which can be filled with cotton waste so the movement of the link does not throw the oil off the bearings.

The principal bearings are bushed so that when worn they can be cheaply replaced.

The eccentric hubs and valve-rods are pinned in their true position, where they cannot get out of place or slip and throw the valve out of position.

The main-shaft in the double engine is forged from high carbon steel, extra strong, with three boxes on the 25-90 H. P. engines.

The main-shaft in the single engine is extra heavy and strong.

The connecting-rods are of forged high-grade steel.

The engine rests on a substantial bed plate and heater, through which the feed water passes, and is heated hot before it enters the boiler.

Every engine provided with a reliable pump, also injector.

The large main-shaft boxes are oiled at the bottom as well as at the top, insuring perfect lubrication.

Extra strong steel and semi-steel gearing made in such proportions as to give the greatest strength. The teeth are very thick and strong.

Extra heavy and strong brass fittings made from our own special patterns.

Governor arranged so that the engine can be adjusted to run at any speed between 100 and 300 revolutions per minute.

Countershaft boxes extra long and made solid around the shaft with adjustable gib to take up wear or lost motion.

Large axle brackets, with wide bearings, attached to the plate on sides of the boiler of all single-cylinder engines with stud-bolts. Truss-rods extending under the boiler for additional strength.

The Traction Wheels.—The wheels have steel tires, with wrought iron spokes riveted while red hot in the tires, and the molten metal in the hub is cast solid on the spokes, making the hub, the spokes and the tires form absolutely the strongest wheel made for its weight of metal.

Lugs riveted on the wheels which can be easily replaced if in the course of long time they should wear out. They are so placed on the wheel that they clean themselves in most soils.

Steel axle with large cast-iron sleeve on small engines, making a journal for the traction wheels that should never wear out. It is reversible if there happens to be wear on the bottom side.

The Platform.—Heavy channel iron platform frame bolted to each side of the boiler below the water-line with cross and brace rods, making it extra strong.

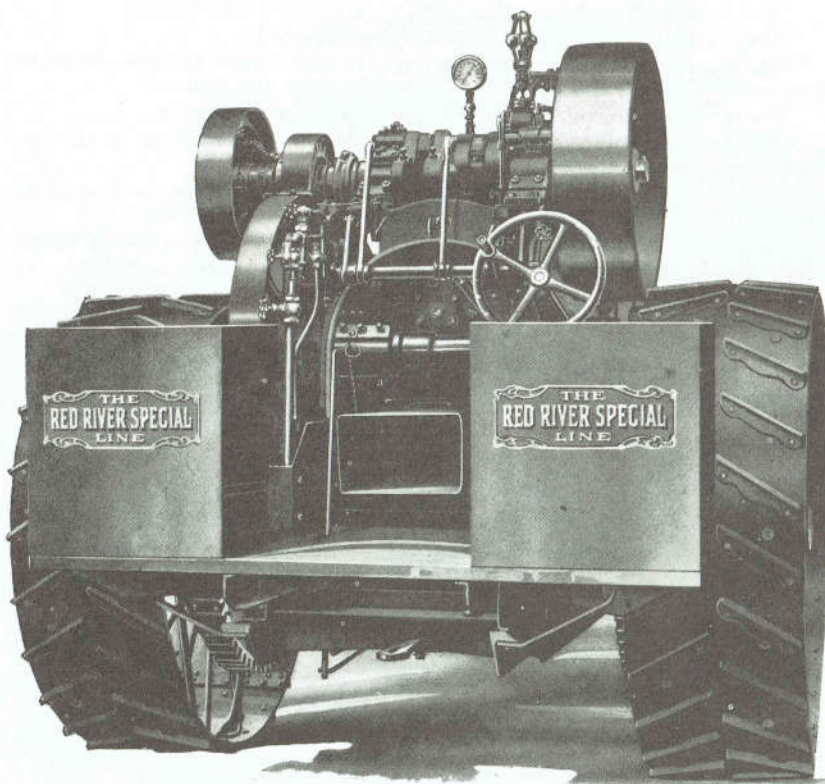
Large water-tanks and coal-bunkers furnished with tool-box.

Does any other manufacturer give more?

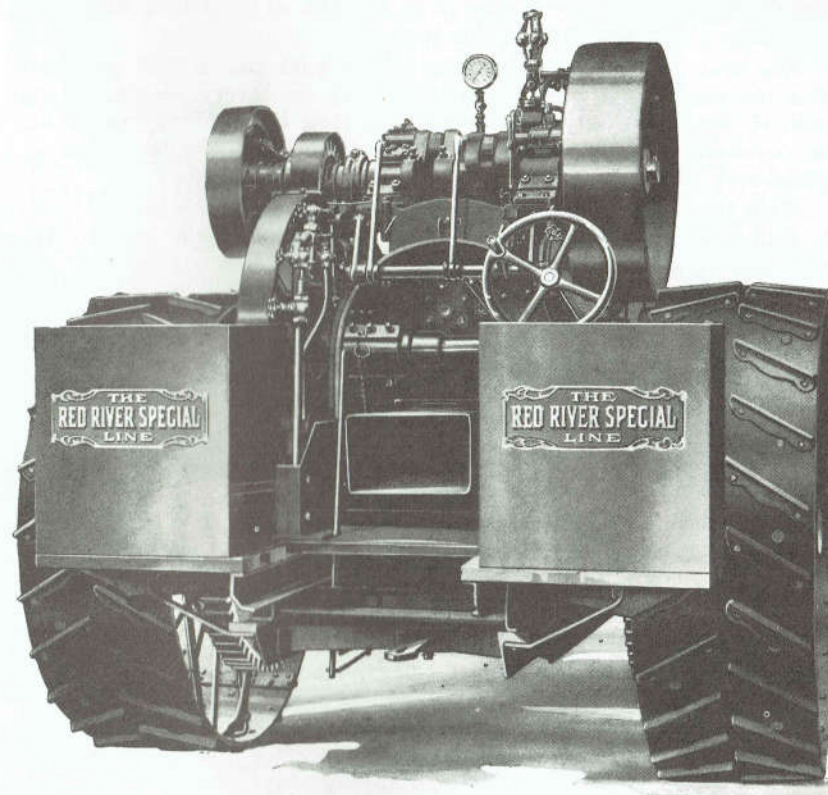
Does any practical buyer of an engine want less?

THE
RED RIVER SPECIAL
LINE

Convenient When Traveling or When Threshing



Nichols-Shepard Rear-Mounted Straw Burning Engine as Arranged for Travel. Ample Room for the Driver.

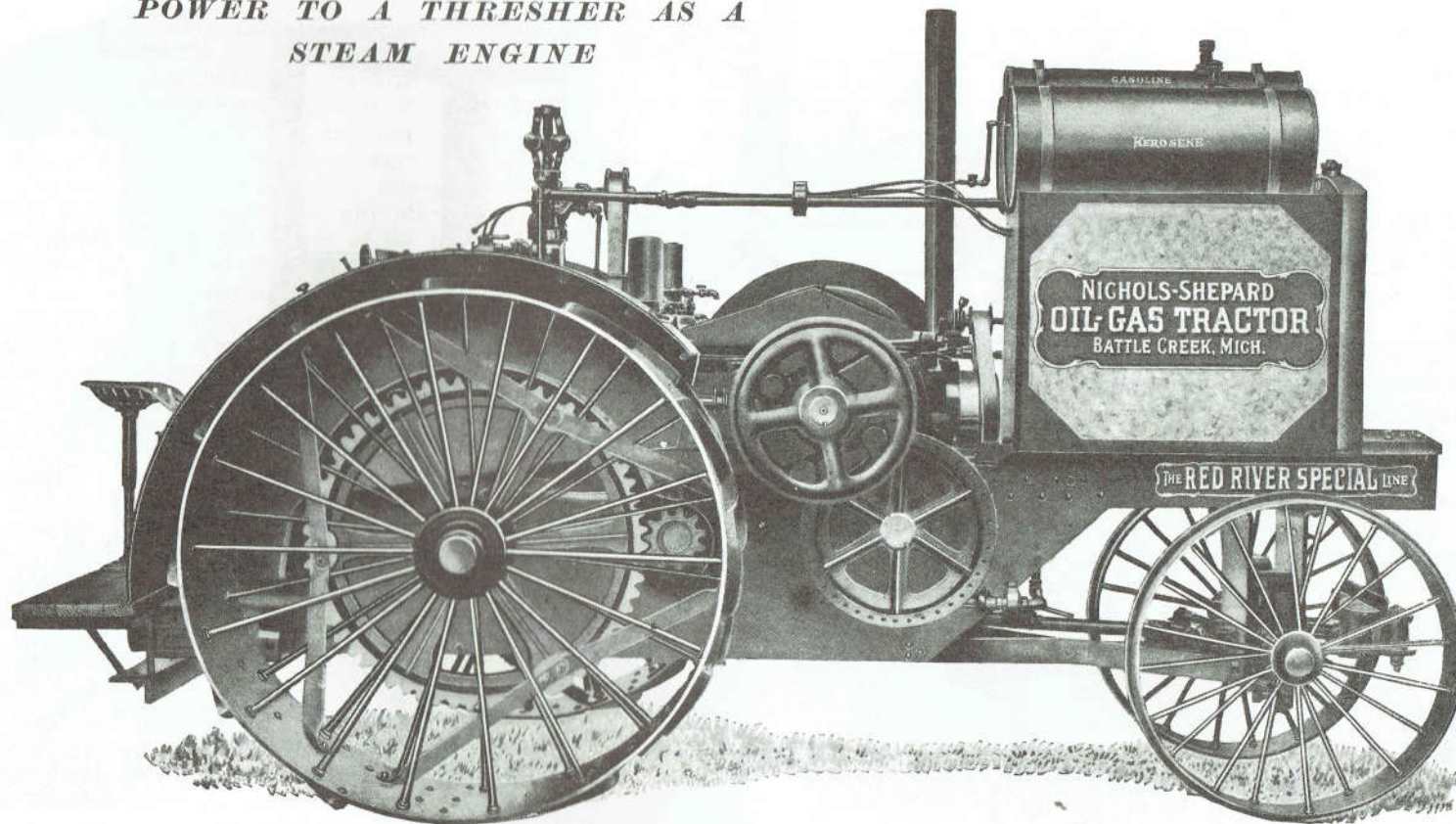


Nichols-Shepard Rear-Mounted Engine as Arranged for Burning Straw. Part of Platform Removed, to Make the Firing Quick and Convenient.

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

*GIVES AS STRONG, STEADY, RELIABLE
POWER TO A THRESHER AS A
STEAM ENGINE*



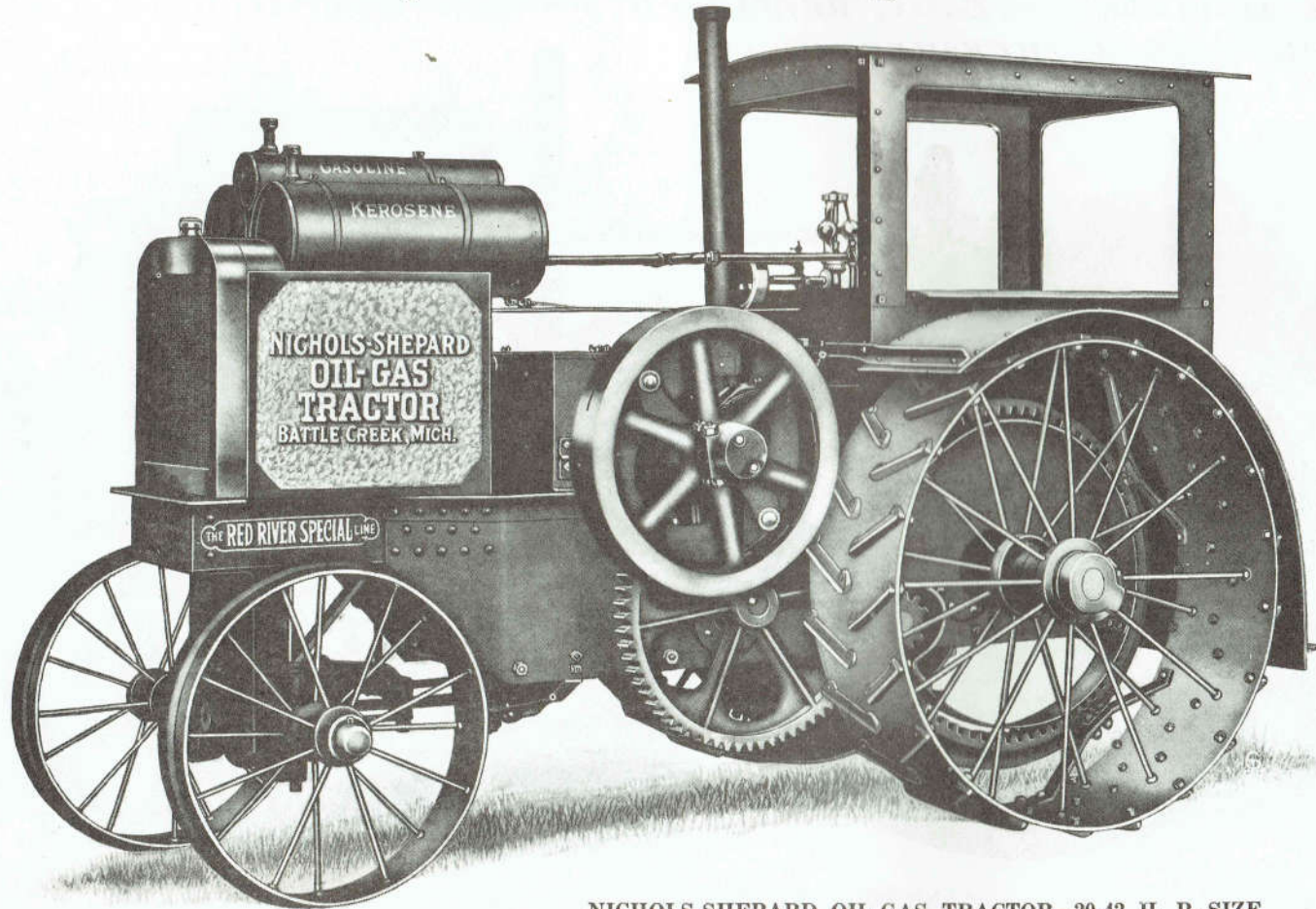
NICHOLS-SHEPARD OIL-GAS TRACTOR.

25-50 H. P. and 35-70 H. P. Sizes. (Also Built in 20-42 H. P. Size).

IT SAVES
THE FARMER'S THRESH
BILL

THE
RED RIVER SPECIAL
LINE

Unequaled as a Threshing Tractor



NICHOLS-SHEPARD OIL-GAS TRACTOR—20-42 H. P. SIZE

Also Built in 25-50 H. P. and 35-70 H. P. Sizes

IT SAVES
THE FARMER'S THRESH
BILL

Nichols-Shepard Oil-Gas Tractor

That the RED RIVER SPECIAL Line may lack nothing that will enable its users to secure the greatest possible returns on their investment, we build and furnish a thoroughly dependable tractor of the Oil-Gas type.

It is built in three sizes: 20-42 H. P., 25-50 H. P. and 35-70 H. P.

It was designed by expert engineers for the principal purpose of furnishing our friends and customers with a successful kerosene-burning tractor that would furnish strong, steady, reliable power for driving a thresher, plowing, or any other kind of heavy farm work requiring traction or belt power of the highest quality.

Behind its original design was the many years' experience of Nichols & Shepard Company building successful steam traction engines. Our engineers and designers did their job well. They spared nothing to make the tractor simple, strong, durable, long-lived and powerful.

Its general appearance appeals to the experienced tractor user. The engine is compact, but with plenty of wrench room. It is simple—has no more parts than are absolutely necessary in a gas tractor.

Every feature about it has been tried, and proved to be thoroughly practical. It is dependable in every detail.

There is no device about it that is new, untried, or experimental.

It has the least possible number of parts, which makes it easy to operate, and to keep in working order. The fewer parts, the less trouble.

It has the fewest possible number of gears. No bevel gears are used in the transmission of power, either to the drive wheels or the belt. No non-working gears are in motion while running on the road.

All sizes have been used in plowing, heavy hauling, and threshing with the best success, and have demonstrated themselves to be A-1 in every particular.

The Nichols-Shepard Oil-Gas Tractor furnishes just as steady, even, reliable power to a thresher as a steam engine. We believe it to be the best threshing tractor built.

It is powerful on the road, plowing, and in the belt.

It is equipped with our own non-reversible steering gear. It guides smoothly, like an automobile, and without the jerk that all chain-guided engines have.

It has a 2-cylinder, 4-cycle, low-speed, horizontal motor,—the type that experience has proved best for burning kerosene.

The Nichols-Shepard Oil-Gas Tractor burns kerosene at all loads without heating.

We invite your most careful investigation of our Oil-Gas Tractor, because only through comparison with other makes can its merits and good features be appreciated.

It will be found to be more practical and more durable than any other tractor built. It is more powerful than any other tractor of its rated horse-power.

Before a gas tractor of any kind is put in service, the work that is expected from it should be well considered. If heavy duty is required, the light tractor cannot be made to give satisfactory, *long and continuous service*, no matter how efficient it seems in a short trial.

Heavy duty requires a tractor specially designed and constructed to do that kind of work.

That is what we offer you in our Nichols-Shepard Oil-Gas Tractor—a HEAVY-DUTY, kerosene-burning tractor that has proved itself a wonderful success.

Motor

The power plant in the Nichols-Shepard Oil-Gas Tractor consists of a twin-cylinder, 4-cycle, horizontal, low-speed motor, designed especially to burn kerosene at all loads successfully. By that we mean that the tractor produces as much power from a gallon of kerosene as it does from a gallon of gasoline. Many tractors burn kerosene after a fashion, but very few burn it successfully, and get the same results from it that they do from a like quantity of gasoline.

The life of a motor depends largely on the speed at which it operates. Four-cylinder, high-speed motors burn themselves out quickly, especially when subjected to using kerosene for fuel.

Nichols-Shepard 2-cylinder, low-speed motors will last the life of the tractor if given proper care.

Cylinders

The cylinder heads are cast with the cylinder in a single piece. The inside of the cylinder head, or combustion chamber, is hemispherical in shape, which is the best possible construction, as it presents the least surface for cooling the charge of fuel. The high temperature due to explosion pressure lasts only a fractional part of a second, so that in engines with irregular-shaped combustion chambers, which have a large amount of cooling surface, the pressure will drop much faster than in the Nichols-Shepard motor, and thereby cause a loss of fuel economy and a lack of power from the explosion. There is no packing on the motor that is subjected to pressure except the weight of the water in the cooling system.

Connecting Rods

The connecting rod is a high-grade, steel, drop-forging machined all over. The crank-pin bearing is a malleable casting, lined inside with a high grade of babbitt. These babbitt bearings are easily removed and interchangeable.

Pistons

The pistons are proportionately designed. On the 20-42 and 25-50 each carries three rings. On the 35-70 size each piston carries four rings. The piston pin is exceptionally large and is made of the best grade of machinery steel, heat treated and ground to exact size.

Valve and Valve Cages

The valve cages are tapered and are ground to fit, metal to metal, in the cylinder head throughout their entire length. This does away with the necessity for using gaskets in connection with the valve cages or against gas pressure, and is a feature of great importance, as it is well known by gas-engine operators that packing is a source of frequent annoyance and trouble.

The valve cages can be easily removed, when standing on the operator's platform, without removing or disturbing any other part. No push rods are used, the valve rockers being pivoted on a bracket, and the rollers on these rockers engaging directly with the cams.

Crank-Case

The crank-case consists of a single casting, machined to fit on the frame, to which it is securely riveted.

There are no moving parts within the crank-case except the crank-shaft and connecting rods. There is nothing to interfere with the removal of pistons or adjustment of connecting rods. The crank-case can be entered without removing any of the timing gearing or interfering with valves.

Fly-Wheel

The fly-wheel is heavy and perfectly balanced, which insures a steady motion and sufficient momentum to carry over instantaneous overloads. In any four-cycle engine with less than five cylinders there are times between explosions when no power is being transmitted from the pistons to the crank-shaft. This fact makes necessary the use of a fly-wheel of sufficient diameter and weight for storing energy to carry the load between explosions.

The fly-wheel on the Nichols-Shepard Oil-Gas Tractor is large, heavy, and well balanced, which insures a steady, even motion to the separator.

Belt Pulley

The belt pulley is of such size that the belt speed is the same as that from Nichols & Shepard steam traction engines, so that no change from standard separator pulleys is necessary.

Clutch

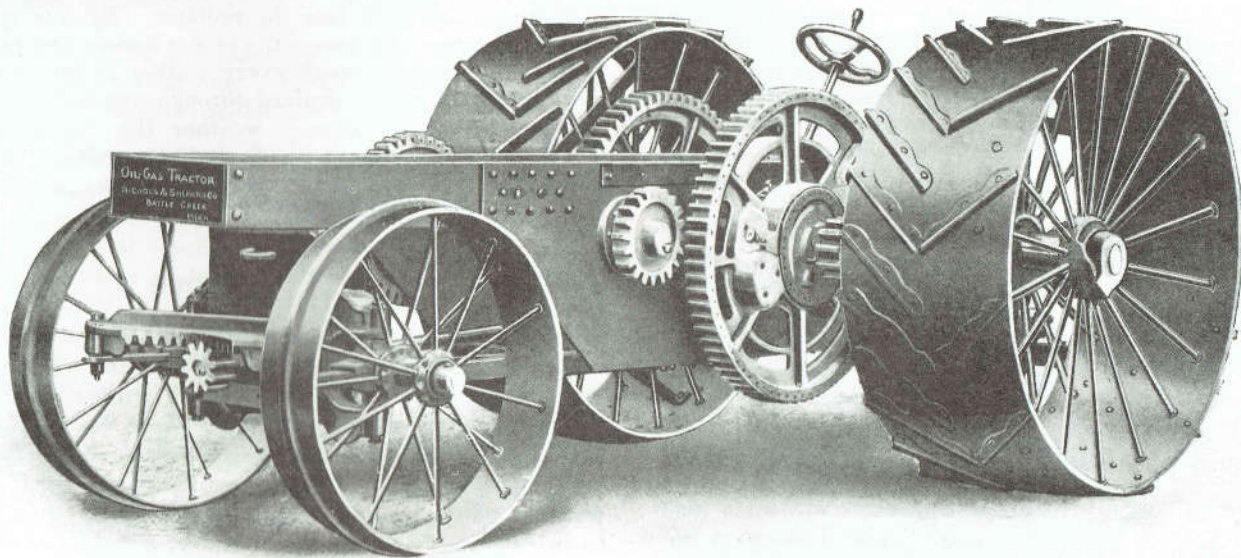
The clutch is made with a floating shoe covered with asbestos brake lining, which is the best friction material known. These clutches are counterbalanced, and, while sensitive and positive, they do not require close adjustment.

Governor

The Pickering throttling type of governor is standard equipment. It is recognized as the best tractor governor made, and gives perfect control of the motor at all times, from no load to maximum load, and with no appreciable change in speed. It is easily adjusted by the

THE
RED RIVER SPECIAL
LINE

Built Strong for Hard Service



FRAME AND GEAR OF THE NICHOLS-SHEPARD OIL-GAS TRACTOR.

Built in Three Sizes — 20-42 H. P., 25-50 H. P. and 35-70 H. P.

Strength and Simplicity Make It Effective.

IT SAVES
THE FARMER'S THRESH
BILL

simple turning of a hand screw. Regulation of the Nichols-Shepard Oil-Gas Tractor speed closely approximates, in range and control, that of the best steam traction engines. The speed of the motor can be varied 125 revolutions per minute and the governor will handle the engine within close limits throughout this entire range of speed.

Carburetor

A Kingston carburetor is furnished regularly. It has no springs or auxiliary valves. It is absolutely automatic, and will handle gasoline, kerosene, or naphtha, in each case effecting perfect mixture, which is only one of the many features on the Nichols-Shepard Oil-Gas Tractor designed to produce maximum power from the fuel burned.

Magneto

A Dixie high-tension magneto with impulse starter is used. It gives a good hot, fat spark, and makes starting easy. The Tractor starts without the aid of batteries.

The Dixie has very few working parts: one wire to each cylinder and one to the switch constitute all the wiring. It is simple in construction and easily cared for, and will last the life of the Tractor.

Fuel Feed

The gravity feeding system is used. It operates without a pump, which saves trouble, annoyance and expense. The Tractor is fitted with a small gasoline tank, and kerosene and water tanks of ample capacity to insure an ample supply of gasoline for starting, and kerosene and water for continuous running. The water and kerosene are thoroughly mixed at the carburetor by a special water valve, thus insuring perfect combustion in the cylinders, which means maximum power.

Lubricating System

A force-feed oil pump forces the lubricating oil into every bearing and working part. It is simple, easily cared for, and gives the best results.

Cooling System

The Nichols-Shepard Oil-Gas Tractor is equipped with Perfex special tractor radiator, which has proved itself to be the best radiator for use on tractors yet devised.

The cooling water is circulated by a centrifugal pump, taken by gravity from the lowest part of the radiator, and forced through the cylinder jackets back into the radiator. By this system the water is equally distributed between the two cylinders and positively circulated in a direct course through every section of the radiator. The entire cooling system can be drained through one cock.

During hottest summer weather the Nichols-Shepard Oil-Gas Tractor will run without the water in the radiator reaching the boiling point, and with practically no evaporation, the only water actually consumed being that burned with kerosene.

Frame

The frame of the Nichols-Shepard Oil-Gas Tractor is constructed of two extra thick special rolled steel plates set on edge, to which the front axle support and the massive cannon bearings which house the rear axle are securely riveted. These side plates are also securely tied together by a number of strong cross-members, and at the front end of the frame by a heavy casting. This construction results in a frame of unusual rigidity, which is so necessary in a heavy-duty tractor in order properly to protect the motor, gearing and other working parts from twisting and unnecessary strains.

Gearing

The gearing is all strong, heavy, and designed for long life under heavy duty, such as plowing, hauling, grading, etc., etc.

The Compensating Gear is carried on a shaft unusually large, and supported by bearings having large areas of wearing surface.

The power to traction gearing is transmitted through a friction clutch contained within the fly-wheel.

Transmission

The transmission gearing consists of the fewest possible number of gears in a tractor, the forward transmission using only three shafts—a crank-shaft, counter-shaft and axle.

When the engine travels in a forward direction there is no gearing or shafting in motion except that required for actual transmission of power. When running in the belt, there is no traction gearing or shafting in motion.

The gearing has coarse pitch and wide face. It is designed to withstand severe usage and last a long time. All differential, intermediate and lug gears are of semi-steel and seldom break.

Shafts and Axles

The crank-shaft is made from a solid forging, machined all over. It is exceptionally large and heavy, and is carried in babbitt bearings that are big, strong and well lubricated. These bearings are easily removed when necessary without lifting the crank-shaft entirely out of the crank-case.

The cranks are placed on the same side of the shaft so that the pistons move together. This makes explosions occur at regular intervals and gives a uniform suction through the inlet manifold and carburetor. This placement of the cranks balances the engine more perfectly than would be the case were they in any other position with relation to each other.

The reverse shaft is carried inside of a cannon bearing the same as the real axle. It is ample in size and strength, and easily and efficiently lubricated.

The counter-shaft is equipped with two massive bearings with gibs which can be taken up and adjusted quickly and easily. Excellent provision is made for its lubrication.

The cam-shaft is placed at the rear of the cylinder heads, so that the actuating parts of the engine are constantly in sight of the operator, where they can be watched and easily cared for.

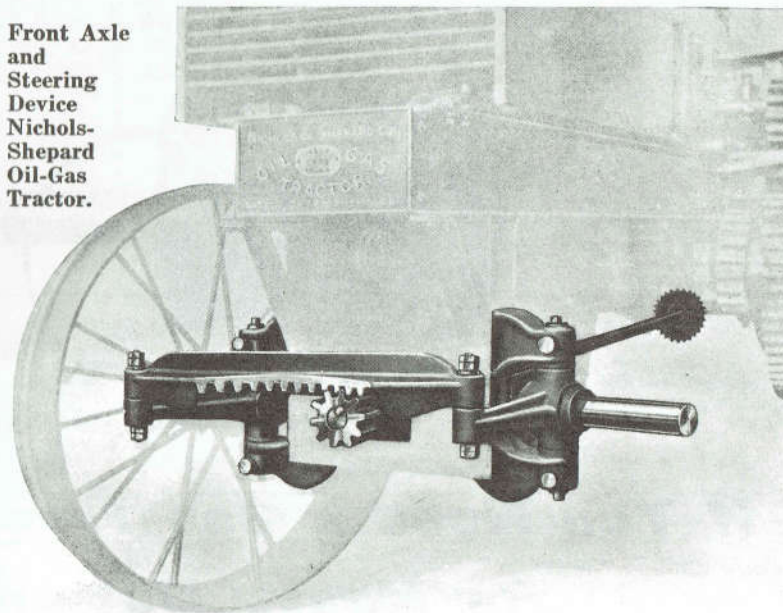
The rear axle in the Nichols-Shepard Oil-Gas Tractor is extra heavy and made of special axle steel. It runs in a massive cannon bearing securely riveted to the side plates of the tractor frame.

This cannon bearing provides a large oil chamber filled with heavy lubricating oil, which automatically works out to the bearing surfaces

and insures absolute and perfect lubrication. The axle is fastened to the left-hand drive wheel. There is no wear in the wheel hubs.

The front axle is of the automobile type—much simpler than any other make of this style used on gas tractors and consists of but few parts. It has a worm and worm gear in connection with the steering mechanism. There are no chains used and the usual slack and jerk common to chain-steering devices is entirely done away with. With this device the heaviest engine can be handled much easier and guided much better than any engine equipped with chain guide.

Front Axle
and
Steering
Device
Nichols-
Shepard
Oil-Gas
Tractor.



Steers Easily over Roughest Ground

Traveling Speed

The 20-42 Oil-Gas Tractor has two speeds forward and one speed in reverse, of from 1.6 to 2.5 miles per hour.

The 25-50 has one speed each way, of from 2 to 2.4 miles per hour.
The 35-70 has one speed each way, of from 1.86 to 2.33 miles per hour.

In Conclusion

The Nichols-Shepard Oil-Gas Tractor has proved itself to be a great success in any kind of work a heavy-duty tractor can be called upon to perform.

It has been thoroughly tried out in the plowing field, in driving separators, road grading, and all other kinds of heavy farm work.

There is not a single untried or experimental feature about it. It is simple, strong, efficient and reliable and is believed to be nearer "fool proof" than any other gas tractor made.

It will burn kerosene as well as it is possible to do in a tractor. It will stand up and do business after other makes have gone into the scrap pile.

Nichols & Shepard Company strongly recommend their Oil-Gas Tractor to their friends and customers, in the full belief that it is the most profitable and efficient gas tractor on the market for the man who needs a heavy-duty tractor.

It is a MONEY-MAKER.



Piston and Connecting-Rod Complete, Nichols-Shepard Oil-Gas Tractor.

***If You Need a Gas Tractor
for Heavy Duty of Any Kind
Can You Afford to Buy Any Other?***

WRITE FOR SPECIAL OIL-GAS TRACTOR CATALOGUE

IT SAVES
THE FARMER'S THRESH
BILL

**THE
RED RIVER SPECIAL
LINE**

DIMENSIONS OF NICHOLS-SHEPARD TRACTION ENGINES—IN INCHES. (Subject to Change without Notice)

SIZE	CYLINDER		BOILER		FIRE-BOX			FLUES			SMOKE BOX	FLY-WHEEL		SPEED	TRACTION WHEELS	
	Diam.	Length	Diam.	Length	Length	Width	Height	No.	Diam.	Length	Length	Diam.	Face		Diam.	Face
COAL AND WOOD BURNERS																
16- 50H. Single, Side Mounted . . .	8	12	29	150	40	25	40	40	2	77	30	40	10	225	64	18
20- 70H. " " "	8½	12	32	175	49	27	49	32	2½	94	30	40	12	225	69	20
25- 85H. " " "	9¼	12	36	177	51	31	51	45	2½	94	30	40	12	225	73	24
16- 60H. Double, Rear Mounted . . .	{ 6¼ 6½ 6¾	{ 10 10 10	29	152	45	25	40	40	2	79	26	40	12	225	64	20
20- 75H. " " "	{ 6¾ 7 7¼	{ 10 10 10	32	171	49	27	49	32	2½	94	26	40	12	225	71	24
25- 90H. " " "	{ 7 7¼ 7½	{ 10 10 10	36	173	51	31	51	45	2½	94	26	40	12	225	73	28
STRAW BURNERS																
20- 70H. Single, Side Mounted . . .	8½	12	32	175	49	27	49	32	2½	94	30	40	12	225	69	20
25- 85H. " " "	9¼	12	36	177	51	31	51	45	2½	94	30	40	12	225	73	24
16- 60H. Double, Rear Mounted . . .	{ 6¼ 6½ 6¾	{ 10 10 10	29	152	45	25	40	40	2	79	26	40	12	225	64	20
20- 75H. " " "	{ 6¾ 7 7¼	{ 10 10 10	32	171	49	27	49	32	2½	94	26	40	12	225	71	24
25- 90H. " " "	{ 7 7¼ 7½	{ 10 10 10	36	173	51	31	51	45	2½	94	26	40	12	225	73	28

SPECIAL NOTE.—Can furnish Traction Wheels with 4" wider tire than above. We can also furnish 8" wide extension tire to traction wheels at small additional cost, which can be put on or taken off as the nature of the soil requires.

MAIN DRIVE BELTS, EXTRA.—For 22x36, 28x46 Junior Red River Specials, 100' long, 6" wide, 4-ply Canvas or Rubber. For 30x52, 32x52 and 32x56 Red River Specials, 150' long, 7" wide, 4-ply Canvas. For 36x56 and 36x60 Red River Specials, 150' long, 8" wide, 4-ply Canvas; 150' long, 8" wide, 5-ply Canvas; 150' long, 8" wide, 4-ply Rubber.

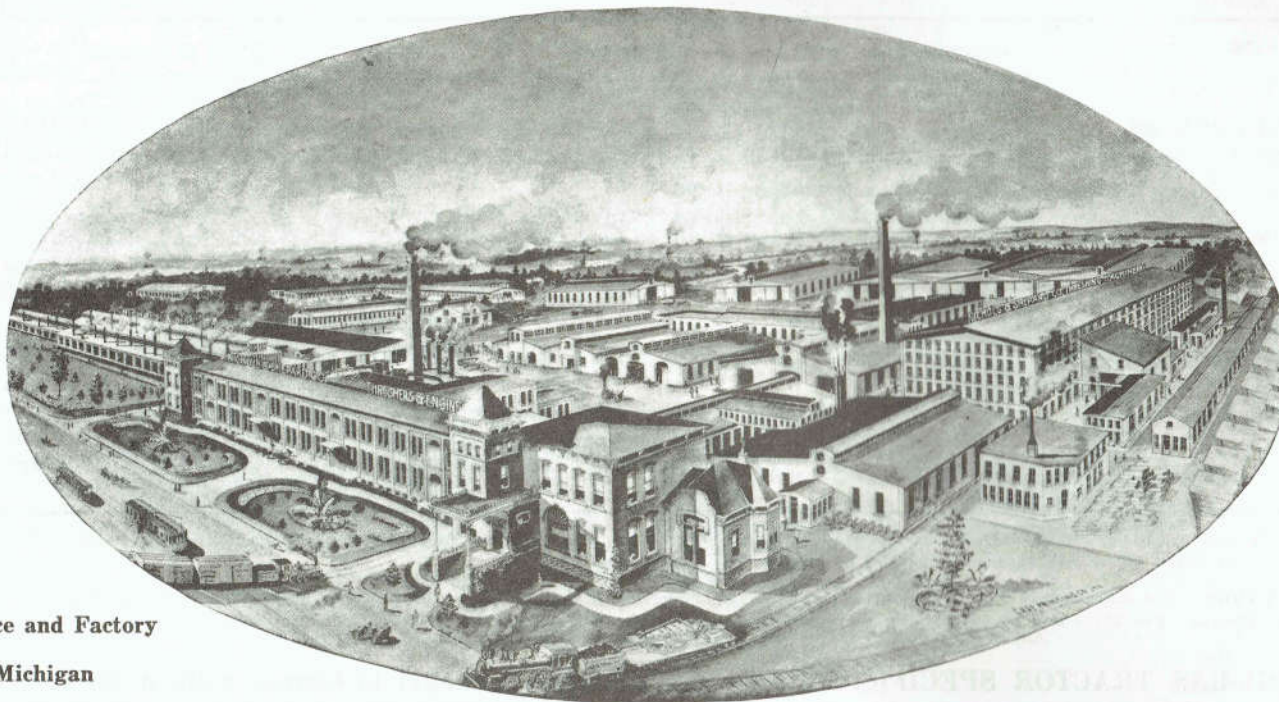
OIL-GAS TRACTOR SPECIFICATIONS — IN INCHES. (Subject to Change without Notice)

	20-42 H. P.	25-50 H. P.	35-70 H. P.		20-42 H. P.	25-50 H. P.	35-70 H. P.
Axle, front	2½"	2¾"	3"	Cogs, pitch and face, Bull Gear	2 x 3"	2¼ x 4¾"	2½ x 5"
Axle, rear	4"	4½"	5½"	Cogs, pitch and face, Differential Gear.	2 x 3"	2 x 4¼"	2½ x 4¾"
Brake Horsepower guaranteed	42	50	70	Piston Pin Bearing	2¾ x 3¾"	3¾ x 5¼"	3¾ x 9¼"
Band Pulley	8½ x 22"	9 x 24½"	12¼ x 30"	Speed of Band Pulley, per minute	450-500	360 to 425	300 to 375
Cylinder Bore	8"	9"	10½"	Speed on road, miles per hour	1.6 to 2.5	2 to 2.42	1.86 to 2.33
Cylinder Stroke	10"	12"	14"	Tank for kerosene, gallons	23	40	40
Crank Shaft, diameter	3½"	4"	4½"	Tank for gasoline, gallons	6	6	6
Crank Pin	4 x 3¾"	4 x 3¾"	5 x 4½"	Wheels, rear	20 x 64	28 x 69"	32 x 73"
Counter Shaft	3"	4"	5"	Wheels, front	8 x 38	10 x 42	12 x 48"

**IT SAVES
THE FARMER'S THRESH
BILL**

THE
RED RIVER SPECIAL
LINE

THE FACTORY BEHIND THE RED RIVER SPECIAL LINE



**Our Main Office and Factory
Located at
Battle Creek, Michigan**

This is the Factory that builds RED RIVER SPECIAL machinery.

It is modern, well organized, and well equipped in every way.

New additions to power plant, machine and wood shops, and warehouses the past season enable it to produce more machinery than ever before.

It builds nothing but RED RIVER SPECIAL threshing machinery and Steam and Oil-Gas Traction Engines.

It is filled with machine tools and other manufacturing equipment of the latest and most efficient design.

They are operated by expert mechanics—men who have spent

their entire lives building threshing machinery. They build it well.

None but the best of materials enters the doors of our Factory for manufacture into RED RIVER SPECIAL machinery.

The result, Mr. Buyer, is that when you purchase RED RIVER SPECIAL machinery you get the best threshing machinery built.

Each sale is backed up by quick, careful, painstaking field and repair service from our own Factory Branches and other important distributing agencies.

RED RIVER SPECIAL machinery makes money for its owners. It will do the same for you.

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LINE

After You Purchase Our Machinery

Next to the actual delivery of the machine or outfit purchased, the matter of service is most important to the buyer of threshing machinery—the sort of service that gets repairs to you quickly and correctly; that helps you out of possible trouble and assists you in making a profit out of your machinery.

The experienced operator of threshing machinery realizes the importance of this matter.

He is glad to pay the price of a Nichols-Shepard RED RIVER SPECIAL outfit, because he knows that for every dollar he invests he will get a full dollar's value in return.

In the starting and operating of its machinery the help given by the Company is invaluable to the beginner. He receives the benefit of the Company's many, many years of successful experience in the one line of threshing machinery and threshing power right from the start. A good start many times means the difference between success and failure, especially in the threshing business. The experience and knowledge which our Company has acquired through its long period of activity over a territory stretching from Texas to Alberta constitutes a wonderful fund of information and advice, which is free for the asking, and which is always at the service of our customers. It is really a part of every sale, and in many, many cases has proved of real, practical money value to our customers.

Here at the Factory we maintain a large, well-equipped Repair Department that is fitted in every way to render first-class repair

service. Every repair commonly needed is carried in stock. During the threshing season repair orders are given the right of way through our Factory.

We realize that our first duty is to our customers who already own and operate RED RIVER SPECIAL machinery in the field, and that it is up to us to keep them going at all costs.

We have twelve Factory Branches located in the centers of the principal grain-growing territories. Each of these branches has a large, well-organized Repair Department of its own, with a complete stock of parts.

During the season these Repair Departments are on duty night and day.

Quick, efficient, courteous service is the rule at our Branch Houses.

Stocks of repairs are also maintained at many of our selling agencies, who render our customers in their vicinity the same prompt service that is a part of every sale of a RED RIVER SPECIAL machine.

A mammoth warehouse located at the Minnesota Transfer, in Minneapolis, carries a full stock of machinery and repairs for quick shipment to the Northwest. This brings real factory facilities to the very doors of our customers in the Dakotas, Montana, Minnesota and the Canadian Provinces.

We aim to give our customers the best service possible, just as we try to furnish them the very best machinery built, and we welcome suggestions from buyer or user that will enable us to improve either.

NICHOLS & SHEPARD COMPANY, Battle Creek, Michigan

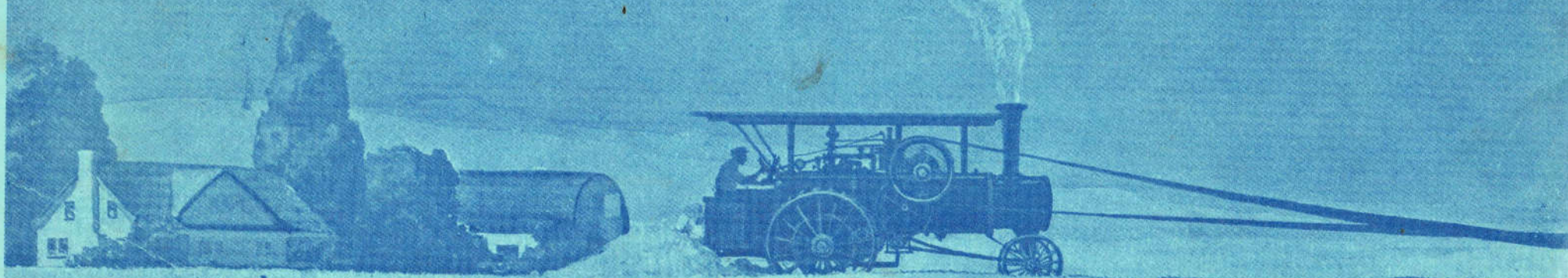
(In Continuous Business Since 1848)

Builders EXCLUSIVELY of Threshing Machinery

Red River Special Threshers, Feeders, Wind Stackers, Steam and Oil-Gas Traction Engines

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BILL

**IT SAVES THE FARMER'S
THRESH BILL
AND LETS THE THRESHERMAN
PROSPER**



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