

EMERSON

FOOT-LIFT FARM MACHINERY

MADE FOR

OUR BOYS ON THE FARM



EMERSON-BRANTINGHAM CO.
ROCKFORD, ILLINOIS.

Whenever you see the words

FOOT-LIFT



This man with his feet alone raises a 14 in. Gang and the added weight of the big man, 506 pounds.

Made in Right and Left Hand

It means **EMERSON**
or an attempted imitation

Second Edition No. 60

"THE FOOT-LIFT LINE"

EMERSON Farm Machinery

MADE FOR
OUR BOYS ON THE FARM

EASE OF HANDLING
LIGHT DRAFT
DURABILITY

Walking Plows, Riding Plows, Disc Plows, Engine Plows, Lever Harrows, Disc Harrows,
Alfalfa Harrows, Engine Disc Harrows, Roller Pulverizers, Listers, Corn
and Cotton Planters, Stalk Cutters, Walking Cultivators, Riding
Cultivators, Disc Cultivators, Rakes, Side Delivery
Rakes and Tedders, Mowers.

SOLD BY IMPLEMENT DEALERS EVERYWHERE



EMERSON-BRANTINGHAM COMPANY

Farm Machinery Builders Since 1852

ALSO

EMERSON CARRIAGE COMPANY

Designers and Builders of Popular Vehicles

ROCKFORD, - - ILLINOIS.



NEW HOME of the EMERSON FOOT-LIFT LINE

One hundred Acres on which stands the Most Modern and Complete Farm Implement Plant in the World. Here is where you should have your Plows, Harrows, Planters, Cultivators, Mowers, Rakes and other farm implements made. Emerson Goods have the name of being better than others, and with these facilities for manufacturing will more than maintain the Emerson Standard of Excellence.

EMERSON-BRANTINGHAM COMPANY

Formerly Emerson Manufacturing Co.

FARM MACHINERY BUILDERS SINCE 1852

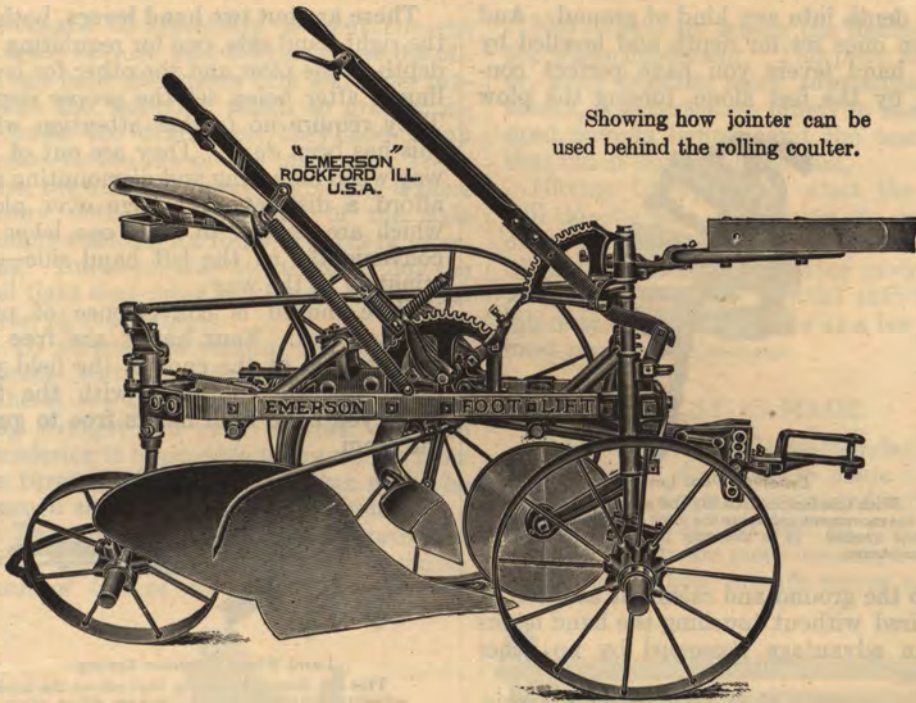
Rockford, Illinois, U. S. A.



For the Convenience of the Trade we have established the following
Branch Houses and General Agencies:

Emerson-Brantingham Co., Des Moines, Iowa.
Emerson-Brantingham Plow Co., Dallas, Texas.
Emerson-Brantingham Imp. Co., Omaha, Nebraska.
Emerson-Newton Implement Co., Minneapolis, Minnesota.
Emerson-Newton Co., Kansas City, Missouri.
Emerson-Newton Co., Oklahoma City, Oklahoma.
Mallalieu & Conrey, Philadelphia, Pennsylvania.
Emerson-Brantingham Co., Indianapolis, Indiana.
Miller-Cahoon Co., Murray, Utah.
Miller-Cahoon Co., Idaho Falls, Idaho.
Emerson-Brantingham Co., Sioux Falls, South Dakota.
Emerson-Brantingham Co., Waterloo, Iowa.

John D. Manley Implement Co., St. Louis, Missouri.
Spokane Implement Co., Spokane, Washington.
Newell Mathews Co., Los Angeles, California.
Tudhope, Anderson Co., (Ltd.)
 Winnipeg, Manitoba.
 Calgary, Alberta.
 Regina, Saskatchewan.
 Saskatoon, Saskatchewan.
 Lethbridge, Alberta.
Fresno Agricultural Works, Fresno, California.
A. E. Brainerd, Madison, Wisconsin.



EMERSON FOOT-LIFT SULKY PLOWS

Made in Right and Left Hand.

The plow is the most important machine on the farm, it makes the seed bed and should have first consideration by the farmer in selecting his farm machinery, if he makes an investment in a plow for the purpose of making that plow bring him profitable returns for its work.

Over thirty years of plow making experience is embodied in the Emerson Foot-Lift Plow. It's the original Foot-Lift Plow and its ever increasing popularity is not without cause. That cause may be summed up in the one word, quality. Every part of this plow is subjected to the most rigid inspection, and the experience of the past taken advantage of until its superiority is conceded and its leadership acknowledged. Nor can its most important feature of efficiency be embodied in any competing plow, for these features are amply protected by the patents which we hold and are confined exclusively to Emerson Foot-Lift Plows.

The qualities you look for in a good wheeled plow are, durability, lightness of draft and ease of handling. These three things you would positively insist upon, and of course would appreciate any other

desirable feature that the plow possessed. By durability we mean a plow that will stand the work for which it is intended. By lightness of draft, we mean a plow that is easy on the team, enabling them to do their work without worry. By ease of handling, we mean convenient levers, easy riding qualities and other features that give comfort to the operator. Let us critically examine the Emerson, giving careful attention to its various parts.

WHAT IT WILL DO

Approach the left side, place the left foot on the foot lever and with perfect ease you swing into the convenient seat. The two hand levers, being on the right hand side are entirely out of the way. From this position let us examine the working. Place the right foot on the force-down lever and with one movement the plow is unlocked, lowered and locked firmly in the ground. No matter how hard may be the soil, this one, simple, easy pressure on the enormously powerful lever, assisted by the natural suction of the plow as arranged, easily and quickly forces it

full depth into any kind of ground. And when once set for depth and levelled by the hand levers you have perfect control by the feet alone, forcing the plow



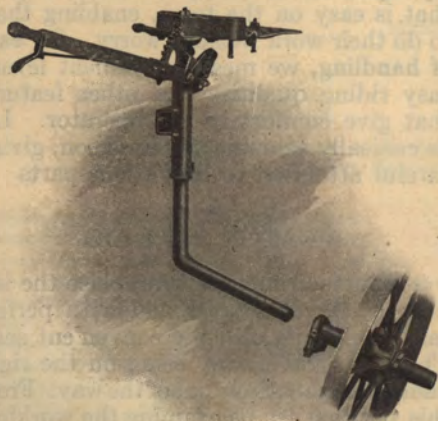
Emerson Foot Lever.

With this famous foot lift and automatic lockup one movement unlatches the plow and forces it into the ground. It is the only perfect foot lift in existence.

into the ground and raising it as often as desired without touching the hand levers—an advantage possessed by no other plow.

By pressing the left foot on the raising lever you easily lift the plow from any kind of soil. So powerful and so ingeniously constructed are the levers that the smallest boy capable of driving, can readily and with ease, force the plow into the hardest soil, and lift it out as desired.

The foot levers can be quickly adjusted to fit any length leg; and when walking



By means of this powerful lever the first furrow can be opened to any required depth. It is not necessary to go around the field two or three times to get the required depth.

behind the plow you can, with one hand, easily operate the foot lever without stopping the team.

There are but two hand levers, both on the right hand side, one for regulating the depth of the plow and the other for levelling it after being set the proper depth. They require no further attention when this has been done. They are out of the way when mounting and dismounting and afford a distinct advantage over plows which are obliged to have one lever inconveniently at the left hand side—obstinately in the way.

Here indeed is convenience of plow management! Your hands are free for driving, and at the ends of the field you easily operate the plow with the feet while you have both hands free to guide the team.



Land Wheel Cushion Spring.

This out shows the spring that allows the land wheel to yield in plowing over corn ridges or uneven ground.

The plow is effectively relieved from jolt or jar by a cushion spring at the end of the land-wheel axle which absorbs all the motion; and for extremely rough surfaces, such as crossing corn rows, the latch on the levelling lever may be locked out of the ratchet insuring an even, level furrow.

Should you have occasion to plow among stumps or stones, the lock-down device is readily adjusted so the plow will easily pass over any obstruction it meets. It is altogether free from the too common fault of swinging and giving in the frame and making uneven, irregular furrows; the five strong connecting points with the frame cause it to run firm and true on all occasions.

It is remarkably light of draft—and we emphasize the word remarkably. The dynamometer tells us this, and the dynamometer is a cold-blooded machine which speaks only the truth. Many causes contribute to this lightness of draft. The wheels are several inches larger than on other plows, and large wheels, as you know, pull easier over rough surfaces than small wheels. They are equipped with the famous Emerson 10 and 12 inch, 2,000 mile magazine axles. These axles are 5 to 7 inches longer than other axles; they are

arranged to absolutely prevent the entrance of dust, and they retain all the oil. They hold the wheels firm and true, prevent the wobbling which so greatly increases the draft, and they add many years to the life of the machine. Then, too, the daily drudgery of greasing is done away with, one greasing of the axle amply sufficing for full fifty acres of plowing. Imitators may try to copy, but the oil tight dust proof locking feature is covered by our patents.

By means of a yielding rod connection direct with the tongue, both furrow wheels are thoroughly controlled, insuring straight and even furrows, and also rendering it impossible to cramp the plow in turning. Square corners can easily be turned either to the right or the left.

The rear furrow wheel is provided with two adjusting screws, and a simple turn of one of the screws adjusts the



Rear Wheel Control.

Showing positive control of rear wheel when traveling ahead. The rear wheel must be held firm in order to resist the moldboard and our construction enables this to be done.

wheel so it correctly balances the plow as to side draft, relieving the friction on the landside and permitting it to be carried by the wheels, thus greatly reducing the draft.

Notice that practically the entire weight and strain of the plow is supported by the two front wheels, bringing your load close to the team and carried on the wheels, which, as stated, are four or five inches higher than others use, whereas, most plows have the greater part of the weight on the rear wheel, which is the smallest and farthest from the team. The weight of our plow must be carried on the wheels, and all friction except that of the dirt against the moldboard is carried on thoroughly lubricated dust-proof bearings.

Nor should we ignore the lightness of the whole implement. This plow, stronger, more durable, more substantial than others, is nevertheless ninety to one hundred pounds lighter, and the team has that much less weight to pull.

Having briefly noted what the plow will do—its ease of running, its regular, even, perfect furrows, its convenient manipulation, its time and labor saving devices, its durability, we feel sufficiently interested to hastily glance at a few of its most prominent features.

HOW IT IS MADE.

The Frame—which is the foundation on which its life depends—is made in one piece, from a single heavy bar of high carbon steel. Then, to add to the great strength which one piece insures, the axle of the land wheel extends across almost



One Piece Steel Frame.

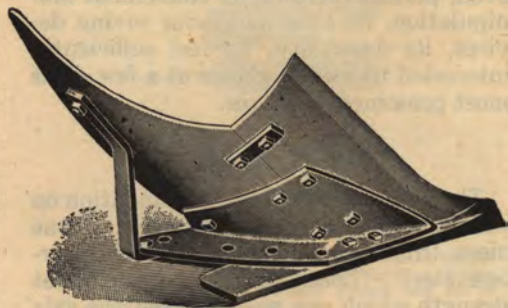
Extreme strength and rigidity combined with lightness. All the castings attached to this have flanges on each side which further strengthen the frame.

at the middle and is securely fastened to both sides of the frame, making a powerful brace where most needed. This axle also forms an ample support for the weight and strain of the plow. It distributes this strain evenly upon the frame without any destroying twist. Most other plows, as you know have the land wheel axle at the left hand side of the frame, and this short axle, with its liability to loosen the supporting bolts, and even cut them off under the twisting strain, has caused farmers an enormous expense in time and money.

The plow bottom is worthy your careful consideration. It represents an immense amount of ingenious study and experiment to obtain the greatest possible strength and perfect scouring qualities. It has solid, compressed steel frog, instead of cast, and the braces are very heavy. This steel frog takes all the bolts in the share but one, and all the bolts in the moldboard but three. The bottom is built as solid as we can make it from soft-center steel, skillfully tempered—which accounts for its enviable reputa-

tion for durability and perfect scouring qualities. It is made in a variety of shapes to meet the conditions in all sections of the country.

All moldboards, shares and landsides for Emerson bottoms are interchangeable, so when the parts are worn new ones can easily be substituted without the necessity



Bottom for Riding Plow.

Practically unbreakable and possessing extreme durability. Note how the heavy steel frog strengthens the share.

of incurring the time and expense of calling on a blacksmith or plow repairer.

We called attention to the firmness of the plow in the frame, and this is largely due to the short bails and bail brackets. They carry the great side strain of the plow bottom in the shortest and most rigid connection direct to the frame, insuring great durability and freedom from springing, and overcoming a most serious weakness found in other plows, which have long bails and bail brackets.

The wheels have staggered spokes, 2 inch tires and are held in place on the axles with a collar and eye bolt located on the inside of the hubs, dispensing entirely with the old fashioned inferior collars and cotter pin so frequently found on other machines. As previously explained the wheels are several inches larger than others, a feature that insures lightness of draft and durability.

The front furrow axle has a greater range up and down than any other plow, being a little over seven inches, as against five in other machines; as this axle guides the plow besides bearing its share of the draft weight it is provided with extra long bearings, and is further strengthened by a heavy cross brace connected to the solid one piece frame.

The coulter bearings are chilled and cone shaped; they wear on a center and insure a true running coulter. The coul-

ter stems are one piece, fastened to the beam by passing through a long socket, and firmly held in position by a set screw. They are ingeniously made so the coulter may be instantly set to cut more or less land—or forward and back—by simply loosening the set screw and turning the stem to the desired position. The work of the plow depends more than is supposed on the "set" of the coulter and this little matter of perfection of detail is one of the many features which contribute to the superiority of the Emerson Plows.

Three horse eveners are furnished regular with the Sulky Plow.

Do you note that in this brief description we have dwelt on the fundamental and essential features of the plow—the parts which have to do with real efficiency and service—and have refrained from unimportant "talking points" intended to confuse rather than enlighten?

Our plows have made a record never before approached in the history of farm implement manufacture. They have revolutionized wheel plow building as is evidenced by the fact that every wheel plow designed within the past eight years attempts an imitation of the Emerson Foot-Lift feature. Our plows have won the favorable verdict of the plow users of the country, who pronounce them the most satisfactory, the most popular and the best riding plows made. This verdict could not be obtained without just reason, and that reason is expressed in one word—superiority.

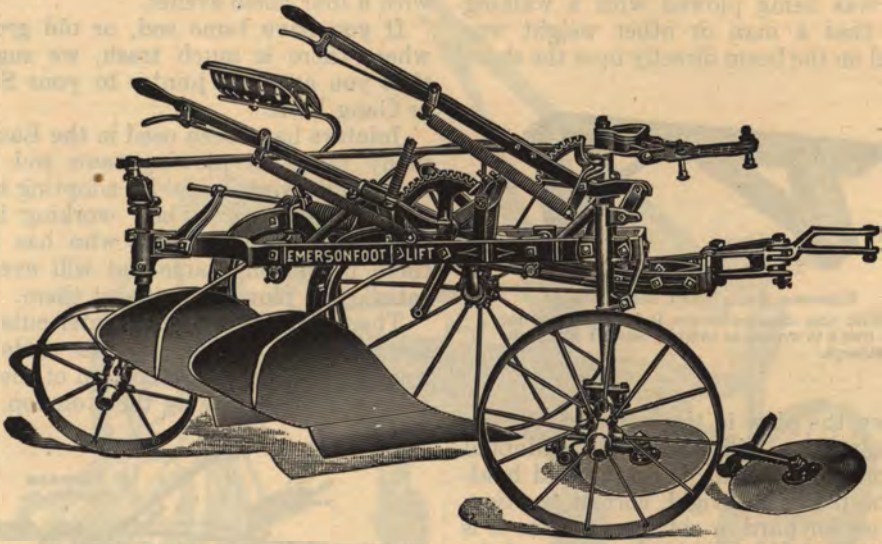
When you invest your money in a plow, you want one that is easy to handle. You want a plow that is light draft and you certainly want a plow that is durable, in fact you want an Emerson Foot-Lift Plow.

These facts are submitted to your discriminating judgment and we await your decision with confidence.

Handle Easier, Run Lighter than Others.

"I have been handling the Emerson Sulky Plow as my leader for the season, and in every case it has given the very best satisfaction. The Emerson stands at the top as our sales are constantly increasing. Farmers say they not only handle easier but run much lighter than any other plow."

C. F. Miller, Fort Scott, Kan.



EMERSON FOOT-LIFT GANG PLOW

Made in Right and Left Hand.

For the larger farm operators and where hired help is necessary the gang or two furrow plow with additional horse power accomplishes nearly twice as much work in the same amount of time as with the sulky or single furrow. The Foot-Lift Gang is built on the same lines as the sulky, except that the construction

in the gang. The high foot-lift, the dust-proof, grease-retaining magazine wheel boxes, and the one piece frame. The plow is handled with the feet, leaving the hands free to manage the team. Where the greatest strain occurs, there is ample strength to meet it. The rear beam brace is of unusual thickness and turns down on the inside of both beams beyond the bend, which materially increases their rigidity and strength.



Emerson Gang Rear Beam Brace.

The bracing of beams is a vital point in a Gang Plow. This brace is stronger, it is bolted lower down and has heavier bolts than any other Gang Plow on the market.

The front ends of the beams are secured with heavy diagonal braces to which is attached our heavy 24-inch clevis bar. This affords sufficient adjustment for the four-horse eveners to allow two pairs of horses to pull together in direct line of draft, thus conserving all their strength. So rigid are the beam connections that it is impossible to spring them.

Both beams are locked down over and in front of the share point; an advantage to which we particularly call attention, because in other plows of this kind but one bottom is locked, and that at a point to one side and near the heel of the plow, which allows an up and down movement to the other bottom, and also throws the weight of the carriage on the plow bottom, a most objectionable feature.

throughout is sufficiently heavier and stronger, to withstand the greater strain to which it is subjected, turning two furrows. Every feature of time and labor saving device possessed by the sulky is

You have doubtless seen where a hard road was being plowed with a walking plow that a man or other weight was placed on the beam directly over the share



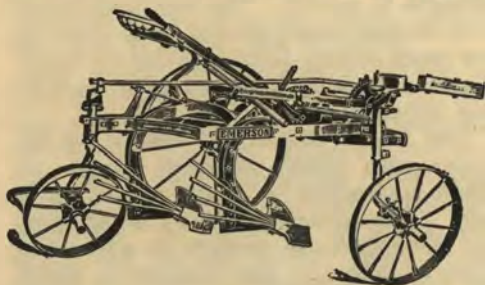
Emerson Gang Front Beam Brace.

With this diagonal brace it is impossible for the frame to wrench or twist by contact with rocks or stumps.

to keep the plow in the ground. We are the only plow builders who have adopted this proper method of locking and holding the plows in a rigid, correct position, whether for hard or soft ground for it is evident that if you hold the points of the plow bottoms to their work the entire weight of the plow, the frame and the bottom must be carried on the wheels.

Nor has the appearance been neglected in this completed implement. The graceful outlines of the machine are supplemented by a beautiful finish, rendering it most pleasing to the eye.

In conclusion we believe that the Emerson Gang Plow will meet your requirements better than any other, and that it will plow more, plow easier for your horses,



Emerson Foot Lift Gang Plow.

With Rod Breaker Bottoms furnished with either square faced shares or long sloping shares as customers prefer. These rod bottoms are sold as extras or may be fitted on gangs or sulks as desired.

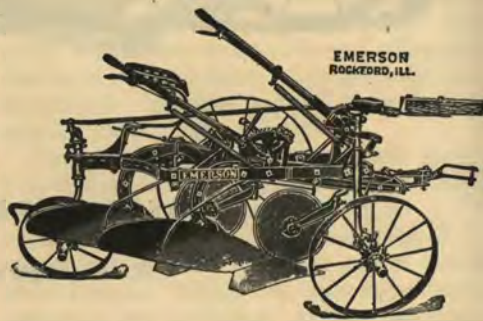
easier for yourself, and plow better than any other which may be offered.

We furnish the Emerson Gang Plow with a four horse evenner.

If you have tame sod, or old ground where there is much trash, we suggest that you attach a jointer to your Sulky or Gang Plow.

Jointers have been used in the East for many years for plowing tame sod, and the middle west is rapidly adopting them for this purpose. Their working is so satisfactory that no one who has used them in plowing tame sod will ever be satisfied to plow sod without them.

The small share of the jointer cuts and turns over the grass and grass roots and rolls them down in the bottom of the furrow, instead of leaving them on top, and



Emerson foot-lift gang plow equipped with prairie breaker bottoms. These P. E. bottoms are furnished with extra share and made in 12, 14 and 16-inch sizes.

These plows can also be furnished with sandy land bottoms.

therefore an ordinary tooth harrow will make a fine seed bed with very little more labor than on old ground plowing.

On old ground where there is much trash they turn all the trash down in the bottom of the furrow, out of reach of the harrow and cultivator, and they bury all weed seed so deep that the crop has a good start before the weeds reach the surface.

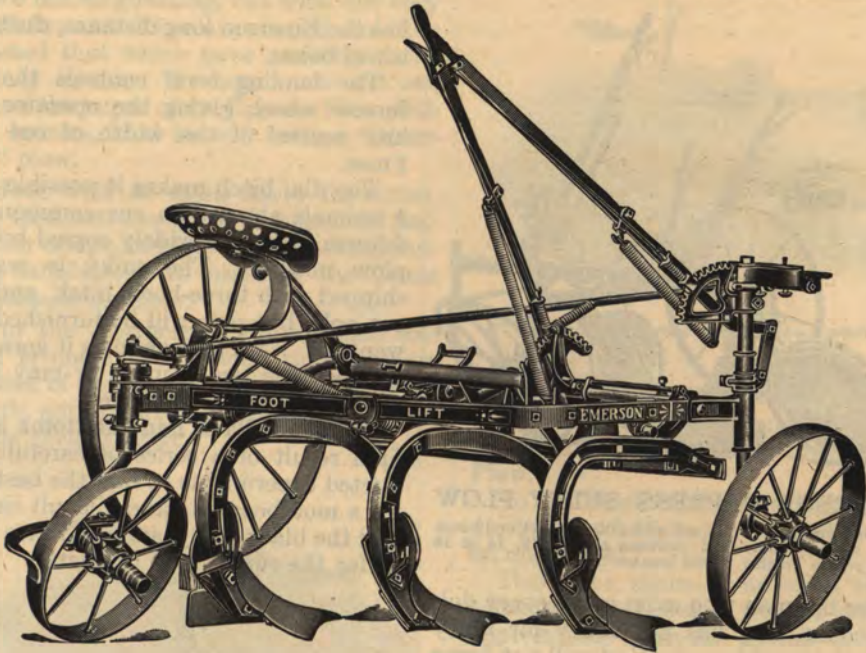
The jointers add somewhat to the draft of the plow, but they more than compensate for this by the later labor saving and by the enlargement of the crops.

The Emerson Jointers are simple, are very easily adjusted and built for actual use. They are sold as extras for Sulky, Gang or Walking Plows. We recommend them in connection with the rolling coulters, a feature that is exclusively Emerson.

We Say—

Emerson Plows are Easiest Handled,
Lightest Draft, Most Durable—

Ask us to Prove it.



EMERSON FOOT-LIFT TRIPLE GANG PLOW

The tendency toward large teams and a desire to accomplish as much as possible with one man has brought out the above which makes it possible for one man to plow as many acres as three men can with the old two-horse plow.

By the use of the Emerson Long Distance thoroughly lubricated wheel bearings, the high wheels, close hitch and compact construction of the Emerson Gang we are able to put three 12 or three 14-inch bottoms in our frame and handle them nicely in ordinary work with five horses or in heavy work with six or seven.

The Powerful Emerson Foot-Lift enables the operator to handle this plow with perfect ease, accomplishing with far less effort, the work of three men with three walking plows.

With this plow the \$35 per month hired man will plow 10 acres per day for you, plow it better and be less tired at night than the two or three acres he will plow with the 14 or 16-inch walker.

In fact the same features of Light Draft, Ease of Handling, and Durability are found in this plow as in the justly popular sulky and two furrow Emerson Foot-Lift Plows. If you want a money maker buy the Emerson Foot-Lift Triple Gang.

A six-horse hitch, is regularly furnished with the Triple Gang.

Note the clearance between bottoms. See the strong bracing of the beams. No clogging in summer fallow, nor springing of beams in prairie breaking. The bottom frame is made on strict mechanical principles, so braced as to withstand the hardest strain. This bottom frame is hung close up to the wheel frame on the famous Emerson short bail brackets. It is locked by the action of the Foot Lever solid to the wheel frame in such a position that the entire weight of plow, operator, and the weight of turning the soil must be



carried on the thoroughly lubricated wheel bearings. Axles are $1\frac{1}{2}$ -inch and every part of the plow carries the mark of perfection that is distinctively Emerson. It is the most profitable plow the large farmer can buy. There's a lot in proper preparation of the seed bed for which the plow is responsible. Get the seed bed right and the crop will be right and the plow is the all important tool.



EMERSON EXPRESS SULKY PLOW

This plow can be equipped with either 12, 14 or 16 inch black land or sandy land bottoms or with 12, 14 or 16 inch prairie breaker or rod breaker bottoms.

For the man who must make every dollar count, and has no money for fancy frills or anything else that will not bring money returns, we have brought out this plow. It might well be termed the "Home Maker," because it is a most profitable investment for the man who is making a home in a new country.

The Express is made entirely of steel and malleable iron (that is, iron that has



Planter Attachment.

This cut shows the planter attachment which you will note has a positive gear connection with the front turrow wheel and can be attached to any Emerson Riding Plow. There are no swinging toggle joints as on some attachments for this purpose, but the gear drive is always in line and perfect, insuring accuracy of drop. These can be had as an extra for the planting of sod corn, sorghum, etc.

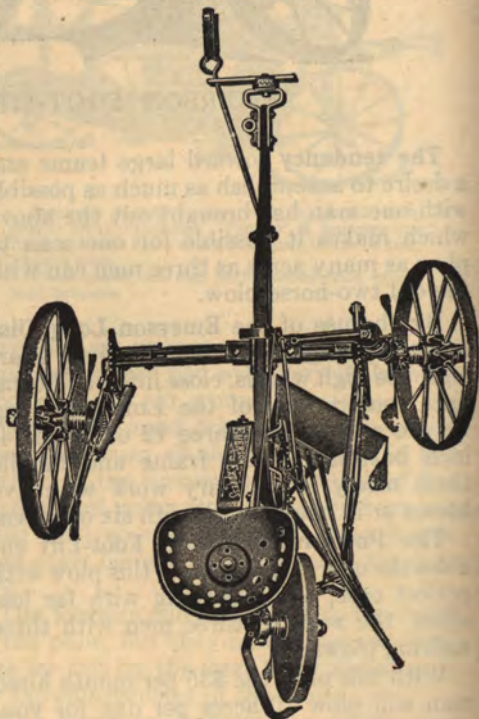
been annealed so it will not break), giving it the sturdiest construction possible. Axles $1\frac{1}{2}$ -inch and 12-inch long—others use $1\frac{1}{4}$ -inch and only 8-inch long, which soon bend or break in hard usage. It

has the Emerson long distance, dust-proof wheel boxes.

The landing lever controls the front furrow wheel, giving the operator absolute control of the width of cut at all times.

The dial hitch makes it possible to use 4 animals abreast on our common sense 4-horse evenner so widely copied by other plow makers. The sulky is regularly shipped with three-horse hitch and without pole, but pole will be furnished when wanted. With four animals it goes either between the two animals or may be put next the furrow if preferred.

Emerson Black Land Bottoms are the final result of a series of carefully conducted experiments to find the best shape for a moldboard for the difficult rice land and the black waxy lands of Texas as well as for the sandy land districts.



Emerson Express Sulky with Rod Bottom
Made in 12, 14 or 16 inch sizes.

This plow can also be furnished with the regular Prairie Breaker Bottom for turning sod.

At the time we were getting ready to make a rod bottom for Sulky and Gang Plows—we were told that such attachments had not been very satisfactory on other plows. This put us on notice that we must do better than others had been able to do.

We did no guessing, but tried out very carefully several forms or shapes, and then selected that which gave perfectly satisfactory results. We now know and can assure the buyer of an Express Plow with rod bottom, that he will have a "pleasing" plow.

Made with an extra heavy fin cutter. The Rod bottoms are of an improved pattern or design and have proven exceptionally satisfactory to users in the Texas Panhandle districts.

For the Northern trade the same bottom is made with a long sloping share instead of the square cut demanded in the South, and we are in a position to furnish either style wanted.



Emerson Express Sulky with Middle Breaker Bottom

In these days of progress there has come a demand for a Plow, to the beam of which a Middle Breaker Bottom can be attached, and still retain the use of the rear wheel.

We are pleased to be able to say that we have no adverse criticism on this combination.

The rear furrow wheel is solid pressed steel, equipped with scraper which insures freedom from clogging and that the plow bottom will be carried in the proper position to secure the best results with the least possible draft.

It of course goes without saying that the features which make these plows so perfectly adapted to the use of the homemaker in the new country, appeal equally to the requirements of the thrifty money maker in the older settled districts.

From the standpoint of acres they will turn per dollar invested, the Emerson Express stands at the top and in a class by itself.



Showing Sweep Stock Attachment

This sweep stock attachment can be used on the Express Single Bottom and on the Emerson Single Bottom Foot Lift Plow.

To this stock can be attached any middle breaker bottom or sweep that takes an open foot.

This stock comes as an extra at small additional cost and it will be especially appreciated wherever cotton is grown, and in irrigated sections for opening laterals.



EMERSON EXPRESS GANG PLOW

This plow like the Express Sulky might well be termed the Homemaker, because it is the most profitable investment for the man who is making a home in a new country. The homemaker must usually count every dollar of expense and has no money for fancy frills or anything else that will not bring money returns.

The Express is made entirely of steel and malleable iron (that is, iron that has been annealed so it will not break.)

It has 1½-inch axles and Long Distance Dust Proof Wheel Boxes in place of 1-inch and 1¼-inch axles used on other makes.

It is therefore strong and durable, and a plow that is always ready. No lost time in sending long distances for repairs for this plow is made to stand anything within reason.

Equipped with either Prairie Mold-board bottoms or old ground bottoms, black or sandy land, or with sod breaker bottoms when desired.



The beams may be set close together for a 12-inch bottom or moved farther apart for 14-inch.

This makes it possible to use 12-inch breaker bottoms for the prairie sod and 14-inch old ground for the backsetting and later plowing.

Notice the compact construction of this plow, all in a bunch and the load close to the team.

All friction is carried on the large $1\frac{1}{2}$ -inch axles and magazine wheel boxes with bearings 4 to 6 inches longer than other makers' plows. We don't need to tell you this means light draft as well as durability.

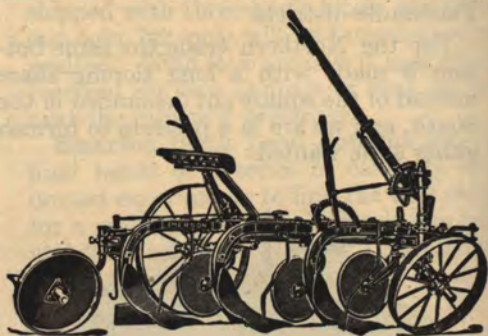
No Cast Iron used in its construction.

The plow turns a square corner either to the right or to the left without raising. It has a quick acting landing lever by which the front furrow wheel is kept always snug up in the corner of the furrow,

insuring a full width of cut at all times, even though the field may be irregular.

The front furrow wheel gauges the width of cut and it is therefore plain that it is this wheel that should be under the driver's control and not the clevis.

Furnished with Emerson common-sense 4-horse hitch, so widely copied and equipped with the same bottoms that have helped make Emerson Foot-Lift Plows the standard of excellence.



EMERSON EXPRESS TRIPLE
GANG PLOW

The farmer who has larger acreage and the desire to accomplish more work in less time, will appreciate this plow. It is built on the same principle as the two bottom express gang, except that the frame is extended to take the additional beam and bottom and strong enough to withstand the strain it is subjected to. With this plow one man can turn ten acres per day and enjoy the same comforts of the sulky and gang plow.

This series is built along new and progressive lines. Notice how compact it is, and how sturdy and ready for work it appears. It has already leaped into popularity by reason of its money saving qualities. Furnished with either six-horse combination hitch, two ahead and four behind, or six horses abreast. We recommend the combination hitch for this plow.

Plow Bottoms used for various purposes on Emerson Plows

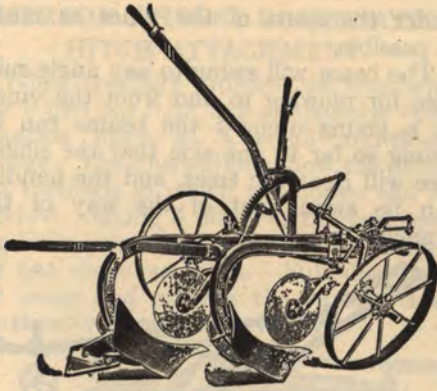


Old Ground or
A-shape

Prairie Breaker or P-shape
with Mouldboard Extension

Special Marsh or
Swamp Land

Heavy Rod
Bottom



No. 2 EMERSON TWO FURROW LIGHT WALKING GANG PLOW.

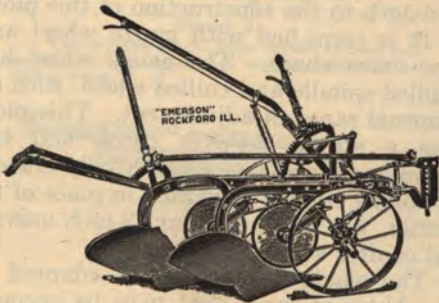
A wheel walking Gang Plow must be free from complications, strong, durable, and easily set in order to get the desired results. The Emerson is virtually a single lever gang, yet by the use of a supplementary lever the bottoms may be kept level at all times no matter what depth the plow is run.

Axles and wheels have the Emerson Long Distance magazine boxes, which are practically indestructible and require not to exceed one thorough greasing for each fifty acres plowed.

The point of share may be raised nearly as high from the ground as on the high lift riding plows, insuring perfect clearance in transportation.

Furnished with either Old Ground, Prairie Breaker, Black or Sandy Land Bottoms.

Sizes, 12 or 14 inch.



No. 4 EMERSON WALKING GANG PLOW.

Extra heavy throughout, designed for deep plowing. Made sufficiently strong for 8 yoke or 16 oxen, and to turn 12 inches deep.

A Clevis Shift is provided whereby the operator has under easy and perfect control, the width of the front furrow, by shifting the hitch without turning the team.

Beams are strongly braced at three points; at front end, at center, and at the rear, thereby insuring ample strength to stand the heavy strain to which this plow is liable.

1½-inch Axles are strongly connected to the beams, each axle extending across and supporting each beam—the strongest possible construction.

The Draft Bar, you will note, pivots between the two beams on the center cross brace, getting the draft well back and carrying same forward over the wheels which reduces friction and lightens draft.

Wheels have solid oil-tight, dust-proof boxes, reducing friction and insuring durability.

Raising Lever is long, extending back within convenient reach of the operator. It carries an auxiliary lever, by which the plow is leveled for whatever depth desired.

Furrow Wheel is staggered, or set at an angle to withstand the side strain with the least possible friction when the plow bottoms are in the ground. This avoids the tendency of the rim of the wheel tearing the edge of the furrow and carrying up dirt into the bearings.

Equipped regularly with two rolling coulter crucible steel moldboard and share, with one extra share for each bottom.



EMERSON THREE BOTTOM VINEYARD GANG PLOW

This plow has three 8-inch bottoms, and may be reduced to two by taking off rear bottom and beam.

The Emerson 3 and 2 gang Vineyard Plow and the Emerson Single Vineyard Plow, using the same landsides and shares

(both chilled and steel) make a combination hard to beat for Vineyard and Orchard work.

The main frame of the Gang is made of one piece of high carbon Channel steel, thus giving the highest strength and stiffness for the minimum weight, and the Standards are high, leaving room for the trash to pass through.

There are only two bolts to take out to change the 3-gang into a 2-gang plow.

One of the levers works the land wheel independently, while the other works both



Emerson Three Bottom Vineyard Gang.

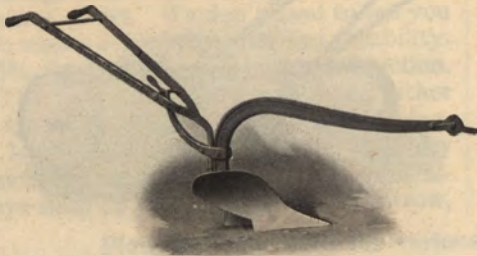
wheels together, and both levers are down when the plow is in the ground so as to pass easily below branches.

The wheels can be used in front for cross plowing or the land wheel can be set back as shown and the change quickly made.

The plow bottom is built upon a solid steel frog, making all bottoms, shares and moldboards easily interchanged and fitted.

The wheels have our celebrated magazine boxes, dust proof and oil tight.

For further information ask for Vineyard Plow Pamphlet.



Emerson Single Bottom Vineyard Plow

The Single Plow is the result of a great deal of experimenting in California vineyards, and takes the same lands and shares as the Vineyard Gang Plow.

The moldboard is cut away or rounded on top and the beam is nearly in the middle of the furrow to allow for plowing

under the spurs of the vines as much as possible.

The beam will swing to any angle suitable for plowing to and from the vines. In a young orchard the beams can be swung so far to one side that the single-tree will clear the trees, and the handles can be swung out of the way of the branches.



EMERSON PS-9 ROD BREAKING PLOWS

DESCRIPTION.	WEIGHT.
PS 9-12-1 12 in.	183 lbs.
PS 9-14-1 14 in.	185 lbs.
PS 9-16-1 16 in.	171 lbs.

To meet the demand for a plow to handle the tough sod and "blue stem" of the Northwest and other heavy sod territories, we have designed our PS-9 Rod Breaking Plows, with the confidence that users of this style of plow will find them satisfactory in every respect.

The construction is the very best throughout. It has a long steel beam with a heavy steel frog, and the same share that has made our walking prairie breaker so popular, which is reinforced with an additional brace to the land-side. An extra long landside, slip share heavy fin cutter, and extra strong rods well braced for doing severe gumbo work, which can be adjusted so as to properly turn the toughest sod, add unusual strength to the construction of this plow.

It is furnished with gauge wheel and one extra share. The gauge wheel has chilled spindle and chilled wheel with an unusual range of adjustment. This plow has a strong set-over clevis and the handles are well and substantially braced. If rolling coulter is wanted in place of fin cutter we can supply our 13-inch universal coulter at additional cost.

The whole combination is adapted to the heaviest work that may be encountered in sod breaking.

To meet the demand for Rod Breaking Bottoms in riding and engine plows, we can furnish these rod breaker bottoms with the extra heavy share used on our wheel plows, to work on both our riding and engine plows.

EMERSON 6-HORSE COMBINATION HITCH ATTACHMENT.

When specially ordered, we ship with our Plows our four, five or six-horse combination hitch at a small additional charge. The illustrations show the different methods in which the horses can be hitched making 6 different hitches, costing little more than is ordinarily charged for one six-horse hitch. Full directions for using and making the various combinations accompany each set.

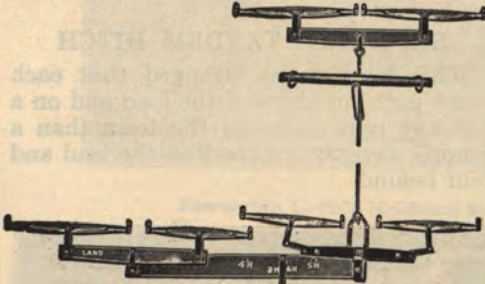


Figure 1.

The 6-horse hitch, four horses abreast and two in the lead. This six horse hitch as illustrated is furnished regularly with our Foot-Lift Triple and Express Triple Plows.

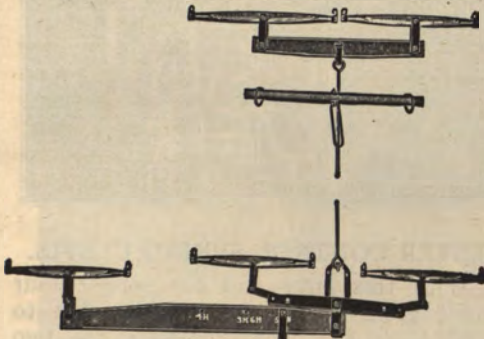


Figure 2

The 5-Horse hitch three horses abreast and two in the lead. Furnished regular with our No. 3 Disc Plow.

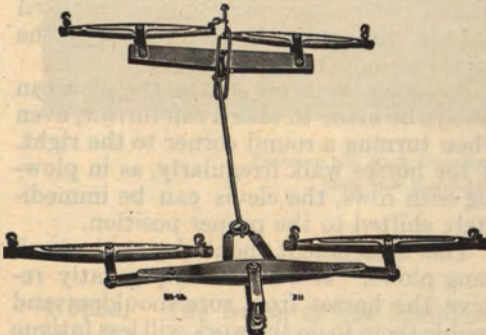


Figure 3

The 4-horse hitch, two horses abreast and two in the lead.



Figure 4

The 4-horse hitch, four horses abreast.



Figure 5

The 3-horse hitch three horses abreast. The 2-horse hitch, the double trees may be easily removed.



Emerson 4-Horse Abreast Hitch.

Furnished regular with Foot-Lift Two Furrow, Express Two Furrow and No. 2 Disc Plows.

It is the best 4-horse abreast hitch made, because—

It contains no complicated devices which force one horse to do more work than another.

It gets the horses back near the load.

It provides more range forward and back, and for turning.

It can be used for any purpose on the farm where four horses are required.

It places the outside land horse further out on the land, and the horses work straight in the traces.

It is the most simple device known for overcoming the side hitch made necessary in working three horses on the land and one in the furrow.



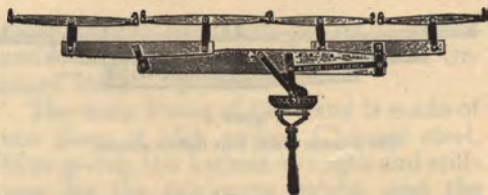
3-Horse Abreast Steel Hitch

Can be furnished with Foot Lift and Express Sulky and No. 1 Disc Plows.



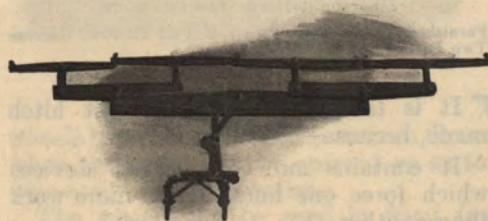
3-Horse Abreast Wood Hitch

Will be furnished with Foot Lift and Express Sulky and No. 1 Disc Plows.



EMERSON 4-HORSE ABREAST [SULKY HITCH WITH SET OVER ATTACHMENT]

This 4-horse Emerson Sulky Evener is designed for four light horses when doing extra heavy sod or stubble plowing. It's really an attachment for using the 4-horse Gang Hitch on the Sulky. It throws the center of hitch to one side of the center of the team so one horse in the furrow and three on the land work comfortably. Attach for four horses as shown in cut.



EMERSON 4-HORSE ABREAST GANG HITCH WITH SET OVER ATTACHMENT

The same principle as our Sulky set-over attachment, the difference being in that with the Gang hitch the evener can be thrown still farther to the left than can be done with the Sulky attachment.

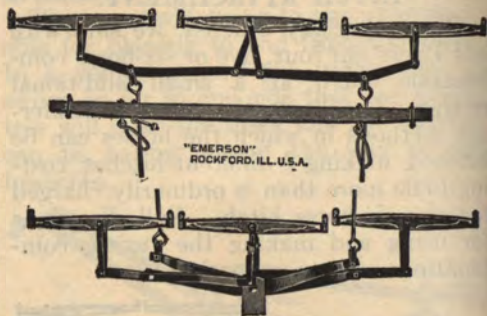
As shown in the illustration, this hitch has but one bolt attaching it to the clevis, and when turning to the left with square corners a short turn may be made without bending or straining the plow.



SIX HORSE ABREAST EVENER FOR Nos. 8 AND 9 TWO ROW LISTERS

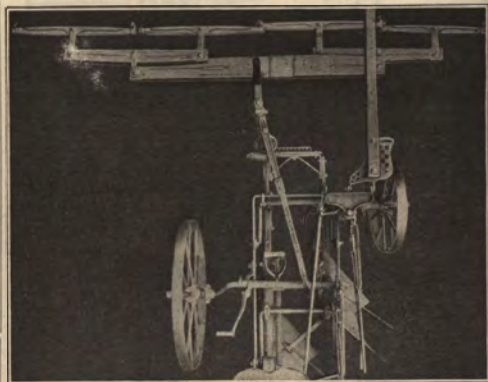
This is a light, convenient 6-horse abreast hitch, with sufficient room between the horses so that they may walk on the ridges, and whether double listing, or listing but once, there is no necessity with this hitch to have the horses walk in

and tramp the seed too deep in the furrow.



SIX-HORSE TANDEM HITCH

This hitch is so arranged that each horse pulls his share of the load and on a hot day it is easier on the team than a 6-horse abreast or even 2 in the lead and four behind.



LEVER CONTROL SPRING CLEVIS.

With this lever and our longer four horse gang evener you will be able to hitch near the center between the two bottoms, and have the horses pull straight. With the spring clevis the extra draft of starting the plow is eased up and in stony ground where the plow comes up hard against the stones, the severe jar to the horses' shoulders is relieved.

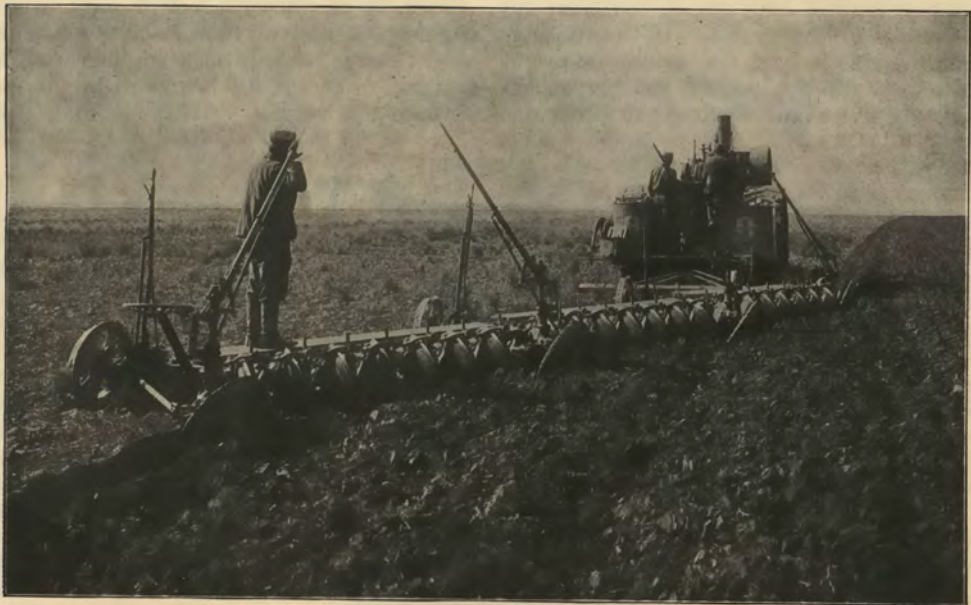
By using the lever control the plow can always be made to take a full furrow, even when turning a round corner to the right. If the horses walk irregularly, as in plowing corn rows, the clevis can be immediately shifted to the proper position.

This attachment should be used on all gang plows. It will not only greatly relieve the horses from sore shoulders and enable them to do the work with less fatigue and strain, but the better work done will repay many times the small cost.

EMERSON ENGINE PLOWS



Emerson No. 31-12-16 Moldboard Engine Plow cutting 15 feet in North Dakota.
This outfit is equipped with our Spring Trips.



Emerson No. 30-21 Disc Engine Plow cutting 15 feet in Russia.
Note how thoroughly the ground is pulverized.

Notice. The frame of the Moldboard and Disc Plows is the same. At little additional cost you can have a Moldboard or a Disc Plow, for the Moldboard Plow can be equipped with discs or the Disc Plows with moldboards.

EMERSON ENGINE PLOWS

The Emerson plow is built in units and sections can be added when desired. Each gang is coupled to the other with the Emerson patent coupling, allowing each section to work up and down, independent of the other, thereby conforming to the uneven surface of the ground.

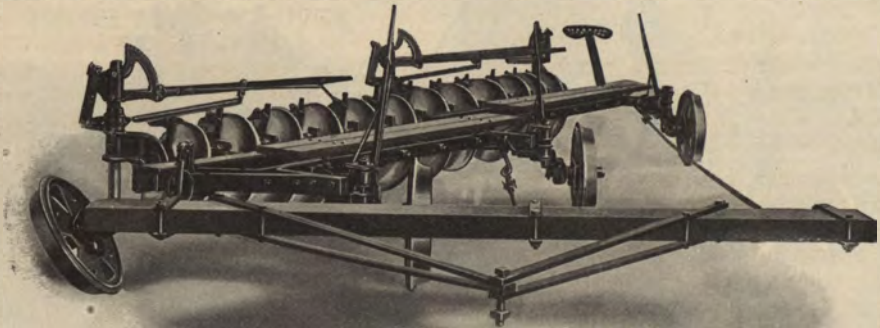
The plow is made of steel, heavily

braced where necessary, and carrying no extra weight for it is not weight that keeps the plow in the ground, it is suction. It turns either way, right or left, and no stopping at the corners. The wheels have our celebrated oil-tight dust-proof magazine wheel boxes and the wheel bearings are chilled. The load can be adjusted to



the power of the engine. If the footing of the engine is bad, tip up one or more bottoms until the engine has the right load. In five minutes' time the Emerson

engine plow can be raised to its extreme height and set to follow the engine through any gate or across any bridge wide enough to take the engine. After reaching the



field the plow is quickly set for plowing.

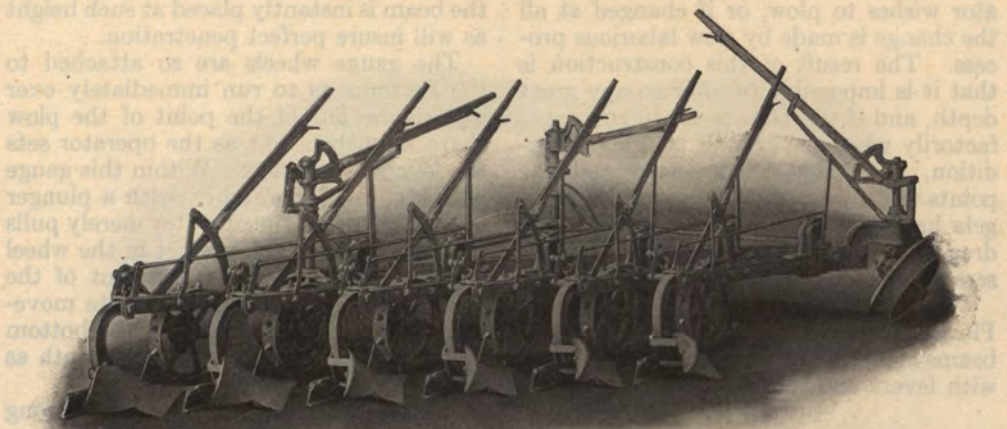
These plows may be equipped with either moldboard or discs on same frame. The use of engines for plowing has been fully demonstrated as practical as well as economical. Owners of Threshing Engines buy them and make a handsome income between threshing seasons, instead of allowing the Engine to stand idle.

2 sections cutting 10 feet or $3\frac{1}{2}$ acres per hour.
 3 " " 15 " $4\frac{1}{2}$ " " "
 4 " " 20 " $6\frac{1}{4}$ " " "

with an Engine traveling $2\frac{1}{2}$ miles per hour.

18 to 20 H. P. Engine will pull a 10 foot Plow.
22 to 25 " " " " 15 " "
32 to 35 " " " " 20 " "

Send for special Engine Plow Catalog, which tells how to lay out a field for engine plowing and other valuable information for users of engine plows. The book has 43 illustrations showing engine plows in actual use.



No. 50 INDEPENDENT BOTTOM ENGINE PLOW

The irregularities of the burned out prairie lands of the Northwest and the hog wallow land of the Southwest have created a demand for a prairie breaker engine plow with a separate gauge wheel to control the depth of penetration of each plow bottom, the contention being that a plow built on these lines will conform to the uneven surfaces and do a good job of breaking in these particular lands.

The fact is sometimes overlooked that while the independent bottom plow will turn the uneven prairie sod at a more uniform depth than the regular Emerson Engine Plow, which carries the side pressure and weight on the wheels on the same principle as the Emerson Foot Lift Sulky and Gang, it nevertheless remains true that with the regular Emerson engine plow these inequalities in the surface are more quickly leveled than where the independent bottom plow is used. As occasionally one wishes to make a practice of breaking prairie for others and using the plow only in districts above referred to, to supply that demand we have applied nearly six years' experience in engine plow building in the making of an independent bottom plow, the equal of any other independent bottom plow on the market, and superior in many ways to any of them.

Probably there are few occupations more tedious than the one of so guiding the engine as to have the front furrow of uniform width when using the types of independent plows heretofore marketed because the width of the front furrow is gauged absolutely by the distance the

operator drives the engine from the last furrow turned, and to sit all day and guide an engine within $\frac{1}{2}$ inch of the line in which it should travel, conforming to the variations in the land, is no easy task. With the EMERSON Independent bottom Plow the width of the front furrow is absolutely controlled by the front furrow wheel of the plow. The hitch to the engine being flexible, the operator may vary the distance he drives from the last furrow as much as a foot, without materially disturbing the width of the front furrow. This feature alone will sell the Emerson Plow to the man who has had experience guiding engines hitched to other types of independent bottom plows.

In addition to providing a gauge wheel for each bottom separately which absolutely controls the depth the bottom will run, the beams are so pivoted to the frame that if one plow bottom comes in contact with a rock that it cannot move or pass over, that particular bottom can pass to one side of the rock, yet is immediately drawn and forced back to its original position by the compensating lever and spring action of the other beams and their connection to the forward frame. The result is a material reduction in the breakage of shares, springing of beams and frogs, and damage so frequently done to other types of independent bottom engine plows.

All other plows of this type are so constructed that the height of the front end of the beam either remains stationary, regardless of the depth at which the oper-

ator wishes to plow, or if changed at all the change is made by slow laborious process. The result of this construction is that it is impossible to plow to any great depth, and if the plow is set to run satisfactorily when the ground is in good condition, the plow shares sharp and the points well turned down, when the ground gets hard and dry the plow bottoms will drag on the top of the ground or merely scratch along in an unsatisfactory manner.

With the Emerson Independent Bottom Plow the forward frame to which the long beams attach is carried on wheels provided with levers and ratchets so the height of

the beam is instantly placed at such height as will insure perfect penetration.

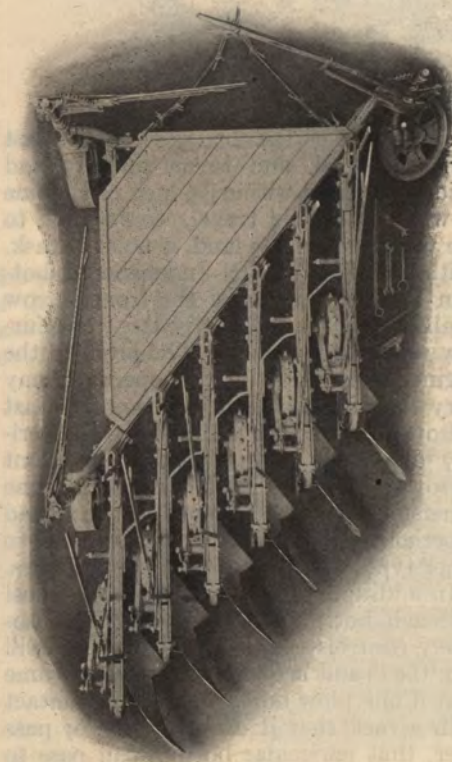
The gauge wheels are so attached to the bottoms as to run immediately over and to the left of the point of the plow share at such height as the operator sets the levers of his plow. Within this gauge wheel, is a heavy ratchet, with a plunger so arranged that the operator merely pulls a lever, engaging the ratchet in the wheel and raising the plow bottom out of the ground for turning. The opposite movement of this lever puts the plow bottom back in the ground at the same depth as before.

It is no longer necessary to have strong men to operate the levers in engine plowing, for any small boy can easily put the Emerson Independent Bottom in or out of the ground, and can operate the plow as well as a man, after it has once been set to do the work desired.

The prairie breaker bottoms on this plow have the long sloping share with the removable and adjustable chilled heel to the landside. As the landside in this type of plow must carry practically the entire side pressure caused by the share, this chilled removable and adjustable landside heel will be thoroughly appreciated by all users of engine plow prairie breakers.

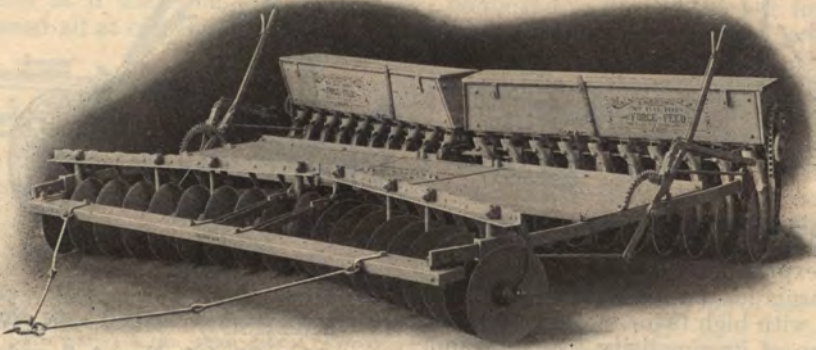
The plow is made with 6 and 8 14-inch bottoms, the prairie breaker bottoms having fin cutters and extra shares, and the old land bottoms rolling coulters and no extra shares.

As above stated, this plow is designed for the special conditions first mentioned. It is the equal in every respect of any independent bottom plow on the market, and in many respects superior to any. At the same time, except for the special conditions first mentioned, our experience teaches us that the regular style of Emerson Flexible Section Engine Plow with the staggered furrow wheels, carrying the entire weight of the plow bottoms on thoroughly lubricated wheel bearings, and which may be equipped either with discs or moldboards, or both, is the most economical engine plow construction for general use.



the frame can be instantly adjusted to plow at such depth as the operator may desire, no matter how hard the ground may be. In other words, the front end of

To no greater authority can the farmer apply for information on the best machinery for Traction Engines than us. We were the originators of this style of machines.



No. 60 EMERSON ENGINE DISC HARROW

A machine designed and constructed with a view to engine work only. It must therefore be heavy, strong and durable, and at the same time not so unwieldy as to be difficult to operate.

As you will see from the cut, the machine is built in 2 sections with a large weight pan between the sections. The front section is set so the discs throw out while the rear section discs throw in, thus pulverizing as thoroughly as possible, completely cutting the entire surface of the field and preparing your seed-bed with only one passing of the engine over the field. With all the discs set straight it makes a first-class sub-surface packer.

The harrow is built to cut 10 ft. wide, and is equipped with 40 16-inch disc blades, and to cut 8 ft. wide and is equipped with 32 16-inch disc blades. In many sections of the country this machine will be found sufficient to perfectly prepare the seed-bed without plowing the ground oftener than once in 3 years.

Under ordinary conditions a 25 H. traction power engine will pull 2 of these harrows. For very difficult work the harrow can be weighted so one harrow is an ample load for a 20 H. tractor. The weight pan is so attached to the machine that either rock, sod or sacks of sand or dirt may be used as weight, and there is room for a ton of sod on this platform.

Compared with a horse disc harrow, the disc blades in this machine are $\frac{1}{2}$ heavier. The disc spool twice as heavy with wide flanges to reinforce the discs.

The axles are one-inch square instead of $\frac{3}{4}$ -in. as used on common horse discs. There are four bearings on each gang in place of 3 on the horse discs. The levers are heavier than on the horse disc, and worked on the outside end of the gangs, afford the operator more leverage or purchase over the work to be accomplished than in the center lever construction. The draw-bar is fastened to the frame with a clevis around the end of the bar, and the front gangs are connected with the draw-bar both at the outside and inside ends. The platform is divided in the center and fastened with 6 U bolts so the discs can conform to their work properly. The levers are so arranged that the rear section can be set at greater or less angle than the front section. At the same time the operation of one lever changes the angle of both front and rear sections on one side.

A seeder or drill attachment may be used on the rear harrow sowing the seed down behind the discs so that all seed is covered at a uniform depth and as fast as sown. This seeder attachment is constructed along the same lines as the seeders for our regular horse discs described in the Horse Disc Harrow section of this catalog, which have proven so universally satisfactory.

Equipped with draw-bar and irons ready to attach to engine

10 ft.	Harrow weighs	1700 lbs.
8 "	" "	1550 "
10 "	Seeder	450 "
8 "	" "	350 "



No. A4 EMERSON DISC PLOW

Built expressly for the hard adobe lands of California for dry ground plowing, it is meeting with high favor in other sections by reason of its simplicity, strength and durability.

The rear disc and beam can be taken off, making a very satisfactory Three Disc when team conditions require.

This plow is guaranteed to plow anything that can be handled with horse power, and while it cannot be reduced smaller than Three Disc, it has many features that recommend it over any other Disc Plow made.

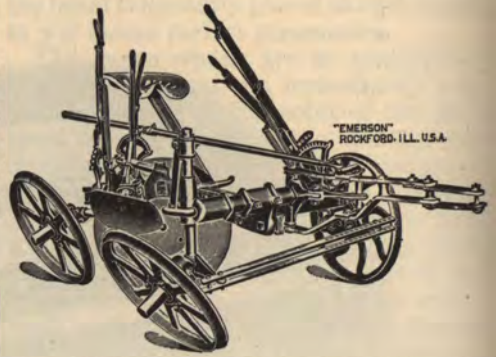
We also equip this plow with three 12-inch moldboard bottoms, either stubble or prairie breaker or furnish the beams and bottoms extra so the plow can be used with discs when the conditions are favorable and likewise with the moldboard.

Light Gasoline Tractors are being sold in many sections and this plow makes a very satisfactory rig for these small engines with a capacity of eight traction horsepower or over. In ordering for use with engine be sure to so specify, as a different hitch is necessary when used with engine. We only recommend this plow for light engine work.

For regular engine plows write for Engine Plow Book.



No. A4 Plow with three 12-inch bottoms.



EMERSON DISC PLOWS

New Models Nos. 1, 2 and 3

GENERAL CONSTRUCTION

This implement is of the very highest grade a disc plow can be made. The frame is made of very tough, extra quality steel and special iron, thoroughly braced and bolted.

The Frame is so made that the single plow may be easily and quickly converted into either a double or triple machine, or the triple plow can be taken down for either a double or single.

Some years ago a farmer at Denton bought a double Disc Plow. He had only four mules; one got out in the night and was disabled on barbed wire, but he re-



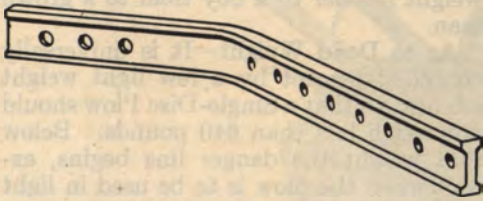
Detail showing Dust Bands on left, Disc Journal and Box, Ball Race and Ball Retainers, and the Adjusting Block. The balls are of hardened steel, $\frac{3}{8}$ -inch in diameter. No loose balls in this plow.

Ball bearings are a necessity on up-to-date Disc Plows. Lightens draft, saves team, saves feed.

duced the plow from a double to a single, and went right on with his work at a time when he could not well afford to stop.

The advantages of this construction are that one may buy a single disc plow and later on, when he has use for a plow of greater capacity, may buy and attach the extra parts and thus convert the single

into either a double or triple machine. In this way the money spent is not noticed so much as if the complete machine is purchased all at one time.



No. 2 Beam.

This is a picture of the No. 2 Beam, which with disc, box and scraper, converts the single into a double disc plow. These parts can be added at any time. This feature is one which cannot be over-estimated in buying a disc plow.



No. 3 Beam.

This beam, with the disc box and scraper, completes the No. 3 Disc Plow. This can be ordered and easily attached at any time in the future, should a larger plow be desired.

The Emerson cuts a perfect furrow. A short, square turn to either right or left can be made on head land.

Adjustments all simple and easy. Levers within easy reach, and easily handled by any boy old enough and big enough to manage a team.

The pull of the team keeps the furrow wheel "in track."

Read the best that is said of any other Disc Plow on any point of particular merit—that feature will be found in the Emerson Disc Plow in a greater degree of perfection.

In trying to make up a plow to meet the whole list of requirements, we found we must avoid, in some respects, the errors our own experience and observation, and the reports of dealers clearly indicated had been made by other makers of Disc Plows.

The net result is that in the Emerson there are no errors.

The following points are "provable."

Lighter draft than others.

More durable than others.

More easily handled than others.

More real, genuine merit than others.

Plan of Construction

FRAME—Steel Beam, unbendable and non-twistable because of the supporting

blocks. The Furrow Wheel Arm is adjustable, allowing the furrow wheel to be moved to the right or left for the purpose of taking the desired furrow slice—will cut 12 to 28 inches, according to depth run and number of discs used.

WHEEL BEARINGS—Oil Tight and Dirt Proof. One lubrication for one whole season.

LEVERS—The Levers are conveniently placed—no more of them than necessary for the proper and easy management of the plow.

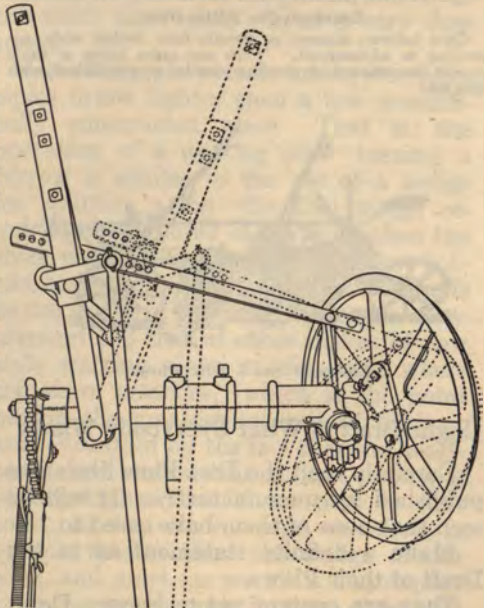
DISCS—The Discs are of the best quality of polished steel

ADJUSTMENTS—The Discs can be given any set or angle that may be needed to meet the requirements of the condition the land may be in at a given time. The land is not the same all the year through.

RAISING DISC—The Disc is set up or down by means of a lever conveniently placed and easily operated.

CLEANING—The Scraper is adjustable to pitch and wear. Can be set to press hard or lightly against the Disc, as circumstances require.

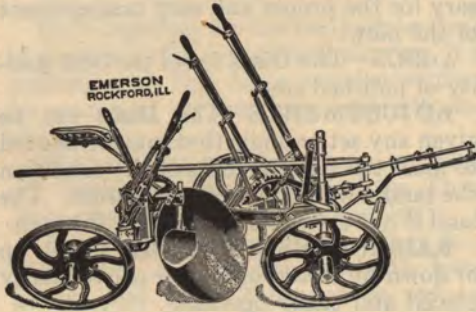
HANDLING—No Plow is more easily handled. "It minds better and quicker" than any other. **Equipment**—Three-horse, 4-horse, or 5 or 6-horse Combination Hitch, two Wrenches and Locking Hook.



This view shows the draft control of the front furrow wheel, the dotted lines showing the plow turning to the right.

The wheel turns square about, without a swinging back into the disc.

The width of the cut is quickly adjusted, and by the most easily operated lever ever put on a disc plow. This manner of pivoting the wheel axle gives a perfect control of the draft over the guiding of the wheel. No switching of the double-trees as found in some of the attempts to control the wheel by draft.

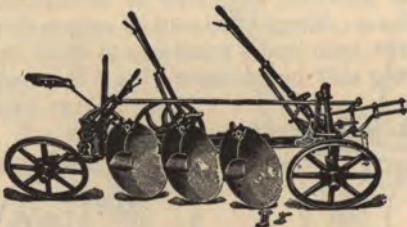


Emerson No. 1 Disc Plow.



Emerson No. 2 Disc Plow.

Cuts furrows sixteen to twenty-four inches wide, according to adjustment. With one extra horse or mule double the amount of plowing can be accomplished with this size.



Emerson No. 3 Disc Plow.

Light Draft is What Everybody Wants

Carefully read the Disc Plow literature published by manufacturers. It will be seen that none of them have cared to

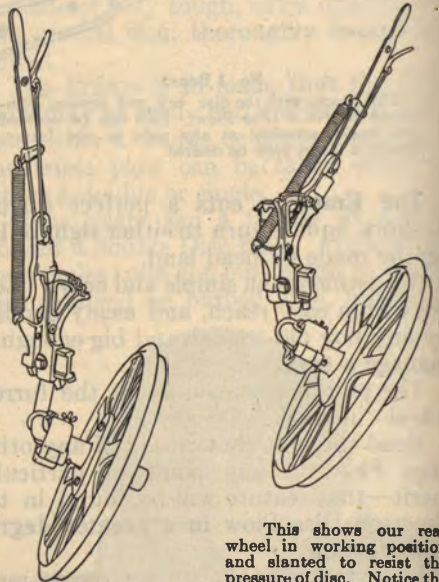
Make a definite statement as to the Draft of their Plows.

They are content not to know. Don't want to know so long as they can find people who are as willing to NOT KNOW—as the makers of the Plows are.

The Wisdom of Ignorance on that point is obvious. But they say with candor: "The draft is lighter under some conditions than others." So is a 100 pound weight heavier to a boy than to a grown man.

As to Dead Weight—It is universally conceded (except by a few light weight advocates) that a Single-Disc Plow should not weigh less than 640 pounds. Below that weight the danger line begins, except when the plow is to be used in light sandy land.

DISC PLOWS ARE "DRY TIME" PLOWS. It is for that reason that we have designed and perfected a Disc Plow that shows to the best advantage over all others—when the ground is "Good and hard."



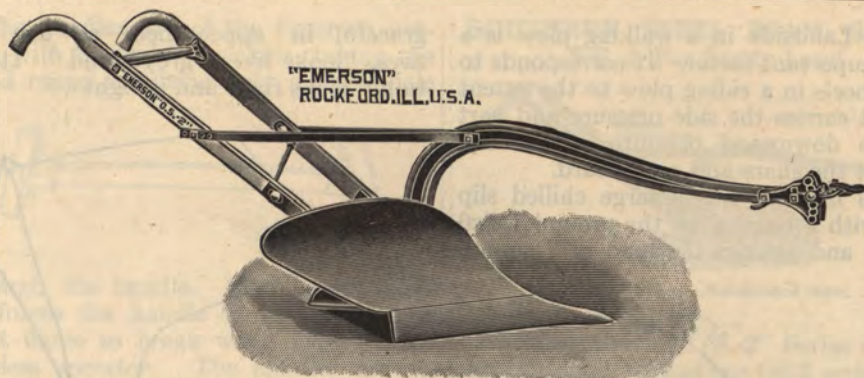
This shows our rear wheel in working position and slanted to resist the pressure of disc. Notice the dust-proof, oil-tight wheel boxes—the 2000-mile box that has helped make the Emerson Foot-Lift Mold-board Plows so popular. More can be learned about these wheels on page 6.

In this picture is shown how the wheel is thrown to nearly an upright position, and at the same time the disc lifted up high for transportation.

The Emerson gets its light draft by the use of the ball bearing—see cut on page 22—average 440 pounds, cutting 6x12 inches in sticky, black waxy land—harder pulling than when ground is hard and dry.

The balls are placed in a ball cage—and cannot get out of place. See page 22.

A team not worked to its full capacity requires less feed than if pulled up to its limit.



EMERSON O.S.-2 AND O.S.-3 SERIES WALKING PLOWS

Made in Right and Left Hand.

The old saying that "A plow is a plow"—that is, that all walking plows are alike more or less, has no doubt become common because of the fact that but little improvement has been made in walking plows for some years past. In our endeavor to give to the farmer the best line of farm implements made, it occurred to us that there was no reason why the man who for any cause uses a walking plow should not have a better plow than he has been able, heretofore, to buy, and the working out of that thought resulted in the OS-2 series of Emerson Walking Plows, the finest walking plow that has ever been built. It will run across any field without the operator having to touch the handles, and there is a reason.

A walking plow should have a three-point suspension, like an automobile engine. That is, to run steady there must be three solid flat bearing surfaces on which the plow bottom rests. One at

cause it affects not only the quality of the work but the life of your team, and the cost of their feed. With a light draft plow your team will walk faster and walk-



O.W.-2 Plow. Moldboard view.

ing faster causes any plow to more thoroughly pulverize the ground and cover the trash than when run at a very slow speed.

A walking plow made on correct principles draws lighter than a less scientifically constructed plow. That is, the operation of a walking plow turning a furrow is similar to the use of a wedge for splitting a log—the thin wedge requiring fewer blows of the maul than the thick wedge. The point of the plow bottom starting the furrow slice corresponds to the wedge in the log. By actual measurement the shin of other makes of new style walking plows at the point where the share attaches, (which is the point having the greatest amount of friction, as is evidenced by the fact that the moldboard first shows wear at that point), is $\frac{1}{2}$ -inch higher than is our plow at that point, so that their wedge, so-called, is $\frac{1}{2}$ -inch thicker than the wedge of our plow, and must, as we all know, require more power because it must raise the ground faster at the time when it takes the greatest amount of power to raise it, than does our wedge.



O.S.-2 Plow. Landside view.

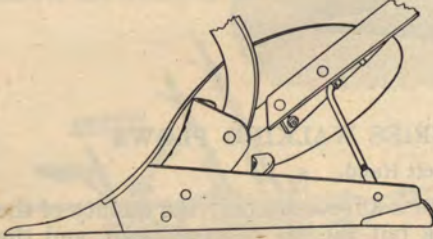
the point of the share, one at the heel of the share and one at the heel of the land-side.

In the OS-2 series these three points are rightly proportioned so the plow runs absolutely steady and true.

Light Draft in a walking plow is a feature we have given special attention be-

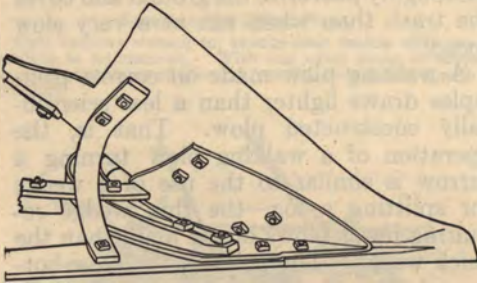
The Landside in a walking plow is a very important factor. It corresponds to the wheels in a riding plow to the extent that it carries the side pressure and part of the downward pressure of the soil against the share and moldboard.

This landside has a large chilled slip heel with a bearing on the ground $1\frac{1}{4} \times 6$ inches and against the land of 7 square



inches. This chilled heel takes all the wear caused by the pressure above mentioned. It is as hard as glass and aids materially in the light running qualities of the plow. This slip heel will last longer than the life of the ordinary walking plow and is easily replaced at little expense should such action be necessary.

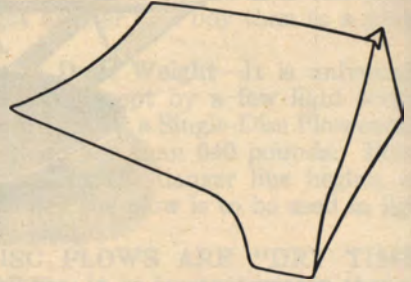
A pressed steel frog, $\frac{5}{16}$ of an inch thick, the foundation of this plow. It is so shaped as to reinforce the share, the moldboard and the landside. To this



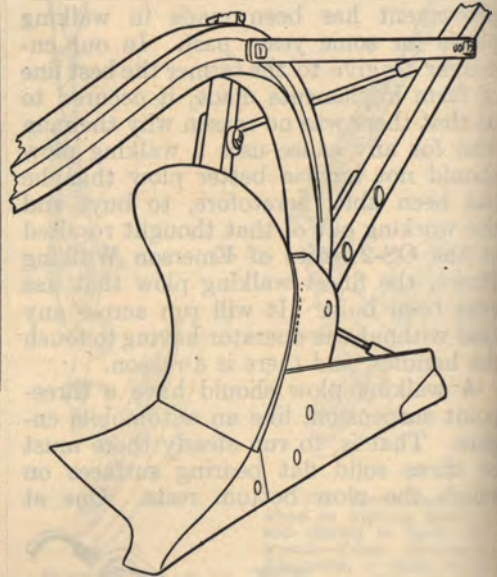
frog the beam is bolted and with this frog we get a perfect interchangeability of parts, shares, moldboards and landsides, which will be appreciated as it becomes known to the user.

The beam is $1\frac{1}{2}$ -inches longer and 1 inch higher in the throat than the regular standard plows. By increasing the length of the beam we get a more direct line of draft from the load which is at the shin of the plow through the clevis at the front end of the beam to the horse's shoulders on a medium sized team, and this gives us a steady running light draft plow. The beam, see illustrations, is

graceful in appearance—as one man says, “looks like a greyhound.” It certainly looks right and is right



The share, which as above stated has a broad wing, giving a perfect bearing at the heel, is so pointed as to shed roots perfectly, a feature much to be desired. It is strongly reinforced with hard steel



on both top and bottom side of the point and the landside flange makes a weld that not only reinforces the share but makes a permanent construction that will not part in the blacksmith's fire.

The moldboard. Anyone who has had any experience with the “O” moldboard on a Foot Lift Emerson sulky or gang will tell you that it is the lightest draft board made. Not only that, but it is so shaped that it scours perfectly and turns under all trash. No other shaped board made so thoroughly aerates the soil and does such perfect work. It has a lot to do with the light draft, steady running qualities of this plow.

The handles are of the Emerson pattern with malleable brackets, taking the wood round requiring only a small hole



through the handle. This construction reinforces the handle at the point it is most liable to break when used by the careless operator. The handles are attached to the plow base or bottom with 2x1/2-inch solid steel straps, making a very firm substantial connection.

With all these points in mind ask for and insist on having the Emerson OS-2, which means Old Ground Steel or Wood Beam Improved Walking Plow. It saves



O.W.-2 Plow. Landside view.

horse feed, saves money because, properly cared for, it will last as long as you live, makes a better seed bed and helps make the hired man happy and contented.

This Series of Walking Plows can be furnished as follows:

OS-2. Steel Beam, extra hard soft center steel moldboard and share, crucible steel with chilled slip heel landside, in 12, 14 and 16 inches.

OS-3. Steel Beam, crucible steel moldboard and share, crucible steel with chilled slip heel landside, in 12, 14, and 16 inches, and one extra share.

OW-2. Wood Beam Steel Strapped, extra hard soft center steel moldboard and share, crucible steel with chilled slip heel landside, in 12, 14 and 16 inches.

OW-3. Wood Beam Steel Strapped crucible steel moldboard and share, crucible steel with chilled slip heel landside, in 12, 14 and 16 inches, and one extra share.

We can furnish Chilled Shares for this series of Plows.

SOUTHERN STEEL BEAM SERIES S.S.-2 For Sandy Land



S.S.-2 Plow. Moldboard view.

The Emerson "S. S.-2" Series is built on the same plan as our OS-2 series with a bottom especially adapted to the light, sandy soils peculiar to the Southern states, will give good results for light work most anywhere.



S.S.-2 Plow. Landside view.

Beams are of our regular pattern, allowing plenty of clearance, and made of our special double-beeded billets.

This series also has hardened, soft center steel moldboards, steel landsides and solid steel slip shares. Extra share is furnished with each plow.

SOUTHERN STEEL BEAM SERIES B.S.-2 For Black, Waxy Land

Great care has been exercised in the construction of these Black Land Steel Beam Plows to make them precisely right for successfully meeting Southern conditions. They are built exactly on same specifications as our OS-2 series. The



B.S.-2 Plow. Landside view.

black, waxy lands of the South can be handled to a nicety with this series. They are dependable plows in every respect and covered by our guarantee. Furnished



B.S.-2 Plow. Moldboard view.

with hardened, soft center moldboard, sloping steel landside and solid steel slip share, and each plow with one extra share.

EMERSON PRAIRIE BREAKER PLOWS



P. W. Plow. Made in 12, 14 and 16 inches.

These plows are designed especially to meet the requirements in the Northwest, which insures satisfaction throughout the more Southern prairie states.

They are made in right hand, with wood beam only, and in 12, 14 and 16-inch.

Owing to the peculiar shape of the moldboard, whereby an even pressure is secured over the entire surface, friction is reduced to the minimum, consequently the draft is light, the plow runs perfectly steady and turns a true and even furrow. The share is long, slim and true, and as a whole the plow carries out to perfection the dependability of Emerson plow construction.

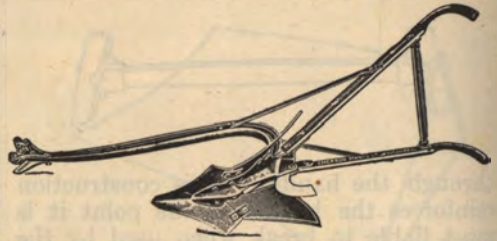
MARSH BREAKER PLOW



The shape of the share and standing cutter makes this plow especially adapted to drained swamp lands and light brush lands. These bottoms also furnished for our riding plows, both Foot Lift and Express.

EMERSON MIDDLEBREAKER PLOWS

Made in 12, 14 and 16 inch sizes.



The Emerson is made to meet the demand for a first-class, high grade middlebreaker for general use.

A special knife and holder are used as shown, and owing to the construction of the knife holder, it is only necessary to loosen one bolt when it is desired to change the depth of the knife.

The construction of the machine is such as to insure ample clearance.

The material throughout is of the very best, and we recommend this style for a "general purpose middlebreaker."

STAR MIDDLEBREAKER STOCK



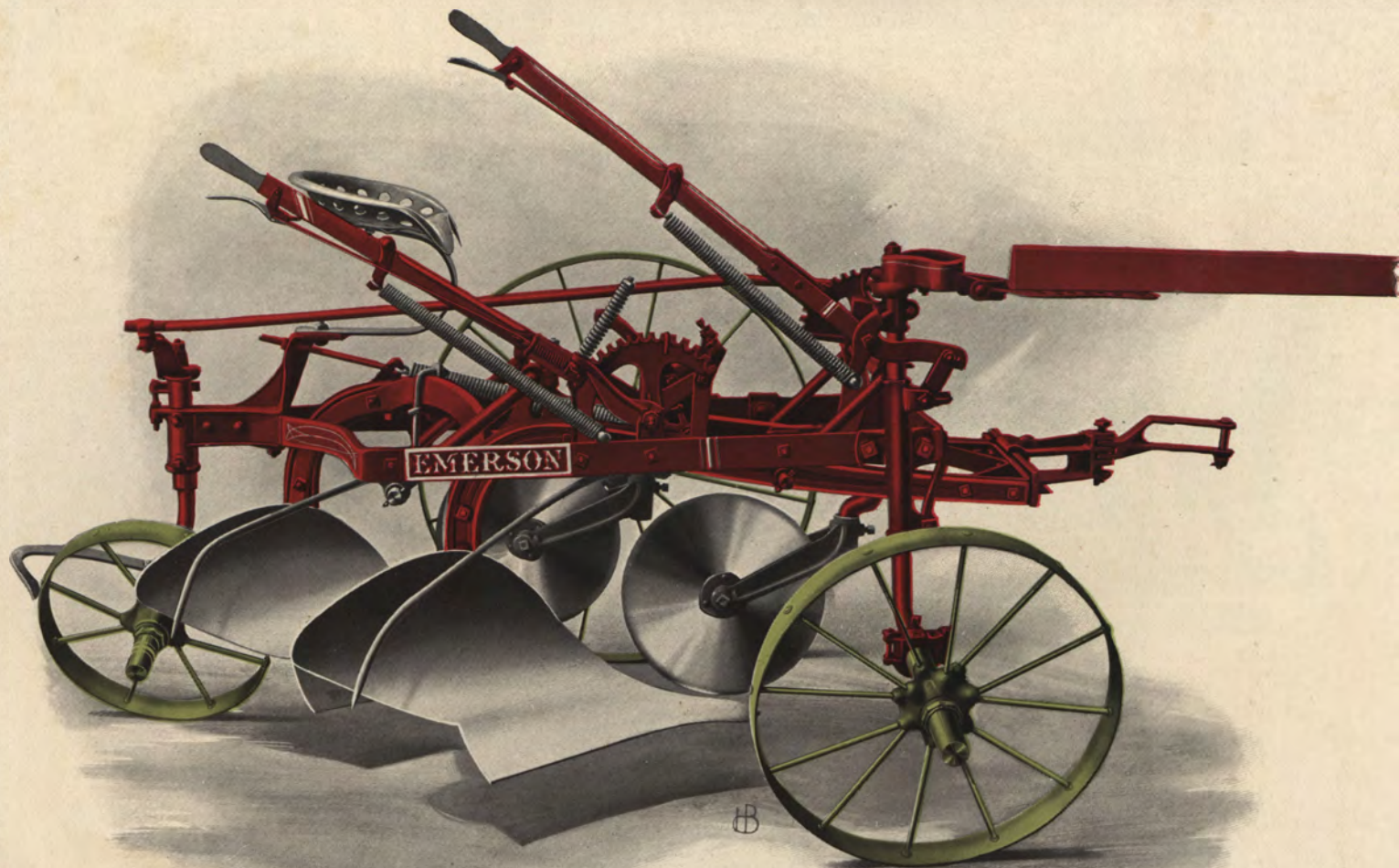
Made in 12, 14 and 16 inches.

This Standard Middlebreaker is a combination of middlebreaker and universal stock; is equipped with a regular beam of sufficient strength to permit the use of either a 12 or 14-inch middlebreaker shape, if desired, or any of the regular stock shapes or sweeps.

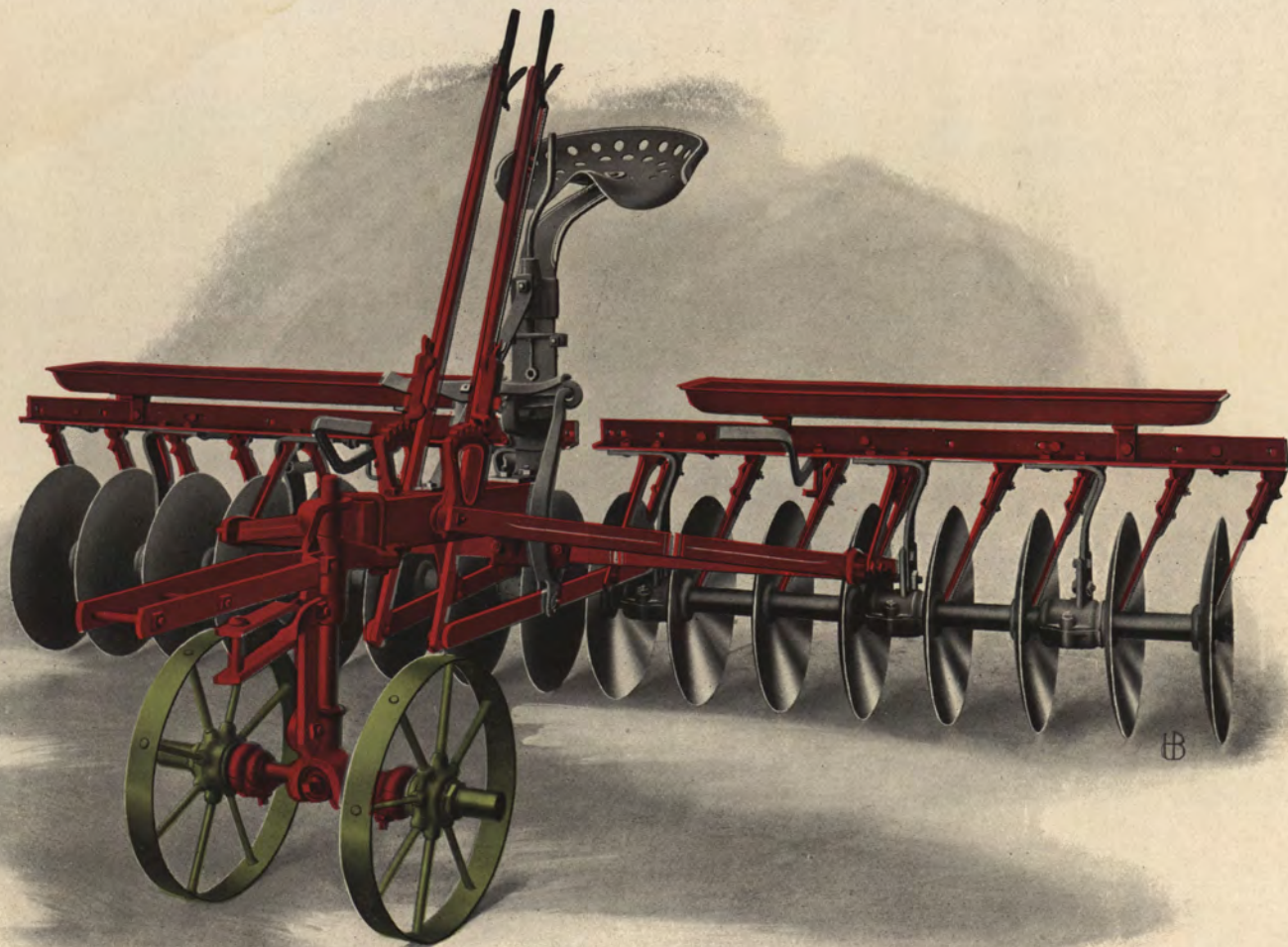
The bar is in two parts, which hold the guiding knives. By merely loosening a nut, the knives may be adjusted as desired. The required pitch is obtained by setting the top of the standard either backward or forward on the beam, making an extremely simple and unique method of adjustment.

The knife, likewise, is adjustable and may be set up to prevent wear when running the middlebreaker to or from the field.

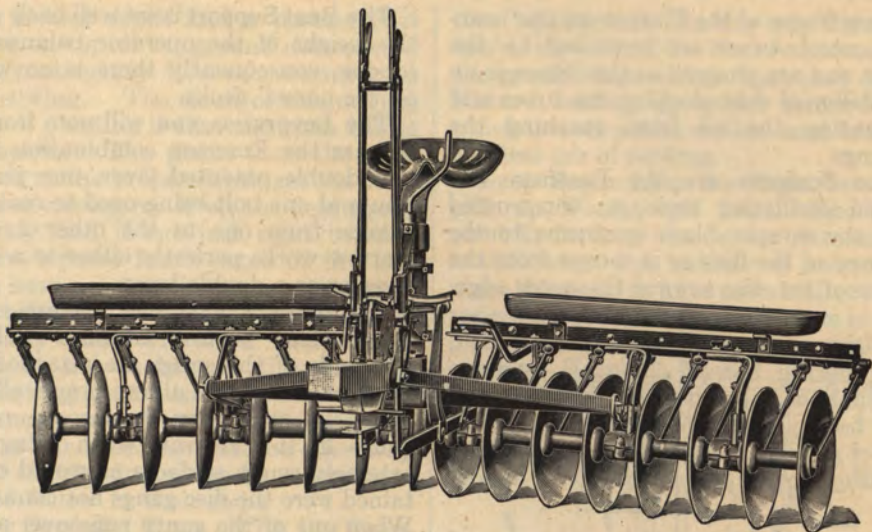
Material, workmanship and working qualities are designed to meet the requirements of a medium priced machine.



EMERSON FOOT LIFT GANG PLOW



EMERSON FLEXIBLE DISC HARROW

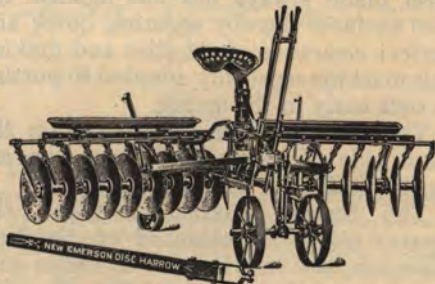


NEW EMERSON DISC HARROW

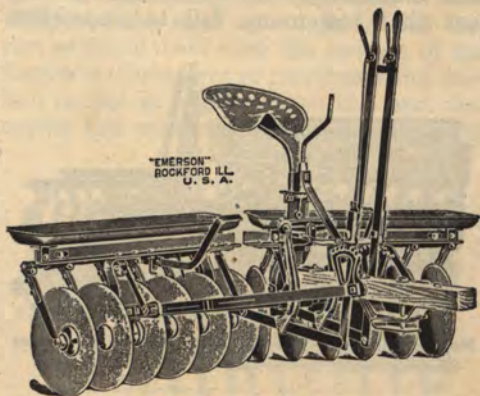
Made in 6, 7 and 8-foot Cut, with either 16, 18 or 20-inch Discs
Also in 9 ft. and 10 ft. with 16-inch discs only

Uniform Depth. If you have ever used a Disc Harrow you have noticed that when the harrow was so set that the center cut the same depth as the outer ends of the gangs, in reasonably hard ground, when you undertook to disc soft ground with the same adjustment the center would cut deeper than the outer ends. The result was that you were either compelled to take your wrench and considerable time to re-adjust your harrow to the

culiar to all makes of disc harrows heretofore manufactured, and have provided 'a quick acting lever (patent applied for) whereby the operator can instantly level



New Emerson Disc Harrow, equipped with Transport Trucks and Tongue Truck.



New Emerson Disc Harrow, 6-foot size.

conditions of the soft ground or you went ahead and did the best job you could without taking this trouble. The chances are that you pursued the latter course.

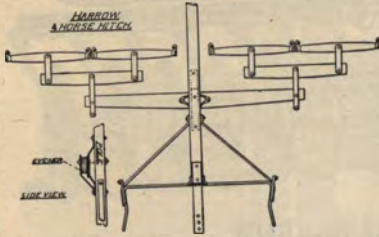
Quick Acting Lever. In designing the New Emerson we had in mind the objectionable feature above mentioned, pe-

the cut of his harrow whether in hard or soft ground and regardless of the angle at which the discs are set. Remember, this lever can be operated instantly whether the machine is standing still or moving—something that cannot be done on any other Disc Harrow on the market.

Light Draft. It has a Low Hitch and Light Draft owing to the Emerson Improved **Hardwood Bearings** which wear longer and run easier than any other bearing that has ever been used on a Disc Harrow. When the hardwood bearings become thoroughly saturated with oil they assume a hard polished and smoothly running surface which will be almost impervious to wear. Oil tubes extend from

the top frame of the Harrow to the bearings, which tubes are protected by the frame and are plugged so that there is no possibility of dust clogging the tubes and preventing the oil from reaching the bearings.

The Scrapers are the Emerson Improved oscillating style, so constructed that the scraper blade conforms to the concave of the disc as it moves from the center of the disc toward the outer edge.



Four Horse Hitch for Disc Harrow
Furnished regular with all New Emerson Disc Harrows except No. 46.

The result is that instead of the corner of the blade only bearing against the disc at certain points, in the Emerson the steel blade always lies flat against the disc surface, thereby securing quick and perfect clearance of the disc and making this machine especially adapted to putting in oats early in the spring.

The Scraper Foot Levers are on the front side of the weight boxes conveniently located for the operator.

The Square Shafts, to which the scraper blades are attached on the New Emerson, are heavier and of stiffer material than is used on any other Harrow. The result is that there is no possibility of this shaft springing and getting the blades out of line.

Steel Standards have been provided in this machine instead of the large, cumbersome, cast or malleable standards largely used on other makes. The steel standard provides ample clearance between the standard and disc blade and prevents clogging.

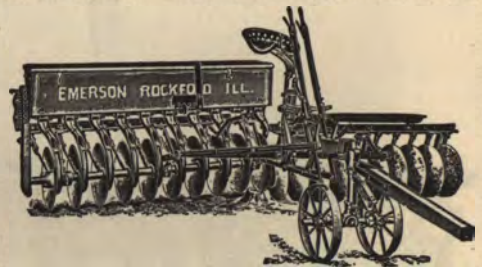
The Weight Boxes are made from one piece of drop-forged sheet steel pressed into shape without joints or rivets, absolutely the most satisfactory weight box on the market. The New Emerson is so constructed that it can be used either with or without the weight boxes as desired, and when taken without the weight boxes a reasonable allowance in price is made.

The Seat Support is set well back where the weight of the operator balances the tongue, consequently there is no weight on the horses' necks.

The Levers, as you will note from the cut are the Emerson combination single and double patented lever, one piece of iron and one bolt being used to make the change from one to the other and the Harrow works perfectly either as a single lever or as a double lever.

Flexibility is a special feature in the construction of this machine. The inside ends of the gangs are attached to a short evener which allows practically the same up and down movement of the gangs in this Harrow when going over extremely rough surfaces as would be obtained were the disc gangs not connected. When one of the gangs runs over an obstruction this evener oscillates to allow the other gang to continue its work. This most important device, which, in connection with the instantly adjusted depth controlling lever above described, enables the operator with the New Emerson Disc Harrow to cultivate thoroughly and at an even depth practically the entire field, no matter how rough it may be. There is no other disc Harrow on the market that comes anywhere near being as flexible or as thorough in its work as the New Emerson.

Countless Bushels of Valuable Seed are wasted every season and the yield per acre materially reduced because of the fact that too many fail to appreciate

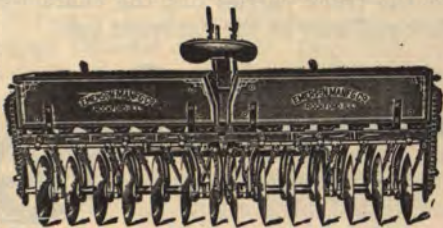


New Emerson Disc Harrow With Force Feed Seeder
Showing Seeder on one side. When in use lap half.

that they cannot broadcast and get all the seed in the ground at a uniform depth. When you sow your seed broadcast and undertake to cultivate it in no matter what machine you use or how thorough you may be, some of the seed will be three inches deep, some of it will be all of the way from the top of the ground

down to that depth and a portion of it will be on top of the ground not covered at all, particularly if a rain comes soon after sowing. The result of this uneven depth of planting is that the grain comes up uneven. The plants from the seeds planted at the proper depth get the start of those coming on later, the field ripens unevenly and if cut just right to save the first ripened heads some of the late heads have not had time to mature, while if cut after the late heads have matured the early ones will shell and waste. There is no doubt but thousands of bushels of grain are annually wasted by this uneven depth of planting, largely because our forefathers had no other way to sow their grain and we have been content to follow in their steps.

Save Seed and Time. With the Emerson Force Feed Seeder all this is changed. By a graduated adjusting device a certain number of bushels of seed per acre are insured and every grain of that seed is planted at an even depth and thoroughly covered. The seed spout extends from the seed box downward in front of the axle, thence down on the back side of the disc blade, in such a manner that trash cannot clog nor stones or stumps injure the spout. Each disc blade cuts an oval bottom furrow about an inch or an inch and a half in width. In this furrow the seed spout deposits the seed. It is not all piled up, one seed on top of another, as is so frequently the case with a shoe drill, but the seed as it falls in this furrow scatters itself over the bottom of the furrow to the extent of about one and one-half inches in width. Then the next disc covers this seed at a uniform depth with



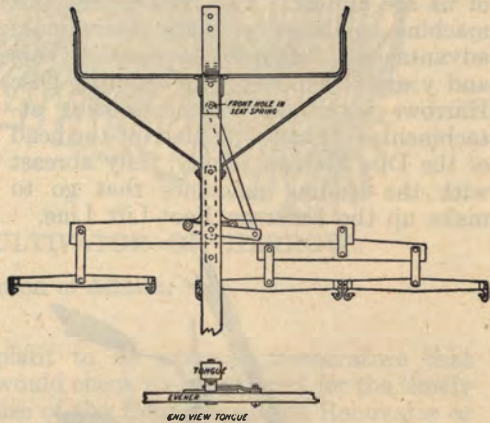
Showing Seeder on Both Sides.

the earth that it has taken to make the seed bed for the seed from neighboring seed spout.

An Ideal Seed Bed. In most soils the best results are obtained by using the seeder on only one-half of the Harrow and

then lapping half. In this way the soil is double disced and the Harrow passes over the ground once before that part of the Harrow bearing the seeder comes along, which insures a nice mellow seed bed and an ideal job of seeding.

Keep Seeds from the Birds, let them pick up Worms and Bugs. One great point in favor of the Seeder Attachment is that when you unhitch at noon or at night the seed you have sown is all covered, your work so far as you have gone is completed, except smoothing down with the common Harrow. Should it rain while you are at dinner or during the night you haven't a quantity of high priced seed lying on top of the ground waiting for the ground to get into condition to cultivate



3 Horse Hitch for New Emerson Disc Harrow.

Furnished regularly with all No. 46 8-foot cut Harrows.

You will note it does away with the set-over pole and is a perfect equalizer. If you are using four horses on your harrow and want to take one out to drive to town, put on the Emerson 3 Horse Hitch and your man can go ahead. The change is made without loss of time or temper. This 3 horse hitch will be furnished, when desired, instead of the 4 horse hitch regularly furnished.

and at no time during the planting season are you feeding flocks of black-birds and crows, always so plentiful at that season and which seemingly thrive on the high-priced food. On the contrary, finding no seed to feed upon, the birds pick worms and grubs that might otherwise injure the crop.

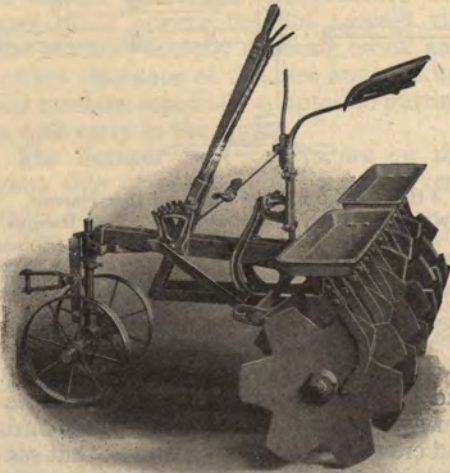
Full Length Seeder. In light soils where to double disc would not be beneficial we equip the Harrow with the Seeder for each side, in which event once over the field completes the job.

Lap Half. We strongly recommend using but one side of the seeder and lapping half because it leaves the seed bed more uniform, the ground being turned

all one way and no furrows to fill with the Harrow. Where the soil is light and the Harrow is inclined to go too deep, give the discs less angle and continue to lap half and you will secure the best results.

Force and Agitator Feed. The Emerson Force Feed is equipped with force and agitator feed and has special advantages which you should investigate.

Pays Large Dividends. There is not a machine built today in these times of labor-saving and money-making devices that will pay larger dividends on the investment than the New Emerson Disc Harrow with Seeder. It is a machine that you cannot afford not to possess if you wish to get the largest profit out of your business, which is the end at which most of us are aiming. The reason that this machine combines so many exceptional advantages is that it is the result of years and years of experience in building Disc Harrows with and without seeding attachments. It takes its place at the head of the Disc Harrow family, fully abreast with the leading machines that go to make up the Emerson Foot-Lift Line.



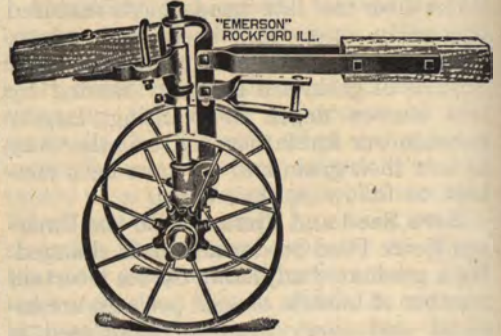
New Emerson Disc Harrow.
No. 40 Series with Cut Discs.

Notice the cleaners on these cut discs. The cleaner bars are edgewise to the trash, insuring sufficient strength to clean perfectly under the most difficult conditions. These cleaner bars are also heavier than on other makes. In other respects the construction of the Harrow is the same as previously described.

This cut also shows the up and down adjustments of the Harrow pole on the

tongue truck, a feature of importance that is absent on most trucks. With this adjustment the proper weight to hold the truck to the ground is all that is put on the truck, therefore the penetration of the discs need not be unduly effected.

EMERSON TONGUE TRUCK Or Fore Carriage for Disc and Alfalfa Harrows.



Horses are almost as close to the load as when the truck is not used, a very good feature.

Used either with or without tongue as desired. When tongue is used it stands up high at the rear, higher than the hitch. No chance for horses to get their legs over the pole in turning, a dangerous weakness in many other makes.

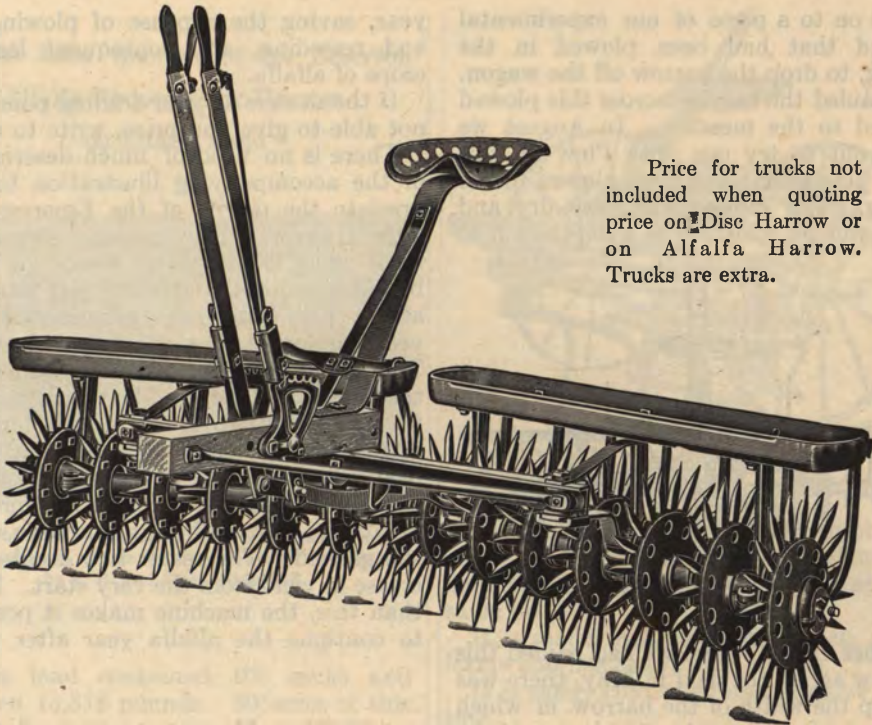
Turns a perfect corner, both wheels on the ground. One wheel doesn't bore a hole in the ground as some trucks do.

The height of the stub pole is adjustable on the trucks and so is the height of the hitch. The wheels have the Emerson dust proof, oil tight boxes that have helped make the Foot-Lift plow so popular, and the truck carries out the characteristic excellence of the Emerson line.



Emerson Transport Truck
For Disc and Alfalfa Harrows. Made in Pairs.

A most practical time and money saver. Any make of disc harrow is instantly and easily mounted on or dismounted from these trucks which soon pay for themselves on the farm. The price is very reasonable.



Price for trucks not included when quoting price on Disc Harrow or on Alfalfa Harrow. Trucks are extra.

THE EMERSON ALFALFA CULTIVATOR OR HARROW.

Profitable Cultivation of Alfalfa.

Thorough cultivation of the soil, thereby keeping down weeds, conserving moisture, and bringing fresh oxygen to the roots of all growing crops, is an acknowledged money making proceeding.

The alfalfa plant responds at once to this treatment. First, because the roots of the plant, instead of spreading out and occupying the surface soil to the exclusion of other vegetation, go straight down to moisture, sometimes to a depth of 30 feet. The Kansas State Agricultural College Bulletin No. 127, page 244, reproduces photograph of roots 7 feet long on alfalfa plants three years old. It will therefore be readily seen that quack-grass, fox-tail, tickle grass and even our popular blue-grass, become not only a nuisance in the alfalfa field but if not destroyed are liable to crowd out at least the weaker alfalfa plants.

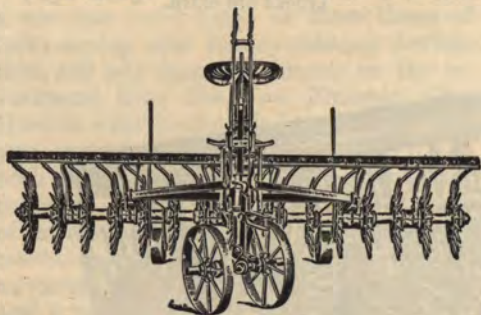
Second, because the luxuriant growth of the plant shades and keeps moist the alfalfa roots so they are comparatively cool and protected from the sun's rays. Then comes the mower and shears off this luxuriant growth right in the hottest season of the year, exposing the wounded

plant to an extreme temperature that would check its growth but for the timely use of the Emerson Alfalfa Renovator or Cultivator, which forms a perfect dust mulch for the protection of the roots of the alfalfa, thoroughly pulverizes the soil, destroying all growth except the alfalfa plant itself, which is anchored by its long tough roots, loosens up the stools of the old alfalfa head and starts the plant off with renewed vigor.

Experienced alfalfa growers know that unless cultivated, the surface of the alfalfa meadow becomes baked and hard and in a few years so full of weeds and grasses of one kind and another that the first crop each year is only about half value, and after 5 or 6 years the field must be plowed up and re-seeded. With the Emerson Alfalfa Cultivator all this expense is avoided and the increased market value of the cultivated crop, by reason of its freedom from weeds, more than pays for the machine.

As a conservator of moisture we have never seen the equal of the alfalfa cultivator. An instance: Last May to test the machine on a turf bound meadow we

drove on to a piece of our experimental ground that had been plowed in the spring, to drop the harrow off the wagon. We hauled the harrow across this plowed ground to the meadow. In August we went out to try our Disc Plow on this same patch, that had been plowed in the spring. The ground was very dry and there was no moisture to a depth of 6 to



7 inches except where we had hauled this harrow across the field in May, there was a strip the width of the harrow in which the moisture was within $1\frac{1}{2}$ inches of the surface and the soil in fine condition for plowing. You therefore appreciate that no grower of alfalfa can afford to be without this machine because it will, if properly used, pay for itself every year.

There are without doubt a great many Alfalfa Meadows that are not doing well, and the owners are somewhat discouraged in their efforts to raise Alfalfa.

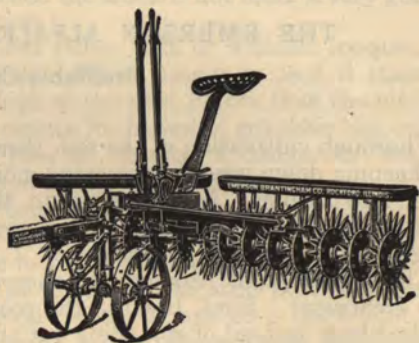
The meadows become weedy and turf bound, and unless a remedy is applied, the alfalfa "plays out."

This renovator destroys the weeds, splits up the stools and loosens the

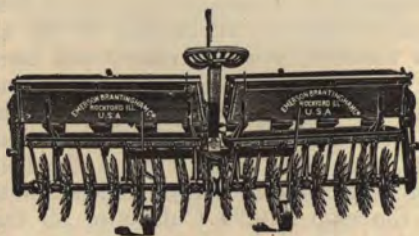
ground, saving the expense of plowing up and reseeded, and consequent loss of crops of alfalfa.

If the dealers at your trading point are not able to give you price, write to us.

There is no need of much description of the accompanying illustration to appreciate the merits of the Emerson Alfalfa Harrow. The machine shows for itself what it will do to weedy or turf-bound meadows, and when put into the alfalfa field that has been seeded two years or longer, the effect is marvelous. The teeth of the harrow not only destroy the weeds but thoroughly loosen the soil for a depth of two to four inches, forming a dust mulch which protects the roots from the sun, and holds the moisture that must otherwise evaporate before the plants can make sufficient growth to shade the ground. The result is a decided increase in yield from the very start. More than this, the machine makes it possible to continue the alfalfa year after year,



Showing the Harrow with Tongue Truck.



Showing Seeder Attachment.

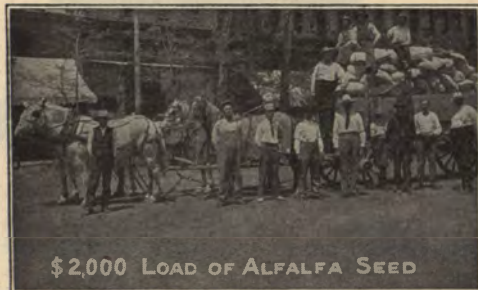
ground. It makes it possible to keep the meadow in good condition from year to

and saves all the expense of plowing up and reseeded, which has been found necessary in many sections, after four or five years continuous crop. We would recommend that every dealer in alfalfa or blue grass sections, thoroughly investigate the merits of this machine.

Built in four sizes, as follows:

No. 31, 4 ft.,	with	8	Wheels or Spiders
No. 33, 6 ft.	"	12	" " "
No. 34, 7 ft.	"	14	" " "
No. 35, 8 ft.	"	16	" " "

Results from the use of the Emerson Alfalfa Renovator or Harrow on Alfalfa Land



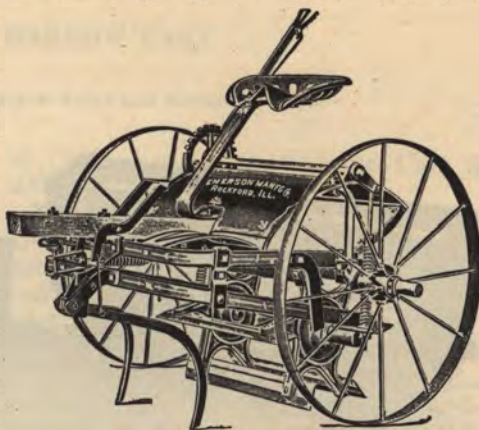
A load of Seed brought in from a farm two miles northwest of Garden City, Kansas, owned by E. F. and C. M. Niquette.

This load contained 100 sacks and weighed 13,318 pounds. 60 acres of this field will net the owners about \$50.00 an acre this year. This field has been seeded 22 years and is not irrigated. It is river valley land, and about seven feet to sheet water. This field has paid ten per cent. on a valuation of \$200 per acre for years.

There is no better crop known to the western or southern farmer than alfalfa. On irrigated land it will yield from five to seven tons to the acre, and the hay is worth from seven to ten dollars per ton.

On the shallow water lands, not irrigated, it will yield from three to five tons per acre, or one or two crops of hay, and a seed crop. It will make from one to five bushels of seed per acre, that sells at from seven to ten dollars per bushel. Seed has been produced in Finney county that made as high as ten and twelve bushels per acre.

The advantages to be gained from the cultivation of alfalfa have been known for years, but until the Emerson Alfalfa Renovator was perfected, the possibilities of increasing the seed yield had not been even imagined. \$2,000 from seed on 60 acres, to say nothing of the hay crops that preceded, show what this machine will do for the Alfalfa Grower. Write for Special Alfalfa Circulars.



EMERSON STALK CUTTER

An Emerson Stalk Cutter combines many special features, any one of which insures a sale over its competitor at the same price.

It is made with sheet steel deck, steel frame and has heavy steel wheels.

It is easily controlled and positive cutting.

Has no shaft through cutter head.

Gathering hooks raise automatically with the cutter head and independently by foot lever, enabling the operator to clear them of any trash they may gather, without raising the cutter head or stopping the team.

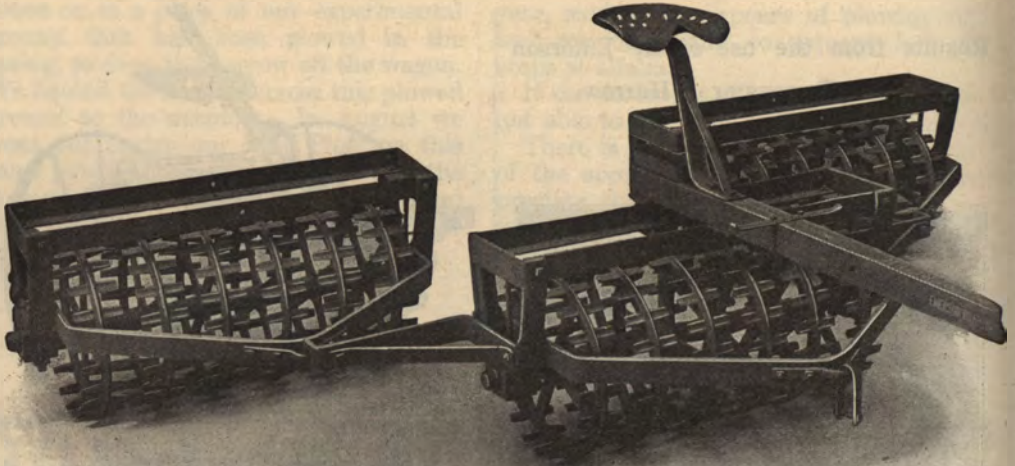
An easy riding spring seat sells the machine over its competitors to the man who has ever cut stalks.

The spring hitch relieves the horses' shoulders from jars and bruises at a season when they are soft and easily injured, another selling feature.

Lever and pressure springs are arranged to enable operator to suit his machine to kind of work to be done, either light or heavy cutting, an appreciable advantage.

Machine may be specially equipped for the successful cutting of cotton stalks.





Showing No. 12 Roller in three four-foot sections.

EMERSON ROLLER PULVERIZERS.

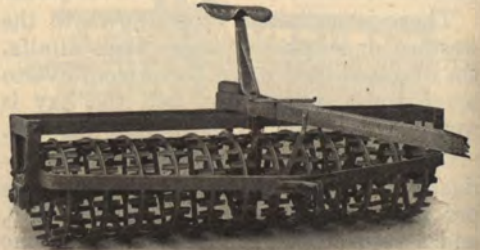
Made in 8, 10, 12, 15 and 16 foot cut

The new Emerson Roller Pulverizer is the result of many years' experience and of the closest study of soil cultivation. This machine will pack the soil around the seed, transferring the moisture in the soil to the seed, causing it to start the growth quickly.

The machine is used extensively in the large wheat growing sections of the Northwest, where it is becoming more popular every season. In the Southwest wheat country it is even more valuable, though it is not so well known, as it insures carrying the winter wheat safely through the winter and holds the moisture until the arrival of the late spring rains. It may be used effectively where the roots of the plants are exposed from the ground heaving from frost. Much winter wheat is plowed up as worthless that might have made a good crop by timely use of this roller pulverizer.

Wood bearing boxes are used, in which the ends of the axles of our machines revolve, and in the center bearing of the long section. Bearings do not wear on the axle and cut it off in a few years. The Emerson bearing wears on the hubs of the wheels, and by changing the wheels, new bearings are secured at any time without cost. Each roller wheel has 8-inch bearings in place of 4-inch bearings as found

on other makes, which makes for long life and even wearing surfaces to each roller wheel. Another important feature is that our roller wheels being independent of each other revolve independently when



Showing 8-ft. Roller.

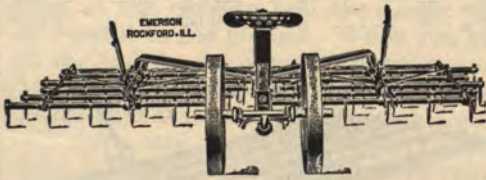
turning corners or curves, which obviates the sliding usually obtained in a solid section roller.

Flexibility is one of the most demanded features in machines of this kind, and the illustration shown above will speak for itself. By this construction the Emerson roller pulverizer will conform very easily to the uneven ground, and it is so constructed that it can be turned short as the horses can be brought around without in any way straining the machine or tipping it over.

THE EMERSON HARROW CART

With the Emerson 2,000 mile Magazine Axles and Automatic Pivot.

A Harrow Cart is a simple looking contrivance, but the more experience you get in building them the more you appreciate that there is as much difference in Harrow Carts as there is in most any other machine on the market. Most Harrow Carts are made up of small scraps of iron with anywhere from 25 to 50 parts. They have little, light wheels, and in no other cart except the Emerson is the axle larger than $\frac{3}{4}$ inch. On many of them the axle is a $\frac{1}{2}$ -inch bolt through the wheel and they are equipped with all

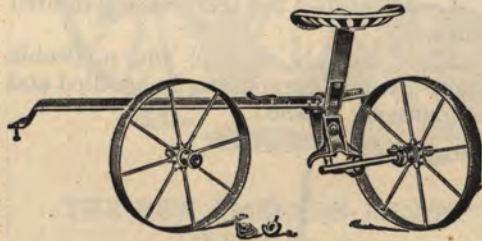


manner of devices for unlocking them to turn at the ends. Every man who has ever seen the **Emerson 2000-mile Magazine Axle** will thoroughly appreciate what it means on a Harrow Cart. The little short hubbed fellows will have to carry an oil can and grease their axles every time across an 80-acre field when it is very dusty if they keep them from wearing out the first season. With the Emerson you put a good supply of axle grease in the magazine box, then push the wheel on the axle and fasten with the eye-bolt and you have a perfectly lubricated bearing for your wheel for the season without further greasing. Your wheel bearing is practically indestructible. Emerson wheels have 3-inch flat-faced tires, but in other respects the same material is used as in the wheels of our Foot-Lift Plows.

Harrow Carts are becoming a necessity, and justly so, for until they were designed there was no work on the farm more thoroughly dreaded than harrowing. It is acknowledged by all good farmers that there is no tool with which more beneficial results are secured with the same expense than the common Tooth Harrow, and by using the Harrow Cart this most necessary part of farm work is changed from drudgery to pleasure. The result cannot be other than a large increase

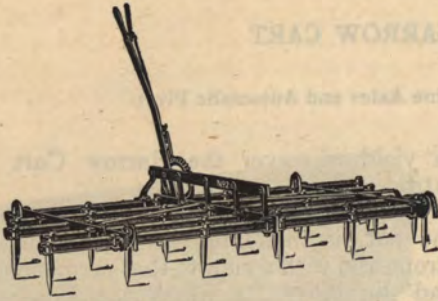
in yield wherever the Harrow Cart is introduced.

The Emerson Cart, as you will see from the cut, is made of few parts, amply strong and with a view to that permanency and durability for which the Emerson Foot-Lift Line is so justly celebrated. It is **automatic** and this automatic action is brought about by the weight of the operator. This idea was very clearly illustrated by a man who had built a great many different styles of Harrow Carts, who made the remark that when we could build a cart so that we could "let go and still keep hold" we would have solved the problem. This is identically what we have in the Emerson and the weight of the operator is what enables us to let go and still keep hold. When



Showing Axle pivoted as in passing over an obstruction or turning a sharp corner.

either wheel of the Emerson Cart meets an obstruction instead of being forced straight up over that obstruction, the axle pivots and the roller seen in the cut allows the wheel to fall back until it can take the obstruction at an angle, when it passes over with much less power than would be required to lift it square over the obstruction. This saves draft. As soon as it has passed over the obstruction the weight of the operator forces the axle back to place. Identically the same action takes place in turning a sharp corner. The result is that no matter how rough the ground may be, whether on sod or large clods, these wheels are continually oscillating as they pass over the obstructions, yet the operator is entirely unconscious of this action; he rides along in perfect comfort.



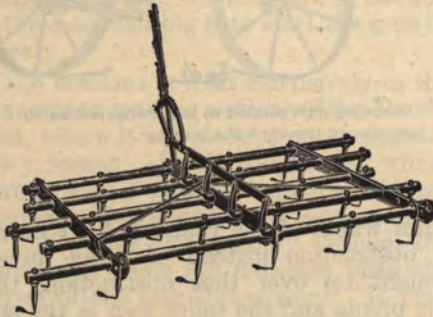
EMERSON FIVE-BAR "U" BAR STEEL LEVER HARROW.

The "U" Bar is recognized as not only combining strength with light weight, but is particularly adapted to the satisfactory construction of a tooth harrow by the natural provision of a tooth clamp.

On this harrow the teeth are both adjustable and reversible, and the upper ends are swedged to prevent them from falling out should they become loose. These harrows are strongly braced, and are strictly high class harrows.

Levers will set the teeth at any desired angle.

Made entirely of steel and malleable iron. Strong, durable, easily handled and attractively finished.



EMERSON FIVE-BAR PIPE BAR STEEL LEVER HARROW

The Emerson Pipe-Bar Harrow is designed to meet the requirements of certain localities where the ground is uneven

and rough and extreme flexibility is required. This harrow will conform to uneven surfaces and cultivate the hollows as well as the humps.

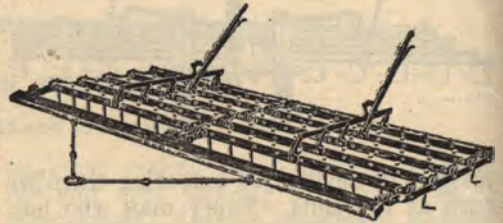
Levers will set the teeth at any desired angle.

Teeth are fastened to the pipe bar with a malleable clip and hexagon steel nut.

It is made entirely of steel and malleable iron and is strong, durable and easily handled.

Sizes and Numbers:

"U" Bar	Pipe Bar				
No. A1	No. A3	2 sec	50 5-8 in.	teeth	cuts 8 ft.
No. 2	No. 4	2 "	60 1-2	"	" 10 ft.
No. A2	No. A4	2 "	60 5-8	"	" 10 ft.
No. B2	No. B4	3 "	90 1-2	"	" 15 ft.
No. AB2	No. AB4	3 "	90 5-8	"	" 15 ft.
No. C2	No. C4	4 "	120 1-2	"	" 20 ft.
No. AC2	No. AC4	4 "	120 5-8	"	" 20 ft.
No. 5	-----	2 "	70 1-2	"	" 12 ft.
No. B5	-----	3 "	105 1-2	"	" 18 ft.
No. C5	-----	4 "	140 1-2	"	" 24 ft.



WOOD FRAME LEVER HARROW

Our Wood Frame Lever Harrow is thoroughly well made, very strong, and will give most excellent satisfaction. It is the best Wood Lever Harrow made, strictly modern, with every improvement.

Levers within convenient reach set teeth at any angle. Teeth are of the best hard steel. This tool is right in every respect and fully guaranteed by us. Made in thirty-two and forty tooth sections and furnished in either one, two, three or four section gangs.

The draw bars for the various sizes are of improved design, and the four section bar may be converted into either a two or three section bar if desired.

46 teeth, 2-sec.	80 teeth, 2-sec.	96 teeth, 3-sec.
120 " 3-sec.	128 " 4-sec.	160 " 4-sec.





No. 5-A, for Cotton

Showing High Lift, Ample Clearance and Disc Coverers

EMERSON FOOT-LIFT 4-WHEEL**LISTERs Nos. 4-A AND 5-A**

The No. 4-A Lister is equipped for planting Corn, Milo Maize, Kaffir Corn and Sorghum, and the No. 5-A Lister for Cotton, Corn, Milo Maize, Sorghum and Kaffir Corn.

Easy on the Man. No lifting and tugging at the ends to pull the Lister out and put it in the ground. When you get to the end use both hands to guide your team, turn them around and keep going. Drive your team and the Emerson Lister will take care of itself. You need not take it out of the ground from morning until night—but suppose you should want to take it out for any reason, there is the Emerson Foot-Lift that leaves both hands free to manage the team.



No. 4-A

Showing Position in the Ground and Shovel Coverers.

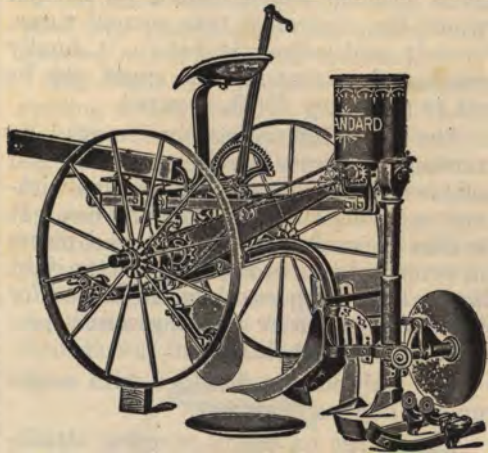
Shipped with either disc or shovel coverers as desired.

Durability. Notice the 2,000 mile magazine axles. That means that the machine is going to remain for years on as solid a foundation as when new. It insures easy draft and easy handling.

See the few parts. The machine is simple, but complete. It's the result of years of experience in Lister building of men whose life work has been the designing of corn planting machinery.

Easy on the Team. No crowding or worrying of the team because there is no tongue to make them fight and step on each other in turning. The horses walk along free and easy, no worrying and crowding, and they do the work much easier than the old way. Horses are a whole lot like we are. It isn't the work so much as the worry that takes the life out of them.

While the four wheel is a tongueless machine we furnish a pole attachment at extra charge where required. We like it better as a tongueless.

**THE NEW EMERSON RIDING LISTER No. 6**

Chain Drive

For Cotton, Corn, Kaffir Corn and Milo Maize.

A Riding Lister with Chain Drive furnished with either disc or shovel coverers.

A Perfect Spring Balancing Device which forces the bottom into the ground point first, and the reverse action of which throws the bottom out of the ground point first. This device also accomplishes the same result in the Lister that is secured by the double bail in the Wheel Plow, viz., carries the weight of the covering attachments and rear portion of the machine to the main axle, thereby materially decreasing the draft and insuring a perfectly balanced, easily operated machine.

No matter how much sand blows so long as your chain holds you keep planting and if a link of chain wears out you have extras in the tool box and can proceed with the planting without delay.

A root cutter is provided on all our Listers which cuts all roots and prevents their gathering on the subsoiler and opener shovel. It can be set to cut at different depths and adds to the general completeness of the machine.

Chain Drive insuring long life and accurate drop.

The Drill is automatically thrown in and out of gear whenever the Lister bottom is raised and lowered.

The Telescoping Seed Spout stands straight up and down allowing the seed to drop directly to the seed bed, insuring even spacing, which cannot be secured where the seed must take several turns, bounds and rebounds before it finally reaches the ground. The spout can be set to plant any depth required.

The Seed Box is readily removed by turning a thumb screw, and the seed plates may be changed at any time without removing the seed from the box. It is also impossible to put the seed plates in wrong side up, or any way but the right way. Edge drop seed box can be had for the No. 6 Lister for planting corn if preferred to round hole plate.

The Subsoiler is provided with ample up and down adjustment.

Either disc or shovel covering attachment can be had for this machine, the arms to which these covering devices are attached being made in such a way that the two styles of coverers are interchangeable, thus affording the owner the opportunity of using both styles on his one machine, and at but slight extra cost.

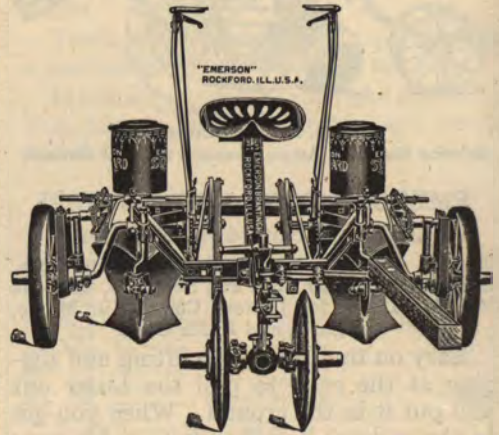
Disc Coverers are adjusted to throw much or little dirt as may be required, by changing one bolt, the disc frame being so constructed that by simply rocking backward or forward more or less angle and consequent penetration is secured, and it is impossible to give one disc more angle than the other. Equipped with spring yielding device insures even depth of planting even when crossing corn rows.

Shovel Coverers are adjustable up and down, or in and out, securing any width or depth desired.

Coulter is attached and adjusted either up or down or in and out by means of one set screw conveniently located.

Moldboards are made of our special stock, carefully tempered.

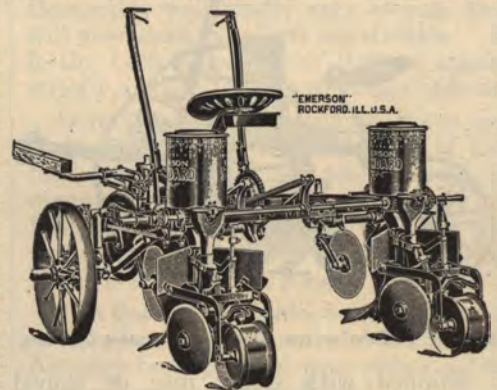
The material throughout the machine is right in every respect, workmanship is workmanlike, the finish durable and attractive. The machine is furnished with a combination three or four-horse hitch.



Nos. 8 AND 9 2-ROW EMERSON LISTERS

No. 8 for Corn, Milo Maize, Kaffir Corn and Sorghum. No. 9 for Cotton, Corn, Kaffir Corn and Milo Maize.

The pole truck principle embodied in the original design of this machine, is, in fact, a part of the machine, and not an attachment. This construction enables the operator to turn around with the



Nos. 8 and 9 Emerson Listers. Showing Press Wheels.

plows in the ground and devote his entire attention to the team, and in getting started back across the field at the proper distance from the last rows planted. The pole truck also acts as a positive gauge for the depth, and matter not what depth the machine is running, the seed will be planted a uniform depth,

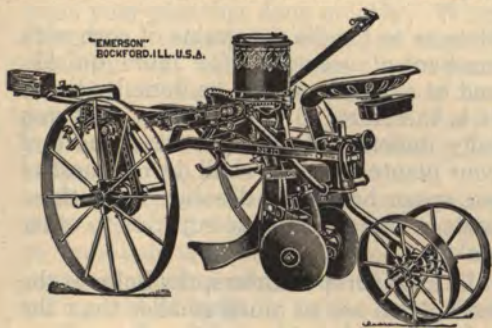
much better than can be done with a lister where the plow bottom is swinging loosely upon a bail.

The levers are in convenient reach of the operator, who with one hand easily changes depth of either plow bottom, and also has the advantage of running either plow at such depth as desired, regardless of the other.

Beams are well braced between the bottoms, and are changeable in width.

Either shovel or flexible disc coverers are provided as ordered; and, owing to its simplicity and the weight of the gangs being carried entirely upon the wheels, makes it a very light draft machine compared with the amount of work it does.

Wheels have our Magazine Axle Boxes, dust proof and oil tight, and can be equipped for combined corn or cotton, edge or flat drop, as desired.



Nos. 10 AND 11, FOUR WHEEL EMERSON LISTERS

No. 10 Lister for Corn, Kaffir Corn and Milo Maize only. No. 11 Lister for Cotton Seed, Corn, Kaffir Corn, Milo Maize and Sorghum.

Many years' experience in building

listers has been put into the construction of our new four wheel lister, and we offer this machine to the trade with the belief that this is the best four wheel lister made.

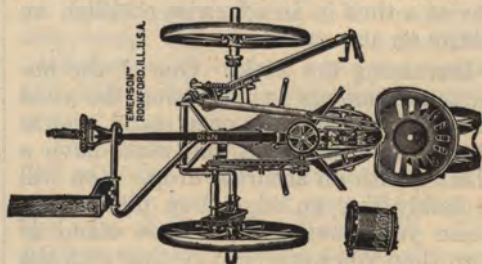
The Chain drive eliminates the chance of gears cutting out, and the solid steel frame was decided upon and designed after a thorough investigation among experienced Lister users.

The bottoms are fastened to the beam with one bolt, so the regular bottom can be removed and a sweep or shape put on if desired.

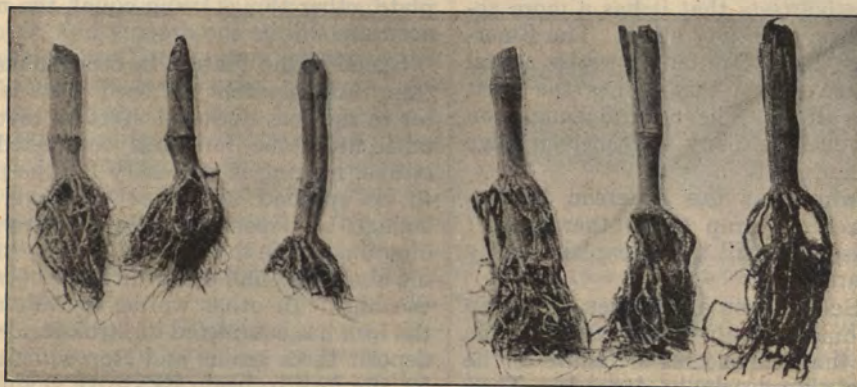
The No. 10 Lister for corn only can be furnished with either edge drop or flat hole drop plates, edge drop plates being shipped unless otherwise specified.

The No. 11 is equipped with the same seeding arrangement as that used on our No. 28A Planter described in this catalogue. The construction of our seed box for the No. 11 Lister should therefore appeal to the Texas trade, as the most reliable and effective seeding device ever put on any planter or lister made.

These Listers are shipped regular with shovel coverers, but disc coverers can be furnished at little extra cost.

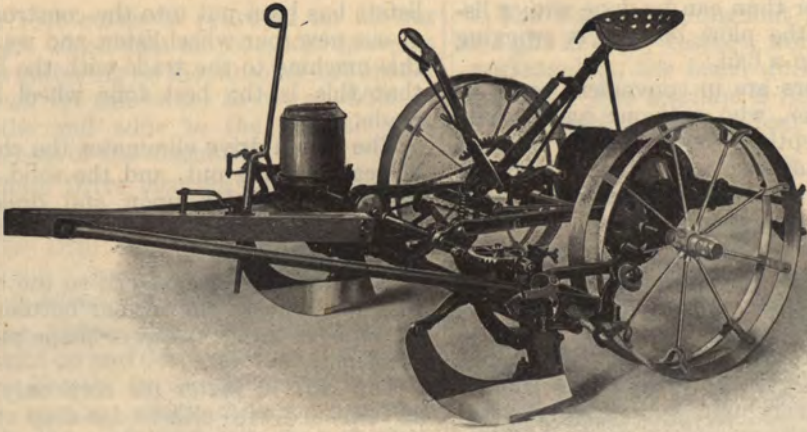


Roots of Corn from adjoining fields on Warren Gilmore's Farm near Rockford planted at the same time.



Ground plowed and planted with Corn Planter. Cultivated 4 times.

Planted with an Emerson Lister without previous preparation. Cultivated 3 times.



THE EMERSON EDGE DROP PLANTER No. 25A

For Corn Only

In the Emerson Edge Drop Planter advantage has been taken of the fact that while grains of corn vary more or less in length and breadth they are of nearly uniform thickness. Consequently, with specially made plates that are so revolved in the seed boxes as to receive the grains one at a time in an edgewise position, we secure an accurate drop.

Increasing the Yield. One of the important elements in increasing the yield of corn is to obtain an even stand, and to obtain an even stand you must have a planter with an accurate drop. You will probably buy an edge drop planter because you want a more even stand of corn than you have been getting with the old round hole plate. This being true, the planter you should buy is the Edge Drop Planter that proves by actual comparative tests that it has a more accurate drop than any other. The Emerson Edge Drop Planter shows by actual comparative tests that it has the most accurate drop. The natural conclusion is that you should buy the Emerson Edge Drop Planter.

But why does the Emerson have a more accurate drop than other makes? The reason we will try to explain briefly and clearly.

The Seed Boxes and Plates. It is on these comparatively small parts of the planter that the success or failure of the machine almost wholly depends. They must be of few parts, strong, durable, and free from complication, yet so com-

plete as to handle the grains of corn with mechanical accuracy, far more quickly and as skillfully as can be done by hand. It is therefore, to your interest that you fully understand this important part of your planter, and we shall devote most of our space here to a description of these parts of our machine so superior to other makes.

In Edge Drop Planters, the holes in the seed plates are so much smaller than the holes in the old round drop plate that it is necessary that the edge drop plate revolve slowly to insure perfect filling of the holes, for if the edge drop plates were to travel very fast the grains would not settle in the cups or holes sufficiently to insure any great degree of accuracy. It is, therefore, self-evident that the slower you can drive the edge drop seed plate, other things being equal, the more accurate will be the drop.

Speed of the Plate. In other makes of edge drop planters the seed plate is not set in motion, does not start to revolve, until after the fork has completed its stroke, making it necessary for the plate to be speeded up so as to travel far enough to deposit the required number of grains, while the drive wheels are covering about one-half of the distance between the hills. In other words, to wait until the fork has completed its stroke and then deposit three grains and stop sufficiently for the fork to begin its stroke again, necessarily revolves the seed plate very fast, which is the case in all other makes

of edge drop planters when the machine is traveling at a fair rate of speed. That is why you will find exhibition edge drop planters running at not more than half-speed and often even less.

In the Emerson, the plate begins to revolve the instant the fork begins to move, thereby enabling us to move our plate much slower than any other make, and consequently giving our seed plate just that much better opportunity to fill. The Emerson plate is also larger in diameter than any other, and there are more holes or cups exposed to the corn all the time than in any other planter. The plate being larger, the holes or cups revolve much more slowly, therefore the grains have more time to settle to place. If our planter had no other advantages over other makes it would pay to buy the Emerson Edge Drop Planter, for you want your planting done quickly. When the ground is ready for seed, you want to put your best walking team on the planter, and let them take a moderately fast gait and keep it up. With our planter you can do that without sacrificing accuracy of drop.

The Emerson Seed Plate is so made that any child who can count from one to four can set the plates to drop the required number of grains. There is no taking out of bolts or screws to take off small parts, only to lose them or never get them on where they belong, but instead, the changing of the Emerson plate is as simple a matter as in the round hole plate planters.

Each revolution of the Emerson plate drops exactly four hills. If you wish to change the number of grains in each hill, you merely change the plates the same as you did with your round hole planter, and you change the plates in the Emerson Edge Drop without removing the corn from the seed boxes. Try to take the seed boxes off of some other make of edge drop planters and change the plates without removing the corn, and convince yourself of the advantages of the Emerson.

Another advantage found in the planter box of the Emerson is the continuous circulation of the corn in the box. When the plate brings the corn around to the cut-off, instead of those grains that are not in the cups or holes jamming up against a solid stop as in other makes, they have a clear passage-way around the box, so they are continually traveling

lengthwise with the plates and in the best possible position to force into the cups at the outer edge of the plates.

Practically all chance of cracked grains is eliminated in this construction. This is very desirable, for, as you know, a cracked grain will not make a vigorous plant, and the chances are will not grow at all.

The Valves are the very simplest that can be used. As they need never be removed to change from hill to drill drop, there is no chance of their being misplaced and their action in planting is as accurate as a clock. The valve action is mostly backward with just a little tendency downward, so the corn is deposited in perfect check, whether the team be moving fast or slow. The grains are in a compact hill, not scattered, neither are they piled one on top of the other, as sometimes happens in force drop valves. You will be pleased with the valve on our planter, as it is one of the most practical and perfect parts of this most practical machine.

Works automatically as a hill or drill drop. Much time is saved in planting head lands and point rows either in hills or drilled, as preferred. If wanted in hills, drop with the foot. If in drills, hold the foot lever drop down and planter will drill perfectly; no stopping to change planter from drill to hill, or vice versa.

The check rower construction is the result of many years' experience and provides every facility for easy handling of the wire at the ends of the field. The head is provided with a device whereby



No. 25 Edge Drop Planter with Loose Ground Lister or Double Disc Openers.

the operator can drop the wire by hand, or he can attach the rope trip to the raising lever, and when he raises the runners the wire is automatically released; or he can use the Adjustable Automatic Patented

Wire Doffer, peculiar to Emerson Planters. When the team is turned half round, the wire sheds automatically. It also acts as a safety trip for the wire, for it can be so set, if desired (when planting among stumps, roots or other obstructions on which the wire is liable to catch), that this device trips before the strain becomes so great as to either break or damage the wire.

A powerful leverage is applied by our lever connection, the pressure on the long lever being multiplied eight times at point of lift. A powerful raising spring is provided, the tension of which can be adjusted to carry the planter at any depth, and also make it easy handling with the foot.

The Foot Lever releases the dog from the ratchet, and raises the runners with the feet, leaving the hands free to manage the team. It enables the operator to carry the runners at any depth desired, and to immediately change the depth to plant through dead furrows, over back furrows or through hard spots in the field.

Reel Space is provided on the frame where the reel may remain undisturbed or may be quickly removed, if desired. With the Emerson it isn't compulsory to walk 80 or 160 rods to get your reel to take up your wire when the field is planted.

By removing one large cotter pin, you merely move the drive wheel in on the axle until it engages the reel clutch.

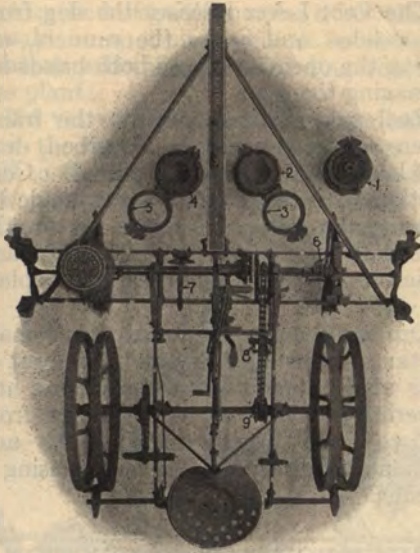
The runners have long gradual slant, and will not clog. They may be quickly removed from the planter by taking off two bolts, taken to the shop in your buggy and sharpened and put back on the planter quickly and easily. It isn't necessary to tear your planter all to pieces or take the whole front to town to get the runners sharpened.

When you buy machinery, you try to buy what appeals to you as being adapted to your needs. If you do not get that, it is because you don't have an opportunity to know all there is to know about the different machines on the market before you buy.

We have tried to show clearly the important planting features of this machine, features that are necessary to get the best results and not found perfected in other planters. There is no other machine on the farm used so little, yet on which your bank account more closely depends.

We therefore leave it with you to give us an opportunity to prove by actual work of the machine in the field that we have the most profitable planter the corn grower can buy.





No. 26 EMERSON VARIABLE DROP CORN PLANTER

What is meant by a Variable Drop Corn Planter?

A planter so constructed that the operator may by the easy shifting of a lever plant 2, 3 or 4 grains in a hill as desired without stopping the team or leaving his seat.

What advantage is gained by this method?

Successful corn growers have learned that the largest yield of corn will result where the number of grains in each hill correspond to the fertility of the soil in which it is planted.

Where is this variation in fertility of soil most noticeable?

On rolling or hilly land, where, with the Emerson Variable Drop Planter, in the low or rich soils 4 grains may be planted in the hill and each grain produce an ear of corn, while on top of the hills quite likely 2 grains would be as many as should be planted to get the greatest yield of ears of corn.

Explain what is meant by the simplest possible construction of the Emerson No. 26 Planter?

The illustration herewith shows the bottom of the seed box (Fig. 1) with the ring gear which drives the seed plate exposed. Notice the provision in this gear for the travel of the three small pinions on the drill shaft (Fig. 6) by which this change in number of grains in the hill is so easily

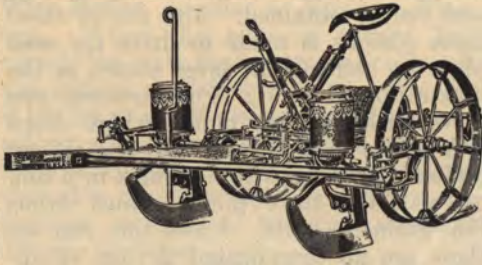
and simply obtained. Any one of these three pinions is made to drive the seed plate by shifting the lever shown in the illustration (Fig. 7.) For instance, you drive with the first pinion which drops two grains in a hill, or with the second pinion which drops three grains in a hill, or with the third pinion which drops four grains in a hill. From this you see there are no complicated devices or unnecessary parts employed to accomplish the desired result. This simplicity of construction and the positive action with the few parts employed insures not only accuracy but durability, and there is no reason why the No. 26 Variable Drop Planter should not prove one of the most popular machines of the popular Emerson Foot-Lift Line.

What about the combination of the round hole with the edge drop plate?

The illustration shows Fig. 2, the edge drop plate, with which the greatest accuracy of number of grains in the hill will be obtained if the operator grades his seed and selects only grains of uniform size, while Fig. 4 shows the round hole plate, which may be used where the operator prefers not to grade his seed or wishes to plant seed that is not of uniform size. The change from the round hole to the edge drop or vice versa is made by merely turning the floor plate (Figs. 3 and 5) the other side up, and putting in the desired plate. You may have occasion to plant beans, peas or other seeds than corn with your planter which the edge drop plates may not satisfactorily handle but which may be successfully planted with the round hole plates.

Why do you say this Planter should last twice as long as other makes?

The weak point in many accumulative drop planters is the clutch, which with its complicated mechanism must make a complete revolution with every hill. In the Emerson the clutch turns but half way round with each hill. If the materials in the two machines are the same the Emerson will wear twice as long as any other because the parts are used but half as many times in planting the same number of hills. All wearing parts of the Emerson clutch are chilled as hard as glass and the construction throughout combines the two desirable features of accuracy and durability. The other features of this No. 26 Planter are the same as described in the No. 25A.



EMERSON Nos. 10A AND 11A TWO ROW PLANTERS WITH ROUND HOLE PLATES

The construction of these two Planters differs only in the seed boxes. No. 10 Planter is for Corn, Kaffir Corn and Milo Maize. No. 11 Planter is for Cotton Seed, Corn, Kaffir Corn, Milo Maize and Sorghum.

Years of experience have taught us many things to be carefully considered in the successful building of corn planters. The result is—simplicity of design, strength, light draft and accuracy of check and drop.

The most trying season on the farm horse is the "corn planting time," when the spring plowing has taxed his strength and endurance, and after a week's work with the old style heavy planter, horses' necks are sore and they barely "make a shadow." With the Emerson all this is changed. Farmers say "it runs like a buggy," or "no more draft than a cultivator."

JUST A FEW POINTS.

The Framework is of I-bar steel especially selected. The two I-bars forming the front frame are tied at five different points, and extended to support the check heads.

Front and rear frames are closely connected.

Runners have long gradual slant and will not clog.

They may be quickly removed from the planter by taking off two bolts, taken to the shop in your buggy and sharpened and put back on the planter quickly and easily. It isn't necessary to tear your planter all to pieces or take the whole front to town to get the runners sharpened.

A powerful leverage is applied by our lever connection device, the pressure on the long lever being multiplied eight times at point of lift.

The Foot Lever releases the dog from the ratchet and raises the runners, enabling the operator to use both hands for managing the team.

Reel space is provided on the frame where reel can remain undisturbed, or it can be easily removed if desired. Connection with reel mechanism is made by moving the left drive wheel up on the axle until it engages the reel clutch, and is accomplished by removing and replacing one cotter pin.

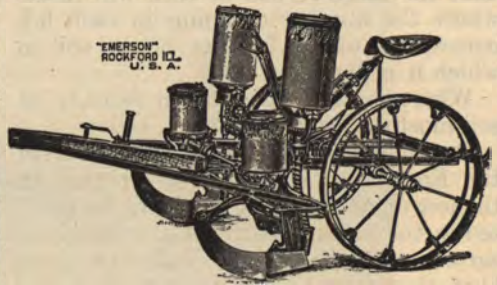
Our drill device on the axle can remain on the machine and throws in and out of gear automatically with the raising and lowering of the runners. Change from Hill to Drill Drop is made quickly and without changing the valves or using a wrench.

CHECK ROWER CONSTRUCTION

is the result of many years' experience and provides every facility for easy handling of the wire at the ends of the field.

This check rower is same as used on the No. 25A Planter and is fully described on page 43.

Seed Boxes are removable and plates may be changed without removing corn. Seed plates cannot be put in bottom side up or any way but the right way, neither can the seed box be fastened until the gear ring is in proper mesh.



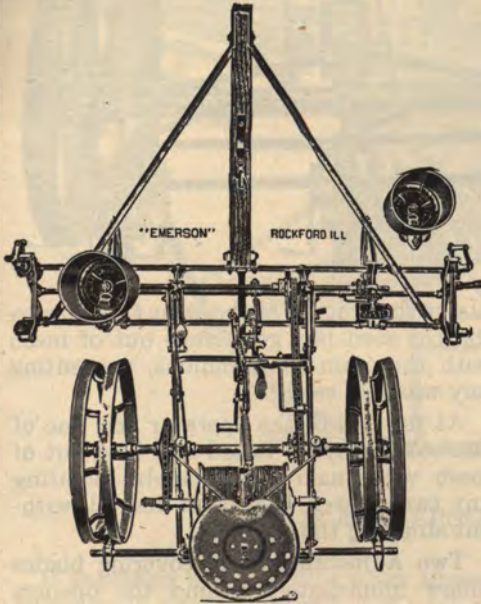
No. 10 Two Row Planter
Showing Fertilizer Attachment. Can be furnished with Nos. 10-A and 11-A Two Row Planters.

Fertilizer attachment is so constructed that there are no gears to obstruct the center of the hopper, and no leakage where the cup travels around in the hopper.

It has been determined by the different experimental stations that fertilizer does not give the best results by being

put in the hills with the plant, but that it should be so distributed as to come in contact with the small feeding roots of the plant.

No valves are used in the distribution and the fertilizer is scattered from one hill to the other where it is absorbed by the plant as the roots are extended and at a time when the plant needs extra nourishment.



To come as near as possible to meeting all conditions in all territories, our attachment is so constructed that 8 different changes can be made in distribution, so as to get the proper amount required for each condition.

Bunch Drilling is becoming more and more popular, especially in the dairy districts, and our valve construction gives perfect results.

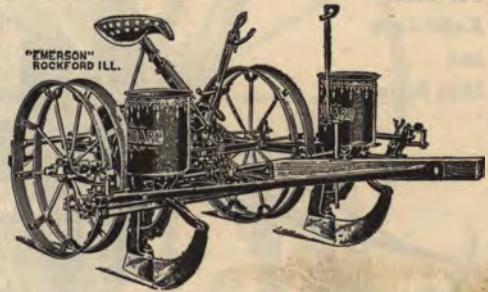
The distances drill plates drop are about as follows: 7, 9, 12, 14, 17, and 21½ inches apart. Three sizes of plates are furnished for drilling and three for checking.

EMERSON No. 11A COTTON PLANTER

The No. 11A is the same construction throughout as the No. 10A except that the seed boxes are equipped with the tried and tested "Standard" Cotton and Corn Hopper Bottom, and seed plates are driven by the wheels, reducing the strain on the wire to the mere opening of the valves.

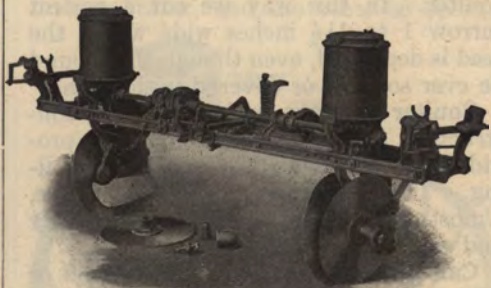
A most accurate force feed seed wheel insures the proper amount of cotton being planted without cracking or damage to the seed, practically making a perfect one kernel drop.

Built either with Drill only or with Check Rower and Drill, 30-inch wheels either open or concave face, and equipped



with Disc Marker. Can be set to 3-ft. 4 in., 3 ft. 6 in. or 3 ft. 8 in. between rows and shipped with 80 rods of either 3 ft. 6 in. or 3 ft. 8 in. wire when check rower is ordered.

In these days of so much agitation about checking cotton so as to plow it both ways, letting the sun all around the plant and thereby reducing the loss from boll weevil, the No. 11A Emerson is certainly a paying investment for the cotton grower and a machine that the up-to-date dealer will want to keep a stock of throughout the selling season.



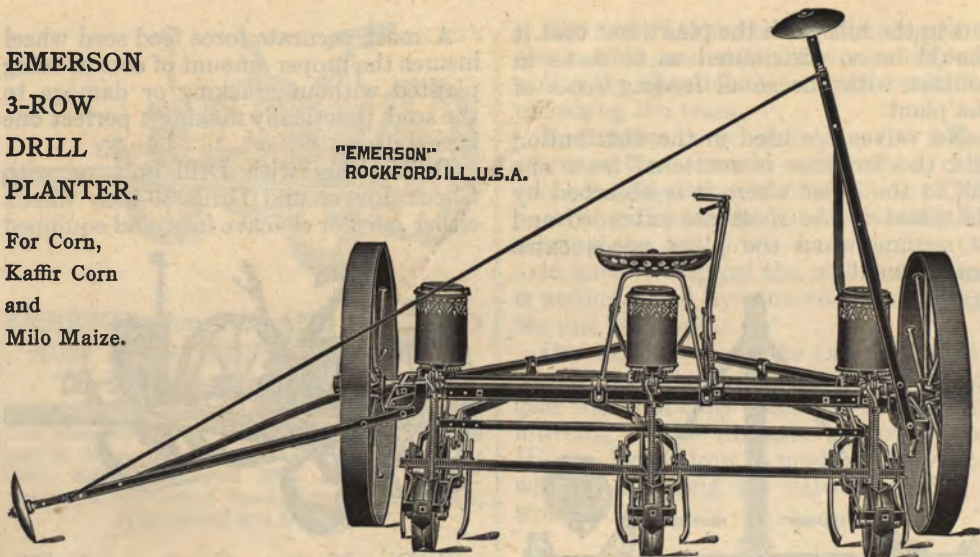
Disc Opener for Emerson Planters.

Our disc opener is made of two straight 13 inch rolling coulters which will make a furrow 2¾ inches wide at the heel of the planter. By having one disc set to cut about one inch ahead of the other the trash is all cut by the edge of the front disc. The function of the second disc is only to open up the furrow for the seed. This disc opener may be furnished as an extra for Nos. 10-A, 11-A, 25-A and 26 Emerson Planters.

**EMERSON
3-ROW
DRILL
PLANTER.**

For Corn,
Kaffir Corn
and
Milo Maize.

"EMERSON"
ROCKFORD, ILL. U.S.A.



Very Strong. Made almost entirely of steel which insures freedom from breakage.

Disc Openers combine the good features of both the single disc and the double disc. The large 15-inch coultter blade which does the cutting runs at a slight right angle to the direction of travel of the machine while the forward edge of the 13-inch coultter runs slightly in the opposite direction, its forward edge against the 15-inch coultter $3\frac{1}{2}$ inches back of the forward edge of the 15-inch coultter. In this way we cut a perfect furrow 1 to $1\frac{1}{2}$ inches wide where the seed is deposited, even though the ground be ever so hard or covered with trash.

Coultter Bearings are long distance construction dust proof and oil tight provided with a removable screw cap for oiling. These bearings are chilled cones, almost indestructible, yet inexpensively and easily renewed.

Can be set to drill rows 26, 28, 30 or 32 inches apart and has plates with which to plant corn 11, 14, 16, 18 and 22 inches apart in the row, also Kaffir Corn, Sorghum or Milo Maize 13 inches apart in the row.

A Lever convenient to the seat enables the operator to readily throw any part of, or the entire weight of the machine and operator on the disc openers, which are held down by compression springs, the tension of which is easily adjusted to meet varying conditions.

The reverse action of this lever raises the disc openers for ample clearance

above the ground, at the same time throwing the seed box gear rings out of mesh with the main shaft pinions, preventing any waste of seed.

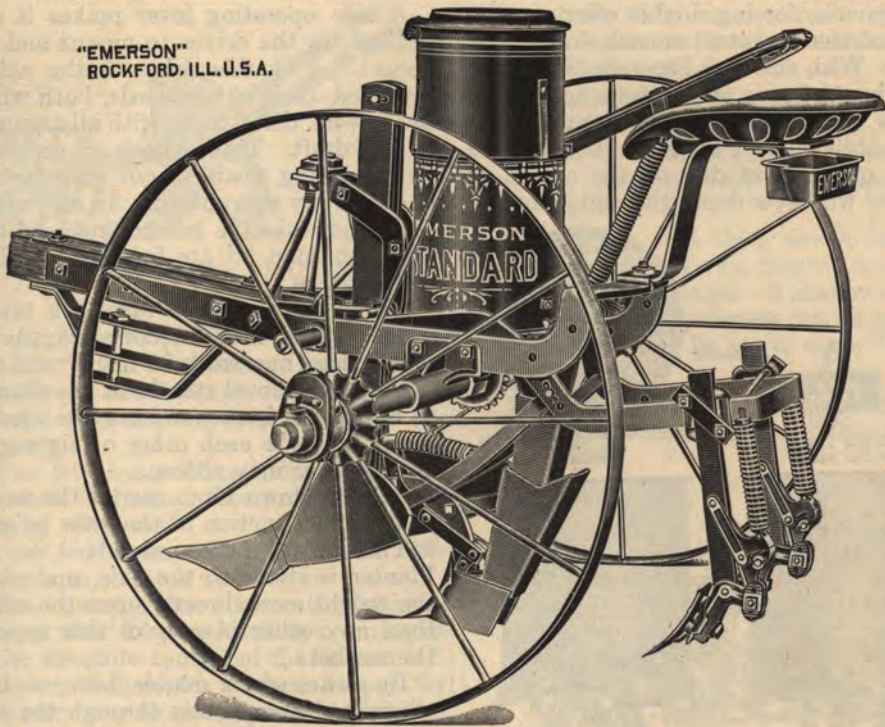
At the will of the operator any one of the boxes may be raised and held out of mesh with main axle, thereby planting any two or even one row if desired, without stopping the machine.

Two Adjustable Steel covering blades follow immediately behind the openers insuring a perfect covering of the seed.

Solid Steel Pressure Wheels 10 inches in diameter by 3 inches concave face with adjustable scraper or cleaner follow this covering blade, operated automatically with the openers governed by easily adjusted spring pressure. They may be used or not as deemed best.

Carrying Wheels are 40 inches in diameter with 4 inch flat steel tire, with $12\frac{3}{4}$ -inch oval steel spokes compressed in the rim red hot and cast solid in the hub, a construction acknowledged by all as far superior to the cold heading crystallizing process used by many. Wheels are connected to the main shaft or axle with a ratchet having two dogs or pawls in each wheel insuring a positive drive to the shaft or axle when either wheel turns. Adjustable scrapers or cleaners insure even diameter under all conditions.

Two Disc Markers are provided with this machine, with blades 10 inches in diameter, which insures a plain mark by which to gauge the distance from preceding rows.



No. 28-A EMERSON STANDARD PLANTER.

It is getting past the time when almost anything in the general shape of a planter is satisfying to the man who takes thought as to what is offered him. It is still true that some men buy because a planter is offered at a lower price than is asked for the better class. Price catches him—catches him twice, may be three times.

1st. When he buys.

2d. When he has to buy repairs before his crop is half planted.

3d. When he gets less cotton and less cotton seed.

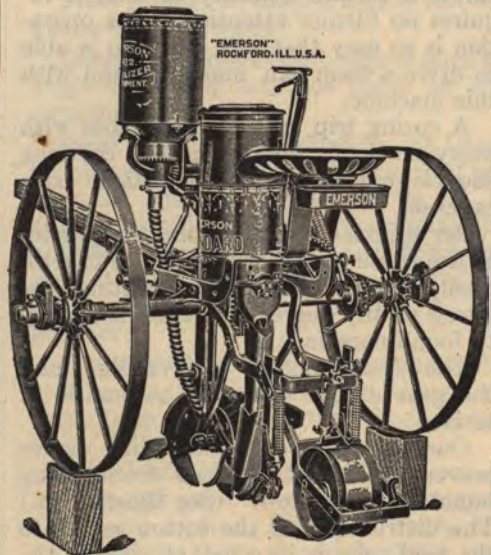
Any observing man has seen cotton rows showing spaces of from 3 to 5 or 6 feet in which not a plant is growing. That is not seen when an Emerson Planter has been used.

A Planter that makes "Skips" of anywhere from 2 to 10 feet is certainly not desirable.

YOU CANNOT GATHER WHERE YOU HAVE NOT PLANTED.

In the Emerson Standard No. 28A Planter for 1912 is embodied a most important improvement in cotton and corn planter construction. Heretofore, middle

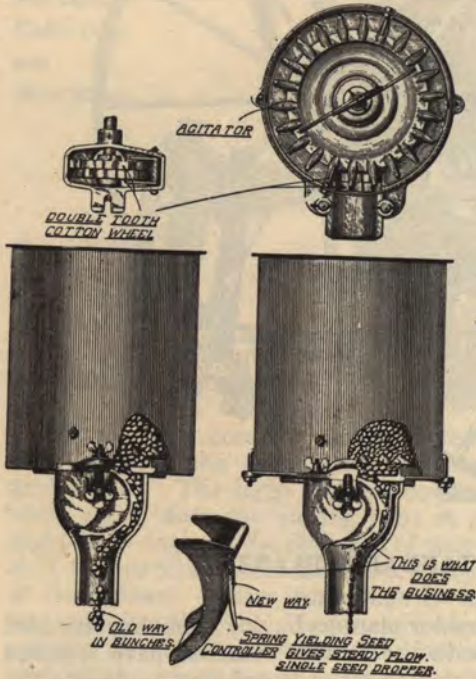
buster planters having a moving standard with the bottom attached have required a double set of levers, one to operate the middle buster, and the other to operate



No. 28-A Planter

Showing position in the ground, press wheels and fertilizer attachment.

the shovels, forcing double effort on the part of the operator at each end of the field. With the new Emerson Standard, the shovel frame is put into and taken out of the ground in perfect unison with the middle buster; therefore throwing the same quantity of dirt on the cotton or corn at whatever depth the middle buster



is set to run; and after being once set to throw a certain quantity of dirt, it requires no further attention. The operation is so easy that any boy who is able to drive a team can make a hand with this machine.

A spring trip opener shovel goes with every machine; and spring trip covering shovels may be ordered at a slight extra expense.

An adjustable foot enables the planter to use either sweep or middle buster with plenty of adjustment for setting the sweep at any degree of suction that may be found necessary.

The opener shovel is reversible, and the gear of the device is automatic in action.

Our patented seed distributing device prevents the cotton seed from being bunched in the row. (See illustration.) The distribution of the cotton seed into the seed tube is in constant view of the operator, and requires no effort to see the work being done at all times.

A side operating lever makes it convenient for the driver to mount and dismount. A double drive to the axle is provided, or in other words, both wheels are drivers, doing away with all argument on side draft. These wheels are especially strong, being made in our own factory, and are fully guaranteed. An easy spring seat, and a double telescoping seed hopper with snap lid are furnished without extra charge.

On special order we furnish a presser wheel with an independent acting spring, which does fine work in loamy soil.

Covering shovel standards are clamped to the shovel frame, and may be used directly opposite each other or zig zag, as the operator may choose.

A lower down hitch carries the weight of the down suction of the plow point.

The middle buster standard on this Planter is closer to the axle, and places the weight more directly upon the wheels than any other planter of this type on the market.

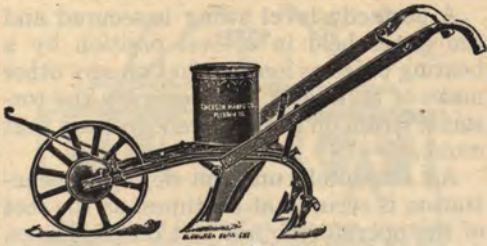
By means of our double drive, we have eliminated many holes through the axle, thereby greatly strengthening that part of this machine.

The drive clutch may be thrown out of gear without lifting the middle breaker out of the ground, by merely placing the foot on the lever tappet operating the clutch.

A Fertilizer Attachment, No. 2, can be readily attached to the planter in front of the axle, which has a tendency to counterbalance the weight of the driver, and will feed any kind of commercial fertilizer down behind the middle buster and just in front of the seed opener so that a thorough mixing of the fertilizer and soil may be secured without throwing the fertilizer into the cotton trench with the seed, which in some cases has been found to be very injurious to the proper germination of the seed.

A Planter that makes "Skips" of anywhere from 2 to 10 feet is certainly not desirable, unless you want to save the time it would take to gather what would have grown in the "skipped" places.

Bear in mind that the Standard Planters plant—Take no man's unsupported statement that he can sell you a planter as good as the Emerson. There is but one other that is as good—and that is just another Emerson—nothing else.



EMERSON B19 PLANTER (Gear Drive.)

For Corn, Cotton, Sorghum, Kaffir Corn.

All Emerson Planters are carefully designed as to correct proportions, and with especial reference to dropping grain accurately.

The B19 has a Detachable Gear, and the shaft is supported to prevent wear of cogs by vibration.

N. B.—Has large Opening Shovel, adjustable as to pitch and depth.

The covering shovels are also adjustable so that deep or shallow covering is under absolute control of the operator.

Cover shallow for cotton; deeper for corn; any way to suit the buyer. Instead of being "bossed" by the Planter, the "operator does the bossing" as to how the seed is to be planted and covered.

P392 2-hole plate drops corn 27 to 30 inches between hills.

P394 3-hole plate drops corn 17 to 18 inches between hills.

P396 4-hole plate drops corn 13 to 14 inches between hills.

P390 8-hole plate drops Kaffir Corn 6 to 7 inches apart.

P391 8-hole Sorghum or Milo Maize plate 6 to 7 inches apart.

The above record also applies to B19½ and C19 Planters.



EMERSON B19½ COMBINED COTTON AND CORN PLANTER (Chain Drive)

It is a positive fact that the Emerson Planters drop corn more evenly, cover more evenly, and so make a more uni-

form stand than can be made by any other. Emerson Planters make a uniform distribution of cotton seed, saving labor in chopping time, and makes a good stand sure (season permitting.)

As will be seen, this Planter has Wide Opening Shovels, and the Adjustable Covering Shovels.

This means that Corn can be covered by setting the Covering Shovels as shown above. But for Cotton—if shallow covering is wanted, the shovels can be given a less pitch or may be set to cover "dragging."

The Depth at which Corn or Cotton is planted or covered is under the operator's control.



EMERSON No. C19 PLANTER

This planter is made with a strong steel frame, so curved that old stalks and trash cannot reach the working parts, and proportions are right for comfortably guiding and holding the Planter in line.

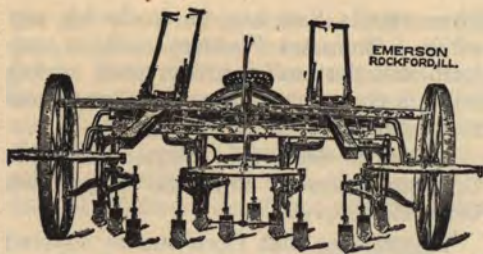
Steel Runner so shaped that it will not gather roots or trash.

Covering Blades extend back at such an angle that they can not catch on obstructions.

Press Wheel is controlled by the lever, which extends up within easy reach of the operator, and the wheel can be set in any position desired without stopping the horses. It can be raised clear from the ground or set so low that it will carry the runners and covering blades off the ground.

A Spring Cleaner, so arranged that the scraper may be instantly set against or away from the face of the wheel, as desired.

Seed Plate Mechanism is the same as used in our celebrated line of Emerson Corn and Cotton Planters, which has proven to be the most satisfactorily constructed machinery of this kind on the market.



EMERSON HIGH LIFT TWO ROW SHOVEL CULTIVATOR

Furnished with either 8 or 12 shovels,
or 3 or 4 horse hitch.

Foot Lever Gang Control, Balance Frame
Horizontal or Level Swing

A machine that saves one man and one horse—or, one man with this machine and three horses, does the work of two men, two single row cultivators, and four horses, and by reason of the **Emerson Foot Lever Control** does it easier.

Any boy who can run a single row riding cultivator can run the Emerson two-row. You simply take the same row you did with the planter or twin rows. Set your machine for the width corn is planted, 3-ft.-4, 3-ft.-6, or 3-ft.-8, and proceed as with the single row. The gangs are controlled by **powerful foot levers**, accomplishing the side swing of four gangs with less power than is required to swing the single row with two gangs.

The Seat is well back so the operator has a clear view of his work and ample time to properly guide his machine. This is more important than you think, unless you have run a two-row cultivator.

The Levers are within easy reach of the operator and are raised to extreme height for turning and thrown back to position as easily as with the single row. Each gang may be raised independently for clearing trash and adjusted for depth of penetration.

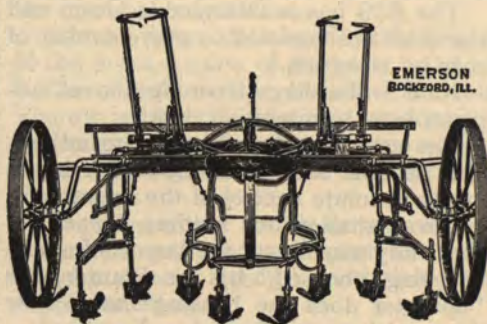
The High Lift Emerson Feature is very desirable in a two row machine in laying by corn, saving more than the cost of the machine each season over the other makes where the shovels are only 4 to 6 inches from the ground.

The Balance Lever enables the operator, without stopping the team, to so adjust the machine that his weight balances the tongue.

The distance shovels run from corn is controlled by our quick acting hand lever, and can be changed at will of operator without stopping the team.

A perfectly level swing is secured and the gangs held in a level position by a bearing twice as long as that on any other make of cultivator, consequently the torsional strain on beams is relieved just that much.

An absolutely uniform depth of penetration is secured at all times, as the feet of the operator do not rest on the gangs, but on the levers that control the side swing of the gangs, thereby overcoming the objection of forcing the shovels into the ground when dodging with the shovels as is so often the case. With a uniform depth of cultivation, both team and operator are relieved of unnecessary work and worry.



Two Row Cultivator with 8 shovels.

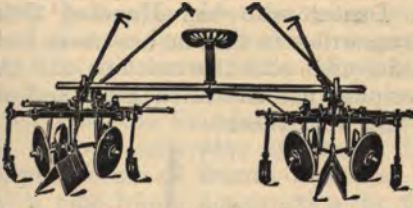
Wheels have 3-inch tire and the Emerson 2000-mile magazine axles, imitated by all, but equalled by none.

Aside from the question of obtaining help on the farm (which is a vital one), the owner of the Emerson Two-Row Cultivator cultivates two acres as he wants it *cultivated*, while he formerly cultivated one acre, because *he does it himself*.

There is simply no question about it, the **coming corn cultivator** is the **Two-Row Emerson**.

All Emerson Riding Cultivators are equipped with the justly celebrated Emerson **Patented Magazine Wheel Box**, that has helped to make our wheel plows so deservedly popular. Just stop to think. One greasing each season and virtually no wear out. It's almost worth the price of the cultivator.

A **perfect equalizer** is also provided, whereby each horse must pull his share of the machine, with ample range forward and backward. In fact, every feature of the machine appeals to the dealer or farmer who is interested in the very best labor, time and money saving implements.



One gang set for the first time over, throwing the dirt out, widening the furrow, letting the sun and air to the young plant. Notice the shovels loosen the soil where the roots will go, enabling them to feed faster. Other gang set for next time over, throwing fine dirt to the young blades, making a mulch around the plant.

EMERSON TWO ROW LISTER CULTIVATOR No. 32

Has fewer parts than any other machine that will accomplish the same result, and few parts means money saved for the owner.

Has an equalizer connecting the two machines in such a manner that each machine follows the row with certainty, affording ample range to the gangs.

The only machine which automatically holds the operator the same distance from each row, matter not how the rows vary or how uneven the teams travel.

The discs can be set to run three inches below the level of the carrying wheels, enabling the operator to loosen the soil down where the corn roots will go. This makes it easy for the corn roots to get food and oxygen which makes corn.

Disc bearings have hard maple boxes. These boxes are as nearly dust-proof as can well be, but any grit that does reach the bearing is immediately imbedded in this maple bushing without in any way injuring the bearing.

Bearing boxes have fewer parts than any other for a similar purpose.

Notice long frame pipe allowing wide adjustment of gangs.

Levers always in convenient reach of the operator. Not only is the seat held directly between the two sets of levers at all times, but the levers are set on an angled ratchet, insuring their free and easy movement regardless of the position of the machine.

The Disc Standards are so corrugated as to avoid any possibility of the disc assuming any other than the position in which it is set by the operator.

All steel and iron except the pole. The connecting bar is a square iron pipe hung on free moving pivots, far ahead of any

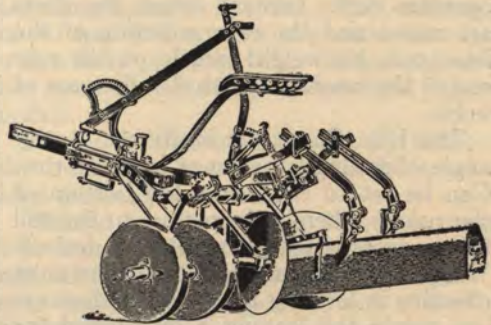
connection for the gangs on any other similar machine.

Quickly converted into two single row machines by adding one bundle of balancing wheels and a seat.

Automatically balanced on the carrying wheels, which travel backward under the load as the gangs are raised.

Discs and shovels are controlled by independent levers, but it is only necessary to use one lever to raise for turning.

You probably don't want to read any more reasons why you can make a success with this machine, and if you will just write, phone or telegraph what you want, we will serve you promptly, and you will profit by your action.



EMERSON SINGLE ROW LISTER CULTIVATOR No. 33

The cut tells nearly the whole story to one acquainted with the art of cultivating listed corn. Discs may be set at any angle and at any point in the row the operator desires.

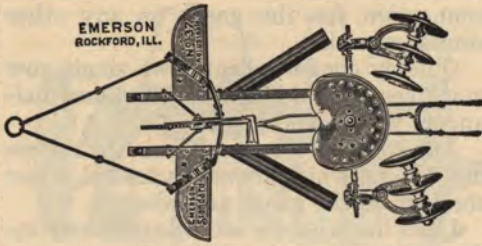
Shovels have the same range of adjustment as discs.

Levers provide separate adjustment for depth of shovels and discs.

A lever also adjusts the side wheels for deep or shallow rows.

Side wheels adjust themselves to uneven surfaces through compression springs making the automatic action of this machine almost human. All wheels have oil-tight dust-proof boxes with long bearings practically indestructible. Disc bearings have wood bushings, the very best combination for working in grit. The bearings as near dust-proof as can be made.

Two No. 33 single rows may be made from one No. 32 double row by adding the bundle of side wheels and levers.



THE EMERSON STANDARD LISTER CULTIVATOR No. 37

Nearer Dust Proof Boxes than on any other Lister Cultivator known.

Seat may be moved forward and back on frame as desired. The weight of the operator rocks forward when the discs are raised and the reverse action of the lever puts his weight largely on the rear end of the machine when the discs are at work.

The Disc Gangs are easily set at any angle, throwing either to or from the row. Can be set to cut below the bottom of the runner, thereby loosening up the soil for the roots of the young plant if desired. Wings or levelers are so set as to be most effective in leveling top of ridge, destroying weeds and leaving a dust mulch for the conserving of moisture.

Not common cast iron, and consequently not easily broken

Best grade of runners are used and will last from 6 to 10 years, instead of one or two.

Notice the lever adjustment for the disc and how close you can get to the corn, setting the disc below the bottom of the furrow.

Hard wood boxes, and sand caps, are distinctive features of merit.

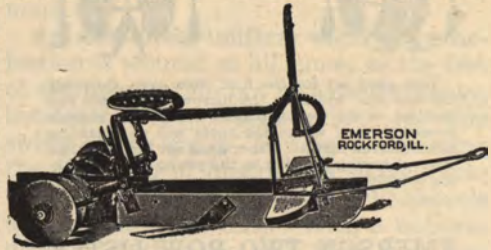
By attaching the disc gangs to the iron arch bar the runners are relieved of much of the strain when running deep and throwing out the first time over. Knives, as shown, are furnished when ordered at extra charge. Levers for adjusting angle of discs add to the cost of the machine, but are a good investment.

The Discs are Adjustable to all necessary angles, up or down, forward or back. They can also be reversed.

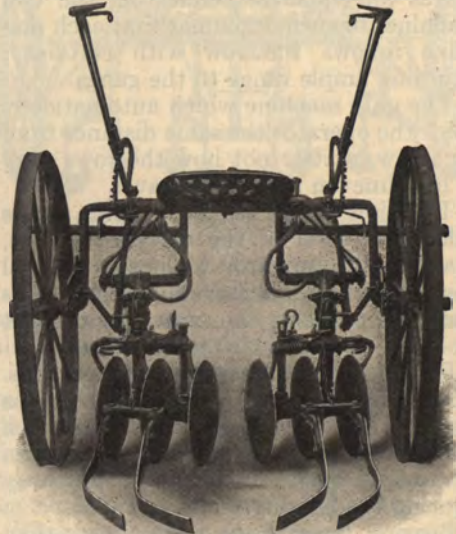
Wood Bearings in all boxes are protected by Sand Caps.

There is Hardly a Possibility of Clogging, at least we have never known or heard of one getting clogged.

A Dealer who has Handled Other Makes writes us that he has never had a bit of trouble with this machine, and that the repairs are almost nothing, and any boy can work them.



The Discs are 10, 11 and 12 inches, respectively, and can be placed with the smallest on the outside and the largest on inside, if desired, or so set as to throw the dirt either to or from the center.

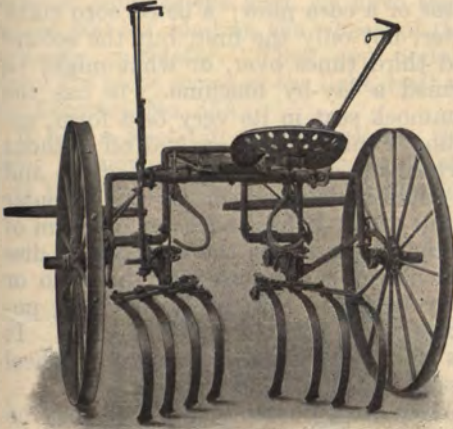


No. 36-B EMERSON DISC CULTIVATOR

In designing the Emerson No. 36B Disc Cultivator, we have adopted the well known principle of having the discs travel forward in line with the wheels, thereby securing a quick and easy dodge to the discs while in the ground. It is a well known fact that discs, when in the ground, cannot be made to slide sideways, but must be lead by changing the direction of their travel.

The ordinary disc cultivator has been badly handicapped by what is known as

a pivot pole or a pivot frame or some sort of pivot to overcome this strong tendency of a disc to run in the direction it is lead. With the Emerson we have started from the foundation. We have built a pivot cultivator on one of the strongest forms of frames that can be had—a pipe frame construction in the form of a horseshoe with the ends firmly



No. 36B Disc Cultivator equipped with spring tooth gangs.

bolted to a telescope axle. The arch, being all in one piece, is firmly braced to this frame, and carries the beam holding the discs. These beams are adjustable out and in on the arch, and are entirely independent of each other and free to oscillate up and down over the uneven surface of the ground.

A feature never before embodied in a disc cultivator is the point of draft as we apply it to our disc gangs. This disc gang is pivoted to the beam coupling on the oil tube pipe between the first and second discs in such a way that the pivot is exactly at the center point of draft of the three discs. This feature also automatically places the discs about the right position when throwing to the row and also when reversed to throw away from the row. As the discs throwing in must be placed farther apart, while throwing out the discs must be brought very close together in order to get up close to the plant. By our method, the reversing of these discs is done almost instantly.

A Patented Connection holds the shields in any adjustment, and can be changed quickly if desired.

An Automatic Balance Device rolls the wheel back, balancing the machine as the gangs are raised, and can be quickly adjusted for heavy and light weight operators.

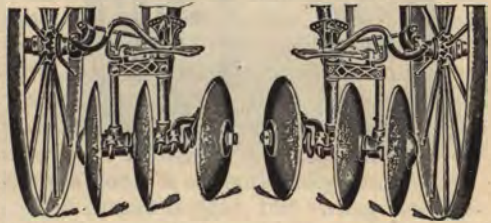
The Foot Control is as great an improvement to the disc cultivator as was the Foot Lift to the riding plow. It does away with the hand lever as applied to dodging the discs, and is far easier for the operator, who with his feet controls the machine, leaving the hands free to manage the team. Any boy large enough to handle horses can operate this cultivator.

A new form of Oil Saturated wood bushings, with a thin steel shield, gives about one-half inch more clearance under the disc spindle than any other cultivator using the same size disc. This enables us to use a disc with a greater curve, which more perfectly turns the ground, at the same time leaving a more level dust mulch.

Hard Oil Cups are provided, by which the important bearings of the discs are kept perfectly lubricated.

Wheels are channel out two-inch tire with Emerson Magazine Boxes, dust proof and oil tight. This tire construction assists materially the perfect foot control of the machine.

A Reverse Disc Attachment enables the operator to have the disc next the row throw away from the row, while the



others throw toward the row, thus filling the trench made by the first disc with fresh, fine soil, conserving the moisture where it is needed.



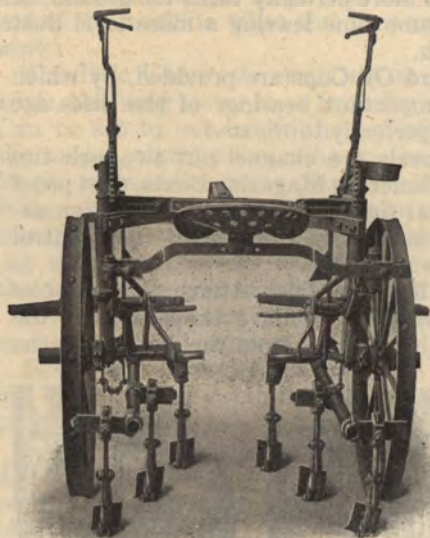
A Disc Harrow Attachment makes this

cultivator into a very satisfactory two-horse Disc Harrow at but very little extra charge.

Built with either the 14-inch or 16-inch disc. **Spring Tooth Gangs and Shovel Attachments** to the cross heads make the machine suitable for practically all territories.

As the latest thing in Disc Cultivators the Emerson No. 36B now stands as a splendid example of the efforts of experienced designers working to embody in this machine the principles recommended by practical users of the Disc Cultivator. It will fulfill the expectations of those who have come from past experience to look for perfection in Emerson Foot-Lift Farm Machinery.

Ask for special circular on the Emerson Disc Cultivator.



EMERSON No. 35A AUTO PIVOT FOOT-LIFT CULTIVATOR

DESCRIPTION.

No. 35A.	4 shovel, Pin Break, Round Sleeve.
No. 35A.	6 shovel, Pin Break, Round Sleeve.
No. 35A.M.	4 shovel, Spring Trip, Open Shank.
No. 35A.M.	6 shovel, Spring Trip, Open Shank.
No. 35A.L.	4 shovel, Spring Trip, Round Shank.
No. 35A.L.	6 shovel, Spring Trip, Round Shank.
No. 35A.B.S.O.	4 shovel, Friction Slip, Open Shank.
No. 35A.B.S.O.	6 shovel, Friction Slip, Open Sleeve.
No. 35B.	8 shovels, Pin Break, Round Shank.
No. 35B. H6,	8 shovel, Spring Trip, Round Shank.

Cultivators, the world over, are probably more diversified in form and in work to be done than any other class of farm machinery.

In the Emerson No. 35A Foot-Lift Single Row Cultivator, we have the widest ranged, or most diversified cultivator ever introduced in this country. That is it will come nearer doing the work of all the various styles and kinds of cultivators than any other machine ever made. It has the pivot axle with the roller and ball bearings; a parallel movement; a foot lift; a hand lift; is a surface cultivator or a corn plow; a listed corn cultivator, not only the first, but the second and third times over, or what might be termed a lay-by machine. It has the hammock seat in its very best form, enabling a man to get on and off without performing an acrobatic maneuver, and as solid in its position as the popular saddle seat. It has the strongest form of beam, the pipe. On the inner bar, a disc attachment can be used to throw to or away from the row, or for covering potatoes when planted in the furrow. It has the long distance magazine wheel boxes, dust proof and oil tight.

Axles are adjustable so wheels may be set wide apart for crooked checking, or close together for potatoes, garden truck, or other close rowed crops.

By adding the discs to the forward cross head, as an extra attachment, the potatoes can be handled in the very best form of cultivation known; that is, using a disc to loosen around the roots of the plant and soften the ground so the potatoes can expand and produce abundantly.

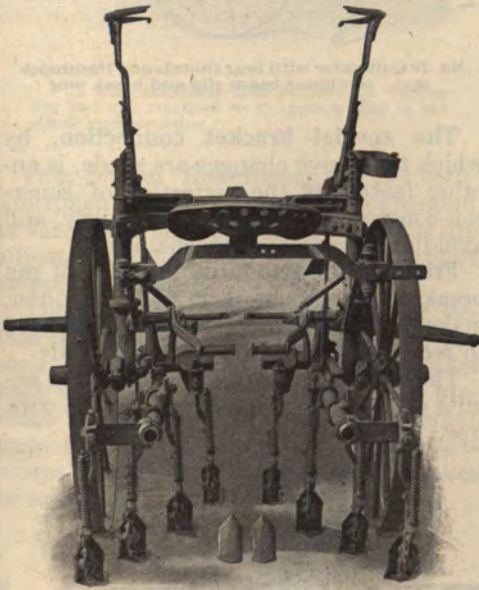
Its design is entirely original; all the shovels are raised to the same height and on the same principle as the Emerson Famous Foot-Lift Sulky and Gang Plows. It has therefore, the only perfect method of operating flat knives or surface blades.

A unique feature of this cultivator is the placing of the operator so near the axle line that complicated devices for balancing the weight of the operator against the tongue and the raising of the gangs against the tongue, are entirely eliminated. As the gangs raise up perpendicularly, there is no change in the balance of the machine, whether shovels are at work or raised at extreme height.

One-half of the draft of the team is direct to the beam, the other half to the evener. The shovels, which mean the load, are three or four feet nearer the team than on other cultivators. The

shovels being both in front and rear of the axle, carry the entire suction load upon the wheels, which insures the lightest possible draft for the work done. To illustrate: If the suction load of the ordinary cultivator, plus the man's weight four feet back of the wheels, amounts to 200 lbs., then, with the team hitched high enough to counterbalance the weight of the man and the suction of the shovels so as to equalize the load, we have then placed 400 lbs. load on the wheels of the ordinary cultivator. Thus you understand the great secret of the light draft in the Emerson No. 35A.

It has a Foot-Lift and a lock up, the same principle as our celebrated Foot-Lift Plows. Thus the shovels will go in-



NO. 35-B 8 SHOVEL AUTO PIVOT FOOT LIFT CULTIVATOR.

Especially designed for close rowed garden and truck cultivation. Wheels are oveled out so as to bruise the vines as little as possible should it be necessary to run on them in late cultivation. In other respects this machine is built as the regular Emerson No. 36-A Cultivator.

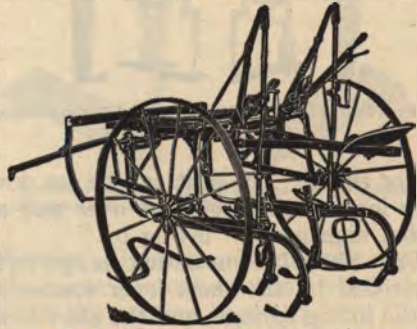
to the ground without any force whatever. Any boy large enough to handle horses can operate this cultivator.

The seat arch may be lowered so the operator may sit in the seat and reach the ground, or may be raised so that the arch is as high as the under side of the pole for laying-by.

This cultivator is built on very strong lines, and yet is so simple in its construction that it weighs no more than the ordinary cultivator.

When the gangs are raised, the pivot axle is automatically locked in a draft line to the frame.

The No. 35A Cultivator can be furnished with our famous Morning Glory Knives, or combined shield and surface blades, with which you cultivate up close to the row without covering the corn, even though it is just shooting through the ground.



EMERSON No. 26 SADDLE SEAT CULTIVATOR

Mast Lift, Pendulum and Horizontal Swing,
Balance Frame

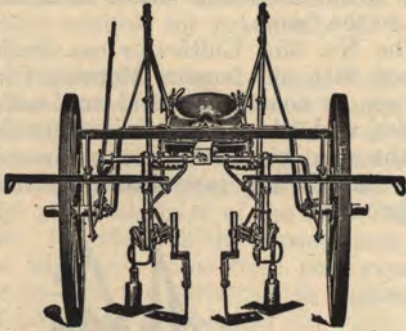
In our new model riding cultivator we have combined all the best features found in the entire riding cultivator family, with original Emerson ideas gained from years of experience in riding cultivator building, and the result is a machine the operation of which both in field and on sample floor, is exceptionally gratifying.

The Frame is light, but strong, and admits of an unobstructed view of the corn row.

Absolutely nothing better for Morning Glories, Quack Grass, Canada Thistles and other similar pests.

If wanted, we furnish in connection with these surface blades, sweeps in place of shovels, making a complete surface Cultivator, or surface blades are furnished in addition to shovels and then you are equipped to use either surface blade or shovel as seems best to meet different conditions. These blades make the cultivator very light draft and easy on the operator and will save their cost every year on every acre of glory land.

The Saddle Seat affords a substantial and solid support for the operator, materially increasing the foot control of the gangs. The saddle seat enables the operator to mount or dismount without de-



A Full Set of Surface Blades on No. 26 Cultivator

lay or effort. The seat can be set down very low for the first time over and adjusted high up for "laying by."

The Shovel Penetration is perfectly controlled by the short lever connection to the lifting springs, and the shovels are adjusted for any desired depth without stopping the team.

The same Perfect Balance Lever device is used on this machine as on all our steel riding cultivators, a construction that admits of operation while the machine is in motion, and entirely different from the "lifting yourself by your bootstraps" proposition found in other makes of so-called balance levers.

EMERSON No. 29 HAMMOCK OR SADDLE SEAT CULTIVATOR

Mast Lift, Pendulum or Horizontal Swing, Balance Frame, Adjustable Axle.

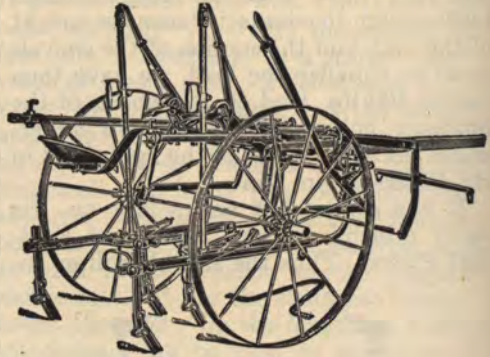
DESCRIPTION:

No. 29-B-S-4-O. Single row, 4 shovels, Beam Friction Slip and Open Shovel sleeve.
 No. 29-B-S-6-O. Same as above, except has 6 shovels.
 No. 29-H-4. Spring Trip, 4 shovels.
 No. 29-H-6. Spring Trip, 6 shovels.
 No. 29-M-4. Spring Trip, 4 shovels.
 No. 29-M-6. Spring Trip, 6 shovels.
 Sweeps either 6, 8, 10, 12 or 14 inch, will be supplied in place of shovels, if desired.

It can be converted to saddle seat, if desired, as shown.

The Adjustable Axle allows the operator to adjust the width of tread to suit the crop to be cultivated, which feature will be found most valuable in sections where diversity of crops necessitates this adjustment. The machine is equally valuable where no adjustment in width of tread is required.

In the horizontal swing, whereby the high pivot point or goose-neck is held perpendicular, the hinge in mast and gang connection affords a perfectly horizontal or level swing, and an even depth of penetration of outside and inside shovels is insured.

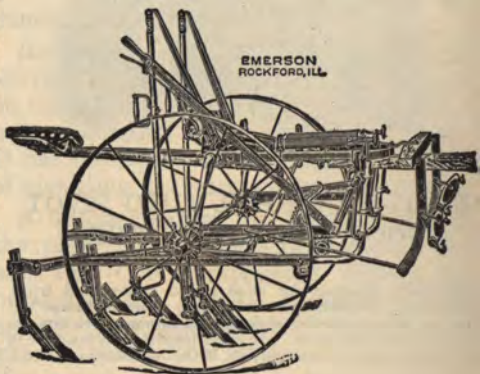


No. 29 Cultivator with four shovels and Hammock seat, combined beam slip and break pin.

The special bracket connection, by which the above changes are made, is another feature of the perfection of Emerson construction, insuring durability, and avoiding complicated mechanism.

Friction slip standards in place of pin break and open shank in place of round, make this Cultivator especially adapted to requirements of the Southern trade.

The Frame is light, but strong, and admits of an unobstructed view of the corn row.

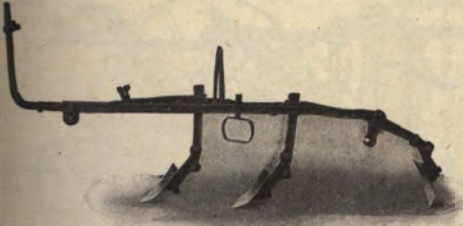


Showing No. 29 Cultivator with six shovels and Saddle seat

The Hammock or Saddle Seat affords a substantial and solid support for the operator, materially increasing the foot control of the gangs. The saddle seat enables the operator to mount or dismount without delay or effort. The seat

can be set down very low for the first time over and adjusted high up for "laying by." The Hammock Seat is of the regulation pattern. Both seats are sent with each cultivator.

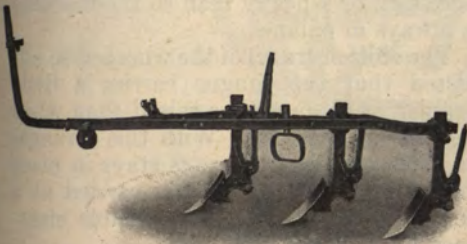
The Hammock Seat will be found desirable when using the cultivator for the first plowings, and when the plants are small. Later the Hammock Seat can be changed to Saddle Seat in a few minutes' time.



Two front standards held in place by friction slip and rear standard as it appears after it has struck an obstruction.

The Shovel Penetration is perfectly controlled by the short lever connection to the lifting springs, and the shovels are adjusted for any desired depth without stopping the team.

The same Perfect Balance Lever device is used on this machine as on all our steel riding cultivators, a construction that admits of operation while the machine is in motion, and entirely different from the "lifting yourself by your bootstraps" proposition found in other makes of so-called balance levers.

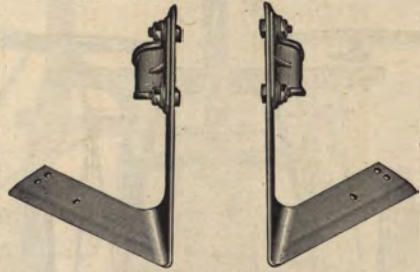


For Southern Cultivator. H Spring Trip, used on No. H 29 Cultivator. Three shovel beam for No. 29 Series of Cultivators.

The combination horizontal and pendulum swing arrangement is most simple and perfect, and the gangs can be changed from horizontal to pendulum swing without so much as loosening a bolt.

In the pendulum swing, whereby the goose neck of the gang is hinged at its highest pivot point, while the mast and gang connection is made rigid, the range of swing of the front shovel is increased one-third over any other style of swing, a most desirable feature in plowing imperfectly checked corn.

MORNING GLORIES VS. CORN



Showing blocks for round sleeves but furnished with blocks for open sleeves when ordered.

Morning Glories. What an appropriate name from the artist's viewpoint, but had the naming been left for a Corn Grower, we should doubtless know this persistent pest by some less artistic but more emphatic title.

Probably no other weed has so much to do with increasing the expense of growing corn as this hardy vine, every point of which when detached from the parent vine produces a separate healthy and vigorous climber ready to wind itself around and choke the life out of whatever stands within its reach.

A facetious farmer told us recently that "Glories" pulled up and hung on the fence until thoroughly dried, then burned and the ashes thrown on the ground would produce a vigorous crop next year. Of course, this is overdrawn, but it illustrates the almost life everlasting qualities of this pest.

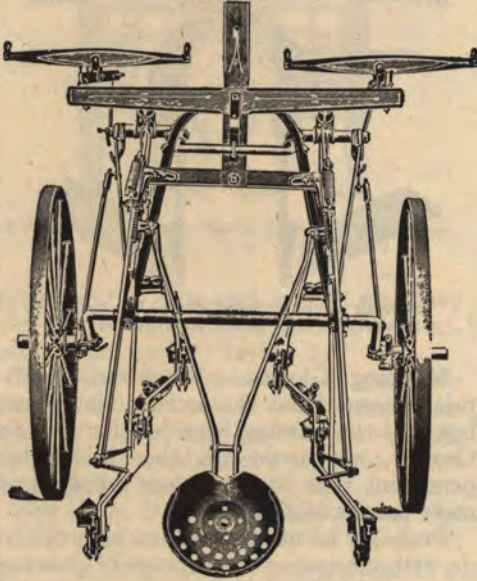
To the corn growers of Illinois, Iowa, Missouri, Kansas, Nebraska, in fact, in all the corn belt, where the land is becoming more and more valuable each year and must be made to produce profitable crops to pay an interest on the investment, the solution of this problem, Morning Glories vs. Corn, is of vital interest.

True the land may be put into grass and pastured closely until the glories are killed out, but we cannot afford to do that. As a rule our best "glory" land raises the best corn if we can keep the glories down

and that's what we have been working on for several seasons, a devise that would not let the glories get started high enough to begin to twine around the corn plant.

Made reversible so when one cutting edge gets dull can use the other edge.

The Emerson Glory Surface Blade may be used on any make of Cultivator, but ought to work best on the Emerson, where it was born.



**AUTOMATIC BALANCE FRAME
CULTIVATOR—(Northern)**

Description

No. 31—4-shovel steel beam, pin break.
No. 31L—6- " " " " " "
No. 31L—4- " " " " " "
No. 31L—6- " " " " " "

As the Emerson was the first riding cultivator to be equipped with a perfect balance lever whereby both wheels were moved together without strain or twist to the machine, it is only natural that the Emerson should be the first automatic balancing cultivator the seat of which does not go up and down like a see-saw.

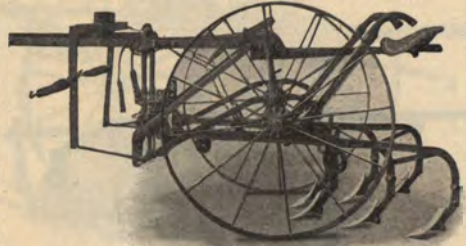
With the Emerson No. 31 when you raise the cultivator gangs, instead of being compelled to either use one hand to move the balance lever or have the neck yoke fly up under the horses' heads and seat go down, the raising of the gang causes the wheels to travel backward sufficiently to balance the added weight of the gangs.

When the gangs go down the wheels travel forward keeping the machine and operator in perfect balance at all times.

Lever lift is easy and positive and meets the ideas of those who object to mast lift cultivators. By changing a bolt in each lever the carrying spring acts on the gangs independent of the lifting levers, making the cultivator into a very satisfactory walking machine.

Telescope Arch provides ample adjustment of width of tread.

2000-Mile Magazine Wheel Box described on page 6.



**No. 38 EMERSON LEVERLESS
CULTIVATOR**

The No. 38 Emerson Cultivator is a **Leverless Self-Balanced Cultivator** with positive or solid down stop for the gangs and a rigid seat provided with positive gauge for adjusting the height of the seat to the work. It may be set very low for the first cultivation or raised high for the last time over.

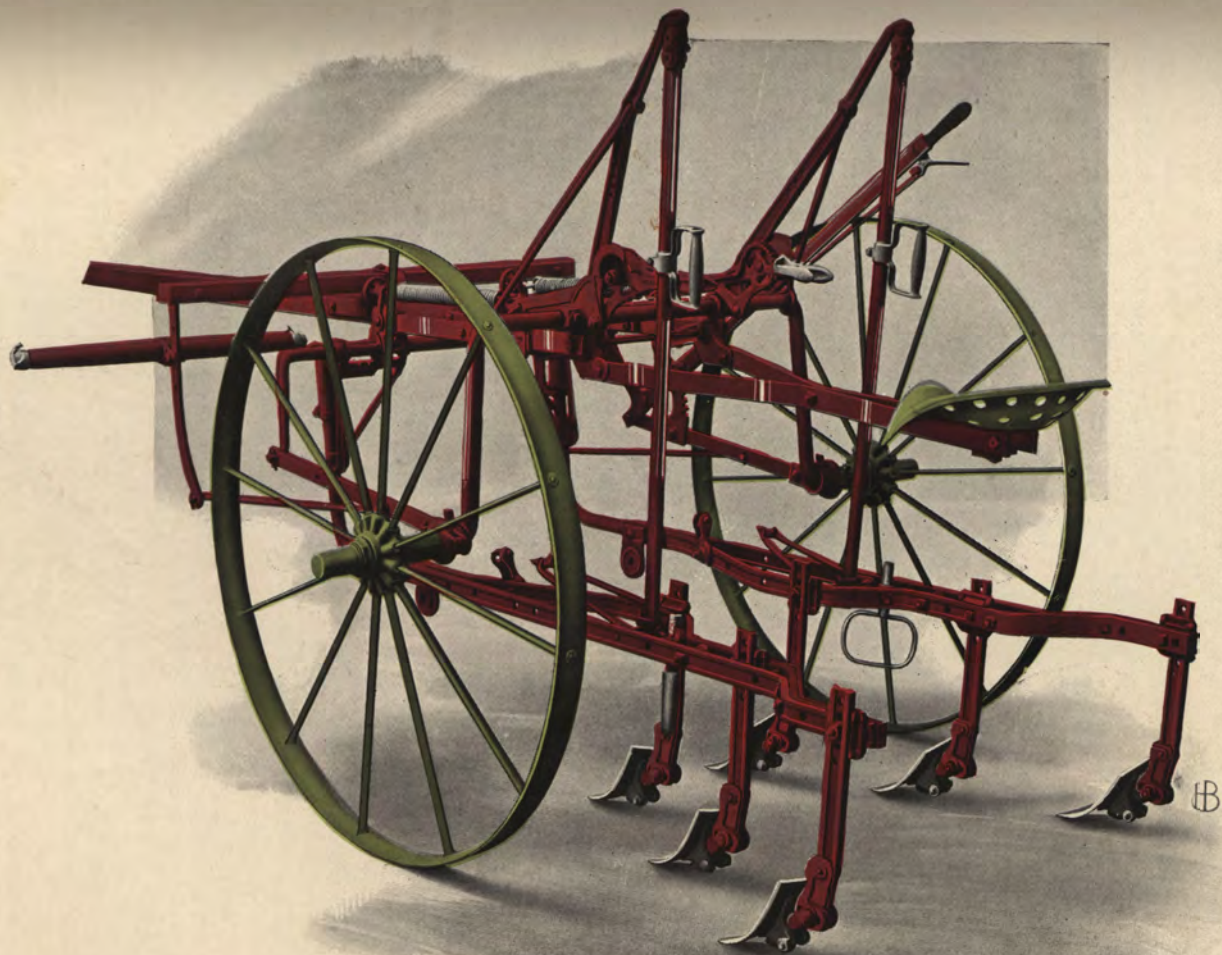
The **weight of the operator** balances the gangs, assisted by the same style raising spring used on our popular No. 50.

A **quick acting adjustment** is provided for changing the balance for use by a light boy or a heavy man so the machine is always in balance.

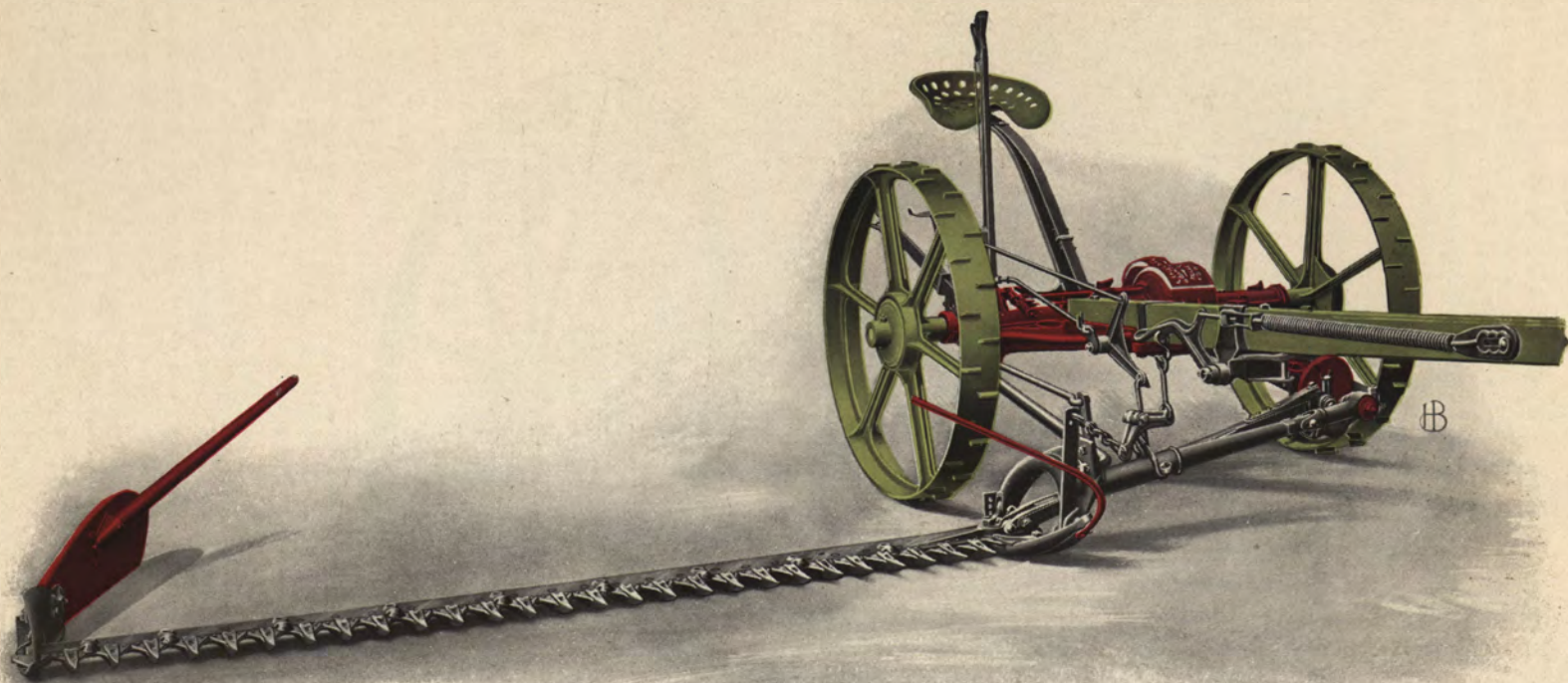
The **shift or travel** of the wheels is so adjusted that the tongue carries a little heavier when gangs are raised than when shovels are at work. With this arrangement the neckyoke always stays in place in turning, and the shovels carried at a height to secure the best possible clearance for the last time over.

The **long cone coupling** for beams takes up all wear with the finest adjustment possible and provides an up and down as well as a side adjustment of the front end of the beams of unusual range.

The **beams** instead of being drawn down to a thin ribbon of steel at the front end to save cost, are full strength at the coupling and hold the shovels in an upright position, even when subjected to



No. 26 EMERSON SADDLE SEAT CULTIVATOR



EMERSON STANDARD WIDE CUT MOWER

extreme pressure to make the side swing in the ground or to clear an accumulation of trash on any shovel. Should the operator prefer to walk, the seat throws over forward so as to leave an unobstructed view of the row. The carrying spring allows the gangs to float lightly for shallow cultivation, or to run deep as desired. They are instantly adjusted so the tension of the carrying spring either spreads them apart or pulls them together to offset the side pull of the shovels whether turned to throw towards the row or away.

The bail between the gangs is a flexible spring device which holds the gangs to a parallel position, but the springs allow one gang to be pushed over without moving the other one. This makes it possible to use the bail in plowing the corn the cross way and pass a scattered hill without taking out many stalks.

For the territories where levers are required we will furnish them, without extra charge although we recommend the use of this Cultivator as a leverless machine.

As a walker the wheels are instantly adjusted to balance the machine so there is no undue weight on horses' necks. The solid down stop is instantly set by the operator to control the penetration, or the depth of shovels may be governed by the yielding suspension spring and weight of operator combined, as desired.

The Frame runs well forward forming a strong coupling to the pole and affording an unobstructed view of the row.

Wheel Boxes are dust proof and oil tight; our regular long distance axle construction.

The Draft is applied one-half direct to the head of the beam or coupling, the other half to the frame, by means of a perfect evener which insures each horse taking his share of the load and without any twist or undue strain on the machine.

Handles have ratchet connections to beams and may be located to suit the convenience of the operator either riding or walking.

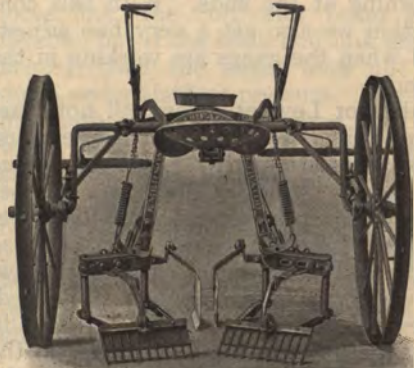
Axles are adjustable or telescope so wheels may be set wide apart for crooked checking, or close together for potatoes or other close rowed crops.

A leverless machine self-balanced with positive control of depth of penetration and a solid seat for the operator will be appreciated not only by corn growers but dealers.

The space in front of the driver is clear and the corn row can be seen without turning the head either to the right or left.

It can be changed without taking out a bolt and made into a walking cultivator by turning the seat up and changing the levers balancing the frame.

Investigate the Emerson No. 38 Improved Leverless. We leave the verdict to you.



No. 39 EMERSON SURFACE CULTIVATOR

Surface Cultivation is becoming more general each season, the results of comparative tests proving that an increased yield can be obtained by this method over the root pruning process on ground that has been plowed and planted with a corn planter.

This method of cultivation has heretofore been badly handicapped by the awkwardly constructed machines, which could only be adjusted to suit varying conditions by the use of the wrench or other devices, necessitating stopping the team and taking much time, with the chances in favor of not getting the machine properly set to obtain the best results.

In the Emerson No. 39 Surface Cultivator we use long steel bars, making it very easy to swing the machine, and telescope axles with ample capacity for a wide range of tread. It has an adjustable low down saddle seat firmly braced to the frame, and foot rests easily adjusted for boy or man.

The Ratchets for the levers are so constructed that the gangs can be raised by pushing the levers down without lifting the plunger.

When the Crop is Small, the connection between the levers and the gangs can be lengthened, which sets the levers very convenient for the operator to change the depth of penetration as desired. As the crop grows this connection can be shortened and the blades can be raised high, avoiding damage to growing crop in turning at the ends. With this construction we also get a very fine adjustment when the gangs are working in the ground.

Rakes or Levelers, you will note, are entirely different from old style levelers. These rakes are provided with a unique adjustment, whereby they can be set either close up or extended far back behind the blades or wheels. They can also be adjusted so as to rake close to the row, or even rake over the row, if desired. Instead of packing the ground and really transplanting the small weeds, as do the old style levelers, these rakes drag the weeds out on top and leave a finely pulverized surface, a condition that experience has proven is most perfect for retaining moisture and preventing the ground from baking.

Shields have wide faces with a pilot guide from which the operator avoids cutting too close to the hill.

Yielding Suspension Springs with different adjustments carry the knives at an even depth, and make especially easy the radial movement of the gangs.

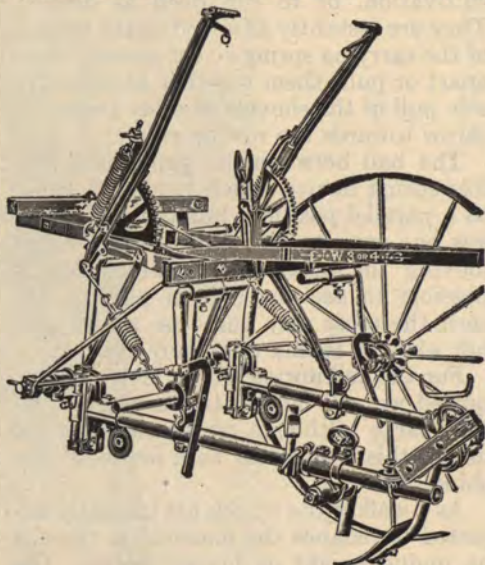
The Famous Emerson 2,000 Mile Axles on this machine require one greasing for the entire season. The wheels can be adjusted to properly balance the weight of the operator, whether man or boy, without the use of a wrench.

An unobstructed view of the row is provided for in this Cultivator, a feature that will be thoroughly appreciated by cultivator operators.

The setting of the blades in a Surface Cultivator, and a stiff, rigid, wide arch are important features. All blades on the Emerson No. 39 Cultivator are properly set on their standards before the machine leaves our factory. This avoids the necessity of the operator being delayed by having to experiment with different adjustments. Leave the knife adjustment as when received. This feature, in con-

nection with the solid arch construction, should be carefully considered in making your selection of a surface cultivator.

Adjustable standards with goose neck and break pin attachment can be furnished with this machine when desired, at little extra expense.



Detail of W Frame Standard Cultivator. With the new Rub Irons or Wheel Guards Using 42-in. Wheel, Steel Hand Levers and Patent Friction Slips.

EMERSON STANDARD RIDING CULTIVATORS

W. Frame, Non-Balance

DESCRIPTION

- No. W-4. Standard Combined Cultivator, Steel Frame and Steel Wheels. Parallel Beams.
- No. W-1-4. Same Cultivator as No. W-4, except it has No. 1 Automatic Spring Trip.
- No. W-G-4. Same Cultivator as No. W-4, except it has No. G Automatic Spring Trip.
- No. W-5 Standard Combined Cultivator, Steel Frame and Steel Wheels, Tubular Reinforced Beam.
- No. W-1-5. Same Cultivator as No. W-5, except it has No. 1 Automatic Spring Trip.
- No. W-G-5. Same Cultivator as No. W-5, except it has No. G Automatic Spring Trip.

NOTE—The 1 Spring Trips were formerly the D trips.

The letter "W" is used to indicate the style of frame, not using the automatic balance feature.

The wheels may be set out to 47 inches or in to 37 inches, having a range of 10 inches. A much wider adjustment may be had by reversing the castings C1067.

When the shovels are in the ground, a wide swing may be had; and when the beams are raised, the shovels are well protected from the wheels.

The cultivator has our long distance, dust proof wheel boxes and sand caps,

provided with thumb nuts so that a greasing of the spindle may be very quickly obtained

The pole casting on the "W" Cultivator is made very heavy and strong at the end and is so arranged that there is no chance of interference with wire fences and posts when turning around at the ends of the field. This casting also assists in balancing the cultivator.

This cultivator has a yielding suspension spring, and it may be quickly adjusted to a solid down stop, the lifting of the beam being made very easy because of the assisting spring on the lever.

As will be seen in the illustrations, the frame is thoroughly braced, using no more parts than needed to secure strength and stiffness.

The levers are placed within easy reach and are adjustable to suit the size of the operator man or boy.

The beams are extra heavy gas pipe. at least one gauge heavier than those ordinarily used on cultivators. They are reinforced by a stiff steel bar running the full length of the beam.

Wheels are made by the best construction known. 42 inches high and 2-inch tires.

Improved Standard Cultivator Wheels are used on all "Standard" Combined Riding and Walking Cultivators.

Since the adoption of these wheels the reports of breakage from any cause whatever have stopped.

42-inch diameter.

Heavy flat spokes.

Hinged retaining collar.

2-inch flat or concave tires.

Closed hub—Dirt proof.

Box with long bearing.

One filling of the box with axle grease will run the cultivator for the whole season.

The best Cultivator wheels yet made.

Standard Cultivators may be ordered with either concave or flat tire wheel.

Our Suspension Springs are a decided improvement over the suspension springs on other makes of cultivators.

This spring runs from the hand lifting levers down to the beams,—its office is to raise the beam, but at the same time, to permit the beam to be pressed down, to reach the low places.

This is not like the common device used on all cultivators from the worst to the best.

Within a few years many users of cultivators have found that a cultivator with a beam that does not "teeter" up and down handles much easier—and have referred us to the Standard Cultivators used 20 years ago—before the "teetering" beams came into use—which had a rod between lever and beam, instead of the spring.

The above improvement provides for either a stiff rod or a flexible spring

When the hook is not placed in the loose link, the cultivator beam is left flexible, but if the hook and link are connected, then the beam does not drop down under the foot pressure. The buyer has both plans in the same cultivator, which many users of cultivators, as well as dealers, have assured us is desirable.

The improved Cultivator Bail connecting the beams is the simplest and best of all the devices yet produced for quickly widening or narrowing the distance between the beams—while the team is in motion.

The driver presses the grip latch, which releases the plunger bolt, and immediately the change in width between beams is effected.

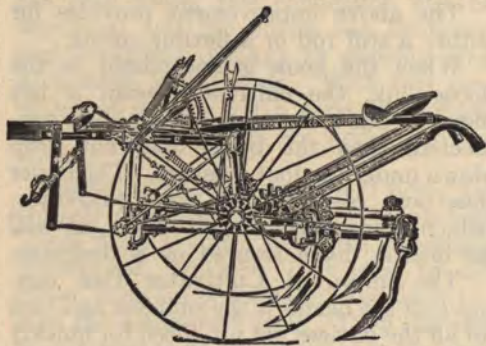


The brackets or arms under the beams for the purpose of setting the shovels at desired distance apart on each beam, are made to accommodate either shovel, sweeps or cotton gopher blades.

On the front Standards are the Cotton Gopher Blades—an attachment especi-

ally designed for "getting next to" the young plant. It has been demonstrated that these blades enable a chopper to do one-fourth more chopping out in a day's work, and with less fatigue, partly because these blades prevent dirt piling up over the plants.

The results obtained are worth more than five times the cost of these blades.



THE EMERSON STANDARD No. W4 FRAME CULTIVATOR

Parallel Beams.

Specifications:

Frame—Wrought iron and steel, with straight spindles; steel levers and coiled lifting springs. Either spring or rigid suspension rods will be furnished, as ordered.

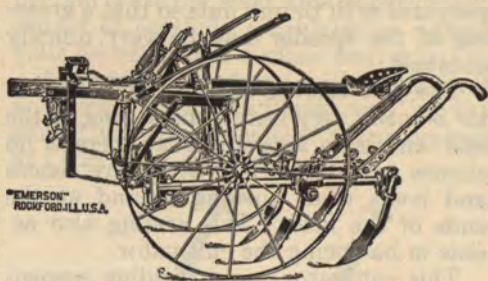
Wheels—Steel, 42 inches high, with flat or concave tires 2 inches wide and removable boxes, screwed into the hubs; closed end boxes.

Beams—Parallel—front and rear part gas-pipe, and equipped with Friction Bolt Slip, which permits the operator to reset the shovels quickly and solidly. These beams are adjustable at the front as to "spread." The inside and outside shovels may also be adjusted to get more or less "spread" between them, by the use of the extension brackets.

Shovels—The shovels, 5½ and 8½ inches wide, shown in the cut, are regularly furnished, mounted on round steel standards, but sweeps or turning shovels may be substituted, at the option of the purchaser.

Since 1876 the people of Texas have bought and paid for about 200,000 Standard Cultivators—that's a nice bunch of Cultivators. The dealers like to handle them because they say "A pleased Purchaser Pays Promptly."

The man who uses a Standard will find it to be all that is claimed for it.

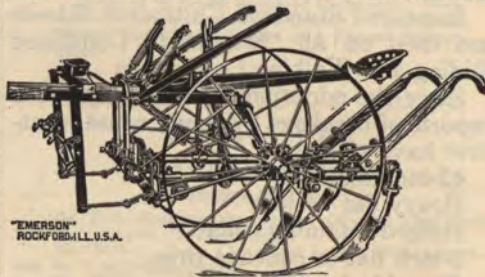


No. W5 EMERSON STANDARD CULTIVATOR

The Prudent Purchaser is cordially invited to carefully consider the question of buying for price only or for price and merit combined. If you happen to be one of those who bought the "just as good" kind last year, you may by now be ready to buy a real Standard, one you can recommend to your neighbors.

The Standard Implements are sold only by dealers of good commercial standing and whose promises can be relied upon. The Standard is back of them.

There is no risk to anybody in buying a Standard Cultivator.



No. V-5 Automatic Balance Frame Cultivator.

AUTOMATIC BALANCE FRAME CULTIVATORS

- No. V-4. Standard Combined Cultivator, Steel Frame and Steel Wheels, Parallel Beams.
- No. V-1-4. Same Cultivator as No. V-4, except it has Automatic Spring Trip.
- No. V-G-4. Same Cultivator as No. V-4, except it has Automatic Spring Trip.
- No. V-5. Standard Combined Cultivator, Steel Frame and Steel Wheels, Tubular Reinforced Beam.
- No. V-1-5. Same Cultivator as No. V-5, except it has Automatic Spring Trip.
- No. V-G-5. Same Cultivator as No. V-5, except it has Automatic Spring Trip.

NOTE—The 1 Spring Trips were formerly the D Trips.

In some districts there is considerable demand for some sort of device for balancing the weight of the operator—when shovels are not in the ground. Until we introduced an Automatic Balance, the plan was to have an extra lever at the side to throw the wheels back, but this

plan had its obvious disadvantages—particularly in that it required a “husky” man to handle it—except on our No. 29 Cultivator. The side lever pulled the wheels back all right, but it also pulled on the driver’s back and side muscles. It made both the driver and the muscles “sore.”

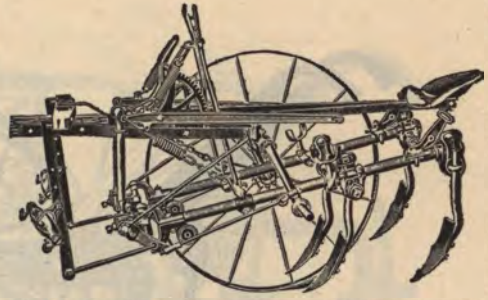
In the automatic, we use the same levers which are used on any cultivator for raising the beams. Drawing them down throws the two wheels backward, balancing the weight of the driver. The operation is so easy and natural that any ordinary sized boy can work the trick.

Certainly if a balance frame cultivator is wanted, it would be useless to buy the “hard to work” kind. (Unless an Emerson Cultivator cannot be had.)

In this cut of the Automatic Balance Cultivator is shown, the levers drawn down, and beams lifted.

This Cultivator is equipped with the same wheels and beams as the regular No. 5 Cultivator.

The distinctly Superior Feature of this Cultivator is that it **actually balances**, with either a light or heavy man on the seat—weighing less than 200 pounds.



There is no back-straining Side Lever.

The operator simply pulls down the two levers connected to the beam. The same motion throws the wheels backward, as the beams are lifted.

In the two cuts treating of the Automatic Balance Cultivator, we have shown the No. V-5, that is to say, the rigid beams.

But Parallel Beams for No. 4, No. I-4, or G-4 or

Rigid Beams for I-5, or G-5 Cultivators can be used in connection with the above frame.

The New Grip Latch Bail and the new non-teetering suspension springs, described on pages 62 and 63, go with all Standard Cultivators.

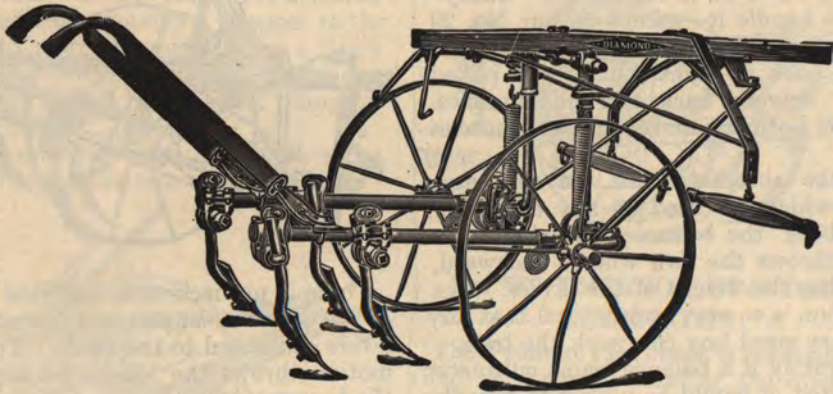


Emerson-Brantingham Plow Co., Dallas, Texas.

Blooming Grove, Texas, May 8, 1910

I just want to say a word for the Standard Cultivator—I have one of your No. G-5—I would not give a Standard for anything that ever rolled on a wheel.

G P. Rice.



No. 16 Walking Balance Frame Cultivator.

EMERSON STANDARD WALKING CULTIVATORS

DESCRIPTION

- No. 16. 4 shovel, Pipe Beam.
 No. 16½. 4 shovel, Pipe Beam.
 No. 1-16. 4 shovel, Pipe Beam
 No. 1-16½. 4 shovel, Parallel Beam, Spring Trip.
 No. G-16½. 4 shovel, Parallel Beam, Spring Trip.
 No. K-16½-S. 4 shovel, Parallel Beam.

All Emerson Walking Cultivators carry the same frame, of which the following is a general description:

Frame. Wrought iron and steel, with balancing spring and axle, and adjustable as to width between beams.

Wheels. Steel, 30 inches high, with flat tires, and removable boxes screwed into the hubs.

Beams Rigid, all gas-pipe with flat steel reinforcing bar and equipped with friction Slip Bolt.

Adjustable Handle Plates.

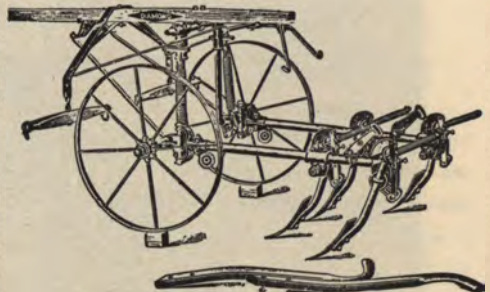
Patented Adjustable Front Couplings, to raise or lower front end of beam.

Shovels. Shovels 5½ and 8½ inches wide, as shown in the cut, are regularly furnished, mounted on round steel standard. Sweeps may be substituted at the option of the purchaser.

This Cultivator is wonderfully simple and durable. Our Friction Slip as used on this Cultivator, has been carefully and thoroughly tested, and is known to be all right.

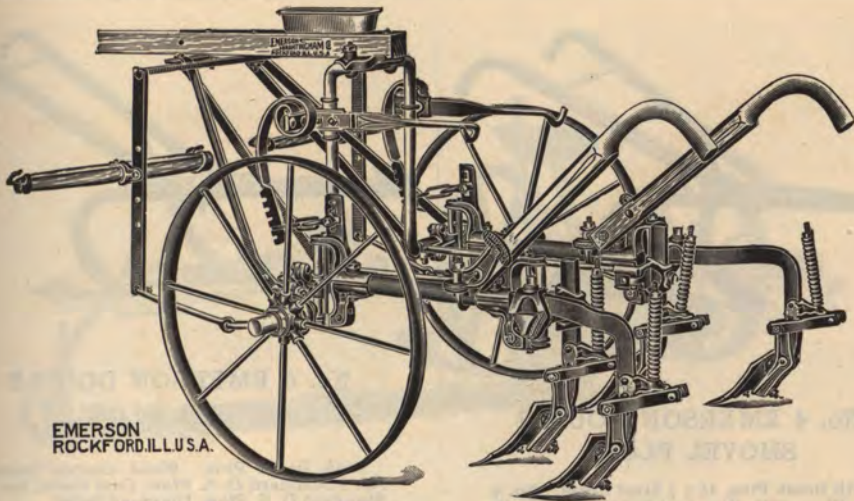
The purchaser of an Emerson Cultivator is not a party to doubtful experiments.

All experimenting has been done before the implement is offered to him. No purchaser of an Emerson Standard Implement ever claims he has a kick coming to him.



No. G-16½ Cultivator.

When buying a Standard Cultivator to be fitted with sweeps, it will be well to get regular Standard Sweeps, as they fit the cultivator better than the common hardware stock sweeps.



Showing No. 50½-H-3 4 Shovel Cultivator

No. 50 EMERSON STANDARD CULTIVATOR**DESCRIPTION**

No. 50-B-S-4-O. Channel Bar Beams and Beam Friction Slips, 4 shovels.
 No. 50-B-S-6-O. Channel Bar Beams and Beam Friction Slips, 6 shovels.
 No. 50½-H-3. Parallel Beams, with H-3 Spring Trip, and curved rear beams and 4 shovels.

No. 50½-S-H-3. Parallel Beams, with H-3 Spring Trip, straight rear extension beams and 4 shovels.
 No. 50-M-4. Channel Bar Beams, with M Spring Trip and 4 shovels.
 No. 50-M-6. Channel Bar Beams, with M Spring Trip and 6 shovels.

The popularity of our Emerson Standard Cultivators in Texas, due to their adaptability to the conditions and the appreciation of the trade of cultivators built from a close knowledge of what the cultivator user needs, has encouraged us to each year incorporate in the construction of our machines a higher measure of efficiency and perfection, and to fulfill the demands of ever changing conditions.

In the No. 50 Emerson Cultivator for the season of 1912 is embodied a new idea in the way of a parallel cross head, whereby the shovels may be adjusted out and in as well as back and forth, and up and down, one of the most useful features ever used in parallel beam construction.

The hitch is so made that no matter how dull the shovels may become the draft of the horse holds them to the work, and may be adjusted to meet conditions. The draft is so arranged that one half of it is applied to the frame, and the other half directly to the draft head of the beam.

The out and in adjustment of the beams on the cross head is easily made, and the balance of the beam has an extensive range to conform to the weight of the numerous styles of cultivator beams with which this cultivator can be equipped. In other makes of cultivators, when the shovels are turned to throw all one way, the beams have a tendency to swing in

the opposite direction. This is overcome in the No. 50 Standard Cultivator by a very ingenious cross clevis which entirely neutralizes the tendency of side motion of the shovels, making it a perfectly balanced cultivator in the strictest sense of the word.

The arch is adjustable, suiting the machine to cultivation from very narrow potato rows to the widest corn rows. This arch will hold the axles even more firmly than the single solid piece arch.

Beams are either regular channel construction or round beam steel, the strongest form of beam construction known, our special reinforcement insuring superior torsional strength.

The wheels are equipped with the famous Emerson 2,000-mile dust proof magazine boxes, one greasing for the entire season. Tires are 1½ inches. A better wheel and axle than is put on any other walking cultivator.

Gangs are easily handled and may be quickly set to float lightly for shallow cultivation or to run deep as desired. They are quickly set so the tension of the lifting spring spreads the gangs apart or pulls them together as the operator desires. A double adjustment for penetration is provided, one at the sleeve, and one on the standard.



No. 4 EMERSON DOUBLE SHOVEL PLOW

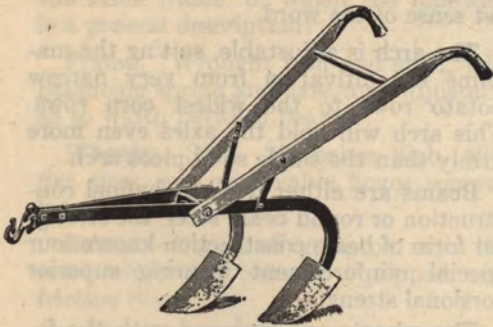
With Break Pins, $1\frac{1}{2}$ x $\frac{3}{4}$ Steel Beam. No. 4 D. S. Plow, with Diamond Point, No. 4 D. S. Plow with Oval Shovels.

It will be seen that the shovels are adjustable as to pitch, and are provided with break pins.

The sleeve is so constructed that it will take different styles of blades and shapes. Beams are provided with a substantial and easily adjusted spreader.

Should it be desirable to make the shovels rigid on beam, bolts may be substituted for the wooden break pins.

Made especially for heavy work.



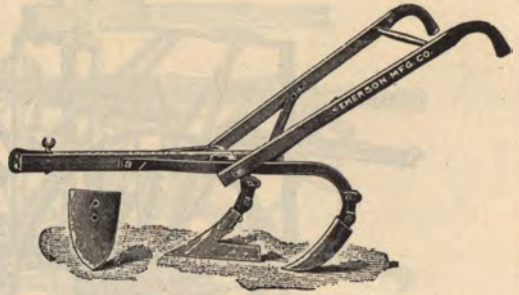
No. 5 EMERSON DOUBLE SHOVEL PLOW

Without Break Pins. Full $1\frac{1}{2}$ x $\frac{3}{4}$ Steel Beams. No. 5 D. S. Plow, with Diamond Shovels, No. 5 D. S. Plow, Oval Shovels.

This is a handsome, well proportioned and very strong Double Shovel Plow. Furnished with Oval Shovels, $7\frac{1}{2}$ x $11\frac{1}{2}$, or with Diamond Point Shovels, $5\frac{1}{2}$ x 12.

Adjustable Clevis and clevis hooks of malleable iron.

Also provided with the Adjustable Spreader Bar between beams.



No. 6 EMERSON DOUBLE SHOVEL PLOW

With Break Pins. Wood Central Beam. No. 6 Standard D. S. Plow, Oval Point, No. 6 Standard D. S. Plow, Diamond Point.

The above cut of Double Shovel Plow shows the purpose and capacity of the adjustable malleable sleeve used on the Emerson Double Shovel Plows No. 4 and No. 6.

Notice provision for break pin, change of set or pitch of shovel, and for different shapes of blades.

No. 6 furnished with either Diamond Point or Oval shovels.

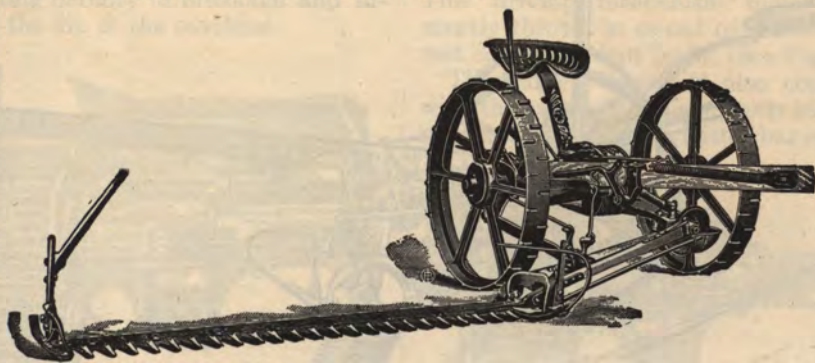
Shovels same as on No. 5 Steel Beams, full $1\frac{5}{8}$ x $\frac{3}{4}$. Center Wood Beams, 2 x $2\frac{3}{8}$. By the Adjusting Blocks, distance between shovels can be increased or reduced.



No. 7 EMERSON DOUBLE SHOVEL PLOW

Without Break Pins. Wood Central Beam. No. 7 Standard D. S. Plow, Diamond Point, No. 7 Standard D. S. Plow, Oval point.

This Plow is the same as No. 6 Steel Side Beam, $1\frac{5}{8}$ x $\frac{3}{4}$, Wood Center Beam 2 x $2\frac{3}{8}$, but has no break pin, shovels being bolted direct to the beam. This style of Double Shovel Plow can be had with either Diamond or Oval Shovels.



THE EMERSON NEW STANDARD MOWER

Made in 4½, 5, 6, 7 and 8 ft. cut sizes

Many years ago when machines for use on the farm were just beginning to demonstrate their advantages over hand labor and the largest mowing machine that had been used successfully had a 4-foot cutter bar, there was shown at one of the large state fairs in America a mower with a cutter bar that was 6 feet long. That this machine attracted the attention of all who saw it can be well imagined; and the question was at once raised, could one team of horses pull it, and would not the side draft be so great as to make the machine impractical?

Careful examination into the construction of this then wonderful mower revealed the fact that the mechanical principles employed, not only relieved this 6-foot cut mower from side draft and guaranteed its cutting power, but that it would be possible to build a machine on the same principle that would have much more cutting capacity than the 6-foot bar, and all because the weight of the cutter bar, machine and operator was carried on the drive wheels of the machine, thereby increasing their traction power and making the wide-cut mower run with as light draft as the narrow-cut machine which dragged the cutter bar over the ground like a sled.

From the 6-foot cut machine above described was evolved the Standard Mow-

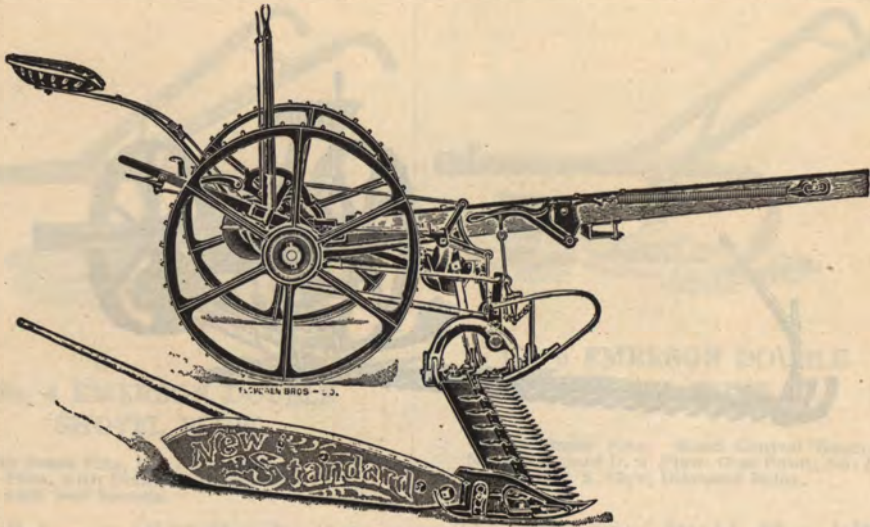
er, the only absolutely successful wide-cut mower ever made.

In the New Standard we have retained these principles that have proven so superior to anything else in mower construction, and have equipped the machine with modern time-saving appliances fully described in the succeeding pages. Consequently we have in the New Standard Mower the perfected result of years of careful investigation and experience in mower construction, and we know that we have a mower that can be relied upon.

Read the following pages and see if you do not agree with us that the New Standard is the most economical mower you can buy.

The wide truck insures a steady running machine, while a proper distribution of the weight, where each wheel carries its own correct share of the load, together with the manner in which the New Standard supports and carries its cutter bar on the wheels, instead of dragging it heavily on the ground, greatly increases the traction power of the machine, overcomes side draft and weight on horses' necks, and very materially lengthens the life of the machine.

For these reasons the New Standard possesses a powerful cutting capacity which enables it to cut through the heaviest grass without materially increasing the draft.



Showing Compensating Lever and Spring Device

The Main Frame or Bed is the foundation of any mower.

The bed must be strong—

Rightly proportioned—

And cast in one piece, but with detachable boxes or bushings, so that when these parts become broken or worn they can be easily replaced and renewed without necessitating the purchase of an entire new frame.

The New Standard is made this way.

All bearings are either thoroughly lined with babbit metal, or have brass bushings or steel rollers, embodying in their construction perfection and durability.

In fact, the New Standard Mower has been constructed on the basis of making it the longest lived and best wearing mowing machine that ever went into field or meadow.

In our **Cutter Bar and Knife Construction** we have another pronounced feature of excellence and success. In the movement of our knife we have virtually no friction, as we curve our cutter bar so that when lowered for cutting the tension of the compensating lever and spring hereinafter mentioned, brings the bar perfectly straight, the curve prevents it from crowning and holds the bar in an absolutely straight line, and for these reasons provides a perfect and consequently frictionless channel for the knife.

Both ends of a New Standard cutter bar can be tilted alike, owing to the center pivot construction and the fact that

all pivotal points are either on or work in direct connection with a common center, thereby obviating all tendency to binding in those parts.

The Truck is wide, insuring steady, uniform motion and providing ample room

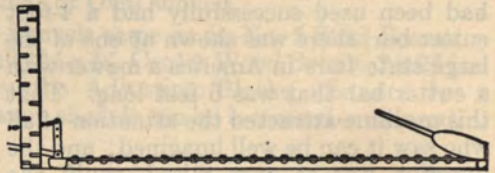


Fig. 1. This is the New Standard Bar.

Which is as straight as a mathematical line. The New Standard Cutter Bar is always straight while operating and the knife because of the straight cutter bar can move without creating friction.

between tongue and grass for the largest horse.

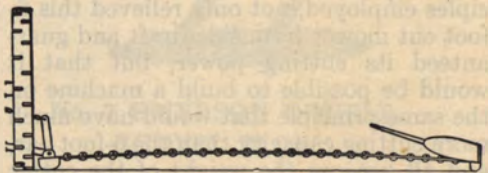


Fig. 2. Here's a Bar That Isn't Made Like the New Standard.

Do you suppose this knife can move without friction?

The Gearing or Driving Mechanism of New Standard embodies the mechanical principle known as the three motion gear, carefully located and so placed that any jar or thrust incident to the sudden starting or stopping of the ma-

chine is equally distributed, each gear assuming its portion of the strain, thereby avoiding liability of breakage and increasing the life of the machine.

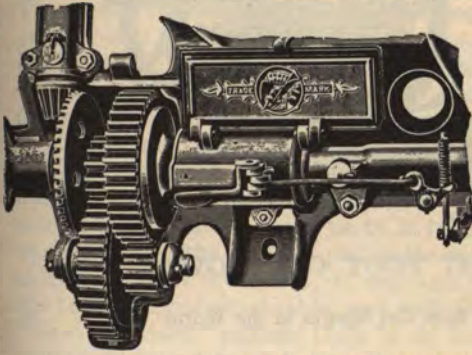


Figure 7

Showing Three-motion Gear and position of Foot Latch with machine in gear.

The three motion gear is most perfectly demonstrated in the principle of the block and tackle device, and is especially valuable in obtaining the high speed required without undue strain on any portion of the machine.

The teeth of these gears are made after our own special pattern. They are placed closely together and amply reinforced. Moreover these gears are so closely meshed and carefully fitted that they respond instantly to the movement of the

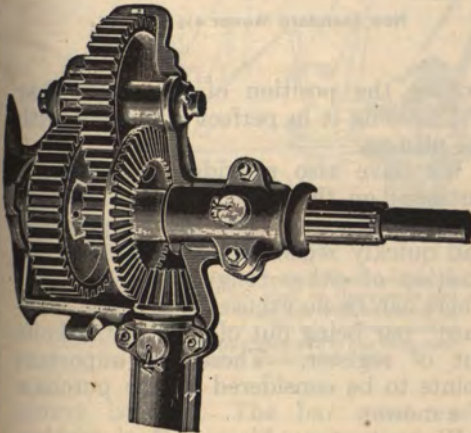


Figure 8

Another view of the Gear showing Rollers on main axle.

machine, and for this reason insure a quick and powerful cutting knife. (See Figs. 7 and 8.)

The Standard Clutch is an ingeniously contrived and virtually automatic device

composed of 22 teeth, thereby insuring immediate control of the cutting parts. This driving mechanism may be instantly thrown in or out of gear by a direct connected foot latch. (See Fig. 9.)

This clutch device is also connected with the cutter bar raising lever in such a manner that when the cutter bar is raised



Figure 9

Showing Clutch with 22 teeth insuring quick cutting action. Also showing Foot Latch with machine out of gear.

by the hand lever, the machine is automatically thrown out of gear. (See Fig. 10.)

Whenever it is desired to raise the cutter bar for passing obstructions without

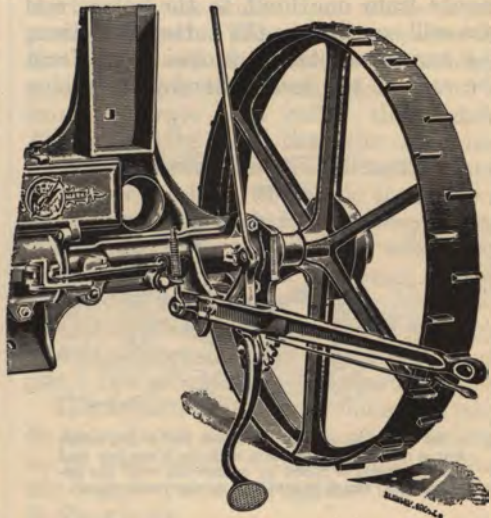
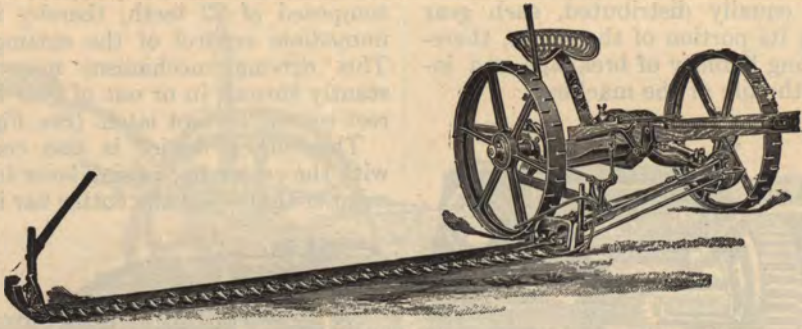


Figure 10

Showing Foot and Hand Raising Levers the latter arranged to throw the machine out of gear automatically.

throwing the machine out of gear, the foot lever should be used, as the use of the foot lever does not affect this clutch device.



EMERSON STANDARD EIGHT FOOT CUT MOWER

The only absolutely successful Eight Foot Cut Mower in the World

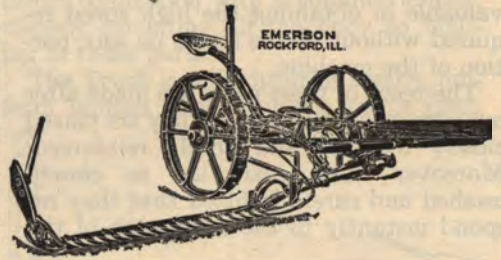
It is the Standard Curved Cutter Bar that makes possible the proper application of the Compensating Lever and Carrying Spring.

Our Suspension Spring carries the cutter bar at the highest point of its upward motion as easily as at the start from the ground, thus proving that we keep the same tension on our cutter bar, whether on the ground or clearing obstructions.

To understand this feature, watch closely our Compensating Lever as it moves from one limit to the other, and you will see that as the cutter bar raises, the spring constantly moves away from the axis of the lever, thereby increasing

weight of the cutter bar on the drive wheels of the machine.

On our Hinge Bar and in connection with our hinge, we have provided a most simple eccentric adjusting device for con-



New Standard Mower 4½ foot cut.



As shown in the cut the inside end of the cutter bar is raised by connection with the hinge bar and the other end is raised by connection with the upright post which is attached to the inside shoe.

the leverage as the spring tension decreases, and providing a perfectly uniform lifting power throughout the varying positions of the bar.

This equipment is also provided with a graduated adjustment, strong and simple, yet so ingeniously contrived that it can be set to carry any portion or all of the

trolling the position of the cutter bar and keeping it in perfect alignment with the pitman.

We have also provided a sleeve adjustment on the upper end of the hinge bar, whereby the knife can be perfectly and quickly registered, regardless of the position of either tongue or cutter bar. There can be no excuse for a "New Standard" bar being out of line, or the knife out of register. These are important points to be considered in the purchase of a mower.

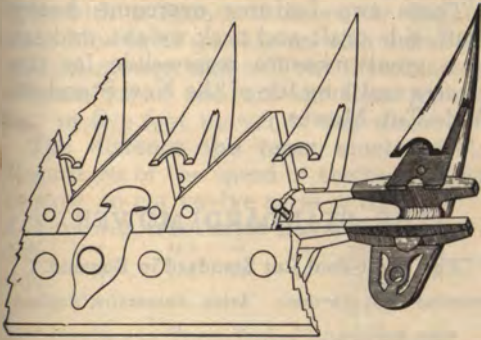
We connect our hinge to the inner shoe by two pins and lugs, each lug fitting between two studs, a construction which materially reduces the wear on the hinge.

The hinge bar is placed in a position that insures protection to the pitman of the machine, as the hinge bar must come in contact with any obstruction before it can strike the pitman or its connections.

The Pitman is the vital point in mower construction. It is a second growth hickory bar, with an adjustable malleable box lined with babbit metal to take the straight pin on the crank or fly wheel. This construction is similar to that used on thresher cylinders, and is the best known for high speed. An unique arrangement of zinc washers which are taken out as the box wears, affords a perfect adjustment of wrist pin and box.

The connection to the knife head is known as the ball knife head device, whereby all wear of these parts is taken up every time the knife is put in the machine. It is of few parts, strong and of the best material obtainable, and with the "New Standard" pitman there is no lost motion or pound or jar to the pitman connections.

The New Standard Carrying Spring not only increases the traction by transferring the weight of the cutter bar to the drive wheels, but practically eliminates the friction of the cutter bar dragging on the ground. The compound leverage in connection with the spring straightens the cutter bar, allowing the knife to move freely, thereby avoiding friction in the guards, two very essential features that cannot be ignored by the successful

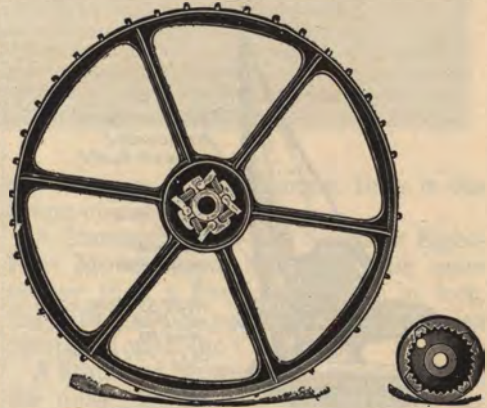


Our Cutter Bar has no nuts or obstructions on top to catch grass or fine stuff as the guards and clips are bolted to the finger bar with the nuts on the under side of the bar. We are the inventors of this style of cutting apparatus and it has been used on all Standard Mowers made since 1884.

mower builder. The bar must carry straight and it must carry light—two features of importance.

This Carrying Spring assuming almost the entire weight of the cutter bar, must be a good spring. For example, the carrying spring of the Standard 6-foot mower is tested to 725 lbs., and is actually under a 600 lb. tension when machine is at work.

The Inside Driving Wheel being the principal driver requires more weight to give it traction power than does the outside wheel, consequently the nearer the gear can be located to the inside drive wheel, the more directly the power is conveyed to the gearing and from that to the knife. Try to lift the inside wheel of a



Standard Mower. Drive Wheels are interchangeable, fitting either side of the machine. Drive Wheel Clutches are on the outside of the wheels, are interchangeable and easy to take off.

The New Standard Mower Wheel has four pawls or dogs, which insures a quicker starting of the knife than where fewer pawls are used. The pawls are seated in the wheel and the ratchet or notches against which the pawls wear are in a small separate part called the clutch. This may save more than the difference in price between the New Standard and a cheaper machine, for should the notches wear the new clutch for the wheel costs only \$1.50, while a new wheel which you would have to buy on the other mower would cost \$5 or \$6.

This construction is especially valuable in sections where there is much sand or grit. It's an exclusive Standard feature.

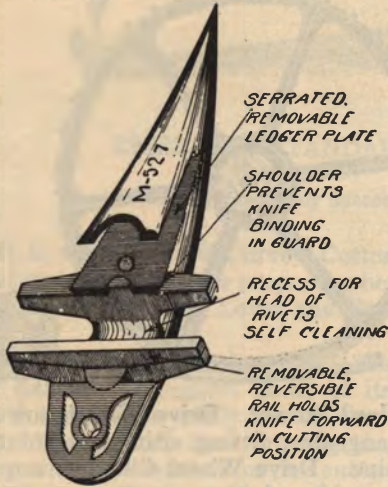
The Adjustable Cap over main axle may be moved out toward the wheel, taking up all wear on the main axle and holding the dogs or pawls full against the ratchet in the wheels.

Main Frame is cast in one piece, compact and strong, and will not spring and throw the shafts out of line.

Crank Shaft Box is not a part of the main frame, but is so attached to the frame that it can be easily removed to replace brass bushings, or a complete box costs but a trifle.

The Tilting Lever and combined foot and hand raising levers are conveniently near the operator. All journals have long bearings.

The New Standard Seat Spring is provided with an adjustment or tension control adapting it to either light or heavy operator, and is connected to the main



The Shoulder

Our guards are obliquely recessed under the knife back in such a way that no loose material can become packed between them and the knife back.

frame back of the main shaft, so that the driver's weight in the seat, back of the axle, balances the machine on the axle, thereby insuring all the weight being carried on the drive wheels.

In short, the machine is balanced between the neck-yoke and driver's seat. The load is on the drive wheels where it belongs, not on the horses' necks.

The New Standard Patented Guard has a removable, reversible rail or bearing for the back edge of the knife, and every section is supported at the back edge by this rail. When the rail becomes worn it can be reversed, thus renewing the life of the guard at that point.

The Guard Plate is sickle edged.

The Grass Board or Swath Board is provided with an adjustable connection to the bar, so more or less angle can be obtained and a wide path insured, which, in connection with the wide truck of the machine, avoids the necessity of either wheel passing over the cut grass. The team naturally follows this path, which

secures an even width of cut without constant care on the part of the driver.

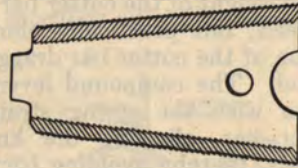
All New Standard parts can be duplicated, and the farmer can make needed changes without taking his machine to town.

Every piece can be taken off a New Standard main frame with a wrench and punch.

No rivets through the main shaft; it is held in place by the wheel hub bolts, and is easily removed with a wrench and punch.

The New Standard Mower is a machine made for the farmer.

The New Standard Wide-Cut Mower is practical and durable, because it carries the cutter bar on the drive wheels, and the bar is so constructed that it remains straight whether on smooth or rough ground.



Patent Sickle Edge Guard Plate

These two features overcome heavy draft, side draft and neck weight, and are in a great measure responsible for the success and long life of the New Standard Wide-Cut Mower.

THE STANDARD MOWER.

[The Eight-Foot Cut Standard in England

From the 'Leigh Chronicle,' Leigh, Lancashire, England

THE EMERSON EIGHT-FOOT STANDARD MOWER

Last week we briefly referred to this giant mower which is continuing to do its excellent work at Mr. Spencer D. Barlow's extensive farm surprising everybody. Mr. Barlow who quickly recognized the superior features of this remarkable machine started it last Friday morning in a thick slover field of twelve acres which he cut with the greatest possible ease. The two horses used for the team were not in the least fatigued or worn by this unparalleled feat. There is no doubt that a very great economy in time and labor is secured by the use of such a machine and Mr. Kleinfeller the agent of the Emerson Co. may well be congratulated on his success in introducing this novelty in this country which in due course of time is bound to be appreciated as a great boon to all large farmers. We are assured that this monster machine owing to its unique suspension spring and compensating lever device is as readily handled as the easiest going four-foot-six machine



THE STANDARD MOWER NARROW CUTS VS. WIDE CUTS IN THE HAY FIELD

The more miles a mower travels while in gear, the sooner it finds its last resting place—the fence corner. The shorter the cutter bar, the shorter its life of usefulness, as the knife must make as many strokes in the four or five foot bar in traveling a mile as will be made by the knife in a six, seven or eight foot bar.

As the short bar machines cut much less grass, they must travel many more miles to perform the same amount of work as the wide-cuts. An ordinary team will travel fifteen to twenty miles in a hay field with a Standard Seven or Eight-Foot Mower as quickly as with a five or six-foot mower, and will cut fifteen acres of grass easier and quicker than with a four or five foot mower of any make.

The distance the team must travel. Regardless of the speed of the team, fast or slow, to cut twelve acres with the 4-ft. mower, team must travel $24\frac{3}{4}$ miles.

5-ft.	"	"	"	"	19 $\frac{1}{2}$	"
6-ft.	"	"	"	"	16 $\frac{1}{2}$	"
7-ft.	"	"	"	"	14 $\frac{1}{7}$	"
8-ft.	"	"	"	"	12 $\frac{3}{8}$	"

The team and man with the five-foot mower must be kept busy full ten hours to cut twelve acres of grass, and travels $3\frac{7}{10}$ miles farther than a six-foot, $5\frac{1}{2}$ miles farther than a seven-foot and $7\frac{1}{4}$ miles farther than an eight-foot to do the same work.

To cut six days at the rate of twelve acres per day, (72 acres) with the 5-ft. mower, team must travel $118\frac{1}{2}$ miles.

6-ft.	"	"	"	"	99	"
7-ft.	"	"	"	"	84 $\frac{6}{7}$	"
8-ft.	"	"	"	"	74 $\frac{1}{4}$	"

When haying time comes, the greatest number of acres cut with the least labor

and expense in the shortest time is the prime object.

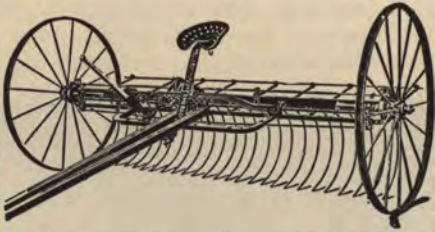
A Standard Wide-Cut Seven or Eight-Foot Mower costs but very little more money than a five-foot mower; in fact, the difference in price cuts no figure as compared with the time saved.

A Standard Mower is the most durable, the most all round satisfactory, and for these reasons the most economical mower a farmer can buy.

THE HARVEST

Next to profitably growing a crop comes the question of profitably harvesting same and the Wide-Cut Standard Mower is becoming a recognized necessity in the large harvest fields.

If you have 100 acres of alfalfa you have anywhere from 300 to 600 acres of mowing to do each year because you will cut from three to six crops per year, according to climate, etc. The quicker you can cut that 100 acres when it's ready to cut, the more dollars you put in the bank when you market the crop and the alfalfa grower soon learns from his own costly experience (in case he cannot profit by the experience of others) the truthfulness of the remark of H. D. Watson of Kearney, Nebraska one of the most famous farmers of the West, viz.: "A man could not run fast enough to give me a narrow cut ($4\frac{1}{2}$ and 5 ft.) Mower if he would keep them in repair for nothing." That sounds strange but the above copy of photograph explains the truthfulness of the statement, for by cutting his 9,900 acres with 8-ft Standard Mowers, Mr. Watson saves enough money over what it would cost to cut that amount with 5-ft machines to hire a man, team and machine for a whole year.



EMERSON SELF DUMP RAKES

No. 125 Series SIZES:

No. 125	8 ft.	20 teeth	No. 127	10 ft.	26 teeth
No. 125A	8 ft.	25 "	No. 127A	10 ft.	32 "
No. 126	9 ft.	24 "	No. 128	12 ft.	32 "
No. 126A	9 ft.	30 "	No. 128A	12 ft.	40 "

Much thought and money have been expended in an effort to build a satisfactory self or horse dump rake so the teeth could be locked down, yet when the trip was made the lock would be broken before the clutch engaged the ratchet in the wheels. So-called lock-down rakes have been placed on the market, but to assure their being locked it is necessary for the operator to hold his foot on the lever.

The foot presses down on this plate, breaks the eccentric connection between the rake head and the lever before raising the clutch rod which engages the ratchet in the wheels and dumps the load. As soon as the load is dumped the spring brings the eccentric past the dead center, locking the teeth down while gathering the load.

Heads, Hounds and Cross Pieces heavy angled steel. **Truss Rod** extends from end to end of rake head and is a perfect bridge truss. **Axles** heavy stub, quickly replaced when worn. **Teeth** oil tempered, interchangeable, with round points. **Adjustment** to carry light or heavy tension on teeth, as desired. **Wheels** have removable boxes, our high staggered spoke, with wide tire, channel out, none better, painted black.

EMERSON SELF DUMP ALFALFA RAKE

No. 135 Series SIZES:

No. 136	9 ft.	18 teeth	No. 137A	10 ft.	26 teeth
No. 136A	9 ft.	24 "	No. 138	11 ft.	22 "
No. 137	10 ft.	20 "	No. 138A	11 ft.	28 "

A few so-called Alfalfa Rakes have been put on the market. i. e., regular stock rakes with half inch teeth and heavier

wheels, consequently about one year in heavy irrigated alfalfa renders them useless. Few manufacturers realize what heavy irrigated alfalfa is. We did not until we sent our superintendent of rake construction into the irrigated country. While on the ground and in touch with the requirements he designed from the conditions before him and the suggestions of the most experienced alfalfa growers the Emerson Alfalfa Rake.

The result is a rake that handles the heaviest alfalfa as easily as the regular rake handles timothy hay.

By knowing just where other rakes were inadequate, we have been able to gain increased strength at the required points without being compelled to make a prohibitive price. A few special features of construction are:

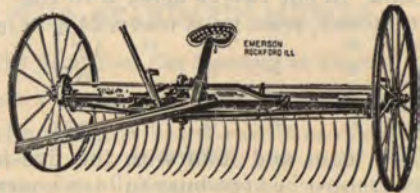
Head extra heavy angle steel, with regular bridge truss.

Truss Rod heavy round iron extending from end to end of head, firmly supporting the center.

Axles. Reversible 1 1/4-inch round steel 24 inches long with a hole in each end and fastened to outer end of rake by eye bolt. When worn by wheel from lack of grease, change axle end for end and you have the same wearing surface as when new, without expense.

Hinges heavy malleable, so adjusted as to secure a perfect dumping balance.

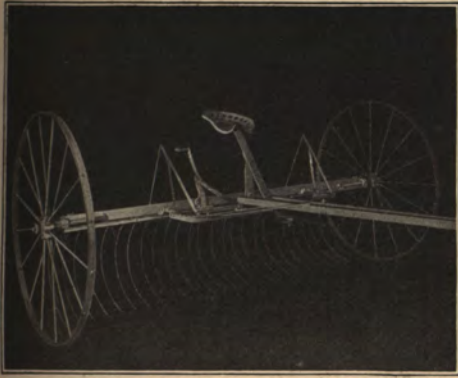
Levers convenient to the seat, with perfect acting foot trip and hold-down device.



Teeth heavy one-half inch with one coil special shape, and so hung as to assure gathering a full load in the most tangled growth. Oil tempered with round points.

Wheels, special heavy, with long bearings. Two-inch tire, channel out, with staggered spokes.

Pole. Solid pole only, with strong hound connection, a construction especially desirable.



EMERSON STANDARD HAND DUMP RAKES

No. 145 Series

SIZES:

No. 145	8 ft.	20 teeth	No. 147	10 ft.	26 teeth
No. 145A	8 ft.	25 "	No. 147A	10 ft.	32 "
No. 146	9 ft.	24 "	No. 148	12 ft.	32 "
No. 146A	9 ft.	30 "			

A strictly high class rake that stands for perfect construction. durability and unqualified satisfaction cannot well be other than popular when once introduced, and the Emerson Standard Rakes are today probably raking one-quarter of the entire hay crop of this country.

Our facilities for the manufacture of hay rakes have reached a point of perfection seldom attained, and the success of the Emerson Standard Rakes has amply justified the expense necessary to bring about this result.

On the Emerson Hand Dump Rake we use our absolute lock lever, which holds the teeth firmly to their work while down. without use of hands or feet. and requires only a slight upward motion of the handle to unlock it; then the operation becomes automatic and the weight of the driver assists in dumping the load.

In the 12-foot size a perfect acting truss rod is used in addition to the many connections between rake head and axle, and it is impossible for the rake to sag.

A perfect overhanging cleaner is provided, which in no way interferes with the operation of the rake.

Heads, Hounds and Cross Pieces, heavy angle steel. **Axles** continuous, heavy $1\frac{1}{4}$ -inch round steel, thoroughly trussed. **Teeth** oil-tempered, interchangeable, with round points. **Adjustment** to carry light or heavy tension on teeth, as desired. **Wheels** are high, have staggered spokes, and with the construction peculiar to Emerson Rakes afford ample basket room. Wide tire channel out wheels with long bearings. There is no better wheel made for a general purpose rake. All Emerson rake wheels have removable boxes and are painted black



"A Sulky Hay Rake is only as Durable
as its Wheels"—Emerson.

AN EMERSON RAKE WHEEL

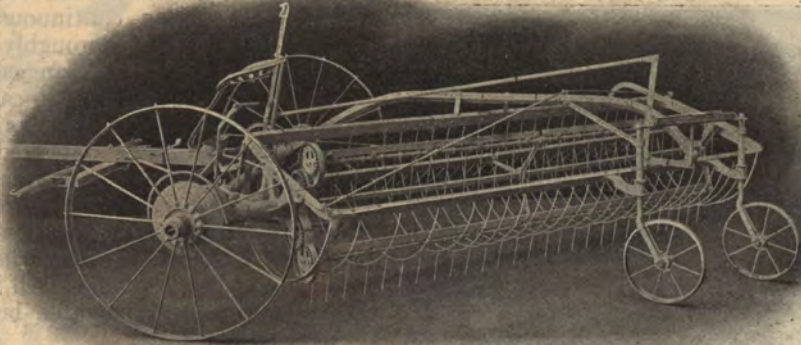
Made in our own wheel plant; made with a view to having the wheel last as long as any other part of the rake.

Wheel Box is removable and held in the hub with a nut.

Spokes. Heavy oval, set staggered in the hub and crossways of the rim. They are forced into the rim hot by a special hydraulic machine which forms a shoulder on the inside of the rim and a flat head outside. No crystallized spokes in our wheels, as they are not cold riveted.

Hubs are cast and spokes notched, forming a solid bed. The cut herewith shows this ideal wheel.

**"A Sulky Hay Rake is only as durable as its wheels"—
EMERSON.**



The machine set for raking.

EMERSON COMBINED SIDE DELIVERY RAKE AND TEDDER

In harvesting alfalfa three things should be remembered, first that its feeding value is greatest if cut just after blooming has commenced; second that the leaves which fall off with the slightest provocation when ripe are by far the most valuable part of the crop; and third, that rains not only discolor and make less palatable and digestible the whole crop, but at the same time remove in solution much of the nutritious portion of the crop.

In the Emerson Side Delivery Rake for 1912, we have one of the most novel features in that class of side rakes having a reel with tooth bars. The gears operating these tooth bars are made eccentric; and, at the time of coming in contact with the hay on the ground, the teeth are traveling forward under the hay at a more rapid rate than the head itself, consequently are getting under the hay and tossing it up lightly and throwing it out of the way of the cleaner bars. In this way, it does not have the tendency to rope the hay in the windrow as is common with the old booming tooth bar that merely travels in a vertical plane at all points of its rotation.

We have provided a center bearing to support the tooth bars that is a great improvement, and does not allow them to sag and catch on the center shaft as is quite frequently the case with those having no center bearing.

Another equally important feature of the Emerson Side Rake is the equalizer between the small rear wheels that enables the wheels to carry only one-half of the load at all times; and by means of the equalizer, the rake is only lifted one-half

the height of the obstruction, whether it be a dead furrow, a bog, or in stony ground. The height of the teeth may be quickly changed without using wrench or any laborious tugging at the weight of the machine to secure adjustment. By means of the crank bolt adjusting the equalizer bar for the rear wheels the operator simply turns the crank until the teeth are at the proper height.

Another strong feature in the manufacture of side rakes is in our manner of placing the driver and pole frame in the large wheels. The driver and pole frame are supported forward of the driving axle nearly a foot; and supposing a man's weight to be 175 lbs., and the pole frame at least 40 or 50 lbs., will counterbalance an equal amount of weight on the rear side of the axle, thus relieving the small rear gauge wheels of the load that is carried on them in the ordinary make of side rakes and at the same time adds that much more traction power to the large driving spud wheels that are employed in driving the gearing of the machine. This will be fully appreciated by the purchaser of a side rake when he comes to estimate the easy and smooth running of the rake on rough ground in the field.

To further lighten the draft of the side rake, we have a double set of rollers, one on the driving shaft, and the other supporting the reel head pinion.

In attaching our pipe tooth shaft to its driving gear, we have cast on the gear a sleeve running through the gear casing; and a double connection with the tooth bar is secured by means of a clip and bolt passing down through the clip and gear



The machine set for tedding

sleeve and pipe shaft, making a splendid connection with the gear.

The machine is strongly braced, and is built to stand the most severe labor that a side rake is called upon to do.

All the wheels in this machine are of our own make. The carrying wheels are very strong, and the spuds are made by a continuation of the spokes, thus securing a straight thrust on the strongest part of the wheel, while our small gauge wheels have our famous long distance box.

A very essential thing in securing a large windrow is the clearance, which is determined by the height of the arch frame brace on a side rake. Some are built very low at this point, and are very liable to clog in handling a large windrow or in cutting across a windrow that has been thrown up. We have in the Emerson a clearance of 38 inches against those of 28 or 30 inches in other makes.

In our combined Side Delivery Rake and Tedder, we have added some few excellent points to the machine as a side rake. The Combination carries with it all the excellent features of the side rake enumerated above, with the convenience of an adjusting lever, easily operated from the seat.

In converting the side rake to a tedder, one lever throws the gearing into the reverse movement that reverses the head, and at the same time changes it so the feathering of the teeth is done automatically in the proper direction.

The gearing for both forward and reverse movement are secured by means of the heaviest gearing used in side rakes and tedders.

The right hand drive wheel can be placed in so as to rake beans, and in connection with which the feathering teeth of this rake will enable this machine to handle beans in the very finest manner possible.

Hard oilers have been placed where the hardest work has found them necessary.

To use as a tedder, the operator merely reverses the position of the lever, and the rake runs backward at greatly increased speed, moving the hay from its original position and turning it over to some extent, but not breaking it as do the kickers heretofore used for that purpose. When the teeth are reversed for tedding, the pitch is automatically changed so as to fork the hay instead of brooming it.

For alfalfa and clover this tedder is a big improvement over anything else on the market. When used as a tedder the teeth travel about twice as fast as when used as a side delivery rake. On side delivery rakes of other makes that are convertible into a hay tedder, it is necessary to change the rake heads, turning them around, and while this style of machine might handle the windrow after a rain a little better, we save so much of the operator's time in adjusting from the tedder to the side delivery rake, and have so many other advantages in handling clover over any side delivery rake on the market that discriminating buyers will without any hesitation decide on taking the Emerson.

This machine is made as follows:

No. 165, 8 foot cut Combined Side Delivery Rake and Tedder, weight 1113 lbs.

No. 155, 8 foot cut Side Delivery Rake only, weight 1020 lbs.

Home of Emerson Vehicles



EMERSON CARRIAGE CO.

— ROCKFORD, ILLINOIS —

Branch of EMERSON-BRANTINGHAM CO.
FARM MACHINERY BUILDERS SINCE 1852

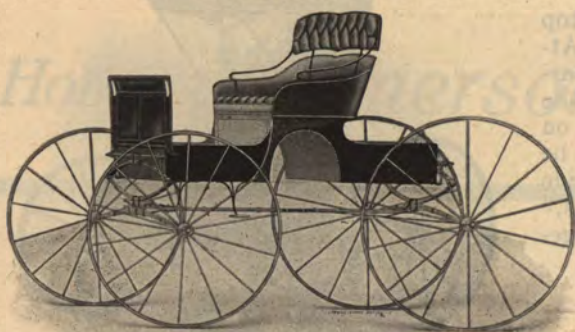
The raising and lowering of a top with our New Emerson "Ideal" Attachment makes it a real pleasure, particularly in bad weather. Note the clean, neat appearance—no joints on the outside—none to rattle—top can be lowered easily, quickly. The inside joints are strictly "Emerson Ideas," covered and protected against infringement by our patents.



Comfort and cleanliness for the ladies, and best of all absolute safety—easy for them to get in and out—not necessary to drop the top unless desired. Works better, quicker, easier and makes a nicer appearance. Works as well with curtains on as without.

Showing the old-fashioned method, and so far behind the "Ideal" top that further words are needless. The strength of the joints is really greater on our Ideal top than on the old style top shown in this cut. We are in a progressive age, and the Ideal top is fully up to date in looks, style and construction.





No. 57 CUT UNDER RUNABOUT

One of our most attractive styles embodying beauty in both looks and workmanship. Built to satisfy the most critical. The seat used on this job is one of our newest and latest patterns, being a combination of the bent panel seat with twin auto effect. We most strongly recommend this to our Southern and Western friends, as it is sure to please them.

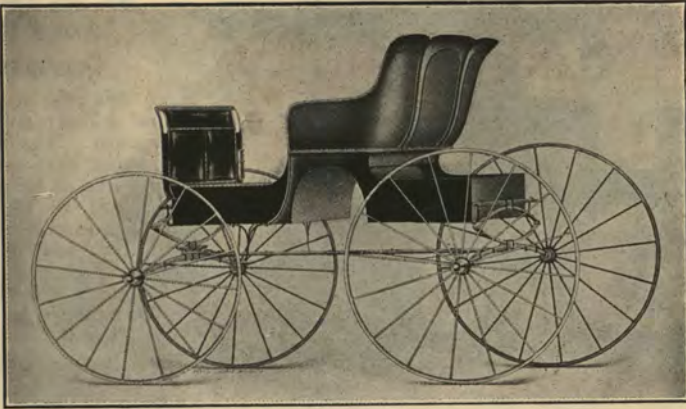
No. 447 TWIN AUTO SEAT RUNABOUT

The quality of the material and workmanship in this job will please you, as will also its handsome appearance. It is equipped with a one-piece metal seat with sunken ends and back panels, and which we regard as one of the most satisfactory seats we use. The easy riding Sheldon spring is used on this and the balance of our line. You will find the same comfort and easy riding qualities with one person as you will with two.



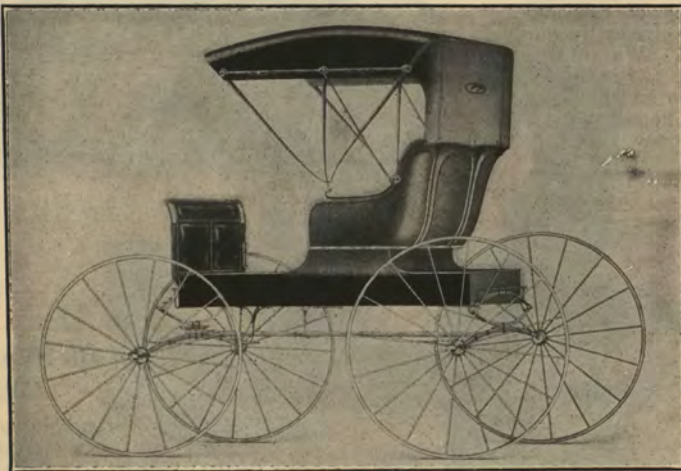
No. 625 CLIMAX SPRING WAGON

The thousands of these in use giving perfect satisfaction is our best guarantee. No other of its kind "Just as good." Many factories have tried to imitate our famous Climax Spring Wagon, but from a standpoint of construction, it is in a class by itself. The strength of the body and gear will convince you that this wagon is all that we claim for it. Everything of the best, carefully and well built.



No. 55 CUT UNDER RUNABOUT

This handsome cut under runabout will suit the most critical buyer or user. The material is of the best, the finish very fine, and the workmanship first class. It is individual in style and construction, and an Emerson product which has given us an enviable reputation as builders of the finest class of vehicles.



No. 180 TRIPLE PANEL AUTO SEAT BUGGY

Strictly an Emerson design, and shown exclusively by us. The seat and body are of the finest yellow poplar stock, gear woods and wheels of the choicest and most select hickory, and the painting, trimming and top materials are the best we can procure. The springs used on this buggy are the finest and most elastic made, and no easier riding spring can be used on a vehicle, no matter at what price. You and your friends will admire our No. 180, and it is a credit to us as builders of high class vehicles.



**No. 173 TWIN AUTO
SEAT BUGGY,
Cravanette Top.**

We offer you in this job all that skilled carriage building can produce. The forgings are all wrought iron, most of which is produced in our own shops. The material in the top is Silk Mohair, and superior in quality to that used on the tops of many high priced automobiles. The top is 50 inches long, which adds greatly to comfort and good looks.

**No. 417 TWIN AUTO
SEAT BUGGY,
Auto Rubber Top.**

From the Atlantic to the Pacific this popular number is pleasing thousands of users. More quality, good looks and comfort than you can find at a similar price. You are protected as to the quality of this and other Emerson vehicles by our strong guarantee. We are trying to build up a name for Emerson Vehicles on the basis of giving you an honest dollar's value for your money.



**No. 915 HEAVY CON-
CORD**

Admirably adapted for severe usage in rough and mountainous countries. Strongly built, roomy and comfortable. We have incorporated in this job every possible feature to insure to its user that it will answer all requirements for which it is built. Gear extra strong, and heavy body 28x60 reinforced with heavy iron corners. Seat of similar construction, and extra wide.



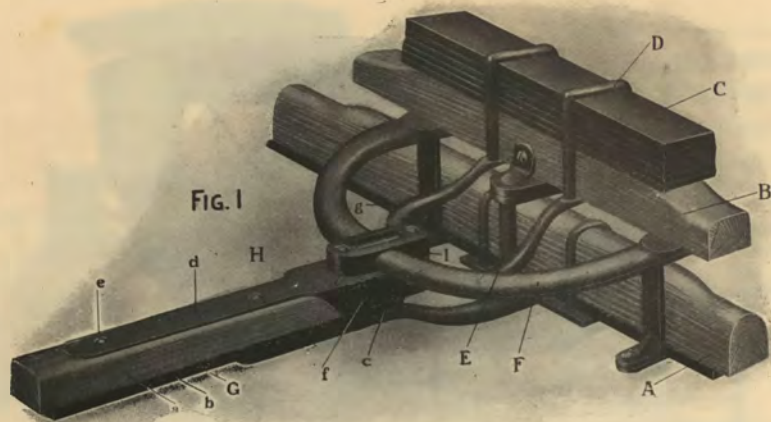
No. 331 TWIN AUTO SEAT SURREY

We find it impossible to convey to you in words or cut the full beauty and elegance of this Surrey. The high back sunken panel Twin Auto Seats of good width give it a tone of individuality that is very pleasing. Comfort has not been lost sight of, and the fittings, trimmings, lamps and material are the choicest and best. The top is fitted with curved bow sockets, cross strainer straps, concealed padding, and of the latest auto style construction. We are sure to please you with our No. 331.

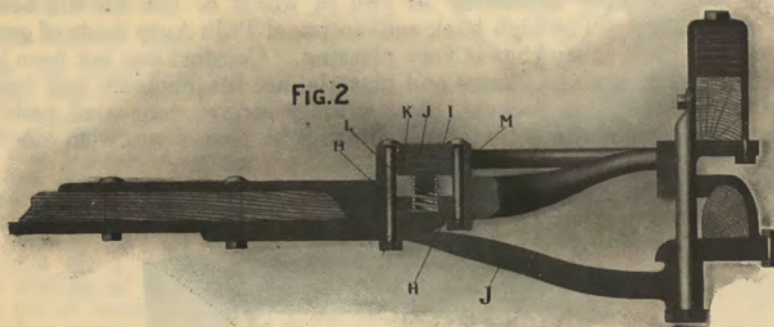


No. 458 JUMBO THREE SPRING SURREY

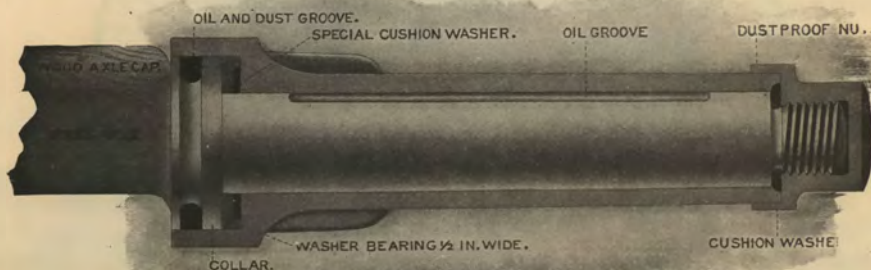
Desiring to remember our friends and customers who demand an extremely wide Surrey, and of heavy construction, we offer you our No. 458. The seats are 38 inches in width, 18 inches deep, and with high, comfortable backs. Body is 29 inches wide, and with abundant room between the front and rear seat. Coach axle spring in rear, and $1\frac{1}{4}$ inch axle in front. Heavy pole, and from every standpoint a surrey that will please you.



Top View of our patent Forged Steel Fifth wheel, and which has given the most universal satisfaction. You will note that the reach is under the fifth wheel circle, which is the only safe plan of construction that insures absolute service and satisfaction.

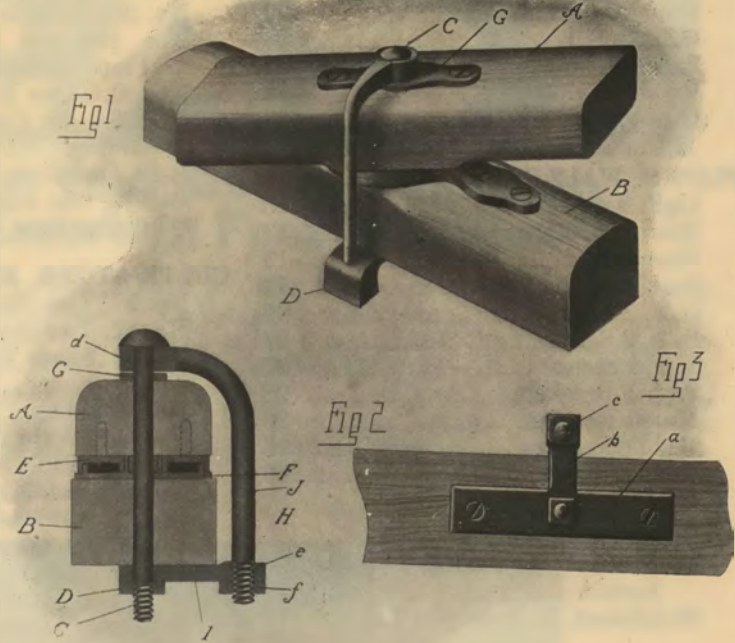


Side View of our patent Forged Steel Fifth wheel. An Emerson feature of individuality and durability. Patent No. 903544. Granted Nov. 10th, 1908.

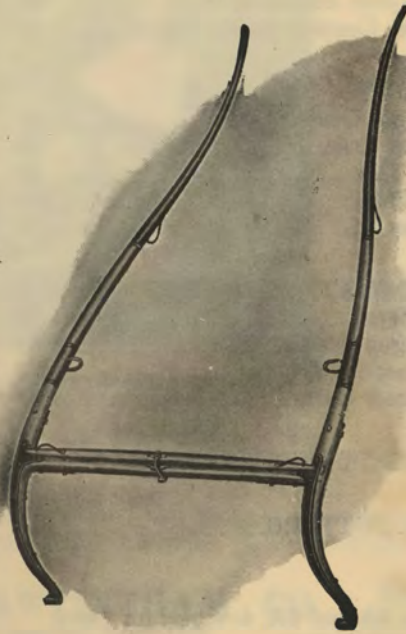


Sheldon Axles are used regularly on our entire line. They are noiseless, easy running and long lasting.

Sectional View of
our patent adjustable
whiffletree clevis used
on all high grade poles.
You can not secure this
splendid feature on any
vehicle but an Emer-
son. Its worth to you
is more than you
realize.



We furnish you the highest grade
yellow poplar body built.



Our Forged Steel Shaft, none better built.
Heels positively cannot peel or splinter.

INDEX

PLOWS, RIDING	Page	PLANTERS	Page
Foot Lift Sulky.....	3	No. 25A, Edge Drop, Riding, Two Row.....	42
Foot Lift Gang.....	7	No. 26, Variable Drop, Riding.....	45
Foot Lift Triple.....	9	Nos. 10A and 11A, Round Hole Plate, Riding.....	46
Express Sulky.....	10	No. 30, Three Row, Riding.....	48
Express Gang.....	11	No. 28A, for Cotton, Single Row, Riding.....	49
Express Triple.....	12	B-19, One Row, Walking.....	51
Disc Plows.....	22	B-19½, One Row, Walking.....	51
		C-19, One Row, Walking.....	51
PLOWS, WALKING		CULTIVATORS, RIDING	
Light Two Furrow.....	13	No. 27, Two Row.....	52
Heavy Two Furrow.....	13	No. 32, Two Row, Lister.....	53
Vineyard.....	13	No. 33, Single Row, Lister.....	53
Rod Breaking.....	14	No. 37, Lister.....	54
O. S. 2 Series.....	25	No. 36B, Disc.....	54
B. S. 2 Series.....	27	No. 35A, Auto Pivot.....	56
S. S. 2 Series.....	27	No. 26, Saddle Seat.....	57
Prairie Breakers.....	28	No. 29, Saddle or Hammock Seat.....	58
Marsh Breakers.....	28	No. 31, Automatic Balance Frame.....	60
Middlebreakers.....	28	No. 38, Leverless.....	60
Double Shovel.....	68	No. 39, Surface.....	61
		W-Frame, Non-balance.....	62
ENGINE PLOWS		V-Frame, Automatic Balance.....	64
Moldboard and Disc, Flexible Section.....	17	CULTIVATORS, WALKING	
Moldboard, Independent Beam.....	19	No. 16, Walking.....	66
		No. 50, Walking.....	67
PLOW ATTACHMENTS		Double Shovel.....	68
Seeder for Riding Plows.....	10	MOWERS	
Hitches.....	15	4½, 5, 6, 7, and 8-foot.....	69
Set Over Attachments.....	16	RAKES	
Lever Control Spring Clevis.....	16	No. 125 Series.....	76
		No. 135 Series.....	76
HARROWS		No. 145 Series.....	77
Engine Disc.....	21	Combined Side Delivery Rake and Tedder.....	78
Horse Disc.....	29	VEHICLES	
Cut Disc.....	32	Ideal Top.....	81
Alfalfa.....	33	No. 57 Runabout.....	82
Lever.....	38	No. 447 Runabout.....	82
		No. 625 Spring Wagon.....	82
HARROW ATTACHMENTS		No. 55 Runabout.....	83
Seeders.....	30	No. 180 Buggy.....	83
Tongue Trucks.....	32	No. 173 Buggy.....	84
Transport Trucks.....	32	No. 417 Buggy.....	84
Harrow Carts.....	37	No. 915 Concord.....	84
		No. 331 Surrey.....	85
ROLLER PULVERIZERS	36	No. 458 Surrey.....	85
		Forged Steel Fifth Wheel.....	86
STALK CUTTERS	35	Vehicle Axle.....	86
		Whiffletree Clevis.....	87
LISTERS		Buggy Body.....	87
Nos. 4A and 5A, 4-Wheel for Corn and Cotton.....	39	Forged Steel Shaft.....	87
No. 6, Chain Drive.....	39		
Nos. 8 and 9, Two Row.....	40		
Nos. 10 and 11, Four Wheel.....	41		

EASY

For Your Boy to Handle an Emerson Foot-Lift Plow

Emerson's Sulky, Gang, Triple and Disc Plows—were built with the *boy* in view—as well as the *man*. The famous foot-lift feature has marked a new era in plow efficiency. So powerful is the Emerson foot-lift that the operator handles the plow with ease in the hardest soil, and handles it with his feet, leaving his hands free to drive the team. It is easy to handle because of its ingeniously constructed levers. Easy on horses because 2,000 mile wheel boxes carry load on perfectly oiled bearings, principally on two big wheels nearest team.



The six year old daughter of the inventor raising the plow with the added weight of her papa, 196 pounds.

Look at this picture, taken from an actual photograph. The child seated on an Emerson Foot-Lift Plow has raised with an easy touch of her foot a 200-pound man. This is the test and proof of Emerson control. It is all done with the feet. In or out of the hardest soil there is no plow in the world like an **Emerson**. Think how easy this plow is for your Boy to handle.

EMERSON-BRANTINGHAM CO.

Farm Machinery Builders Since 1852

ROCKFORD, ILLINOIS, U. S. A.

