

KNIFFEN
MOWER AND REAPER,
AND CHAMPION
WHEEL RAKES,



MANUFACTURED BY THE
KNIFFEN MOWING MACHINE CO.
Worcester, Mass.

O. GRIFFIN, General Agent.

For Sale by

Ag't
H. M. Brown & Co.
Tyler & Seagrave, Printers, Spy Job Office, Worcester, Mass.

47-
con

ANNUAL CIRCULAR

FOR THE YEAR

1869.

Kniffen Mowing Machine Co.

Incorporated Nov. 10, 1866.

GENERAL OFFICE AND MANUFACTORY,

Nos. 12 and 14 Central Street,

WORCESTER, MASS.

LUTHER SLATER, President.

OTIS WARREN, Treasurer.

BRANCH OFFICES.

No. 13 COMMERCIAL STREET, BOSTON, MASS.,

E. E. LUMMUS, Agent.

No. 31 COURTLAND STREET, NEW YORK,

ELIJAH DUNBAR, Agent.

No. 1120 MARKET STREET, PHILADELPHIA, PA.,

WADE, ARMSTRONG & CO., Agents.

No. 25 KING STREET, ALEXANDRIA, VA.,

HERBERT BRYANT, Agent.

No. 41 FOX STREET, LIVERPOOL, ENG.,

P. WHITESIDE & SONS, Agents.

STOCKTON, CALIFORNIA,

E. L. HOUCHE & CO., Agents.

WORCESTER:

TYLER & SEAGRAVE, PRINTERS, SPY JOB OFFICE.

1869.

MOWING MACHINES.

In publishing this Circular we do not purpose to build up a reputation for the Kniffen Mower by trying to pull others down, but our object is to furnish a pamphlet filled with facts, such as people will be interested in reading and afterwards preserving.

The custom of publishing a long list of testimonials (in many cases written by the manufacturers themselves) together with premiums and awards, appears to us foolish and useless. It may answer the purpose of selling a few Machines to those who have no opinion of their own. But to the thinking, reasoning farmer, their purpose is aimless and of little consequence. Their publication we therefore omit, with the assertion that Gold Medals can be had by seeking, *particularly for pay*. Recommendations the same, only cheaper, while with a little sagacity and a good deal of manipulation, premiums are awarded. We ask you candidly, if these are not facts, and leave them for other and more important subjects.

The Kniffen Mower.

Step by step the inventor of the Kniffen Mower has gone on perfecting his Machines until to-day they rank among the rival Machines in Market. Their success surpasses anything ever before offered to the public. And on this point we challenge contradiction from any one, manufacturers or others. The Kniffen, unlike any other Mower, has built its own reputation, and that upon a market filled with many other and older Machines. Few people use the Kniffen Machines that have not had experience in using others. In three years nearly 4000 of them have been put into successful operation, giving the best of satisfaction to the purchasers.

The Champion Wheel Rake.

They are the simplest, cheapest, and handiest rake that can be manufactured. They are the only spring tooth rake that *don't roll the hay* in raking, but slides the hay along, and in dumping leaves it bottom side up. Hay put together in this way can dry considerable before gathering and is much easier to pitch. We know this by actual experience. For further information see page 23, cut of Rake, &c.

The Best is always the Cheapest.

HOW THE KNIFFEN MACHINES ARE BUILT.

They are Manufactured by Experienced Machinists.

All of them work by the Day.

We make no JOB Work.

We use castings that cost us 5 cts. a pound. We could use them that would cost us but 3 and you could not tell the difference unless they broke.

We use the best Refined, Norway and Ulster iron that costs us \$140 per ton. We could use iron that would cost us but \$60. The difference would never be known except in case of breakage.

We use Malleables that cost us 15 cts. a pound. We could use them that would cost us but 9 cts. and perhaps you never would discover the difference.

We use the best of cast steel lining in our guards, ground to an edge. We could use chilled iron.

We use the purest Babbit metal that costs 50 cts. a pound. We could use an article that would cost but 15 cts.

We could build our Machines for \$20 less money each.

And if we were turning out the thousands, represented by some Manufacturers, few people would stop to inquire of what or how they are made.

These Reader are all Facts.

We trust they will be Appreciated.

And you will try a KNIFFEN MACHINE.



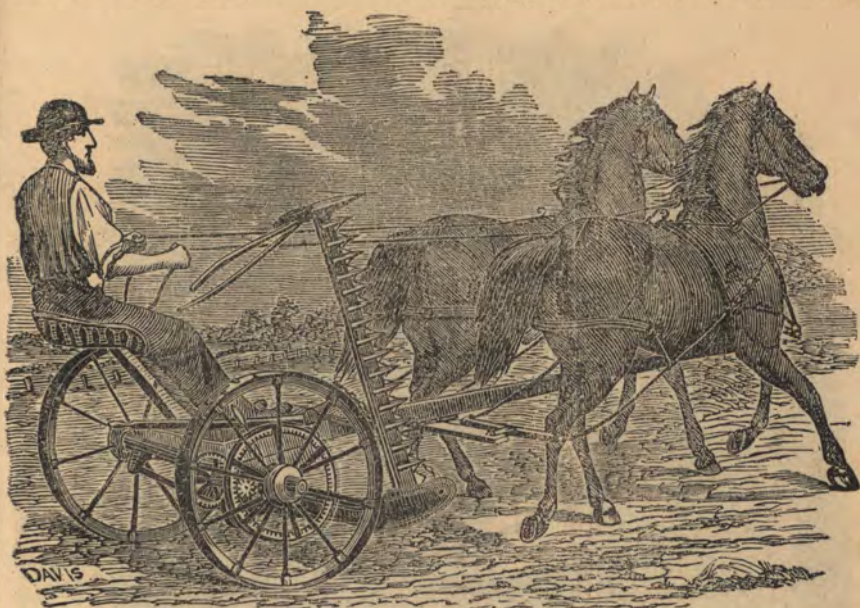
THE KNIFFEN IN OPERATION.

DIRECTIONS

For setting up and starting the Kniffen Mower.

1. Remove the elbow,—then fasten the finger-bar firmly to its place by means of the bolts. *Be sure and have the heads of the bolts in their place underneath the shoe.*
2. Put in the scythe and see that it moves freely and without friction.
3. Fasten the pole to its socket by the rear bolt only, with the head of the bolt up.
4. Place the seat in its position, and the foot board at the same time, secure them both with the bolts for that purpose.
5. Adjust the lever and attach the lifting chain thereto.
6. You can adjust the cut by means of the wheel on the outer end and false shoe on the inner side.
7. Before starting the one-horse, remove the set screw in the rim of the crank balance wheel and oil thoroughly putting in cotton or woolen waste.
8. Keep the knives sharp and bearings well oiled, remembering to tighten the nuts until they become set.
10. *Durability is wholly dependant upon the amount of care you take of your Machine.*

EVERY MACHINE IS WARRANTED.



The Kniffen folded for Transportation.

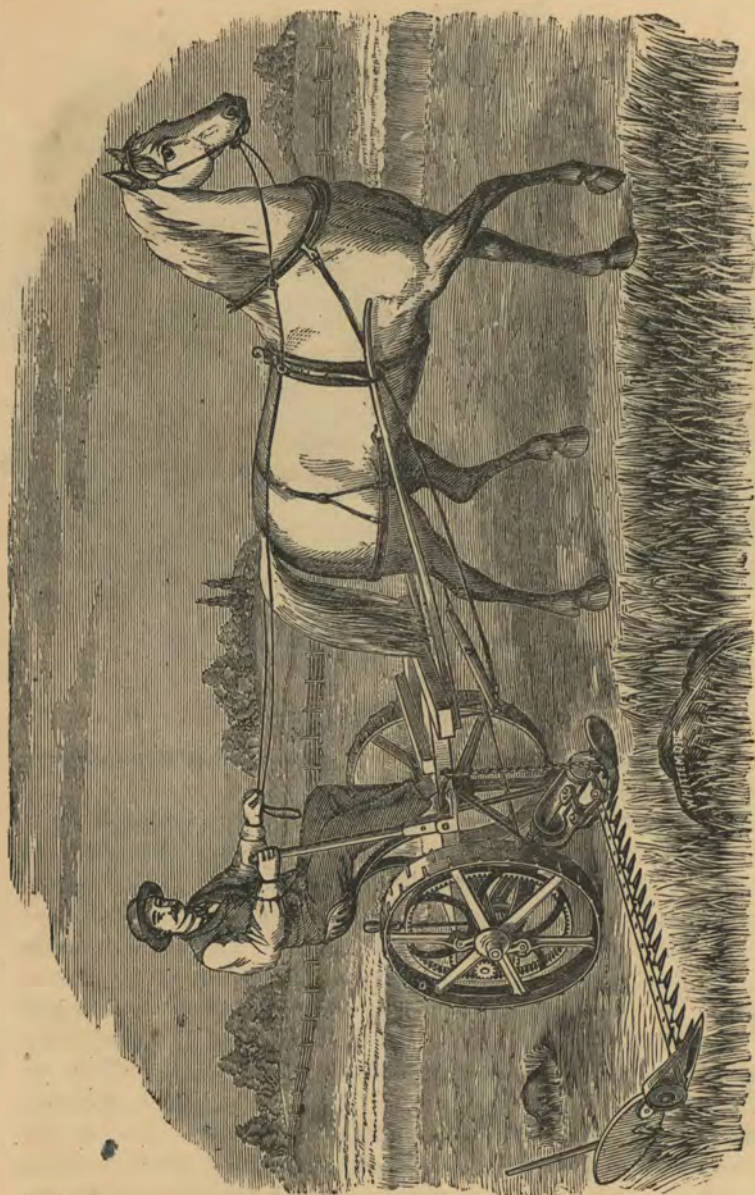
Important to Farmers.

Nearly every year brings improvements in Mowing Machines, and Manufacturers must keep pace with the times or take a back seat.

Who to-day would inquire for a Manny or Ketchum Mowing Machine were they going to buy one, yet these Machines were a success, they did good work, and many people were loath to abandon them.

Other and more perfect Machines have taken their place, and they have had their day and are now becoming gradually less. The man who is slow to believe still clings to them, saying "he wants no better," but like the foreigner in the river Thames, "he will be drowned and no body shall help him." The Kniffen's are the latest and most improved Machines in the market. They are constructed upon entirely new principles. They are becoming the rival Machine of all others. They are building a reputation upon the experience farmers have had with other Machines. And the past season demonstrated the fact that their success was certain. We were unable to fill one-half of our orders. Your orders must come in early or we cannot fill them. We have run our shop to its fullest capacity since the last harvest.

We never fail to sell to those that will try them.

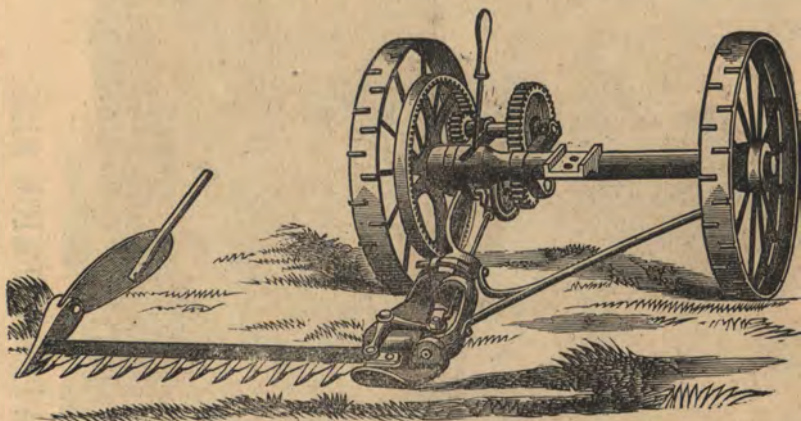


ONE HORSE KNIFFEN, PRICE \$110.

Triumphant Everywhere.

This Machine seems to be without a rival. Other Manufacturers concede it is useless trying to compete with the one horse Kniffen. The draft is reduced to an equality with common cultivators. Over 2000 of them in use.

Honor to whom Honor is Due.



Cut of Machine, Pole and Seat Removed.

Please Take Notice.

The above cut is worthy of your closest attention. We here present you with a skeleton cut, pole and seat removed. From this you can gain a better idea of our Machine than from anything else, except in seeing one of the real Machines. The driving of the scythe is done by an elbow which allows the vibrations to be equally the same in any position.

The yanking motion which has been a great source of annoyance to Manufacturers (causing their scythe shanks to break, &c.,) is here wholly done away with. Besides, this motion enables us to use the *spur* gearing, thereby avoiding the friction and wear produced by bevel gears.

This motion changes the shaking side vibration which has made Machines heretofore so hard to ride, a fact worthy of consideration. The wheels are so high and the axletree so long they straddle the swath and leave the cut hay standing as it is cut off, in good shape to dry quick. You will also notice in this cut the simplicity, how few pieces there are to get out of place and break. It is the Machine you all want and sooner or later will get. You want it because it will stand hard usage and you can let your hired help use it. You want it because it is built of the best of material. See page 3. For further information see detailed description, page 10. In buying your Machine please to consider the questions submitted on page 22. You can loose nothing by trying the Kniffen before giving your order for any other Machine.

WE AIM TO MEET YOUR WANTS.



OUR TWO HORSE MACHINE IN OPERATION. PRICE \$125.



ONE AND TWO-HORSE MOWING MACHINES.

We come now for the fifth time before the Agricultural community to set forth briefly the merited claims of the **KNIFFEN MOWERS**.

We acknowledge with much gratification, the numerous expressions of encouragement and approval which we have received from all sections of the country, where the Machines have been introduced. Our great aim is to meet the wants of our farmers, and (*we know we can*) furnish them with the very best Mowers (and Wheel Rakes) that can be produced.

Thousands of the one-horse Mowers are now in use, giving universal satisfaction. Their light draft, easy execution, simple construction, durability, &c., have made them

(The One-Horse Mower)

a "household word" in the farming community of New England, and we need but repeat that "it is the only really practicable and successful one-horse Mower" ever produced.

TWO-HORSE MOWERS.

Our two-horse Machines have now been in use for three successive harvests. While the operation of our Machines convinces every one of the splendid working qualities embraced in their design and construction, we have found a few minor points susceptible of improvement and have given them our earnest attention.

For their simplicity and utility, compactness and durability, they command the approval of all who try them. Combining all the *valuable* points found in other Mowers, they also embody many new and essential features never before embraced in a Mowing Machine.

We have brought our Mowers up to the highest standard of perfection.

DETAILED DESCRIPTION.

The following detailed description of the different parts of the **KNIFFEN MOWER**, will give one conversant with Mowers a more complete idea of its construction.

Body, or Main Frame.

This is more compact than many other Machines. It consists simply of a cast iron tube that extends from wheel to wheel, with four radial arms only six inches long, that support the gearing. This piece of casting is so well proportioned and compact in form as to prevent all trembling or vibration when the Machine is in motion.

Drive Wheels.

The two drive wheels of the Kniffen Mower are each 33 inches high, this being about the best size to secure an easy running Machine, and at the same time avoid too much weight in their construction. We use wrought iron spokes, cast in the hub and rim of the wheel. This makes a much lighter and stronger wheel than one of the same size of all cast iron, and is not so liable to break. The universal adoption of this style of wheel, wherever the construction of Machines will admit of it, is only a question of time.

Shafting.

We use but twenty-eight inches of shafting, and this is of the simplest character, avoiding all collars or shoulders. The crank shaft is supported by bearings at its extreme ends, bringing the crank and pinion between them. This arrangement is far preferable to an overhanging crank, which brings the wear on one box only. In our Machine the wear is exactly equal on both boxes.

Gearing.

Some claim superiority for using bevel gears only on the slow motion, as they are difficult of adjustment, and use spur gears on the higher motion, as they run much easier. We perfectly agree with them in this, and dispense with the bevel gears altogether.

A Machine constructed like ours, with all spur gears, runs much easier and more quiet, and is far more durable.

Draft.

The rotation of the gearing to all Machines inclines the main frame to bear down in front, particularly when the Machine labors in heavy cutting. In most Machines this downward pressure is sustained by the tongue pole, and produces more or less weight on the horses necks, when the Machine is working. By the simple arrangement of attaching the draft of the team some six inches below the main axle, we get a purchase that overcomes this downward pressure, and the draft upwards always balances the tendency of the gears to press down.

This is an important feature, and should be thoroughly understood. The Machine balances so perfect as to have no more weight on the team in heavy cutting than when standing still.

Inside Shoe.

The inside shoe is so connected with the draft of the team that simply by changing a clevis pin more or less pressure on the ground can be relieved. In soft or new seeded soil it is often desirable that the bar should glide lightly over the surface, so as not to mar the ground. This draft avoids the necessity of a wheel to support the inside shoe, which is objectionable in turning, requiring the lever to be used at every corner.

Boxes.

The boxes are all babbitted with standard Babbitt Metal, which produces the best wearing surface. The crank box is of pure gun metal, nine parts of copper to one of tin, hardened with antimony.

Position of Knife Bar.

All Machines for mowing should have the bar in front of the wheels. This permits the operator to observe the action of the team and cutters without turning, thus enabling him to raise the bar to pass obstructions without withdrawing his attention from the team, while at the same time his position is rendered much safer; while for reaping, the weight of the reel and reaping apparatus, and the facility for a free delivery requires the bar to be placed to the rear of the Machines.

The **KNIFFEN MOWER** and **REAPER** very happily combines these two features, using the cutters in front for a mower, and in the rear for a reaper, on the same Machine.

Throwing out of Gear.

By the simple movement of a lever, the Kniffen is thrown entirely out of gear, leaving the driving wheels free to move *independent of all the gearing*; and it is the only Machine in use that throws *all the gearing* out at one movement, allowing it to start instantly for another field, *without any cogs in motion*.



Passing an Obstruction.

A perfect Mower should be so constructed as to pass obstructions safely, not only with its cutters, but with its frame and crank underneath the frame. The cutter bar can be raised easily with the lever; and all the parts of the Machine are at least 12 inches above the ground at all times, so that the Machine can straddle a very considerable obstruction. No gearing or other delicate parts come near the ground.

No Trembling Motion.

The jarring or trembling motion in Machines is caused by the vibrations of the pitman, which is crosswise of the Machine, and also of the crank which is supported at the extreme corner of the frame, either front or rear. In the Kniffen Mower the pitman vibrates lengthwise of the Machine and the crank is placed directly under the axle. This arrangement prevents all jarring and the Machine runs very still in consequence.

The Swath.

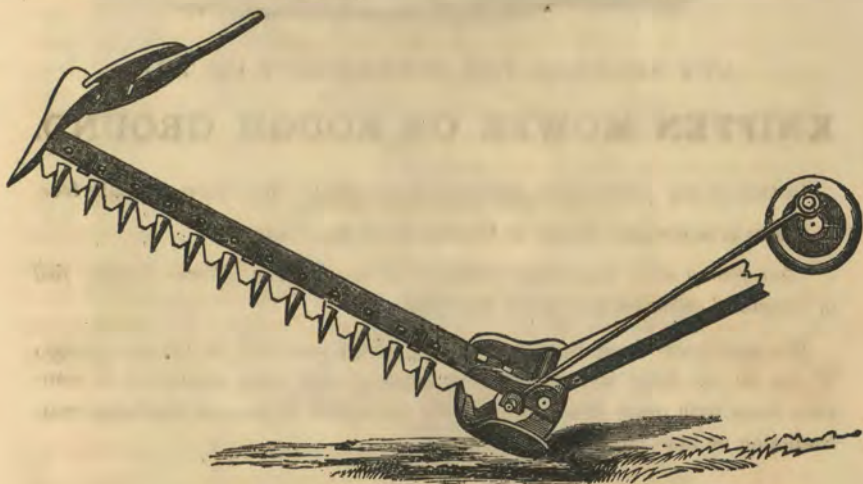
Every one familiar with Mowers knows that the swath-board inclines the cut grass inward from the standing, and leaves an open track. This open space is the proper place for the Drive Wheels of a Machine to travel in. Most Machines travel with one drive wheel on the cut grass, a great objection on light soil, or soft and wet bottom land.

On Rough Ground.

The Kniffen Mower will work (and work well) on rough, uneven ground, hillside embankments, and through ditches, &c.; owing to the great flexibility of the bar. This is where it is dangerous for other Machines to follow. Try the Kniffen.

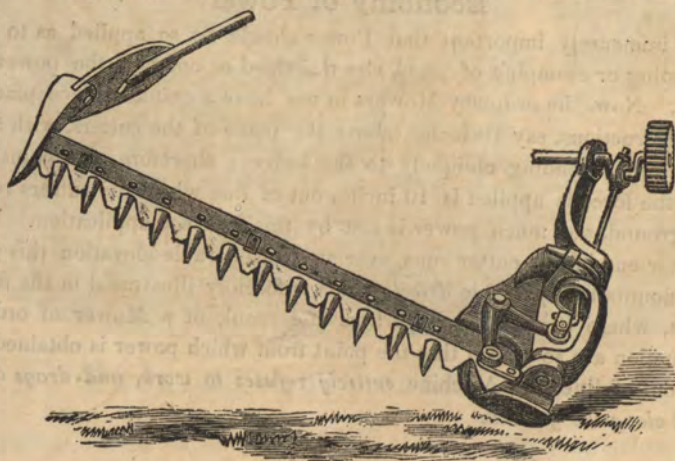
Economy of Power.

It is immensely important that Power should be so applied as to avoid the binding or cramping of parts, else one-third or one-half the power may be lost. Now, the ordinary Mowers in use have a crank-balance placed to clear obstructions, say 10 inches above the plane of the cutters, with a connecting-rod extending obliquely to the knives; therefore, the point from which the force is applied is 10 inches out of line when the cutters rest on level ground, and much power is lost by this indirect application. When the outer end of the cutter runs over any considerable elevation this objection amounts to a palpable *defect*, which is forcibly illustrated in the following cut, where the cutting apparatus and crank of a Mower of ordinary construction are so placed that the point from which power is obtained is so much out of line, the Machine *entirely refuses to work, and drags a dead weight along the ground.*



Cut showing the position in which ordinary Mowers cramp and come to a full stop. *Breakage is imminent if you allow the end of the Cutter to run over any considerable elevation.*

The **KNIFFEN MOWER** entirely overcomes the foregoing objection, the power being so applied that the cutters vibrate as easily when the finger-bar stands perpendicular as when laying level upon the ground. The cutters are hinged around the space through which the pitman vibrates, so that the cutters, pitman, and crank *maintain the same relative position in whatever shape they are working*, whether elevated on bank or depressed on a slope. The following cut represents the cutters, pitman, and crank of the **KNIFFEN MOWER**, by which it will readily be seen that in whatever position they are working, there can be no binding or cramping of parts, so that there is no power lost and no liability to breakage, as in other Machines.



CUT SHOWING THE SUPERIORITY OF THE **KNIFFEN MOWER ON ROUGH GROUND.**

In this or any position the Knives can be placed they move equally free.

There is never any Strain or Cramping of the Cutters.

This among other important features in the Kniffen Mower cannot fail to command attention and merit approval.

We here leave these matters, trusting every man will be his own judge. If you do not fully understand their bearings, our only request is to compare them with other Machines. They represent facts—we challenge contradiction or honorable competition.



THE KNIFFEN REAPER ATTACHMENT.

Kniffen's Combined Machine.

The foregoing cut represents the Combined Mowing and Reaping Machine. Step by step Mr. Kniffen has been perfecting his Machine from the simple one-horse Mower (which to-day is being used by thousands) to the combined Mower and Reaper. And here we would call your attention to the cut. You will notice it is used with the cutting-bar in the rear as a Reaper and before as a Mower (as can be seen by referring to a former cut). The advantage here gained is self evident to every one. The great difficulty heretofore existing in combining a Machine has been to reduce the gearing (for it takes more motion to cut grass than it does grain) and get your cutting apparatus where you could deliver the grain successfully out of the way of the following swath. To do this a rear cut is indispensable. To cut grass a forward cut is the only one used by successful manufacturers. We submit these facts to the judgment of all unbiased minds.

With a Bevel Geared Machine this cannot be done. The demand for a combined Machine is so limited within the circle of our manufactory that this company have never attempted to build any, but have made arrangements with a Western Manufactory to furnish them.

To our customers, for further information, address

L. G. KNIFFEN,
Rochester, Pa.



KNIFFEN ON THE ROAD.

Testimonials.

We have in our possession a vast number of testimonials, and many thousand names of farmers who cannot speak too highly in favor of the Kniffen Mowers, but we think their publication unnecessary.

The number of Kniffen Machines in practical operation is so large, that no farmer wishing to inform himself of their merits, can have any difficulty in so doing. By coming in personal contact with farmers who have had experience in the use of different Machines, he can obtain information which is of vastly greater value than that drawn from printed testimonials, which, in many instances, the party whose signature is appended had nothing to do with composing.

IMPORTANT TRIALS IN 1868.

**Two Gold Medals Awarded,
Three Silver Medals,
Premiums, Diplomas, &c., &c.**

SEE REPORTS OF TRIALS.

From the Pittsburg Commercial.

XENIA, July 8th.

THE GREAT MIAMI VALLEY TRIAL OF REAPERS AND MOWERS.—This is one of the most important trials ever held in the West. The test has been thorough, and the examination severe. *The first premium, a grand gold medal, valued at \$125.00, awarded to the Kniffen Mower, as the best Mowing Machine over 26 other Machines.* The decision of the committee is believed to be thoroughly impartial.

From the Washington Co. Chronicle.

FORT ANN, N. Y., June 26, 1868.

An important trial of Mowers took place at Fort Ann on Monday of this week. Seven Machines were entered. There were two separate committees appointed. The one on draft reported as follows:

Name of Machine.				Width of Cut.	Draft in lbs
Kniffen,	-	-	-	4 ft. 3 in.	175
Clipper,	-	-	-	4 ft. 3 in.	200
Buckeye,	-	-	-	4 ft. 1 in.	200
Granite State,	-	-	-	4 ft.	215
Wood,	-	-	-	4 ft.	225
Iron Mower,	-	-	-	4 ft. 2 in.	225
Poultney Mower,	-	-	-	4 ft.	225

And on simplicity of construction, ease of management and durability of workmanship, the Machines were classified in the following order:

1. The Kniffen.
2. The Clipper.
3. The Poultney Mower.

Such a record before the public—a reputation earned by actual contest with the oldest and most approved Machines in the field—augurs success for the Company in their enterprise.

We could furnish a list that would fill any ordinary sized Circular, but leave out, trusting we have said enough to induce those who buy a Machine to examine the Kniffen before doing so.

Diagram of parts to Kniffen's 1 and 2-Horse Mowers.



[The small nos. are for the one horse.

Price List of Nos. 1 & 2 two-horse Machines.

No.	Price.	No.	Price.	No.	Price.
Guard Bolts, each	.05	52, Right Hand Ratchet,	\$1.00	20, Brass Box,	\$1.00
Finger Bar Bolts, each	.10	53, Left Hand Ratchet,	1.00	Finger Bar Drilled,	8.50
Palls, each	.10	58, Clutch,	1.00	0 Track clearer Socket,	.75
Pall Springs, each	.05	63, False Shoe,	1.00	Track clearer sticks,	
Grass Shield,	.30	64, Outside Shoe,	2.20	each	.15
Main Brace,	\$2.00	59, Sleeve,	5.50	Pole,	2.25
X Gag Iron,	.75	56, Crank Balance & Gear,	1.75	Gag Iron Roll,	.75
Rivets per lb.,	.40	65, Guards, each	.45	Whiffletree Springs, each,	15
Shifting Spring,	.50	62, Inside Shoe,	3.00	Polo Hook,	.30
28, Shifter Handle,	.45	66, Sections, each	.22	78, Draw Slide,	.25
Lifting Chain,	.75	67, Scythes complete, 6.50	& 7.00	77, Slide Supporter,	.25
Monkey Wrench,	.90	68, Seat,	1.40	Outer Shoe Wheel,	.40
Main bolt to Brace,	.30	Seat Spring,	2.00	Outer Shoe Wheel Bolt,	.15
Large Clevis,	.25	Back Seat Spring,	1.00	Bolts not named, each	.10
Small Clevis,	.20	31, Clasp around Sleeve,	.35	Draw Iron,	.30
50, Right Drive Wheel,	8.00	54, Main Gear Wheel,	3.50	30, Pitman & Elbow con-	
51, Left Drive Wheel,	8.00	55, Spur Gear Wheel,	2.00	nection,	.40
61, Main Spur Pinion,	1.00	68, Lever supporter casting	2.00	24, Elbow Stud,	.75
79, Finger Bar Latch,	.25	80, Lever Catch,	.25	72, Right Crank Box,	.75
70, Lever Ratchet,	.50	71, Link,	.60	73, Left Crank Box,	.75
57, Body,	12.00	76, Scythe Buttons, each	.10	75, Heel Buttons,	.25
60, Connecting Rod,	3.00	11, Elbow,	1.50	74, Scythe Shanks,	.75

Price List of Extras for No. 3 Mower, one-horse.

No.	Price.	No.	Price.	No.	Price.
Palls,	.10	Main Brace,	\$1.00	7, Body,	\$11.00
Springs,	.10	Main Axle,	3.00	12, Inside Shoe,	3.00
Clutch Spring,	.40	26, Scythe Buttons, each	.10	100, False Shoe,	1.00
Seat Springs, each	\$1.00	1, Driving Wheels, each	7.00	14, Outside Shoe,	2.25
Straps to Seat Springs		19, Lever Socket,	.75	17, Scythe complete,	6.00
each	.25	20, Brass Box,	1.00	18, Seat,	1.40
Lever Lifting Spring,	.15	25, Lever Catch,	.50	6, Crank Balance,	2.00
Finger Bar Drilled,	7.00	23, Double Gear Stud,	1.50	4, Main Gear Wheel,	3.00
32, Gag Iron,	.75	22, Crank Gear Stud,	1.50	5, Double Gear Wheel,	2.50
27, Heel Buttons,	.20	21, Link,	.40	8, Clutch,	.90
9, Sleeve,	3.50	2, Right Ratchet,	.90	15, Guards, each	.40
10, Connecting Rod,	2.00	3, Left Ratchet,	.90	16, Sections, each	.20

The number is cast in on each piece of the Machine, that is numbered. In ordering extras, give the number of the Machine, and the number and name of the part wanted, *and how you want them shipped, by express or freight, and where to.*

Cash Prices delivered on Cars at Worcester.

Kniffen's Champion Wheel Rake, Straight Shafts,	\$35 00
" " " Bent Shafts,	37 00

MOWERS.

No. 1, two-horse, 4 feet 9 inch cut,	\$135 00
No. 2, " 4 feet 3 inch cut,	125 00
No. 3, one-horse, 3 feet 6 inch cut,	110 00
Reaper Attachment, extra,	50 00

Two complete Scythes, two extra knife sections, two guard fingers, monkey wrench, oil can, cold chisel, punch, rivets, extra composition box, a pair of whiffle-trees, an evener, and neck-yoke, are comprised in each Machine.

WARRANTY.

Each Machine is warranted to do the work with as great speed and in as perfect manner, in the hands of a competent manager, as any other; and a half day's use will be allowed as a fair trial before settlement. If any defect is discovered, immediate notice must be given and sufficient time allowed for putting it in order. If then it proves permanently defective, a new and perfect Machine will be substituted, or the money refunded.

NOTE.—Any Machine settled for before a chance for trial, will be held subject to the above Guaranty, the same as if no settlement had been made.

Machinery of all kinds (Mowing Machines not excepted) requires care and attention. Farmers should not expect a Mower to prove serviceable and durable without proper care. They should be well oiled with *good* oil, and when not in use, well cleaned and housed.

NOTE.—To oil the crank balance, remove the set screw in the rim.

Farmers will bear in mind that the Kniffen Mowers will work (and work well) on rough, uneven, or sloping ground, side hills, embankments, ditches, &c., where no other Machine can follow.



The Lightest Draft and Easiest Riding Machine that's Built.

The following Questions we submit as worthy of consideration in buying a Machine.

FIRST. Is not a Machine that will operate the knives with perfect ease and safety, while one end is elevated two, three or more feet, preferable to one that will only work them at twelve or fourteen inches, and that with difficulty?

SECOND. Would it not be better to throw all the cogs out of gear with one movement of a lever, than to be compelled to allow them to run in the dust, while moving on the road, or from field to field?

THIRD. Is it not safer, and more convenient, to reach the seat from the rear, instead of the front of the Machine, and to have the Machine and horses at all times before the driver, while oiling or otherwise attending it?

FOURTH. Are not castings that are tubular in shape, stronger in proportion than flat ones, and will not a compact Machine be more durable than one that is extended over a large space, and liable to spring by any strain brought upon it?

FIFTH. Are not high wheels preferable to low ones, and is not a Machine more desirable that has all its parts up out of the way of cut grass and other obstructions?

SIXTH. Should we attach the draft to the Machine, so as to force the cutters to the ground, to strike dead against obstructions, or should there be a lifting draft, to carry the knives over obstructions, thereby relieving the downward pressure, and transferring the weight to the drive wheels?

SEVENTH. Is it best to have the drive wheels so arranged as to straddle the swath, leaving the cut grass lying light on the ground, or is it best to use a Machine with the off wheel running on the heaviest part of the cut crop, and pressing it down into the light soil, or wet bottom?

EIGHTH. Some Machines claim to have the advantage in putting the bevel gear, which is always difficult of adjustment, on the slow motion where it will have to run as little as possible. If objectionable, why not abandon the use of bevel gears altogether, in a Mowing Machine?

KNIFFEN'S CHAMPION WHEEL RAKES,

MANUFACTURED BY THE

Kniffen Mowing Machine Co., Worcester, Ms.



Our Rake has several prominent advantages over the Spring Tooth Rakes in common use which cannot be gainsayed, viz :

If the old head or axle be broken, the teeth can all be removed and put into a new axle, without injury, being fastened to the axle by screw and nut.

A broken tooth can be removed by the farmer in the field at any time.

A perfect Clearer is attached which removes all the fine hay that may be inclined to stick to the teeth.

They are furnished with *Whiffletrees*, which are far preferable to the very objectionable practice of fastening traces to stationary hooks in the Shafts.

As compared with other Wheel Rakes, the mode of operating is *much easier*, giving the driver perfect control either with hand or foot.

The seat can be adjusted higher or lower at pleasure, to suit the convenience of man or boy.

They are made of the best material, both wood and iron, under our own supervision and will be found "all right."

Please Observe the following Notices.

To our Agents.

In reply to your many inquiries—"Why we have not inserted your various letters of recommendation,"—we answer we had not room in this Pamphlet to have printed one half of them, consequently we left them all out; thanking you for your trouble and those who felt it a privilege to give you their testimonials.

To Others.

We are frequently asked—"If your Machines are such an improvement over others, why are there not more of them in use?" Simply because we had to make the first thousand before we could the next. Simply because we have not been in the market for 15 years or more. Even 10 years hence we shall be surprised if there is not something better than the Kniffen. We say forget your old superstitious notions. The age of improvement is dawning upon us.

Parties wishing Agencies.

Our Machines are annually gaining reputation. Every year they creep into the confidence of the community, more and more. People seeing their popularity, are frequently writing us for an Agency. We cannot discharge those who do their duty faithfully. But we are branching out and as new territory is being cultivated there is a chance for new Agents. Should you wish for an Agency next year, write early.

Don't Write to us.

We cannot answer letters of inquiry asking what we will take for a Machine. Our prices are printed inside and *by them we go*, considering one man's money as good as another's. In new territory where there is no Agent we send a Machine for cash less the Agent's commission.

Lumber.

We are using large quantities of ash, oak and maple lumber. Parties getting out lumber of this kind, will always find a ready sale for it at our office. Address KNIFFEN MOWING MACHINE CO., *Worcester, Mass.*

Buy Now.

If you intend to have a Mower or Rake give your order early and secure them. We have not been able to meet the demand the last two seasons, and many have been disappointed. "A word to the wise is sufficient." The success of the Kniffen Mowers has fully established the idea of its inventor, viz: To throw aside all the old models and construct Machines upon the true principles of mechanical simplicity and perfection, and therefore more desirable and better adapted to the wants of the farmer.

For further information, see parties, or address

KNIFFEN MOWING MACHINE CO.,
WORCESTER, MASS.

THE KNIFFEN.

Reader, we come with this Pamphlet to greet you,
Trusting and hoping you'll read it all through,
Our subject is worthy your closest attention,
The KNIFFEN'S the latest and newest invention.

It combines all the old and recent improvements,
The *tubular castings* and *spurr geared* movements,
Together with strength the drift of commotion,
And removeth all doubt of that falsefied notion.

But few dare to question, the fact is conceded,
The KNIFFEN'S the Mower at the present time needed ;
Its draft is so light, its bolts are so few,
None care to doubt it, for it's always proved true.

The sickle bar works with equal precision,
From the low horizontal to any position ;
The cramping and breaking, so frequently seen,
Is wholly removed in the Kniffen Machine.

Our shafting's so little, the gearing so nice,
You hardly would think of asking the price ;
The boxes all *metaled* with *Babbit*, so pure,
We are ready and willing our Machines to insure.

The Draft so connected by clévis and pin,
Is almost reduced to a nominal thing.
Besides the device for stopping the motion,
By one single movement relieves all commotion.

Your gearings all stopped, your bar folded up,
You've only to say to your horses "git up."
Respect then yourself, to your neighbors all show,
The time has arrived when the Kniffen's ago.

And here let me say this rhyming should end,
But wishing, yes knowing that we are your friend,
A feeling comes o'er us, it's not wholly a sigh,
We want you, before buying, the Kniffen to try.

Then you who are anxious the best to obtain,
Consult, first your comfort, your pockets the same,
Perfection we're seeking, your wants to supply, —
The KNIFFEN'S the Mower that you all ought to buy.