

Buckeye Mower & Reaper,



MANUFACTURED BY

A. P. RICHARDSON

& CO.

WORCESTER,

MASS.

Richardson

Robt. del.

DIRECTIONS

FOR

PUTTING UP AND USING THE BUCKEYE MOWER.

Keep the Knives Sharp and the Bearings well Oiled.

- 1st. Put in the Pole.
- 2d. Place the LEVER at the side of the Machine, hooking the chain from wrought hinge bar to same.
- 3d. Attach Finger-Bar to the Machine by the two bolts at Wrought Hinge Joint and Short Brace. Tighten the set screw on the long bolt, and fasten the short bolt with the spring key.
- 4th. Slide the Scythe in the Guards. Raise the outer end of Finger-bar until the angle is sufficient to allow the eye of Scythe to pass beyond the inner shoe; insert the connecting-rod into eye of Scythe, and let the bar fall again to the ground.
- 5th. Bolt Track-Clearer to outer shoe; set the slide on same in the lower notch in the shoe, and screw the thumb-nut up tight.
- 6th. Put Lamp-Wicking in the Oil-Cups, and use best Spermin, Lard or Machinery Oil. *Don't use any oil that will grow gummy. Be sure that every part is well oiled, (and that it is kept so,) and you are ready to mow.*

Directions for Mowing.

- 1st. In mowing let your team walk moderately, and drive straight.
- 2d. To make good clean work, drive out at the corners before you set in to cut a new swath. Never commence a swath without having the guards clear of cut grass.
- 3d. To raise the cutter over obstacles, grasp the lever at the right hand and raise it to the required height.
- 4th. To sharpen the knives, grind them on an ordinary stone, on the bevel or upper side, keeping the longest bevel the same as when new, but paying no regard to the short bevel. They can be whetted without being taken out of the guards. After sharpening the knives, they should be whetted on the under side sufficiently to remove the feather edge.
- 5th. The bearings must be kept well oiled with good oil. The crank-bearings and pitman, connecting with the knives, should be oiled often. The Roll in leading wheel must also be kept oiled; an oil hole will be found on the inner side of the wheel. If your machine draws hard, you may be sure that it wants oiling, or that the knives are dull.
- 6th. To avoid breakage, you must see that the box nuts, especially, are secured tight.
- 7th. If, by any means, the Guard-Fingers should get bent out of line, they should be immediately brought back to their place with a hammer.
- 8th. Be sure and keep the Buttons on the Bar, down close to the scythe, as it makes better work, is easier for horses, and causes less wear to the machine.
- 9th. The height of cut is adjusted at the inner and outer shoes. The steel runner on outside shoe can be set at any required height, and secured by the bolt. The belt which attaches leading wheel to inner shoe, works in a slot, and can be set at the height desired.

To Fold the Bar over the Frame, for Moving or Transportation.

Loosen the track-clearer slide, put your foot on the connecting rod, and bring the crank-pin down to the lower side of crank-balance. Take hold of outer-shoe and lean the bar against the frame; take the lever in the right hand and the track-clearer in the left, bearing down on lever, and you will lay the bar over the frame with but little exertion. When the bar is folded, turn the track-clearer up straight, and set the slide in the notch in the bottom of the shoe. Throw the pawls out of gear and you are ready to drive off. *Remember always to throw the pawls out of gear, when you fold the bar to drive off.*

When driving on the road, oil the axle of the wheels; and it would be well to put wood plugs in the oil-holes in wheels, to prevent the dust from getting on the axle.

To unfold the bar, push the knives as far in the guards as they will go, set your lever up straight, let the bar slide down on the ground, take hold of the track-clearer and ease it down. A little practice will enable you to fold and unfold with great ease.

Buckeye Mower and Reaper.

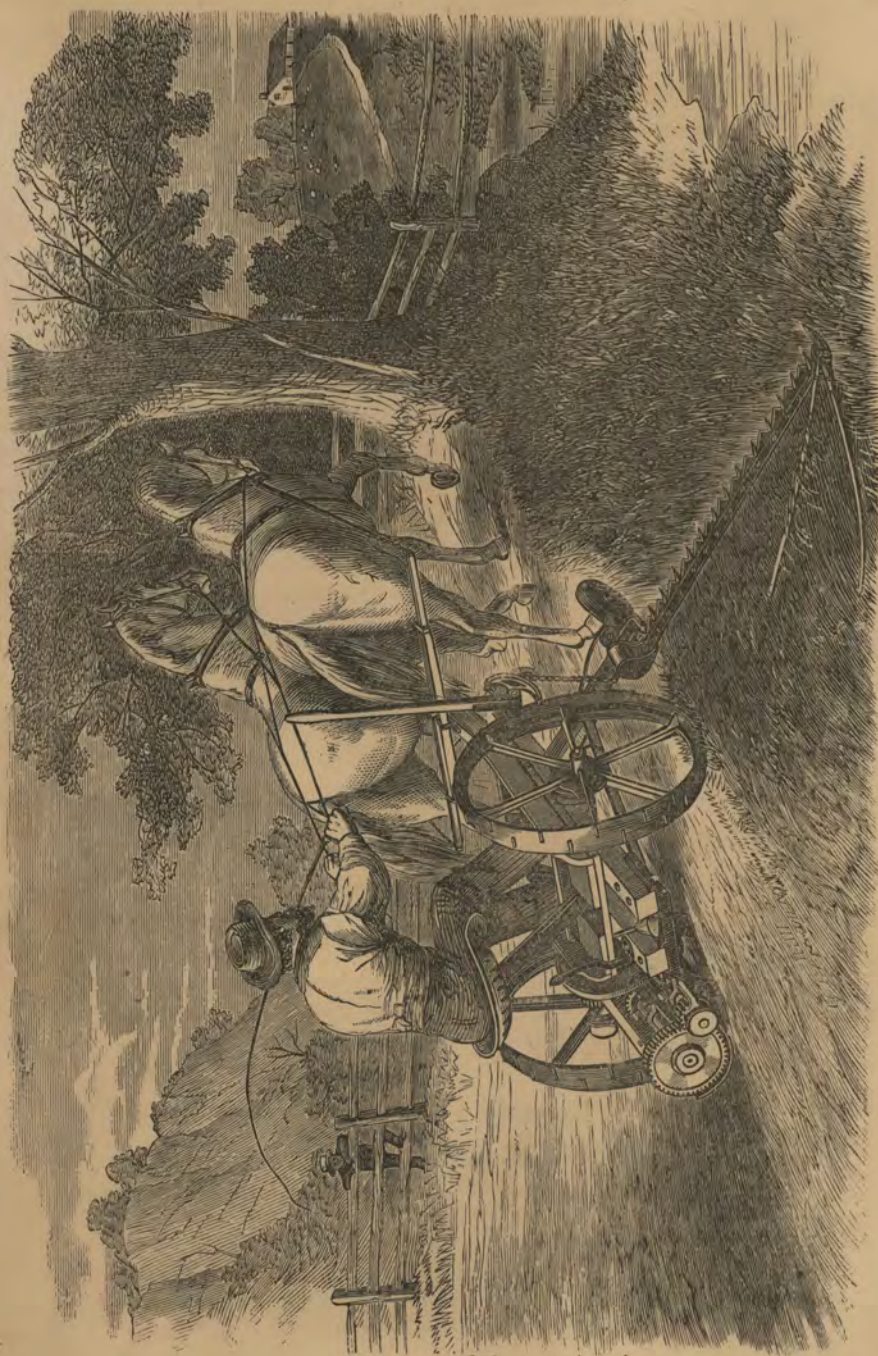
Office of the Buckeye Mower and Reaper,
WORCESTER, Mass., March, 1869.

In presenting our Annual Circular to the farmers of New England, we do not now propose to enter into any argument to show the superiority of the Buckeye as a Mower and Reaper over all other machines built in the country; the immense increase in sales from twenty-five machines in 1857 to as many thousands in 1868; the unqualified decision in favor of the Buckeye of competent and disinterested judges at most of the important Field-Trials ever held in this country; the fact that the manufacturers of most of the leading machines of the country have been compelled to secure the right to use some of the peculiar features of the Buckeye, all go to show the estimation in which it is held by the farmers of the country, and have justly secured for it the reputation as THE STANDARD HARVESTER.

Although the leading features of the Buckeye are the same now as when first introduced, many important improvements and changes have been made. The substitution of *external* for *internal* spur gearing made by us during the season of 1866 has, after two season's trial, given such perfect satisfaction and possesses such decided advantages over the old style, that no farmer who has used our Improved Mower will consent to use any other.

The Machines now building for the harvest of 1869 are superior to any heretofore produced by us, and cannot fail to recommend themselves to all farmers who appreciate the advantages of *reliability*, *adaptability* and *durability*.

A. P. RICHARDSON & CO.



Mowing on Rough Ground.

In the manufacture of our Machines it has always been our aim each succeeding year to produce a better article than the preceding, by using the best materials that can be had, expending more labor on the running parts and finish of the Machine, and making such changes as are proved to be real improvements. This principle, as opposed to that of those whose desire is to reduce the price at the expense of quality, and who claim that it is easier to sell a *cheap* article than a *good* one, has been fully appreciated by the farmers, who are competent to discriminate between a thoroughly good and a cheap, inferior article.

The Competitors of the Buckeye.

Rival manufacturers, finding it impossible to sell their rigid-bar machines in competition with the Buckeye, were obliged to seek a foreign market for their old stock, and to get up new machines bearing some resemblance to the Buckeye, in order to make any sales at home. A few years completely revolutionized the Mowing and Reaping Machine manufacture of the United States; the Buckeye was accepted as the STANDARD, and the measure of success which other machines met with was PROPORTIONED ACCORDING TO THEIR RESEMBLANCE TO THE BUCKEYE MODEL.

The Name "Buckeye."

The term "BUCKEYE" is the trade-mark attached by the inventors to the mowing machine which first successfully introduced two driving-wheels and a double jointed folding cutter-bar.

There is scarcely a mowing machine manufacturer in the country who has not secured the right to use some of the Buckeye features; but the NAME AND REPUTATION ATTACHED TO IT are the exclusive property of the inventors and manufacturers of the ORIGINAL BUCKEYE, which machine embodies many important features not found in any other.

The Popularity of the Buckeye.

Eleven years have sufficed to extend the sale of the Buckeye from TWENTY-FIVE machines to TWENTY-FIVE THOUSAND, in a single season, and the total number of Buckeyes now in use in the United States is not less than ONE HUNDRED THOUSAND, while the demand has been so great each season that thousands of farmers who wished to obtain Buckeyes have been unable to do so. We shall, in the future as in the past, spare no effort to maintain the Buckeye in its present high position as the Standard Harvester of the United States.

**Improved No. 2 Mower.**



Mowing on Side Hill and Running over a Rock.

The Peculiar Features

Originally introduced in the BUCKEYE MACHINE are now universally recognized as essential points of an efficient Harvester, and the only machines of any standing or reputation, at the present time, are those which have taken the BUCKEYE as their model, and copied it more or less closely.

The many advantages of the BUCKEYE are now so well known that we shall here only briefly enumerate a few of its LEADING POINTS OF EXCELLENCE.

Two Driving-Wheels support the *whole weight* of the FRAME, GEARING, and DRIVER, and thus all the weight is used directly to give motion to the knives. As these wheels operate TOGETHER OR INDEPENDENTLY, short turns can be made to the RIGHT OR LEFT, *without clogging or stopping the knives.*

The Driving-Wheels have no Cogs on them, or running on a smaller wheel inside of them, but the gears are all arranged at such a height from the ground as to avoid all danger of being clogged by mud or sand.

Pawls and Ratchets are used to drive the gearing, and in backing the knives cease to vibrate. The pawls are held either in or out of gear by a spring, and when out of gear the wheels turn independently on the axle, *and none of the gearing is moved.*

The Double-Jointed Cutter-Bar adapts itself to all varieties of surface, *entirely independent of the frame*, mowing as closely and evenly over knolls and ridges, or through hollows, dead furrows, and ditches, as on the most level ground.

The Cutter-Bar folds over on top of the Frame, and the operation of folding and unfolding is so simple that it can be done by a boy in less than one minute. *The Buckeye is the only machine in which the cutting apparatus can be laid firmly and securely over and on to the Frame*, which the farmer must readily see has great advantages over merely tilting the bar against one side of the machine.

The Driver's Seat is behind the Cutters, enabling the driver, at all times, to have a full view of the operation of the knives without interfering with his management of the team: and if at any time he should be thrown from his seat, the danger of falling in front of the knives is entirely avoided.

The Hussey Open-Guard Finger is the only successful cutting apparatus ever applied to Harvesters. By the use of malleable iron, we obtain what experience has demonstrated to be the best form of finger, and by fitting a plate of steel for the knife to cut against, *we combine a perfect shear-cut with the greatest possible strength.*

A Leading-Wheel is attached to the inner shoe, which entirely prevents the loose grass, over which it must frequently pass, from being pushed along and clogging the machine. It also prevents the points of the guard-fingers catching in the ground while passing through hollows and ridges.

The Height of Cut is regulated by means of the adjustable spring on outer shoe and adjustable wheel on inner shoe, so that both ends of the bar can be raised or lowered to cut any required height of stubble.

To Pass Obstructions, a lever is attached to the finger-bar and main frame, by which the driver can, with one hand, while on his seat, **RAISE BOTH ENDS OF THE FINGER-BAR** from the ground to the height of twelve or eighteen inches.

A RATCHET is connected with this lever, which sustains the finger-bar at any required height while the machine is moving, serving an excellent purpose for passing over cut grass and turning at the corners.

To Throw In or out of Gear, a lever is placed at the side of the driver, by which he can instantly stop or start the gearing.

Side-Draught and Weight on the Horses' Necks are entirely obviated in the **BUCKEYE** by the perfect manner in which the machine is balanced.

The Draught of the Buckeye is reduced to the lowest point ever attained. It is not the lightest machine in weight alone that runs the lightest for the team, but that which has the weight properly balanced on the ground or driving-wheels, the gearing most firmly secured, so that there can be no cramping of the frame, and has its cutting apparatus best adapted to the work.

The draught of the **BUCKEYE** is lighter than **ORDINARY FLOWING**, being only from one hundred and fifty to two hundred and fifty pounds, as **FAIRLY DEMONSTRATED BY NUMEROUS DYNAMOMETER TESTS.**



THE BUCKEYE AS A REAPER.

The important advantages which belong exclusively to the Buckeye as a Mower are retained in the Reaper.

The two Driving Wheels and Double Jointed Cutter Bar make it the only Reaper perfectly adapted to uneven ground.

By the use of an Overhanging Reel, the outer reel-support is dispensed with, and the objection of dragging the cut grain is entirely obviated.

The Reel is attached in such a manner as to follow all the movements of the Platform on uneven ground, and can be readily raised and lowered, according to the height of the grain.

The grain is delivered at the back of the Machine, entirely out of the way of the team on the next round in good shaped gavels for binding.

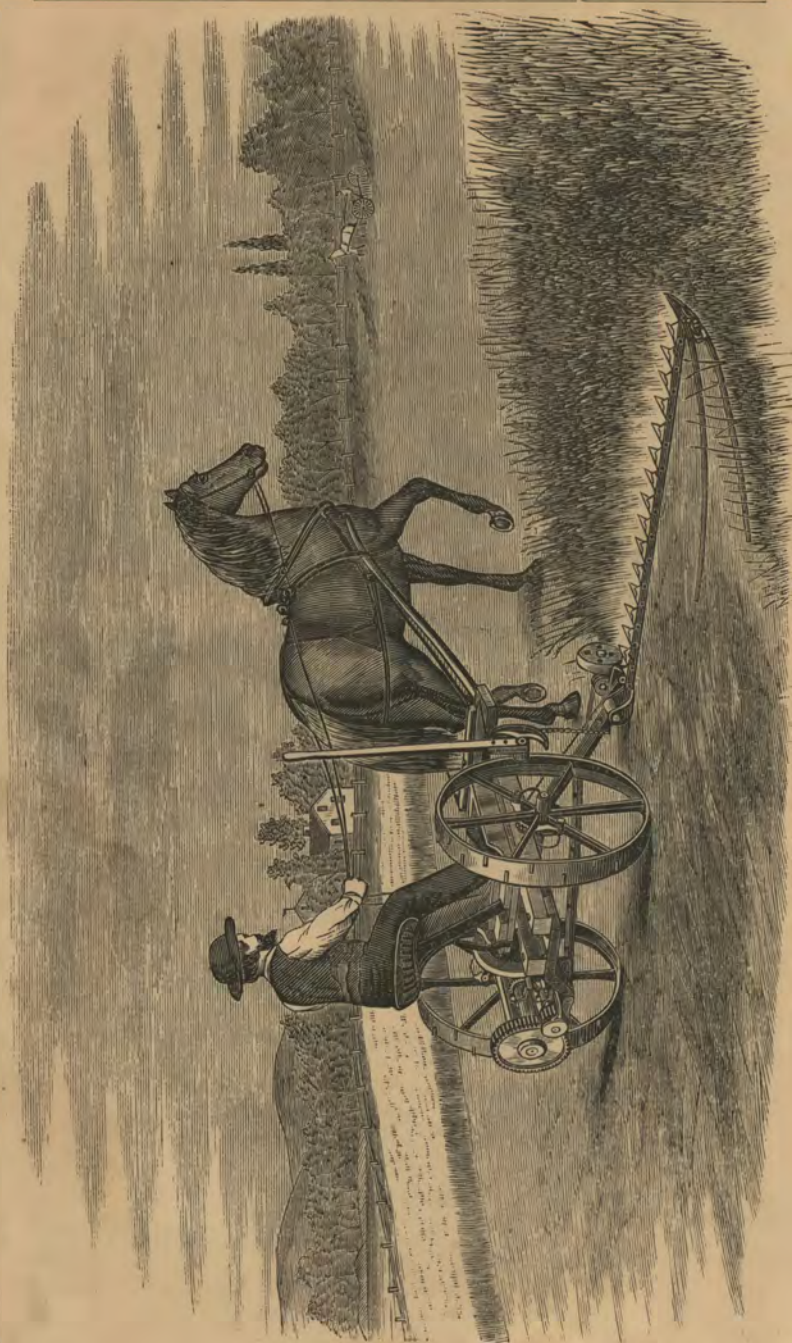
The Platform is readily adjusted to any required height of cut.

The Lateral Brace at the rear of the Machine is of great advantage in steadying and supporting the platform, and can be obtained only in a Machine which has the Cutter-Bar in front of the Driving-Wheels.

The Raker's Seat is so placed as to secure the most comfortable position and easiest and most natural movement to the Raker.

The weight of the Raker is sustained directly on the axle of the Machine, instead of being carried on the Platform, where it adds greatly to the side-draught.

The outer wheel of the Platform is almost in a direct line with the Driving Wheels, so that there is no cramping or straining in turning corners.



ONE-HORSE BUCKEYE AT WORK.

ONE-HORSE BUCKEYE.

Our new One-Horse Mower, as perfected during the season of 1867, embraces in its construction all the desirable points of the No. 2. Many of the castings are made of malleable iron, thus reducing the weight, and increasing the strength of the machine, and in every part the best quality of stock that can be had is used, so that we have secured a machine combining in a remarkable degree the three great requisites so necessary in the construction of a satisfactory One-Horse Mower, viz: *Lightness, Strength, and Ease of Draft.*

Two years of trial in the field, where this Machine has been put to the severest tests, running it on the roughest ground and at every possible disadvantage, has proved conclusively that our new Mower is not only the *Strongest*, but by actual weight is the *Lightest* one-horse mower ever offered to the public, and we invite farmers who need a light machine to examine those in the hands of our Agents before purchasing elsewhere.

Early Orders.

We would urge upon farmers the importance of handing in their orders early in the season, if they wish to make sure of securing a BUCKEYE. The harvesting season is so short, that delays will occur in shipments when orders pour in on us from all quarters at once, and we have each season been obliged to disappoint numbers who have delayed their orders until the last minute.

NET CASH PRICES.

(MACHINES DELIVERED ON CARS AT WORCESTER.)

No. 1 Mower and Reaper,	-	-	-	-	\$185,00
No. 1 Mower, 4 feet 8 inch Cut,	-	-	-	-	150,00
No. 2 Mower, 4 feet 1 inch Cut,	-	-	-	-	125,00
No. 2 Mower and Reaper,	-	-	-	-	160,00
No. 3 Mower, (from new patterns,)	-	-	-	-	115,00

With each Machine will be furnished two complete Scythes, two extra Knife Sections, two extra Guard Fingers, Screw Wrench, Punch, Cold-Chisel, Oil Can, and Rivets.



Cut of Parts of No. 2 Mower.

DRAWN BY WILSON.

Price List of Extras, No. 1 Mower.

No.		No.	
00	Spring Key for Brace Bolt.....	05	18 Main Seat Spring.....
0	Spring Key for Eye of Scythe....	05	19 Spur Pinion.....
1	Connecting Rod.....	2	50 20 Driving Wheel.....
2	Roll for Leading Wheel.....	30	21 Bevel Pinion.....
3	Composition Box.....	1	00 22 Bevel Wheel.....
	Chilled Box.....	35	23 Spur Wheel.....
4	Spring Gib.....	15	Ratchet Wheel, plain.....
5	Ratchet Key.....	15	24 Ratchet Wheel, with Sheave.....
6	Inside Shoe.....	3	00 25 Leading Wheel.....
7	Outside Shoe.....	2	25 26 Crank Balance and Pin.....
	Outside Shoe Spring.....	75	27 Gag for raising Bar.....
8	Guard Finger.....	50	28 Front Hanger and Cap.....
9	Iron Seat.....	1	50 29 Track Clearer Iron.....
10	Wrought Hinge Joint.....	5	50 30 Long Brace.....
11	Cross Hanger and Box.....	2	25 31 Short Brace.....
12	Crank Fender.....	75	32 Track Clearer Wedge.....
13	Lever Axle.....	1	00 33 Knife Section.....
14	Box rear end of Crank Shaft.....	1	50 34 Complete Scythe.....
	Cap rear end of Crank Shaft.....	75	35 Pawl Spring.....
15	Box rear end of Short Shaft.....	1	50 Pole.....
16	Lever Ratchet.....	1	00 Section Rivets, per lb.....
17	Back Seat Spring.....	75	Finger Rivets, per lb.....
	Brace Hanger.....	60	Track Clearer Slide.....
	Double Washer for Connect'g Rod	10	Scythe Button.....
	Crank Pin.....	75	Fender for Spur Wheel.....
	Back Hanger.....	1	00 Fender for Bevel Pinion.....
	Shipper Handle.....	40	Scythe Head.....
	Shipper Standard with Spring.....	50	Track Clearer Sticks.....
	Shipper Clutch.....	50	

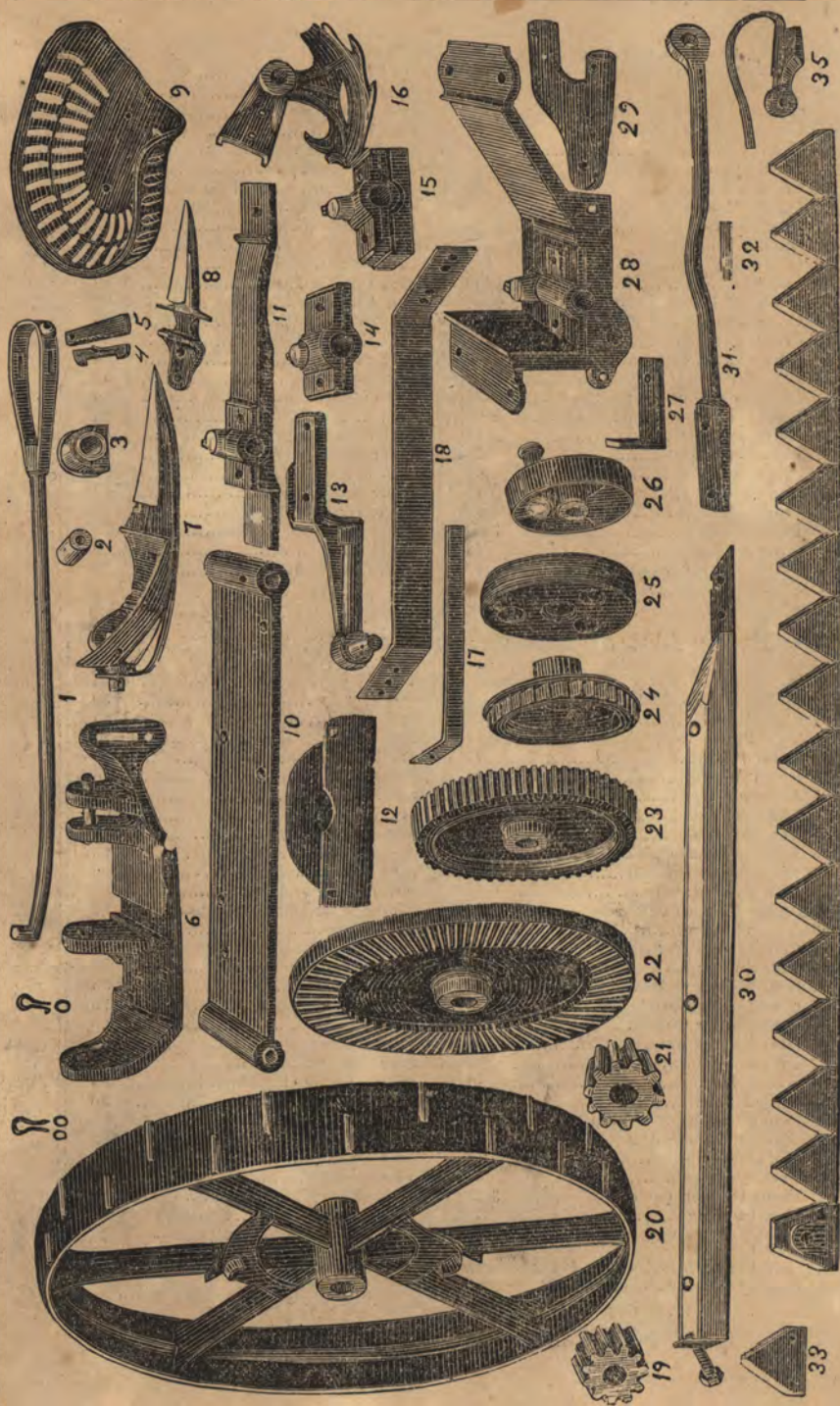
Price List of Extra Parts of No. 2 Mower.

No.	PRICE.	No.	PRICE.
50	Main Driving Wheel.....\$7 00		
51	Spur Pinion.....	50	Lever Handle.....
	Spur Pinion for Improved Mower,	75	74 Track Clearer, Iron and Slide.....
52	Bevel Pinion.....	75	75 Track Clearer Slide.....
53	Bevel Wheel.....	4	50 76 Outside Shoe.....
54	Internal Gear.....	3	00 77 Lifting Chain.....
	External Gear for Impr'd Mower,	3	00 78 Gag Iron.....
55	Leading Wheel.....	1	75 79 Lever Axle, Iron.....
56	Roll for Leading Wheel.....	30	80 Long Brace.....
57	Right Hand Ratchet.....	1	00 81 Short Brace.....
58	Left Hand Ratchet.....	1	00 82 Front Hanger and Cap.....
59	Crank Balance Complete.....	2	50 83 Cross Hanger and Boxes.....
60	Lever Ratchet.....	1	00 Back Hanger for Imp. (without caps)
61	Composition Box.....	1	00 84 Inside Shoe.....
62	Gear Shifter Axle.....	25	86 Spring Key for Eye of Scythe.....
63	Gear Shifter Guide.....	15	87 Box rear end, short shaft.....
64	Gear Shifter Handle.....	50	88 Socket Wrench.....
65	Gear Shifter Clutch.....	50	89 Cap for Cross Hanger.....
66	Gear Shifter Button.....	10	90 Pole Socket.....
67	Finger Plate.....	15	91 Complete Scythe.....
68	Guard Finger.....	50	92 Crank Fender.....
69	Finger Bolt.....	10	93 Right hand Pawl Spring.....
70	Connecting Rod, without boxes...	2	50 94 Left hand Pawl Spring.....
71	Wrought Hinge Joint.....	4	50 95 Linch Pin.....
72	Main Seat Spring.....	3	00 96 Axle Washer.....
73	Back Seat Spring.....	75	97 Blank Section.....
	Front Hanger, (no cap).....	3	25 98 Knife Section.....
	Spiral Spring.....	20	Outside Shoe Spring.....
	Front Hanger Cap.....	75	Track Clearer Bolt.....
			Crank Fender Bolt.....

In ordering the following parts, it will be necessary to mention whether they are intended for the Right or Left Hand Side of the Machine.

No. 20, Driving Wheel. No. 24, Ratchet Wheel. No. 35, Pawl Spring.

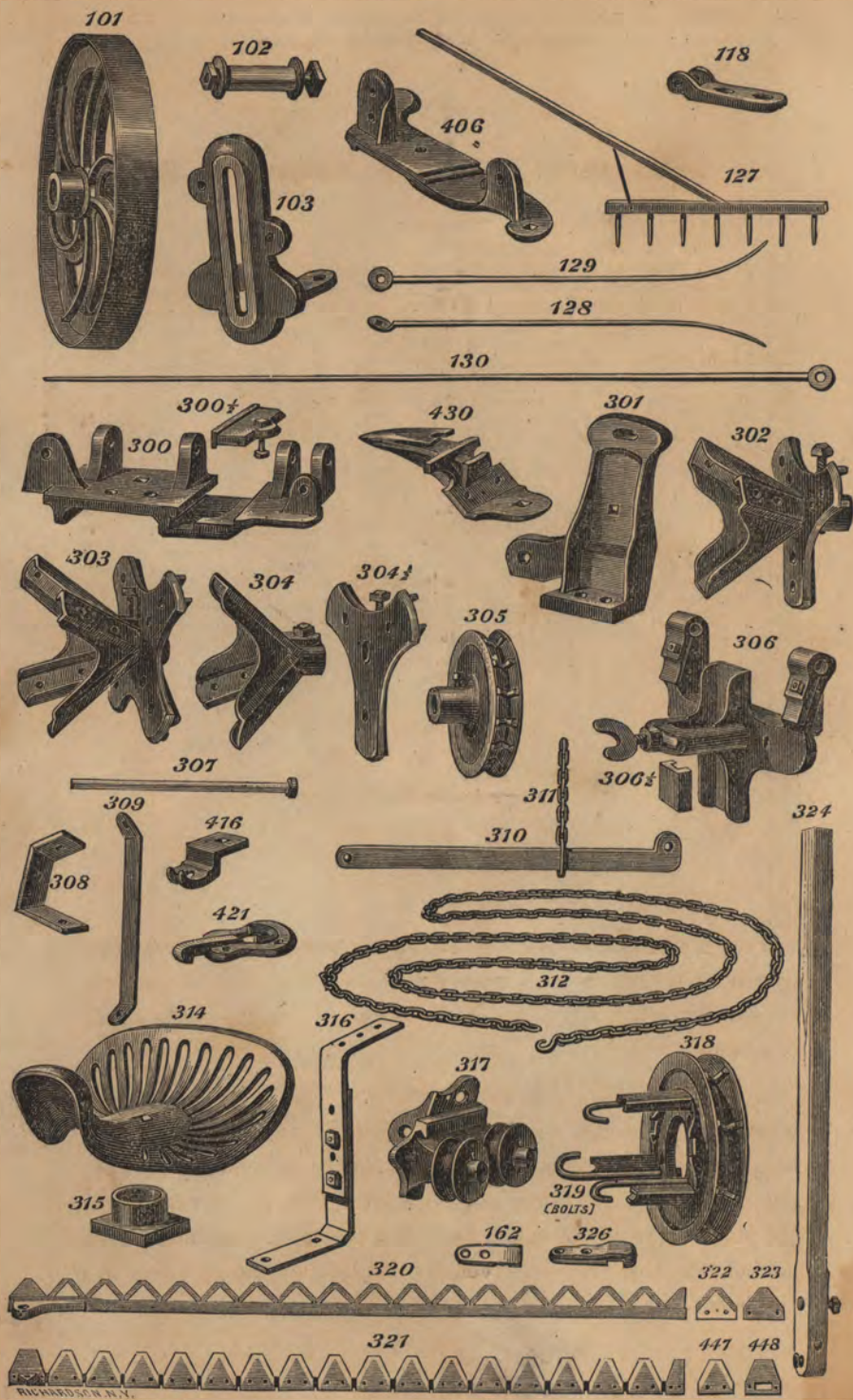
It is necessary, in all cases, when ordering extra parts, to give the Number of the Machine, and the year of its Purchase.



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Cut of Parts of No. 1, Mower.

ON THE ROAD.





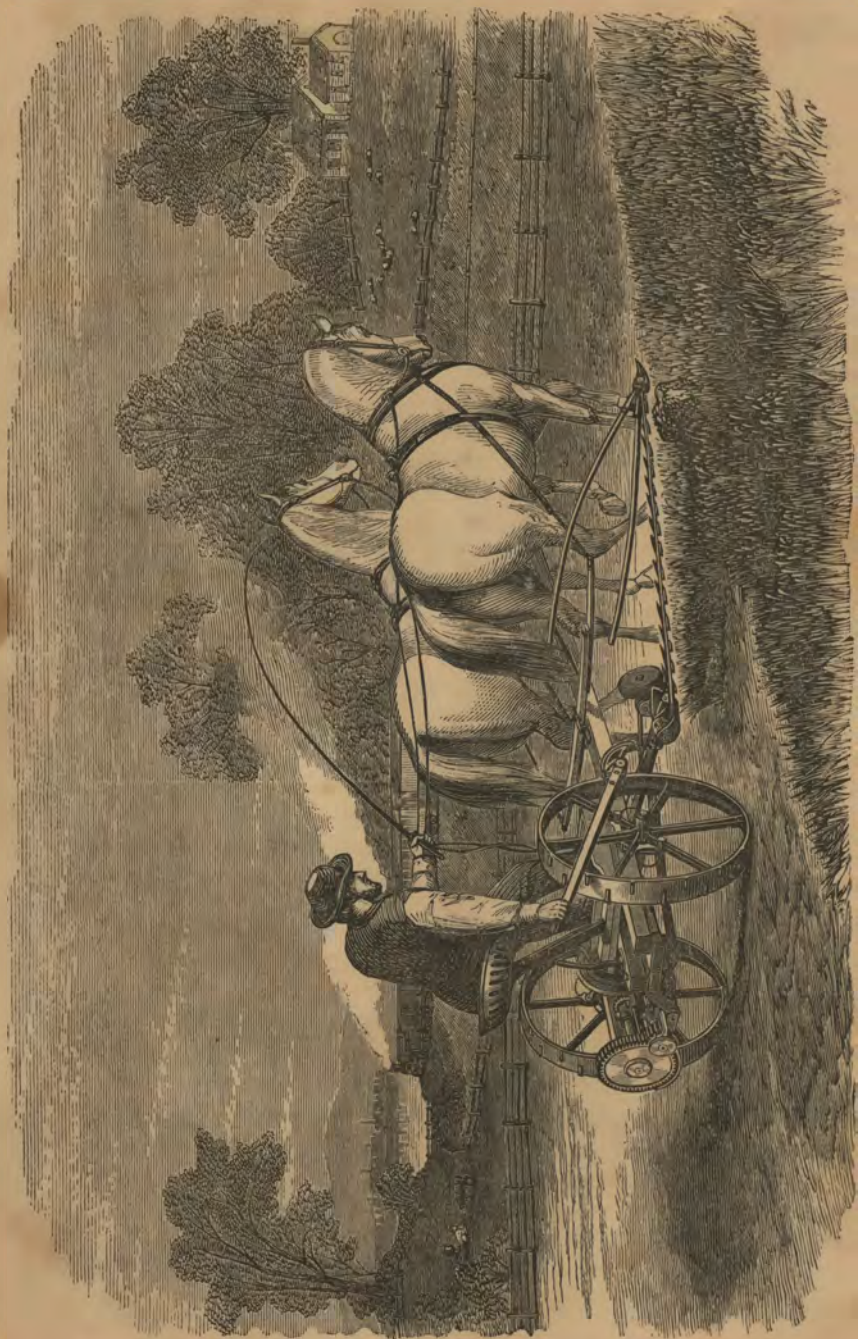
Extra Parts of No. 2 Reaper.

Extra Parts of Buckeye Reaper No. 2.

101 Outside Wheel	\$3 00	309 Brace for do.....	25
102 Roll and Bolt for do.....	50	310 Back Brace.....	1 50
103 Support for Outside Wheel.....	1 00	311 Chain on do.....	50
118 Joint on Platform for Brace.....	30	312 Reel Chain.....	2 00
127 Rake.....	1 00	314 Raker's Seat.....	1 50
128 Inside Divider Rod.....	40	315 " Socket.....	30
129 Outside " (Short,).....	40	316 " Spring.....	2 50
130 " " (Long,).....	50	317 Chain Tightener.....	2 00
162 Scythe Button.....	10	318 Driving Sheave.....	1 50
300 Inside Shoe.....	2 00	319 Hook Bolts for do., each.....	75
300½ Plate for Inside Shoe.....	15	321 Scythe.....	6 00
301 Casting on In. Sh. for Reel Post, 1	25	324 Reel Post.....	75
302 Reel Hub, (3 Arm,).....	1 50	326 Sickle Button.....	10
303 " (4 Arm,).....	1 50	406 Outside Shoe.....	1 50
304 " (3 Arm, without plate, 1	25	416 Claw on Back Timber.....	25
304½ Plate for do.....	50	421 " Front ".....	25
305 Reel Sheave.....	75	430 Guard Finger.....	30
306 Reel Journal.....	2 00	447 Scythe Section.....	20
306½ Clamp for Reel Journal.....	10	448 " " Blank.....	20
307 Reel Shaft.....	2 00	Wood Parts of Reel.....	2 00
308 Angle Iron under Wing Board,...	30		

THE BUCKEYE MOWER AND REAPER is warranted to cut grass or grain equal to the best work with scythe or cradle, at the rate of one acre per hour, or ten to fifteen acres per day, with a pair of horses.

Every purchaser is allowed to cut two acres of grass or grain on trial; and in case anything proves defective, due notice must be given us or our agents, and time allowed to send a person to put it in order. If it does not work after this, and the fault is in the Machine, it will be taken back and the money refunded, or a perfect Machine will be given in its place, at the option of the purchaser.



CUTTERS RAISED TO PASS OVER A STUMP.

DIRECTIONS

—FOR—

Attaching the Reaper to No. 2 Machine.

1st. Detach the Mower Bar from the Machine. Bolt on the Sheave Wheel with the three hooked bolts, passing around the spokes of driving wheel. Take off the lever axle and bolt on the long Claw in its place.

2d. Bolt casting for reel post to inside shoe, and bolt the inner dividing board to the platform and inside shoe.

3d. Attach the reaper bar to the machine in the same manner as the mower bar.—Screw the set screw tightly down on the bolt. Bolt the reel post (at the lower end of which is attached the two small sheaves,) to flat side of casting on inside shoe.

4th. Slide the sickle knife into to the guards,—hook the lifting chain into the Claw on front timber,—bolt the curved end of the *rear brace* to the back hanger casting of Machine, and the outer end of rear brace to hinge casting on rear of the platform,—hook the chain on back brace to claw on back timber.

5th. Put on the outside wheel, with short side of the hub next the platform. The height of cut can be varied as desired by raising or lowering the chains and setting the outside wheel at a corresponding height.

6th. Slip the reel journal on to the reel post (facing outward,) and fasten it by the thumb screw at the back, fitting the small, flat casting between the screw and post.—Slide the reel shaft into the reel journal,—the reel sheave is fitted on shaft with hub turned toward reel post, so as to be in a direct line with sheave on axle of the machine. The reel hub is fastened to the opposite end of reel shaft by a set screw.

7th. Put the reel together.—The main arms radiate from the reel hub, and the slats bolt on to the outer ends of the main arms.

8th. Put on the reel chain, passing it around the large sheave on the driving wheel, then forward to the small sheaves on the bottom of reel post, where the upper side of chain passes *under* the upper sheave, and the lower side of chain under lower sheave, then carry chain up and around large sheave on reel shaft.

9th. Take off the driver's seat spring, and bolt it on the back part of left hand timber of machine, by the front bolt of back hanger.

10th. Attach the extra piece to the end of the pole—attach the whiffletrees to the two forward holes in the pole. They may be put either on the upper or lower side.

The two short iron rods are to be bolted to the inside of each of the dividing boards, and the long one to the *OUTER* side of the outside dividing board.

The raker's seat is placed over the driving wheel next to the platform, by bolting the spring to the two right hand timbers of the machine by means of the two rear bolts which hold the axle boxes.



ON THE ROAD.