

Buckeye Mower & Reaper,



MANUFACTURED BY
The
BUCKEYE MOWING MACHINE CO.
WEST FITCHBURG,
MASS.

Capin del.

Richardson sculp.

Parker, Gannett & Osgood, Ag'ts
Boston, Mass.

DIRECTIONS

FOR

Putting up and Using the Buckeye Mower.

Keep the Knives Sharp and the Bearings Well Oiled.

- 1st. Put in the Pole.
- 2d. 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.
- 3d. Slide the Knife in the Guards as far as possible, and raise the outer end of bar till you can enter the connection into the eye of the scythe.
- 4th. 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.
- 5th. Put Lamp-Wicking in the Oil-Cups, and use best sperm, lard, or machinery oil. DO NOT 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. 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 bolt 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 side, 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 dust from getting on the axle.

THE GREAT NATIONAL FIELD TRIAL

Of Mowers and Reapers.



An appropriation of \$5000 was made by the New York State Legislature for the purpose of practically testing Mowers and other farming implements, and the supervision intrusted to the State Agricultural Society. The trial of Mowers and Reapers took place at Auburn, N. Y., in July, 1866, and was the most extensive and thorough ever held in the country. Fifty-nine machines were entered for competition, and over two weeks were occupied in the numerous severe tests to which they were subjected.

The committee of eleven judges, comprising practical and scientific agriculturists and machinists, awarded the **FIRST PREMIUM GRAND GOLD MEDAL** in the **FIRST CLASS** to the **BUCKEYE MOWER**, for **SUPERIORITY** over all competitors in perfection of work in all kinds of grass, and on every variety of surface, lightness of draught, ease of management, perfection of mechanical construction, simplicity, strength and durability.

The following is an extract from the Official Report.

CLASS 1.—“ Starting with the swaths in the Monson meadow, there are three which were clearly prominent, namely, Buckeye, entry No. 10 ; R. I. Clipper No. 18 ; and Wood's Mower, No. 8.

The cutting of all these machines was nearly all that could be desired, and all were marked by the judges with the number 40, which denoted perfection of work, and they were the only ones thus marked.

Examining the record of these three Mowers in the clover lots, we find the following marks indicating quality of work :

BUCKEYE, entry No. 10, was marked (40.)

R. I. CLIPPER, entry No. 18, was marked (32.)

WOOD'S MOWER, entry No. 8, was marked (29.)

Thus the *Clipper* appears on the record *very inferior to the Buckeye as a mower of clover*, and *Wood's* was *inferior to the Clipper*, though in a less degree ; and as the *Buckeye* is the *only machine* which made *perfect work on both fields*, we are constrained to give the preference to the *Buckeye*, No. 10, for *quality of work*.

Considered with reference to ease of draught, we find the following record :

	IN REED'S LOT.	IN WOOD' LOT.
BUCKEYE, No. 10,.....	180.56 lbs.	227.13 lbs
R. I. CLIPPER, No. 18,.....	199 00 “	236.22 “
WOOD'S MOWER, No. 8,...	186.74 “	257.62 “

Considered with reference to *durability*, one of the most common ways in which mowing machines are broken is by the sudden arrest of their motion by running against a stump or stone. It is therefore of importance in determining this question to study the different modes of resisting this shock.

On comparing these arrangements for resisting the shock of a sudden arrest of the motion of the knife, we are of opinion that those adopted by the *Buckeye* are the best, and that this machine is *less liable to injury* from such an accident than *either* of the others. We think, too, that Mr. *Wood's* very quick motion will cause his machine to *wear out sooner* than the other two.

The *drive-wheels* of the *Clipper* are made by casting a rim and hub on wrought-iron spokes. This has been frequently attempted before, but hitherto *without success in insuring permanency*. The proprietors claim that they have adopted new methods by which the wheel will remain firm and solid. It may be so, but in our judgment the wheels of the *Buckeye* are more reliable, and may be expected to *outlast considerably* those of the *Clipper*.

We think that the *Buckeye* is the most desirable for another reason. It is well known that bevel gearing is not as accurately made as spur gearing ; hence spur gearing is universally preferred for high speeds, as they work more

smoothly, with less wear, less vibration, and less tendency to mutual displacement. The *Buckeye* takes a judicious advantage of this principle, and gets up the slow or first motion with bevel gearing, and the second fast motion with spurs. For these reasons WE AWARD THE VERDICT OF GREATEST DURABILITY TO THE BUCKEYE.

Buckeye's record for side-draught was 2½ lbs., Clipper's was 5 lbs., and Wood's 6 lbs. The *Buckeye* therefore, has the preference in *side-draught*.

The *Buckeye*, when moving from place to place, loads its bar completely over on to the frame, while on the others it remains vertically on the side of the frame. This, we think, constitutes a strong claim to commendation on the score of *portability*.

The horizontal folding of the finger-bar gives the *Buckeye* the preference for *facility of management*.

It follows clearly from this, that the *Buckeye* excels in the greatest number of *points*. We may possibly err in our judgment on the question of durability, but in relation to the other points *there can be no question whatever*, and we therefore award the *Gold Medal* in the first class to the BUCKEYE MOWER.

Comments of the Judges on the Buckeye Mower.

The record of the *Buckeye* is interesting, in view of the fact that it was the pioneer in the path of the great improvements which have popularized mowing machines and made them an *absolute necessity to every farmer*. It took the First Prize at the Great National Trial of Mowers and Reapers at Syracuse, in 1857, and at once sprang into a great popularity.

The result of this trial clearly shows that it *still keeps the forward rank* which it won at Syracuse, and at many other subsequent trials and that it is *still as worthy of the patronage and confidence of the public as it has been in any preceding portion of its history*.

IMPROVEMENTS.

The ten years which the *Buckeye* has been in the market have not only demonstrated the correctness and perfection of the principles upon which it is constructed, but the immense number of machines manufactured *and sold all over the country* has enabled the manufacturers to perfect the details of the Machine in a manner which is impossible where machines are built in small numbers and sold only in limited localities.

The Machines we are building for the harvest of 1867, combine all of those features which have given the *Buckeye* its great reputation, *together with a number of new and valuable improvements*.

During the summer of 1866 we built some Machines from ENTIRELY NEW PATTERNS and PUT THEM IN USE on the farms of the following named

persons, viz: COL. DAVID MOSELY, WESTFIELD; SAM'L PARSONS & SONS, NORTHAMPTON; J. E. WIGHT, HATFIELD; H. L. THAYER, So. DEERFIELD, AND W. W. SMITH, AMHERST, MASS., and all agree in saying they were very much superior to any Machines they had ever used or seen; nearly all these parties had used other machines before the Buckeye was invented, and have also used all the different sizes and patterns of the Buckeye.

Among the improvements are NEW STYLE INSIDE SHOE, SCYTHE AND CONNECTION, doing away with SPRING KEYS FOR FASTENING CONNECTION TO THE SCYTHE, NEW RATCHET LEVER FOR RAISING FINGER BAR, NEW GEARING THROUGHOUT, NARROWER SECTIONS, INCREASE OF SPEED, AND NEW SHIPPER FOR THROWING OUT OF GEAR.

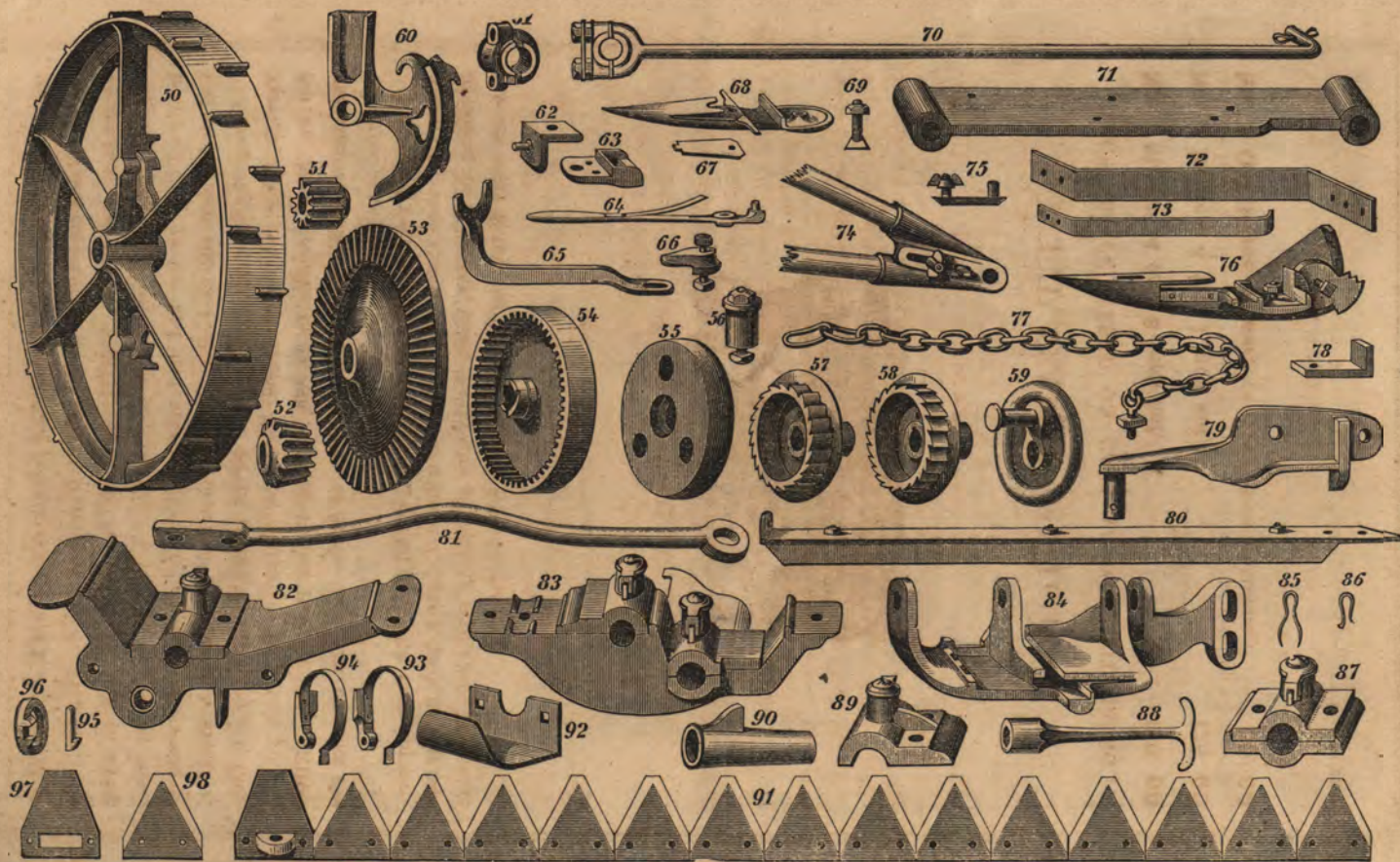
Nos. 2 and 3 machines for harvest of 1867, are all built with these improvements. By these changes we secure a smoother cut, lighter draft, greater ease in raising the finger-bar, lessen the liability of breaking scythe rods and make it much easier to take out and replace parts when necessary.



NET CASH PRICES.

(MACHINES DELIVERED ON CARS AT WEST FITCHBURG.)

No. 1 Mower, 4 feet 8 inch cut,	-	-	-	\$150 00
No. 2 Mower, 4 feet 1 inch cut,	-	-	-	125 00
No. 3 One Horse Mower, (entirely new patterns,)	-	-	-	115 00



DRAWN BY WILSON.

Cut of Parts of No. 2 Mower.

Price List of Extras No. 1 Mower, 1867.

No.		No.	
00.	Spring Key for Brace Bolt.....\$ 05	18.	Main Seat Spring..... 3 50
0.	Spring Key for Eye of Scythe..... 05	19.	Spur Pinion..... 1 50
1.	Connecting Rod..... 2 50	20.	Driving Wheel..... 8 00
2.	Roll for Leading Wheel..... 40	21.	Bevel Pinion..... 1 00
3.	Composition Box..... 1 25	22.	Bevel Wheel..... 5 50
	Chilled Box..... 35	23.	Spur Wheel..... 3 50
4.	Spring Gib..... 15		Ratchet Wheel, plain..... 1 50
5.	Ratchet Key..... 15	24.	Ratchet Wheel, with Sheave..... 2 00
6.	Inside Shoe..... 3 00	25.	Leading Wheel..... 1 75
7.	Outside Shoe..... 2 50	26.	Crank Balance and Pin..... 2 50
	Outside Shoe Spring..... 1 00	27.	Gag for raising Bar..... 75
8.	Guard Finger..... 50	28.	Front Hanger and Cap..... 6 00
9.	Iron Seat..... 2 00	29.	Track-Clearer Iron..... 1 00
10.	Wrought Hinge Joint..... 4 00	30.	Long Brace..... 2 00
11.	Cross Hanger and Box..... 2 25	31.	Short Brace..... 2 00
12.	Crank Fender..... 80	32.	Track Clearer Wedge..... 05
13.	Lever Axle..... 1 00	33.	Knife Section..... 25
14.	Box rear end of Crank Shaft..... 1 50	34.	Complete Scythe..... 7 00
	Cap rear end of Crank Shaft..... 75	35.	Pawl Spring..... 50
15.	Box rear end of Short Shaft..... 1 50		Pole..... 3 00
16.	Lever Ratchet..... 1 00		Section Rivets, per lb..... 40
17.	Back Seat Spring..... 1 00		Finger Rivets, per lb..... 30
	Brace Hanger..... 1 00		Track Clearer Slide..... 25
	Double Washer for Connet'g Rod..... 10		Scythe Button..... 10
	Crank Pin..... 75		Fender for Spur Wheel..... 75
	Back Hanger..... 1 00		Fender for Bevel Pinion..... 30
	Shipper Handle..... 40		Scythe Head..... 1 00
	Shipper Standard, with Spring... 50		Track Clearer Sticks..... 20
	Shipper Clutch..... 50		

Price List of Extras No. 2 Mower, 1867.

No.		No.	
50.	Main Driving Wheel..... 7 00	74.	Track Clearer Iron and Slide.... 1 25
51.	Spur Pinion..... 75	75.	Track Clearer Slide..... 25
52.	Bevel Pinion..... 75	76.	Outside Shoe..... 2 25
53.	Bevel Wheel..... 4 50	77.	Lifting Chain..... 1 00
54.	Internal Gear..... 3 00	78.	Gag Iron..... 50
55.	Leading Wheel..... 1 50	79.	Lever Axle Iron (old style)..... 1 00
56.	Roll for Leading Wheel..... 30	80.	Long Brace..... 2 00
57.	Right hand Ratchet..... 1 25	81.	Short Brace..... 2 00
58.	Left Hand Ratchet..... 1 25	82.	Front Hanger and Cap..... 4 00
59.	Crank Balance complete..... 2 50	83.	Cross Hanger and Boxes complete 4 00
60.	Lever Ratchet..... 1 00	84.	Inside Shoe..... 2 75
61.	Composition Box..... 1 25	85.	Spring Key..... 05
	Chilled Box..... 35	86.	Spring Key for Eye of Scythe.... 05
62.	Gear Shifter Axle..... 25	87.	Box at rear end of Short Shaft... 1 50
63.	" " Guide..... 15	88.	Socket Wrench..... 35
64.	" " Handle..... 50	89.	Cap for Cross Hanger..... 1 00
65.	" " Clutch..... 50	90.	Pole Socket..... 50
66.	" " Button..... 10	91.	Complete Scythe..... 6 50
67.	Finger Plate..... 15	92.	Crank Fender..... 75
68.	Guard Finger..... 50	93.	Right Hand Pawl Spring..... 50
69.	Finger Bolt..... 10	94.	Left Hand Pawl Spring..... 50
70.	Connecting Rod..... 2 50	95.	Linchpin..... 05
71.	Wrought Hinge Joint..... 4 50	96.	Axle Washer..... 05
72.	Main Seat Spring..... 3 00	97.	Blank Section..... 25
73.	Back Seat Spring..... 1 00	98.	Knife Section..... 25
	Front Hanger, no Cap..... 2 75		Outside Shoe Spring..... 1 00
	Spiral Spring..... 20		Track Clear Bolt..... 12
	Front Hanger Cap..... 75		Crank Fender Bolt..... 10
	Lever Handle..... 50		

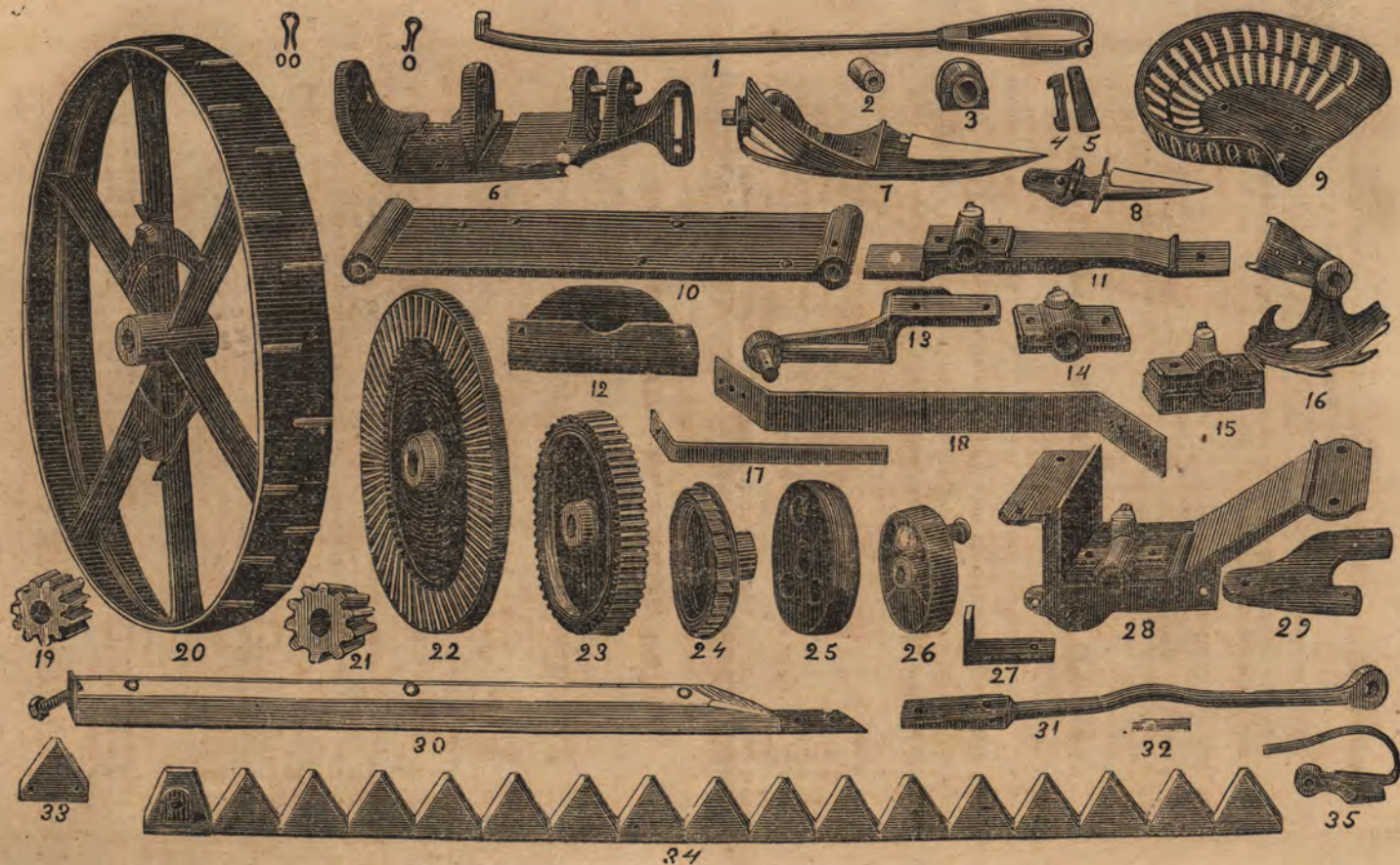
In ordering the following parts, it will be necessary to mention whether they are intended for the RIGHT OR LEFT SIDE OF THE MACHINE:

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.



Cut of Parts of No. 1 Mower.

THE BUCKEYE MOWER AND REAPER.
AMERICAN INSTITUTE FIELD TRIAL.

NEW-YORK, May, 15, 1866.

The Report of the Judges at the GREAT FIELD TRIAL OF THE AMERICAN INSTITUTE, held at Hunt's Bridge, Westchester County, New-York, July 25th and 26th, 1865, was made to the Officers of the Institute last fall. The following extracts were made by me from the Official Report of the trial in possession of the American Institute.

S. EDWARDS TODD,

Agricultural Editor of the N. Y. Times, Chairman of Committee.

TEST OF DRAUGHT WITH DYNAMOMETER.

Cutting Swath 14½ Rods long in Heavy Natural Bottom Grass, in a Meadow which had been Overflowed within a Week.

Name of Machine.	Length of Cut.	Height of Stubble.	Time.	Draught.
Buckeye,.....	4 ft. 8 inch.	1½ Inches.	60 Seconds.	250 lbs
Clipper,.....	4 " 6 "	2 "	62 "	270 "
Hubbard,.....	4 " 6 "	1½ "	62 "	290 "
Monitor,.....	4 " 9 "	1¾ "	59½ "	305 "
Union,.....	4 " 6 "	1½ "	67 "	325 "

The time was measured by a stop-watch, with the greatest possible accuracy. The grass was hard to cut, which accounts for the draught of all the machines being greater than usual; on a smooth meadow the draught would have been much less.

COMPARATIVE EXCELLENCE OF MACHINES,

As shown in test of Cutting round a Field of Heavy Flowed Bottom Grass.

BUCKEYE ranked No. 1.

MONITOR ranked No. 3.

HUBBARD ranked No. 2.

UNION ranked No. 4.

CLIPPER ranked No. 5.

And the Buckeye was awarded the Society's *Gold Medal* as the *Best Mower* at their exhibition in the Fall.



THE BAY STATE HORSE RAKE.

Price, delivered on cars at Wets Fitchburg, \$45.00.

THIS RAKE, invented by S. R. NYE, of Barre, Mass., was first brought before the public in the summer of 1865, at Barre, and tested by a number of the most prominent farmers of that and the surrounding towns; all of whom gave it their unqualified approval.

IT WAS EXHIBITED AND TOOK THE FIRST PREMIUM

At the Second Fair of the N. E. Agricultural Society, at Concord, N. H.,
The Mechanics Fair in Boston, (was also awarded a Medal and Diploma,)

At Worcester County, at Worcester,

At Worcester County North, at Fitchburg,

At Worcester County West, at Barre,

And at Keene N. H. Fairs.

It Combines more good Features than any Rake in Existence.

It is independent in its action, each tooth operating ENTIRELY INDEPENDENT of the others when PASSING AN OBSTRUCTION.

Of light draft, having high wheels.

Easy for the driver to ride on.

Is operated ENTIRELY BY THE FOOT, and is raised by a gear on the wheel.

It requires only the pressure of a few pounds to throw it into gear, thus bringing it as completely under the control of a lad of a dozen years, as of a man that is worth three dollars per day.

The teeth are NOT COILED as in all OTHER WIRE TOOTH RAKES; but are HINGED to the axle (which entirely removes all danger of breaking the coil) and held down by spiral springs as shown in the cut.

In case of the breakage of a tooth from any cause, it can be removed and another inserted, and that simply by taking off and replacing *one nut, without moving or interfering with any other tooth.*



Cutting out a Ditch.