No. 622,553.

Patented Apr. 4, 1899.

R. M. SLATON.

ROTARY DISK CULTIVATOR.

(Application filed Oct. 13, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

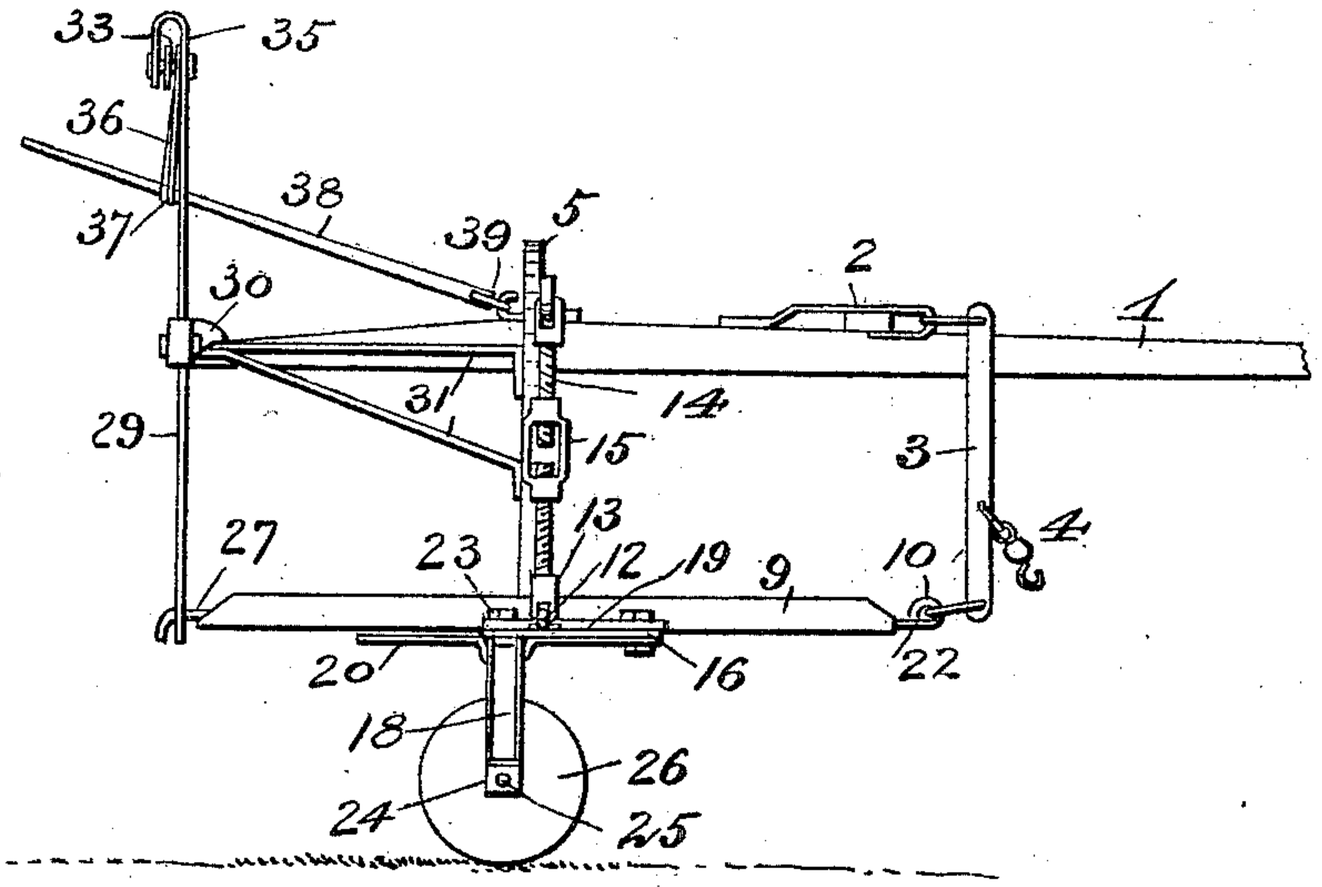
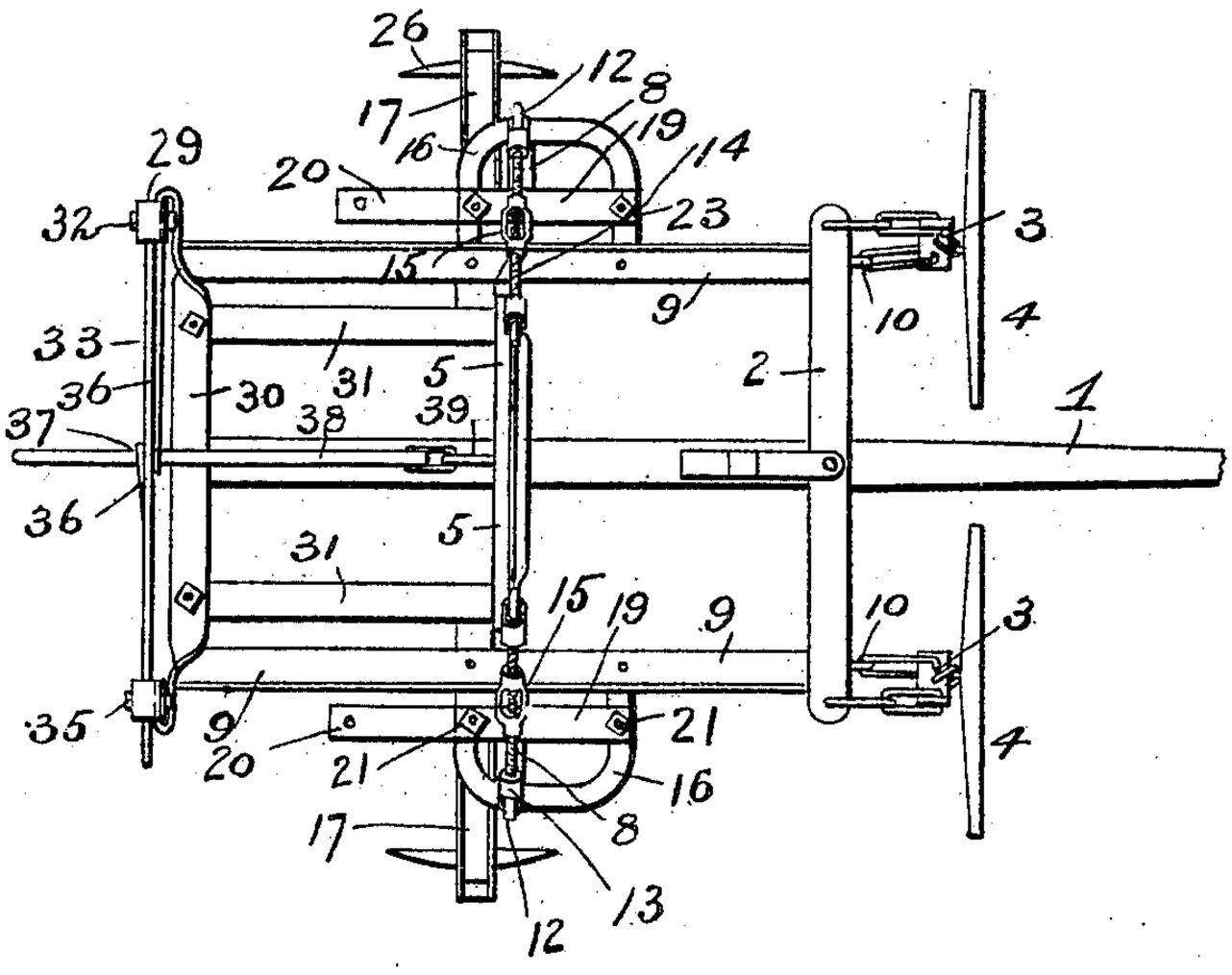


Fig. 3.



Witnesses:
Franck L. Durand.
Jos. L. Coombs

Inventor:
Robert M. Slaton,
by Lacy Bagger & Co.
Attorneys.

No. 622,553. Patented Apr. 4, 1899.

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(No Model.) 2 Sheets—Sheet 2.

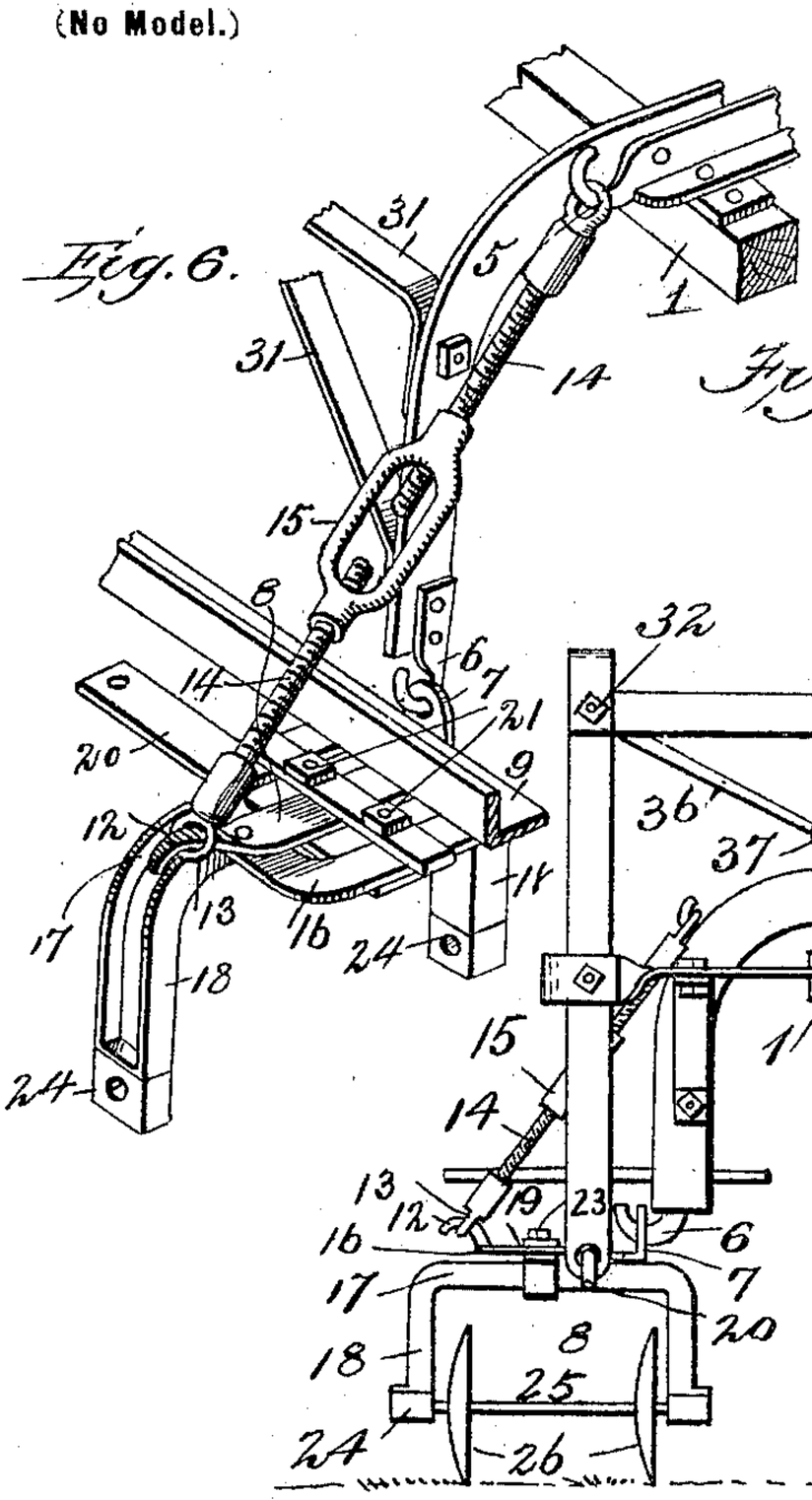

Fig. 6.

Fig. 2.

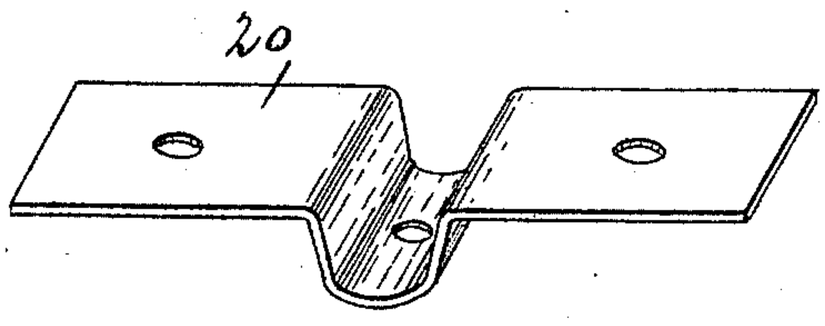

Fig. 4.

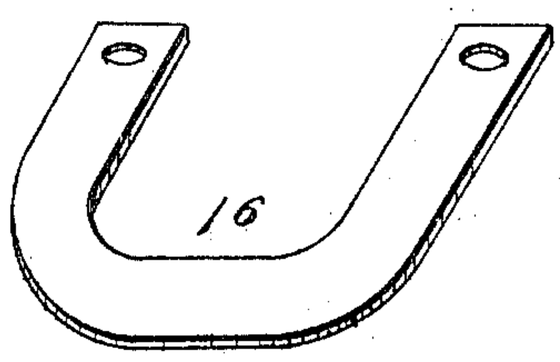

Fig. 5.

Witnesses:
F. L. Ourand
Jos. L. Coombs

Inventor:
Robert M. Slaton,
by Louis Bagger & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

ROBERT M. SLATON, OF MADISONVILLE, KENTUCKY.

ROTARY-DISK CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 622,553, dated April 4, 1899.

Application filed October 13, 1898. Serial No. 693,389. (No model.)

To all whom it may concern:

Be it known that I, ROBERT M. SLATON, a citizen of the United States, residing at Madisonville, in the county of Hopkins and State of Kentucky, have invented new and useful Improvements in Rotary-Disk Cultivators, of which the following is a specification.

My invention relates to rotary-disk cultivators; and its object is to provide an improved construction of the same which shall be cheap, durable, and efficient in use and by which also the angle of the disks can be regulated while the machine is at work and without stopping the same.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a cultivator constructed in accordance with my invention. Fig. 2 is a rear view of the same. Fig. 3 is a plan view. Figs. 4 and 5 are detail views. Fig. 6 is a detail perspective view.

In the said drawings, the reference-numeral 1 designates the tongue of the apparatus, provided with a whiffletree 2, to the ends of which are pivotally connected vertical trees 3, the lower ends of which are connected with angle-bars, hereinafter described. Connected to these trees 3 are singletrees 4, with which the draft-animals are connected. Secured to said tongue is an arch 5, provided with hooks 6 at the lower ends, with which are connected lugs 7 at the inner ends of bars 8. These bars are secured to longitudinal angle-bars 9, to the front ends of which are stay-bars 22, formed with eyes 10, with which the lower ends of trees 3 engage. The outer ends of bars 8 are formed with hooks 12, which engage with eyes 13 at the lower ends of brace-rods 14, connected with arch 5. These brace-rods are provided with screw-swivels 15 for adjusting the disks 26 to regulate the distance therebetween. Secured to bars 8 are U-shaped plates 16, the ends of which are also secured to angle-bars 9. Located underneath said plates are channel-bars 17, having their ends curved downwardly, forming legs 18 and are clamped to plates 16 by bars 19 and 20, provided with screw-bolts 21 and nuts 23. The bars 20 are formed with a central depression in which said U-shaped bars are seated. By loosening said bolts the said channel-bars 17 may be adjusted laterally. To the feet on the lower ends of the legs 18 are secured bearing-blocks 24, in which are journaled rotatable shafts or axles 25, to which are secured the concavo-convex disks 26. The rear ends of angle-bars 9 are provided with hooks 27, which engage with holes 28 in lower ends of vertical bars 29, pivoted intermediate their ends to a cross-bar 30, secured to the rear end of the tongue and provided with brace-bars 31, secured to the arch. Pivoted to the bolt 32 at the upper end of one of the bars 29 is a transverse bar 33, provided with a series of notches 34, which engage with bolts 35 at the upper end of the other bar 29. By means of said notches and bolt the bar 33 may be adjusted to regulate the angle and work of the disks 26. Also pivotally connected with the bolts 32 and 35 are downwardly-extending bars 36, the inner ends of which are formed with eyes 37, through which passes a rearwardly-extending lever 38, partly connected with a hook 39, secured to the arch 5.

The apparatus may be provided with hoes or shovels or other cutting attachments instead of the disk attachments, if desired. However, the disk attachments alone are represented in the drawings.

In operation, the machine is drawn across the field, the disks straddling a row of plants and the disks cutting and turning a furrow at each side of the row. To change the angle of the disks so as to regulate the cut made thereby, the lever 38 is raised up or down, as the case may be, exerting through its connections a powerful influence on the disks or other cultivating attachments, that may be attached thereto. To guide the machine in its work, the lever 38 is moved to the right or left, as the case may be. The manipulating parts of the cultivator are all pivotally connected with each other and form a powerful combination-lever, and have the following-named parts: two horizontal bars 9, two vertical bars 29, one transverse bar 33, two inclined bars 36, and one hand-lever 38.

Having thus fully described my invention, what I claim is—

1. The combination with the tongue, the arch secured thereto having hooks at the lower ends, the whiffletrees secured to the tongue,

the vertical bars pivoted thereto, the single-trees, and the longitudinal angle-bars connected with said vertical bars, of the transverse plates secured thereto having lugs at the inner ends with which the hooks of the arch engage and provided with hooks at the outer end, the U-shaped channel-bars having downwardly-extending ends, the shafts or axles and concavo-convex disks, the longitudinal upper and lower plates, the lower one of which is formed with a central bend, in which said U-shaped channel-bars are seated, the bolts and nuts and the screw-rods and swivels connected with said transverse plates, substantially as described.

2. The combination with the tongue, the arch secured thereto having hooks at the lower ends, the whiffletrees secured to the tongue, the vertical bars pivoted thereto, the single-trees, the longitudinal angle-bars, the transverse plates secured thereto having lugs at the inner ends with which the hooks of the arch engage, the U-shaped channel-bars having downwardly-extending ends, the shafts or axles, the disks, the longitudinal plates the lower ones of which are formed with central depressions, the bolts and nuts and the screw-rods and swivels, of the vertical bars pivotally connected with the rear ends of said angle-bars, the bolts at the upper ends thereof, the pivoted transverse bar formed with notches, the inwardly-extending inclined bars and the lever connected therewith, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROBERT M. SLATON.

Witnesses:
J. R. MILLS,
D. I. GRADDY.