No. 843,102. PATENTED FEB. 5, 1907.

N. K. ROBERTSON & I. W. JONES.

COMBINED COTTON CHOPPER AND CULTIVATOR.

APPLICATION FILED SEPT. 17, 1906.

2 SHEETS—SHEET 1.

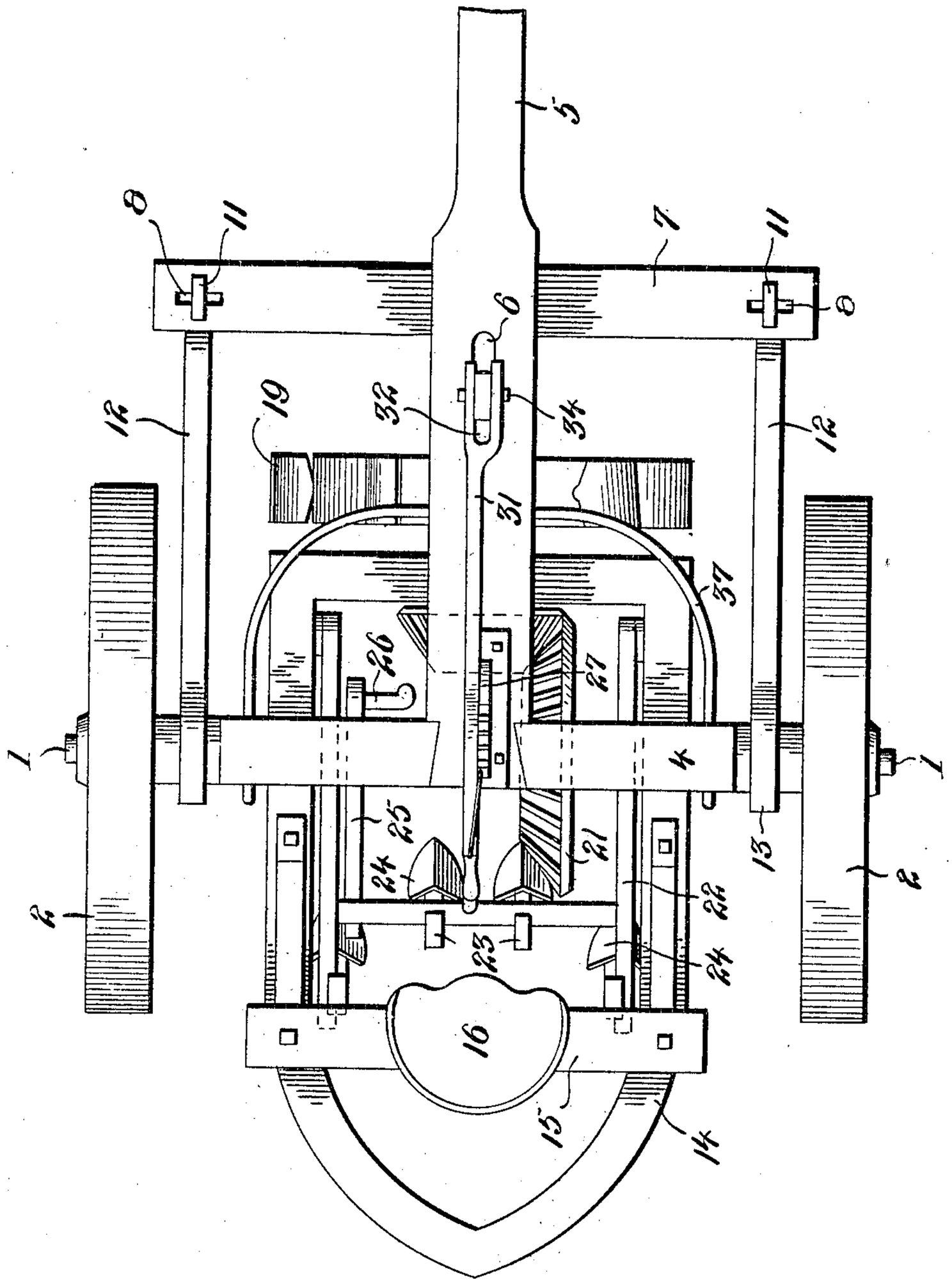

FIG. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

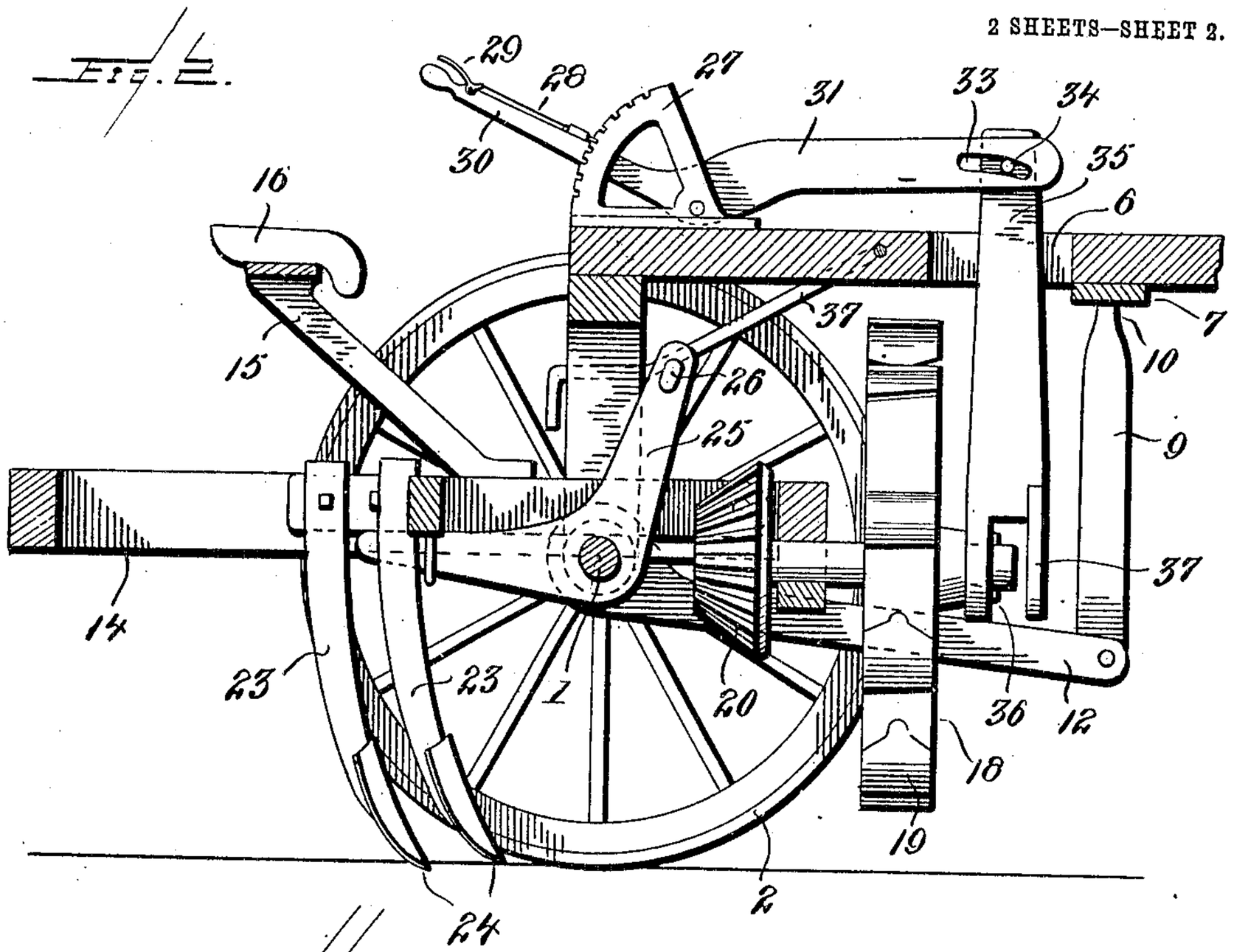
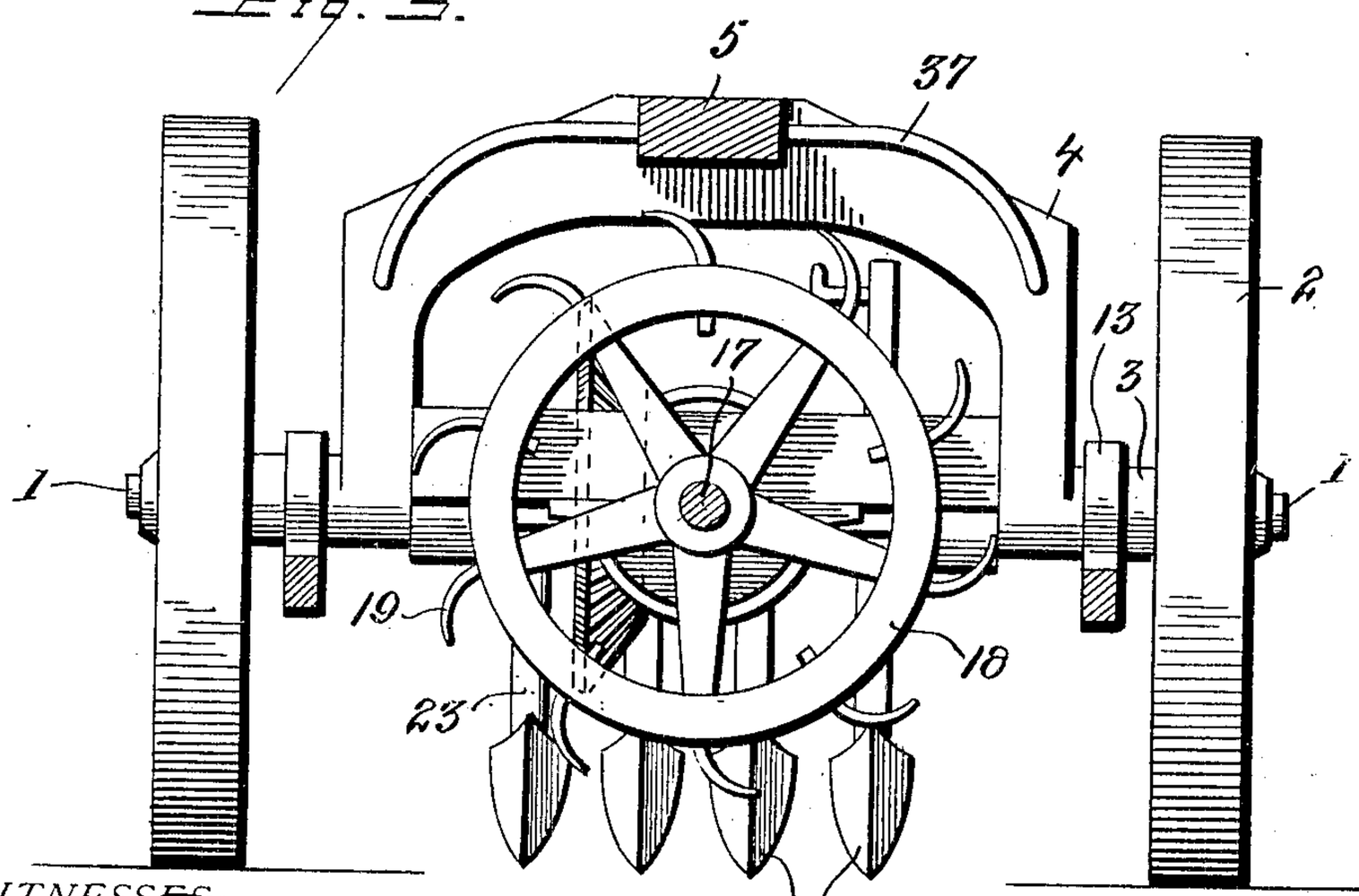


Fig. 3.



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UNITED STATES PATENT OFFICE.

NEWTON K. ROBERTSON AND ISAAC W. JONES, OF SIDNEY, TEXAS.

COMBINED COTTON CHOPPER AND CULTIVATOR.

No. 843,102. Specification of Letters Patent. Patented Feb. 5, 1907.

Application filed September 17, 1906. Serial No. 334,830.

To all whom it may concern:

Be it known that we, NEWTON K. ROBERTSON and ISAAC W. JONES, citizens of the United States, residing at Sidney, in the county of Comanche and State of Texas, have invented certain new and useful Improvements in a Combined Cotton Chopper and Cultivator, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to improvements in cotton choppers and cultivators, one of the objects being to provide a device of the character described by means of which as it is drawn through the field the cotton is chopped, and thereafter the earth is thrown back thereon.

A further object of the invention is to provide a sulky chopper and cultivator having means whereby the rider can easily raise or lower the chopping-wheel, and means for holding said wheel in raised or lowered position, and also means whereby said rider can readily raise or lower the cultivator-teeth.

Further objects and advantages of the invention, as well as the structural features by means of which they are obtained, will be made clear by an examination of the following specification, taken in connection with the accompanying drawings, in which—

Figure 1 is a top plan. Fig. 2 is a side elevation, partly in section; and Fig. 3 is a front elevation, partly in section.

Referring to the drawings, 1 designates an axle having thereon wheels 2, and pivotally mounted on said axle by means of collars 3, formed integral therewith, is an arched-shaped frame 4, in the top of which is dovetailed the rear end of a tongue 5, said tongue having an oblong slot 6 therethrough. Secured to the tongue is a cross-piece 7, provided at each end with rectangular slots 8, through which pass depending bars 9, the upper ends of said bars being cut away to form necks 10, and having enlarged heads 11, whereby they are held in place in said slots. Pivotally mounted on the lower ends of said bars 9 are parallel bars 12, extending rearwardly and having their rear ends 13 apertured to receive the collars 3, by means of which they are pivotally suspended. Upon the depending bars 9 and the rearwardly-projecting bars 12 may be adjustably mounted in the usual manner the draft connections to which the draft-animals are attached.

Within the arched frame 4 and pivotally mounted on the axle 1 is an oblong frame 14, having its rear end tapering to a point, and fixed on said frame is a seat support or frame 15, having a seat 16 for occupancy by the rider and operator. Rotatable in suitable bearings in the front cross-piece of said frame 14 is a shaft 17, on which is fixed a chopping-wheel 18, the periphery of said wheel being provided with curved hoes or chopping-blades 19, which are preferably removably mounted in order that they may be taken off and replaced when rendered inoperative by wear and for the purpose of repairing or sharpening same. The chopping hoes or blades 19 may be removably mounted in any suitable manner; but, as illustrated, they have their inner ends driven into the rim or periphery of the wheel 18. On the rear end of said shaft is fixed a gear-wheel 20, meshing with another gear 21, fixed on the axle 1 to rotate therewith, the two gears comprising a miter-gear. When the machine is in motion, the revolving of the axle sets the gears in motion, thereby revolving the shaft 17 and causing a corresponding revolution of the chopping-wheel, as will be obvious.

Pivoted at one end on the inside of the parallel longitudinal beams of the frame 14 is a frame 22, carrying depending arms 23, on the lower end of which are fixed the cultivator blades or shares 24. These shares may be fixed on said arms or removably secured thereto, as may be found most expedient or desirable.

Pivoted on the axle 1 is a lever 25, resembling a bell-crank lever, the rear arm of which extends under the rear part of the frame 22, and the forward arm, which projects upwardly, is provided with a foot-rest 26, whereby said lever is operated to raise the rear end of said frame 22 whenever the rider desires to raise the cultivator blades or shares 24.

Mounted on the rear end of the tongue 5 is a ratchet-segment 27, provided with a plurality of notches for the reception of a spring-actuated latch 28, connected with the ordinary latch-handle 29, the latch-handle being pivoted on a handle 30, which is formed integral with a longitudinally-extending lever 31, pivoted on said segment. The forward end of said lever is divided or forked, as at 32, and each fork-section has an arcuate slot 33. Pivotally mounted between the forked ends of said lever 31 by means of a pin 34, which travels in the arcuate slots 33, is a

vertical link-bar 35, which extends downwardly through the oblong opening 6 in the tongue. The lower end of this bar is cut away and provided with an opening, which serves as a bearing for the forward end of the shaft 17, said bar being held on said shaft by means of a pin 36 or by any other suitable means. Secured to the outer edge of the lower end of the said bar 35 is a shield 37, the object of which is to prevent the dirt from coming in contact with the forward end of said shaft and with said bearing. As a brace, and also for the purpose of securely connecting the tongue 5 with the arched frame 4, a curved rod 37 passes through said tongue, and has its ends secured to said frame 4.

In operation, when the rider desires to raise the chopping-wheel 18, so that the hoes or chopping-blades 19 will not contact the ground, he pulls the handle 30 toward the rear of the machine, and this has the effect of raising the forward end of the lever 31, which in turn raises the bar 35, thus elevating the shaft 17, on which the chopping-wheel is mounted. By operating the handle 29 the latch-bar may be raised or lowered. As this latch-bar is adapted to engage the notches on the ratchet-segment 27, said segment and the bar 28, comprising approximately a ratchet and pawl, the chopping-wheel may be held in any desired position, either raised or lowered, as will be apparent. By sliding the pin 34 in the slots 33 toward the rear of the machine the vertical movement of the other bar 35 is limited, and the wheel is held in more elevated position when the forward end of the lever 31 is lowered to its utmost extent.

From the foregoing it is thought that the construction, arrangement, and operation of our improved cotton chopper and cultivator will be obvious to those skilled in the art, and further explanation is not deemed necessary.

Having thus described our said invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a machine of the character described, a frame, an axle, supporting-wheels upon the latter, a second frame pivotally mounted upon said axle, a longitudinally-extending shaft journaled in bearings upon the front end of said pivotally-mounted frame, a pinion upon the rear end of said shaft, a gear upon said axle in mesh with said pinion, a rotary cutter upon the front portion of said shaft, a lever mounted upon the first-mentioned frame and formed with a segmental slot, means for locking said lever against movement, and a link having its lower end provided with a bearing for the front end of said shaft and its upper end provided with a pin to engage the slot in said lever, substantially as described.

2. In a machine of the character described, a frame, an axle, supporting-wheels upon the latter, a second frame pivotally mounted upon said axle, a longitudinally-extending shaft journaled in bearings upon the front end of said pivotally-mounted frame, a pinion upon the rear end of said shaft, a gear upon said axle in mesh with said pinion, a rotary cutter upon the front portion of said shaft, a lever mounted upon the first-mentioned frame, a link pivotally connected to said lever, a bearing upon the lower end of said link for the front end of said longitudinal shaft, and a guard upon the lower end of said link for said bearing, substantially as described.

3. In a machine of the character described, a vertically-disposed, arched frame having bearing-sleeves at its lower end, an axle rotatably mounted in said bearing-sleeves, wheels upon said axle, a tongue having its rear end secured upon the top of said arched frame, a cross-bar fixed upon said tongue and formed at its ends with longitudinally-extending slots, horizontal bars having their rear ends pivotally mounted upon said bearing-sleeves, and vertical, draft connection carrying-bars having their lower ends pivotally connected to the forward ends of said horizontal bars and their upper ends formed with cross-heads and reduced necks whereby they are detachably engaged with the slotted ends of said cross-bar, substantially as described.

4. In a machine of the character described, an arched, main frame, an axle mounted in the arched portion of said frame, a second frame pivotally mounted upon said axle, means for adjusting said second frame, a third frame pivotally connected to said second frame, said third frame being of substantially U shape and having a rear, cross-bar and parallel side bars, the latter having their forward ends pivoted to the second frame in advance of the axle, cultivators depending from the rear, cross-bar of said third frame, a bell-crank pivoted upon said axle and having one of its arms projecting beneath and adapted to engage said rear, cross-bar to raise and lower said third frame and a foot-piece upon the other arm of said bell-crank, substantially as described.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

NEWTON K. ROBERTSON.
ISAAC W. JONES.

Witnesses:
L. E. WEAVER,
J. A. STAILEY.