

No. 883,580.

PATENTED MAR. 31, 1908.

C. E. SMITH.
COTTON CHOPPER.

APPLICATION FILED SEPT. 4, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

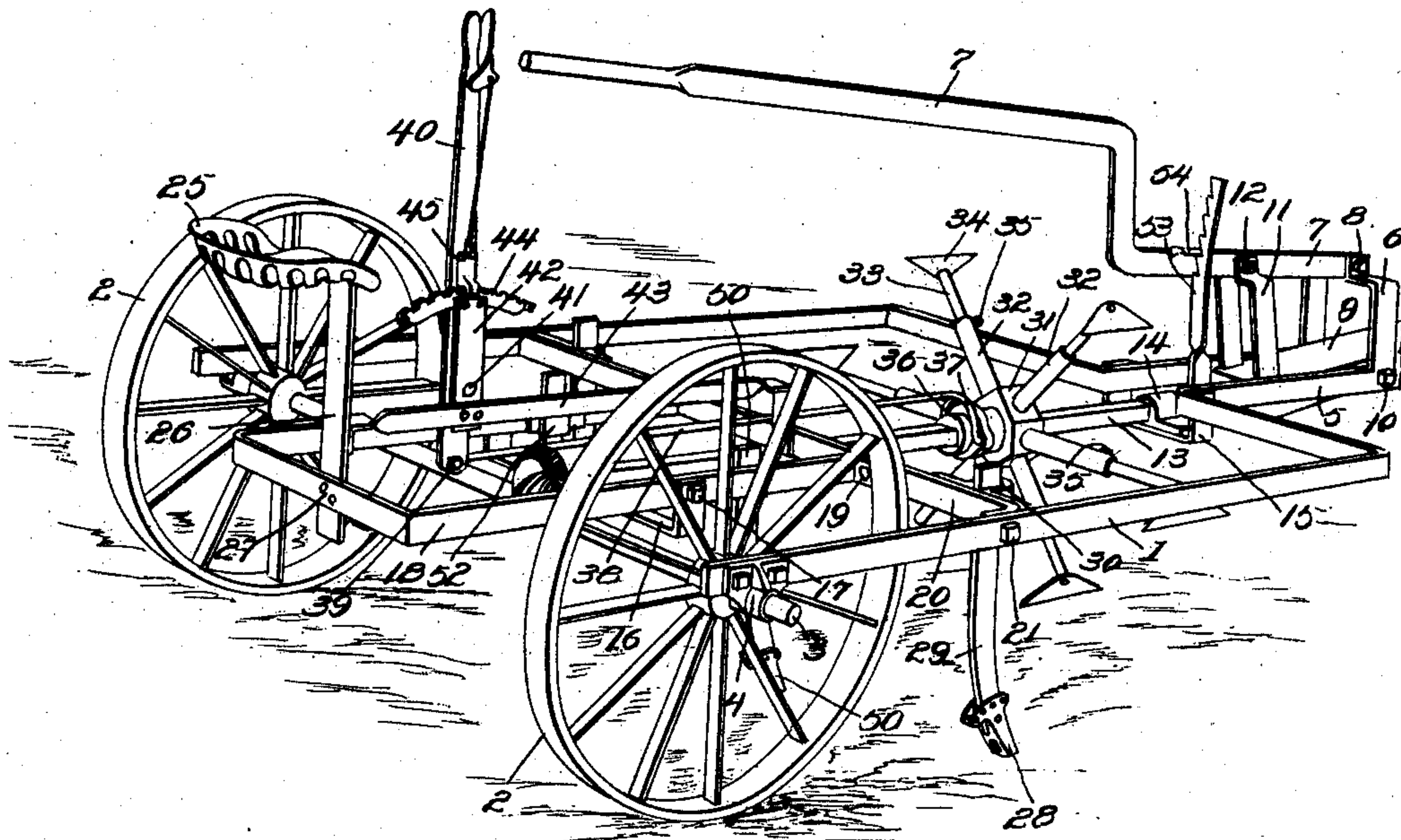
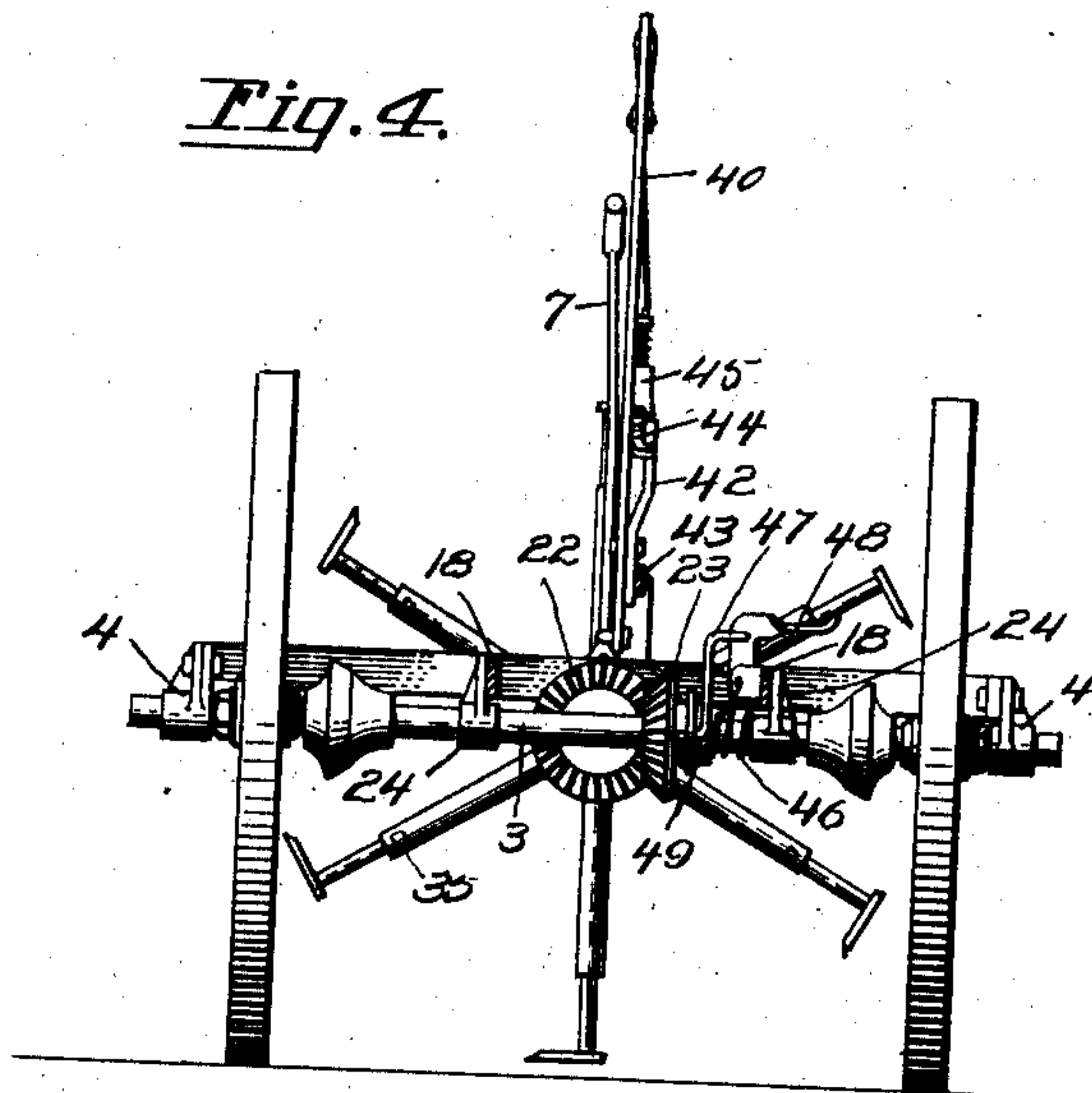


Fig. 4.



Witnesses
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Calvin Erwing Smith.

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2 SHEETS—SHEET 2.

Fig. 2.

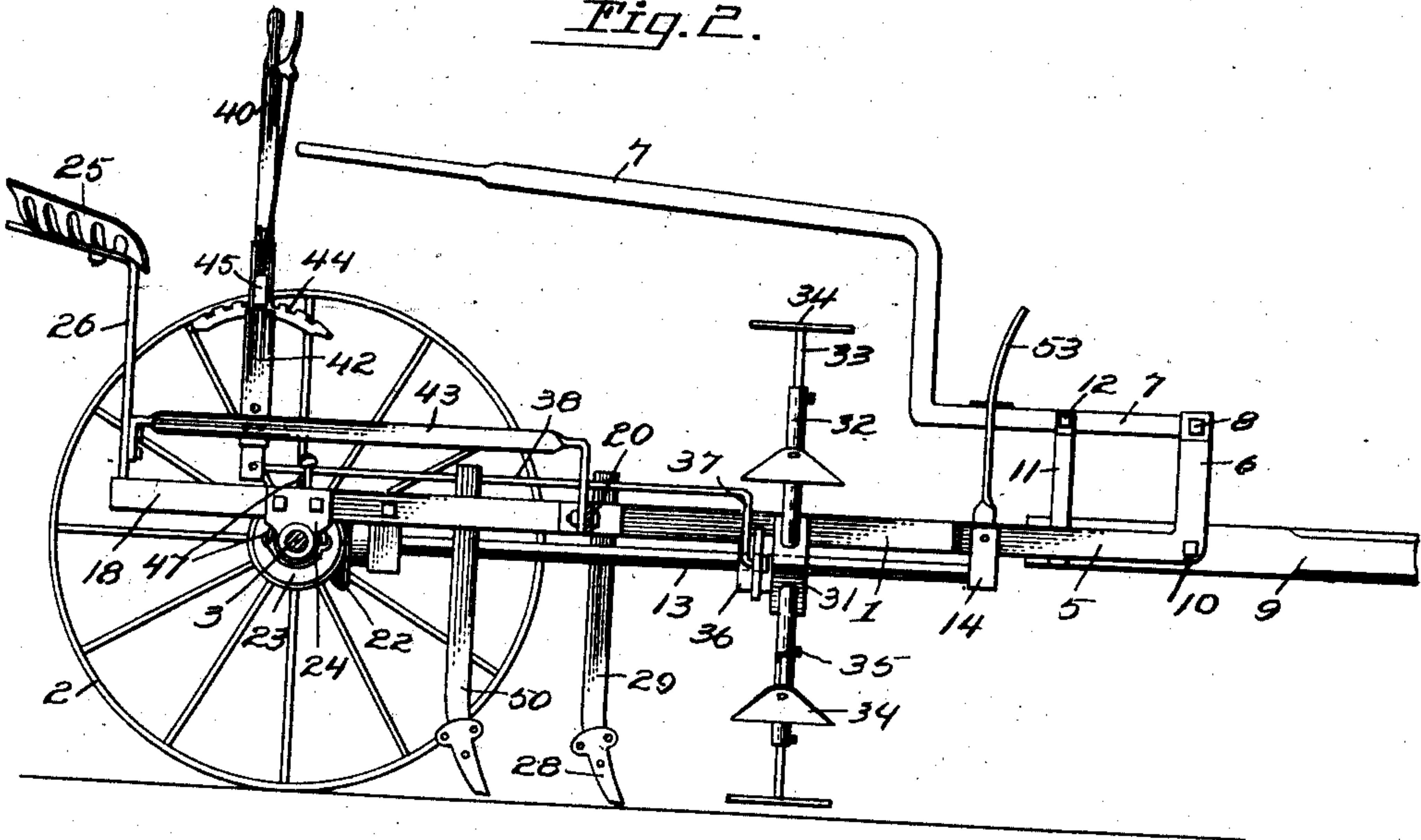
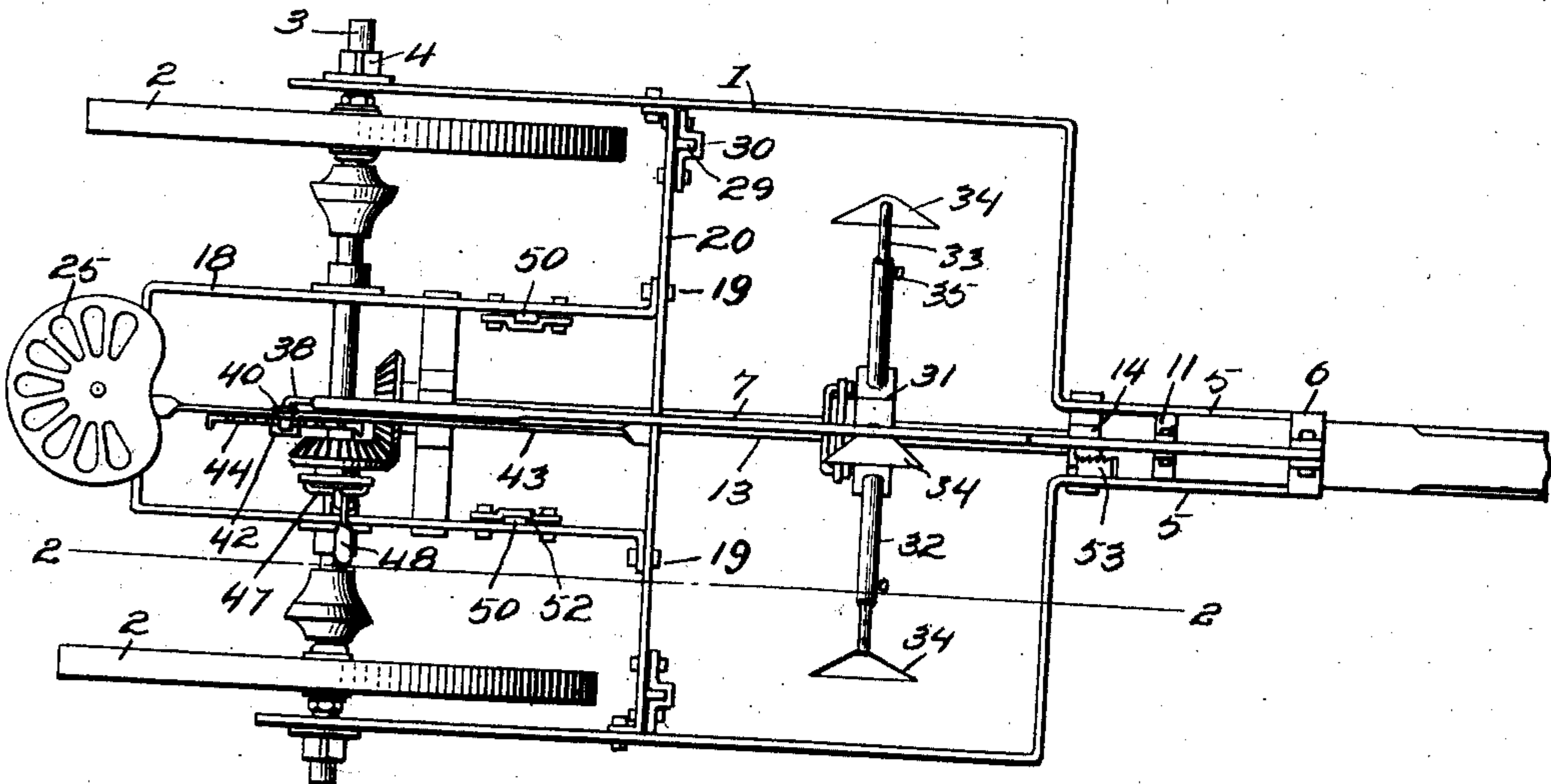


Fig. 3.



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UNITED STATES PATENT OFFICE.

CALVIN E. SMITH, OF COLEMAN, TEXAS.

COTTON-CHOPPER.

No. 883,580.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed September 4, 1907. Serial No. 391,307.

To all whom it may concern:

Be it known that I, CALVIN EWING SMITH, a citizen of the United States, residing at Coleman, in the county of Coleman and State of Texas, have invented new and useful Improvements in Cotton-Choppers, of which the following is a specification.

This invention relates to cotton choppers and one of the principal objects of the same is to provide a machine in which the hoes or choppers are mounted upon a square shaft provided with means for rotation and with means for moving the hoes or choppers longitudinally of the shaft.

Another object of the invention is to provide means for forming a furrow for the wheels so that the wheels will always run level and thus locate the hoes or choppers at the required distance from the surface of the ground.

Still another object of the invention is to simplify the construction and at the same time render more efficient machines of this character.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which:—

Figure 1 is a perspective view of a cotton chopper made in accordance with my invention. Fig. 2 is a longitudinal section on the line 2—2 of Fig. 3. Fig. 3 is a plan view of the chopper. Fig. 4 is a rear elevation and partial section of the same.

Referring to the drawing for a more specific description of my invention, the numeral 1 designates a metal frame mounted on wheels 2, the axle 3 of which extends through a hanger 4 at opposite sides of the frame 1, said hanger being bolted to the frame. The frame 1 is provided with forwardly extending members 5 suitably spaced apart, said members 5 being provided with integral vertical portions 6 between which a lever 7 is pivoted upon the bolt 8. The draft tongue 9 is pivoted upon the bolt 10 and at the rear end of said tongue or pole bracket members 11 are secured, said bracket members being pivotally connected as at 12 to the lever 7. A square shaft 13 is provided with a rounded front end journaled in a bearing 14 supported upon a bracket 15 secured at its opposite ends to the portions 5 of the frame. The shaft 13 extends longitudinally of the frame 1 and is disposed substantially in the center

thereof. The rear end of the shaft 13 is supported in a bracket 16 provided with a rounded bearing in which is fitted a rounded portion of said square shaft 13. The bracket 16 is connected by bolts 17 to a frame 18, the front ends of which are bolted at 19 to a cross bar 20 connected by bolts 21 to the frame 1. The rear end of the shaft 13 is provided with a bevel gear 22 which meshes with a similar gear 23 on the axle 3. Brackets 24 through which the axle 3 passes are secured to the side bars of the frame 18. A seat 25 is secured upon a bar 26 bolted at 27 to the rear cross bar of the frame 18.

Suitable furrow shovels 28 are secured to standards 29 mounted in keepers 30 on the cross bar 20, said shovels being disposed in line with the wheels 2 in front thereof and the purpose of these shovels is to make a uniform furrow for the wheels 2 so that the hoes or choppers will always occupy the same relative position to the surface of the ground.

The hoes or choppers are mounted upon a hub 31 provided with a squared bore which fits the shaft 13 and is permitted to slide thereon. Connected to the hub 31 is a series of tubular spokes 32 and fitted in these spokes are the shanks 33 of the hoes or choppers 34, said shanks 33 being adjustably held in the tubular spokes 32 by means of set screws 35. The hub 31 and the hoes or choppers 34 are rotated with the shaft 13. The hub 31 is provided with an extended portion 36 having an annular groove therein and fitted into said groove is the fork end 37 of a connecting rod 38, said connecting rod being pivoted at its rear end upon a bolt 39 passing through the lower end of a lever 40, said lever being pivoted at 41 upon a bar 42 secured to a brace 43, the rear end of which is connected to the bar 26 and the forward end of which is connected to the cross bar 20. Supported upon the upper end of the bar 42 is a sector rack 44 designed to engage the spring pawl 45 of the lever 40.

The bevel gear 23 is mounted to slide upon the axle 3 and is held in mesh with the bevel gear 22 by means of a spring 46. Connected to the hub of the bevel gear 23 is a bar 47, the upper end of which is connected to a foot lever 48 pivoted at 49 to a bracket secured to the frame 18. Suitable shovels 50 mounted upon standards 51 are utilized for throwing fresh dirt up to the plants, said standards

being mounted in keepers 52 secured to the frame 18. A rack 53 is secured to the forwardly extending portion 5 of the frame and this rack is designed to engage a projection
5 54 on the lever 7.

From the foregoing the operation of my invention will be readily understood and may be briefly described as follows:—The driver sitting on the seat 25 may at any time dis-
10 connect the bevel gear 23 from the gear 22 by placing his foot upon the lever 48. By shifting the lever 40, the hoes or choppers are moved back and forth upon the shaft 13. This enables the driver to manually shift the
15 choppers as may be required from time to time to insure the leaving of "stands" in the row and the chopping out of the intervening plants. When it is desired to raise or lower the frame 1 relatively to the rear end
20 of the tongue or pole the lever 17 is raised or lowered and connected to the rack 53.

My invention is of simple construction, is

strong and durable and operates efficiently for its purpose.

Many changes may be made in the details 25 of construction without departing from the spirit or scope of my invention as defined in the appended claims.

Having thus described the invention, what is claimed as new, is:— 30

In a cotton chopper, the combination of a frame mounted on wheels, a centrally disposed longitudinal shaft, a hub mounted on said shaft and provided with radial hoes or choppers, an extension on the hub provided 35 with a groove, a forked connecting rod engaging said groove, a lever to which said connecting rod is pivoted, and a rack for said lever.

In testimony whereof I affix my signature in presence of two witnesses.

CALVIN E. SMITH.

Witnesses:

B. C. HOWELL,
J. W. GARNER