

(No Model.)

H. K. & T. G. CANSLER.
COTTON CHOPPER.

No. 467,915.

Patented Feb. 2, 1892.

Fig. 1.

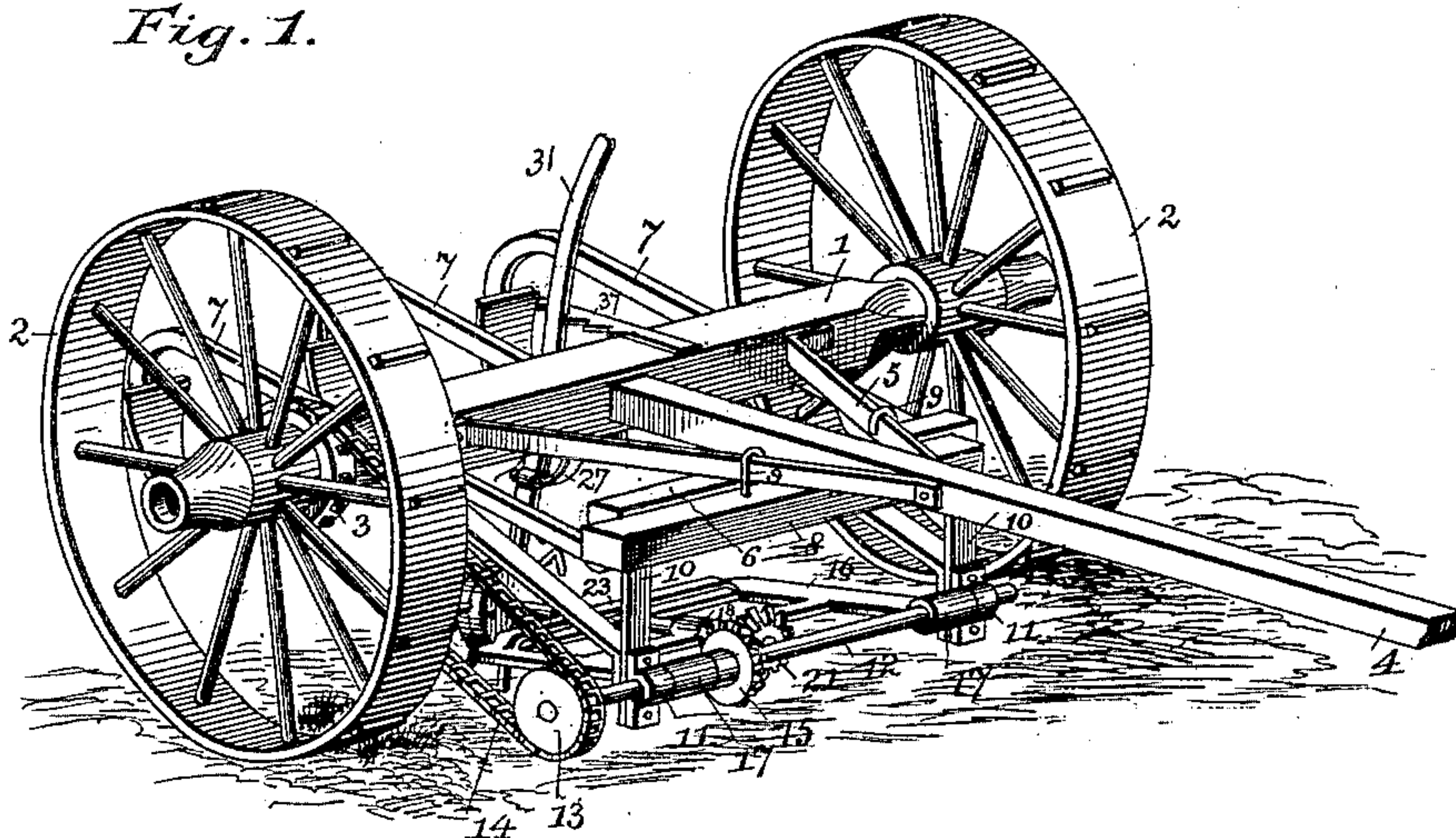


Fig. 2.

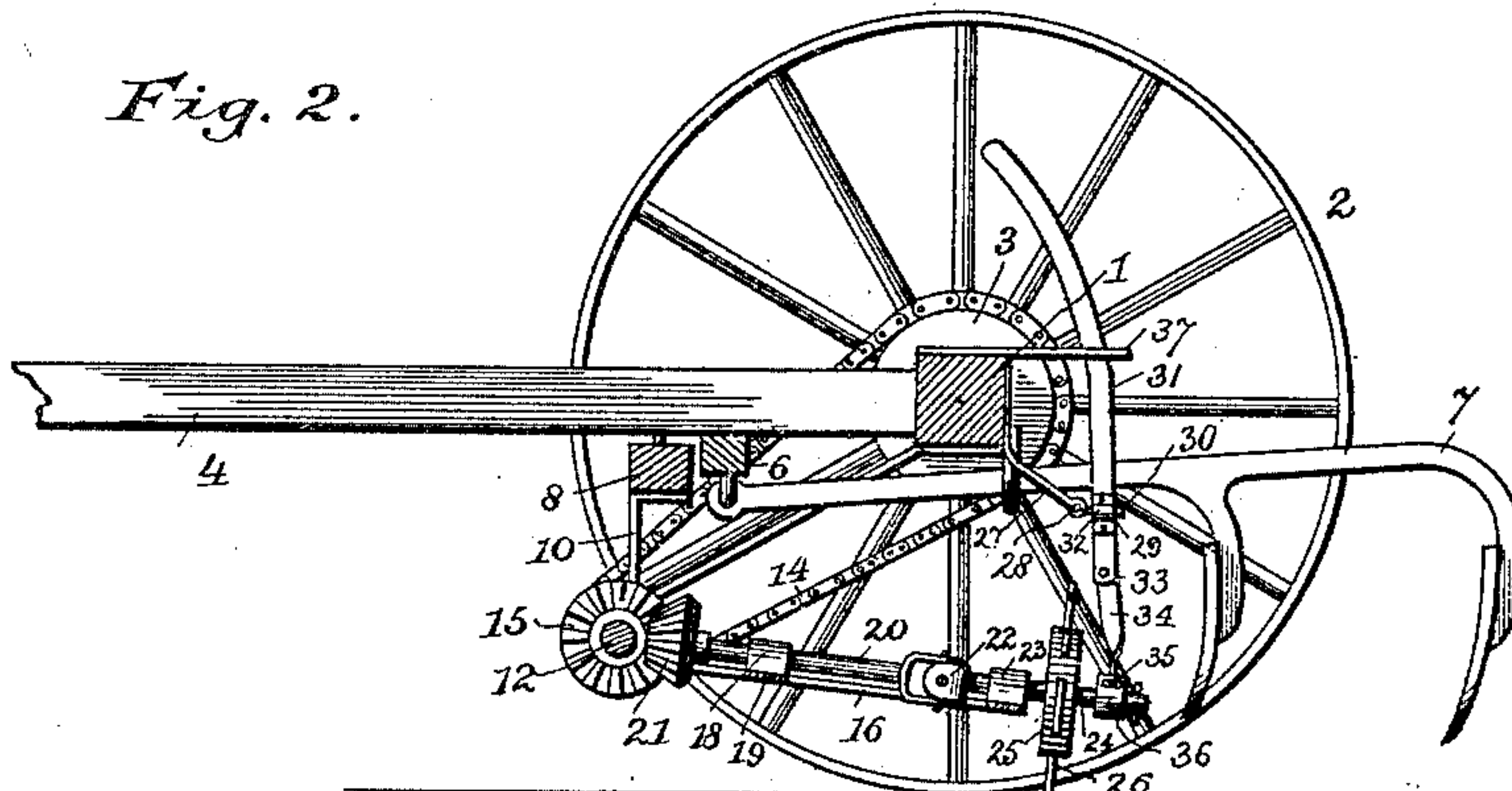


Fig. 4.

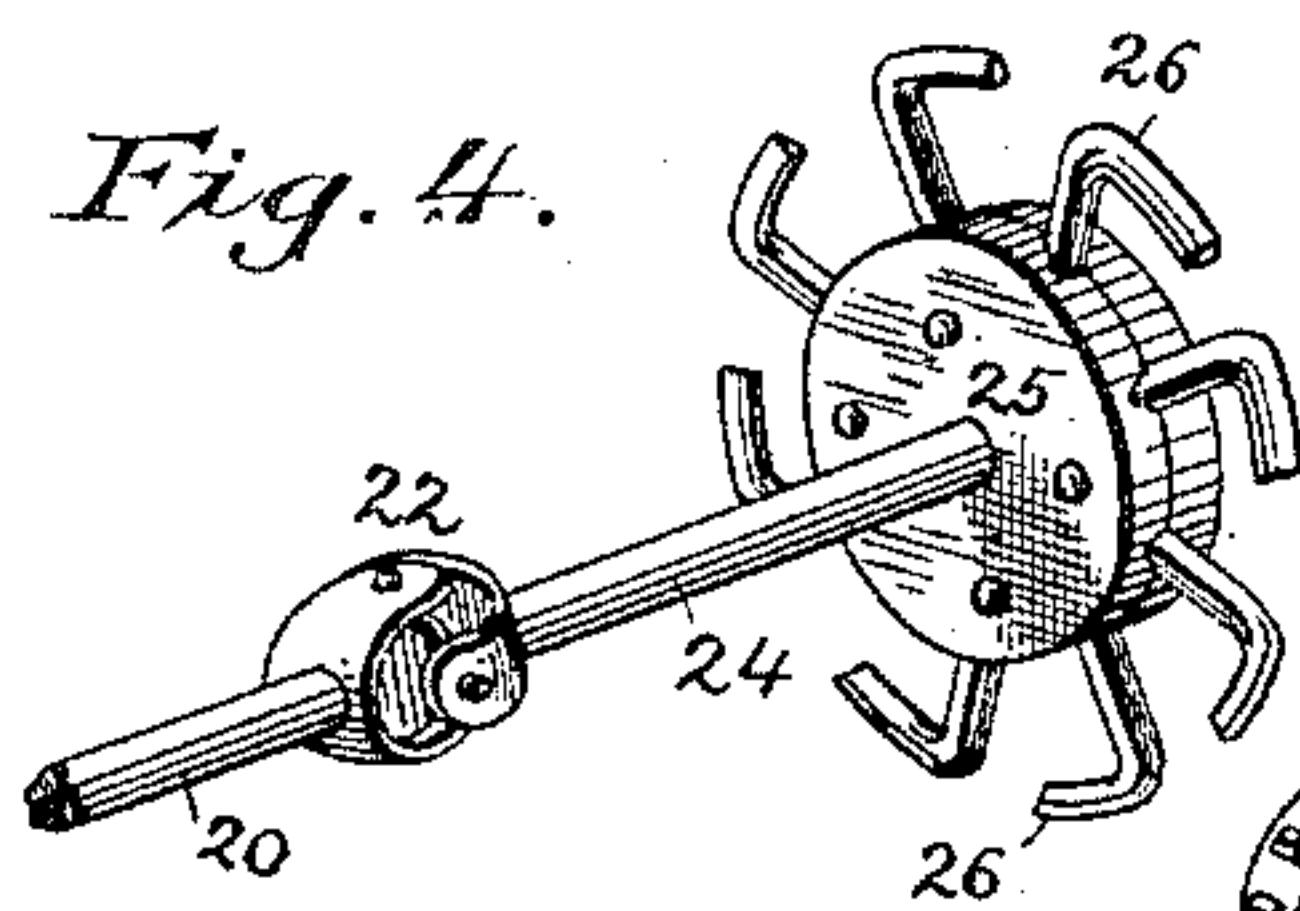
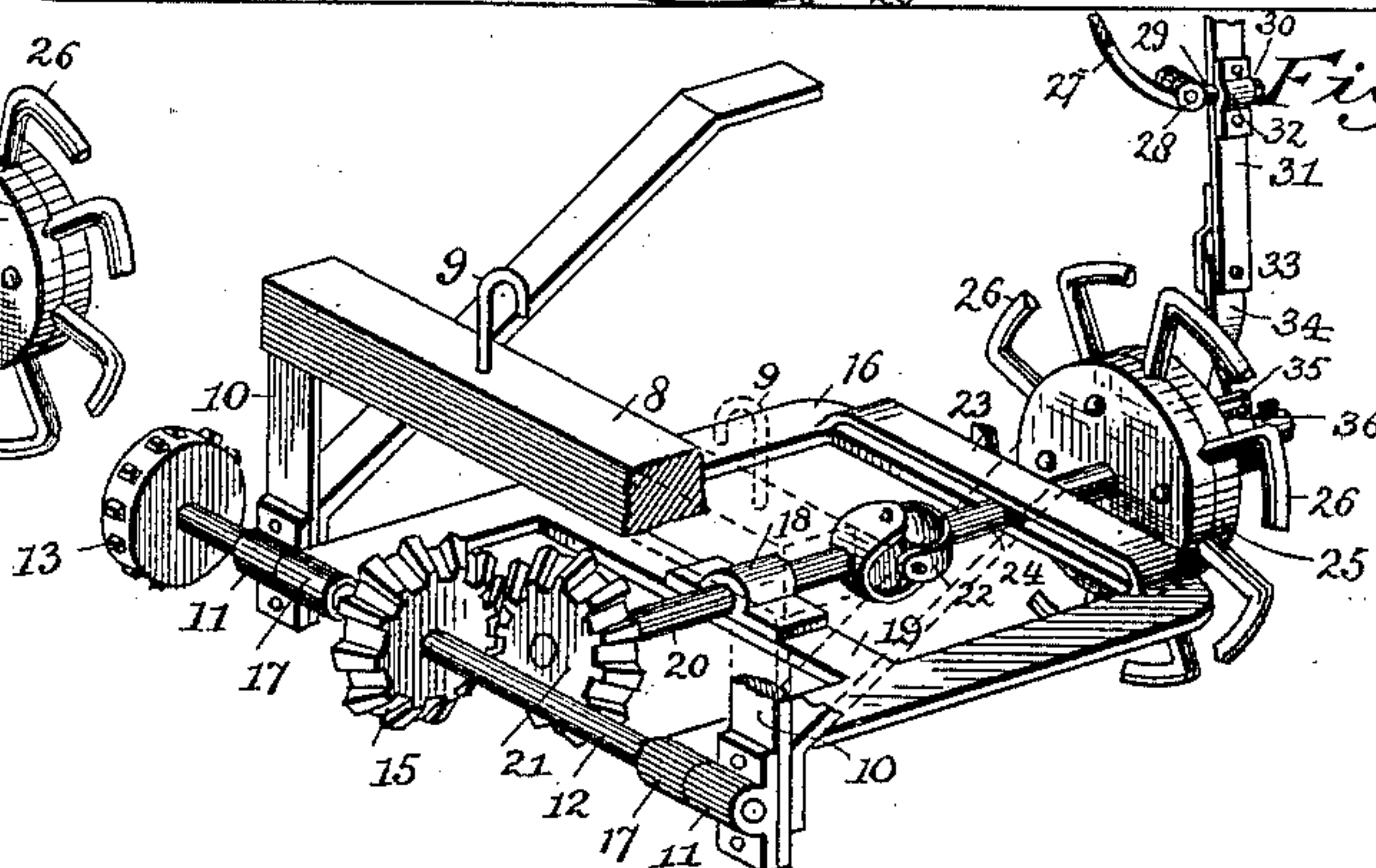


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

HURNON K. CANSLER AND THOMAS G. CANSLER, OF ITASCA, TEXAS.

COTTON-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 467,915, dated February 2, 1892.

Application filed September 25, 1891. Serial No. 406,877. (No model.)

To all whom it may concern:

Be it known that we, HURNON K. CANSLER and THOMAS G. CANSLER, citizens of the United States, residing at Itasca, in the county of Hill and State of Texas, have invented a new and useful Cotton-Chopper, of which the following is a specification.

This invention relates to a cotton-chopper attachment for cultivators, the objects in view being to provide a cheap and simple attachment adapted to be applied to the ordinary sulky-cultivator frame, with little or no change to the latter, and when so applied to constitute an efficient machine for chopping and thinning cotton.

With the above objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a cultivator-frame provided with a cotton-chopper attachment constructed in accordance with our invention. Fig. 2 is a vertical longitudinal section. Fig. 3 is a detail in perspective of the attachment. Fig. 4 is a detail in perspective of the chopping-shaft.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the axle of an ordinary sulky-cultivator, which axle, as is usual, is reduced at its ends and carries ordinary ground-wheels 2, to the inner end of the hub of one of which is secured a sprocket 3.

4 designates the usual draft beam or tongue, which is braced in this instance by means of the diagonally-disposed hounds 5, the front ends of which are bolted to the beam at opposite sides and the rear ends thereof to the front face of the axle at opposite sides of the beam. To the under side of the draft pole or beam a cross-bar 6 is secured, and from the same rearwardly extend the cultivator-beams 7, the ends of which terminate in shovels.

The foregoing describes the construction of an ordinary riding sulky-cultivator, and we will now proceed to describe the chopping and thinning attachment adapted to be used in connection therewith and constructed in accordance with my invention.

The attachment comprises a rectangular

frame consisting of a cross-bar 8, from the upper face of which rise hooks 9, inwardly disposed and adapted to removably engage and suspend the cross-bar 8 from the diverging hounds 5. From the under side of the cross-bar depend bearing-standards 10, terminating at their lower ends in bearing-eyes 11 and supporting a rotatable driving-shaft 12. One end of the shaft extends beyond its bearing-eye and carries a sprocket-wheel 13, which is connected with and driven by a sprocket-chain 14, leading from the sprocket 3 of the axle. Near one of its bearings there is mounted on the shaft 12 a beveled pinion 15.

16 designates a U-shaped frame, the front ends of which terminate in bearing hooks or eyes 17, which loosely engage the drive-shaft 12. A bearing 18 is mounted upon a transverse bar 19, that connects the sides of the frame, and in said bearing a longitudinally-disposed shaft 20 is journaled. This shaft at its front end carries a beveled gear 21, which engages with and is driven by the beveled gear 15 of the drive-shaft, while at its rear end it terminates in one member of a gimbal-joint 22. The rear cross-bar of the U-shaped frame is provided with an elongated loop or slot 23, and in the same a shaft 24 is mounted for rotation and for lateral movement. This shaft is but a continuation of the shaft 20, the two constituting a chopping-shaft, and like the shaft 20 it terminates in one member of the gimbal-joint. At its rear end it is further provided with the chopping-head 25, carrying chopping blades or cutters 26. A hanger 27 is bolted to the rear side of the axle, depends below the same, is bifurcated, and has its bifurcations bent to form eyes 28 and receives the upper or T end of a T-bolt 29. The lower end of the T-bolt is provided with a head 30, and a curved lever 31, having a loop 32, loosely receives said T-bolt, whereby the lever is swiveled thereon and is also fulcrumed on the hanger, said lever therefore being capable of both vertical and horizontal movements.

The end of the lever is bifurcated, and receives and has pivoted thereto at 33 a curved depending connecting-rod 34, terminating in a T-head 35. This T-head engages openings formed in the terminals of a collar 36, which

collar loosely embraces the rear section of the cutter-shaft.

It will be seen that motion imparted from the ground-wheel to the sprocket 3 will be transferred by the chain 14 to the sprocket and shaft 13 and 12, respectively, and the latter by means of its pinion 15 will transfer the motion to the cutter-shaft and the cutter-head. By swinging the hand-lever laterally the chopping-head and its shaft will be also laterally moved, and thus may avoid any obstruction—such as a stump, bowlder, &c.—or cut only at intervals, as the operator may desire. By raising and lowering the lever the U-shaped frame and its parts are elevated above the ground, whereby the machine is inoperative. The lever may be locked in any of its vertical positions by a toothed locking-bar 37, as will be obvious.

It will be seen that the cotton-chopper constructed as described is of cheap and simple construction, under perfect control of the operator, may be raised and lowered into and out of operative position, and finally that the chopping-head may be caused to follow irregular rows, angles, &c.

Having described our invention, what we claim is—

1. The herein-described attachment for the purpose described, the same consisting of the cross-bar having a pair of hooks for engaging diagonal braces or hounds of a cultivator, hangers depending from the cross-bar and terminating in bearings, the drive-shaft journaled therein, gearing between the shaft and cultivator-wheel, an axle rotatably mounted in the frame and terminating in a chopping-head, a gear located at the front end of the chopping-shaft, and a gear engaging the same and located upon the drive-shaft, and a lever for raising and lowering the frame and cutters, substantially as specified.

2. The combination, with the frame-work of the cultivator, the drive-wheels, and the sprocket thereon, of the depending hangers, the drive-shaft journaled therein, the sprocket on the latter, the chain connecting the sprocket with that of the axle, the U-shaped frame loosely hung on the drive-shaft and having bearings, the shaft mounted therein and terminating in a chopping-head, the beveled gear mounted on the front end of said shaft, the companion gear mounted on the drive-shaft, a lever fulcrumed on the frame-work,

and a connecting-rod between the lever and chopping-shaft, substantially as specified.

3. The combination, with the frame-work of the cultivator, of the loosely-suspended U-shaped frame, the latter provided with a front stationary bearing and at its rear end with a transverse slot, a shaft journaled in the front bearing, drive connections between the same and the cultivator, a shaft journaled in the slot and adapted for rotation and lateral movement and terminating at its rear end in a chopping-head, and a gimbal connection between the inner ends of the shafts, substantially as specified.

4. The combination, with the frame-work of the cultivator, of the loosely-suspended U-shaped frame, the latter provided with a bearing, a laterally-movable rotatable shaft mounted in the bearing and in a slot in the rear end of the frame and carrying a cutter-head, drive connections between the shaft and the wheels of the cultivator, a hanger depending from the axle, a lever universally connected with the hanger, a collar on the shaft, and a connecting-rod loosely connected with the collar and pivoted to the lever, substantially as specified.

5. The combination, with the frame-work of the cultivator, of the loosely-suspended U-shaped frame, the latter provided with a bearing, a laterally-movable rotatable shaft mounted in the bearing and in a slot in the rear end of the frame and carrying a cutter-head, drive connections between the shaft and the wheels of the cultivator, a hanger depending from the axle and terminating at its lower end in opposite eyes, a T-shaped bolt loosely connecting the eyes and at its lower end having a head, a lever located behind the axle and having an eye loosely swiveled on the bolt above the head, a collar loosely embracing the cutter-shaft and having its terminals provided with openings, and a connecting-rod pivoted to the rear end of the lever, having its lower end terminating in a T-head engaging the openings, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

HURNON K. CANSLER.
THOMAS G. CANSLER.

Witnesses:

W. H. WELCH,
J. W. SATTERFIELD.