

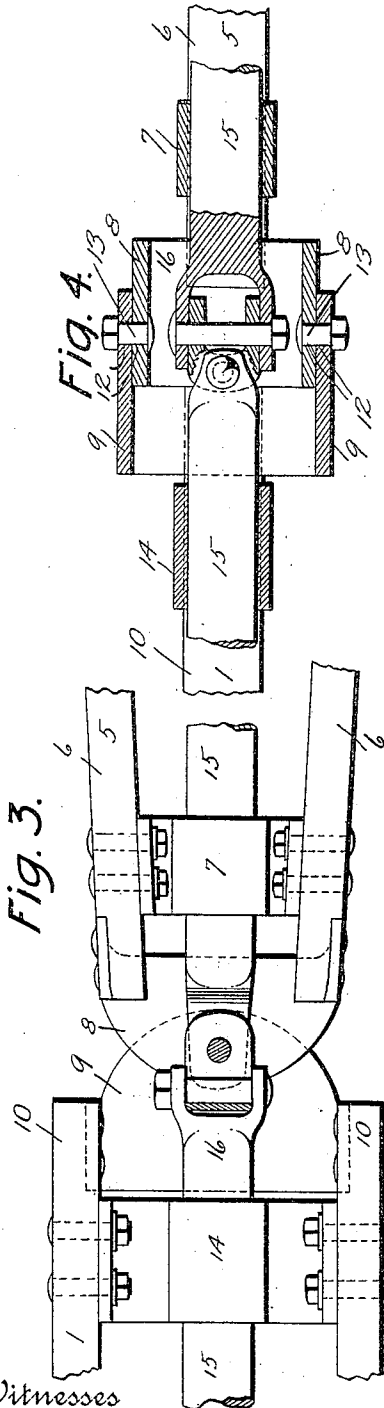
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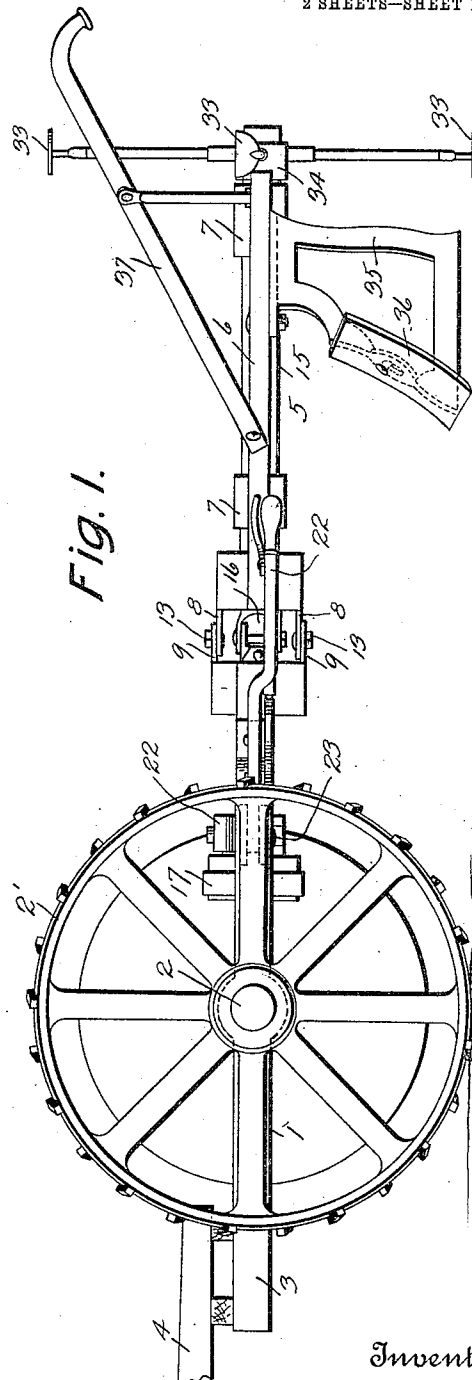
J. M. ANDREWS.
COTTON CHOPPER.

APPLICATION FILED JULY 17, 1905.

2 SHEETS—SHEET 1.



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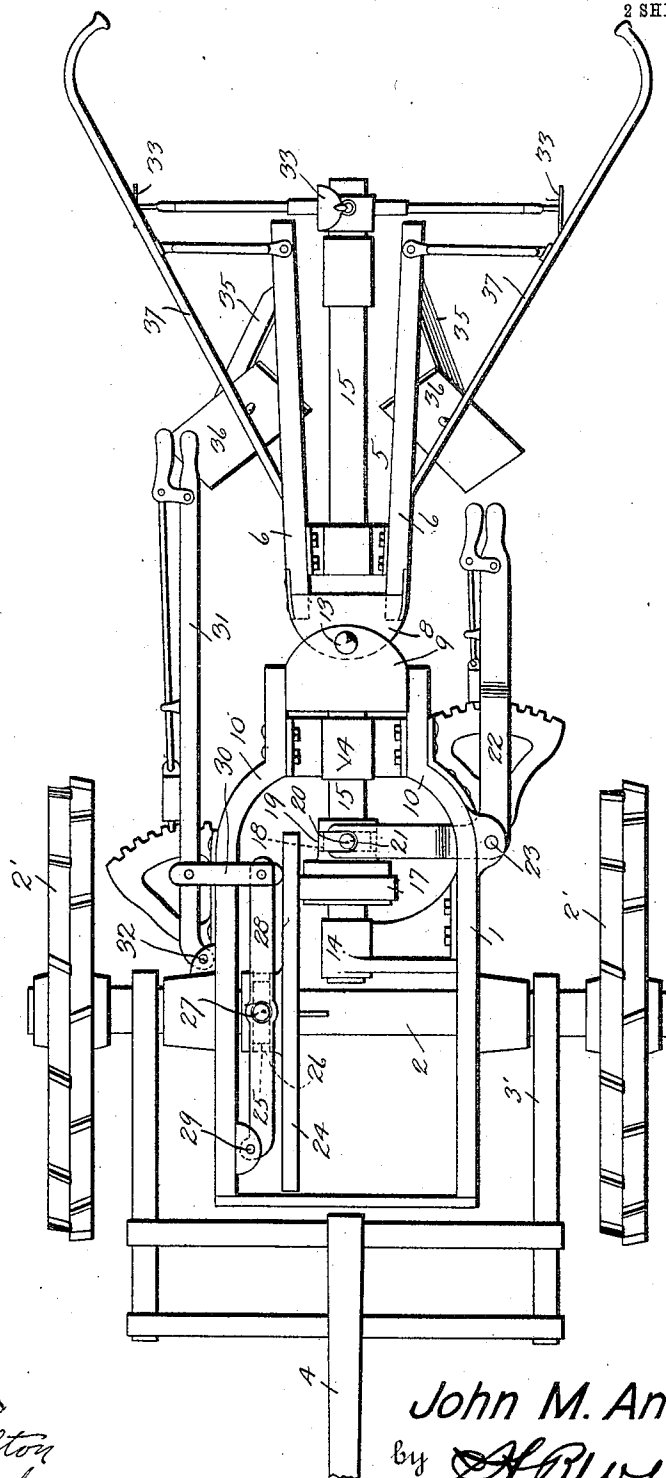
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2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN M. ANDREWS, OF COLUMBIA, TENNESSEE, ASSIGNOR OF ONE-THIRD
TO J. O. CHECK, OF COLUMBIA, TENNESSEE.

COTTON-CHOPPER.

No. 817,613.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed July 17, 1905. Serial No. 270,118.

To all whom it may concern:

Be it known that I, JOHN M. ANDREWS, a citizen of the United States, residing at Columbia, in the county of Maury and State of Tennessee, have invented certain new and useful Improvements in Cotton-Choppers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in cotton choppers and scrapers.

The object of the invention is to provide a cotton-chopper having means whereby the speed of the chopping-hoes may be regulated to chop rapidly or slowly.

A further object is to provide a cotton-chopper which will be simple, strong, and durable in construction, efficient in operation, and so arranged that the frame carrying the chopping-hoes may be swung laterally on the supporting-frame to permit the cultivation of irregular rows of plants.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a cotton-chopper constructed in accordance with the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a detail plan view of the rear end of the supporting-frame and the hoe-carrying frame, and Fig. 4 is a detail longitudinal sectional view through the joint between the supporting-frame and the hoe-carrying frame and the adjacent parts.

Referring more particularly to the drawings, 1 denotes the supporting-frame, in which is journaled a supporting-axle 2. On the ends of said axle are fixedly mounted supporting-wheels 2'. Connected to the axle 2 is a frame 3, to which is attached the tongue 4 or other suitable draft devices.

Hingedly connected to the rear end of the supporting-frame 1 is a hoe-carrying frame 5, said frame consisting of rearwardly-diverging side bars or beams 6, which are connected together and spaced apart at their front and rear ends by means of bearing blocks or boxes 7. To the forward ends of the side

bars or beams 6 are secured a pair of forwardly-projecting segmental plates 8, adapted to project between similar rearwardly-extending plates 9, secured to the rear ends of the side bars 10 of the supporting-frame 1. The plates 8 and 9 are provided with vertically-disposed alining apertures 12. Through the apertures of the upper and lower sets of plates 8 and 9 are passed rivets or short bolts 13, by which the hoe-carrying frame is pivotally connected to the supporting-frame 1, thereby permitting the hoe-carrying frame to be swung laterally on the supporting-frame 1.

Journaled in the bearing-boxes 7 of the hoe-carrying frame and in similar bearing-boxes 14, arranged in the supporting-frame 1, is a flexible hoe-carrying shaft 15, said shaft being shown in Figs. 3 and 4 as provided with a universal joint 16, which is preferably located at the juncture of the supporting and hoe-carrying frames. Slidably mounted on the shaft 15 to turn therewith is a friction wheel or pinion 17, in the hub of which is formed an annular groove or channel 18, in which is loosely arranged a collar 19, provided with laterally-projecting studs 20. With these studs 20 are engaged the inner forked slotted end 21 of a right-angularly-formed friction-lever 22, which is pivotally mounted on the frame 1, as shown at 23.

Slidably mounted upon the axle 2 is a friction disk or wheel 24, which is adapted to be moved on said axle to bring the inner face of the same into frictional engagement with the wheel or pinion 17 on the drive-shaft 15. Said wheel 17 by means of the shifting-lever 22 may be moved toward or from the center of the friction-wheel 24, thereby regulating the speed of the wheel 17, as will be understood. In order that the friction-disk 24 may be moved into and out of engagement with the wheel 17, a suitable shifting mechanism is provided, said mechanism being preferably constructed by providing the hub of the friction-wheel with an annular groove or channel 25, in which is loosely arranged a collar 26. Said collar has vertically-projecting studs 27, with which is engaged a shifting-bar 28, one end of which is pivotally connected to the supporting-frame 1, as at 29, and to the opposite end of said bar 28 is pivotally connected a link 30. The opposite

end of said link is pivotally connected to a shifting-lever 31, the forward end of which is pivotally connected to the frame 1, as at 32.

On the rear end of the drive-shaft 15 is secured two or more radially-projecting chopping-hoes 33. The handles of said hoes are secured in a collar or other suitable device 34, whereby they may be connected with the rear end of the shaft 15.

Bolted or otherwise secured to the under sides of the rear ends of the side bars or beams 6 are standards 35, to which are secured scraping-blades 36. To the beams 6 are also connected upwardly and rearwardly projecting handle-bars 37, by which the frame 5 may be guided, and by reason of the hinged connection of said frame with the supporting-frame 1 the former may be swung laterally in either direction and caused to follow irregular rows of cotton-plants.

When it is desired to change the speed of the shaft 15, the friction-wheel 17 is moved by the lever 22 toward or from the periphery of the friction 24.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a cotton-chopper, the combination with a wheeled supporting-frame, of a chopping-hoe frame hingedly connected thereto, a flexible drive-shaft revolubly mounted on said shaft, a driving-gear slidably and revolubly mounted on the axle of the supporting-frame, a shifting device whereby said drive-wheel is moved laterally on said shaft, a pinion slidably mounted on said drive-shaft to engage said drive-wheel and means whereby the speed of said pinion and drive-shaft may be varied, substantially as described.

2. In a cotton-chopper, the combination with a wheeled supporting-frame, of a chopping-hoe frame hingedly connected thereto, a flexible drive-shaft revolubly mounted in

said frames, chopping-hoes fixedly mounted on said shaft, a friction-disk slidably mounted on the axle of the supporting-frame, a shifting device to move said disk laterally on said axle, a friction-wheel slidably mounted on the drive-shaft to engage said friction-disk, a lever connected to said friction-wheel, whereby the latter may be shifted to engage said friction-disk, thereby causing said wheel and the drive-shaft to be driven at a greater or less speed, substantially as described.

3. In a cotton-chopper, the combination with a wheeled supporting-frame, of a chopping-hoe frame hingedly connected thereto, a flexible drive-shaft revolubly mounted in said frames, chopping-hoes fixedly mounted on said shaft, scrapers secured to said chopping-hoe frame, a friction-disk slidably mounted on the axle of the supporting-frame, a shifting device to move said disk laterally on said axle, a friction-wheel slidably mounted on said drive-shaft to engage said friction-disk, a shifting-lever connected to said friction-wheel whereby the latter may be shifted on said drive-shaft to engage said friction-disk at different points thereby varying the speed of said friction-wheel and shaft, substantially as described.

4. In a cotton-chopper, the combination with a supporting-frame having a revolubly-mounted axle to which are secured supporting-wheels of a chopping-hoe frame, a hinged connection between said frames, whereby said chopping-hoe frame is adapted to be swung laterally, a jointed drive-shaft revolubly mounted in said frames, chopping-hoes secured to said shaft, a friction-disk slidably mounted on the axle of said supporting-frame, a shifting-lever to slide said disk on said shaft, a friction-wheel slidably mounted on said drive-shaft to engage said friction-disk, a lever connected to said friction-wheel whereby the latter is shifted to engage said friction-disks at different points thus varying the speed of said friction-wheel and scraping-blades secured to the frame of said chopping-hoes, substantially as described.

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

JOHN M. ANDREWS.

Witnesses:

J. OSLIN CHECK,
ROBERT H. GEUST.