J. B. THOMPSON.

COTTON CHOPPER.

APPLICATION FILED MAY 4, 1909.

940,906. Patented Nov. 23, 1909.

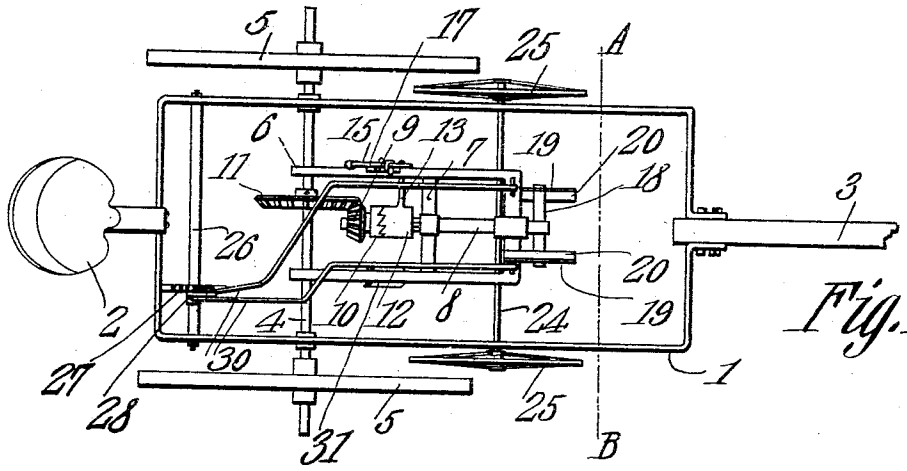


Fig. 1.

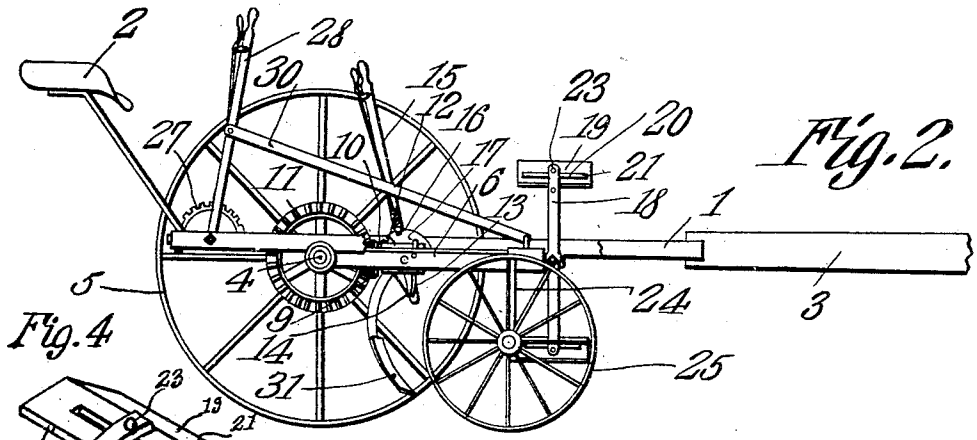
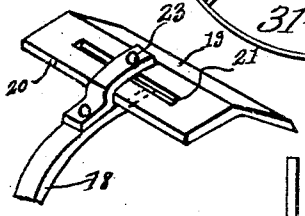


Fig. 2.

Fig. 4



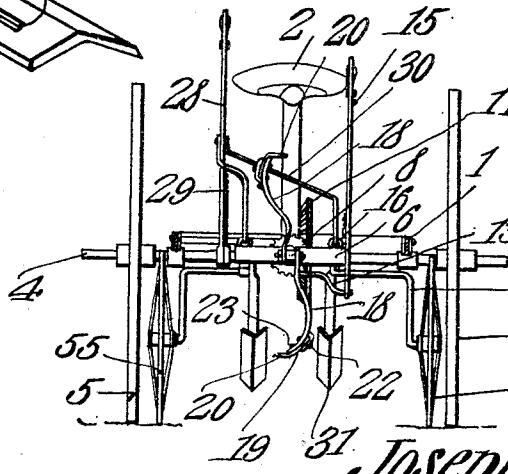


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH B. THOMPSON, OF MOUNT CALM, TEXAS, ASSIGNOR OF TWO-THIRDS TO ALVIN B. THOMPSON AND HORACE H. THOMPSON, OF MOUNT CALM, TEXAS.

COTTON-CHOPPER.

940,906. Specification of Letters Patent. Patented Nov. 23, 1909.

Application filed May 4, 1909. Serial No. 493,906.

To all whom it may concern:

Be it known that I, JOSEPH B. THOMPSON, a citizen of the United States, residing at Mount Calm, 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 cotton choppers and its object is to provide a simple, durable and compact machine of this character utilizing chopping blades which rotate about an axis extending longitudinally of the machine, said blades being shiftable with an auxiliary frame movably mounted upon the main structure of the machine.

A further object is to provide guide wheels movable with the auxiliary frame and which constitute means for properly locating the machine above the row of plants to be chopped.

A still further object is to provide simple means whereby the auxiliary frame can be shifted so as to move the blades and the guide wheels into or out of operative position, additional means being utilized for throwing the gearing of the chopping wheels into or out of operative relation with the supporting wheels of the machine.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings, Figure 1 is a plan view of the machine embodying the present improvements. Fig. 2 is a side elevation thereof. Fig. 3 is a section on A—B Fig. 1. Fig. 4 is an enlarged detail view of one of the chopping hoes and the adjoining portion of its supporting arm.

Referring to the figures by characters of reference 1 designates the frame of the machine, the same being preferably formed of metal and of any suitable contour, said frame having the driver's seat 2 at the rear end thereof and the draft tongue 3 at its forward end. The frame is mounted upon a revoluble axle 4 carried by supporting wheels 5 of the usual or any preferred construction, these wheels being designed, when rotating, to revolve the shaft 4.

An auxiliary U-shaped frame 6 is pivotally mounted on the axle 4 and is provided with a cross brace 7. Journaled upon this brace and the intermediate portion of the auxiliary frame is a shaft 8 extending longitudinally of the machine and at right angles to the axle 4, said shaft being provided with a bevel gear 9 which is loosely mounted thereon and which is connected to and rotates with a clutch member 10 which is also loosely mounted on the shaft 8. The gear 9 constantly meshes with a drive gear 11 which is suitably secured to the axle 4. A clutch member 12 is feathered upon the shaft 8 and has an arm 13 extending laterally therefrom and projecting into a slot 14 formed in one end of a lever 15. This lever carries a spring controlled pawl 16 designed to cooperate with a segment 17 for the purpose of locking the lever in any position to which is may be shifted.

One end of the shaft 8 extends beyond the front end of the auxiliary frame 6 and has oppositely extending curved arms 18 secured thereto. The free ends of these arms are attached to the reinforcing flanges 19 of the chopping blades 20. These blades and their flanges can be of any preferred length and the said flanges are formed preferably with longitudinally extending slots 21. The free end of each arm 18 is preferably forked as indicated at 22 and the flange 19 of each blade projects into one forked end, there being bolts 23 for binding the forks upon the flanges, one of the bolts of each arm being extended through the slot 21. It will thus be seen that by loosening the bolts the blades can be shifted longitudinally with relation to the arms and by then tightening the bolts said blades can be held against independent movement. The flanges are disposed at such angles to the blades as to hold the blades substantially horizontally during the cutting operation as clearly indicated in Fig. 3.

An arched axle 24 is secured to the front end of the auxiliary frame 6 and depends therefrom, the ends of said axle being mounted within guide wheels 25 spaced apart a distance slightly greater than the diameter of the circle described by the blades 20. This arched axle is fixed with relation to the auxiliary frame and is designed to be shifted therewith.

A cross strip 26 is secured within the rear portion of the main frame 1 and mounted thereon is a segment 27 and a lever 28, said lever carrying a spring-controlled pawl 29

which coöperates with the segment to hold the lever in any predetermined position. Bars 30 are pivotally connected to the lever 28 and extend forward and are pivotally attached to the front end of the auxiliary frame 6. These bars are preferably off-set at their inner ends so as to enable the lever 28 to be located at one side of the seat 2.

It is to be understood that when the lever 28 is drawn in the direction of the seat 2 and secured the frame 6 will be swung upwardly with the axle 4 as a pivot and will lift the wheels 25 and the blades 20 out of operative position. Also by shifting the lever 15 the clutch member 12 can be shifted out of engagement with the clutch member 10 and the shaft 8 thus prevented from rotating while the machine is traveling in either direction.

When it is desired to use the chopper the same is placed over the row of plants to be chopped and the wheels 25 are lowered so as to cause the arched axle 24 to straddle the row. When the wheels are thus lowered the blades 20 are brought into position to cut off the plants close to the surface of the ground or hills. As the machine moves forward motion is transmitted from the wheels 5 and axle 4 to gear 11 which in turn drives the gear 9. If the clutch members 10 and 12 are in engagement the shaft 8 will also be actuated and the arms 18 and blades 20 thus rotated so as to cut the plants in the path thereof. If desired shovels 31 may be connected to opposite sides of the auxiliary frame 6 so as to direct dirt onto the standing plants, these shovels following after the blades 20.

It will be seen that the machine is easily controlled and the chopping and guiding means can be conveniently raised or lowered to meet various conditions.

Obviously various changes may be made in the construction and arrangement of parts without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:—

1. A machine of the class described, comprising a wheel supported main frame, an auxiliary frame pivotally mounted within the main frame, an arched axle fixedly connected to the front end portion of the auxiliary frame, supporting wheels mounted on said axle, said wheels being disposed beyond the sides of the main frame, a longitudinal shaft journaled upon the auxiliary frame and extending beyond the front end thereof, oppositely extending arms secured to the projecting end portion of said shaft and located between the front ends of the main and auxiliary frames, a chopping blade adjustably mounted upon the free end of each of the arms, means upon the main frame for swinging the auxiliary frame relative to the main frame, means for transmitting motion to the shaft from the supporting wheels of the main frame, and means for controlling the actuation of the shaft.

2. A machine of the class described comprising a wheel supported main frame, an auxiliary frame mounted for swinging movement therein, a longitudinal shaft journaled upon the auxiliary frame, means for transmitting motion thereto from the supporting wheels, said shaft projecting beyond the front end of the auxiliary frame, arms extending from the shaft and between the front ends of the two frames, each of said arms having a forked free end, a longitudinally slotted chopping blade movably mounted within each forked end and means extending through said end and the slot for holding the blade against movement within the fork.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH B. his × mark THOMPSON.

Witnesses:
T. N. Wood,
R. S. Herring.