(No Model.) 2 Sheets—Sheet 1.

G. W. HUTTO.

COTTON CHOPPER AND CULTIVATOR.

No. 412,850. Patented Oct. 15, 1889.

Fig. 1

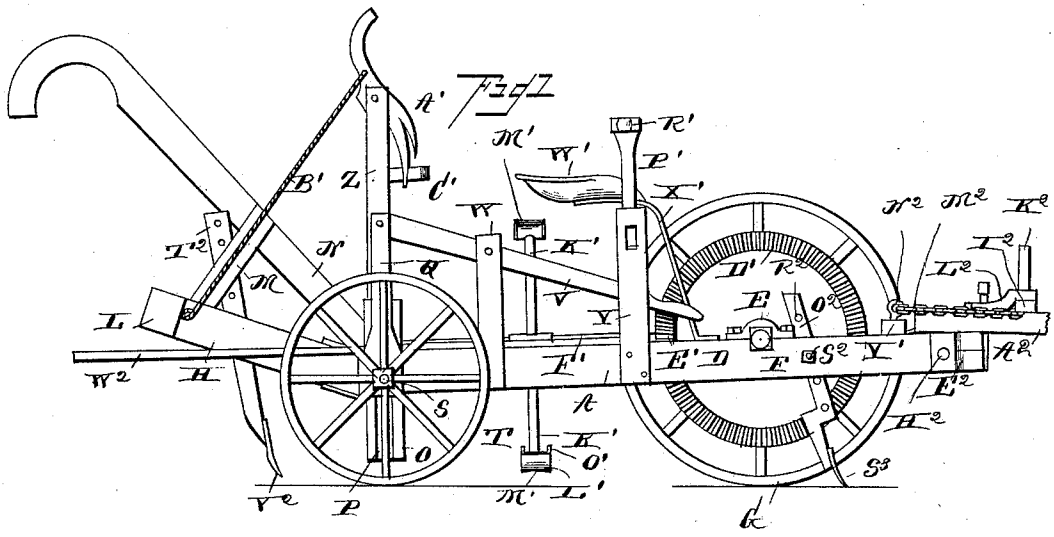
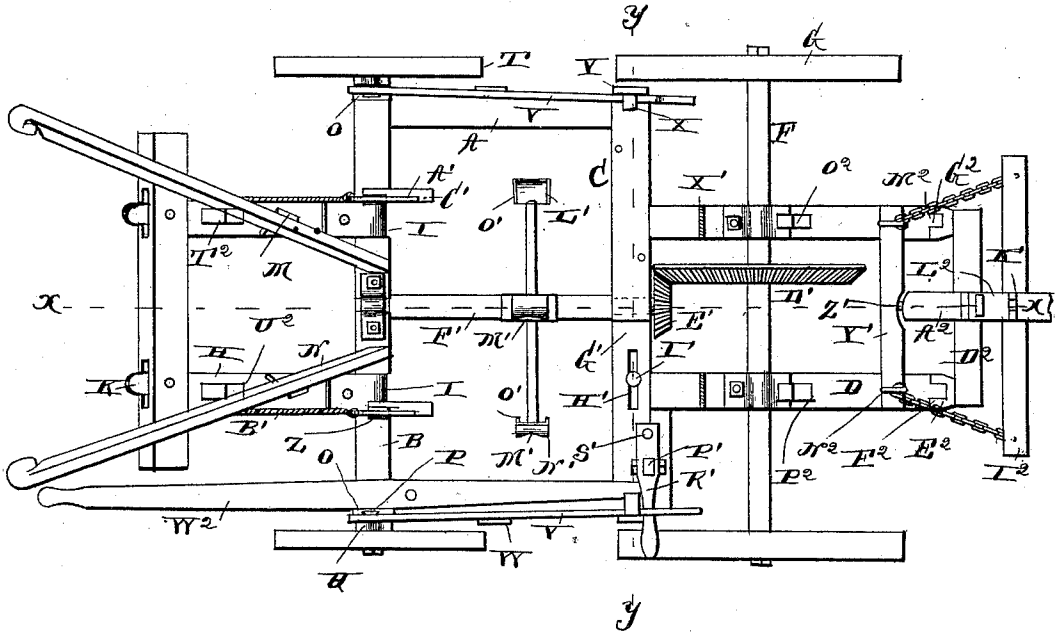


Fig. 2



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(No Model.) 2 Sheets—Sheet 2.

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Fig 3

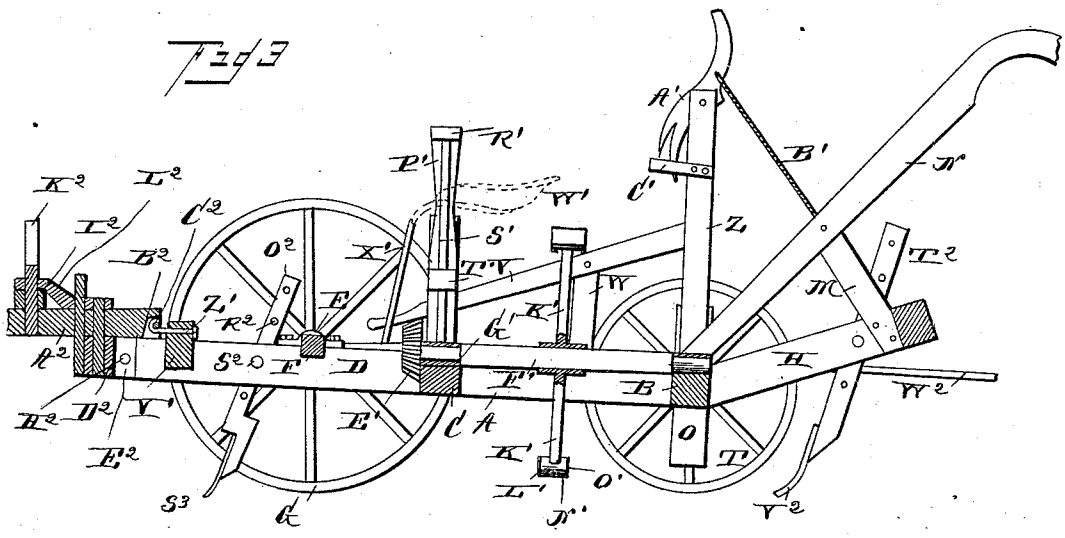
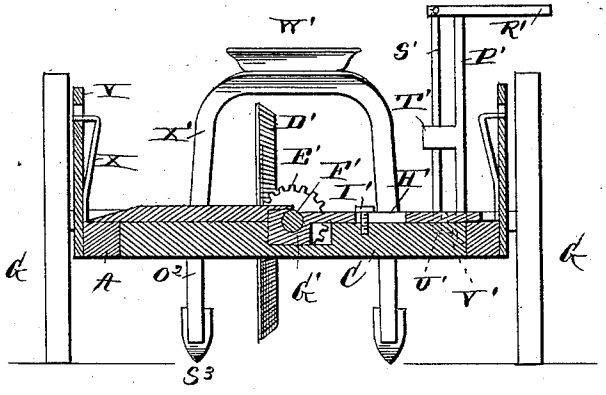


Fig 4



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UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON HUTTO, OF GRANBURY, TEXAS.

COTTON CHOPPER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 412,850, dated October 15, 1889.

Application filed March 5, 1889. Serial No. 301,900. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON HUTTO, a citizen of the United States, residing at Granbury, in the county of Hood and State of Texas, have invented a new and useful Improvement in Cotton Choppers and Cultivators, of which the following is a specification.

My invention relates to an improvement in cotton choppers and cultivators; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of a cotton chopper and cultivator embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal sectional view taken on the line *x x* of Fig. 2. Fig. 4 is a vertical transverse sectional view taken on the line *y y* of Fig. 2.

A represents a pair of side beams which are connected at their rear ends by a cross-beam B. A similar beam C connects the front ends of the side bars, and from the front of said beam C projects a pair of bars D. Bearings E are secured on the upper side of the said bars D, and in the said bearings is journaled an axle or shaft F, provided with wheels G, which bear upon the ground and serve to support the front end of the machine.

H represents a pair of beams which have their front ends pivoted to clips I, which engage annular grooves or reduced portions in the beam B, and thereby the said beams H are rendered capable both of lateral and vertical movement. The said beams H have their rear ends provided with tenons K, which are pivoted in mortises formed in a connecting-bar L, and to the rear of each beam H is secured a vertical standard M, to the upper end of which is pivoted a lever or handle N, the same being similar to plow-handles and having their front ends loosely pivoted on the beam B.

O represents a pair of vertical guides which are secured on the outer sides of the beams A at the rear ends thereof, and are provided in their outer sides with vertical dovetailed grooves P, in which are fitted vertically-movable blocks R, having outwardly-projecting spindles S, on which are journaled the wheels T, that serve to support the rear end of the frame. Link-bars U are attached to the said spindles and have their upper ends connected to levers V, which are fulcumed to the upper ends of standards W, that are secured to the beams A. The front ends of the levers V are engaged by spring-catches X, attached to standards Y, when they have been operated in such manner as to lower the blocks R and thereby elevate the rear end of the frame, as shown in Fig. 1.

A pair of standards Z rise from the beam B, and in the upper ends of said standards are fulcrumed a pair of levers A′, which are connected by means of cords or chains B′ to the rear ends of the beams H and are adapted to be engaged by detents C′, with which the standards Z are provided, when the said levers have been turned on their fulcrums to such a position as to raise the rear ends of said beams H.

Keyed to the shaft F, near the center thereof, is a gear-wheel D′, which engages a pinion E′ on the front end of a shaft F′. The latter has its rear end journaled in a bearing on the center of the beam B, and has its front end journaled in a bearing which is supported on a sliding bar G′, the said bar being arranged on the beam C and provided with a longitudinal slot H′. A guide-pin or bolt I′ works in the said slot and projects upward from the said beam, and thereby the said bar G′ is adapted to be operated in such manner as to cause the pinion to be moved out of engagement with the gear-wheels E′ or moved into engagement therewith. A series of radial arms K′ are attached to the shaft F′ and arranged in a vertical plane at right angles to the frame, and to the said arms are attached chopping-hoes L′, which have their lower ends provided with central re-entering V-shaped notches M′, whereby a pair of prongs or blades N′ are formed, said blades having their lower edges rounded. The side edges of the said chopping-hoes are bent inward at right angles to form flanges O′, and the said chopping-hoes form arcs of a circle drawn from the center of the shaft.

P′ represents a lever which has its lower end pivoted in a recess near one end of the beam C, and to the upper end of the said

lever is pivoted a small hand-lever R′. A bolt S′ is guided in a loop or block T′, formed on the lever P′, has its upper end pivotally connected to the lever R′, and the lower end of said bolt is adapted to engage either of a pair of recesses U′ V′, formed in the beam C. The said lever P′ is connected to the endwise-moving bar G′, and thereby serves to operate said bar so as to shift the pinion into or out of engagement with the wheel D′, and by engaging the bolt with the openings U′ or V′ the said lever may be locked in either position, and thereby keep the machine geared or disconnected, as may be desired.

W′ represents the driver's seat, which is supported by a U-shaped bar X′, the lower ends of which are bolted near the rear ends of the beams or bars D.

Y′ represents a cross-bar, which has its ends bolted to the said beams D, and at the center of the said cross-bar is a hook Z′, which extends forward. The tongue A^2 has a recess B^2 at its heel, adapted to receive the said hook, and a cross-pin or bolt C^2, adapted to engage the said hook, and pivoted to the under side of the tongue, near the rear end thereof, is a bar D^2. A pair of draft-irons E^2 are attached to the ends of the said bar, extend rearward therefrom, and are each provided with a pair of ears F^2, which engage opposite sides of tenons G^2, formed on the front ends of beams B, and are pivotally connected to said tenons by means of bolts H^2. On the upper side of the tongue, at a slight distance in advance of the bar D^2, is a doubletree I^2, which is pivoted by means of a bolt-wrench K^2, the same engaging openings in the tongue, the doubletree, and in a hammer-strap L^2 on the said tongue. Draft-chains M^2 are attached to the ends of the doubletree, and have their rear ends connected to pins N^2, which are inserted in openings near the front ends of beams D.

O^2 represents inclined offset standards, which are inserted through inclined openings P^2 in the beams D, and the upper ends or shanks of the said standards are provided with a series of adjusting-openings R^2, adapted to be engaged by transverse bolts S^2, inserted through the beams, and thereby said standards may be inserted at any desired adjustment. To the lower ends of the said standards are secured scrapers S^3, which are adapted to operate on opposite sides of the row of cotton-plants when the chopping-hoes are in operation, the latter serving to thin out the cotton-plants to the required distance apart, as will be readily understood.

T^2 represents similar offset standards, which are inserted through inclined openings U^2 in the beams H, the said beams T^2 being likewise provided with adjusting bolts and openings, and to the lower ends of said standards are secured cultivating-shovels V^2, which serve to stir the soil on opposite sides of the row of plants and thereby promote their growth and destroy weeds and grass.

When the machine is used as a riding scraper, chopper, and cultivator, the operator sits on the seat W and drives the team hitched to the machine, and by operating the lever P′ can throw the chopping device into or out of gear. When the operator walks, he travels in rear of the machine, grasps the handles or levers N, and by means of them guides and directs the cultivating-plows. In order to enable the chopping mechanism to be thrown into or out of gear by a person thus stationed in the rear of the machine, I provide a lever W^2, which is pivoted on one of the beams A and has its front end connected to the slide-bar G′, the rear end of said beam projecting in the rear of the frame.

The cotton scraper, chopper, and cultivator thus constructed is strong and durable, is very easily operated, and is adapted not only for the cultivation of cotton, but also for the cultivation of corn and other growing crops. When desired, the chopping mechanism may be thrown out of gear, the standards having the scrapers removed, and only the cultivators at the rear end of the machine employed for stirring the soil.

Having thus described my invention, I claim—

1. In a cotton-chopper, the combination of the frame A B C, the forwardly-extending side bars D, the axle journaled on the latter and having a bevel-wheel, the longitudinal shaft journaled in a pivotal bearing upon the rear frame-beam and having its front end journaled in a box sliding upon the front frame-beam, mechanism for adjusting said sliding box, a pinion upon the front end of the longitudinal shaft, the chopping-hoes mounted upon the latter, and the frame jointed to the rear frame-beam and carrying the plows, substantially as set forth.

2. The combination, with the frame, of the beams D, projecting forward therefrom, the cross-bar Y′, connecting said beams and having the hook Z′, on its front side, the tongue having the recess and cross-pin engaging said hook, the cross-bar D^2, and the draft-irons E^2, attached to said cross-bar and having the ears F^2 and the bolts pivoting said ears to tenons on the front ends of the beams D, substantially as set forth.

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

GEORGE WASHINGTON HUTTO.

Witnesses:
R. R. DANIEL,
A. J. PEARCE.