

John H. W. Young.

Cotton-Cultivator, Scraper and Chopper.

110531

PATENTED DEC 27 1870

Fig. 1.

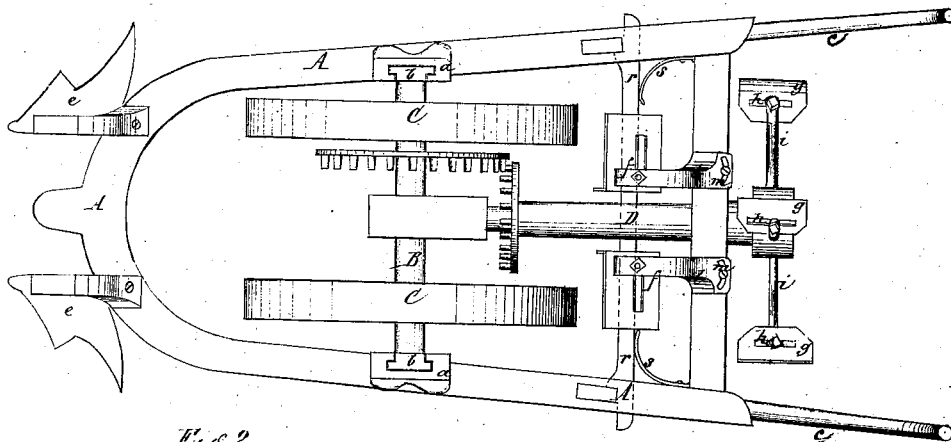


Fig. 2.

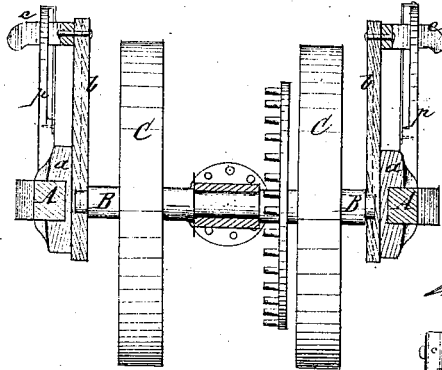


Fig. 3.

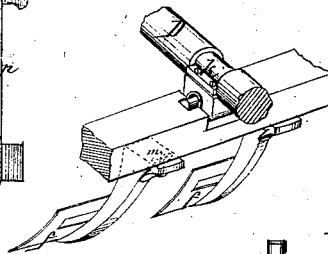
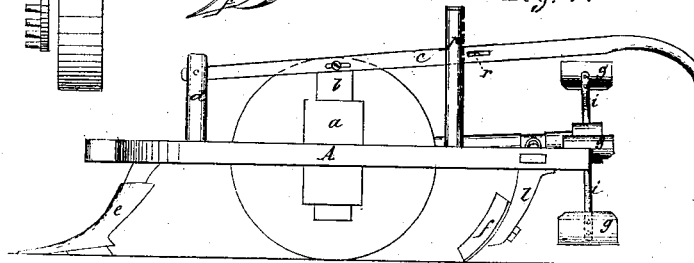


Fig. 4.



Witnesses:

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JOHN H. W. YOUNG, OF HENDERSON, TEXAS.

Letters Patent No. 110,531, dated December 27, 1870.

IMPROVEMENT IN COTTON-CULTIVATORS, SCRAPERS, AND CHOPPERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN H. W. YOUNG, of Henderson, in the county of Russ and State of Texas, have invented a new and improved Cotton-Cultivator, Scraper, and Chopper; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a plan of the under side of the machine;

Figure 2 is a transverse vertical section showing the connection of the axle with the sliding boxes;

Figure 3 is a detached perspective view showing the adjustable shanks of the scrapers; and

Figure 4 is a side view of the machine.

This invention relates to certain improvements in a machine for cultivating, scraping, and chopping cotton, all at one operation, said improvements consisting particularly in shanks for the scrapers pivoted at their upper ends to the frame, and provided with curved slots, through which pass clamp-bolts, the object of this arrangement being to enable the scrapers to be set at different angles in a vertical plane, according to the nature of the soil through which they run; and in handles for guiding the machine, which are pivoted at their front ends to fixed standards, and centrally to sliding blocks in which the axle has its bearings, the same being provided with a spring lock-bar for engaging in rack-posts or standards on the rear part of the frame, whereby the depth to which the plows, scraper, &c., shall enter the ground may be regulated with convenience and dispatch.

Referring to the drawing

A is the frame of the machine.

a are vertical boxes attached, exactly opposite each other, to the frame A, and flush with the inner sides of the same, said boxes having vertical slots at their inner sides.

B is the axle, which passes through the vertical slots in the boxes a, and terminates at each end in vertical blocks b inclosed within the boxes, and jointed at their upper ends to the handles c, by means of which the frame A may be raised or lowered on the blocks b, the handles being pivoted at their front extremities to standards d that spring from the frame A.

To secure the handles at any desired height, at their rear ends I provide vertical standards p fixed in the frame A, and having rack-plates attached to their inner sides, with which a lock-bar, r, engages, said lock-bar having bearing springs s s, which are connected with the handles or otherwise suitably arranged, and each end thereof passing through a slot in one of the handles, &c.

The frame A bears the barring-off plows e at its front end, the scrapers f at its rear end, and the rotary choppers g behind the scrapers. These are all raised or lowered with the frame, for the purpose of

regulating their depth in or their height above the earth, as occasion may demand.

C are the master-wheels, mounted on the axle B.

e e are barring-off plows, arranged each directly in front of a master-wheel, so that a track or furrow may be cleared for the latter to run in.

The plows e run one at each side of a row of plants, and throw earth away therefrom, so as to completely cover the spaces between the rows with turned-up soil, and thus bury and kill the weeds therein.

The scrapers f follow, and pare off the sides of the row, reducing it to the requisite width.

The rotary hoes g complete the operation by chopping across the row, and dividing it into stands of the desired length.

One of the hoes is made narrower than the rest, the difference between its width and that of the other hoes being the measure of the hill that this hoe leaves standing crosswise of the row.

All the hoes cut out clean spaces in the row between the hills.

Instead of one narrow hoe, two or three might be used, in which case the hills would be proportionately nearer together.

A slot, h, is formed crosswise of the hoes, to permit their adjustment by means of bolts or screws passing through the ends of the arms i i.

The shaft D of the rotary choppers is connected at its front end with the axle B, and its box k, on the rear cross-piece of the frame A, is provided with trunnions, by means of which the rear end of the shaft is enabled to rise or fall with the frame without binding or straining the latter.

The shanks l of the scrapers f are pivoted at their upper ends to the rear cross-piece of the frame A, and are each provided with a circular slot, m, in rear of the pivot, through which slot a set-screw passes, entering the frame.

The slots and set-screws enable the shanks l to be turned so as to vary the inclination of the scrapers to the row, as in clay soils the scrapers need to be set at a sharper angle to the line of draft than in sandy or loose soils.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the frame A and the axle B, of the blocks b b, handles c c, rack-posts p p, lock-bar r, and springs s s, substantially as and for the purpose specified.

2. The scraper-shank, when pivoted to the frame, and provided with a curved slot and set-screw, for the purpose of enabling the scrapers to be placed at any desired inclination to the line of draft.

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Witnesses:

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