J. SHEPARD.

Shovel Plow.

No. { 480, } { 31,484. }

Patented Feb. 19, 1861.

Fig. 2.

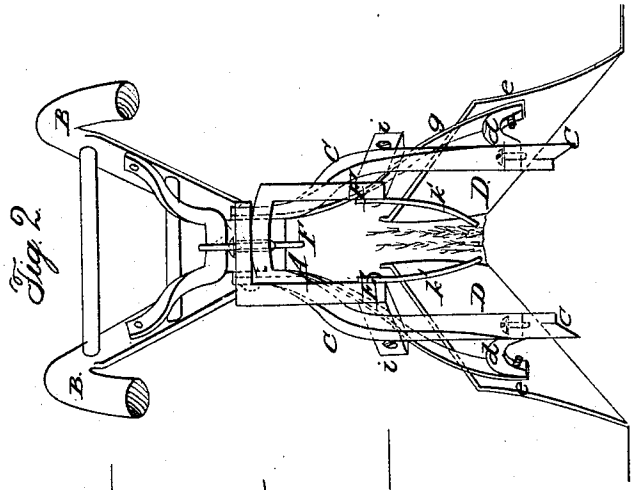


Fig. 1.

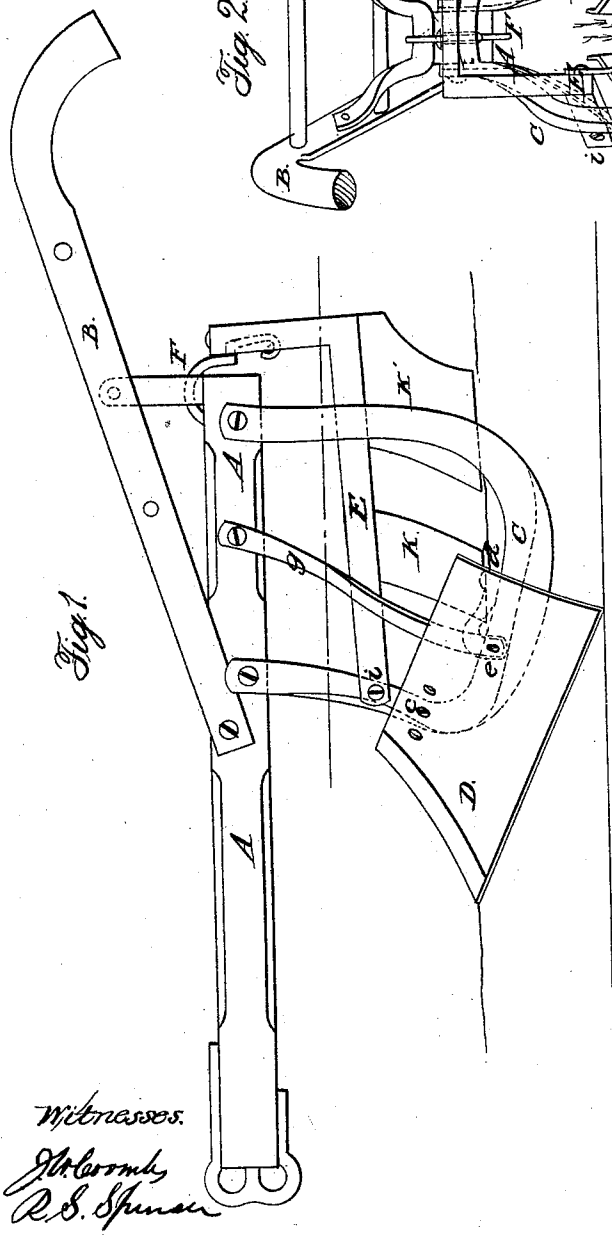
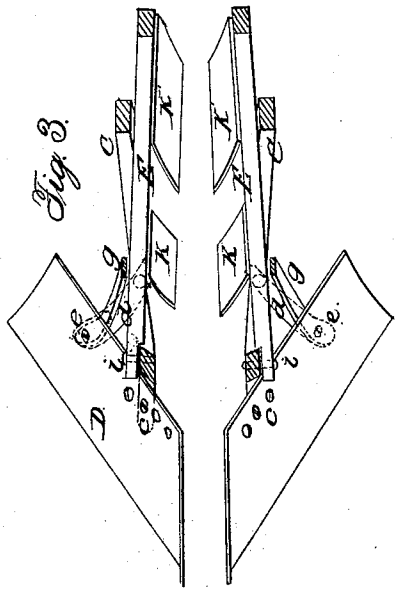


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOSIAH SHEPARD, OF COLUMBIA, TEXAS.

## IMPROVEMENT IN COTTON-SCRAPERS.

Specification forming part of Letters Patent No. **31,484**, dated February 19, 1861.

*To all whom it may concern:*

Be it known that I, JOSIAH SHEPARD, of Columbia, in the county of Brazorio and State of Texas, have invented a new and Improved Cotton-Scraper; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of my improved cotton-scraper. Fig. 2 is a back view of the same. Fig. 3 is a view of the scraping-plates, &c., as seen in a section taken in the horizontal plane indicated by the red line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts in the three figures.

This invention is intended for the general cultivation of drill-husbandry, but more especially for cotton crops.

It consists in attaching to two curved runners two scraping-wings, which scrape the sides of the rows and leave them free from weeds, said scraping-wings being so attached to said runners that they may be readily adjusted so as to increase or diminish the space between their front ends, as will be hereinafter described.

It further consists in the employment of a frame carrying plates which are curved inward, pivoted to the front standards of the aforesaid runners, and working between said runners for the purpose of earthing, or throwing earth about the roots of the plants during the operation of thinning or scraping, as will be hereinafter described.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is a beam, B B are handles which are secured to beam A, and *a* is a clevis, all of which are constructed like a common plow-frame.

To the rear end of the stock A two curved runners, C C, are secured. These runners consist of perpendicular standards, which are curved outward, and longitudinal portions, which are curved in a direction with their length. The standards, of which each runner has two, are secured to the sides of the beam A by suitable bolts and nuts, which pass through this beam. The runners are separated at a proper distance apart, and they run on the ground and support the machine, allowing the beam to be rocked back and forth longitudinally for the purpose of better controlling the operation of the scraping-plates on ridges having uneven surfaces.

To the front standards of the runners C C two scraping-wings, D D, are secured by bolts and nuts at *c c*, Fig. 3, and near the rear ends of these scraping-wings D D pivoted arms *d d* are secured at *e e*, which arms are pivoted to the top edges of the runners, as represented in Figs. 2 and 3. Two brace-rods, *g g*, are attached to the wings D D at the points *e e*, and these rods proceed up and are securely bolted to the sides of beam A. These brace-rods *g g*, together with the pivoted arms *d d* and bolts at *c c*, secure the scraping-wings rigidly in their proper positions for scraping the sides of the rows of cotton-plants. These scraping-plates D D have their bottom edges sharpened so as to cut, and these edges are inclined from their front ends forward and downward. The ends or edges of these scraping-plates are turned out, so that they will not injure the plants on each side of which the plates pass as the machine is drawn over the rows in a direction with their length. The front ends of plates D D do not meet; but a space sufficient to admit the cotton-plants on the tops of the ridges is left between them. This space may be regulated by setting the plates D D either forward or backward, as their rear ends are attached to pivoted arms *d d*, as before described, which will allow the plates to be moved in a proper direction when loosened at *c c*, and by the additional holes made through the plates D D for bolts *c c* these plates may be secured at the proper distance apart.

As has been before described the runners C C are separated some distance apart, and they are parallel to each other. Between these two runners C C, and pivoted at *i i* to the front standards of these runners, are two longitudinal beams, E E, which extend back beyond the rear standards of the runners C C, and the rear ends of these beams E E are turned up, forming right angles. The upper ends of these perpendicular portions of the beams E E are now connected together, as shown in Fig. 2 of the drawings. The rear ends of the beams E E will therefore rise and fall together.

F is a hooked arm, which projects from the rear end of beam A, which is used to hold the rear ends of beams E up out of the way, as represented in red lines, Fig. 1, when they are not

used. Beams E E are nearly parallel to each other and pass between the two rear standards of runners C C. At suitable points on these beams E E are two pairs of curved plates, *k k*, *k' k'*, the latter of which are secured to the rear ends of these beams. These plates are curved inward, and the plates of one beam are opposite those of the other beam. The bottom edges of these plates *k k k' k'* may be in a line parallel with the rows of plants, or their rear ends may be turned slightly inward, if found desirable. The bottom edges of plates *k k k' k'* do not come together; but spaces are left between them to allow the plants in the row to pass between them. The space between the plates *k k* may be made greater than that between the plates *k' k'*.

The operation of the machine is as follows: The rows of cotton-plants are scraped of all foreign plants by plates D D on passing the machine once over the rows, the beams E E with their plates being hooked up out of the way, as above described. The plates D D are now set closer together, and the plates *k k k' k'* brought into operation, and on going over the row again with the machine the plates D D will scrape out and thin the rows, while at the same time the plates *k k k' k'* will gather and throw the earth loosely about the roots of the plants. The rows can now be cut up into hills or blocked off at such distances as may be found desirable with the same machine by suitable adjustments.

In scraping off the weeds and in thinning out the cotton-plants from the rows it will be seen that the plowman can easily manage the machine and keep the edges of the scraping-plates close down to the roots of the plants, as the runners C C will allow him to rock the machine. At the same time these runners greatly assist in guiding the machine properly along the rows to prevent the plants from injury when cutting very close to their roots.

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

1. The curved runners C C, arranged and constructed as herein described, and in combination therewith the scraping-plates D D, when attached to the runners by pivoted arms *d d*, brace-rods *g g*, and bolts at *c c*, substantially as and for the purposes herein set forth.

2. The jointed beams E E, carrying plates *k k k' k'*, and otherwise constructed and arranged as and for the purposes specified, when combined with the runners C C.

JOSIAH SHEPARD.

Witnesses:
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