A. K. & B. H. FOSTER.

Rotary Cultivator.

No. 60,625. Patented Dec. 18, 1866.

Fig. 3.

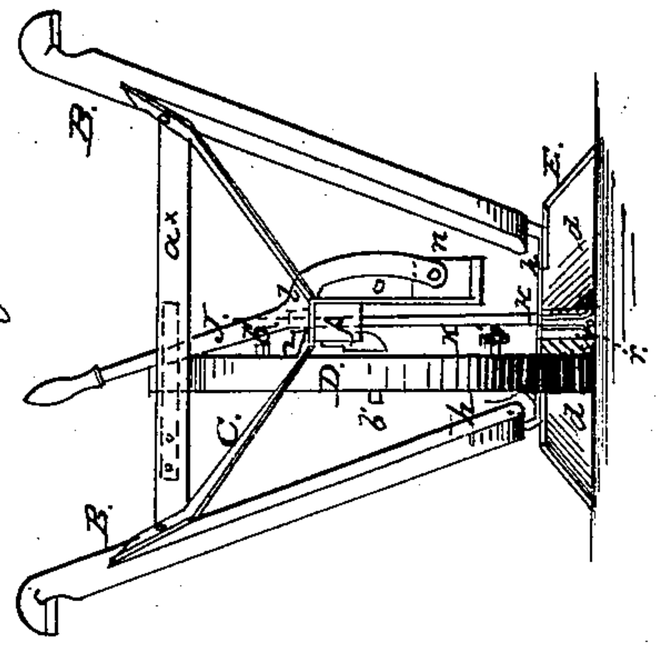


Fig. 4.

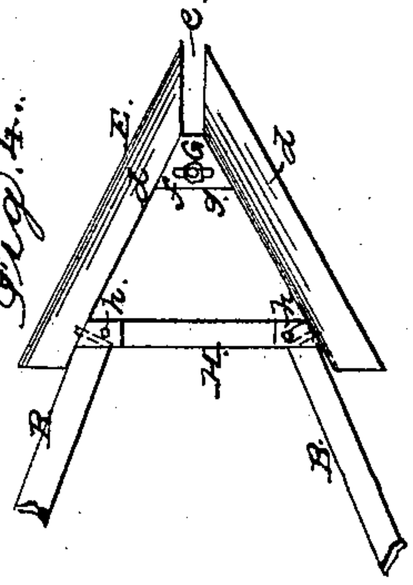


Fig. 5.

Fig. 1.

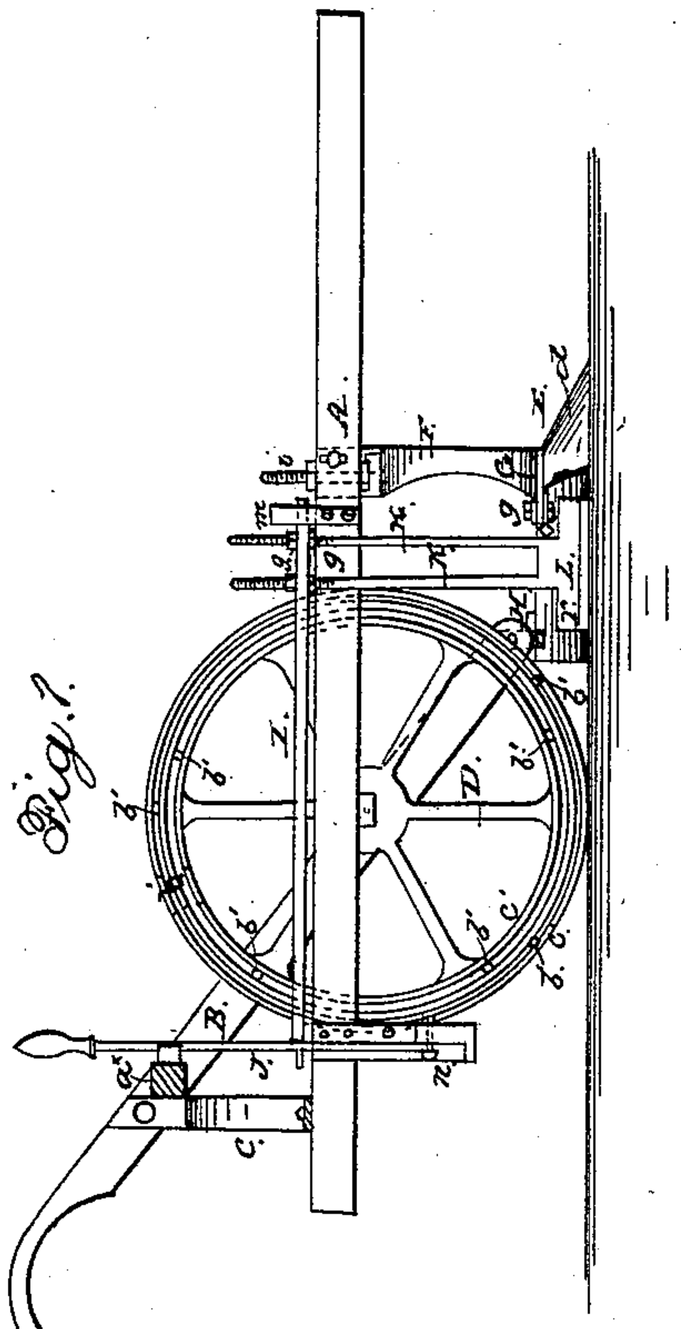
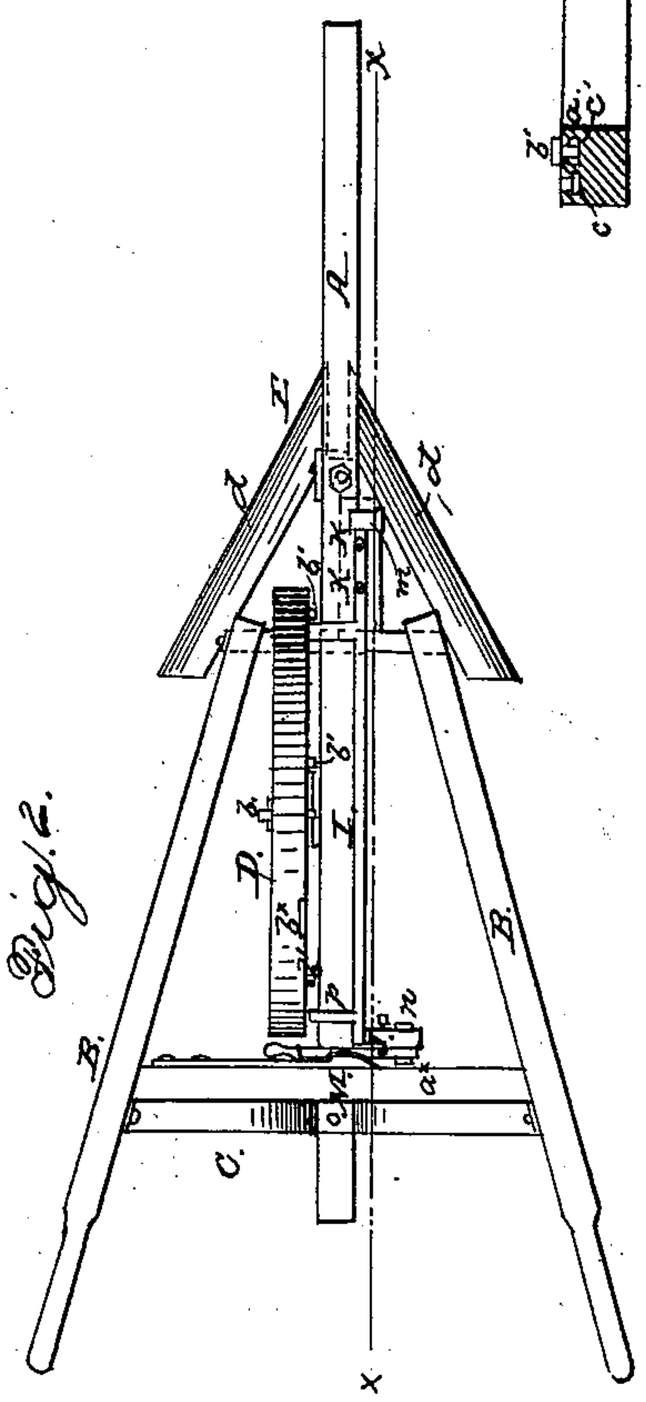


Fig. 2.



WITNESSES:

F. A. Jackson

Theo. Dusch

INVENTOR:

B. H. Foster

Per Munn & Co.

Attorneys.

United States Patent Office.

IMPROVEMENT IN COTTON CULTIVATOR.

A. K. AND B. H. FOSTER, OF HALLETTSVILLE, TEXAS.

Letters Patent No. 60,625, *dated December* 18, 1866.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that we, A. K. FOSTER and B. H. FOSTER, of Hallettsville in the county of Lavacca, and State of Texas, have invented a new and improved Cotton Cultivator; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, fig. 2.

Figure 2, a plan or top view of the same.

Figure 3, a rear view of the same.

Figure 4, an inverted plan of the share pertaining to the same.

Figure 5, an enlarged central view of the driving-wheel pertaining to the same.

Similar letters of reference indicate like parts.

The invention relates to a new and improved cultivator, designed more especially for cultivating cotton, scraping the earth away from the young plants, and thinning out the same. The invention consists of a share or scraper, composed of two parts, and a reciprocating cutter, operated from the driving-wheel, or the wheel which supports the implement, as hereinafter fully shown and described. A represents a beam, and B B are two handles which are connected by a bar, C, the latter being secured to the rear part of the beam, and serving to support the handles. The handles are also connected by a bar, *a**, which serves as a brace for the same. D represents a wheel, the axle *b* of which is attached to the beam A. This wheel, D, has two annular, concentric grooves, *c c'*, made in one side of rim, said grooves being of T shape in their transverse section, in order that nuts, *a*, may be fitted in them to receive screws, *b'*, and admit of said screws being firmly secured in the grooves at any point desired. This will be fully understood by referring to fig. 5. The nuts may be withdrawn from the grooves by having a transverse groove or recess, *b**, made in the rim *b* for the nuts to pass through. E represents the share, which is composed of two parts, *d d*, placed or arranged in V form, as shown clearly in figs. 2 and 4, a space, *e*, being allowed between the front ends of the parts *d d*, so that a part, *d*, may operate at each side of a row of plants. The parts *d d* are secured near their front ends to the bottom of a standard, F, the upper end of which is firmly bolted to the beam A, the parts *d* being each provided with a lateral or horizontal plate, G, at their upper edges, which lap one over the other, and have oblong slots, *f*, made in them, through which, and the lower part of the standard, a bolt, *g*, passes. The rear ends of the parts *d d* are attached by pivots, *h*, to a bar, H, secured to the lower ends of the handles B B, and it will be seen that by loosening the bolt *g*, the front ends of the parts *d d* may be adjusted at a greater or less distance apart, and then secured in the position desired by tightening up said bolt. The share may be adjusted higher or lower, according to the depth of penetration required, by having the standard F provided with a screw, *i*, at its upper end, the screw passing through the beam A, and having two nuts, *j j*, upon it, one above and the other below the beam, as shown in fig. 1. One side of the standard projects up by the side of the beam, and has a vertical slot made in it, through which a screw, *l*, passes into the beam. By these means the standard, and consequently the share, may be adjusted higher or lower, and firmly secured at the desired point. I represents a rock-bar, the front bearing, *m*, of which is attached to the beam A, the rear bearing being in a lever, J, the lower end of which is connected by a fulcrum pin, *n*, to a pendant, *o*, attached to the beam. This rock-bar has two arms, *p p'*, projecting from it at right angles, and from the same side, towards the wheel D, the arms *p p'*, being in the path of the screws *b*, so that the latter will act against the former as the wheel D rotates under the draught movement of the machine. Through the rock-bar I, near its front end, two rods, K K, pass. These rods have screw-threads cut on their upper ends to receive nuts, *g*, two on each rod, one above and the other below the bar I. These rods extend down between the rear ends of the two parts *d d* of the share, and have a cutter, L, attached, said cutter being composed of two parts or plates, *r r*, with the lower ends of the rods K K secured between them, each part or plate, *r*, having a cutting edge, *s*, projecting out from its lower end. (See fig. 3.) The lever J is retained in position by a spring-catch, M, secured to the bar *a** of the handles. As the implement is drawn along, the two parts *d d* of the share E scrape the earth away from each side of the row of plants, while the cutters, L, thin out the plants in consequence of working transversely across the row, the cutter being moved in one direction by the heads of the screws in the inner groove *c'*, striking the front arm, *p'*, of the rock-bar I, and moved in the other

direction by the screw-heads in the outer groove, *c*, striking the rear arm, *p*, of the rock-bar. A greater or less number of screws may be fitted into the grooves *c c'*, according to the length of the spaces required between the plants, and it will be seen that the screws, whether a greater or less number be used, may be adjusted at an equal distance apart in the grooves *c c'* with the greatest facility. The reciprocating cutter L may be rendered inoperative at any time by moving the lever J so as to throw the rear end of the rock-bar I to the right, and the arms *p p'* of said bar out from the screws *i*.

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

1. The share E, composed of two parts, *d d*, arranged in V form, with a space, *e*, between their front ends, and attached to a standard, F, and to the front ends of the handles B B, in the manner shown and described, or in an equivalent way, to admit of being adjusted at a greater or less distance apart at their front ends, substantially as shown and described.

2. The reciprocating cutter L, operated from the wheel D, through the medium of the screws *i*, and the rock-bar I, provided with the arms *p p'*, in combination with the share E, substantially as and for the purpose specified.

3. The fitting or securing of the screws *i* to the wheel D, by means of the concentric annular grooves *c c'* in the side of the rim *b* of said wheel, to receive the nuts *a* of the screws *i*, whereby the screws may be readily applied to and detached from the wheel, and secured at an equal distance apart, substantially as described.

A. K. FOSTER,
B. H. FOSTER.

Witnesses:
J. R. EVANS,
VOLNEY ELLIS.