

(No Model.)

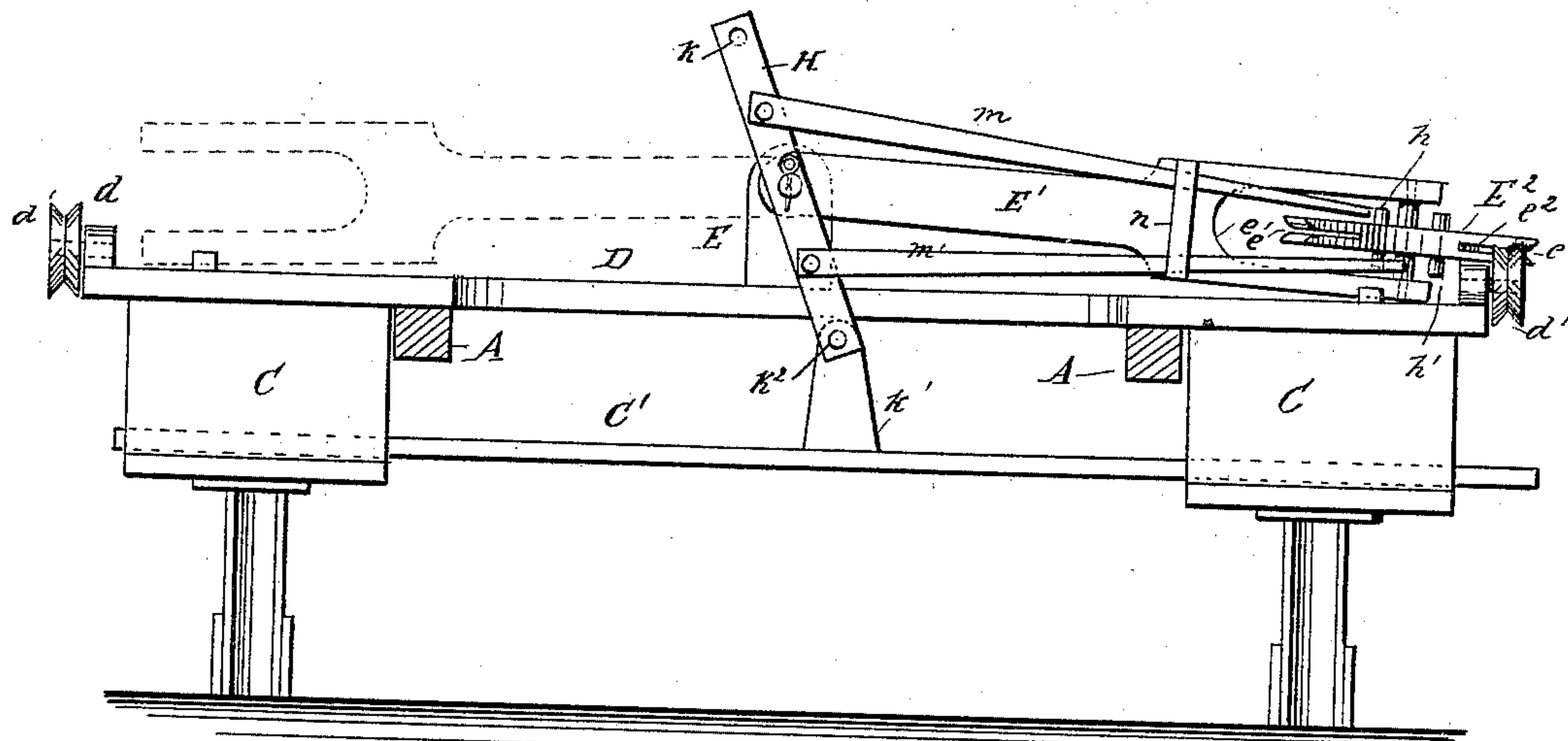
G. L. BANKS.

CHECK ROWING ATTACHMENT.

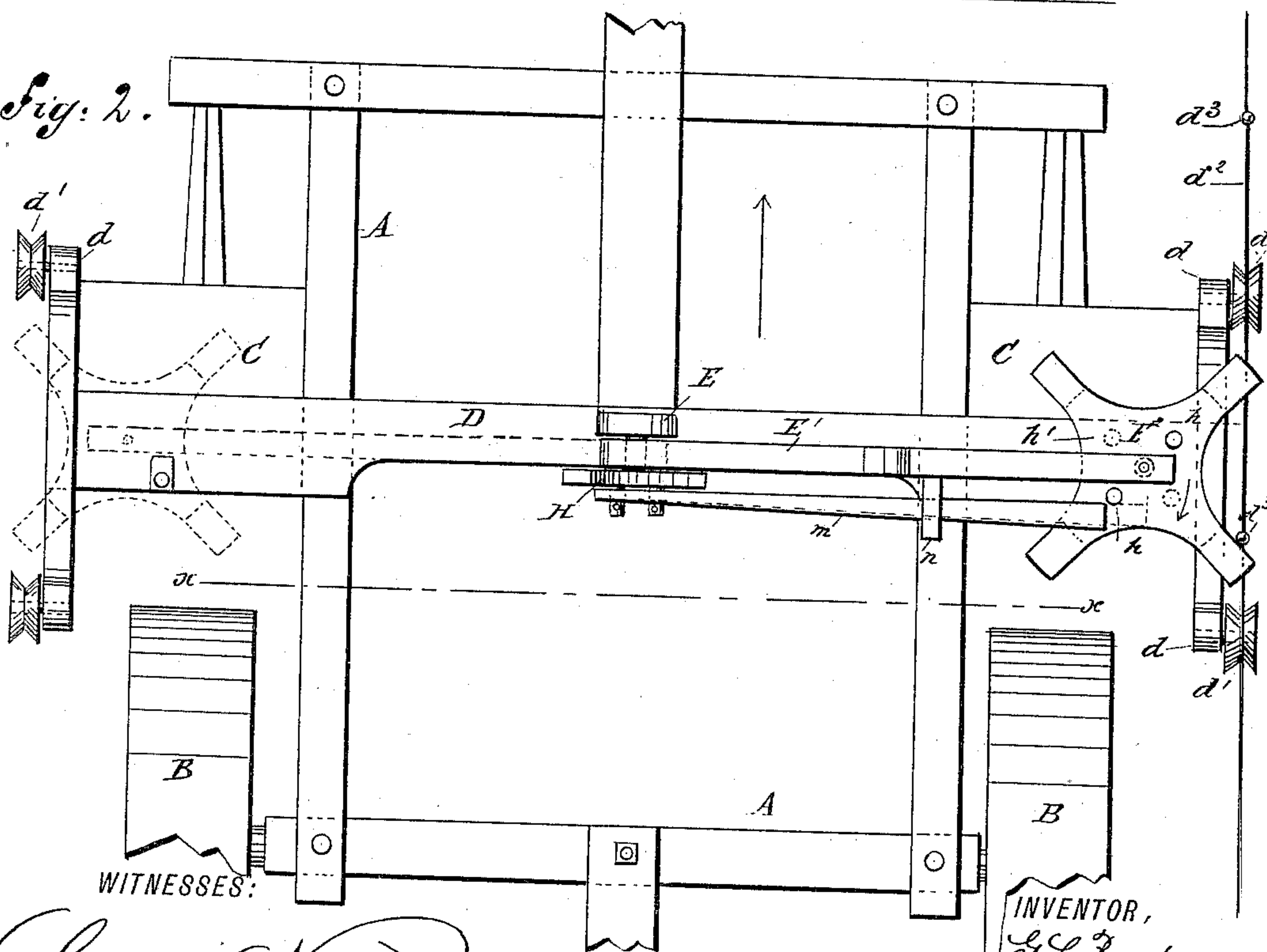
No. 396,848.

Patented Jan. 29, 1889.

*Fig: 1.*



*Fig: 2.*



WITNESSES:

Chas. Niles  
L. Sedgewick.

INVENTOR,  
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GEORGE L. BANKS, OF FALL RIVER, KANSAS, ASSIGNOR TO LESLIE SOLON TRUSLER, OF SAME PLACE.

## CHECK-ROWING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 396,848, dated January 29, 1889.

Application filed May 10, 1888. Serial No. 273,488. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE L. BANKS, of Fall River, in the county of Greenwood and State of Kansas, have invented a new and Improved Check-Rowing Attachment, of which the following is a full, clear, and exact description.

My invention relates to an improvement in check-rowing attachments for planters, and has for its object to provide a simple, effective, and readily-manipulated device which may be expeditiously reversed from side to side.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a transverse section through a planter on line  $x x$  of Fig. 2, having the attachment applied; and Fig. 2 is a plan view illustrating in dotted lines the reverse action of the attachment.

In carrying out the invention, A represents the frame of a planter; B, the drive-wheels; C, the seed-boxes, and C' the drop-bar sliding in said boxes in any well known or approved manner.

A beam, D, is made to extend transversely of the planter, which beam, resting upon and projecting beyond the seed-boxes, is provided with an attached cross-bar,  $d$ , at each extremity, screwed or otherwise secured to the upper face, as best illustrated in Fig. 2.

As a matter of economy and to obtain lightness, the beam D may be made narrower at the center than at the ends. To the outer face of the cross-bar  $d$ , at or near each extremity, a peripherally-grooved wheel,  $d'$ , is pivoted, which wheels are adapted to receive the guide rope, chain, or line  $d^2$ , as illustrated to the right in Fig. 2, the said rope, chain, or line being provided with a series of the usual attached balls,  $d^3$ , or other equivalent projections.

From the center of the beam D a lug or short standard, E, is vertically projected, and

upon said standard the inner end of a wheel-carrying arm, E', is pivoted.

The arm E' is adapted to rest edgewise at its outer end upon the beam D, the said outer end being bifurcated or provided with a recess,  $e$ , in which recess a star-wheel, E<sup>2</sup>, is horizontally pivoted.

The ends of the several members of the star-wheel are provided with a groove or channel,  $e'$ , and a horizontal slot,  $e^2$ , to receive the guide rope, chain, or line  $d^2$ . At each side of the center of the said star-wheel, upon the upper face, a vertical projection, H, is formed, which projections are in line with each other and also, preferably, in alignment with a central line drawn longitudinally through two opposing members. Similar projections,  $h'$ , are attached to or pass integral with the under side of the star-wheel, which latter projections are located upon the members at right angles to the aforesaid members carrying the upper projections.

A rocking bar, H, is centrally pivoted to the standard E, preferably by the same pin upon which the wheel-carrying arm E' is fulcrumed. The extremities of the said rocking bar are apertured, as shown at  $k$ , and one of said ends is pivoted to a perpendicular post,  $k'$ , secured to the upper face of the drop-bar at the center, the connection being effected by passing a readily-detachable pin,  $k^2$ , through the aperture in the rocking bar, and also through a like aperture in post  $k'$ .

Above and below the center of the rocking bar one end of a horizontal reciprocating bar is pivoted, lettered, respectively,  $m$  and  $m'$ , the outer ends of which reciprocating bars are made to pass through openings in a bracket,  $n$ , vertically attached to the pivoted arm E', and extend one above and the other below the star-wheel, as best shown in Fig. 1.

In operation, as the planter is drawn forward, the enlargements upon the guide rope or chain strike the members of the star-wheel, revolving the same, whereby a constant reciprocation of the drop-bar is obtained by the upper and lower projections upon said star-wheel alternately engaging the respective upper and lower horizontal bars,  $m m'$ , which in turn rock the essentially vertical-pivoted



bar H. When the planter is reversed by withdrawing the pin connecting the rocking bar and drop-bar, the wheel-carrying arm E' may be swung over to the opposite side, as shown in dotted lines, Fig. 1. Upon securing the lower end of the rocking bar to the post of the drop-bar the planter is again placed in working condition.

I desire it to be understood that if in practice it is found desirable two carrying-arms and attached star-wheels may be employed, one for each side of the implement, without departing from the spirit of the invention.

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

1. The combination, with the drop-bar and guide-rope, of a horizontal arm pivoted above the drop-bar, a rocking bar connected with the latter, a star-wheel pivoted in said arm, and means, substantially as shown and described, for reciprocating the drop-bar from the star-wheel, as and for the purpose specified.

2. The combination, with the drop-bar and guide-rope, of a reversible horizontal arm pivoted above the drop-bar, a rocking bar pivoted to the latter at one end, a star-wheel horizontally pivoted in said arm, and means, substantially as shown and described, for reciprocating the drop-bar from the star-wheel,

whereby the star-wheel may be carried from one side of the planter to the other, as desired.

3. The combination, with the drop-bar and guide-rope, of a reversible horizontal arm pivoted above the drop-bar, a rocking bar pivoted at one end of the latter, a star-wheel horizontally pivoted in said arm, having the extremity of its members grooved and slotted to receive the guide-rope, and mechanism, substantially as shown and described, for actuating the rocking bar from the star-wheel, as and for the purpose specified.

4. The combination, with the drop-bar and guide-rope, of a reversible horizontal arm pivoted above the guide-bar, a rocking bar having one end pivotally connected with the latter, a star-wheel horizontally pivoted in said arm, having the extremity of its members grooved and slotted to receive the guide-rope, projections integral with the top and bottom of the star-wheel, and reciprocating bars pivoted upon the rocking bar alternately engaged by the said projections, substantially as and for the purpose specified.

GEORGE L. BANKS.

Witnesses:

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E. T. BROWNING.