

(No Model.)

2 Sheets—Sheet 1.

J. R. COX.
CORN PLANTER.

No. 483,736.

Patented Oct. 4, 1892.

Fig. 1.

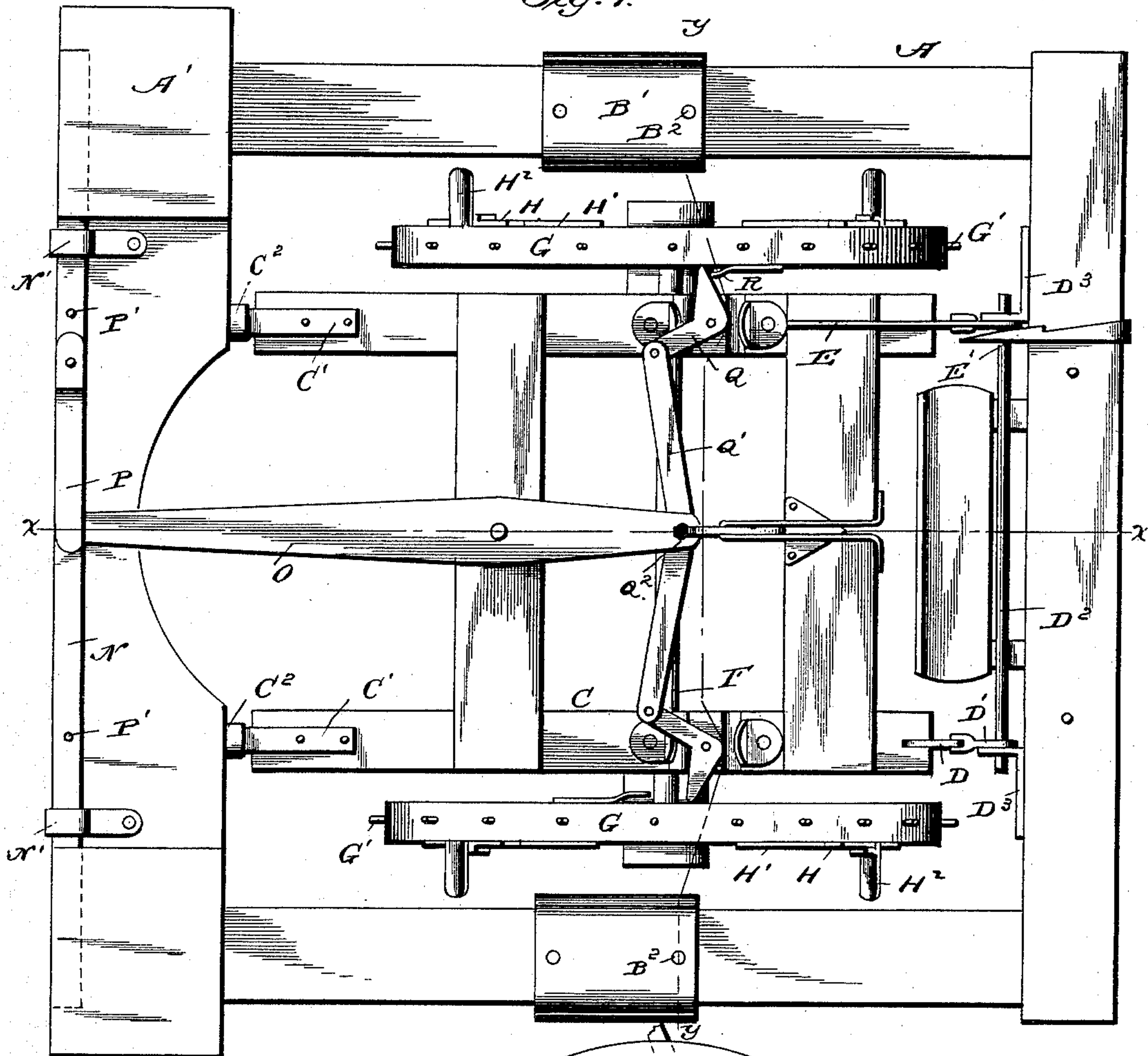
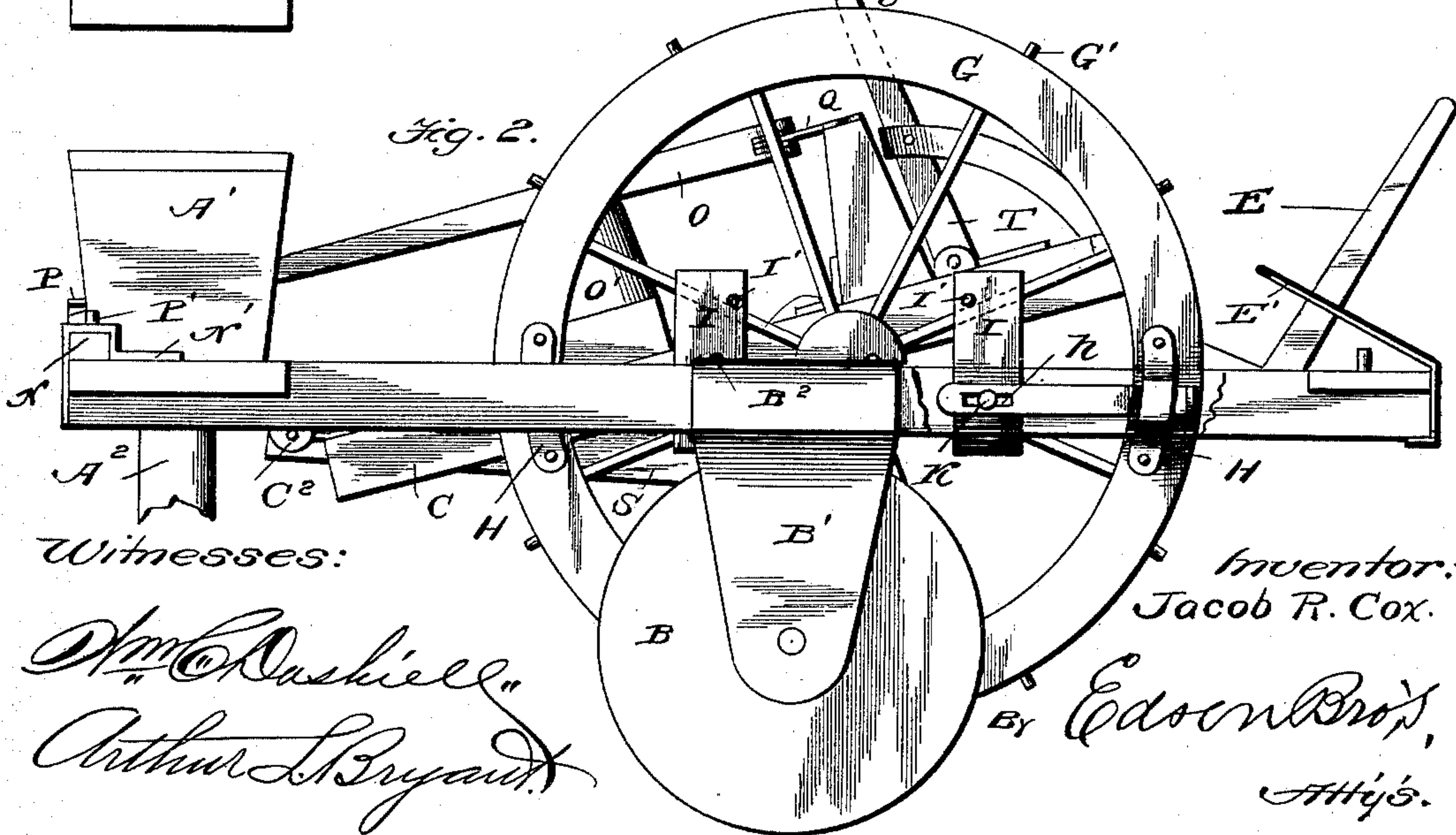


Fig. 2.



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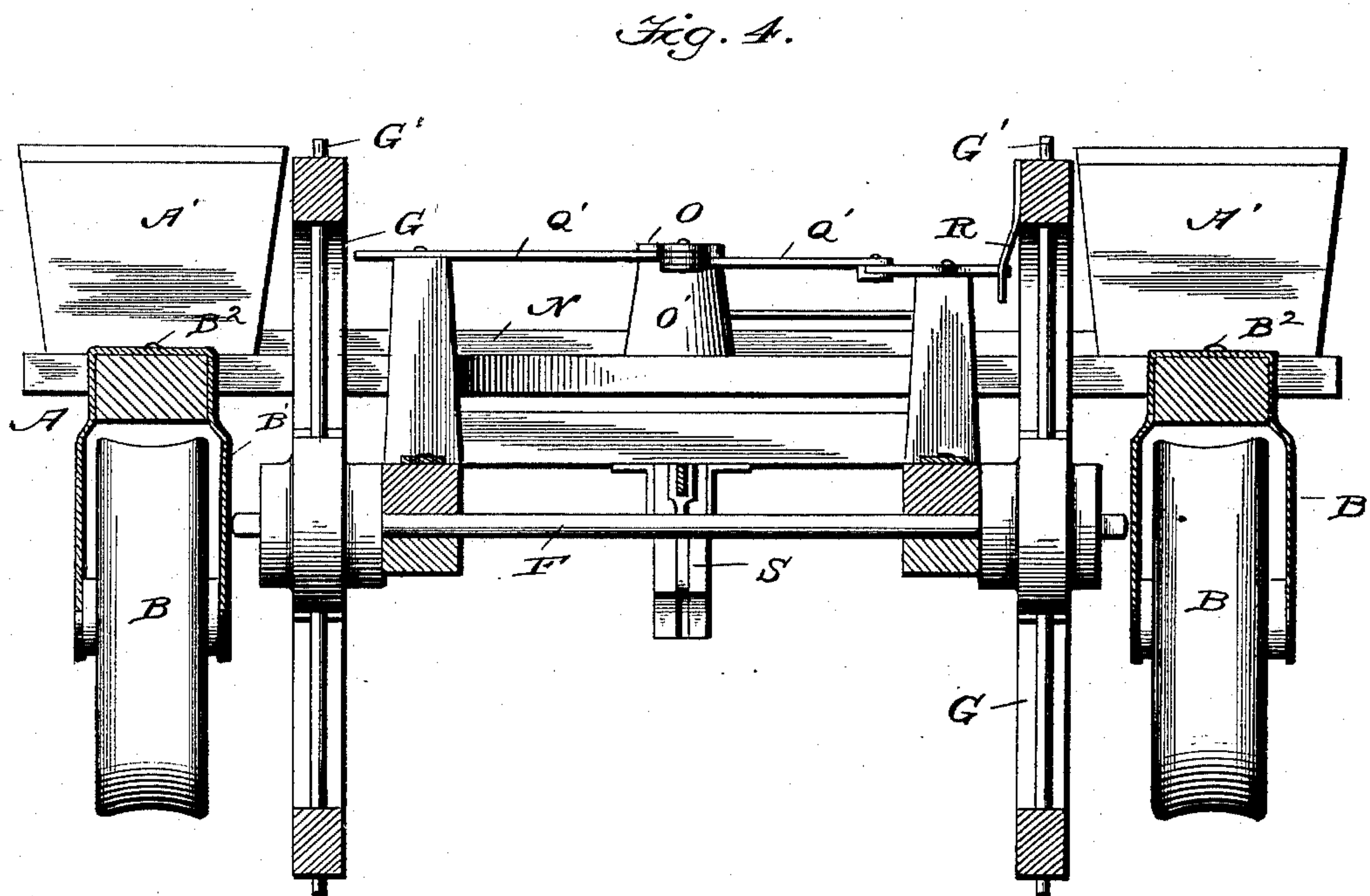
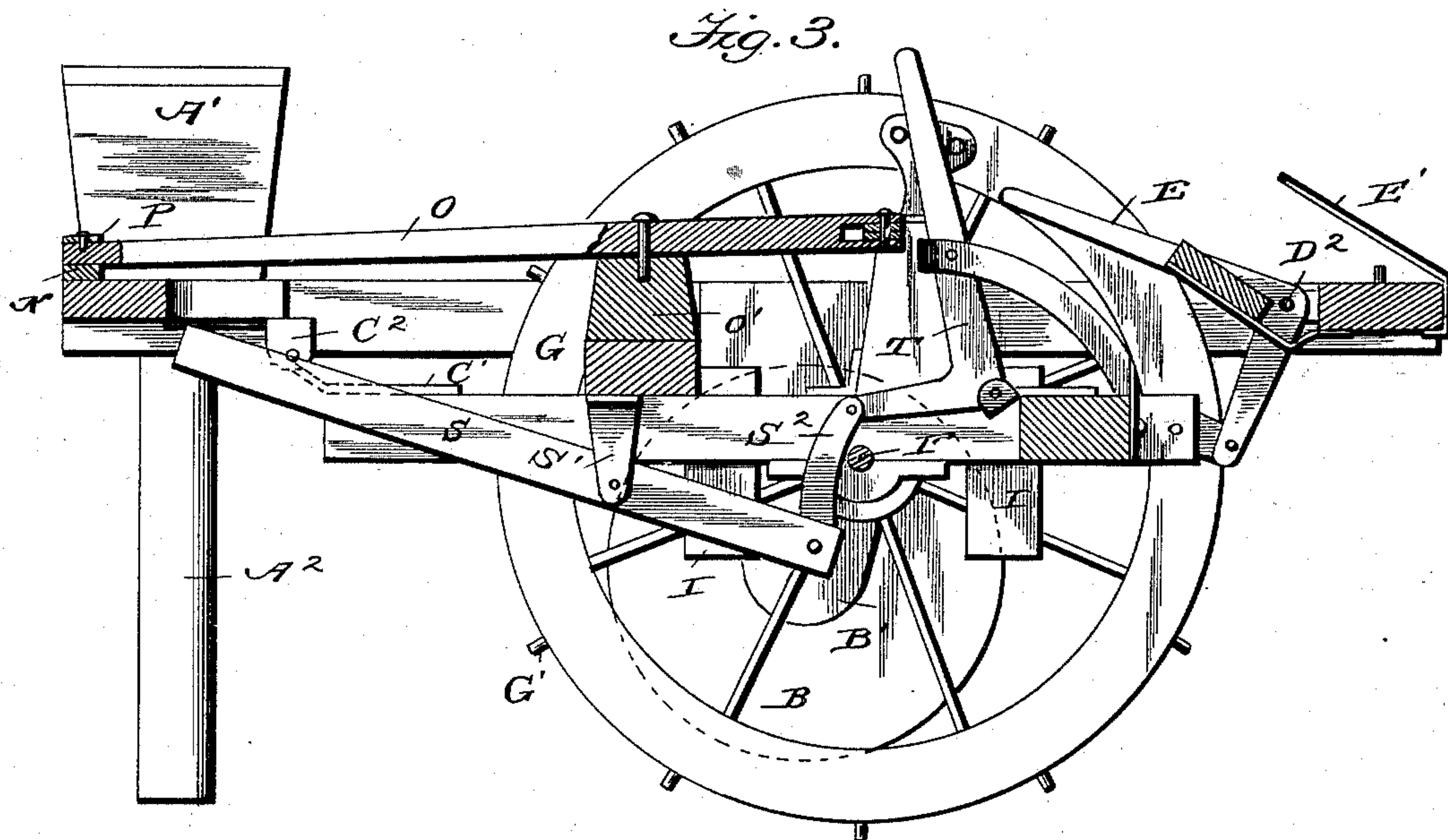
(No Model.)

2 Sheets—Sheet 2.

J. R. COX.
CORN PLANTER.

No. 483,736.

Patented Oct. 4, 1892.



Witnesses:

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UNITED STATES PATENT OFFICE.

JACOB RINEARSON COX, OF CLAYTON, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF THREE-FOURTHS TO JAMES ALLEN DOWNARD, OF DANVILLE, INDIANA, AND JOHN VESTAL HADLEY, ENOCH GEORGE HOGATE, JOEL TAYLOR BARKER, AND DAVID HADLEY.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 483,736, dated October 4, 1892.

Application filed May 16, 1892. Serial No. 433,177. (No model.)

To all whom it may concern:

Be it known that I, JACOB RINEARSON COX, a citizen of the United States, residing at Clayton, in the county of Hendricks and State of Indiana, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in corn-planters; and it consists in the combination, with a main frame adjustably connected to suitable carrying-wheels and carrying a suitable hopper or hoppers, of an auxiliary frame pivotally connected to the main frame, an operating-lever fulcrumed on said auxiliary frame and connected with a feed-slide on the main frame, operating-wheels carried by an axle journaled in the auxiliary frame and provided with suitable marking devices, and connections between said wheels and the operating-lever.

My invention further consists in the peculiar construction and arrangement of parts, as will be hereinafter more fully described and claimed.

In the accompanying drawings, illustrating my improved corn-planter, Figure 1 is a plan view. Fig. 2 is a side elevation showing the auxiliary or supplemental frame elevated. Fig. 3 is a vertical sectional view on the line $x x$ of Fig. 1. Fig. 4 is a transverse vertical sectional view on the line $y y$ of Fig. 1.

Like letters of reference denote corresponding parts in all the figures of the drawings, referring to which—

A designates the main frame of my improved planter, and on the front cross-bar of said frame are mounted suitable hoppers A', which communicate with the feed-spouts or planting-tubes A², secured to the under side of the main frame A.

The peripherally-grooved carrying-wheels B of the main frame A are mounted in line with the planting-tubes A² on suitable axles, which are journaled in the parallel depending side plates of hangers B'. The hangers B' are preferably formed from a single piece of metal bent to pass over and extend down on opposite sides of the side bars of the frame

A, to which frame they are detachably connected by screws or bolts B², so that said hangers and detached carrying-wheels can, if desired, be moved longitudinally of the frame A.

Within and supported by the main frame A is the auxiliary or supplemental frame C. The side bars of the supplemental frame C are provided at their forward ends with straps C', which are pivotally connected at their forward ends to depending hangers C² on the front cross-bar of the main frame. The rear ends of the side bars of the auxiliary or supplemental frame are divided or bifurcated, and in such bifurcated ends are secured short links D, which are connected at their free ends to one end of links D', attached at their other ends to a transverse rock-shaft D², which is journaled in suitable arms D³, attached to the inner face of the rear cross-bar of the main frame A. To the rock-shaft D² is attached a lever or arm E, by which said shaft can be rocked in its bearings and raise the supplemental or auxiliary frame. The supplemental or auxiliary frame is maintained in this elevated position by inserting the lever or arm E in a notch or recess formed in an arm E', attached to the rear cross-bar of the main frame A.

On an axle F, journaled in the side bars of the supplemental or auxiliary frame, are mounted operating-wheels G, which wheels are provided on their peripheries with a series of spurs or projecting pins G'. To the outer sides of diametrically-opposite felloes of the wheel G are secured brackets or guides H, through which extend marking-arms H'. These marking-arms H' are provided at one end with an outwardly-projecting foot H², and near their other ends said arms are adjustably connected to blocks I, the ends of which are bifurcated and receive adjacent spokes of the wheel G. The slots in the ends of the blocks I are inclined and the spokes fitted therein bind against the inner inclined wall of said slots and prevent any downward movement of said blocks. Any upward movement of the blocks I on the spokes of the planting-wheels is prevented by pins or bolts I', extending across the slots in the ends of the blocks and at one side of the spokes fitted therein. The marking-arms are preferably connected

to the blocks by a pin-and-slot connection, a longitudinal slot *h* being formed in the marking-arm and a headed pin or bolt *K* extended through such slot, whereby the marking-arm
5 can be moved longitudinally by loosening the bolt *K* and secured firmly in any desired position with relation to the rim of the operating-wheel by said slot.

In the hoppers *A'*, mounted on the main
10 frame, are arranged suitable feed-slides, the connecting-bar *N* of which extends through suitable guides *N'* on the front cross-bar of the main frame *A*. In the upper surface of the connecting-bar *N* is formed a recess or
15 socket, into which extends the forward end of a lever *O*, fulcrumed on a post *O'*, carried by the supplemental or auxiliary frame. The forward end of the lever *O* is held in position within the socket in the bar *N* by means of a
20 latch or keeper *P*, secured on said bar and pivotally connected to the free end of said lever. On the bar *N* are arranged suitable stops *P'*, which limit the endwise movement of said bar by coming in contact with the
25 guides *N'*.

On suitable posts or supports attached to the side bars of the supplemental or auxiliary frame at opposite points are pivoted bell-crank levers *Q*, and one arm of each of these
30 levers is connected with the rear end of the operating-lever *O* by links *Q'*, which are pivotally connected to each other and to the lever *O* by a pin or bolt *Q²*. The other free arms of the levers *Q* extend beyond the sides
35 of the supplemental or auxiliary frame and into the path of fingers *R*, attached to the inner faces of the rims of the operating-wheels *G* at diametrically-opposite points.

A draft-tongue *S* is fulcrumed between depending parallel hangers *S'*, attached to the front cross-bar of the supplemental frame, and at its forward end said tongue is provided with any suitable means (none being shown) for connecting a team thereto. To the rear
45 end of said tongue is attached an upwardly-extending curved link or arm *S²*, which is pivotally connected at its free end to one arm of a bell-crank lever *T*, fulcrumed on the rear cross-bar of the supplemental or auxiliary
50 frame.

In operating my improved planter the supplemental frame is lowered to allow the operating-wheels *G'* thereof to contact with the ground. As the machine is drawn forward
55 the operating-wheels *G* are revolved or rotated and the fingers *R*, carried thereby, alternately

strike against the outwardly-projecting arms of the bell-crank levers *Q* and reciprocate the feed-slides, being connected to the bell-crank levers, as hereinbefore described. The corn
60 deposited in the ground by the planting-tubes is covered by carrying-wheels *B*. By depressing the lever *T* the main frame can be raised slightly to bring the weight on the supplemental frame and cause the operating-wheels
65 *G* thereof to bear closely against the surface of the ground. When it is desired to move the planter from place to place, the supplemental frame is elevated and the lever *E* fitted in the notch in the arm *E'*.
70

I am aware that changes in the form and proportion of parts and details of construction of the devices herein shown and described as an embodiment of my invention may be made without departing from the spirit or sacrificing
75 the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

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

1. In a corn-planter, the combination of a main frame, hangers *B'*, adjustably connected to and extending on opposite sides of the side members of said frame, carrying-wheels
85 mounted on axles journaled in said hangers, hoppers carried by the main frame and communicating with planting-tubes thereon, an auxiliary or supplemental frame arranged within and connected to the main frame, op-
90 erating-wheels mounted on an axle journaled in the supplemental frame, an operating-lever fulcrumed on the supplemental frame and connected with a feed-slide arranged in the hoppers, bell-crank levers fulcrumed on the
95 supplemental frame and connected with the operating-lever, and fingers carried by the operating-wheels and adapted to contact with the free arms of the bell-crank levers as said wheels are rotated, substantially as described.
100

2. In a corn-planter, the combination, with operating-wheels, of the blocks *I*, having their ends bifurcated and adapted to receive adjacent spokes on the wheel, and marking-arms adjustably connected to said blocks, substan-
105 tially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB RINEARSON COX.

Witnesses:

R. F. HATHAWAY,
E. S. WEDDLE.