

(No Model.)

2 Sheets—Sheet 1.

I. H. ATHEY.  
CORN PLANTER ATTACHMENT.

No. 371,119.

Patented Oct. 4, 1887.

Fig. 1.

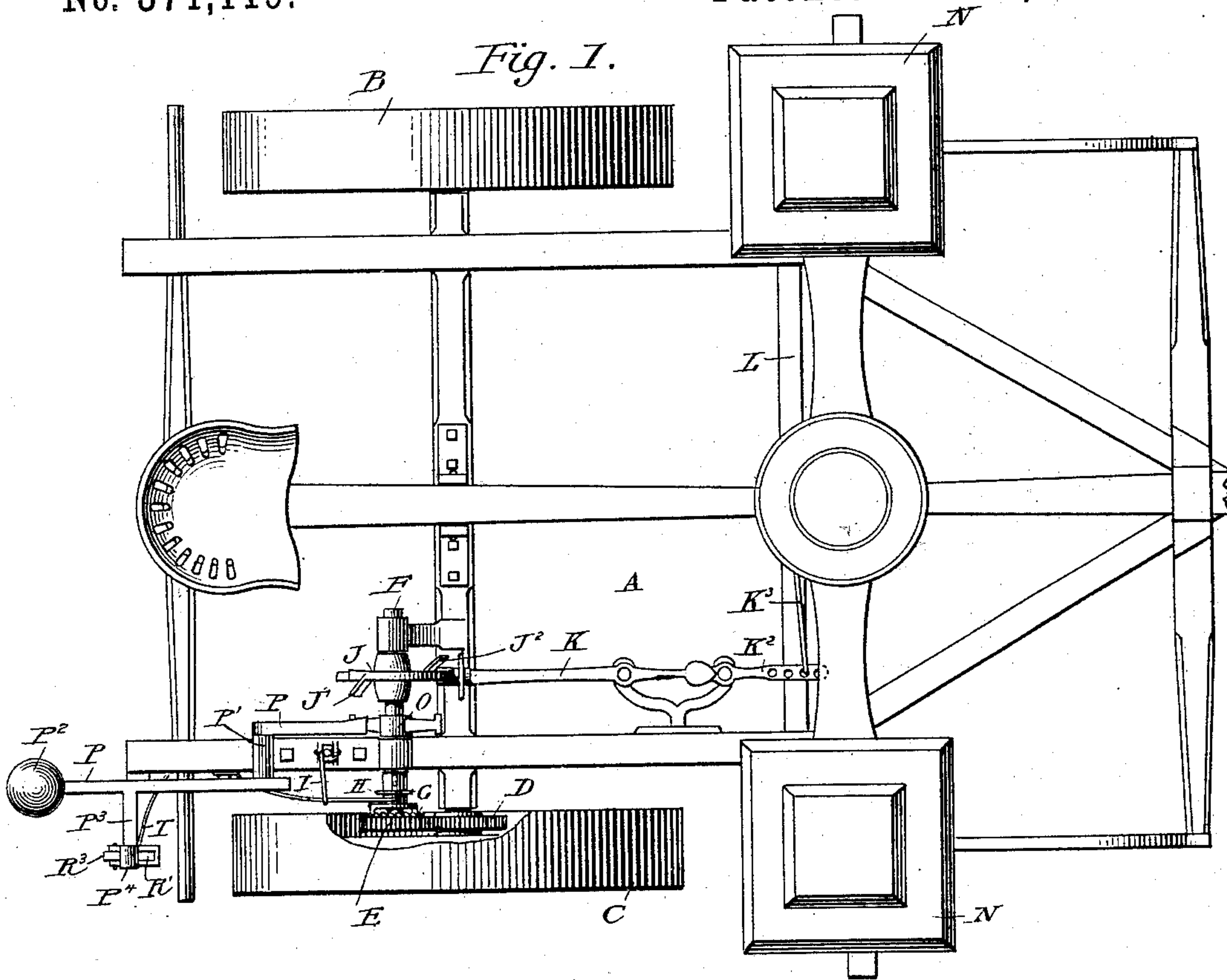
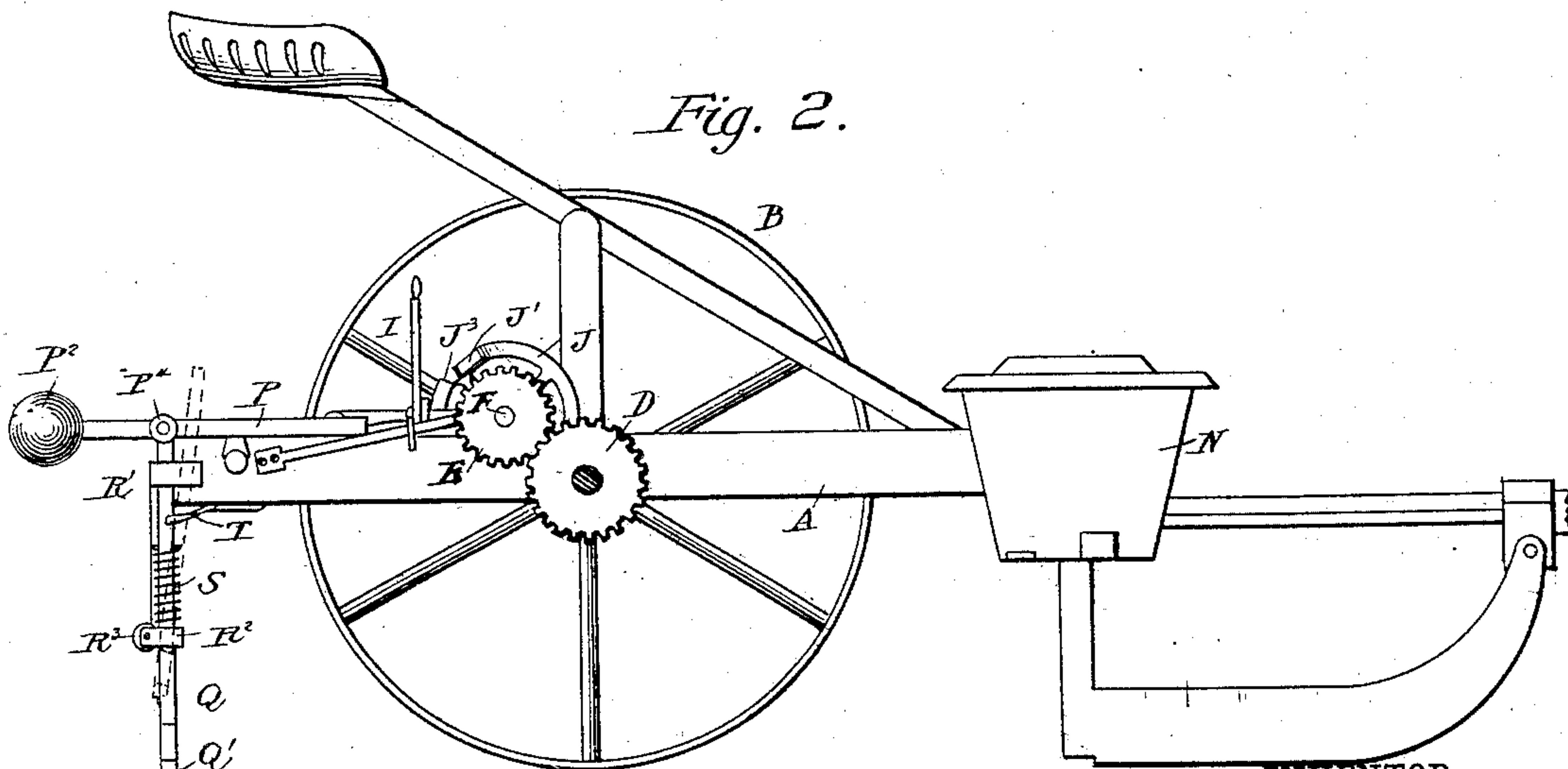


Fig. 2.



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I. H. Athey  
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ATTORNEYS.

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Fig. 3.

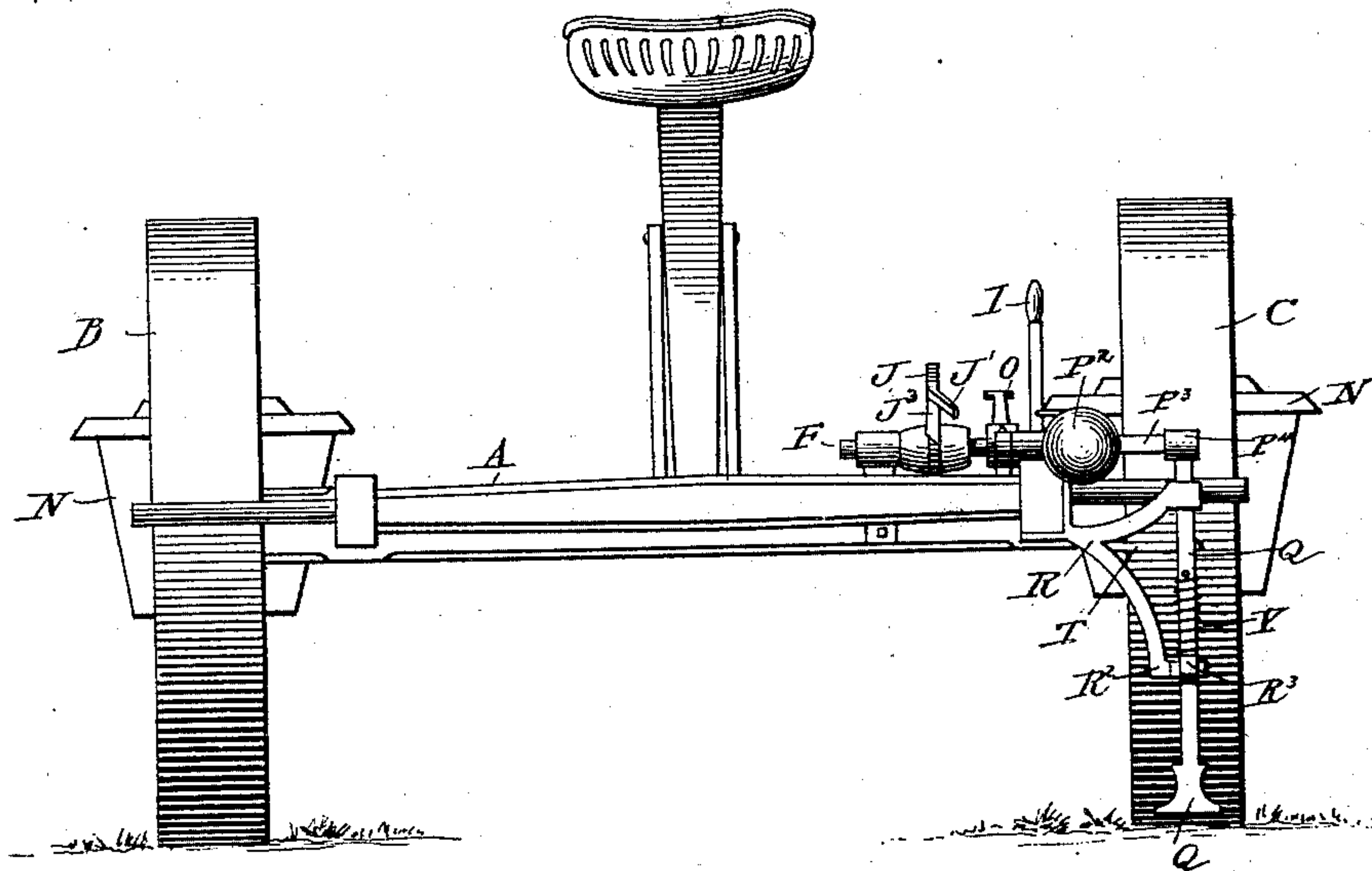
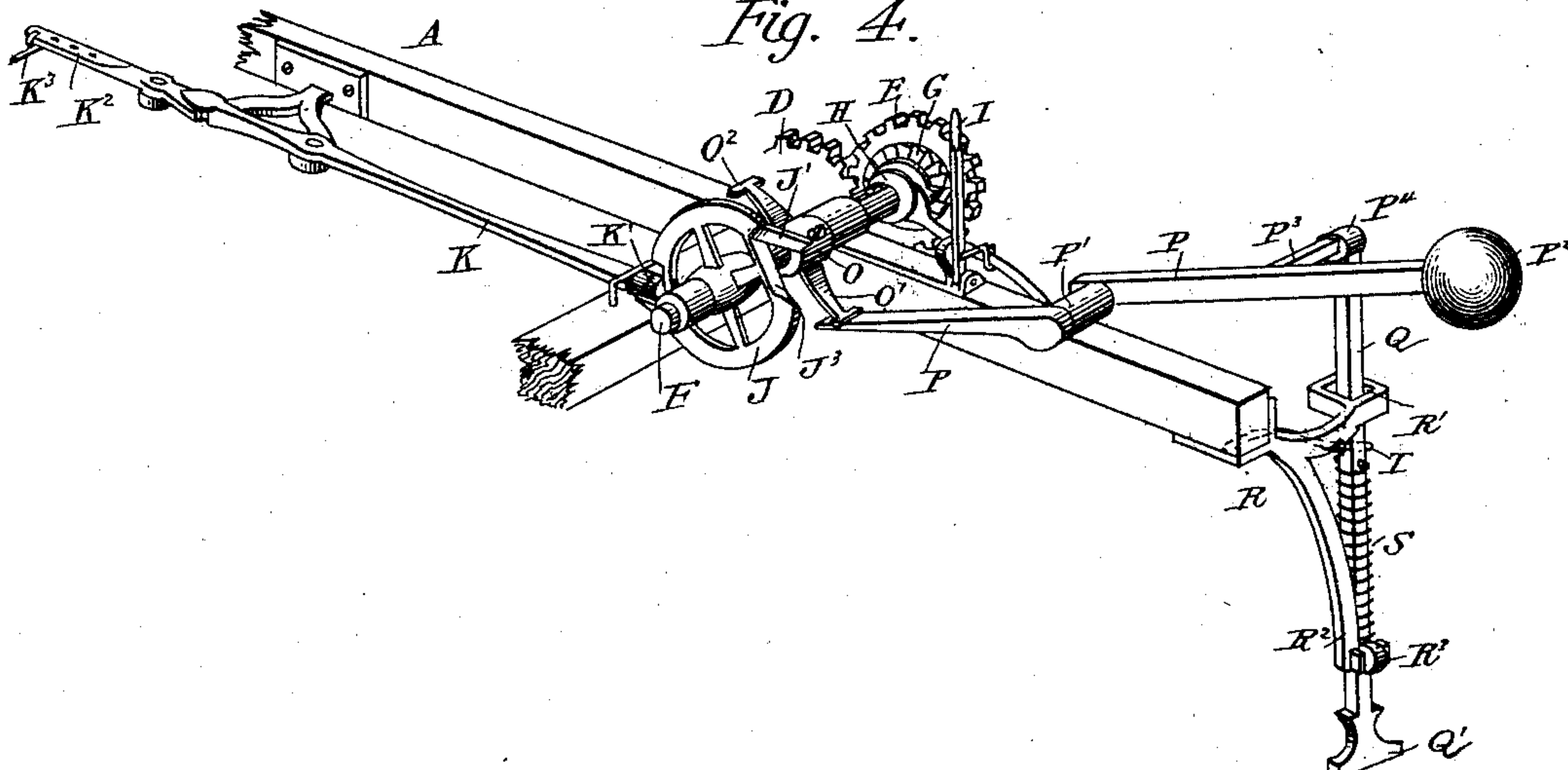


Fig. 4.



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# UNITED STATES PATENT OFFICE.

ISAAC H. ATHEY, OF MARION, ARKANSAS.

## CORN-PLANTER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 371,119, dated October 4, 1887.

Application filed June 13, 1887. Serial No. 241,749. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC H. ATHEY, of Marion, in the county of Crittenden and State of Arkansas, have invented a new and Improved Corn-Planter Attachment, of which the following is a full, clear, and exact description.

My invention relates to certain improvements in the corn-planter attachment for which Letters Patent No. 276,151 were granted to me April 24, 1883.

The object of my present invention is to provide new marking and dropping devices which are simple and durable in construction and very effective in operation.

The invention consists in the construction and arrangement of certain parts and details and combinations of the same, as will be fully described hereinafter, and then 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 all the figures.

Figure 1 is a plan view of my improvement with part of the driving-wheel broken out. Fig. 2 is a side elevation of the same, with one drive-wheel removed. Fig. 3 is an end elevation of my improvement; and Fig. 4 is a perspective view of the mechanism for operating the marking and dropping devices.

A suitably-constructed frame, A, is mounted on the wheels B and C, of which the latter is the drive-wheel for operating the dropping and marking mechanism.

On the drive-wheel C is secured the gear-wheel D, meshing into the gear-wheel E, mounted loosely on one end of the shaft F, held in suitable bearings secured to the main frame A.

On the face of the gear-wheel E is formed a ratchet-wheel, G, adapted to be engaged by a clutch, H, sliding on and rotating with the shaft F, so that when said clutch H is in contact with said ratchet-wheel G the drive-wheel C, on the forward movement of the machine, imparts a rotary motion to the shaft F. The clutch H is connected with the shifting-lever I for moving said clutch into and out of contact with said ratchet-wheel G.

On the shaft F is secured the cam-wheel J, provided on its rim, at two opposite points,

with sidewardly-projecting arms J' and J<sup>2</sup>, respectively, each forming in said rim of the wheel J a groove, J<sup>3</sup>. The arm J' extends on one side of the wheel J, and the other arm, J<sup>2</sup>, extends on the other side of the said wheel J in the opposite direction. The arms J' and J<sup>2</sup> alternately engage a friction-wheel, K', mounted on one end of the lever K, fulcrumed on a suitable bracket secured to the main frame A and connected by the lever K<sup>2</sup> and the rod K<sup>3</sup> with the dropping-bar L, operating in the seed-boxes N N in the usual manner. When the shaft F is rotated, the arms J' and J<sup>2</sup> operate alternately on the lever K in such a manner as to shift the latter from one side to the other, thereby imparting a sliding motion to the dropping-bar L.

On the shaft F is also placed and held adjustable, by set-screws or other means, the wiper O, provided with the curved arms O' and O<sup>2</sup>, extending in opposite directions from each other and adapted to engage by their outer ends one end of a lever, P, fulcrumed on a bar, P', secured to the main frame A.

Near the rear end of the lever P is secured a weight, P<sup>2</sup>, and said rear end is also provided with a sidewardly-extending arm, P<sup>3</sup>, carrying on its outer end a friction-roller, P<sup>4</sup>, operating on the marking-bar Q, provided on its lower end with the foot Q' and held to slide in the bracket R, secured to either of the side beams of the main frame A.

The upper arm of the bracket R is provided with an elongated slot, R', and the lower arm, R<sup>2</sup>, of the bracket R carries a friction-roller, R<sup>3</sup>, resting with its rim against one side of the marking-rod Q. A spring, S, is coiled on the marking-rod Q and rests with one end on the arm R<sup>2</sup> and with its other end against a pin secured to the marking-rod Q. A spring, T, secured to the side beam of the main frame A presses with its free end against one side of the marking-rod Q, so that the upper end of the latter is held at the rear end of the slot R', formed in the upper arm of the bracket R.

The operation is as follows: The auxiliary shaft F is operated as above described, and it imparts, by means of the wiper O, a lifting movement to the lever P, and as soon as one of the arms of the wiper O has passed the lever P, after lifting the same, then the weight P<sup>2</sup> of the lever P causes the latter to drop



downward, whereby the friction-roller  $P^4$ , held on the arm  $P^3$  of the lever  $P$ , strikes against the top of the marking-rod  $Q$ , so that the latter is forced downward until the foot  $Q'$  makes an indentation in the ground at the point where the corn was dropped by the dropping-bar  $L$ , above described. The spring  $S$  is compressed by this downward movement of the marking-bar  $Q$ , and as the machine now travels forward it causes the marking-rod to swing on its fulcrum in the lower end of the arm  $R^2$  that is on the friction-roller  $R^3$ , and the foot  $Q'$ , being held in the ground, causes the upper end of the marking-rod  $Q$  to swing forward in the slot  $R'$ , so that this upper end is disengaged from the friction-roller  $P^4$  of the lever  $P$ . The compressed spring  $S$  now presses the marking-rod  $Q$  upward, whereby the foot  $Q'$  is raised out of the ground and the lever  $P$  remains in its lowered position until lifted up by the next following arm of the wiper  $O$ . As soon as the lever has assumed its highest point, the friction-roller  $P^4$  is disengaged from the upper end of the marking-rod  $Q$ , which is again pressed into a vertical position by the spring  $T$ , so that as soon as the wiper-arm has passed the lever  $P$  and the latter has been caused to drop downward by its weight  $P^2$ , then said friction-roller  $P^4$  again strikes the marking-rod  $Q$  on the top and forces it downward in the same manner as above described. When the lever  $P$  is raised by one of the wiper-arms, the friction-roller  $P^4$  travels at the rear edge of the marking-rod  $Q$ , which is then held in its uppermost and in an inclined position, as shown in dotted lines in Fig. 2. The wiper  $O$  is held adjustably on the shaft  $F$ , so as to impart a downward motion to the marking-bar  $Q$  at the exact spot where the corn was dropped by the dropping-bar  $L$ .

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

1. In a corn-planter attachment, the combination, with an auxiliary shaft rotated from

one of the driving-wheels on the forward motion of the machine, of the cam-wheel  $J$ , secured on said shaft and having grooves  $J^3$ , and also provided with the sidewardly-extending flanges or arms  $J'$  and  $J^2$ , and the lever  $K$ , carrying on one end the friction-roller  $K'$ , engaged alternately by said arms  $J'$  and  $J^2$ , said lever  $K$  being connected at its other end with the dropping-bar, substantially as shown and described.

2. In a corn-planter attachment, an auxiliary shaft operated from the main drive-wheel, and a wiper secured to said shaft and having curved arms  $O'$  and  $O^2$ , the weighted lever  $P$ , raised alternately by said arms  $O'$  and  $O^2$  and provided with the arm  $P^3$ , carrying a friction-roller,  $P^4$ , the marking-arm  $Q$ , operated on by said friction-roller  $P^4$ , the bracket  $R$ , forming a bearing for said marking-rod  $Q$  and provided with an elongated slot,  $R'$ , in its upper arm, a friction-roller mounted on the lower arm of said bracket  $R$ , a spring coiled on said marking-arm  $Q$  and serving to raise said marking-arm  $Q$ , and a spring for pressing said marking-arm toward the rear, so as to assume a vertical position in order to be engaged by said friction-roller  $P^4$ , substantially as shown and described.

3. In a corn-planter attachment, the combination, with the marking-rod  $Q$  and the weighted lever  $P$ , for imparting a downward motion to said rod  $Q$ , of the bracket  $R$ , having in its upper arm an elongated slot,  $R'$ , through which said marking-rod  $Q$  passes, the friction-roller  $R^3$ , mounted in the lower end of the arm  $R^2$  and forming a fulcrum-point for said marking-rod  $Q$ , the spring  $S$ , coiled on said marking-rod  $Q$ , for raising the latter, and the spring  $T$  for pressing the marking-rod  $Q$  toward the rear, substantially as shown and described.

ISAAC H. ATHEY.

Witnesses:

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J. W. MARING.