L. H. & R. F. JOHNSON.
Corn and Pea Planter.

No. 219,482. Patented Sept. 9, 1879.

Fig. 1.

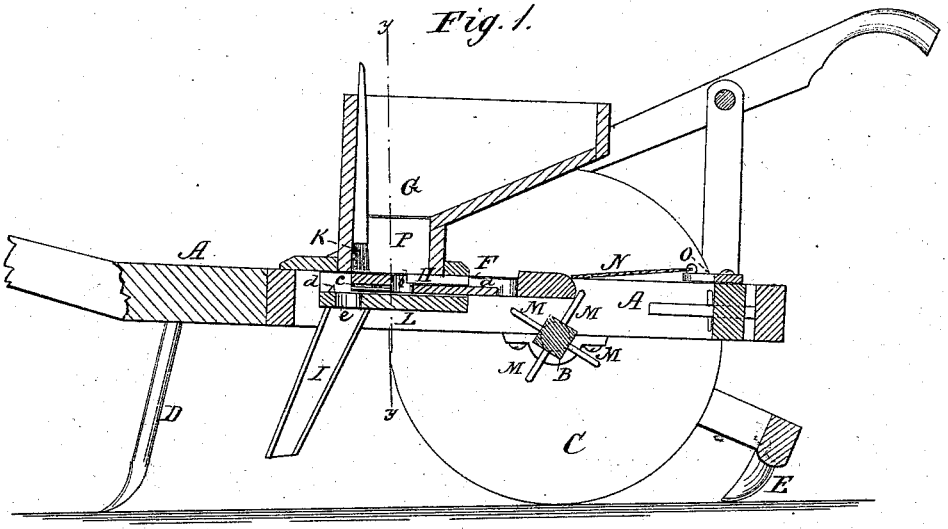


Fig. 2.

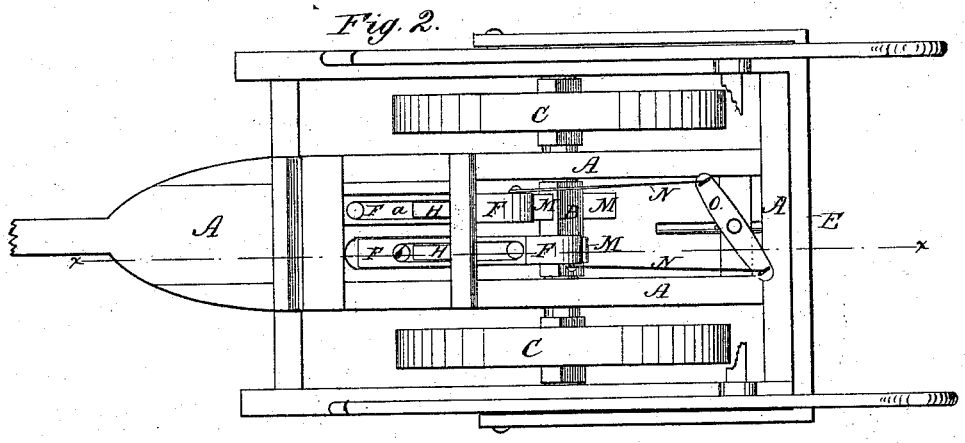


Fig. 3.

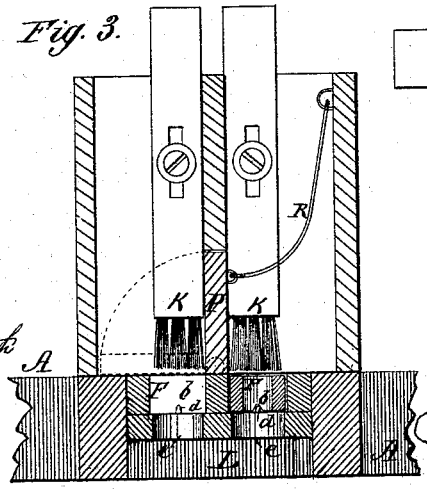
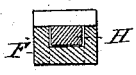


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

LEWIS H. JOHNSON AND ROBERT F. JOHNSON, OF BROWNSVILLE, TENN.

IMPROVEMENT IN CORN AND PEA PLANTERS.

Specification forming part of Letters Patent No. **219,482**, dated September 9, 1879; application filed July 12, 1879.

To all whom it may concern:

Be it known that we, LEWIS HENRY JOHNSON and ROBERT FREDERICK JOHNSON, of Brownsville, in the county of Haywood and State of Tennessee, have invented a new and Improved Corn and Pea Planter; and we do hereby declare that the following is a full, clear, and exact description of the same.

Our invention is an improvement in the class of seed-dropping machines which have reciprocating seed-slides that are operated by the rotation of the transporting-wheels, or the axle on which they are mounted.

The invention relates to the construction of the seed-slides and adjacent parts or devices which co-operate therewith, as hereinafter described.

In the accompanying drawings, forming part of this specification, Figure 1 is a longitudinal section of the machine on line *x x*, Fig. 2. Fig. 2 is a plan view of the same, the hopper being detached. Fig. 3 is a detail enlarged section on line *y y*, Fig. 1. Fig. 4 is a plan view of one of the seed-slides detached. Fig. 5 is a cross-section of one of the seed-slides and pushers.

The frame A of the machine is mounted on the axle B of transporting-wheels C, and provided with the usual attachments of furrow-opener D and hinged coverer E.

The reciprocating seed-slides F F are arranged side by side under the hopper G, and parallel to the plane of the wheels C in the forward and middle portion of frame A. Each lides F is trough-shaped, or provided with a long cavity, *a*, in its upper side, and has an opening or eye, *b*, at the front end of such cavity.

A stationary piece, H, which acts as a pusher to eject the seed from the slides, is arranged in the cavity of each slide, as shown in Fig. 1.

The seed enters the cavity *a* as each slide moves forward beneath the hopper, and when it moves back the pusher H forces it into the opening or eye *b*, from which it falls into the spout I, when the slide again moves forward and passes beneath the cut-off brush K. Thus each slide receives a certain quantity or charge in its cavity *a* at the same time that the previous charge is being delivered from its eye *b*. The reception of the seed into the slide-cavity and the action of the ejector or pusher H insure a uniform regular discharge of seed, whatever be the quantity or consequent pressure of seed in the hopper G, and also irrespective of the violent motion of the machine in passing over rough ground.

The under side of each slide is provided with a lengthwise groove, *c*, Fig. 1, at the front end, to receive a pin, *d*, fixed in the plate L, which supports the slides. The pin is located contiguous to the opening *e* in the said plate, and inclines toward or over the latter, so that it clears the seed from the slide-eye *b*, and prevents clogging or obstruction of the same.

The slides F reciprocate simultaneously, but in opposite directions. Their forward movement is caused by the action on their rounded ends of the cams, or wipers M, that project from the axle B, and their backward movement is due to the traction of cords N, that connect the respective slides with the centrally-pivoted lever O, which is located on the rear portion of the frame A in the plane of the slides F.

When a wiper, M, strikes the rear end of one slide F and forces it forward, the cord N, attached to it, turns the lever O on its pivot, and thereby draws the other slide back a corresponding distance; and when the slide which has been thus retracted is, in turn, forced forward by its wiper M, the other slide is similarly retracted or drawn back, and so the slides continue to reciprocate in opposite directions, and to alternately discharge a determinate quantity of seed. This operation of the slides is effected with less friction and a less expenditure of force than in machines in which their action depends in part upon springs.

One compartment of the hopper may contain corn, and the other pease or beans.

In some cases we may wish to cut off the discharge of seed from one compartment of the hopper G, and to this end we make the lower portion, P, of its partition movable, so that it can be lowered to a horizontal position to cover one of the seed-slides, as shown in dotted lines, Fig. 3. The movable section P is hinged at its lower edge, and when it is designed to allow both hopper-compartments to discharge seed it is held vertical by the hook R, as shown in full lines, Fig. 3.

What we claim is—

1. In a seed-dropper, the combination of the fixed pusher with the reciprocating seed-slide, having in its upper side a lengthwise recess or cavity extending back from the opening through which the seed is discharged, said pusher being of less length than the cavity, but fitting therein, as shown and described, to operate as and for the purpose specified.

2. In a seed-dropping machine, the combination of fixed pins with the slides having a groove in the under side leading to the discharge-opening thereof, substantially as shown and described, for the purpose specified.

3. In a seed-dropping machine, the hinged or movable partition, in combination with the hopper and its two contiguous seed-slides, substantially as shown and described, for the purpose specified.

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