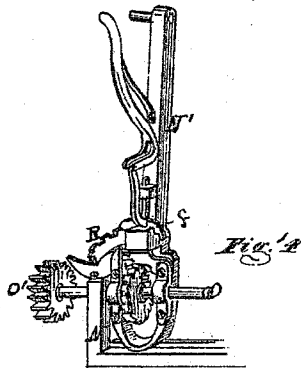
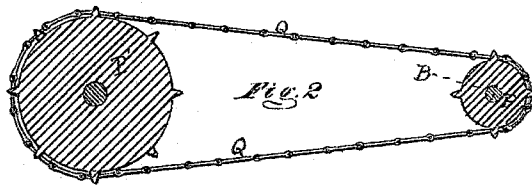
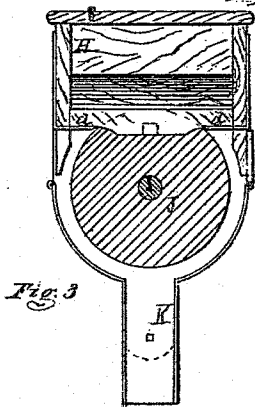
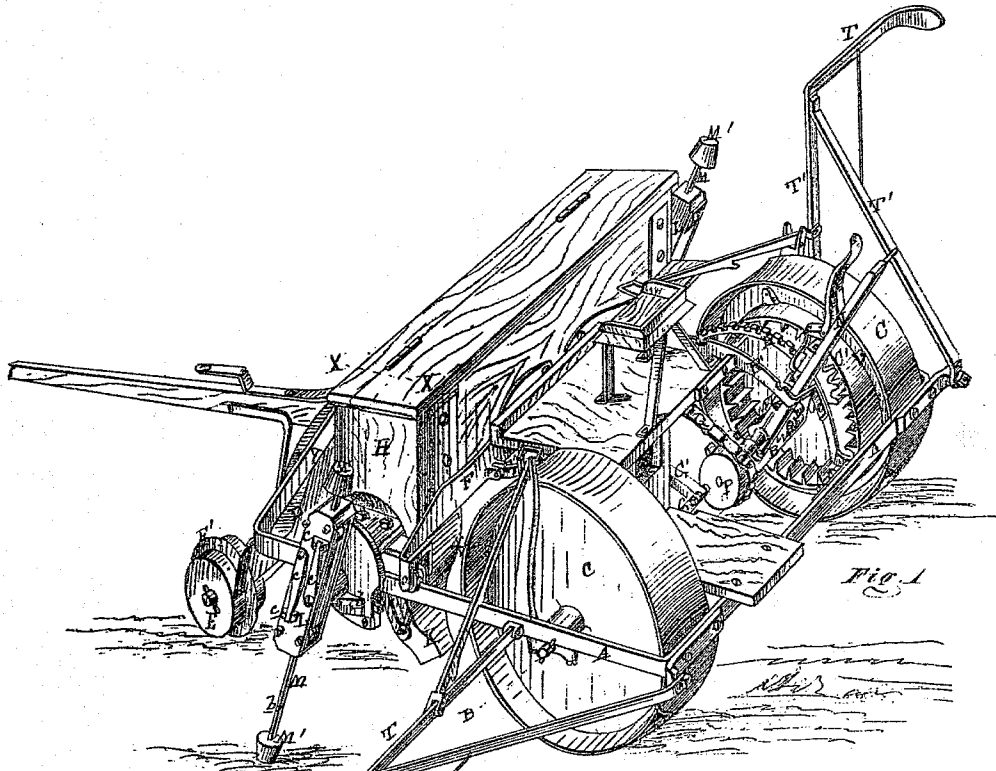


C. A. Haskell,
Corn Planter.
No. 110458. Patented Dec. 27, 1870.



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CHARLES ALLEN HASKELL, OF GALENA, ILLINOIS.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 110,458, dated December 27, 1870.

To whom it may concern:

Be it known that I, CHARLES ALLEN HASKELL, of Galena, in the county of Jo Daviess and State of Illinois, have invented a new and useful Improvement in Corn-Planters; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view of my device. Fig. 2 is a cross-section of the chain-wheels, by means of which the dropper is rotated. Fig. 3 is a cross-section through the seed-box and dropper on the line *x x* in Fig. 1; and Fig. 4 is a detached perspective view of the lever which throws the feed-works in and out of gear, and moves the seed-box and dropper back and forth, taken from the front.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved construction and method of operating devices for planting corn and other grains in regular and parallel rows.

The invention consists in the novel and peculiar construction of the frame and running-gear of the machine; in a seed-box sliding on the frame of the machine, and the mechanism for moving the same; in the peculiar construction and arrangement of the mechanism for throwing the feed-works in and out of gear with the driving-wheel; and in the general arrangement and method of operating the various parts thereof, as more fully hereinafter set forth.

In the drawing, A represents a rectangular frame, preferably of iron, across and in the rear part of which is journaled the axle B, carrying at either end a traction-wheel, C, loosely sleeved thereon. D is the front axle, pivoted under the front end of the frame by a proper king-bolt, and carrying at each end a metallic wheel, E, provided with a sharp disk or flange, E', projecting from the middle of its tread, forming a narrow trench in the ground as the machine is drawn forward. F is a truck-frame, mounted at the four corners on small flanged wheels, which travel on the side bars of the main frame. G is an arm on the axle B, to which is pivoted a forked rod, G', connecting

it with the truck-frame, so that when the axle B is partially rotated the truck-frame will be moved forward or back on the frame A. H is the seed-box, mounted in the truck-frame. I is the dropper-shaft, journaled in and through the ends of the truck-frame. Near each end of this shaft, and just within the ends of the seed-box, is secured thereto a dropper-wheel, J, having one or more seed-receptacles in its periphery, said receptacles being provided with an adjustable false bottom to regulate the quantity of seed admitted each time they pass through the seed-box, the seed being prevented from escaping from the seed-box by elastic plates *a*, in contact with the dropper-wheel, as shown in Fig. 3.

Each charge of seed is conducted by a spout, K, to the trench formed in the ground by the flange E' of the fore wheel.

L is a slide-box at each end of the dropper-shaft, placed thereon coincident with the seed-receptacles in the dropper-wheels, two of said receptacles being shown in the present invention disposed opposite each other on the wheels.

M is a bar sliding easily between rollers through the box L, and is provided at each end with a weighted marker, M'. The bar is provided with a notch, *b*, near each end, with which engages a catch, *c*, in either end of the slide-box, operated by a spring, *c'*, in such a manner that the uppermost catch will engage with the bar and hold it until the dropper-shaft has completed a half-revolution, when the catch is released by a cam-plate, *d*, in the truck-frame, when the bar drops heavily, and the weight on it marks a spot on the ground directly opposite the place where a charge of seed has been dropped in the trench, which is subsequently covered up by the broad concave tire of the rear wheel.

N are frame-standards erected on the rear axle, having journaled in their upper ends the shaft O, carrying on its outer end the pinion O', which, when the shaft is moved outwardly in its bearings at the tops of the standards, engages with and is rotated by the internally-gear spider O', attached to the traction-wheel C of that side.

P is a chain-wheel at the other end of the shaft O, which communicates motion to the

dropper-shaft by an endless chain, Q, passing around the wheel P, and a chain-pinion, P', on said shaft.

N' is a lever attached to the frame-standard, by means of which the axle and its attachments may be partially rotated. The lever is forked in its lower part to receive a ratchet, e, on the shaft O, which is journaled in proper bearings in the fork, the lever with the shaft having a lateral movement on the axle, and in the journal-boxes at the tops of the standards, so that the driver in his seat may, by moving the lever laterally, throw the pinion O' in or out of gear with the driving-gear C'.

R is a notched quadrant, springing from the rear bar forward to a cross-bar in the frame, between the lever and the driving-wheel. R' is a similar quadrant at the left of the lever.

f is a latch extending across the lever to engage with the notches in either quadrant as the lever may be caused to approach. The latch is operated, in the usual manner, by a bell-crank extending up the face of the lever.

S is a dog, hinged at one side of the fork of the lever, straddling the ratchet e, with which it engages when the pinion O' is not in gear with the driving-gear. It has an end extending beyond the lever, which, when the lever is moved outwardly to bring the pinion in gear, is lifted up by riding an inclined plane on the top edge of the box in the adjoining standard N.

T are markers depending from arms T', hinged to the sides of the main frame, and distant therefrom the width of the machine between the seed-spouts, and serve to mark the inner of the next pair of rows to be planted. When not in use they are folded up

against the sides of the machine, as shown in Fig. 1.

In operation, the driver starts in, planting the corn in the new row opposite the "spot-marks" made by the marker M' outside of the last row planted, or "check-rowing," as it is generally termed. This he is enabled to do by moving the dropping device backward or forward until the marker drops opposite the marks made near the last row.

In case of meeting an obstruction, the dropper may be moved forward or back to clear it and skip a row, while by throwing the pinion O' out of gear the machine may be moved about without operating the dropping mechanism.

Suitable scrapers, such as shown, should be attached to the machine to clear the wheels of any earth adhering thereto.

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

1. In corn-planters, the truck-frame F, carrying a seed-dropping device and moving on the frame A, as and for the purpose set forth.

2. The frame-standards N, shaft O, pinion O', lever N', ratchet e, dog S, and latch f, the arm G, rod G', chain-wheels P P', chain Q, and dropper-shaft I, in connection with the axle A, driving-gear C', and truck-frame F, arranged and operating substantially as described, for the purpose specified.

3. The slide-boxes L, catches c, catch-springs c', and the slide-bars M, provided with markers M', as and for the purpose set forth.

CHARLES ALLEN HASKELL.

Witnesses:

HARRY S. SPRAGUE,
SAMUEL E. JONES.