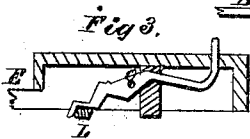
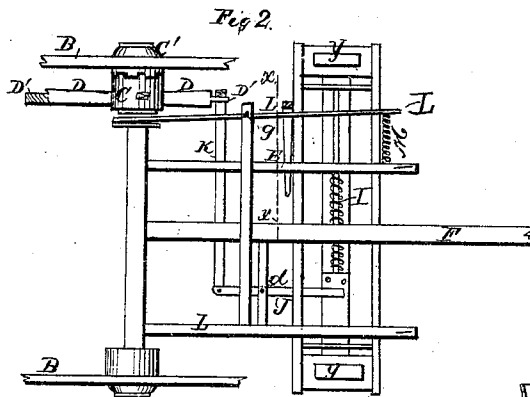
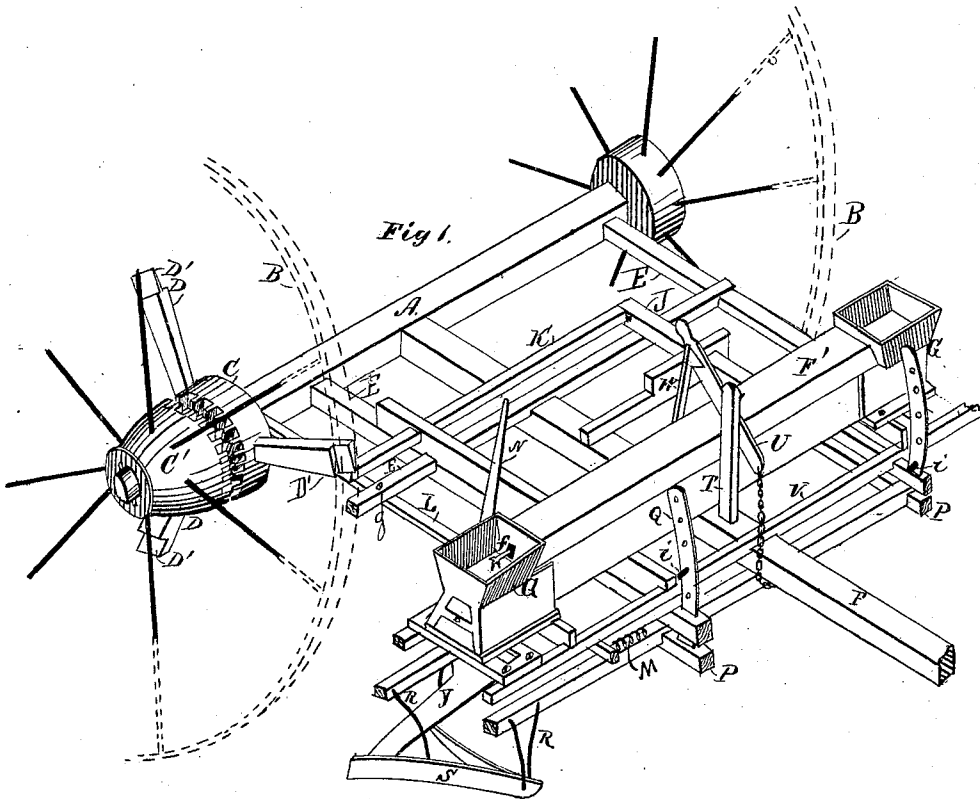


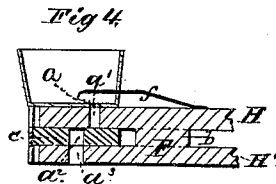
N. C. LAMB.
Corn-Planters.

No. 142,706.

Patented September 9, 1873.



Witnesses
W. C. Clark.
R. N. Dyer.



Inventor.
N. C. Lamb
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Associate Attys.

UNITED STATES PATENT OFFICE.

NORVAL C. LAMB, OF WYANDOTTE, MICHIGAN.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **142,706**, dated September 9, 1873; application filed December 31, 1872.

To all whom it may concern:

Be it known that I, NORVAL C. LAMB, of Wyandotte, in the county of Wayne and State of Michigan, 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 drawings 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 improved corn-planter. Fig. 2 is a bottom plan of the same without the furrow-openers and their frame. Fig. 3 is a cross-section of a part of the main frame, showing the latch of the clutch-lever; and Fig. 4 is a longitudinal section, enlarged, through the seed box and dropper, taken on the line *y y* in Fig. 1.

Like letters refer to like parts in each figure.

This invention consists in the combination of a clutch-box having arms of peculiar construction with a bar or lever for reciprocating the slides for dropping the seed, as will be fully described hereinafter.

In the drawing, A represents an axle, on which are mounted traction-wheels B. On the inner face of the hub of the right wheel is a clutch-gear, C', with which engages a clutch-box, C, sliding on the axle. This clutch carries a set of three arms, D, whose ends are inclined cams D'. To the axle is secured a frame, E, to which is attached a draft-tongue, F. Across the front end of the frame E is placed an open dropper-guide, F', at each end of which is a seed-box, G, from each of which boxes is suspended a seed-spout, Y, in the wake of which the traction-wheels travel. In the bottom plate of each seed-box is a seed-hole, *a*, and in the upper member of the seeder or dropper slide is an opening, *a*¹, and in the lower member is a similar opening, *a*². The ends of the upper and lower members of the dropper-slide H H', which are connected by filling-blocks *b*, embrace a block, *c*, in the lower part of the seed-box, in which block is a passage, *a*². The dropper-slide has a little longitudinal play in its guide, but is always pushed in one direction by a spiral spring, I, underneath it. In this position of rest the hole *a*¹ in its upper member is coincident with the opening *a* in the plate of the seed-box,

and consequently the chamber *a*¹ fills with corn, but is prevented from falling out by the block *c*. If, however, the dropper-slide be moved longitudinally, the chamber *a*¹ passes over the chamber *a*² in said block and drops the corn into it, and as the dropper-slide moves back to fill the chamber in the upper member H, the opening *a*³ in its lower member comes under the passage *a*², when the charge of corn contained in said passage *a*² drops through it into the spout Y. J is a lever, pivoted at *d* to a cross-bar of the main frame, and to its rear end is pivoted a bar, K, which plays through guides in the main frame, its other end being rounded off and lying in the path of the cams D' on the arms D, each of which, as it passes by, moves the bar K to the left and the dropper-slide to the right, the end of the lever J coming in contact with a block under the slide for that purpose. This movement of the slide compresses the spring I below it, which, as soon as the cam passes the bar, shoots back the slide. This arrangement insures the instantaneous dropping of the corn, and prevents its scattering, which usually results in an irregular hill of stalks.

To prevent the clogging of the corn on the plate of the seed-box, I attach to each end of the upper member of the dropper-slide a metal bar, *j*, which terminates in a claw or crow-foot, which moves over the opening *a* in said plate, which, at each reciprocation, agitates the corn in the box.

L is a clutch-lever, pivoted at *g* to the frame E, with a collar at its rear end, which embraces a groove in the clutch-box to move it. At the front end of the clutch-lever is a spiral spring, M, so placed between it and a sill of the frame as to exert a pressure thereon, which constantly tends to withdraw the clutch-box from the gear on the wheel, and thus throw the dropper-slide out of gear. N is a hand-lever, within easy reach of the driver's seat, (not shown,) by which the clutch-lever may be moved to throw the clutch-box into gear, which is held in gear by a gravity hook-latch, O, Fig. 3, which drops over the side of the clutch-lever, and thus locks the clutch-box into gear. The other end of the hook-latch, which is much the lightest of the two parts, is turned up and projects slightly above the

floor of the frame, which the driver depresses with his foot when he wishes to throw the dropper-slide out of gear; by depressing that end the hook at the other is withdrawn from the clutch-lever, whose spring M immediately throws over and withdraws the clutch-box from its gear.

The opening of the furrows is effected in the following manner: P is a frame, which is suspended by links at its rear end from the rear end of the main frame A. The side bars of the frame P are provided at their front ends with metallic segments, Q, which project up through mortises in the front ends of the side bars of the main frame, and the lower frame is suspended at any desired dip, and the depth of furrow gaged by pins, i, through said segments. At each front corner of the frame P are pendent braces R, to which are secured the flaring furrow-openers S, of the form shown, between whose expanded rear ends the spouts deliver the seed in the furrows, where it is covered in by the traction-

wheels which follow in their wake. In order to lift the furrow-openers from the ground when they are not required to operate, I erect a standard, T, on the tongue, on which I pivot a lever, U, the outer end of which is connected by a chain, V, to the front of the frame P. A spring-catch, W, erected on the frame E alongside the rear end of the lever U, engages with it when depressed, and thus the frame and its furrow-openers are sustained clear of the ground.

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

The clutch-box C, provided with arms D D, having the inclined cams D' at their ends, in combination with the bar K and lever J, for the reciprocation of the dropper-slide in the rotation of the clutch-gear traction-wheel B, substantially as shown and described.

NORVAL C. LAMB.

Witnesses:

H. F. EBERTS,
H. S. SPRAGUE.