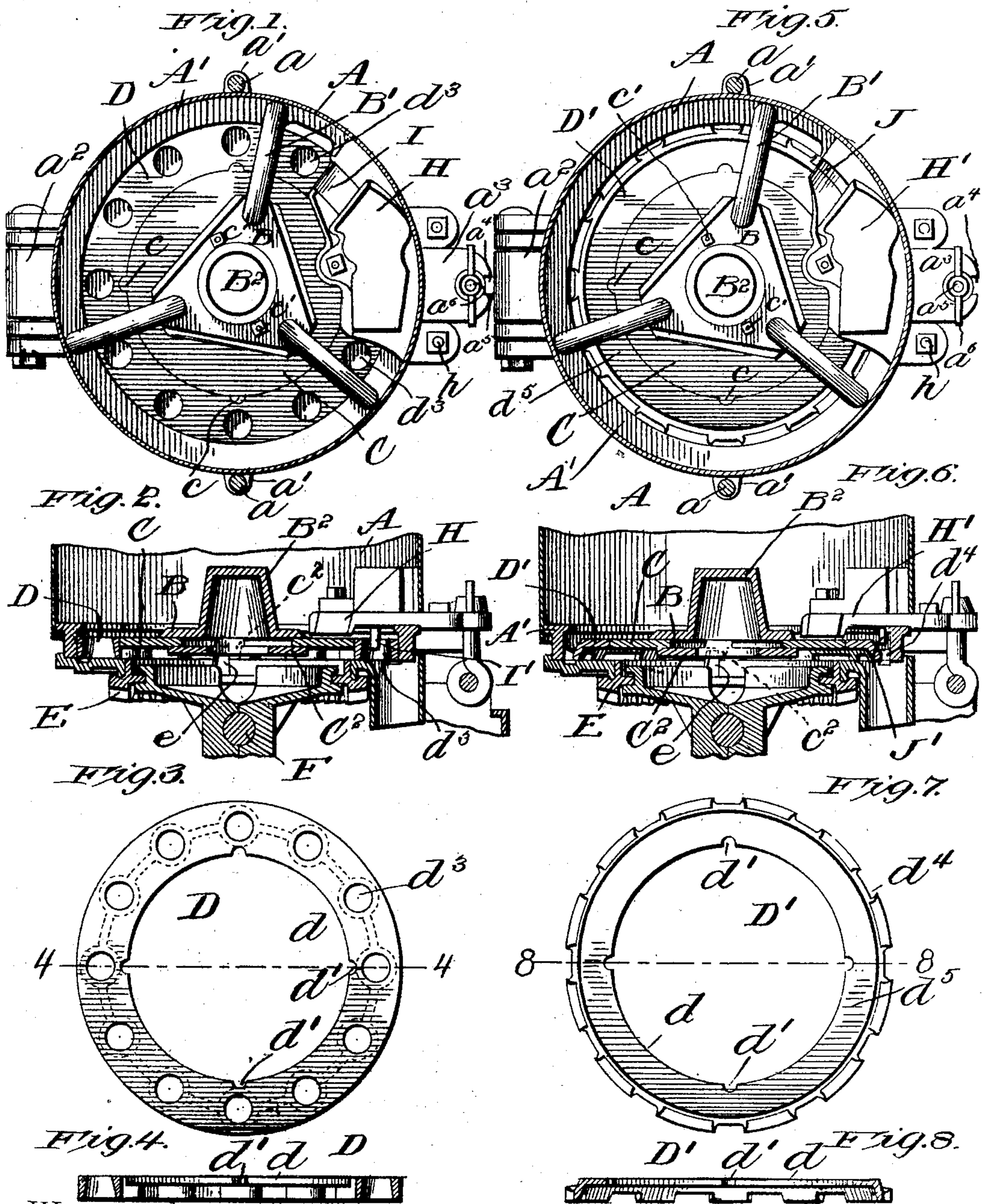


No. 797,488.

PATENTED AUG. 15, 1905.

W. L. BEALL.
CORN PLANTER.

APPLICATION FILED MAR. 2, 1905.



WITNESSES:

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WILLIAM L. BEALL, OF ALBION, MICHIGAN, ASSIGNOR TO GALE MANUFACTURING COMPANY, OF ALBION, MICHIGAN.

CORN-PLANTER.

No. 797,488.

Specification of Letters Patent.

Patented Aug. 15, 1905.

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To all whom it may concern:

Be it known that I, WILLIAM L. BEALL, a citizen of the United States, residing at Albion, in the county of Calhoun and State of Michigan, 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 new and useful improvements in the class of corn-planters.

My invention has for its object the production of a planter constructed to accommodate interchangeable feed-plates to accomplish either full, fill, or edge drop planting. In view of the differences in construction of these two kinds of plates it is obvious that the cut-off and knocker construction for each will differ, and consequently have to be interchanged with the plates; but I have so constructed the same as to permit of their removal and attachment with ease and convenience.

In order that my invention may be more thoroughly understood, I have illustrated my invention in the accompanying drawings, and a full and exact description thereof is contained in the annexed description.

In the accompanying drawings, Figure 1 is a horizontal section through the hopper, showing a full-hill plate located therein. Fig. 2 is a vertical section through the hopper, having a full-hill plate located therein. Fig. 3 is a plan view of a full-hill plate. Fig. 4 is a section on line 4 4, Fig. 3. Fig. 5 is a view similar to Fig. 1, but showing an edge-drop plate in the hopper. Fig. 6 is a view similar to Fig. 2, but showing an edge-drop plate in the hopper. Fig. 7 is a plan view of an edge-drop plate. Fig. 8 is a section on line 8 8, Fig. 7.

In the several views like letters of reference designate similar parts of my construction.

A in the drawings designates the hopper-casing, secured to the ring-shaped portion A' by bolts a passing through a' on said portion A'. Said ring-shaped portion A' is hinged at a^2 to allow the same to be raised in order to interchange the plates, as hereinafter described.

a^3 represents a projection on the portion A' and is provided with a notch a^4 , adapted to

receive the bolt a^5 , provided with the wing-nut a^6 , adapted to bear upon said projection to lock the hopper to the frame. B is a triangular plate secured to said portion A' by arched-shaped braces B' and is provided with a conical-shaped raised portion B², adapted to force the kernels of corn toward the feed-plate. C is a ring-shaped plate provided with projections c and is revolvably mounted on the under side of said plate B, the same being retained in position by a plate C², secured to said triangular plate by bolts c' passing through the opening in said plate C.

D and D' represent, respectively, a full-hill and edge-drop plate, both being provided with the circular central opening d and notches d' , into which opening the plate C is adapted to fit, the projection c on said plate fitting into said notches d' . The edge-drop feed-plate here referred to is the feed-plate commonly known by that name, it being a plate with notches or cells on the edge of the same for receiving the kernels of corn, one in each notch standing on edge or with its greatest extent in a vertical direction. The full-hill plate D is a plate provided with openings in the plate large enough to hold all the kernels desired for a hill of corn, so that as each cell passes under the knocker the seed required for a full hill are dropped all at once. Rotary motion is imparted to plate C and the drop-plate placed thereon by a crown-wheel E, provided with projections e , engaging projections e^2 on said plate C, said crown-wheel being operated by the usual pinion mounted on shaft F.

As hereinbefore stated, it is obvious from the construction of the plates that a different cut-off and knocker construction will be required for each plate, for when an edge-drop plate is employed a channel is formed between the portion A' and the raised portion of the plate, the seed-cells being located in said channel, and therefore the cut-off and knocker would necessarily have to be located directly over the said channel, as shown in Figs. 5 and 6; but when a full-hill plate is employed said feed-channel is closed, the cell being located wholly within the plate, and consequently the kernels should not be fed to the edge of the plate, as in edge-drop planting, but to the cells within the plate, and for the accomplishment of this result the cut-off must be located directly over the cells, and in order to

eject the kernels it would also be necessary to locate the knocker directly over said cells, as shown in Figs. 1 and 2. In order to accomplish these results, I provide housings H and H' for the two forms of cut-off and knocker constructions, said housings being bolted at *h* to the hopper to permit them to be readily and conveniently interchanged by simply removing the hopper-casing A and bolts *h*.

When a full plate is employed, I provide the hopper with the cut-off and knocker construction incased in the housings H and which comprises the cut-off I and knocker I', both being located directly over the cells *d*³; but when an edge-drop plate is employed I substitute the housing H' for H, said housing H' being provided with a cut-off J and knocker J', both of which are located directly over the channel *d*⁴, formed between the raised portion *d*⁵ of the plate D' and the portion A'.

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

1. A convertible edge-drop and full-hill-drop seed-planter having a seedbox provided with a bottom having a permanent central portion combined with provisions whereby a feed-

channel is formed between the outer edge of the bottom and the inside of the seedbox or the said feed-channel entirely closed and dispensed with, substantially as described.

2. A convertible edge-drop and full-hill-drop seed-planter having a seedbox-bottom provided with means for forming a feed-channel between the outer edge of the bottom and the inside of the seedbox, and for entirely closing said channel, comprising interchangeable feed-plates and cut-offs and knockers, substantially as described.

3. A convertible edge-drop and full-hill-drop seed-planter, having a permanent central portion and means for forming a feed-channel between the said bottom and the inside of the seedbox and for closing said channel comprising interchangeable feed-plates with cut-off and knocker to cooperate with each variety of plate, substantially as described.

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

WILLIAM L. BEALL.

Witnesses:

W. A. HOLMAN,
E. L. WARD.