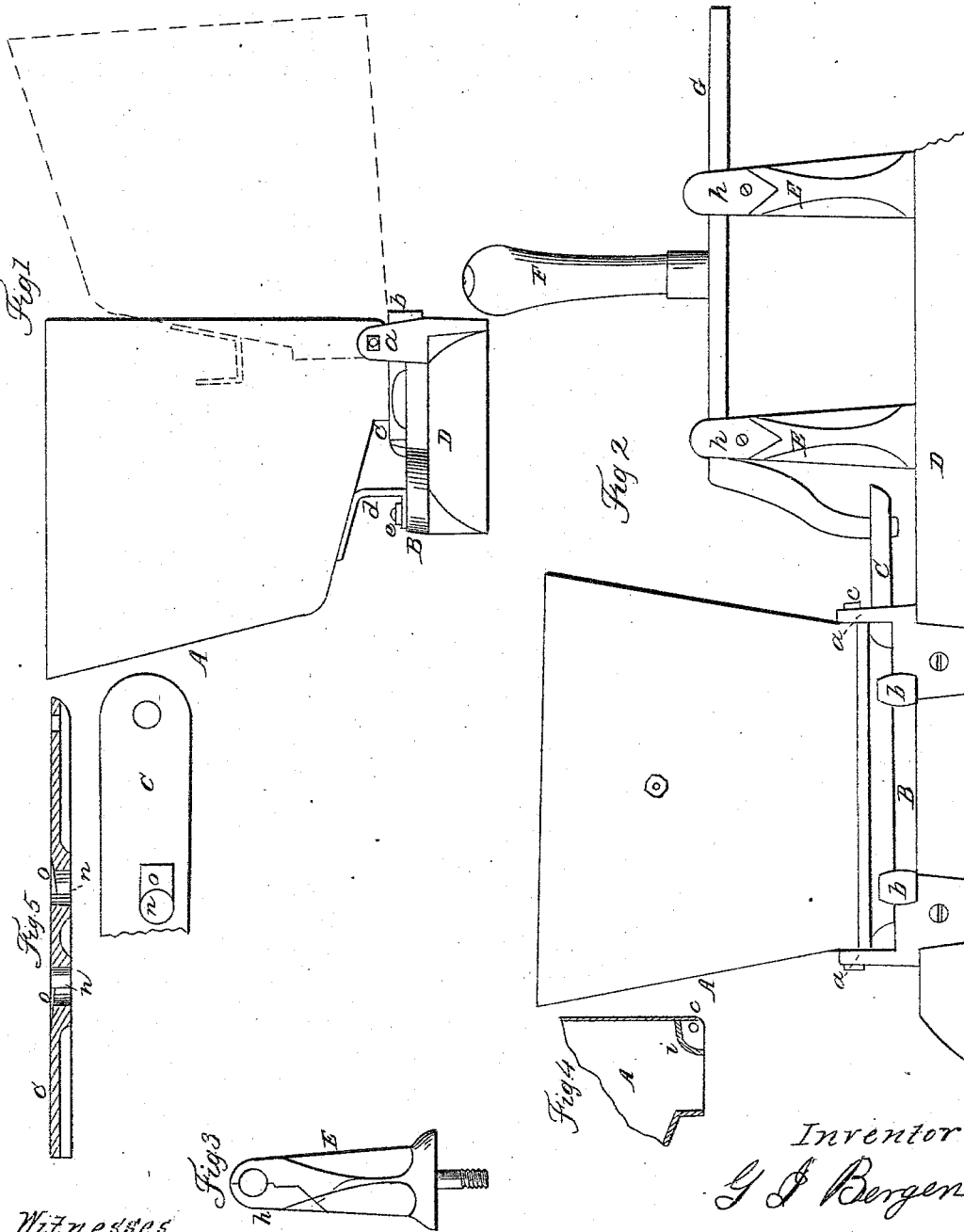


G. I. BERGEN.

Seed-Dropper.

No. 49,601

Patented Aug. 29, 1865.



Witnesses

O A Fuller
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UNITED STATES PATENT OFFICE.

GEORGE I. BERGEN, OF GALESBURG, ILLINOIS.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 49,601, dated August 29, 1865.

To all whom it may concern:

Be it known that I, GEORGE I. BERGEN, of Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a side view of the seed-hopper and fixtures belonging thereto; Fig. 2, a front elevation of the same; and Figs. 3, 4, and 5 are views of detached portions of the same.

The invention consists in certain improvements in the hopper and slides of the corn-planter patented to me on the 7th day of March, 1865, and relates to the peculiar manner of hinging the hoppers and forming grooves in the seed-slides, whereby the machine is made to operate more perfectly, as hereinafter explained.

The general construction of the planter is the same as described in my patent hereinbefore referred to, and which need not therefore be herein described.

In Figs. 1 and 2, D represents one-half of the cross-bar mounted transversely upon the front of the machine, and upon which is secured the hopper and seeding devices.

A represents the hoppers, which are made of cast-iron in the form shown. These hoppers are secured to a metal plate fastened to the bar D, as shown. At each end this plate D has an ear, *a*, projecting upward outside of the hopper, and to these ears the hopper A is pivoted by means of a bolt, *e*, which passes through holes in the ears *a* and the sides of the hopper. The hopper is cast with a curved division-plate, *i*, extending entirely across its front side near the bottom, on the inside, as shown in section in Fig. 3; thereby forming a small chamber in the under front side of the hopper, through which the bolt *e* extends, thus separating it entirely from inside of the hopper.

At the rear the hopper is supported by a brace, *d*, which is fastened securely to the under side of the hopper, or may be cast solid with the hopper, and extends down to and rests upon the plate B, as shown in Fig. 1. This brace *d* has its lower end bent back at a right angle, and is slotted, so as to straddle a bolt which projects up from the face of plate B, a nut, *e*, being screwed onto said bolt to

hold the brace and hopper securely in place. If desired, a pin or key may be used instead of the nut for this purpose. By loosening the nut *e* the brace *d* is released, when the hopper can be turned over forward, as shown in red in Fig. 1, and when in this position it will rest upon the lugs *b b*, which are cast on the front edge of plate B, of proper height, as shown in Figs. 1 and 2. By these means the operator can at any time turn up the hopper, and thus get at the seed-slide without difficulty and without removing the slide from its position.

C represents the seed-slide, which is also of metal. This slide is provided with two openings, *n n*, for the passage of the grain, and in the face of the slide a slanting groove, *o*, is cut, of a width equal to the diameter of the hole, said groove being cut quite deep next the holes *n*, and thence growing more shallow as it recedes from the hole, as shown in Fig. 5. The object of this groove is to permit those kernels which protrude above the slide to be shoved out of the cell or hole *n* when they come in contact with the cut-off, and thus prevent the kernels from being crushed or from injuring the cut-off.

The slides are operated by the rod G, resting in the supports or standards E and moved by the handle F. These standards E are made of two pieces, the part *h* being secured to the main part by a bolt, as shown, so that it can be readily removed to insert the rod G.

Having thus fully described my improvements, what I claim is—

1. The plate B, provided with the ears *a a* and lugs *b b*, as and for the purpose set forth.
2. Securing the hopper A by means of the hinge-joint at its front and the brace *d*, constructed and operating substantially as and for the purpose set forth.
3. The seed-slide C, provided with the inclined flat groove *o*, as herein shown and described.
4. Making the post E with the detachable piece *h*, as and for the purpose set forth.
5. Constructing the hopper A with the division-plate *i*, as shown and described, for the purpose of forming a recess under the bottom to receive the bolt *e*, as and for the purpose set forth.

GEORGE I. BERGEN.

Witnesses:

GEO. W. WOOD,
S. N. GROSE.