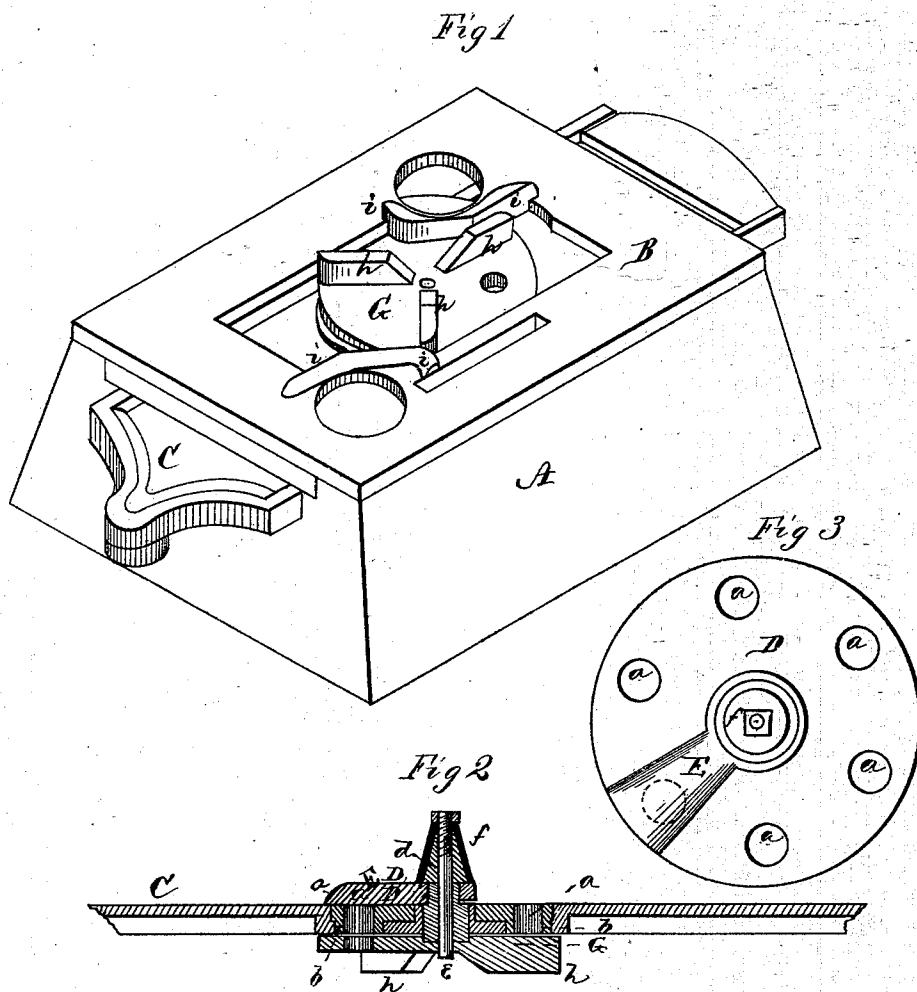


E. L. GROSS.
Seed-Droppers.

No. 139,143.

Patented May 20, 1873.



Witnesses:
Frank L. Durand,
C. L. Evert

Inventor.
Eugene L. Gross,
per
Alexander Munson
Attorneys.

UNITED STATES PATENT OFFICE.

EUGENE L. GROSS, OF SPRINGFIELD, ILLINOIS, ASSIGNOR TO HIMSELF,
JOHN M. FORDEN, JAMES K. WELTER, JOHN O. SLOAN, AND JAMES RAY-
BURN, OF SAME PLACE.

IMPROVEMENT IN SEED-DROPPERS.

Specification forming part of Letters Patent No. **139,143**, dated May 20, 1873; application filed
April 15, 1873.

To all whom it may concern:

Be it known that I, EUGENE L. GROSS, of Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Seed-Droppers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

This invention relates to an improvement in corn-planters as patented to James K. Welter December 24, 1872, No. 134,336; and it consists: First, in a slide provided with a countersunk annular perforated recess upon that portion which moves within the hopper, within which recess is placed an annular detachable disk, provided with downward-projecting tubes to fit in the perforations of the recess; second, in a rotating cut-off, provided with an elastic nut and metallic thimble, the latter secured upon the top of the cut-off and over the center of the disk and annular groove in the slide by a vertical bolt; and, third, in the general construction and arrangement of the operating parts, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is an inverted perspective view of my seed-dropper; Fig. 2 is a longitudinal section of the same, and Fig. 3 is an enlarged plan view of the dropping mechanism.

A represents the hopper or seed-box, and B is the double bottom thereof, which is cut out, as shown in Fig. 1, and has the slide C moving back and forth in the same. In the upper surface of the slide C is a circular recess for the reception of an annular plate, D,

provided with six seed-chambers, *a a*, more or less, at equal distances apart, each seed-chamber having a downward-projecting collar, *b*, as shown in Fig. 2, to fit in holes in the recess of the slide C, and thus hold the plate in position. By having the seed-chambers in a separate plate or ring, different rings containing chambers of different sizes may be used so as to suit seeds of different kinds. On top of the annular plate or ring D is a rotary cut-off consisting of a broad arm, E, attached by its center to the center of a revolving disk, G, placed on the under side of the sliding plate C. The arm or cut-off E is held down by an elastic nut, *d*, on the center bolt *e*, said nut being inclosed within a metal thimble, *f*, so as to be protected from being cut by the corn as it passes backward and forward. On the under side of revolving disk G are three radiating arms, *h h*, at equal distances apart, which operate against shoulders or flanges *i i* made in the under side of the main bottom B, so that the disk and cut-off will be turned one-sixth of a revolution for each stroke of the slide C.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The seed-slide C, provided with an annular perforated recess, in combination with the annular detachable disk D, with seed-cells *a b*, and the flexible rotating cut-off E, all constructed and operating substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of April, 1873.

EUGENE L. GROSS.

Witnesses:

T. H. JONES,
GEO. H. HARLOW.