S. WRIGHT.

Corn-Planters.

No. 157,262. Patented Nov. 24, 1874.

Fig. 1

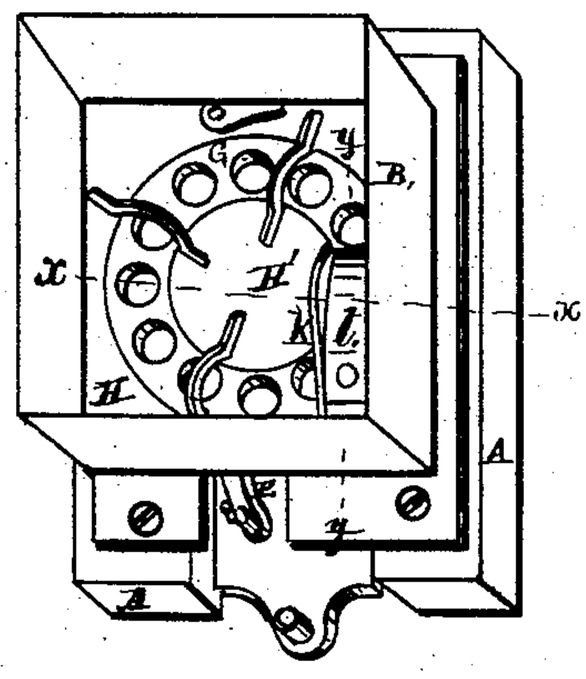


Fig. 2.

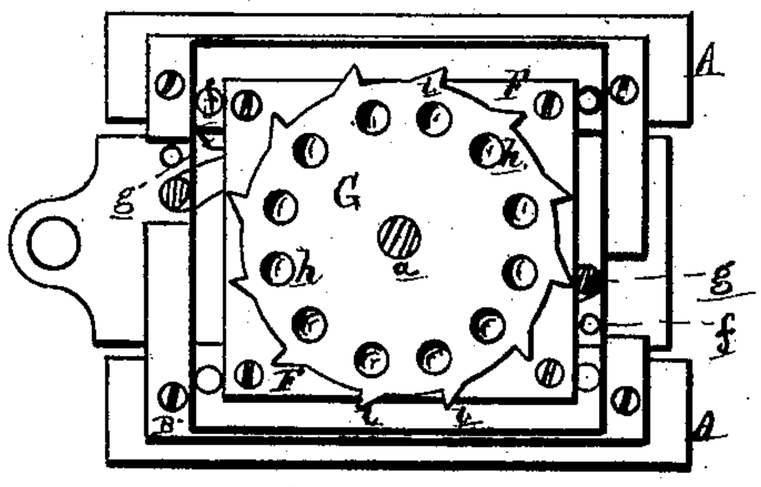


Fig. 3.

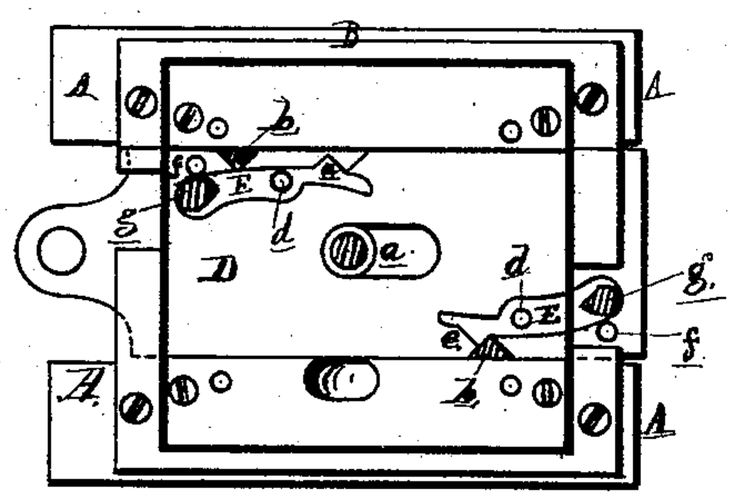


Fig. 4.

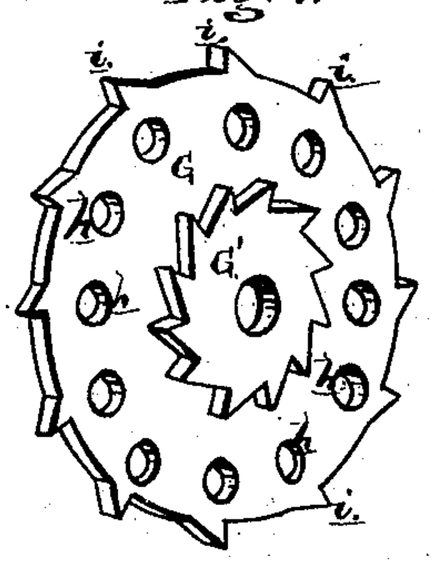


Fig. 5.

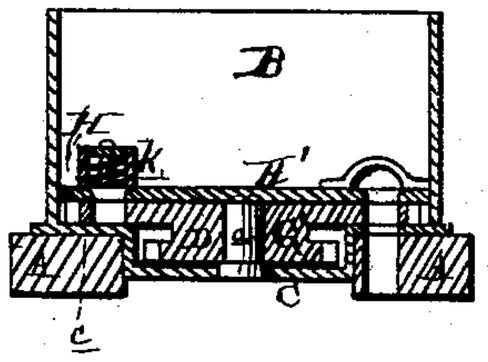
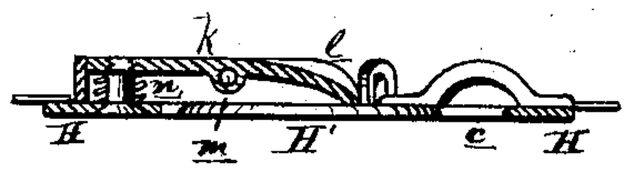


Fig. 6,



Attest:
Chas. J. Hunt
F. V. Audinwood

Inventor:
S. Wright
per Attorney
Thos. S. Sprague

UNITED STATES PATENT OFFICE.

SAMUEL WRIGHT, OF TROY, OHIO.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **157,262**, dated November 24, 1874; application filed April 28, 1874.

To all whom it may concern:

Be it known that I, SAMUEL WRIGHT, of Troy, in the county of Miami and State of Ohio, have invented a new and useful Dropping Mechanism for Corn-Planters, of which the following is a specification:

My invention relates to an improvement in the dropping mechanism of a corn-planter, having for its object to insure the dropping of the seed at the required intervals, to prevent clogging and the catching and breaking of the kernels in passing to the spout under the valve.

The invention consists in the novel and peculiar construction of the dropping mechanism, and in the devices for operating the same; also, in a cut-off arranged to yield like a relief-valve when an extra large kernel passes under it, to prevent the breaking of either the corn or the valve, as more fully hereinafter set forth.

Figure 1 is a perspective view of the lower part of a hopper, with my dropper in position at the bottom thereof. Fig. 2 is a plan of the same, the cut-off plate being removed. Fig. 3 is a plan of the reciprocating slide, everything above it being removed. Fig. 4 is an inverted perspective view of the rotary seed-plate, showing the ratchet attached to the under side thereof. Fig. 5 is a cross-section through the center stud and the seed-hole at *x x*, Fig. 1. Fig. 6 is a transverse vertical section of the cut-off valve at *y y*, Fig. 1.

In the drawing, A A represent the frame-timbers of the dropper, upon which is secured a hopper, B, at each end. C is a bed-plate, secured to and between the frame-timbers, its surface being sunken below their general plane. *a* is a stud rising from the center of the bed-plate. *b b* are two angular stops rising from opposite sides of the bed-plate, in diagonal corners of the hopper. D is a sliding plate lying on the bed-plate, reciprocated as often as is required by mechanism on the corn-planter, not necessary here to describe. The plate D is slotted, so as not to interfere with the stud *a* and stops *b b*. *c* is the seed-hole through one side of the bed-plate and frame. E E are two pawls, pivoted at *d* on the sliding plate. Each has a projection, *e*, on the back of the point end, which, when the plate is moved toward a stop, *b*, strikes the latter, throwing the point of the pawl inward and the tail outward, until the latter is arrested by a stop-pin, *f*, on the said plate, which holds the pawl in position when the seed-plate is removed. On the heel of each pawl there is an angular-faced stud, *g*. F is a diaphragm-plate, with a large central opening, and also one corresponding with the seed-opening *c*. It is secured on top of the bed-plate sides. G is a rotating seed-plate, resting on the diaphragm F. Cast in one piece with the seed-plate G is a ratchet, G′, which projects down through the opening in the diaphragm. The hub of G G′ is sleeved on the stud *a*, on which it rotates. The plate G is perforated with twelve equidistant openings, *h*, on the radius of the seed-hole *c*. On the periphery is a series of twelve teeth, *i*.

One of the pawls being in engagement with the ratchet, and the slide-plate moving in the direction of the point of the said pawl, the seed-plate will be rotated until one of its holes is over the hole *c*, through which it drops the seed contained in it. At this moment the further advance of the shifting plate is arrested by the heel of the moving pawl striking the stop *b*. At the same time the stud *g* on the heel of said pawl comes in front of a tooth, *i*, of the seed-plate, and prevents the latter from moving farther until the sliding plate has a reverse movement imparted to it, when the other pawl imparts another movement to it in the same direction until the next hole is over the seed-opening, as just described.

H is the cut-off plate in the bottom of the hopper, and supported just above the seed-plate. A circular opening, nearly equal in diameter to the seed-plate, is cut out of it, and a disk, H′, of less diameter than the row of seed-holes, is secured by arched bridge-pieces thereto, being all cast in one piece, leaving an annular space over the seed-receptacles. At one side is a tangent-box, *k*, in which is fitted a tilting valve-plate, *l*, pivoted between the sides by a transverse pin, *m*. Under the rear end is a spiral spring, *n*, which keeps the front end depressed to the plane of the seed-plate directly over the hole *c*, which spring yields and allows unusually large grains to pass under, while other obstructions pass up its inclined surface.

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

1. In a seed-hopper, the combination of a depressed bed-plate, C, provided with a stud, stops, and seed-hole, as described, and a reciprocating plate provided with stops *f f*, and having pawls E E pivoted thereto, each provided with a projection, *e*, and stud *g*, constructed and arranged substantially as described and shown.

2. In a seed-hopper, the combination of a reciprocating plate, provided with pawls E E, as described, with a rotary seed-plate, G, having a ratchet, G′, openings *h*, and teeth *i*, said teeth being arranged as described, so that the studs *g* on the pawls E E shall limit the motion of the seed-plate G and a cut-off plate, H H′, the several parts being constructed and arranged substantially as described and shown.

SAMUEL WRIGHT.

Witnesses:

AUSTIN WAYMIRE,

A. A. BOYER.