

J. K. WELTER.

Improvement in Corn-Planters.

No. 129,380.

Patented July 16, 1872.

Fig. 1.

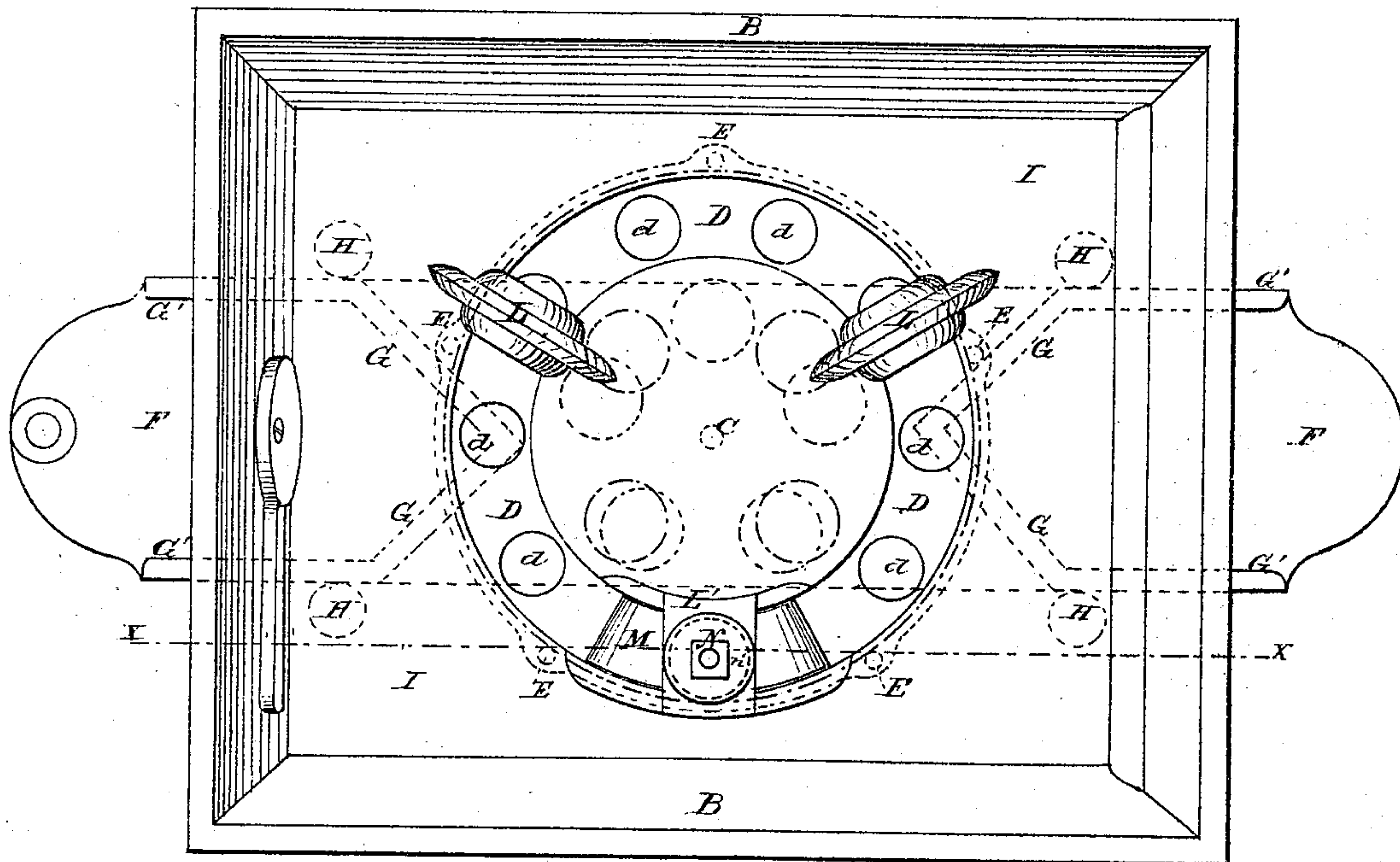
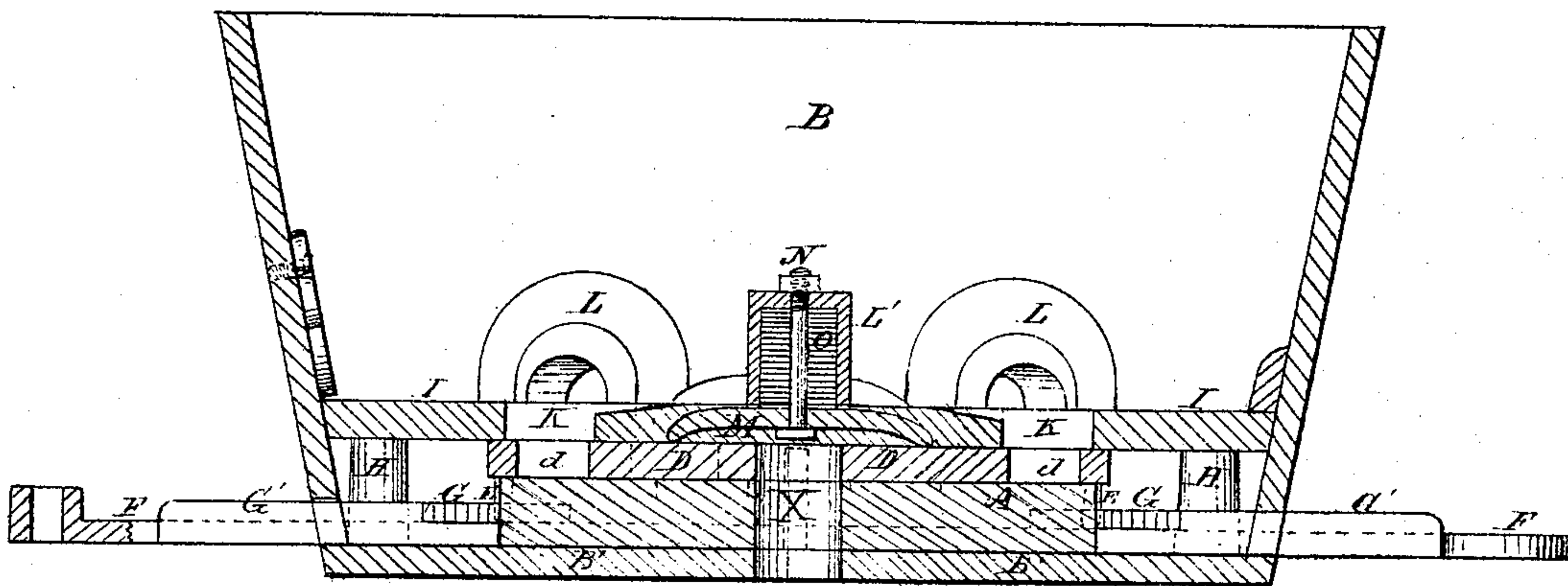


Fig. 2.



Witnesses:

T. C. Brecht.

John R. Young

Inventor:

James K. Welter, by
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his attys

UNITED STATES PATENT OFFICE.

JAMES K. WELTER, OF SPRINGFIELD, ILLINOIS, ASSIGNOR TO LEWIS H. CONVERSE, OF SAME PLACE.

IMPROVEMENT IN CORN-PLANTERS.

Specification describing Letters Patent No. 129,380 dated July 16, 1872.

To all whom it may concern:

Be it known that I, JAMES K. WELTER, of Springfield, in the county of Sangamon and in the State of Illinois, have invented certain new and useful Improvements in Corn-Planters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view of the upper side of my device, and Fig. 2 is vertical central section of the same on the line *x x*, of Fig. 1.

Letters of like name and kind refer to like parts in each of the figures.

My invention is an improvement in a class of droppers which rotate horizontally in one direction; and it consists, principally, in the means employed for imparting to said dropper an intermittent rotary motion, substantially as and for the purpose hereinafter specified. It consists, further, in the peculiar construction of the cut-off, substantially as and for the purpose hereinafter shown.

In the annexed drawing, A represents a circular disk or plate of metal resting upon and supported by the bottom B' of the hopper or seed-box B, from the center of which disk extends vertically upward a stud, C, that serves as an axial bearing for and around which revolves a dropper, D. As seen in Fig. 1, the dropper D is constructed of a plate of metal in the general form of a circle, and somewhat larger in diameter than its seat A, and is provided at equidistant points around its edge with a number of studs, E, which extend vertically downward to a point midway between the upper and lower sides of said seat, and immediately outside of the periphery of the same. Extending horizontally through the lower side and at the center of the dropper-seat A is a groove, through which passes a rectangular bar of metal, F, having a width sufficient to enable it to loosely fill said groove laterally, and a thickness equal to about one-half its depth, which bar is provided upon its upper side with two Λ -shaped lugs or cleats, G, that are arranged, as shown in Fig. 1, with their apexes inward, while their bases are placed outward, and coincide in width to the width of said bar. The relative lengths of the arms

of the angular cleats are varied, so as to throw their points of union to one side of the transverse center of the bar, while the cleats are relatively arranged so as to bring their points upon opposite sides of the center of said bar, and at a distance apart equal to the diameter of the dropper, less one-half the space between two adjacent studs. If, now, the bar F be moved back and forth longitudinally each of its angular cleats G, upon its inward stroke, will engage its longer arm with one of the studs E, and, pressing it to one side, will rotate the dropper sufficiently to bring a stud upon the opposite side of said dropper just within the line of the point of the opposite cleat, so that upon the return stroke of the long arm the latter will engage with said stud, and partially rotate said dropper, as before, the intermittent forward motion of the latter being continued in one direction as long as the bar is caused to reciprocate. The dropper is prevented from throwing ahead by means of the stud which is about to receive an impulse, which stud passes along and bears lightly against the short arm of its cleat until it reaches the point of the same, and is ready for a positive motion from the long arm of the latter. In order that the studs may not accidentally pass in rear of the operating-cleats G two additional cleats, G', are secured upon the bar, and extend along its edges outward from the outer ends of said cleats G. Suitable stops for regulating the longitudinal movement of the bar being placed upon the same, this portion of the device is complete. Resting upon suitable supports H extending upward from the bottom of the seed-box is a covering-plate, I, provided with an annular opening, K, which corresponds in width and radial position to the seed-openings *d* of the dropper D. The central and outer portions of the covering-plate are connected together by means of three lugs, L, two of which are arched, while the third lug, L', is cylindrical, and provided with a correspondingly-shaped opening that extends from its lower end nearly to its upper end. Within this opening K, and immediately beneath the lug L', is placed a cut-off, M, having the general shape shown in Figs. 1 and 2, the downward-curved ends of which rest upon the upper side of the dropper. A bolt, N, pass-

ing vertically upward through the cut-off, and through the upper end of the lug L' , with its head n beneath the former, and a nut, n' , placed upon its threaded end above said lug, preserves the relative lateral positions of said parts, while a rubber or other spring, O , placed within said lug, and bearing upon said cut-off, holds the latter firmly down upon the dropper so as to prevent grain from passing between their contiguous surfaces.

The lug and cut-off being arranged immediately over the discharge-opening X , it will be readily seen that as the dropper rotates no grain can pass into and through said discharge-opening except such as is contained by or within the openings d of said dropper, the remainder of grain resting upon the latter being scraped off from the same as it passes under said cut-off. If, however, more grain should pass into and become wedged within one of the dropper-openings than would lie entirely below the upper surface of the same, the cut-off would yield and press upward sufficiently to enable said grain to pass without obstructing the operation of the device.

I do not claim the peculiar shape of the arched bridges employed for connecting together the inner and outer sections of the covering-plate I , the same being the invention of L. H. Converse.

The advantages possessed by this invention are as follows: First the means employed for converting the reciprocating motion of the bar

into an intermittent rotary movement of the dropper are positive, certain in operation, simple in construction, and possess more than ordinary durability. Second, the peculiar construction of the cut-off gives sufficient rigidity to enable it to perform its office with certainty, while at the same time said device has the necessary amount of flexibility to cause it to yield and not arrest the motion of the dropper whenever a number of seed become wedged into one of the openings.

Having thus set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the pivoted dropper D , provided with the studs E , the bar F , provided with the cleats G and G' , and arranged to have a reciprocating movement in a longitudinal direction, substantially as and for the purpose specified.

2. In combination with the dropper D , provided with the openings d , and with the covering-plate I , provided with the annular opening K , the hollow lug L' , the cut-off M , the bolt N , and the opening O , substantially as and for the purpose shown.

In testimony that I claim the foregoing, I have hereunto set my hand this 17th day of January, 1872.

JAMES K. WELTER.

Witnesses:

A. D. SMITH,
GEO. D. GOULD.