

S. P. BABCOCK.
CORN-PLANTER.

No. 172,369.

Patented Jan. 18, 1876.

Fig. 3.

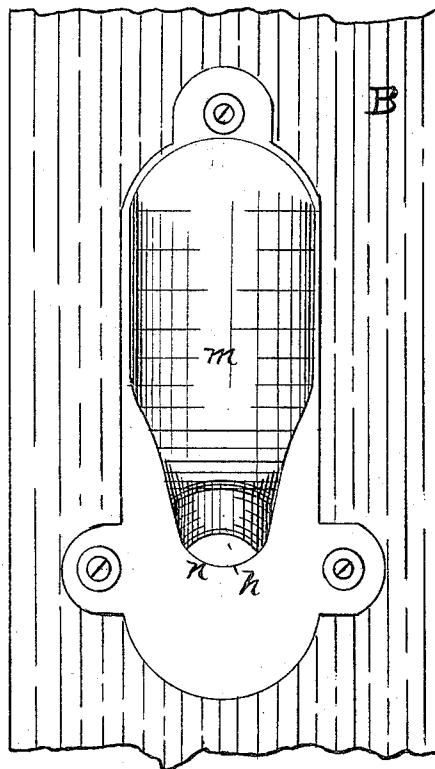
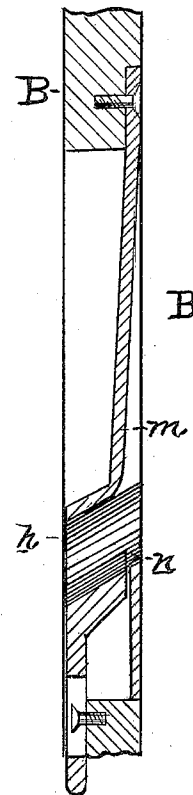


Fig. 4.



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IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **172,369**, dated January 18, 1876; application filed August 6, 1875.

To all whom it may concern:

Be it known that I, SYLVESTER P. BABCOCK, of the city of Adrian, State of Michigan, have invented an Improvement in Hand Corn-Planters, of which the following is a specification:

The object of my invention is the production of a hand corn-planter which will deposit the desired amount of corn with a regularity in the number of the grains at each operation, and without cutting or mashing the same, which at the same time will avoid as much as possible all friction, and be effective in operation.

My invention consists in cutting away the plunger on the upper side of the seed-cavity; and, further, in the combination of the operative parts, all as more fully hereinafter explained.

To enable others skilled in the art to make my device, I now proceed to describe the same in connection with the drawings, in which—

Figure 1 represents a central vertical section; Fig. 2, a separate perspective view of the spring-plate and attachment. Fig. 3 is an enlarged front elevation of a portion of the plunger, illustrating the seed-cavity and cut-away portion above the same; and Fig. 4 is a vertical central section of similar parts.

Similar letters denote corresponding parts in each figure.

A is the main supporting-bar, having attached to its outside, near its lower end, a block, *j*. Above the block *j* there is an opening, *L*, entirely through the bar A, and having its lower end *l* inclined inwardly. To the outside of the bar A, and covering a part of the opening *L*, is a cup, *p*, which forms a continuation of the lower end of the said opening. B is the plunger, having a suitable handle on its upper end. A slot, *b*, is made in the plunger, and a set-screw, *i*, is secured to the bar A, projecting through said slot. The slot and set-screw limit the vertical movement of the plunger, the lower end of said plunger being about even with the lower end of the supporting-bar at one end of its stroke, and a short distance above the end *l* of the opening *L* at the opposite end of the stroke. The plunger has a seed-cavity, *h*, which is a hole passing entirely through it, and may be provided

with any suitable device for adjusting its size. This seed-cavity passes diagonally through the plunger in a downward direction from its face toward the supporting-bar. The face of the plunger is cut away above the seed-cavity about one-eighth ($\frac{1}{8}$) of an inch, or nearly the thickness of a grain of corn in depth, and extending upwardly along the plunger, gradually diminishing in depth, as shown by *m*, with the top edge of such seed-cavity rounded into the cut-away portion, and the lower side of the said seed-cavity on the face of the plunger forms a cutting-knife, *n*, the operation of which parts will be explained hereinafter. C is the hopper, constructed of sheet metal, and formed by wrapping it around the block A'. It is secured to the sides of the supporting-bar, and incloses the plunger. The hopper is provided with a suitable cover, *c*. A' is a block of wood placed in the lower part of the hopper, and closing the entire lower end of said hopper, except such part as is occupied by the plunger. The sides of the hopper above the block A' are filled out with pieces of wood or other material, *g'*, which makes the hopper at this point about the same width as the seed-cavity and cut-away portion. To the sides of the lower portion of the bar A, and below the hopper, are secured two projecting wings, C' C'. E is the scraper, made of sheet-steel. To the center of the scraper is attached a plate, *a*, having its outer edges turned up and notched, as shown by *a'*, the notches being opposite each other. The scraper is secured to the planter by a pin, *a*², projecting through holes in the wings C'. By these means the scraper can be adjusted vertically, or fed forward, or can be reversed.

The operation is as follows: The hopper is filled with corn, which presses against the face of the plunger, and, consequently, in the cut-away portion *m*. On the upward movement of the plunger the knife-edge *n*, when it reaches the upper part of the block A', divides the grains which are in the cut-away portion from the rest, and raises them upwardly, which, from their own weight, and the downward tendency of the cavity, fill the same immediately. The plunger passing down, the grains in the seed-cavity, after it has passed below the top of the block, fall by their weight into

the cup *p*, to await the upward movement of the plunger, when they fall into the angle between the scraper and the supporting bar. On the next downward stroke of the plunger they are forced into the ground, and another quantity of seed deposited into the cup *p*.

The cut-away portion on the plunger prevents the corn resting on the block *A'* from clogging or stopping the downward movement of the plunger, as is the case with planters as heretofore made, the said cut-away portion pressing the grains backward like a wedge.

The block *j* serves to keep the planter the right distance in the ground under all circumstances.

Having thus described my device, what I claim as new therein, and my invention, is—

1. The combination, with the vertically-moving plunger, of the diagonal seed-cavity and the cut-away portion above such seed-cavity, substantially as described and shown.

2. The combination, with the vertically-moving plunger *B*, of the diagonal seed-cavity *h*, cut-away portion *m*, and block *A'*, substantially as described and shown.

3. The combination, with the supporting-bar *A* and plunger *B*, of the diagonal seed-cavity *h*, cut-away portion *m*, seed-hopper *C*, and cup *p*, substantially as described and shown.

4. In combination, the supporting-bar *A*, the plunger *B*, secured to said supporting-bar by the slot *b* and screw *i*, the hopper *C*, having sides *g'* and block *A'*, the seed-cavity *h*, cut-away portion *m*, and cup *p*, the several parts being constructed and arranged to operate substantially as described and shown.

SYLVESTER P. BABCOCK.

Witnesses:

S. M. BABCOCK,
O. F. GREGORY.