

A. O. ABBOTT.
Corn-Planter.

No. 196,616

Patented Oct. 30, 1877.

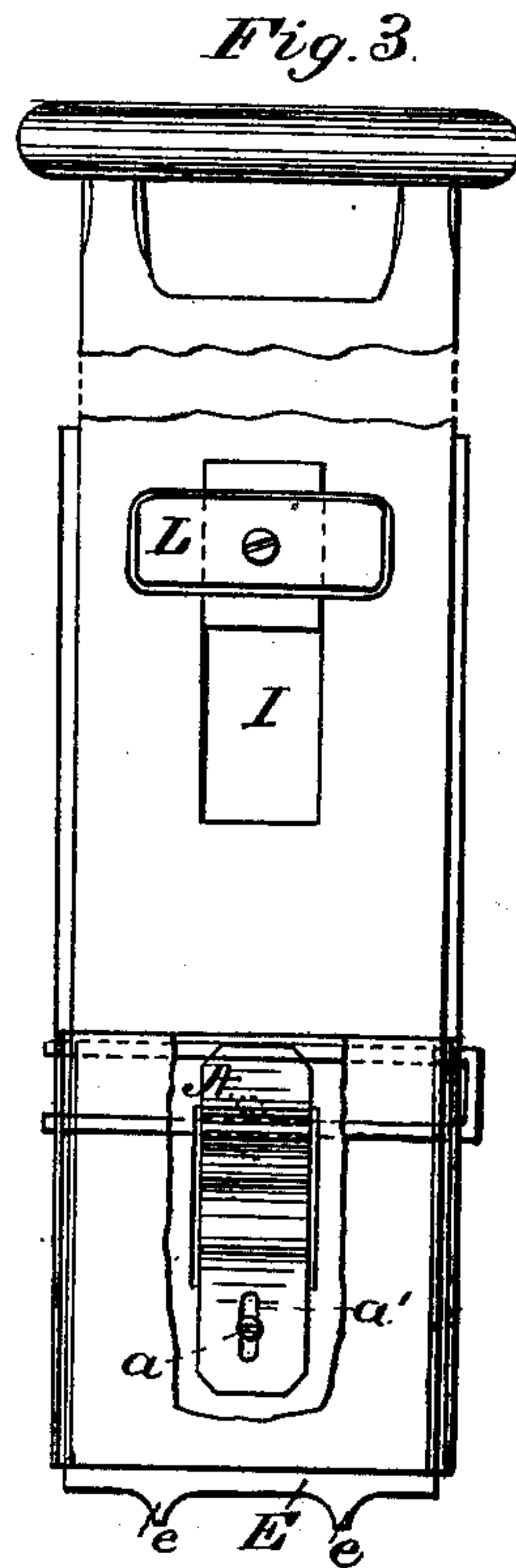
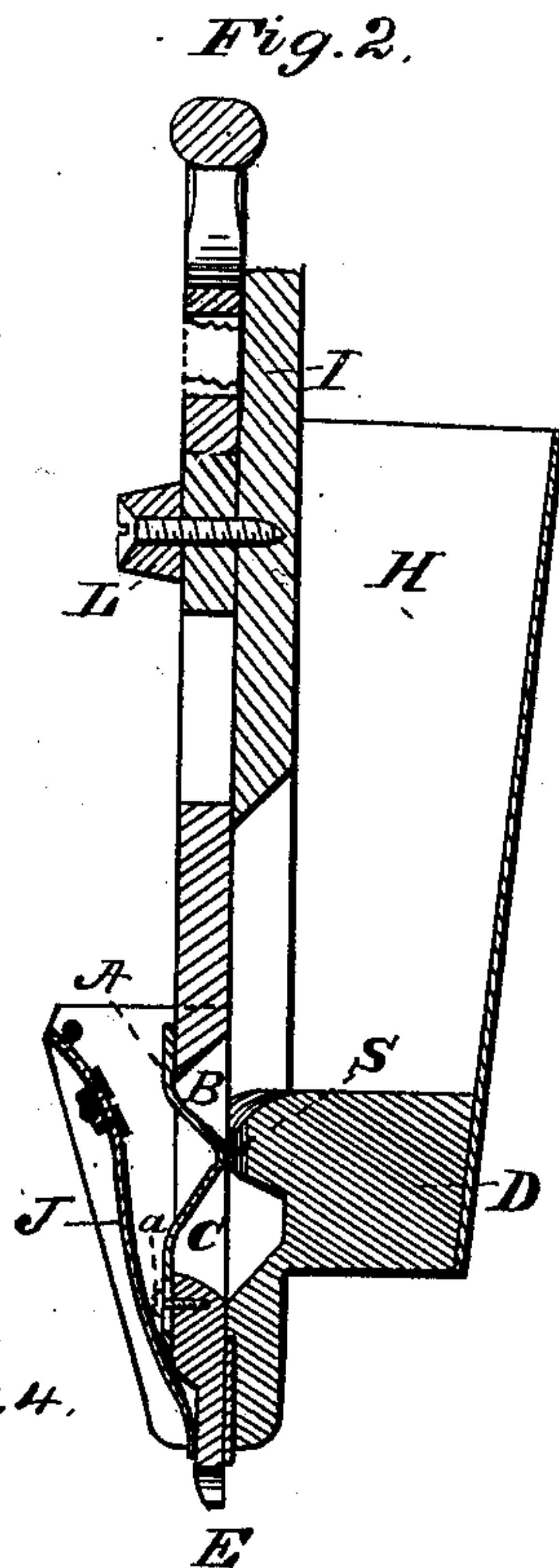
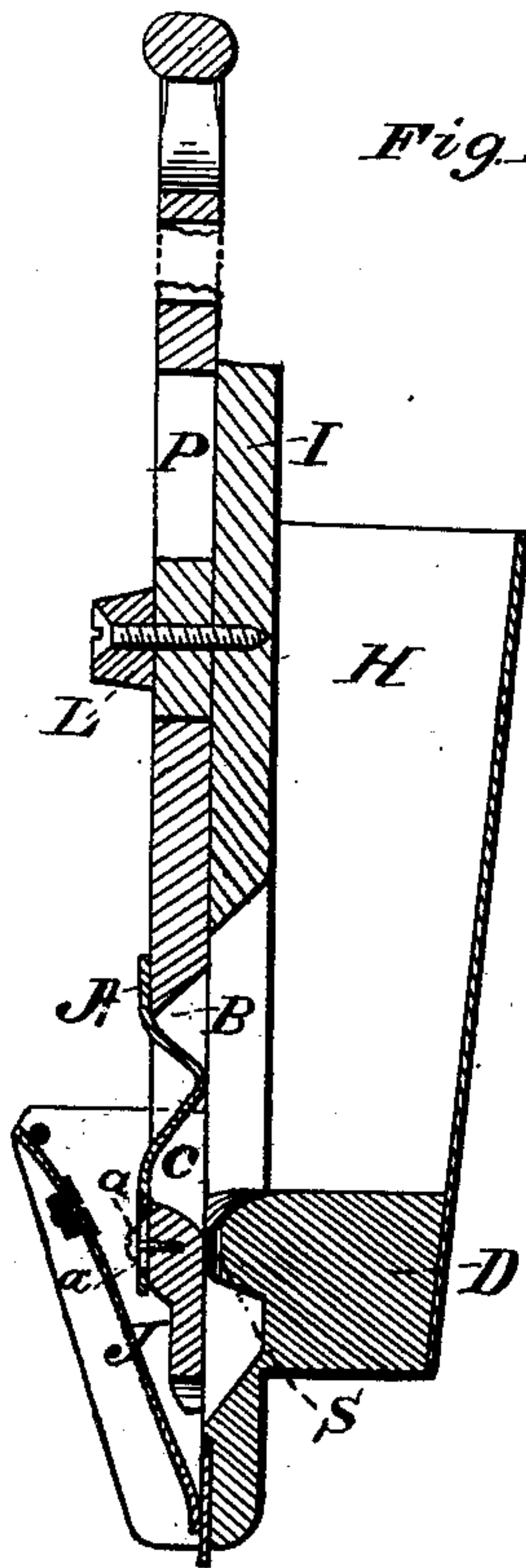


Fig. 4.

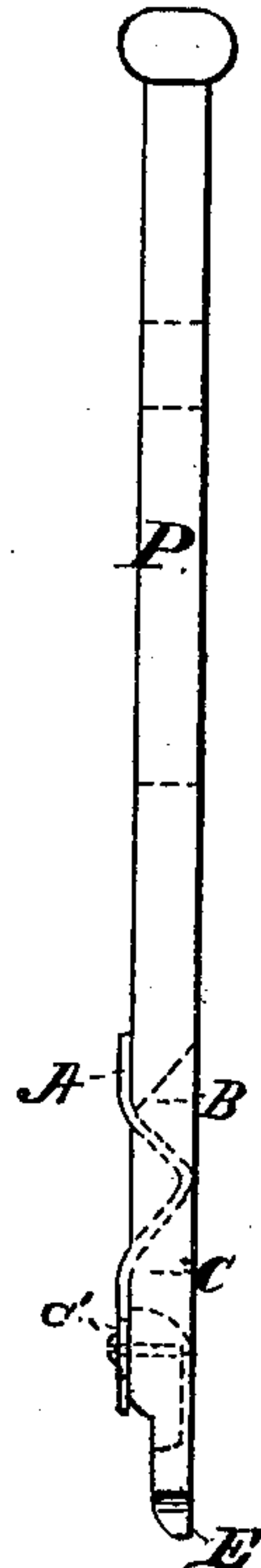


Fig. 5.

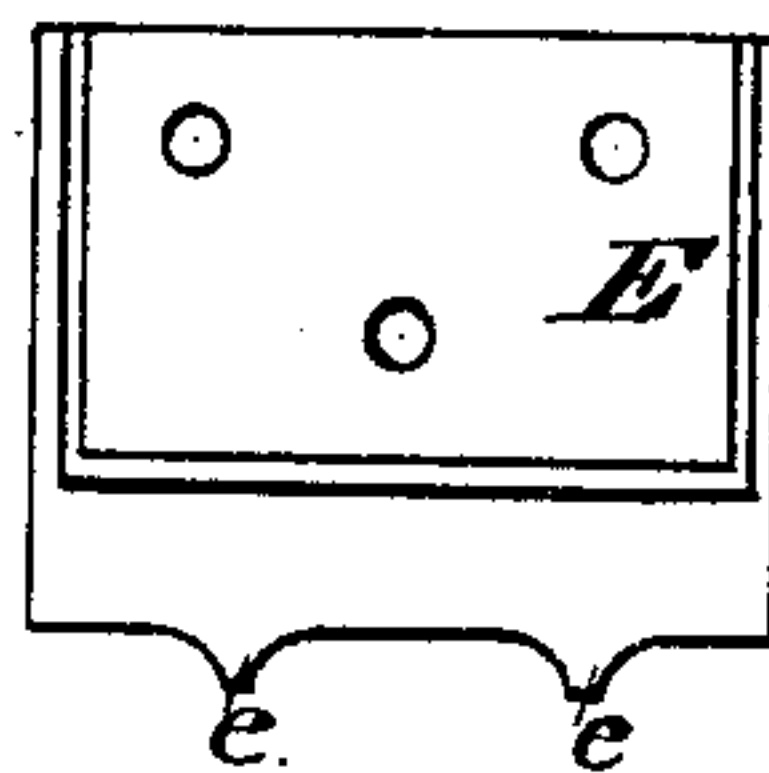


Fig. 6.



Witnesses.
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ADRIAN O. ABBOTT, OF ADRIAN, MICHIGAN.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **196,616**, dated October 30, 1877; application filed October 6, 1877.

To all whom it may concern:

Be it known that I, ADRIAN O. ABBOTT, of Adrian, in the county of Lenawee and State of Michigan, have invented a certain new and Improved Hand Corn-Planter, of which the following is a specification:

The subject of my invention is a hand corn-planter in which the measuring-cup is formed by a spring-plate adapted to work in connection with a rigid cut-off, and is made adjustable to regulate the size of the measuring-cup. It is preferably constructed so as to form two cavities, the lower of which constitutes the measuring-cup and the upper a feeder therefor. The jaw against which the plunger works in driving the grain into the ground is located on the side next the operator, and is open at top so as to form a sight-cup.

In the accompanying drawings, Figure 1 is a vertical section of the improved planter, showing the plunger up for the filling of the measuring-cup. Fig. 2 is a vertical section, showing the plunger down. Fig. 3 is a front view with a portion of the jaw broken away so as to show the back of the measuring-cup. Fig. 4 is a side view of the plunger. Fig. 5 is a front elevation of the plunger-shoe, and Fig. 6 a vertical transverse section of the same.

H represents the hopper, the bottom of which consists of a solid block, D, forming a gage to regulate the depth of penetration. P is the plunger, which in the drawings is shown as shortened or broken off, so as to bring it within convenient dimensions for representation. It is secured by a button, L, serving as a guide, and permitting its ready removal when required.

The bottom of the plunger consists of a solid metal shoe, E, constructed with points *e*, which serve to separate the grains and push hard substances out of the way in penetrating the ground.

The feed-cup C is formed by a spring, A, fastened to the plunger only at its lower edge *a*, and having above it a cavity, B, which assists in feeding the cup. By leaving the spring A free at its upper end it is adapted to yield in the event of a grain catching between it and the cut-off S. The spring is thus adapted

to operate with a rigid cut-off, S, obviating the necessity of using gum or other elastic material for said cut-off.

For the purpose of regulating the capacity of the feed-cup, the spring A is formed with a vertical slot, *a'*, to receive a screw, *a*, so that the spring may be slid up or down, and the feed-cup thereby enlarged or contracted.

L is a button pivoted to the back I of the hopper, and employed to confine the plunger in its working position when turned horizontally, as shown in Fig. 3, or permitting the removal of the plunger when turned vertically.

J is the spring-jaw, against which the plunger works in discharging the seed. The said jaw is located on the side next the operator, and is open at top to expose the charge of seed to view.

In operating the planter, the hopper is filled with corn, and the plunger is raised; the feed-cup comes to the hole in the back piece and fills; then the plunger is depressed, and the feed-cup passes by the rigid block, which acts as a cut-off, and the corn passes to the cavity below the hopper, and thence into the jaw, when the plunger is raised, and from there into the ground at the next descent of the plunger.

The following are named as advantageous features in the construction of my planter: First, the block S, made of wood or metal, is rigid, while the top of the feed-cup is a steel spring. Usually they have been made with the feed-cup rigid and the block elastic. I reverse the positions, and thus am enabled to regulate the feed from the outside of the plunger. Second, the steel spring A, when placed in the slot in the plunger, makes two cavities, the one above serving to feed the lower one when the corn, from any cause, would not otherwise drop freely in the lower cavity or measuring cup. Third, the spring-jaw at the bottom is placed on the side next to the operator, and left open at the top, so that when the plunger is raised the corn can be seen lying in the jaw in the position in which the planter puts it in the ground, thus making the jaw serve as a sight-cup, and rendering a separate sight-cup unnecessary.

Having thus described my invention, the

following is what I claim as new and desire to secure by Letters Patent:

1. A hand corn-planter constructed with a yielding jaw, forming a sight-cup, from which the seed is forced into the ground.

2. The plunger P, provided with a spring-plate, A, attached adjustably thereto at one end and free at the other, and constructed, substantially as shown, to form a variable measuring-cup and a feeding-cup therefor.

3. The combination of the hopper H, the

plunger P, carrying the adjustable spring-plate A, and the open-top yielding jaw J, located on the side next the operator, and serving as a sight-cup, as set forth.

In testimony of which invention I hereunto set my hand this 17th day of September, A. D. 1877.

ADRIAN O. ABBOTT.

Witnesses:

C. B. JOHNSON,
FRED. J. TODD.