

S. P. BABCOCK.
HAND CORN PLANTER.

No. 414,003.

Patented Oct. 29, 1889.

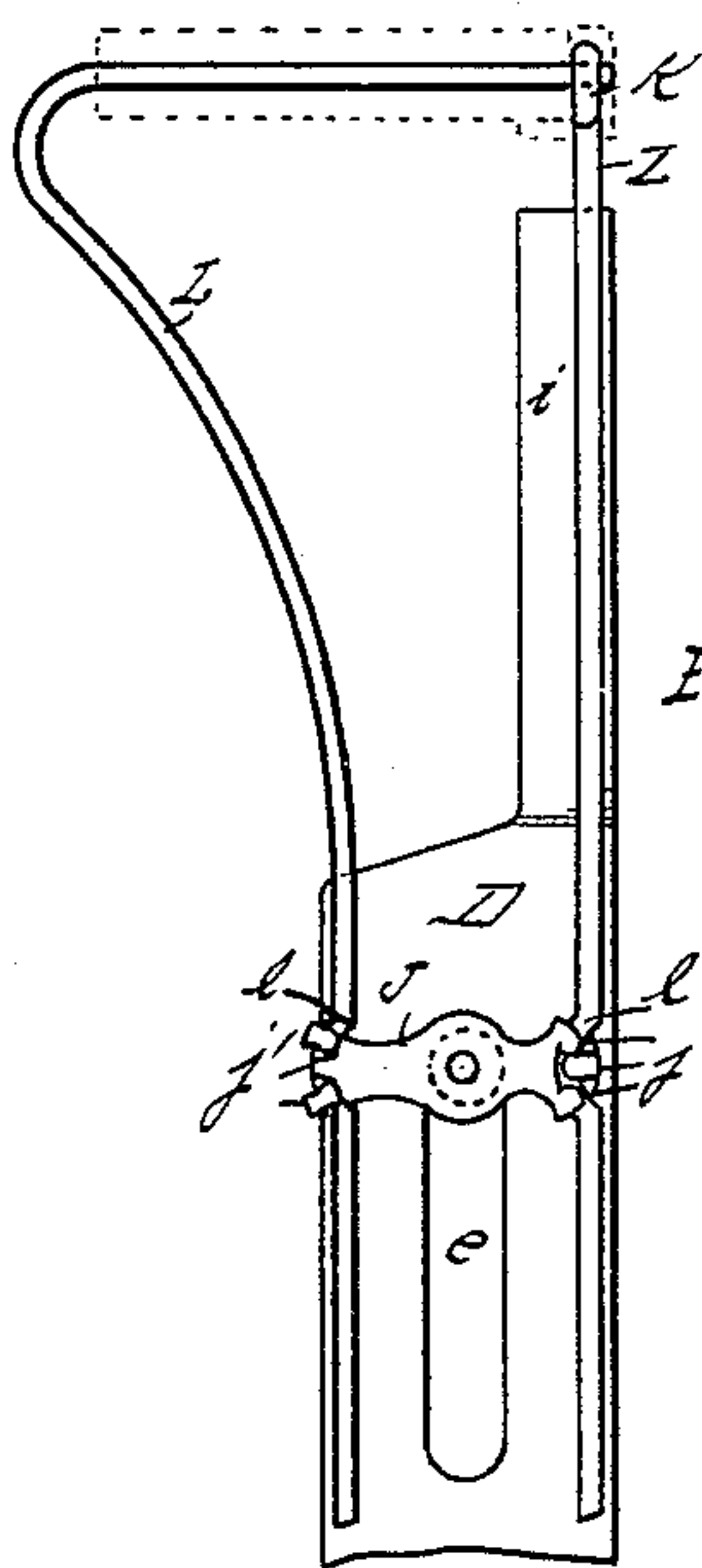


Fig. 5

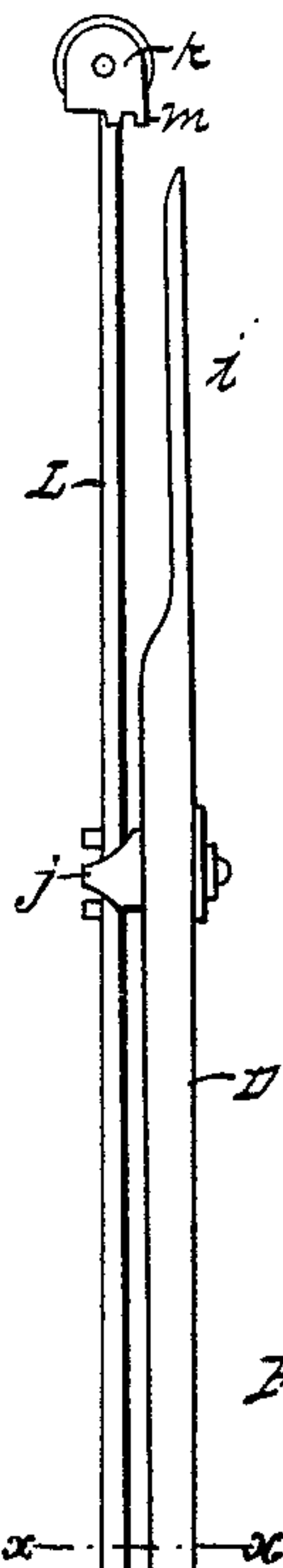


Fig. 1

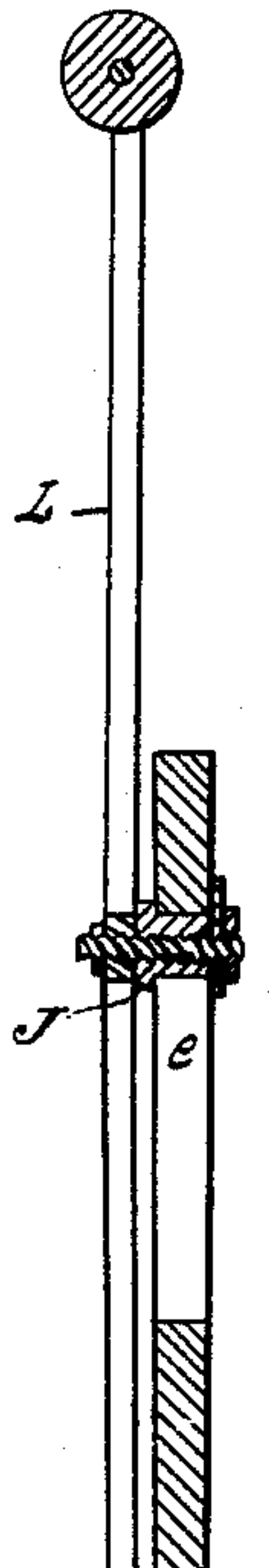


Fig. 2

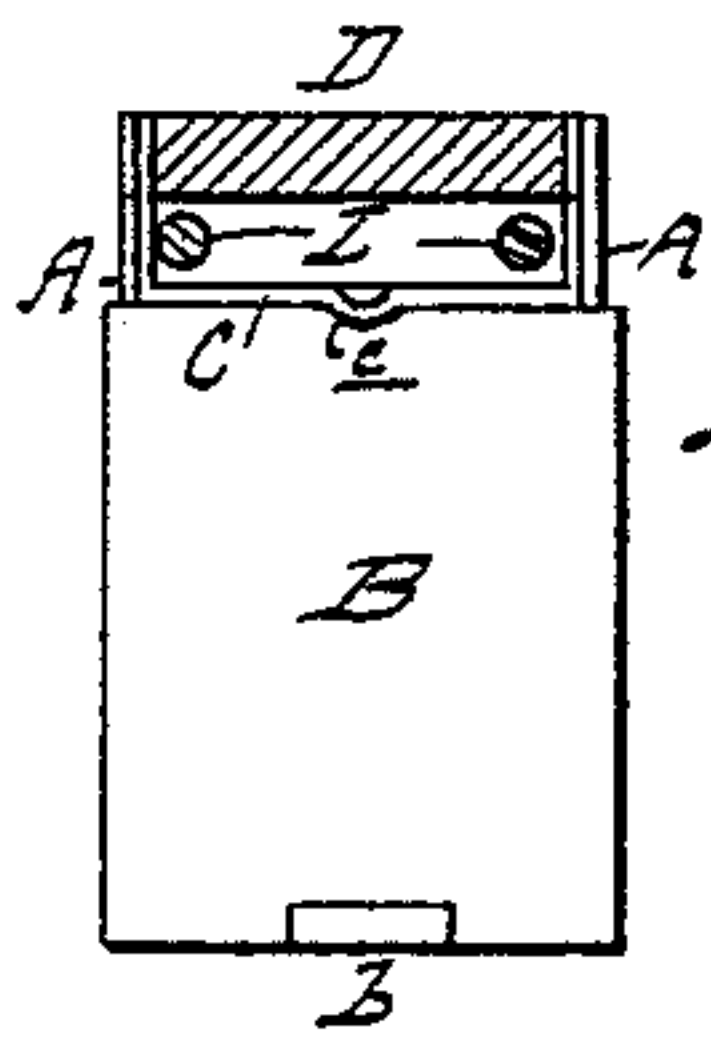


Fig. 4

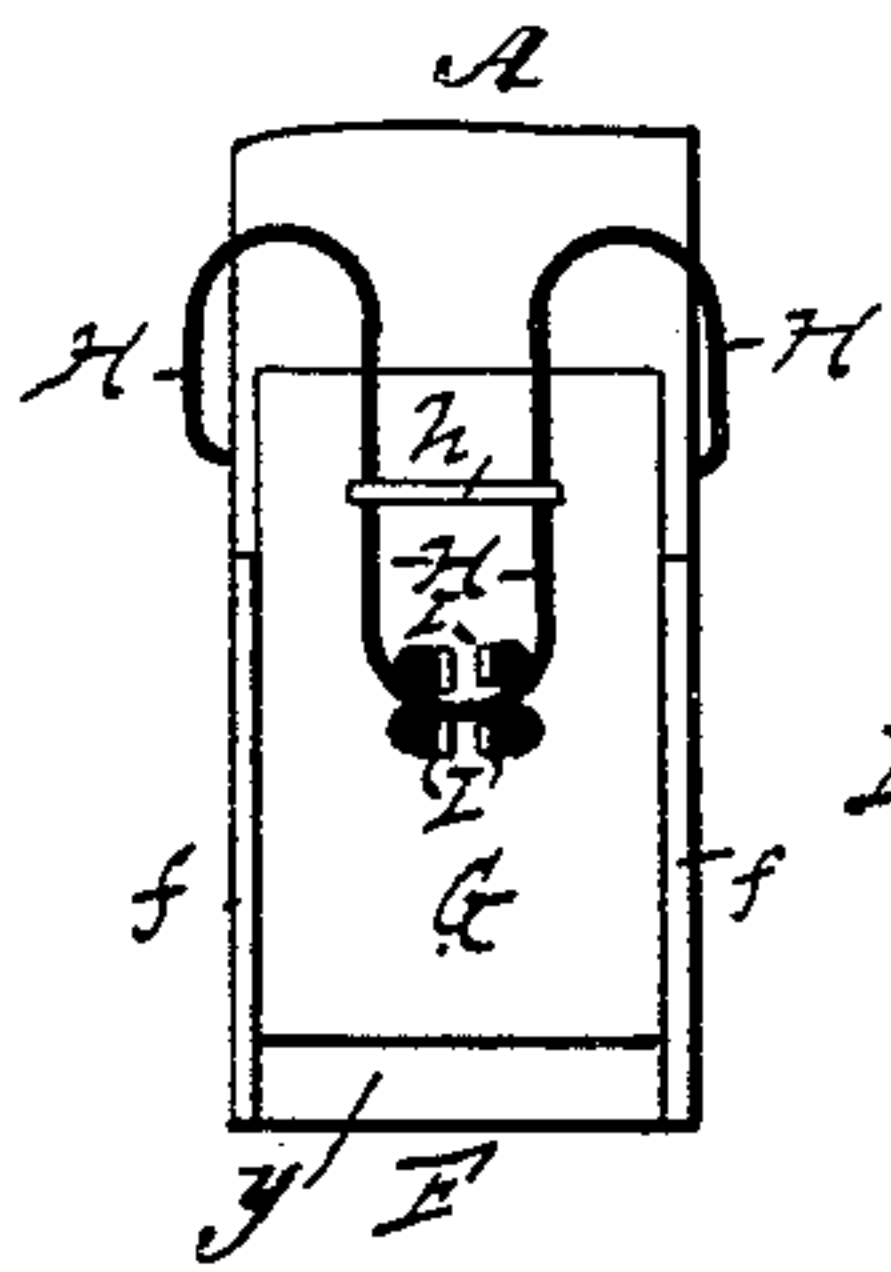
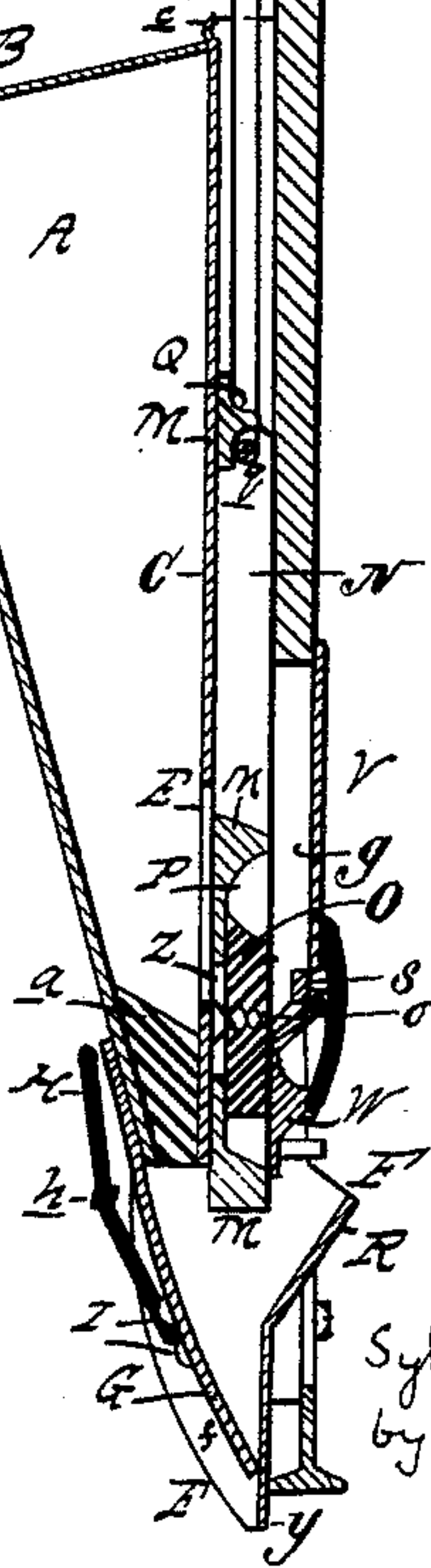


Fig. 3

Witnesses
Adelaide A. Anderson
Cyrus L. Lathrop



Inventor
Sylvester P. Babcock
by Geo. H. Lathrop
atty.

(No Model.)

2 Sheets—Sheet 2.

S. P. BABCOCK.
HAND CORN PLANTER.

No. 414,003.

Patented Oct. 29, 1889.

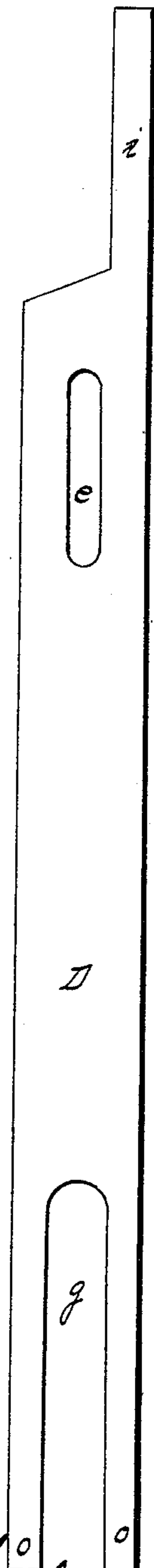


Fig. 6

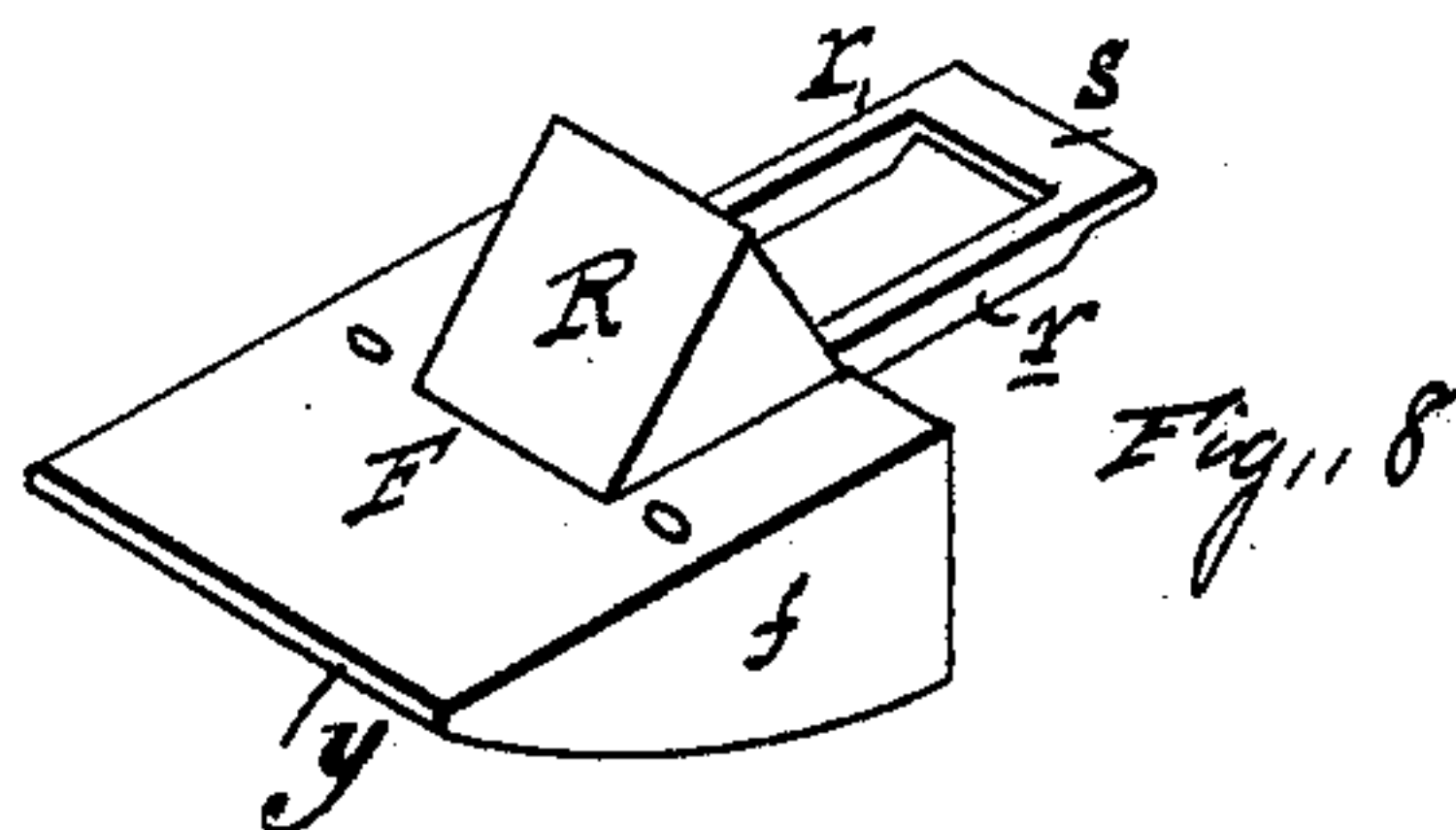


Fig. 8

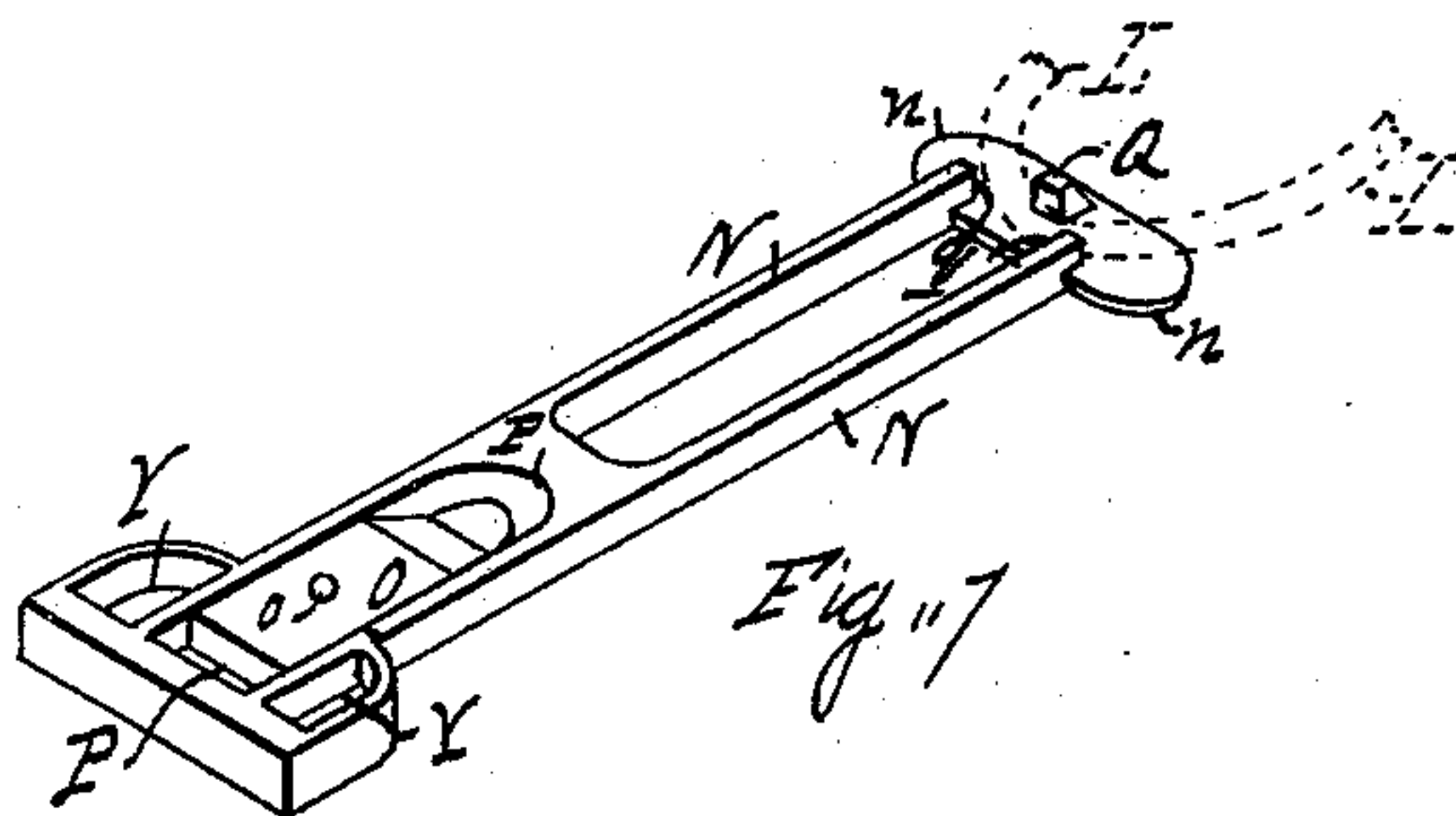


Fig. 7

Witnesses

Cyrus E. Lothrop
Adelaide A. Anderson

Inventor

Sylvester P. Babcock
by *Geo. H. Lothrop*
att'y.

UNITED STATES PATENT OFFICE.

SYLVESTER P. BABCOCK, OF ADRIAN, MICHIGAN.

HAND CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 414,003, dated October 29, 1889.

Application filed June 18, 1889. Serial No. 314,690. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER P. BABCOCK, of Adrian, in the county of Lenawee and State of Michigan, have invented a new and useful Improvement in Hand Corn-Planters, of which the following is a specification.

My invention relates to hand corn-planters; and the object of my invention is to secure facility of operation and cheapness of construction. I attain this object in the device illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a corn-planter embodying my invention. Fig. 2 is a central section of the same, the planter being in the position shown in Fig. 1. Fig. 3 is an elevation of the lower end of the planter, looking from the left, in the position shown in Fig. 1. Fig. 4 is a plan view of a section taken on the line *x x*, Fig. 1, looking downward. Fig. 5 is an elevation of the upper portion of the standard and handle, looking from the left of the position shown in Fig. 1. Fig. 6 is a plan view of the standard detached from the rest of the device. Fig. 7 is an isometric view of the plunger detached from the planter, a portion of the handle being shown in dotted lines; and Fig. 8 is an isometric view of the casting which forms the lower end of the planter.

Similar letters refer to similar parts throughout the several views.

D is the standard. Said standard is provided near its upper end with the slot *e*, and at its lower end with the slot *g*.

A is a hopper secured to the standard D.

B is the lid to the hopper A, hinged at *b*, and turning away from the standard in opening.

a is a partition at the lower end of the hopper, having its upper surface beveled to form a bottom to the hopper, which slopes toward the standard D.

C is the rear wall of the hopper next to the standard D, and extending parallel to said standard at a distance therefrom equal to the thickness of the plunger.

E is an opening through the lower portion of the rear wall C.

c is a lug struck out from said rear wall

near the center of its upper edge, and forming a catch by which the lid B is secured when closed. The material of which the rear wall C is made is sufficiently elastic to allow the lid to press back and pass the catch *c* in closing.

F F is a casting forming the lower end of the planter. *ff* are wings extending from said casting and forming guides to restrain the motion of the scraper G. *y* is a shoe forming part of said casting, against which the scraper G rests.

R is a seed-passage or sight-hopper, formed integral with the casting F F.

r r are arms extending from the casting F F and forming part thereof, and S is a cross-piece connecting the ends of said arms. The inner edges of the arms *r r*, Fig. 8, constitute tracks along which the plunger slides, and upon the outer edges of said arms and the cross-piece S the lugs from the cut-off rest. The casting F F is secured to the standard D by bolts or otherwise.

W is a metal cut-off such as is shown and claimed in Letters Patent to me of May 8, 1883, No. 276,995.

M M is the plunger. P P is a groove in the lower end of said plunger, the upper end of which groove constitutes the seed-cup.

O is a piece of wood fitting in the groove P P, and of less length than said groove. The block O is adjustably secured in the groove P P by a screw *o*, passing through a slot Z, Fig. 2, in the plunger M M. The block O being wood and the plunger metal, the block remains in place, under the jar of use, very much better than when both parts are of metal. By moving the block O upward or downward the seed-cup is made smaller or larger. I form the plunger M M with hollows Y Y in its lower end to economize metal and make the plunger lighter.

N N are arms upon the plunger M M.

n n is a plate connecting the upper ends of the arms N N, and of less thickness than the depth of said arms. The upper ends of the arms N N form shoulders *q*.

Q is a stud extending from near the center of the plate *n-n*.

L L is a handle formed of a wrought-metal

rod bent in a semicircular form near its center, as shown in dotted lines in Fig. 7, then extending in parallel directions toward the two ends, then spreading apart near the ends, and having one end bent around, passed through an eye formed upon the other end, and secured, as shown in Fig. 5.

ll are small bends or offsets in the handle L L.

J is a rod secured to the handle L L, one end of said rod being secured at each of the offsets *ll*. Lugs *jj*, formed upon each end of the rod J, are bent over to embrace the handle and secure said rod in place, as described.

The flanged sleeve described and claimed by me in Letters Patent No. 193,590, dated July 31, 1877, is secured to the center of the rod J.

Rigidly secured upon the upper end of the handle L L at one side is a metal piece or stud K, provided at the bottom with a notch *m*. A spring *i* extends from the top of the standard D to just below the handle. When said spring is unbent, the top of said handle and stud K pass freely by it. When the spring *i* is bent inward, it engages with the notch *m* and prevents the handle from descending, so that the end of the planter may be forced into the ground by the operator grasping the handle without discharging the seed.

The material of which the scraper G is composed is struck out to form the four lugs I I, which engage with the central loop of the spring H to hold the scraper in position.

H H is a spring fastened to the hopper A on each side and bent to form a short upwardly-extending loop on each side and a longer downwardly-extending loop in the center. The central loop of said spring presses upon the scraper G and holds it in position, while the short loops bear upon the surface of the hopper A.

h is a band extending across the central loop of the spring H H and keeping it in shape.

V is a plate covering the slot *g* above the casting F.

Before putting the plunger M M in position the lower semicircular end of the handle L L is placed between the lug Q and shoulder *q* on said plunger, as shown in dotted lines in Fig. 7. The plunger M M is then placed between the rear wall C and the standard D, said standard preventing the handle from being accidentally disengaged from the plunger.

When the casting F F, provided with the arms *rr*, is used, the slot *g* may be made of the same width throughout its entire length, and thus the expense of making a slot of different lengths is saved, and the arms *rr* afford durable tracks for the plunger to slide upon and durable bearings for the lugs upon the cut-off W to rest upon.

When the rear wall C is placed in the position shown and described, I unite in one feature the guides secured to me by Letters Patent No. 183,527, October 24, 1876, and the hood secured to me by Letters Patent No. 193,590, July 31, 1877, and occupy the least possible space in the hopper to secure such object.

The plunger shown is light and affords a strong and convenient fastening for the handle L L. The handle shown is strong and may be cheaply made. The spring *i* affords a fastening or stop for the handle, which may be operated by one hand, and is convenient to the operator's hand. By striking the lugs I I out of the material of which the scraper is composed the expense of an additional piece to form a saddle for the spring H H is saved.

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

1. In a hand planter, the casting F F, consisting of the shoe *y*, sight-hopper R, separated upwardly-extending plunger, guide-arms *rr*, wings *ff*, and cross-piece S, connecting the upper end portions of said separated arms, substantially as shown and described.

2. In a hand planter, the combination of the standard D, provided with the slot *g*, the casting F F, provided with the separated upwardly-projecting plunger, and guide-arms *r*, connected by the cross-piece S and attached to the slotted part of the standard, substantially as shown and described.

3. In a hand planter, the combination of a plunger provided with upwardly-extending arms N N, said arms forming shoulders *q q* at their upper ends, a plate *n n*, connecting the upper ends of said arms and less in thickness than the depth of said arms, a stud Q, extending from near the center of said plate, and a handle having its looped lower end passing between said stud and said shoulders, substantially as shown and described.

4. In a hand planter, the combination, with a standard D, of the hopper A, having a rear wall C, provided with the slot E and located parallel to the standard and at a distance therefrom uniformly equal from end to end of the hopper to the thickness of the plunger, and a plunger sliding between the parallel standard and hopper-wall and bearing against and guided by the lower end of said wall, substantially as described.

5. In a hand planter, the hopper A, having an elastic rear wall C formed on its top edge, with a catch-stud *c*, in combination with the hinged lid B, substantially as described.

6. In a hand planter, the handle L L, formed of one rod bent near its center, then extending in parallel directions toward its ends, separating near the ends, and having one end bent and passed through an eye upon the other end and secured, said handle being

provided with the offsets *l l*, and rod J, having studs *j j* bent down upon and embracing said handle at the offsets, substantially as shown and described.

5 7. In a hand planter, the combination of the standard D, the spring *i*, extending from the upper end of said standard, and a handle

provided with a stud at its upper end adapted to engage with said spring, substantially as shown and described.

SYLVESTER P. BABCOCK.

Witnesses:

A. L. BLISS,

S. M. BABCOCK.