

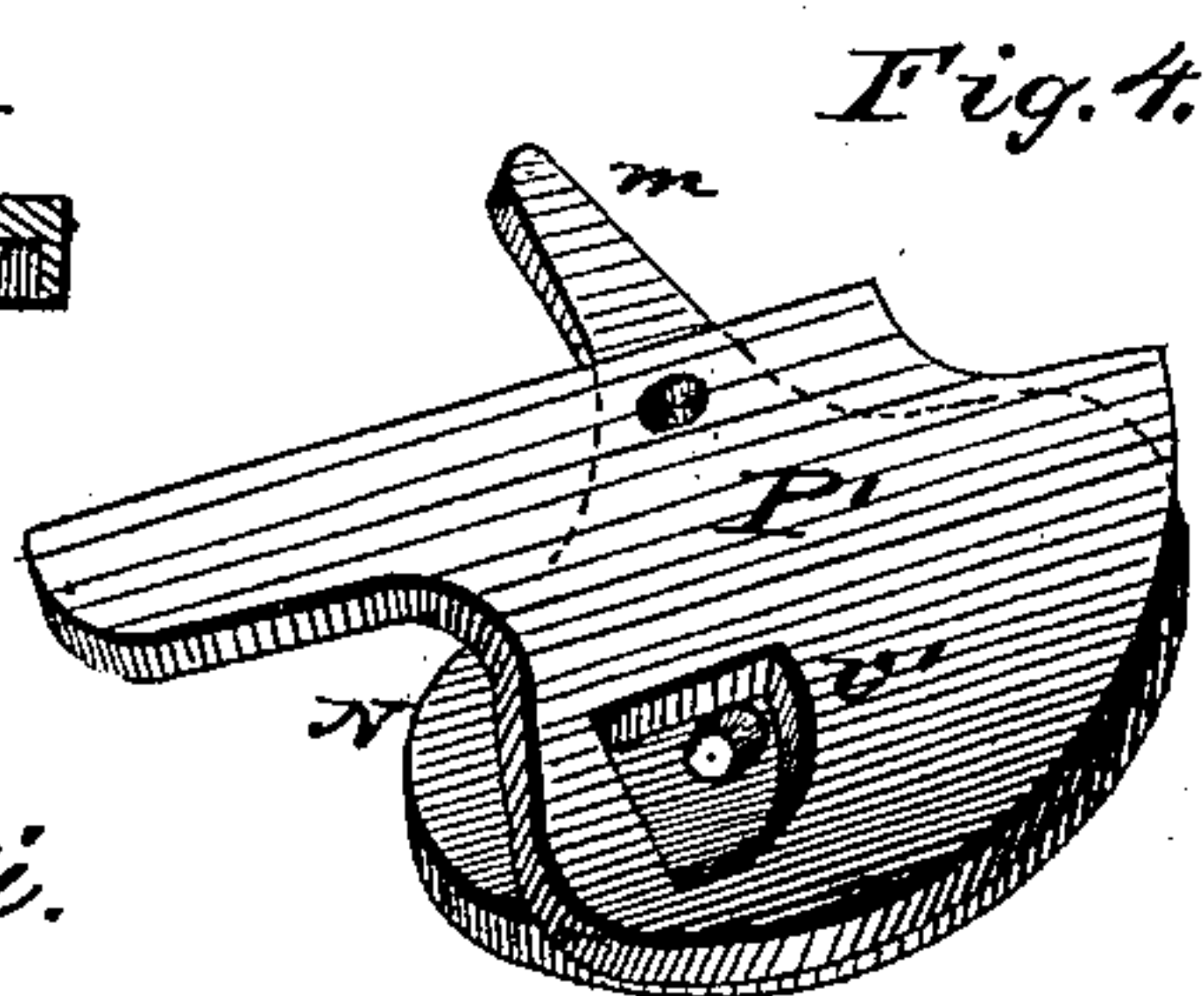
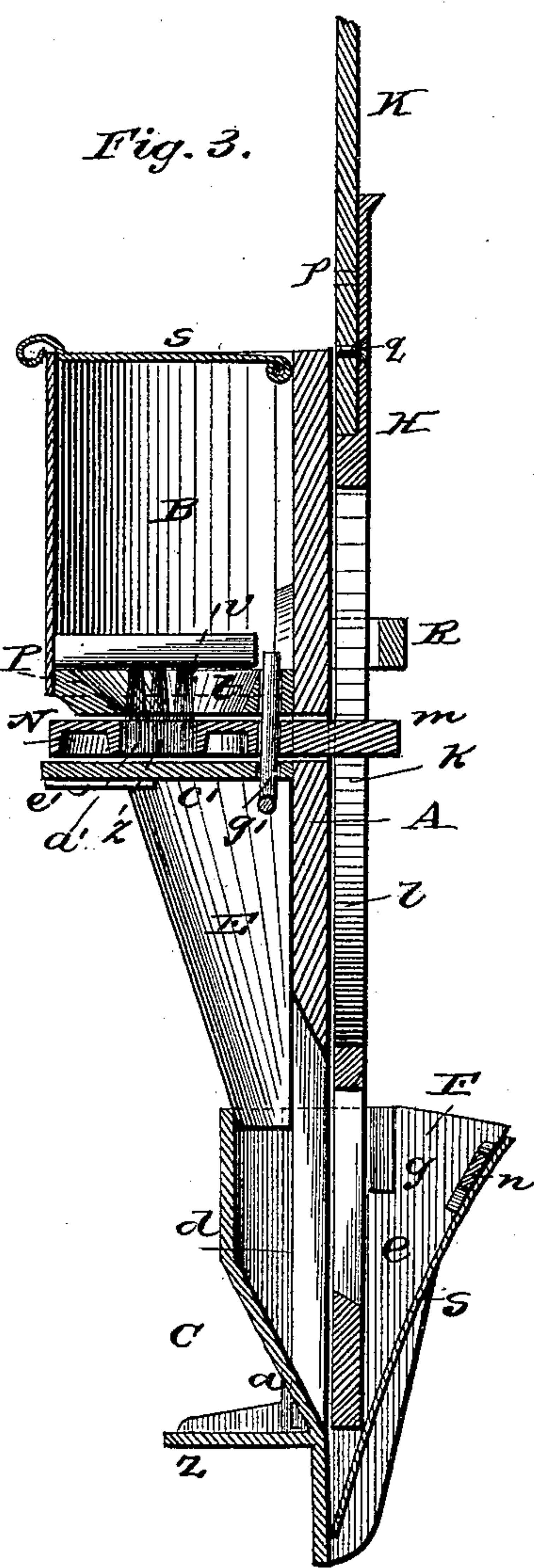
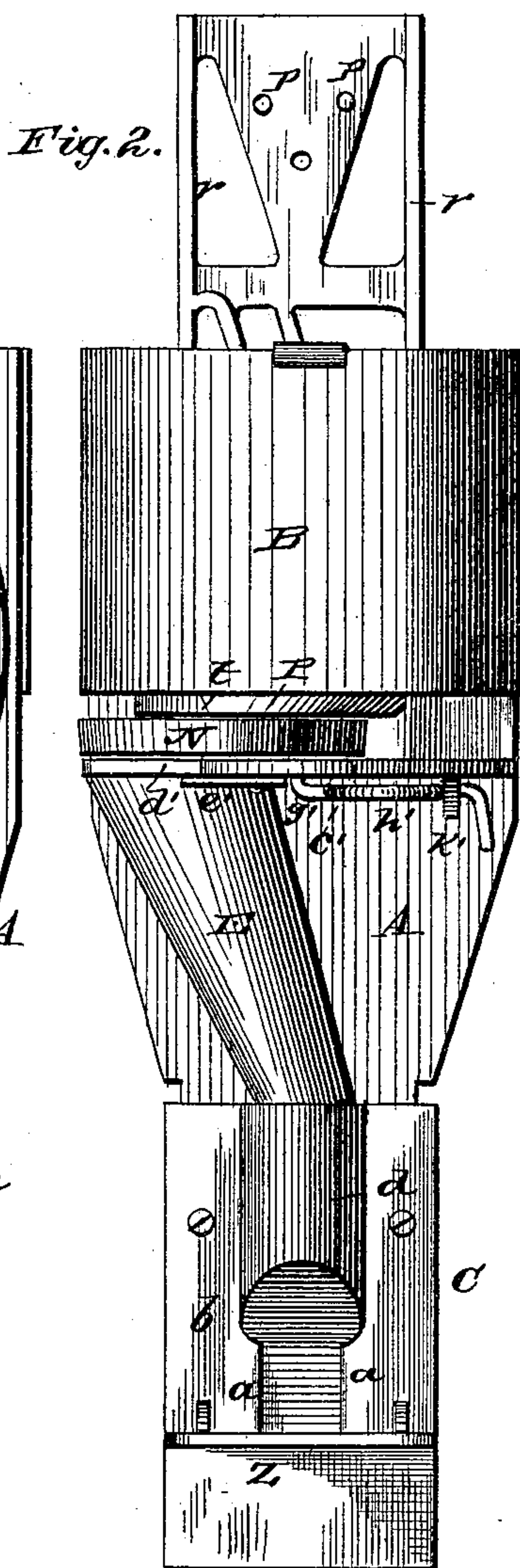
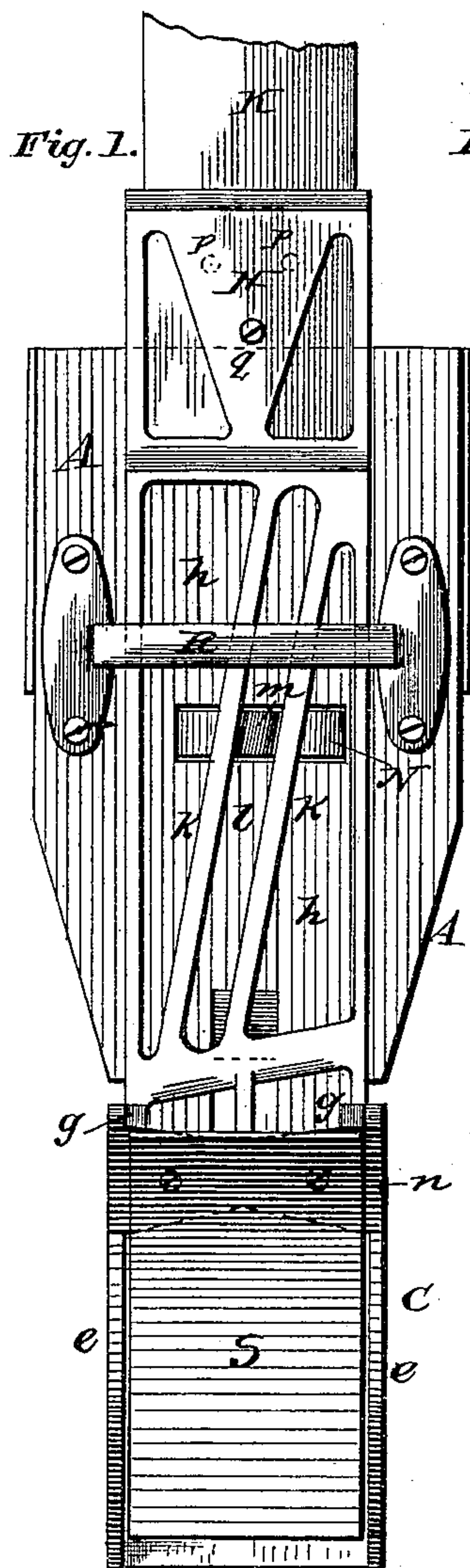
(No Model.)

A. HOAG.

HAND CORN AND BEAN PLANTER.

No. 265,414.

Patented Oct. 3, 1882.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

ALBERT HOAG, OF GRAND ISLE, VERMONT.

HAND CORN AND BEAN PLANTER.

SPECIFICATION forming part of Letters Patent No. 265,414, dated October 3, 1882.

Application filed July 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALBERT HOAG, a citizen of the United States, and a resident of Grand Isle, in the county of Grand Isle and State of Vermont, have invented a new and valuable Improvement in Hand Corn and Bean Planters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a rear elevation of my improved implement. Fig. 2 is a front elevation thereof. Fig. 3 is a vertical sectional view. Fig. 4 is a perspective view of the furring-plate and valve, and Fig. 5 is a vertical sectional view of the valve detached.

This invention has relation to hand-planters for corn, beans, &c.; and it consists in the construction and novel arrangement of the guide-lugs and stop-shoulders of the chambered foot-piece, the cored casting forming the valve-seat and the furring-plate therein, the funnel connected by a lug and rivet to said casting, the spring-fastened pivot of the dropping-valve, and the iron open-work plunger cast with oblique bars forming the walls of an oblique slot, as will be hereinafter fully described, and pointed out in the claims appended.

In the accompanying drawings, the letter A designates the back board of the planter, and B the hopper or seed-reservoir attached to the upper portion thereof.

C represents the foot-piece or opening-shoe, which is secured to the forked lower end of the back board, the branches of this forked end abutting against stop bearings or shoulders *a*, which are formed on the transverse wall *b* of said foot-piece. The guideway *d* of said foot-piece is arranged with an opening which communicates with the opening between the forked branches of the back board. The lateral walls *e* of the foot-piece project from the sides of the transverse wall *b* beyond the forked end of the back board and in rear thereof to form the open chamber F, said lateral walls having guide-lugs *g* projecting from their inside faces toward each other.

H represents the iron plunger, which is cast with the openings *h* to render it light. In it are cast the oblique bars *k*, which form the side

walls of the oblique slot *l*, which engages the spur or arm *m* of the valve N. This plunger works against the back board, A, and is connected thereto by the transverse bracket-bar R. Its lower end plays in the open chamber F of the shoe, and is guided in its movements therein by the lugs *g*. As the plunger descends it passes out between the transverse wall *b* of the shoe or foot-piece and the spring-plate S, the upper end of which is secured to a cross-bar, *n*, connecting the upper portions of the walls *e*.

To the upper end of the plunger-plate H is connected the wooden handle K by means of the studs *p* and a screw or bolt, *q*, said handle being firmly braced in position by the edge ribs or bearings *r* of the plate.

B designates the hopper or reservoir, which is fastened to the back board at its upper part. The hopper is on the front of the board, and is provided with a lid, *s*, which is pivoted to the hopper-wall, as indicated in the drawings.

The bottom P of the hopper consists of an iron casting horizontally recessed or cored out to form the valve-seat of the valve N, which is pivoted thereto. The upper plate, *t*, of the casting is formed with an opening, *v*, through which the grains pass into the pocket *z* of the valve. The size of this pocket may be varied by means of the adjustable piece *a'*, which is seated in a bearing in the valve and secured by means of a clamp-screw, *b'*. The bottom of the pocket is formed by the lower plate, *c'*, of the hopper-base, which is formed with a lateral opening, *d'*, in the path of the pocket *z*, of sufficient size to discharge all the grains in said pocket. To the under side of the plate *c'*, in position to communicate with the opening *d'* of said plate, is secured the funnel-guide E by means of a lug, *e'*, formed on its upper end and a rivet connecting said lug to the plate *c'*. The lower end of this funnel-guide is seated in the upper end of the guideway *d* of the foot-piece. Perforations are made through the base-plates *t* and *c'* for the passage of the pivot *g'* of the valve. The lower end of said pivot, which is preferably made of brass, is laterally bent to form a spring-latch, *h'*, which, when said pivot is in position, is designed to engage a notched catch-lug, *k'*, on the under side of the hopper-base. The opening of the recess between the plates *t* and *c'* is external and below the side wall of

the hopper, and is of sufficient size to enable the valve N to be readily removed for adjustment. This removal is also facilitated by the spring-fastened pivot, as it can be disconnected in a moment from the valve and the upper and lower plates of the valve-seat.

A fixed disk provided with a single aperture has been interposed between an upper and a lower movable seed-plate, prior to my invention; and I do not claim said construction herein.

This planter is operated by pressing the point of the shoe into the ground as far as the projecting guide stop Z will allow. This pressure is effected by means of the plunger and its handle, and the movement of the plunger also forces the grains which have passed from the hopper into the chamber F, below the plunger end, out between the transverse wall and spring-plate of the shoe into the soil. The plunger, being of iron, will work easily against the wooden back board, and is not liable to be impeded in its movements by the wood becoming wet or swelling.

It is often necessary to provide for dropping but one seed at a time. For this purpose a thinner valve is employed, and over the same is seated, in the valve-seat under the hopper-bottom, a furring-plate, P', having an opening, v', through which the grain passes into the valve-pocket. When this furring-plate is in

position it acts as a cut-off. It can be easily removed when it is not required.

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

1. The hand corn-planter having the wooden back board, A, iron plunger H, and shoe C, formed with the shoulder-bearings *a* for the lower ends of the branches of the back board, and the lateral guide-lugs *g*, engaging the plunger, substantially as specified.

2. In a hand corn-planter, the cored valve-seat P, forming the hopper-base, the openings in the plates thereof, the valve N, having the spring-fastened pivot *g'*, and the iron plunger-plate H, formed with the oblique guide-bars *k* of the slot *m*, which engages the arm of the valve, substantially as specified.

3. In a hand corn-planter having a valve-seat and vibratory valve, the detachable furring-plate P', having the opening *v'* placed over the valve to allow but one grain to pass at a time into the pocket of the valve, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALBERT HOAG.

Witnesses:

ARCHIBALD HENRY WATERMAN JACKSON,
REUBEN EMERY SAMSON.