

No. 667,074.

Patented Jan. 29, 1901.

S. EMERSON.
HAT POUNCING MACHINE.

(Application filed Mar. 6, 1900.)

(No Model.)

Fig. 1.

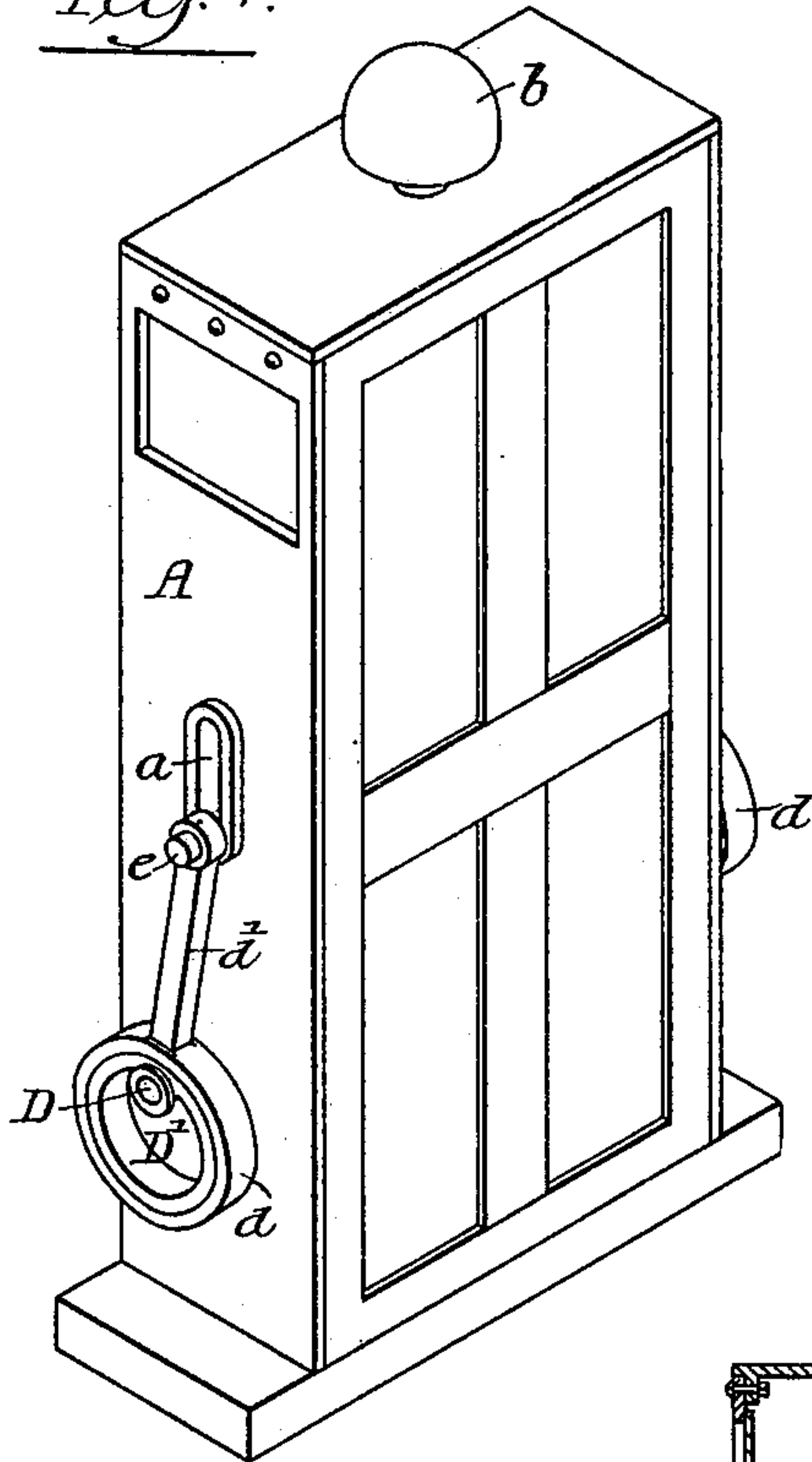


Fig. 2.

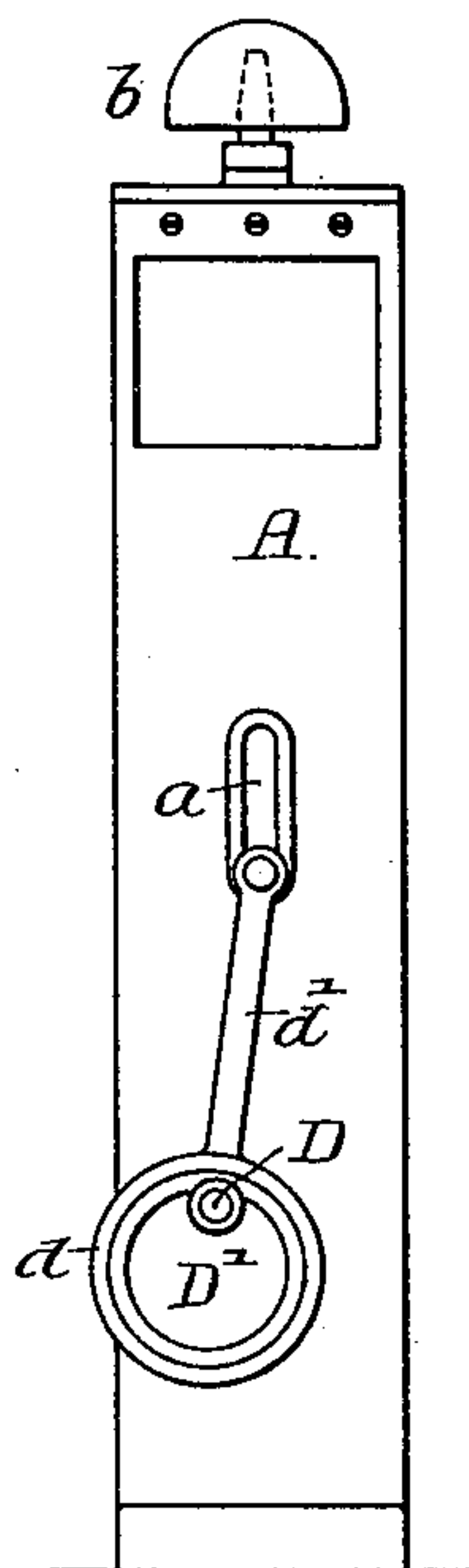


Fig. 3.

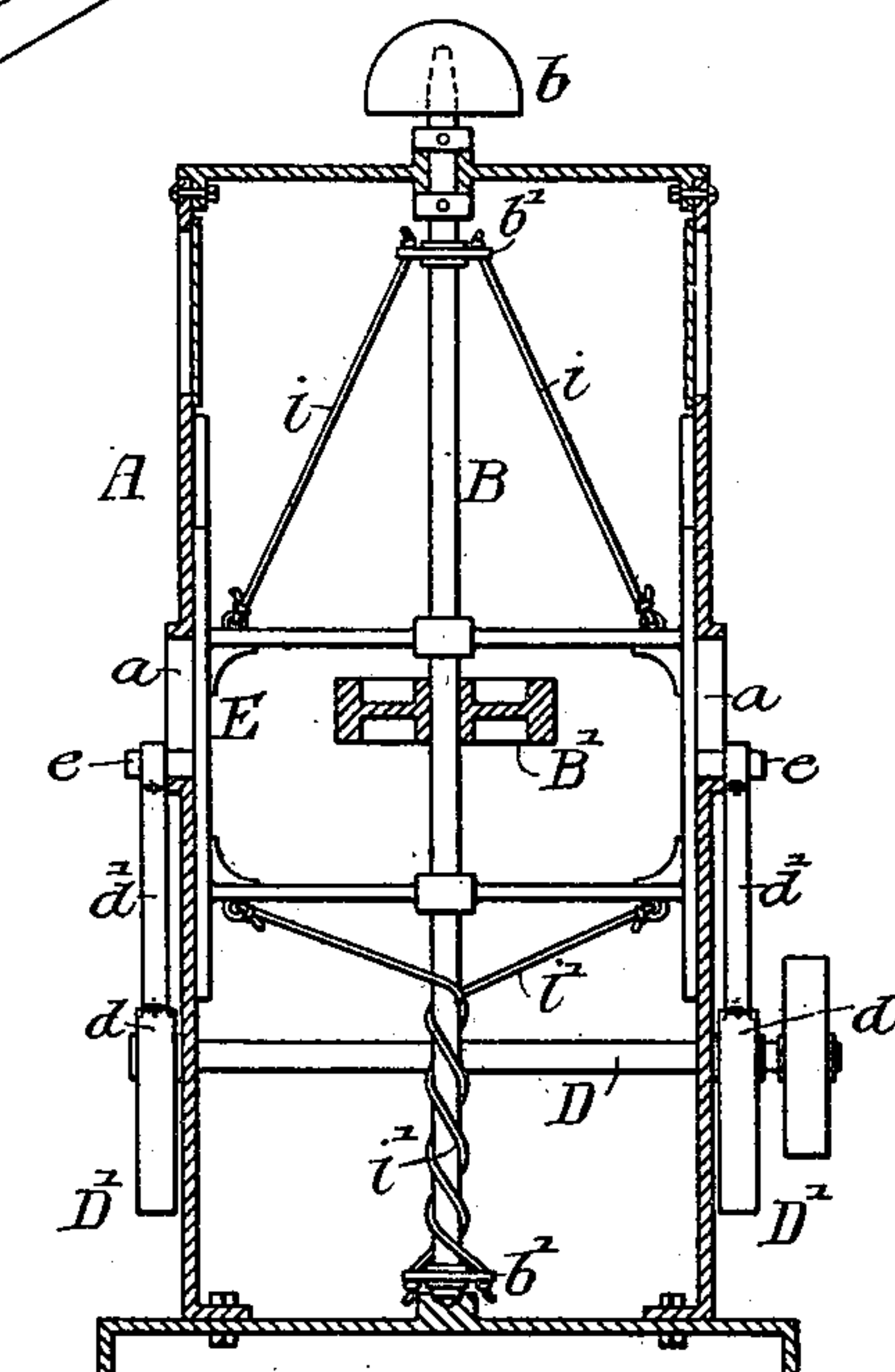
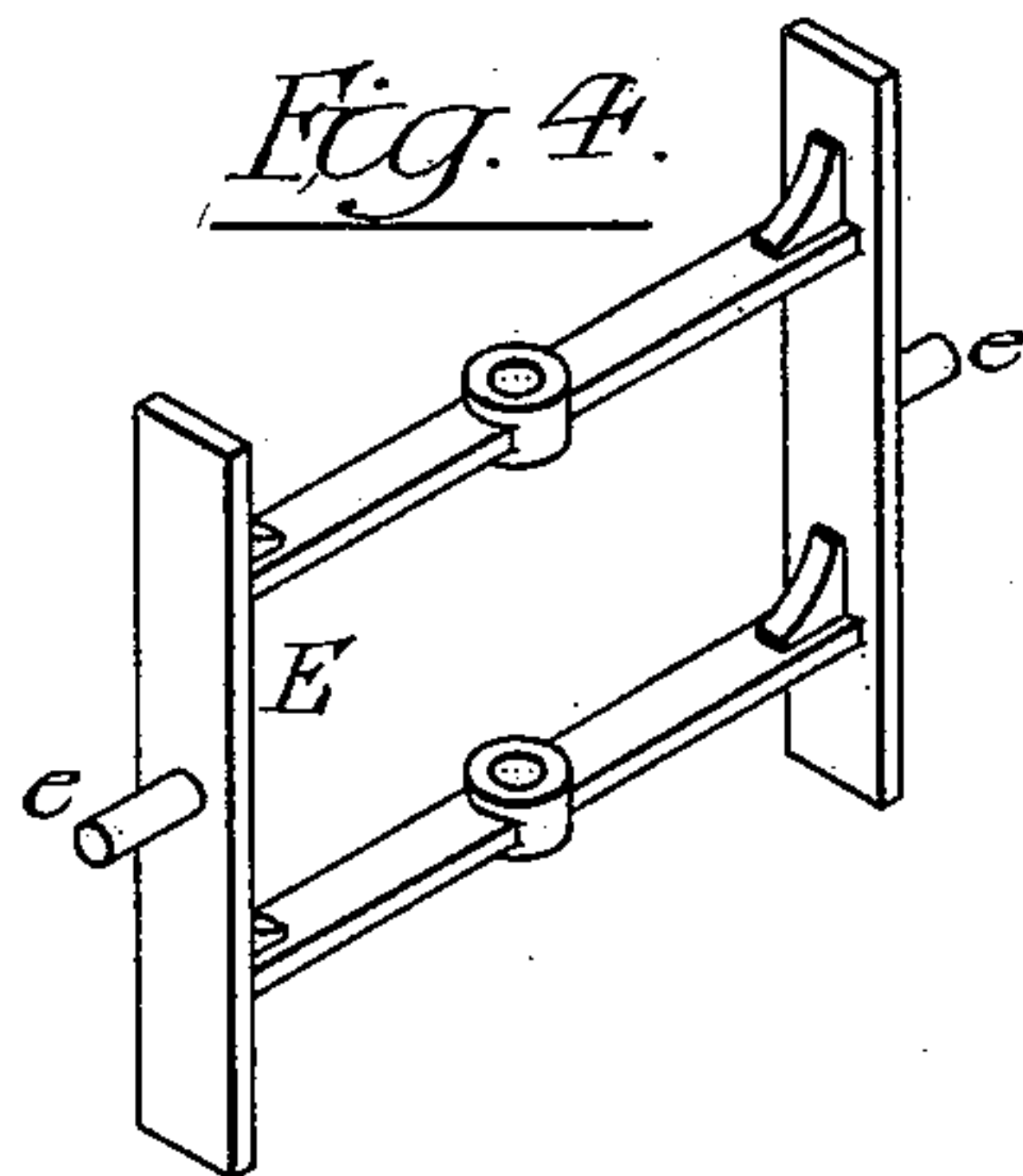


Fig. 4.



Witnesses:
Chas. De Cou.
Louis M. J. Whitehead.

Inventor:-
Steven Emerson.
by his Attorneys:-
Howson & Howson

UNITED STATES PATENT OFFICE.

STEVEN EMERSON, OF PHILADELPHIA, PENNSYLVANIA.

HAT-POUNCING MACHINE.

SPECIFICATION forming part of Letters Patent No. 667,074, dated January 29, 1901.

Application filed March 6, 1900. Serial No. 7,495. (No model.)

To all whom it may concern:

Be it known that I, STEVEN EMERSON, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Hat-Pouncing Machines, of which the following is a specification.

The object of my invention is to improve the construction of a hat-pouncing machine so that the movement of the shaft carrying the hat-form will be positive and that the connection between this shaft and the driving-shaft will be simple in construction and will take up comparatively little room.

In the accompanying drawings, Figure 1 is a perspective view of my improved hat-pouncing machine. Fig. 2 is a side view. Fig. 3 is a vertical sectional view, and Fig. 4 is a perspective view of the reciprocating frame.

A is the casing of the machine, and adapted to bearings in the casing is a vertical shaft B, adapted to receive a hat-form *b* at its upper end. I preferably taper the end of the shaft, so that it will enter and seat itself in a tapered cavity in the form.

D is a driving-shaft having two eccentrics *D' D'*, and adapted to these eccentrics are straps *d*. The rods *d'*, extending from these straps, are coupled to the pins *e* of a frame E. The frame E is preferably adapted to guides in the casing A, as shown, and its pins extend through slots *a* in the sides of the casing A. The shaft B passes through the upper and lower members of this frame. Extending from the upper portion of the frame to a point near the upper end of the shaft are cords *i i*, and extending from the lower portion of the frame to a point near the lower end of the shaft are cords *i' i'*. One set of cords is wrapped around the shaft, while the other set is unwrapped, as shown, so that as the frame is reciprocated by the eccentrics one set of cords will turn the shaft in one direction on one stroke, while the other set of cords operates to turn the shaft in the other direction. I preferably connect the cords to collars *b'* on the shaft B, as shown, and I also provide the shaft with a fly-wheel *B'*, which is secured to the shaft at a point within the frame E.

Thus it will be seen that I make a very compact hat-pouncing machine, utilizing much

less space than those now in use, and the workman can stand close up to the machine. The parts are simple in construction and can be cheaply manufactured.

I claim as my invention—

1. The combination in a hat-pouncing machine, of a casing, bearings in the top and bottom of said casing, a vertical shaft constructed to operate therein, a reciprocating frame, bearings in said frame and in the line of its vertical axis, through which the vertical shaft passes, vertical guides for the frame, flexible connections between the frame and the shaft for rotating the latter, and means for reciprocating the frame, substantially as described.

2. The combination in a hat-pouncing machine, of a casing, bearings in the top and bottom of said casing, a vertical shaft constructed to operate therein, a reciprocating frame, bearings in said frame and in the line of its vertical axis, through which the vertical shaft passes, said frame being symmetrically constructed in relation to a line passing through the center of said bearings, vertical guides for the frame, flexible connections between the frame and the shaft for rotating the latter, and means for reciprocating the frame, substantially as described.

3. The combination in a hat-pouncing machine, of a casing having bearings in its top and bottom, vertical guides, a reciprocating frame, means for reciprocating the frame, a vertical shaft passing through the frame and operating in said bearings, said frame being movable vertically on said shaft, cords from the upper corners of the frame to the top of the shaft and cords from the bottom corners of the frame to the bottom of the shaft, said cords being arranged symmetrically in relation to the axis of the shaft, the frame being thereby balanced and avoiding side thrust in the shaft-bearings, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

STEVEN EMERSON.

Witnesses:

WILL. A. BARR,
JOS. H. KLEIN.