

(No Model.)

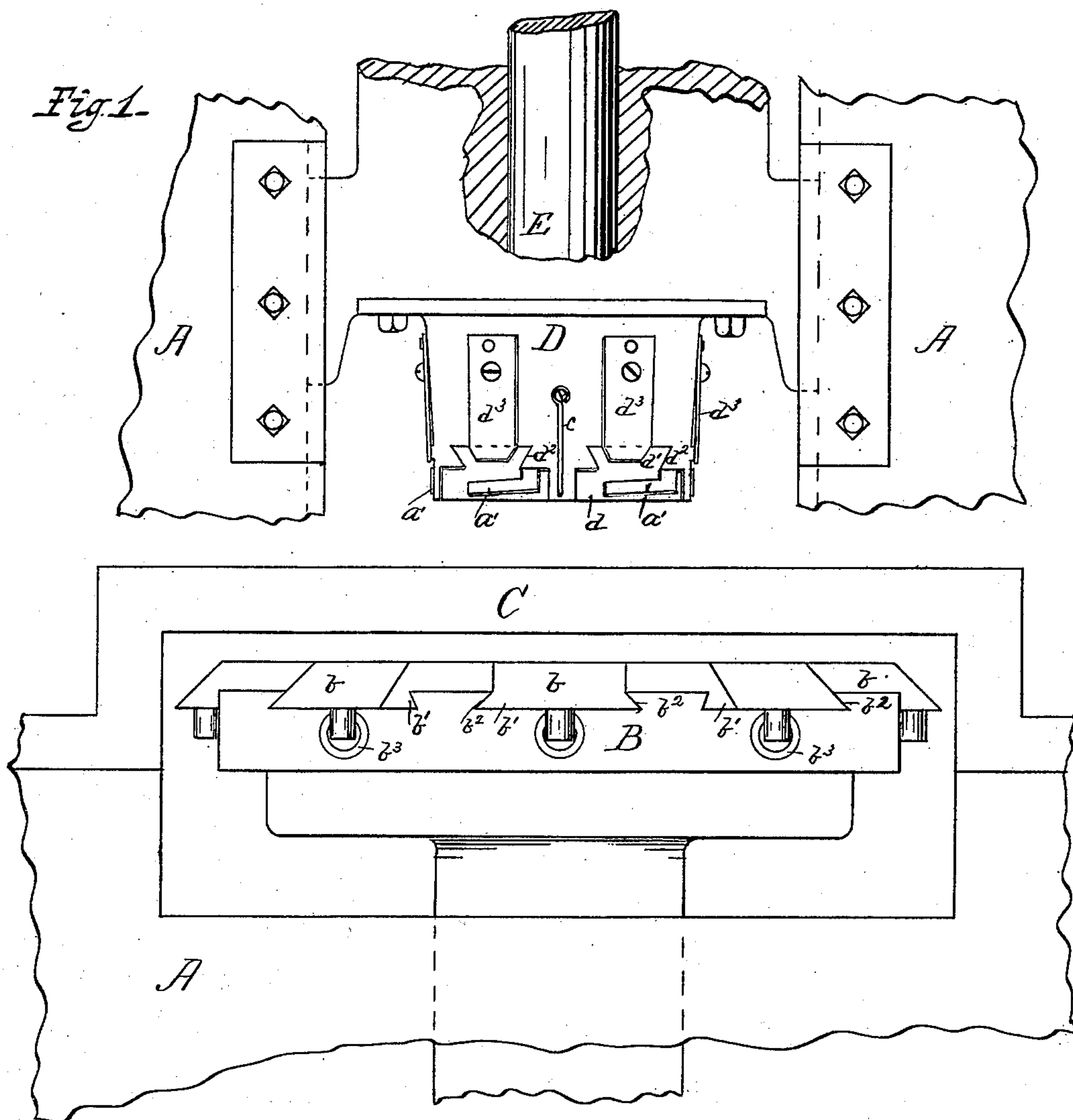
3 Sheets—Sheet 1.

E. NORTON.

STAMPING MACHINE AND DIE.

No. 268,041.

Patented Nov. 28, 1882.



Witnesses:
J. Everett Brown
A. W. Munday

Inventor:
Edwin Norton.
per Munday Evans & Aldcock

his Attorneys:

(No Model.)

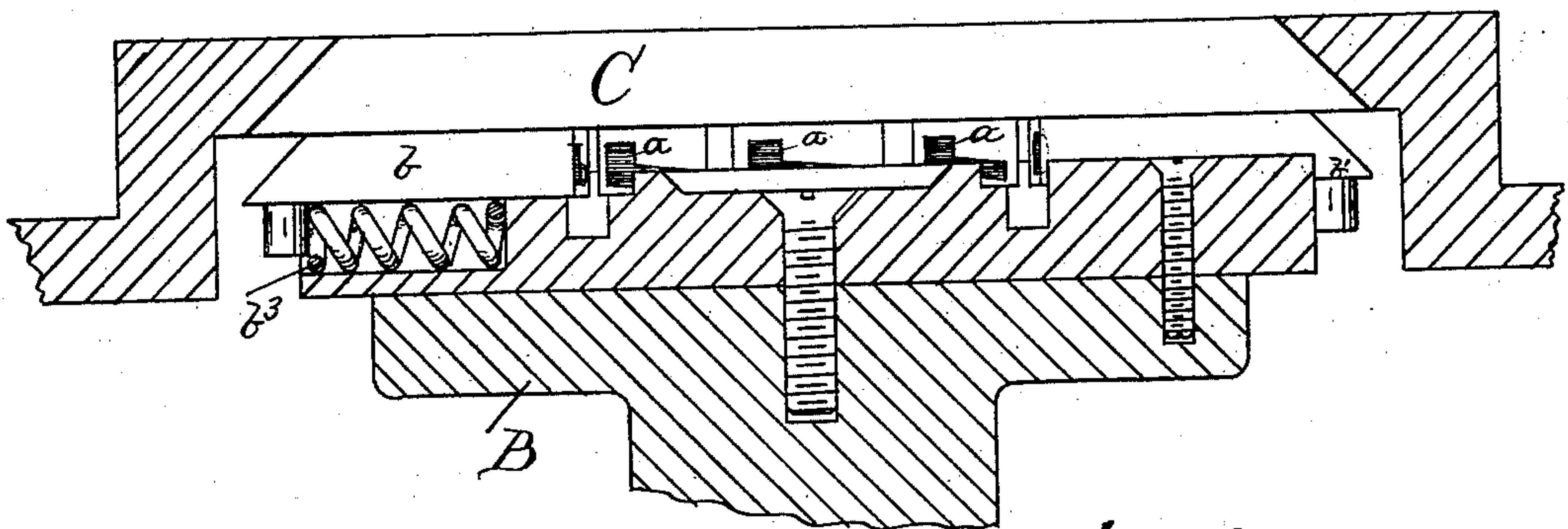
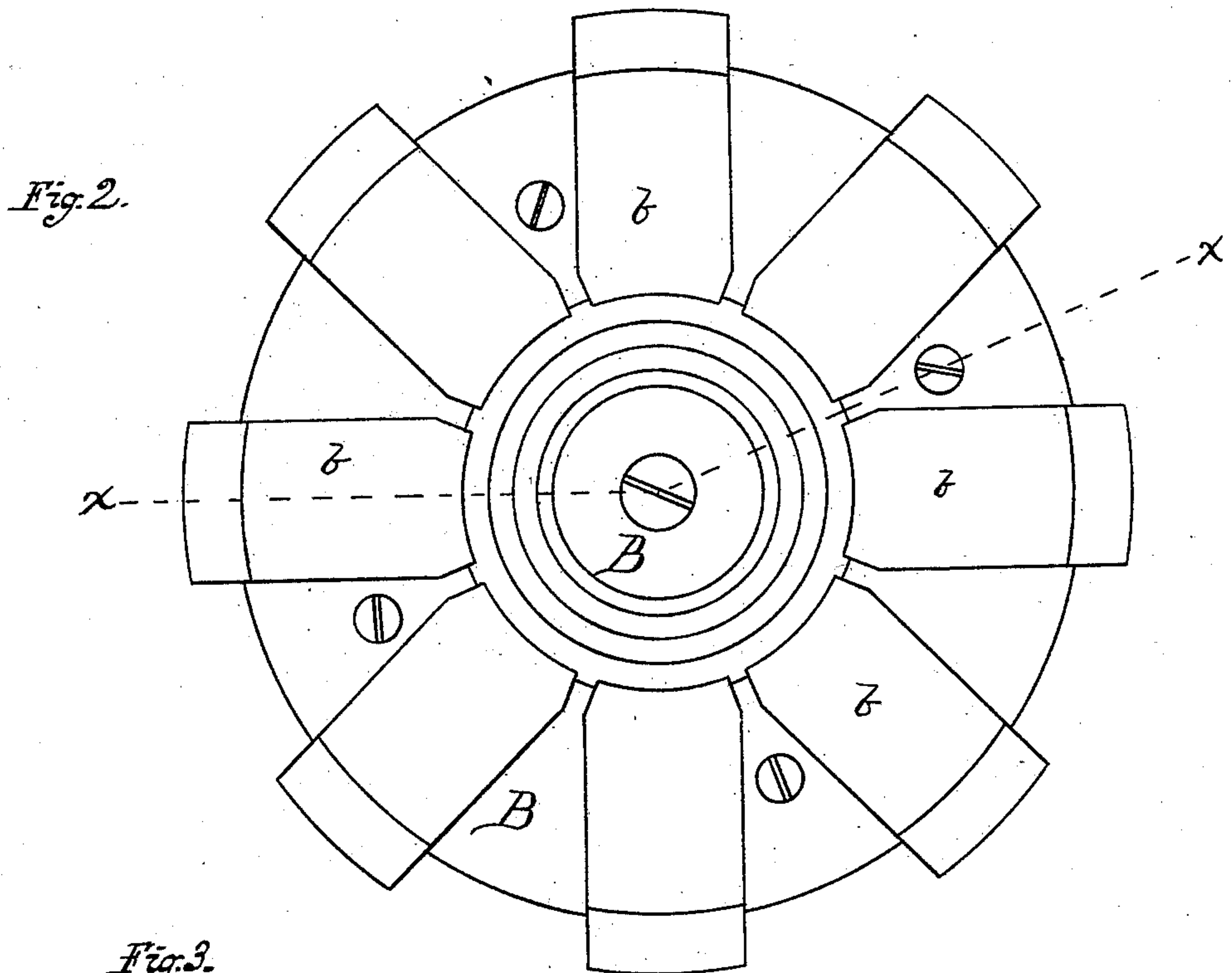
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Fig 4.

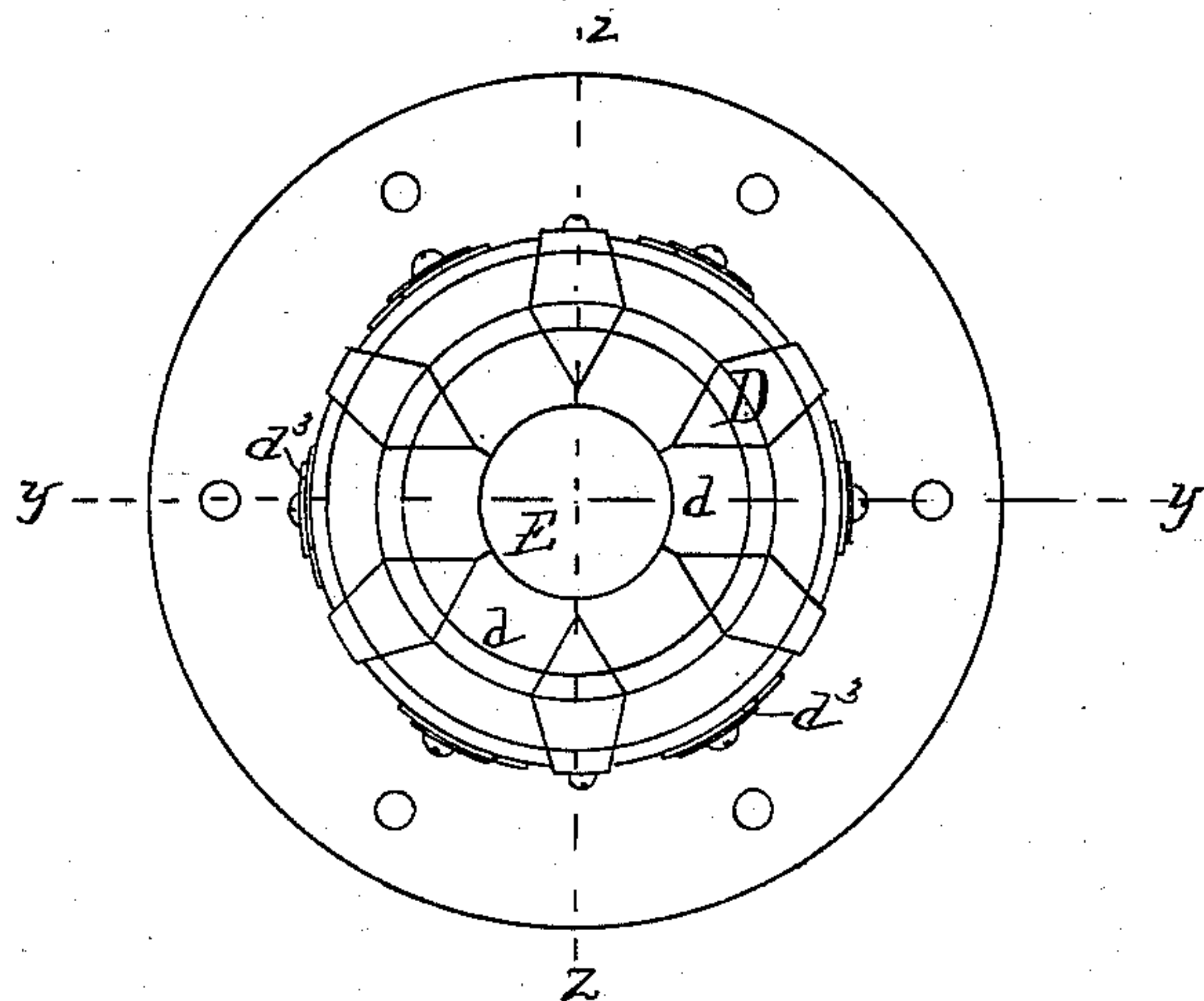


Fig 5.

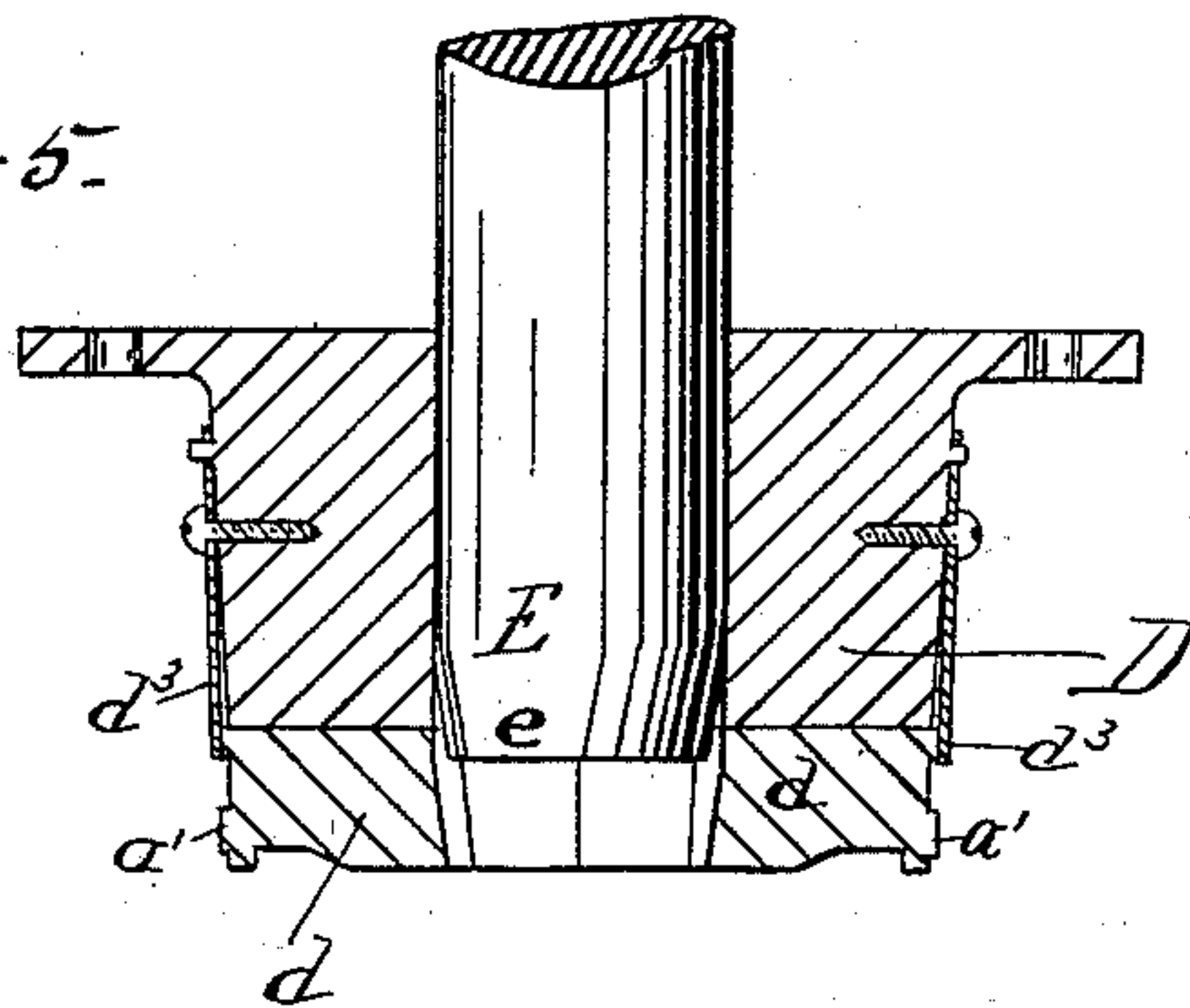
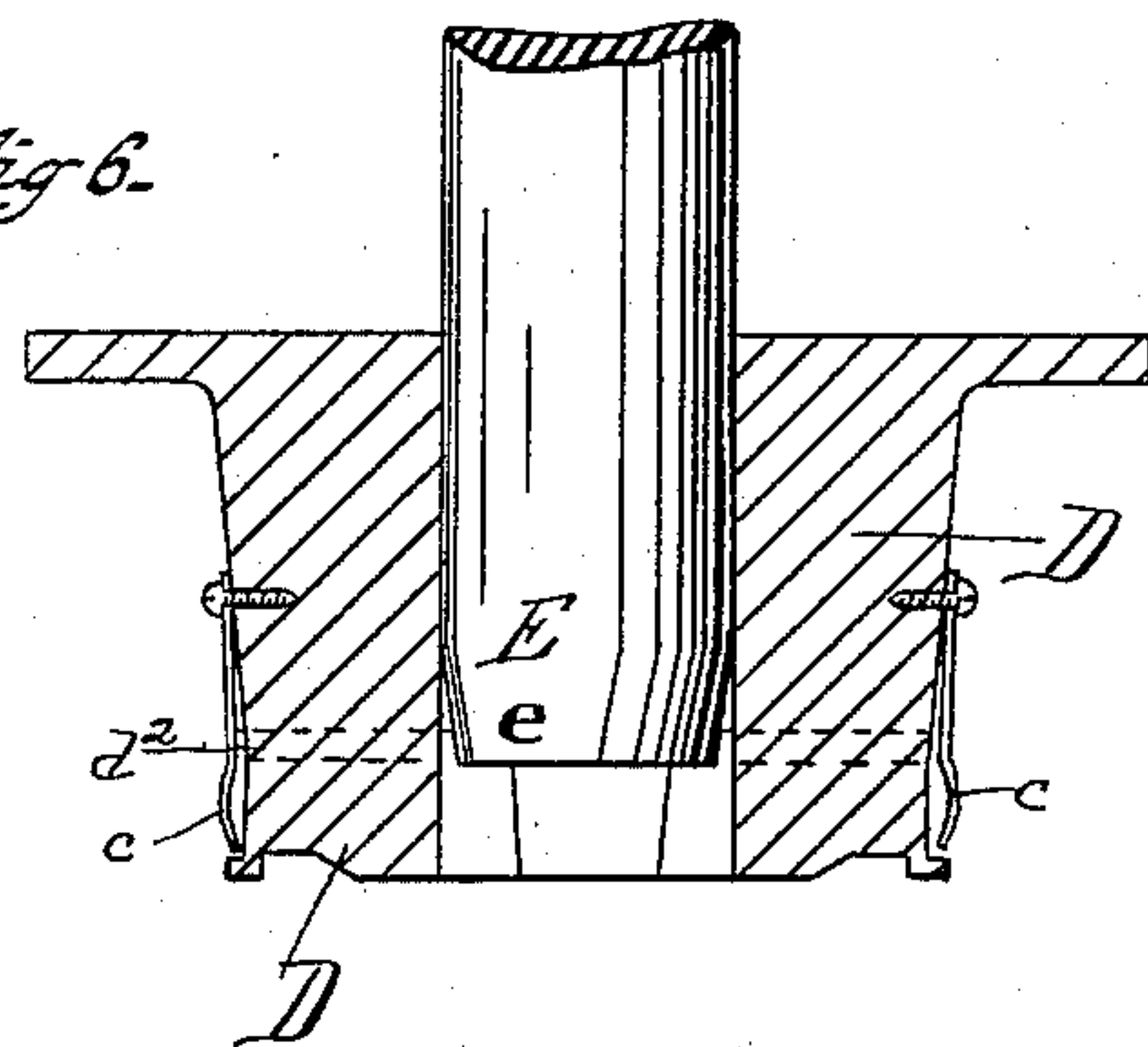


Fig 6.



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UNITED STATES PATENT OFFICE.

EDWIN NORTON, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF AND OLIVER W. NORTON, OF SAME PLACE.

STAMPING MACHINE AND DIE.

SPECIFICATION forming part of Letters Patent No. 268,041, dated November 28, 1882.

Application filed August 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN NORTON, of Chicago, Cook county, State of Illinois, have invented certain new and useful Improvements in Stamping Machines and Dies, of which the following is a specification.

My invention relates to improvements in dies used in the manufacture of sheet-metal cans, and more particularly to a die or machine for making the coupling-indentations in the can-cover, as shown in the can patented to me by Letters Patent No. 235,279, and bearing date December 7, 1880.

The present invention consists in a series of movable dies mounted on a movable bed-plate, and adapted to be opened and closed by the reciprocating motion of the bed-plate to clamp and release the can-cover, in connection with a corresponding series of movable punches mounted upon a reciprocating head and actuated to form the bayonet-catches or coupling-indentations in the sheet metal by a reciprocating conical head or wedge, which works inside the reciprocating head upon which the punches are mounted. The interior faces of the die-blocks, when they are closed upon the can-cover, conform to the outer periphery of the can-cover, and the exterior faces of the corresponding punch-blocks of course correspond to the interior periphery of the can-cover, so that the stock is firmly held between the two faces when subjected to the stamping operation.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a side elevation of a device embodying my invention. Fig. 2 is a plan view of the dies. Fig. 3 is a section on line *xx* of Fig. 2. Fig. 4 is a plan view of the punches, looking upward. Fig. 5 is a section on line *yy* of Fig. 4. Fig. 6 is a section on line *zz* of Fig. 4.

I have not deemed it necessary to show in the drawings the mechanism for reciprocating the several parts, as they may be applied to any ordinary compound press, the construction of which is well known to those skilled in the art to which my invention relates.

In the drawings, A represents a portion of the frame-work of the machine. B is a reciprocating bed-plate, upon which the radially-movable die-blocks *b* are mounted, the die-

blocks being provided with dovetail projections *b'*, which slide in radial dovetail grooves *b²* in the bed-plate B, the die-blocks being retracted by means of springs *b³* when the bed-plate is drawn back. The outer faces of the die-blocks *b* are cut flaring or wedge-shaped, and when the bed-plate is raised they come in contact with the bevel or conical surfaced cam ring or plate C, which is bolted to the frame of the machine, thereby causing the die-blocks to move radially toward each other and clasp the can-cover. When the bed-plate is moved up the inner faces of the die-blocks form a perfect circle or solid ring around the can-cover and conform to its outer periphery.

D is the hollow sliding head, upon which the radially-moving punch-blocks *d* are mounted. The punch-blocks have dovetail projections *d'*, which fit in radial dovetail grooves *d²* in the head D. The punch-blocks are retracted, when the head D is drawn back or raised, by means of springs *d³*, secured to the head D. The sliding head D is of such size as just to fit inside the can-cover. The interior faces of the punch-blocks *d* are made slightly conical, and they are forced out radially by means of a piston, E, which is provided with a conical head, *e*, and which reciprocates inside the hollow head D.

The operation is as follows: The can-cover is first slipped over the end of the hollow sliding head D, which is then, by operation of the press, caused to descend, and then the bed-plate B is moved upward, causing the die-blocks *b* to impinge against the conical ring C, and thereby causes the stock to be firmly clamped between the die-blocks *b* and head D, and thereupon the piston E is caused to descend and forces the punch-blocks *d* out radially, and thereby forms the coupling-indentations in the cover. The female dies on the blocks *b* are marked *a*, and the male dies on the blocks *d* are marked *a'*.

c represents slight springs, secured to the head D, for retaining the can-covers on the head while it is descending.

In the drawings I have shown the machine with dies adapted to form the coupling-indentations in the can-cover; but by making the necessary changes in the dies the machine may be adapted to form the coupling-projections in the seamless ring, which is secured on the can

body or breast, as shown in said Patent No. 235,279, before referred to. By reference to said patent it will be seen that the seamless ring referred to is of much the same construction as a can-cover, with the bottom of the flat central portion thereof cut out.

It is obvious that my improvement may be used for other analogous purposes than that herein indicated.

10 I claim—

1. The combination, with the reciprocating bed-plate B, of radially-moving die-blocks *b*, mounted thereon, cam-ring C, reciprocating hollow head D, radially-moving punch-blocks

d, mounted thereon, and reciprocating piston 15 E for actuating said punch-blocks, substantially as specified.

2. The combination, with movable bed-plate B, provided with dovetail radial grooves *b*², of movable die-blocks *b*, provided with dovetail 20 projections *b*¹, stationary cam-ring C, and springs *b*³ for retracting said die-blocks, substantially as specified.

EDWIN NORTON.

Witnesses:

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HENRY F. AKIN.