

No. 677,144.

Patented June 25, 1901.

F. SANDERS.  
NUMBERING MACHINE.  
(Application filed July 17, 1900.)

(No Model.)

Fig. 1.

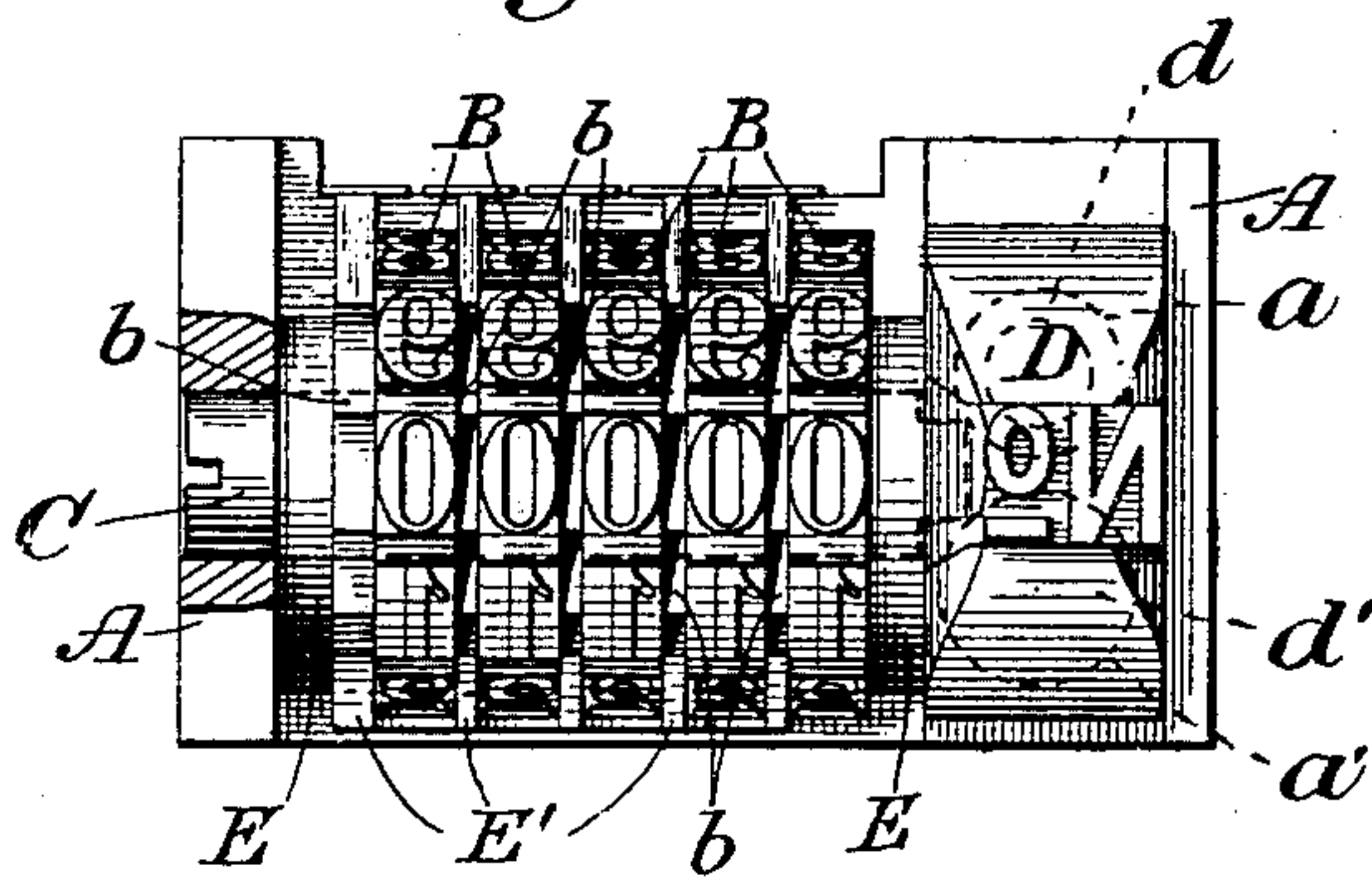


Fig. 2.

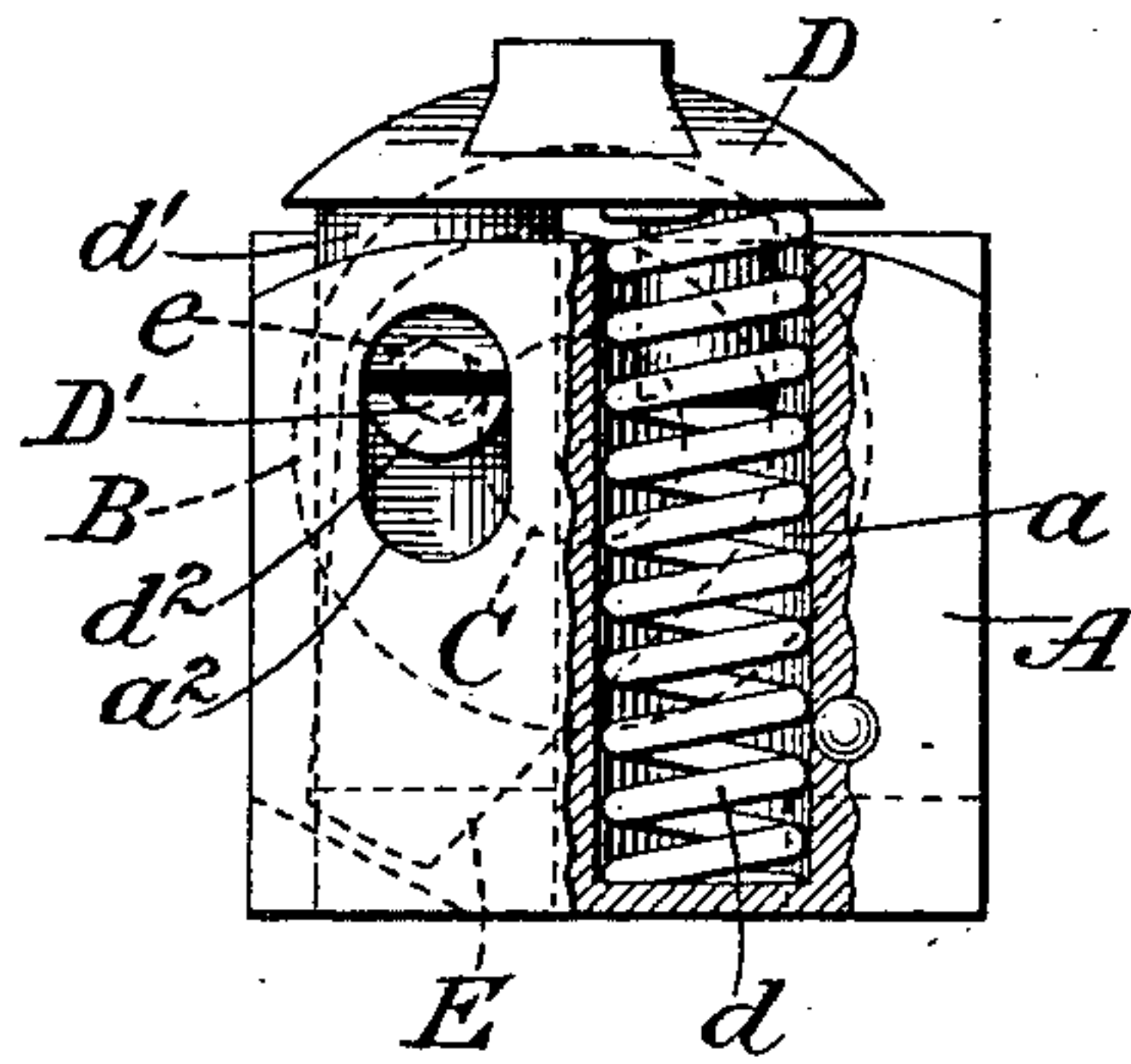


Fig. 3.

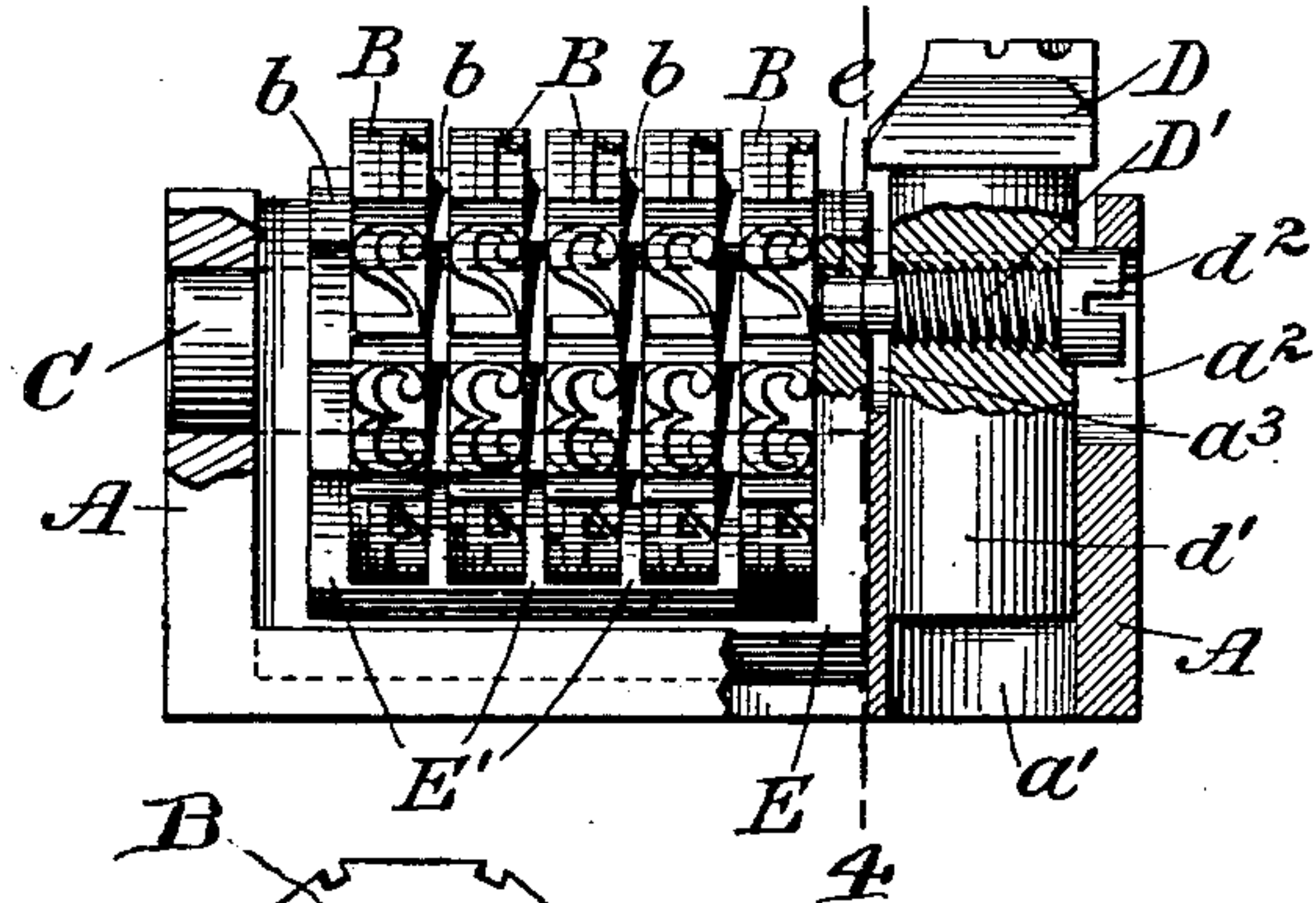
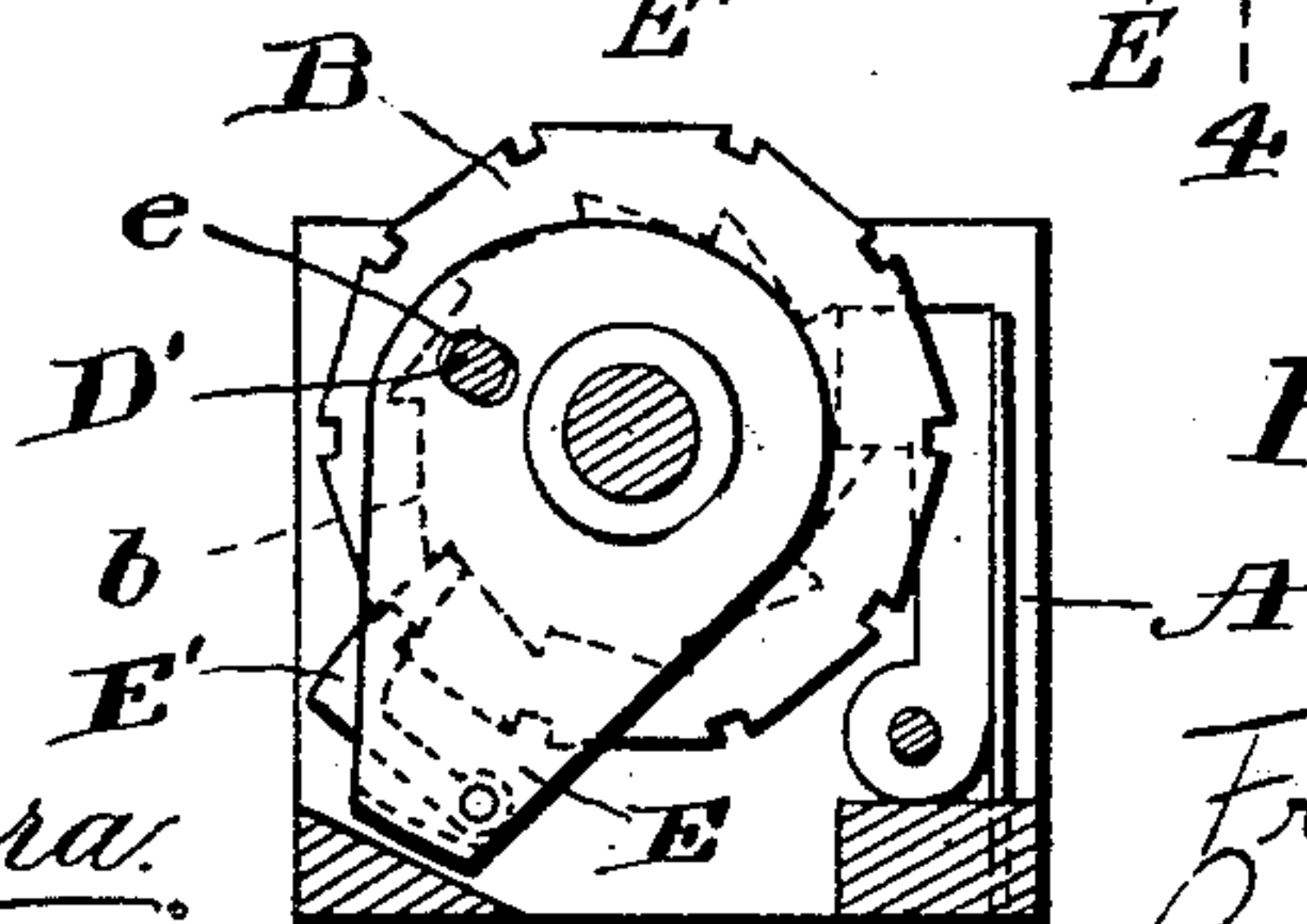


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## NUMBERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 677,144, dated June 25, 1901.

Application filed July 17, 1900. Serial No. 23,886. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK SANDERS, a citizen of the United States, residing in the borough of Brooklyn, city of New York, State of New York, have invented certain new and useful Improvements in Numbering-Machines, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to consecutive-numbering machines or other machines of like character in which the numbering-wheels or other printing devices are advanced through the operation of a plunger which is actuated by the platen of the printing-press or otherwise.

The object of the invention is to simplify the construction and reduce the cost of manufacture of such machines and at the same time to increase their durability and efficiency.

The invention is particularly concerned with the plunger, its support in the frame of the machine, and its connection with the devices which act upon the printing-wheels, and will be more fully described and claimed hereinafter, with reference to the accompanying drawings, in which—

Figure 1 is a plan view of a machine which embodies the invention. Fig. 2 is an end elevation thereof, partly broken out to show details of construction; and Fig. 3 is a side elevation thereof, also broken out to show details of construction. Fig. 4 is a section on the plane indicated by the line 4 4 of Fig. 3.

The numbering-machine in which the invention is represented as embodied is adapted to be locked in the form with the type and comprises a frame or case A, within which the numbering-wheels B are mounted to rotate upon a shaft C. (Shown in dotted lines in Fig. 2.) In the machine shown the numbering-wheels B, each of which is provided with a ratchet-wheel *b*, are actuated by a swinging pawl-frame E, which is mounted to swing upon the shaft C and is provided with pawls E' to engage the ratchet-wheels *b* in the usual manner. The plunger D, which is adapted to receive the pressure of the platen of the press or to be actuated in any other suitable manner, is seated upon a spring *d*, by which it is lifted when the pressure is relieved, the spring being received and supported within a cavity *a*, formed therefor in the frame A.

A cavity *a'* is also formed in the frame A to receive the stem *d'* of the plunger, said stem having a free sliding fit in the cavity. The outer wall of the frame is slotted, as at *a*<sup>2</sup>, and the partition-wall between the cavity *a'* and the space in which the numbering-wheels are received is slotted or cut away, as at *a*<sup>3</sup>, in line with the slot *a*<sup>2</sup>. A pin D' is passed through the slots and through the stem *d'* of the plunger into a hole *e* in the swinging pawl-frame E, the hole *e* being elongated sufficiently, as indicated by dotted lines in Fig. 2, to permit free movement of the parts, so that the pawl-frame swings as the plunger is reciprocated. The pin D' may have a snug fit in the stem of the plunger or may be threaded to engage the same, as shown in Fig. 3, and is provided with a head, as *d*<sup>2</sup>, so that it can be withdrawn readily when desired.

It will be observed that the connection of the plunger with the swinging pawl-frame by means of the pin D' permits the parts to be formed with a minimum of machining and to be assembled easily, and also permits the plunger to be removed easily whenever desired by simply withdrawing the pin. The pin also serves by contact of its head with the upper end of the slot *a*<sup>3</sup> to limit the upward movement of the plunger. Furthermore, if the stem of the plunger is cylindrical the pin by its engagement with the slots holds the plunger from turning. The frame itself may be either cast or milled out to receive the mechanism with a minimum expenditure of time and labor.

I claim as my invention—

In a numbering-machine, the combination with a frame or case having in its end a cavity with a slotted outer wall and a slotted inner wall, printing-wheels mounted upon a fixed axis in said frame or case, and a pawl-frame, of a plunger mounted in the cavity in said frame or case and movable with respect to said printing-wheels and a pin passed laterally through said plunger and the slotted walls of said cavity and engaging the pawl-frame.

This specification signed and witnessed this 13th day of July, A. D. 1900.

FRANK SANDERS.

In presence of—

WILLIAM WENZ,  
A. N. JESBERA.