

No. 545,436.

Patented Sept. 3, 1895.

2 Fig. 1.

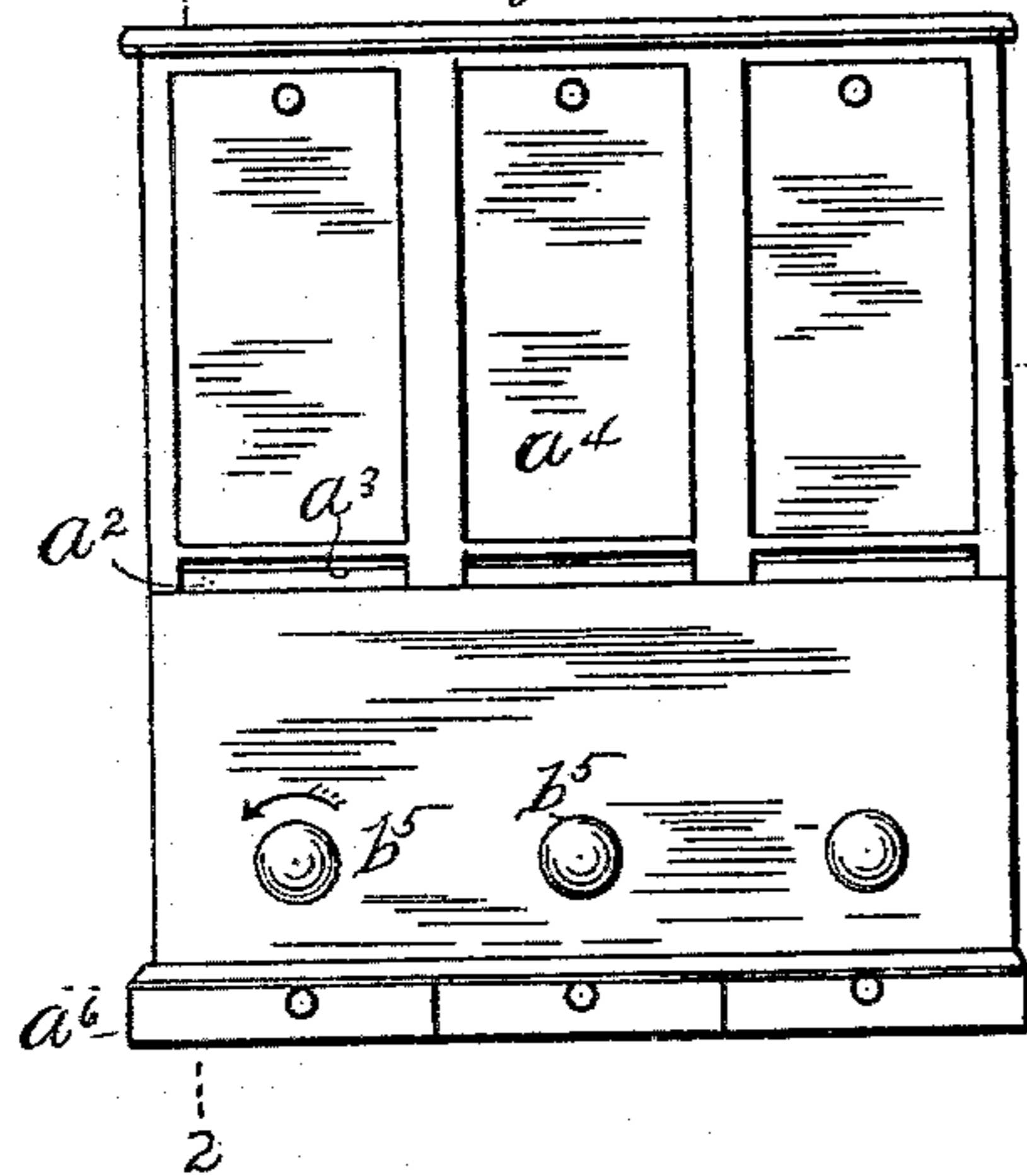
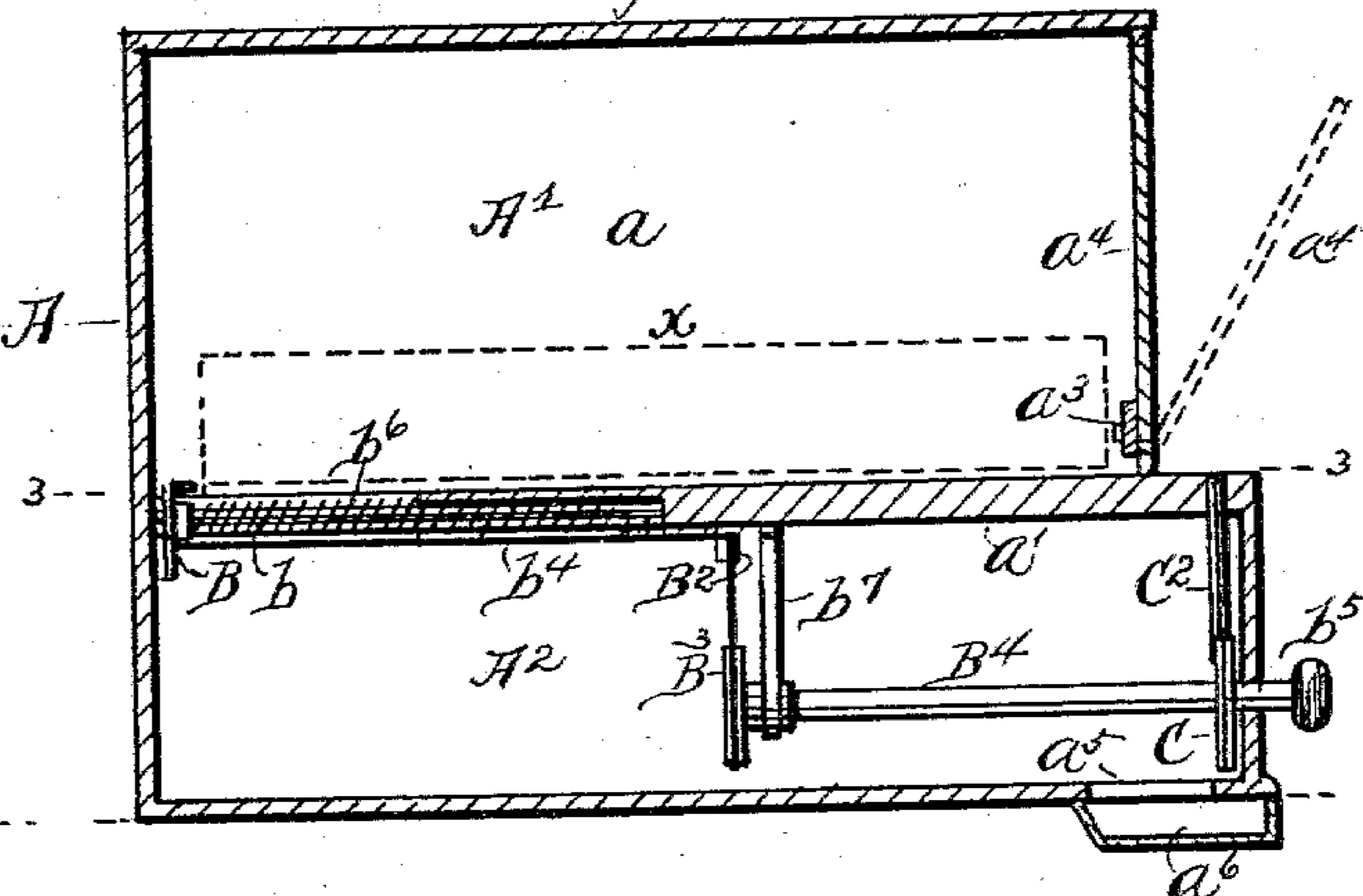


Fig. 2.



*Fig. 3.*

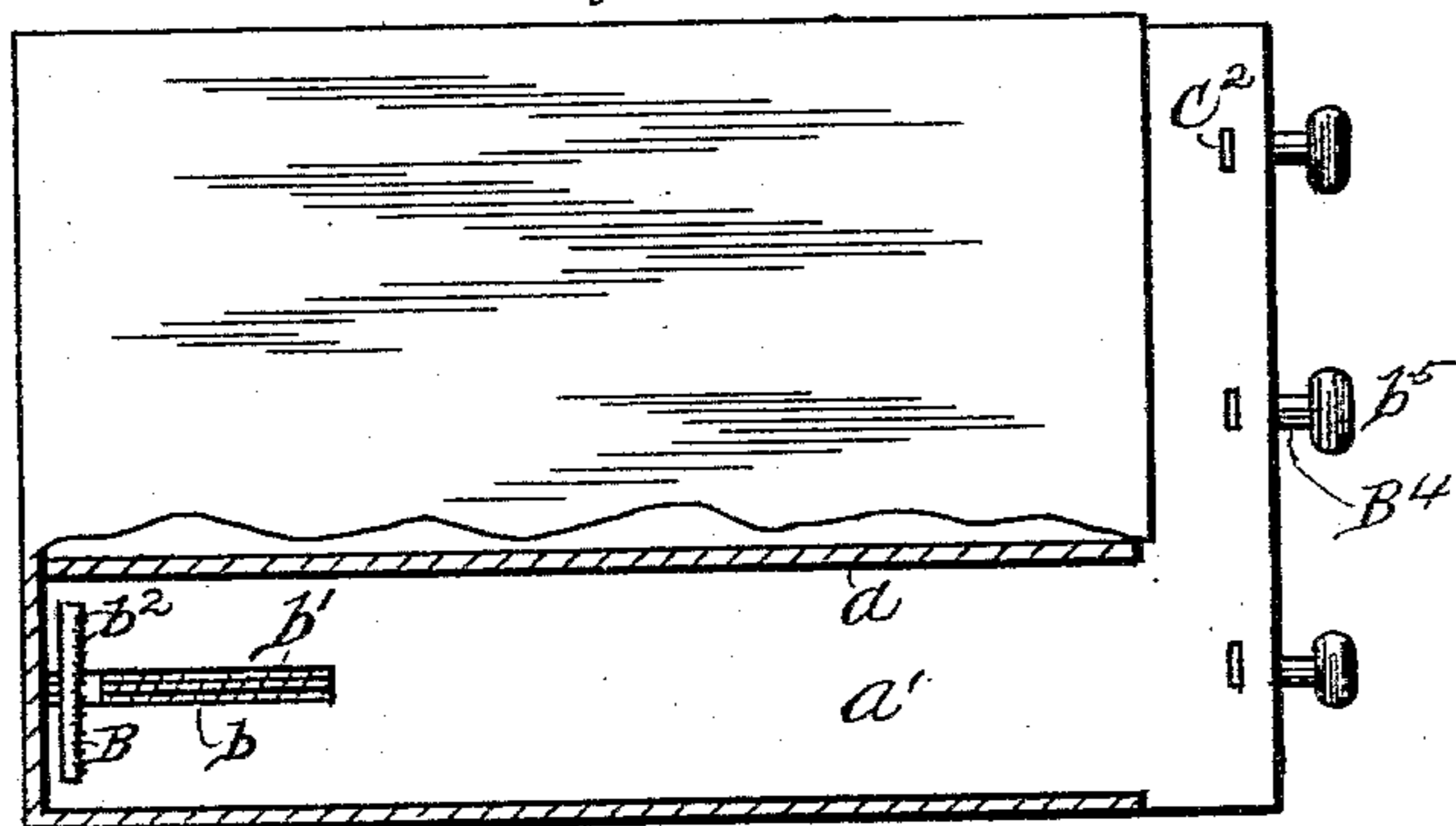
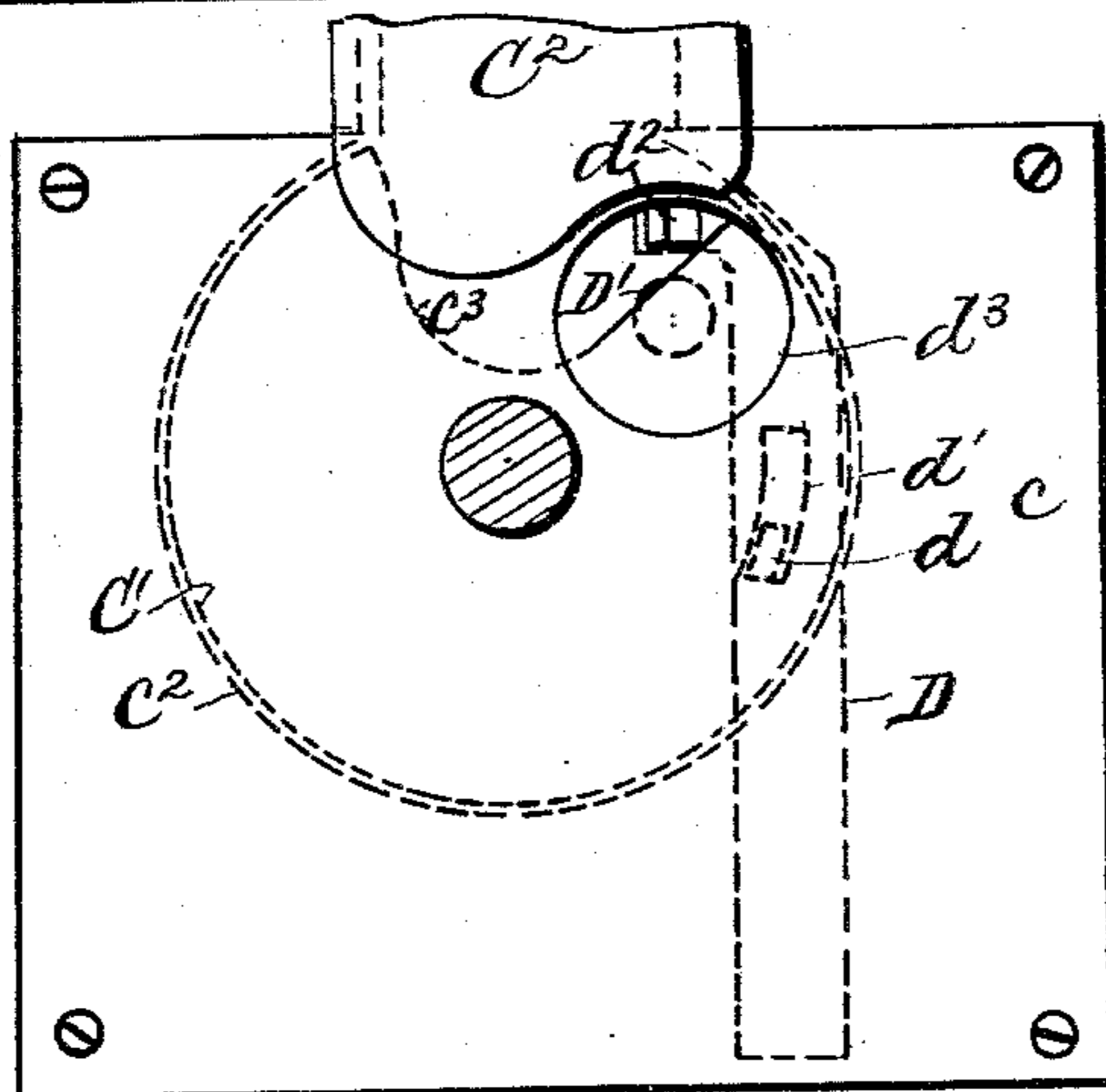


Fig. 4.



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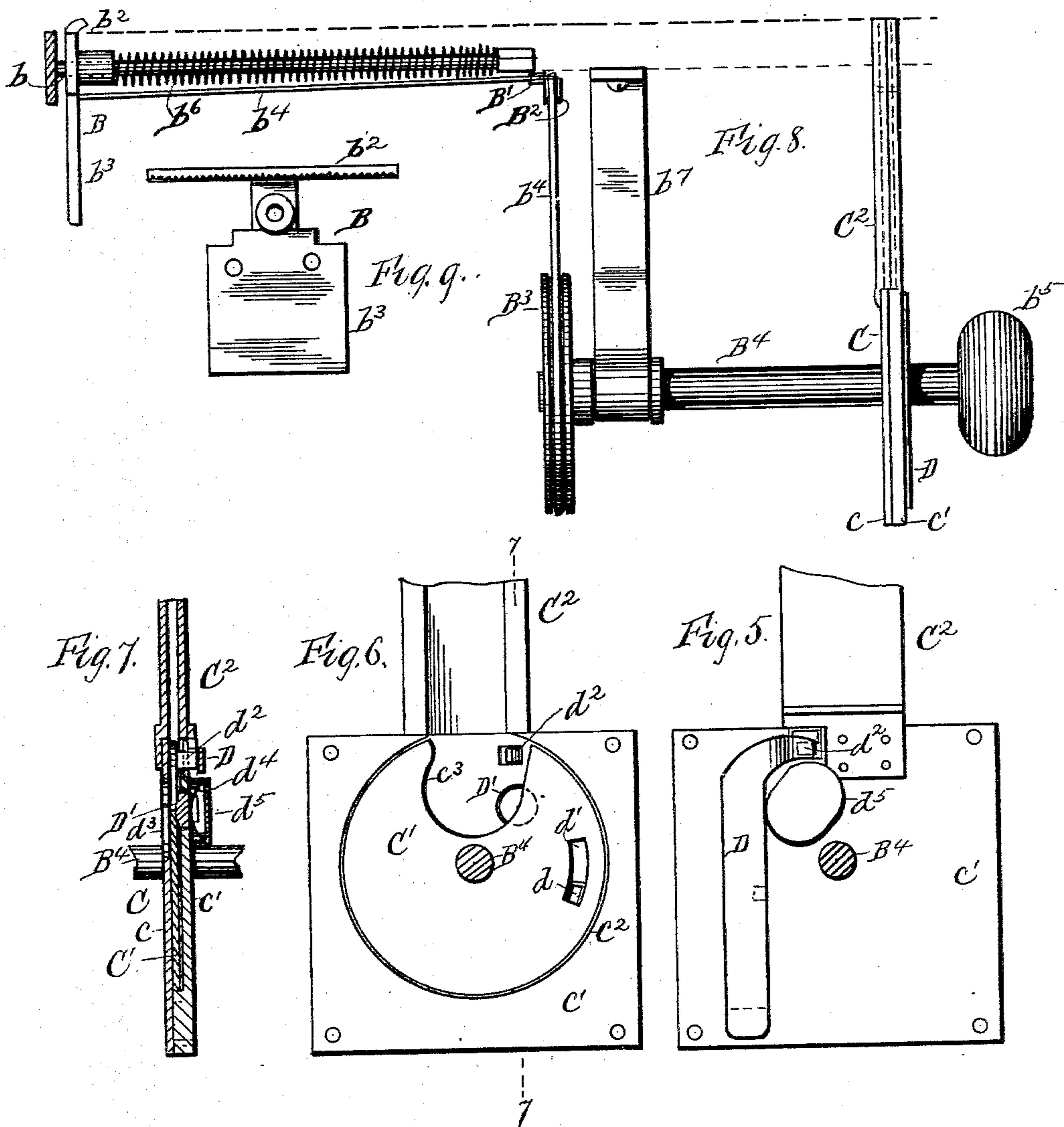
(No Model.)

2 Sheets—Sheet 2.

A. ABELSON & L. LESSER.  
AUTOMATIC NEWSPAPER SELLING APPARATUS.

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WITNESSES:

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# UNITED STATES PATENT OFFICE.

ABRAHAM ABELSON AND LOUIS LESSER, OF NEW YORK, N. Y.

## AUTOMATIC NEWSPAPER-SELLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 545,436, dated September 3, 1895.

Application filed January 15, 1895. Serial No. 534,945. (No model.)

*To all whom it may concern:*

Be it known that we, ABRAHAM ABELSON and LOUIS LESSER, citizens of the United States, and residents of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Automatic Newspaper-Selling Apparatus, of which the following is a specification.

10 This invention relates to apparatus for delivering newspapers or similar periodicals upon the insertion of a coin or coins to force certain mechanism whereby a discharger may be operated to eject or force a paper from the  
15 device within reach of a purchaser.

The chief merit of our invention is the simplicity of the design and the cheapness of construction.

20 The invention consists in the construction and novel arrangement of parts, as hereinafter specified, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front elevation of a vending-machine embodying the invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a partial plan view and a section on the line 3 3 of Fig. 2. Fig. 4 is an inner side view of a coin-operated releasing mechanism employed. Fig. 5 is a  
30 view of the opposite side thereof. Fig. 6 is an inside view of the releasing mechanism with the inner side plate removed. Fig. 7 is a section on the line 7 7 of Fig. 6 with the inner side plate in place. Fig. 8 is a side elevation, on an enlarged scale, of the several operating parts together; and Fig. 9 is a front view of a discharger.

In the drawings we have shown accommodation for three different papers or periodicals; but of course there may be a greater or less number of compartments, as the operating mechanism of one compartment is the duplicate of that in another compartment.

45 Referring by reference-characters to the drawings, A designates a casing divided by vertical partitions  $a$  and horizontal partitions  $a'$  into a number of upper compartments  $A'$  and lower compartments  $A^2$ . The lower compartments are designed to contain the operating mechanism and the upper compartments are designed to receive suitably-folded papers, as indicated by the dotted lines  $x$

in Fig. 2. Each compartment  $A'$  is provided at its lower front side with a slot or opening  $a^2$ , through which the bottom paper of a series may be discharged, and the width of these openings or slots may be regulated by slides  $a^3$ . (Here shown as mounted on the doors  $a^4$ .) By opening the doors  $a^4$  the properly folded papers may be inserted or placed in the compartments. The bottoms of the compartments  $A^2$  are provided with openings  $a^5$ , through which a coin from the releasing mechanism may fall to suitable receptacles—such, for instance, as drawers  $a^6$ .

65 It is to be understood that the details of construction of the casing may be varied without departing from the spirit of the invention.

We will now describe the mechanism by which papers may be forced out, one at a time, upon the insertion of a suitable coin.

B designates a discharger, mounted on and designed to slide longitudinally of a rod  $b$ , affixed to the under side of the partition  $a'$ , which discharger is extended through a slot  $b'$  in the partition  $a'$ , and above the plane of said partition it is provided with a transversely-extended head  $b^2$ , which is here shown as having teeth or serrations on its front side to engage the newspaper to be discharged. The discharger has a downward extension  $b^3$ , from which a flexible connection—such as a cord  $b^4$ —extends around a horizontally-arranged pulley  $B'$  and a vertically-arranged pulley  $B^2$  to a connection with a grooved wheel  $B^3$ , mounted on the horizontal shaft  $B^4$ . The shaft has a bearing in a hanger  $b^7$  and extends through the front wall of the compartment  $A^2$ , where it is provided with a handpiece  $b^5$ . By rotating the handpiece it is obvious that the discharger will be drawn forward, and by engaging the bottom paper of the series will force the same sufficiently through the slot  $a^2$  to be grasped by a purchaser. Upon releasing the handpiece the several parts will be returned to their normal position by means of a spring  $b^6$ , surrounding the rod  $b$  and abutting against the discharger.

We will now describe in detail the mechanism whereby the insertion of a coin will release the shaft  $B^4$  and allow it to be rotated.

C indicates the lock-casing, having an outer plate  $c'$  secured thereto in any desired manner—such, for instance, as by screws. One

of the plates (here shown as the outer plate) is provided in its inner side with a recess or chamber  $c^2$ , within which the coin-disk  $C'$  is designed to rotate. The coin-disk  $C'$  is rigidly mounted on the shaft  $B^4$ , which extends loosely through holes in the plates  $c$   $c'$ , as plainly shown. The disk  $C'$  is provided at one edge with a notch  $c^3$ , made substantially the size of a coin to be employed—such as one cent—and when a coin is to be inserted this notch registers with a coin-chute  $C^2$ , having an outward opening through the casing.

$D$  is a spring-plate secured to the outer side of the plate  $c'$  of the lock-casing, and  $d$  is a locking-lug extended from the spring-plate  $D$  through an opening in the plate  $c'$  and into an arc-shaped slot  $d'$ , formed in the disk  $C'$ . The upper end of the spring-plate  $D$  bears against the outer end of a horizontally-swinging finger  $d^2$ , having pivotal connection with the casing  $C$ . This finger  $d^2$  projects through an opening in the plate  $c'$  and into the line of movement of a coin in the notch  $c^3$ .

The operation of this device is as follows: After inserting a coin, the handpiece is turned to the left. This will cause the coin in the notch  $c^3$  to engage the finger  $d^2$  and force the spring-plate  $D$  outward and draw the lug  $d$  out of the slot  $d'$ . After the lug shall have passed the upper end wall of the slot, the coin will be discharged through an opening  $d^3$  in the inner plate  $c$ , and then the shaft may be continued in its rotation to discharge a paper. It will be seen that the slot  $d'$  is shorter than the distance between the opposite sides of the notch  $c^3$ , so that in case a coin is not inserted the lug  $d$  will engage against the upper end wall of the slot before the wall of the notch  $c^3$  can reach the finger  $d^2$ , thus preventing a further rotation of the parts. The opening  $d^3$  is normally at one side of the normal position of the notch  $c^3$ , so that a coin will be allowed to operate the parts before being discharged.

As a means to insure the discharge of a coin at the proper time, we employ an ejector in the form of a plug  $D'$ , extended through an opening in the plate  $C$ . The head of this plug is preferably rounded, so that it will not interfere with the movement of a coin. In its movement over the plug the coin will force the plug outward against the resistance of a spring  $d^4$  in a boxing  $d^5$ , and when the coin shall have fully reached the opening  $d^3$  the spring will force the plug inward and consequently eject the coin, which will fall into the coin-receptacle.

This apparatus is not limited to the sale of one-cent newspapers or newspapers of one particular price only. The number of releasing mechanisms on the rotating shaft  $B^4$  may be multiplied according to the price of a given newspaper, and the shaft will not rotate until coins have been inserted into each of them. Thus, for the sale of a three-cent newspaper we mount upon the shaft  $B^4$  three

lock-releasing mechanisms. Each of these mechanisms will prevent the shaft from being rotated until one cent is inserted into it, and the shaft will rotate, causing the discharger to force out the bottom newspaper when a cent shall have been inserted into each of the three slots.

Having described our invention, what we claim is—

1. In a vending machine, the combination with a casing, of a horizontally movable discharger, a rotary shaft, a flexible connection between said shaft and discharger and a lock releasing mechanism for said shaft operated by the insertion of a coin, substantially as specified.

2. In a vending machine, the combination with a casing, having the upper and lower compartments of the discharger extended into each of said compartments, a rod upon which the discharger moves, the return spring, the horizontal shaft in the lower compartment, a wheel on said shaft, a flexible connection between said wheel and discharger, and a lock releasing mechanism for the shaft rendered operative by the insertion of a coin, substantially as specified.

3. In a vending machine, the combination with a casing, a discharger, a rotary shaft and a connection between the discharger and shaft, of a locking mechanism, comprising a casing, a notched disk in said casing and rigidly mounted on the shaft, a coin chute registering with the normal position of the notch, a locking lug engaging with the disk and means for releasing the lug from the disk by the rotary movement of a coin, substantially as specified.

4. In a vending machine, the combination with a rotary shaft, of a locking mechanism, therefor comprising a disk mounted on the shaft and having a notch adapted to receive a coin, a coin chute registering with the normal position of said notch, a lug extended into a slot in said disk, and a pivoted finger engaging against the spring plate and extended into the line of movement of a coin, carried by the disk, substantially as specified.

5. The combination with a discharging mechanism comprising a rotary shaft, of the lock casing consisting of the two plates, a notched disk mounted on the shaft and movable in a recess formed in one of said plates, the spring plate having a lug extended into an arc shaped slot in said disk, a horizontally swinging finger operated by the movement of a coin to release the lug from the disk and the coin ejector, substantially as specified.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 9th day of January, 1895.

ABRAHAM ABELSON.  
LOUIS LESSER.

Witnesses:

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ADOLPH GRUBMAN.