

No. 706,910.

Patented Aug. 12, 1902.

H. DROUTLEGE.
BALLOT BOX.

(Application filed Jan. 26, 1901.)

(No Model.)

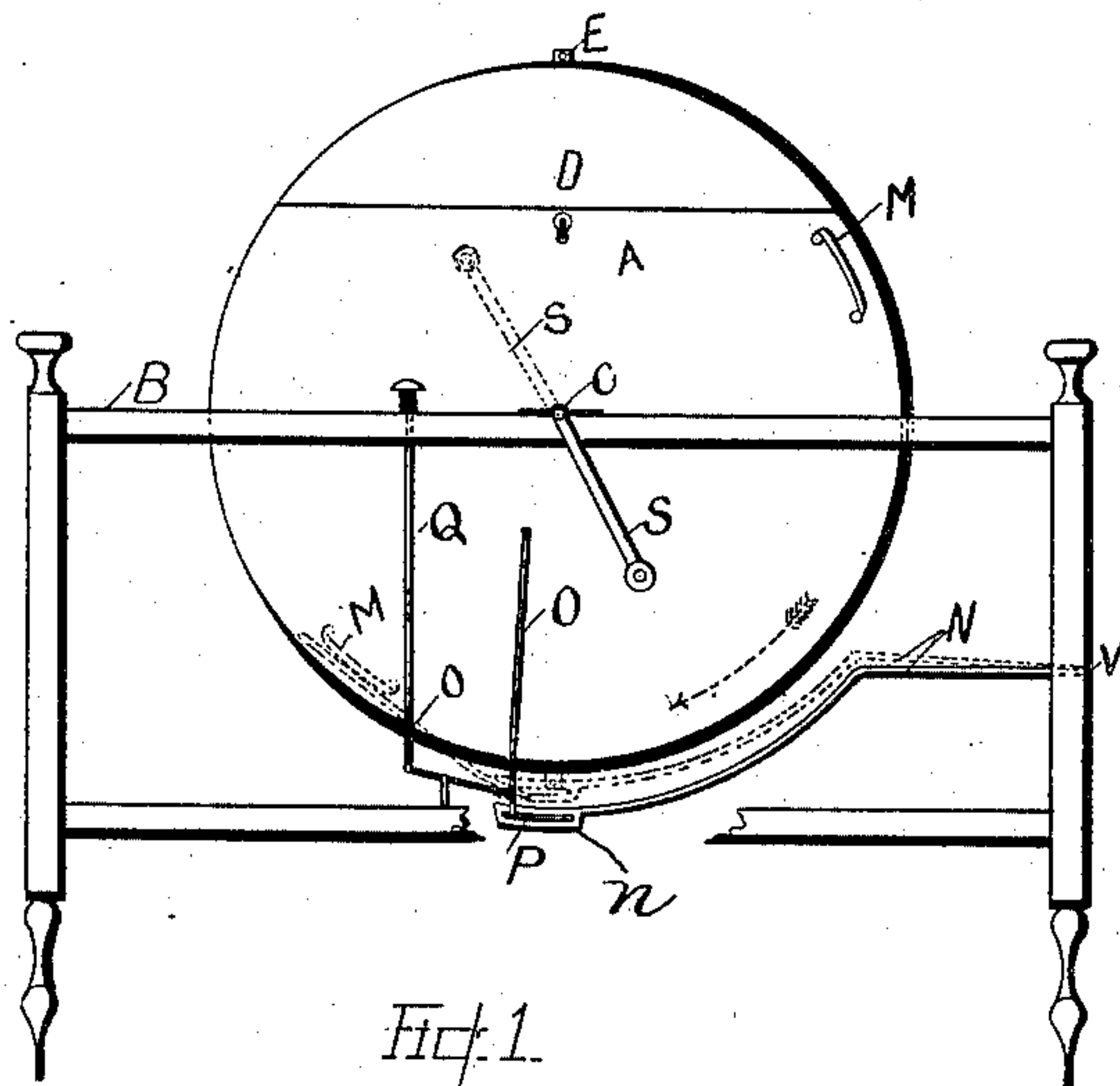


Fig. 1.

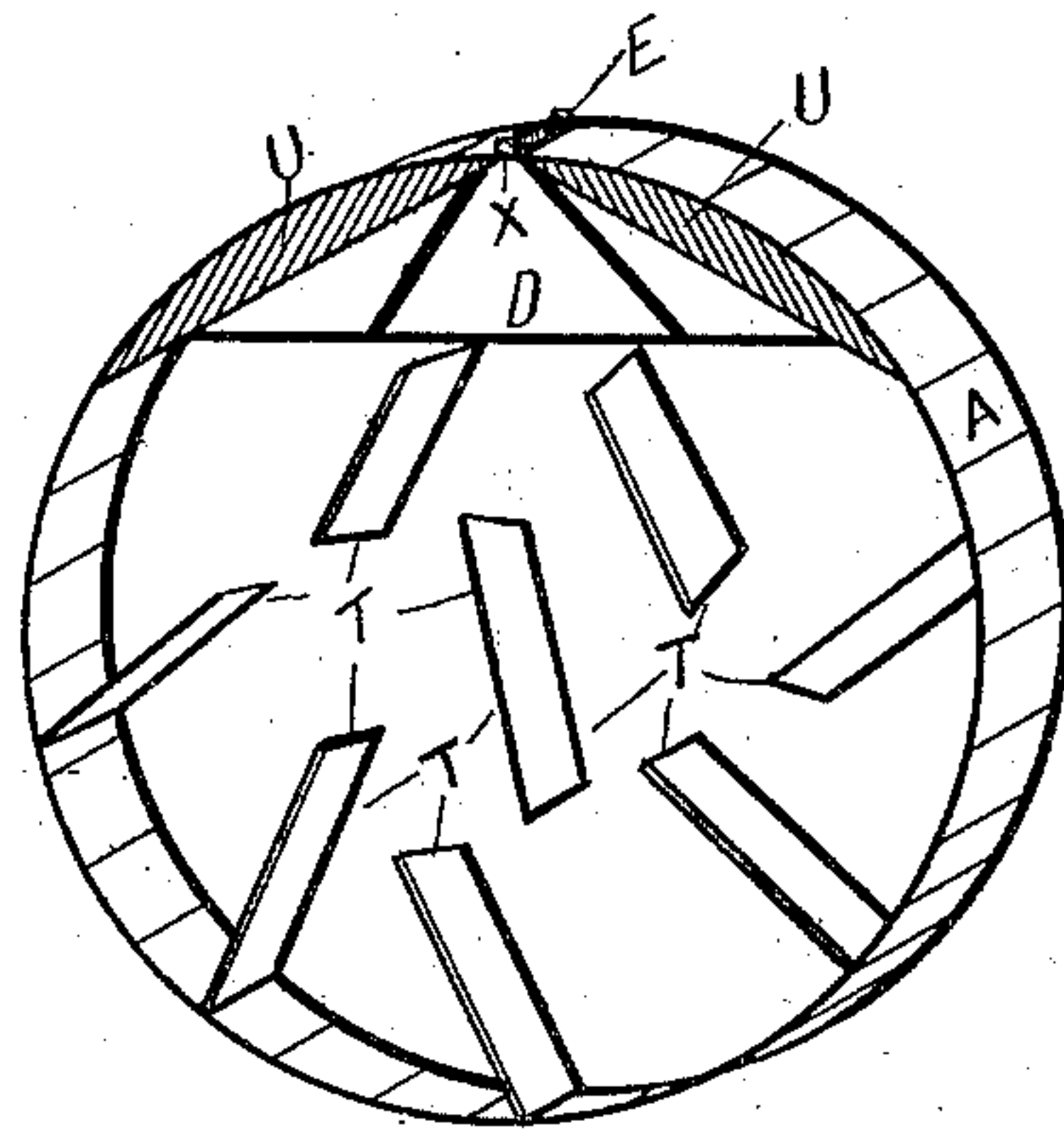


Fig. 2.

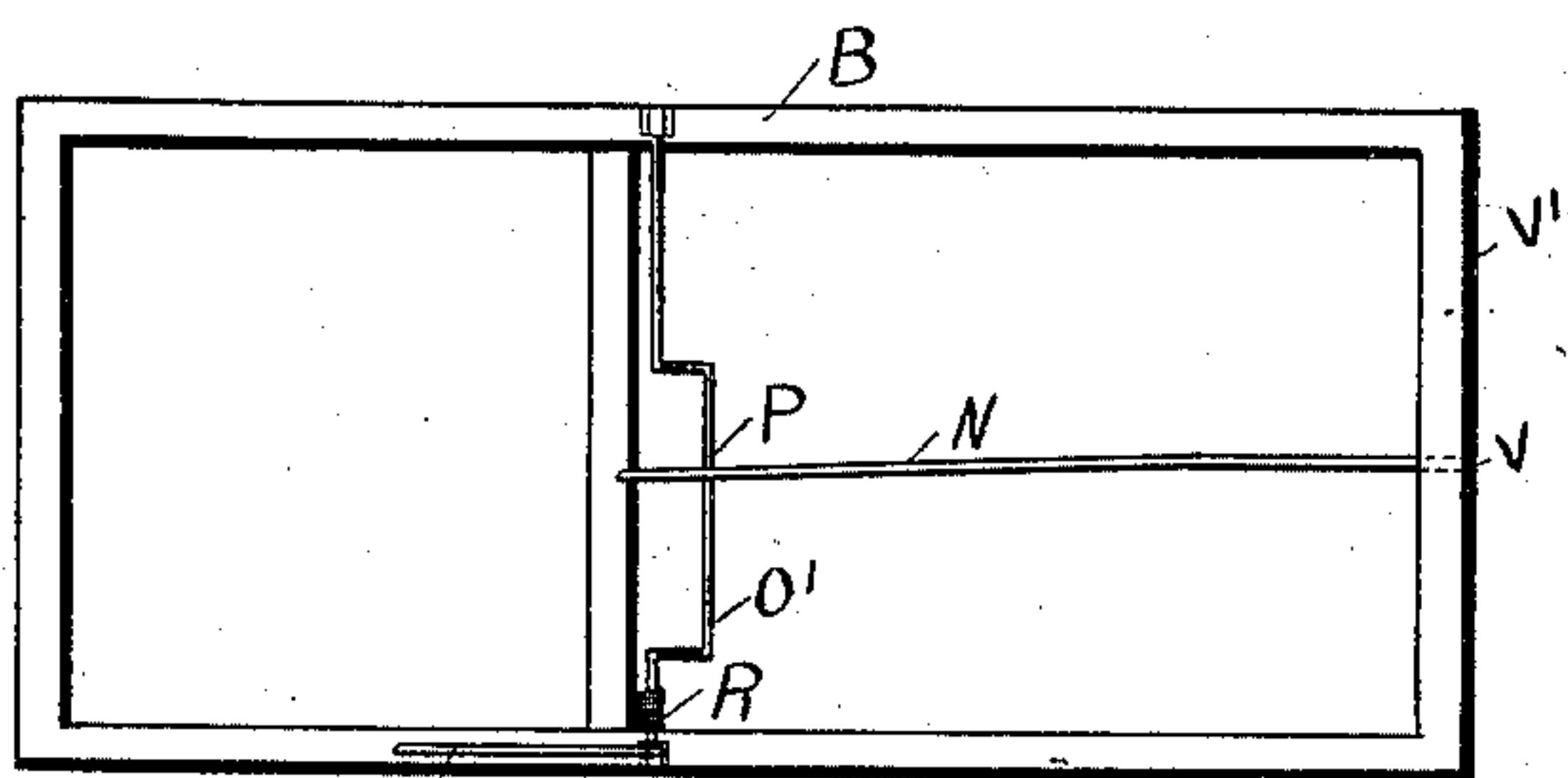


Fig. 3.

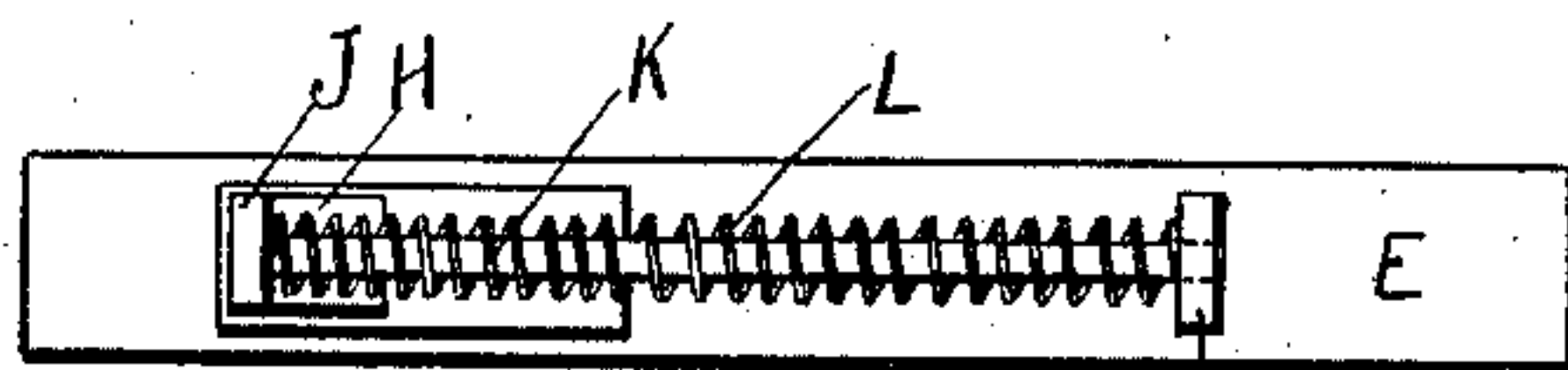


Fig. 4.

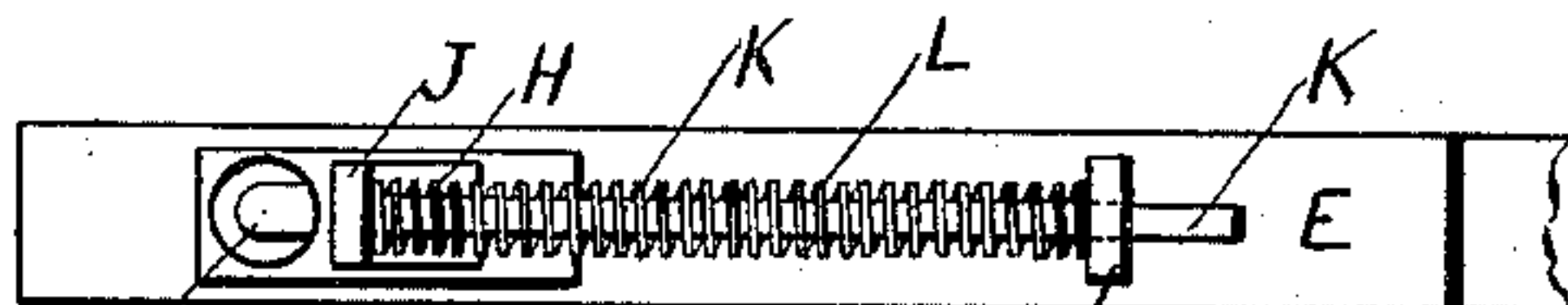


Fig. 5.

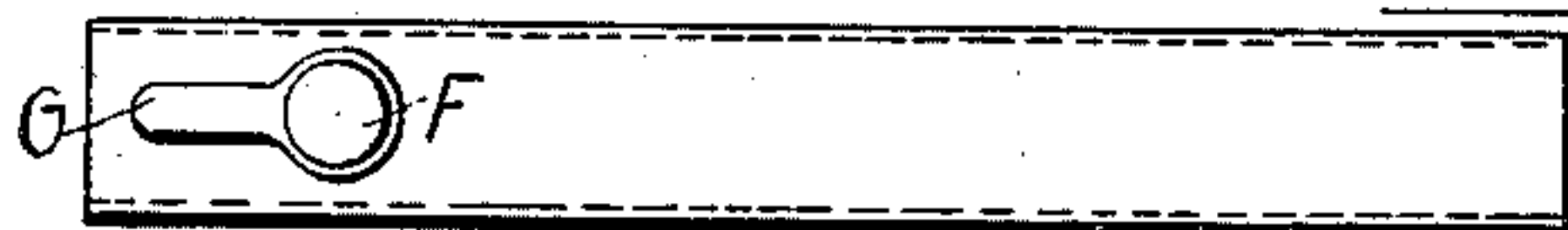


Fig. 6.

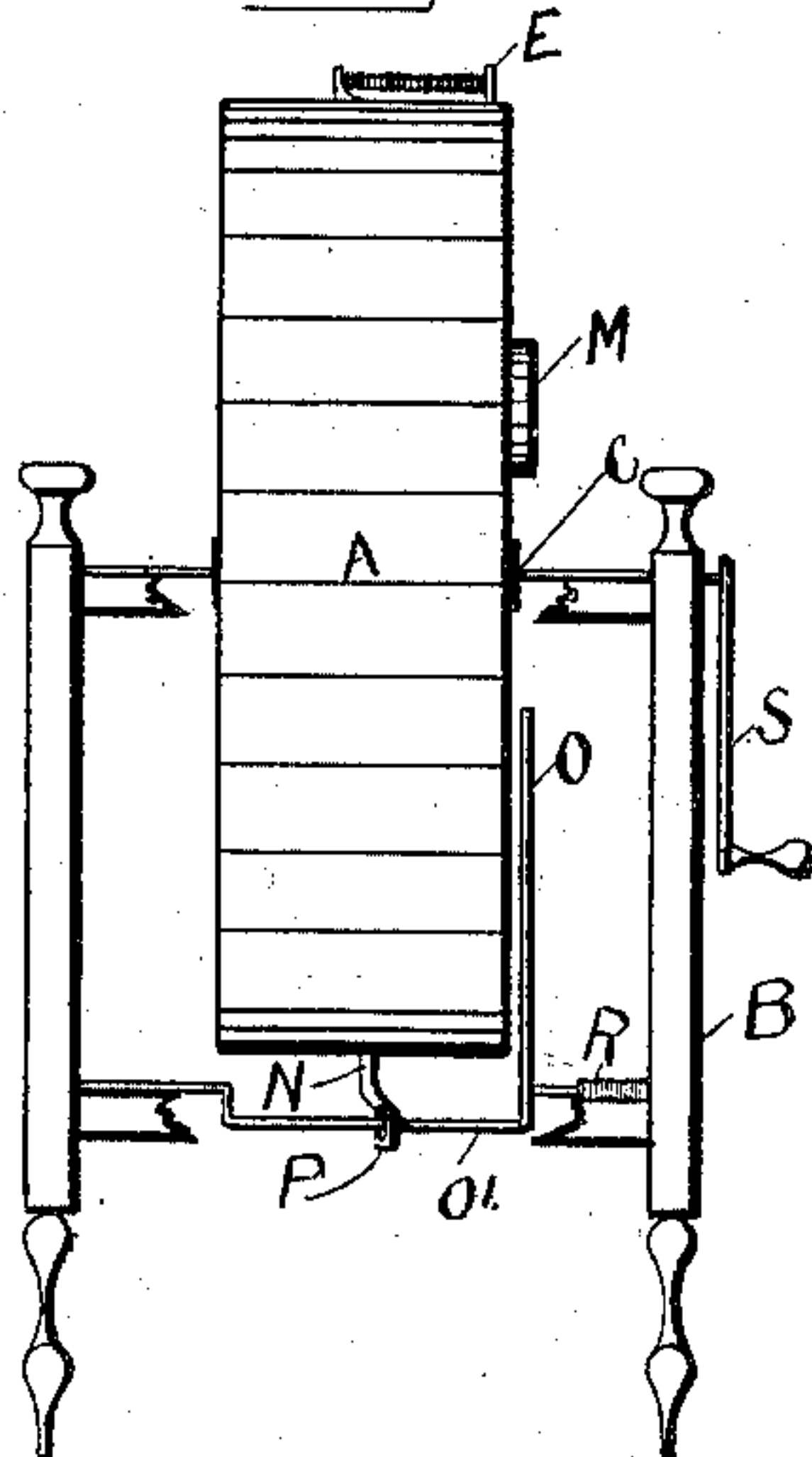


Fig. 7.

WITNESSES:

C. E. Holst

A. J. Bernhard

INVENTOR
Henry Droutlege
BY
Mumby
ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY DROUTLEGE, OF AUCKLAND, NEW ZEALAND.

BALLOT-BOX.

SPECIFICATION forming part of Letters Patent No. 706,910, dated August 12, 1902.

Application filed January 26, 1901. Serial No. 44,885. (No model.)

To all whom it may concern:

Be it known that I, HENRY DROUTLEGE, clerk, a subject of Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and a resident of the city of Auckland, in the Provincial District of Auckland and Colony of New Zealand, have invented new and useful Improvements in Ballot-Boxes, of which the following is a full, clear, and exact description.

My invention relates to improvements in ballot-boxes wherein a revoluble drum is employed to contain suitable objects, such as marbles, &c.; and one object that I have in view is the provision of a simple compact structure adapted to permit the voting to be accomplished without any possibility of tampering with the contents of the drum or box.

Further objects of the invention are to provide a discharging mechanism arranged on the rotation of the drum to automatically eject one of the objects and to positively close the drum against the escape of any other object than the one predetermined object, to provide a trip mechanism controllable by the rotation of the drum to actuate the discharging mechanism at a predetermined time, to provide means for agitating and directing the objects to the point of discharge, and to provide means for throwing the trip mechanism out of its active position, if necessary or desirable.

With these ends in view the invention consists in the novel combination of devices and in the construction and arrangement of the various parts for service, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a ballot-box constructed in accordance with my invention, the dotted lines showing the position of the drum when turned half-way around and the raised position of the track or way in order to actuate the discharging mechanism. Fig. 2 is a detail perspective view of the drum, showing one of the sides removed and illustrating the arrangement of the interior agitators. Fig. 3 is a plan view of the supporting-frame and the devices mounted thereon,

the revoluble drum being removed. Figs. 4 and 5 are enlarged views of parts comprising the discharging mechanism, the former figure showing the slidable closure in its normal position and the latter figure representing the parts in an open position suitable for discharging an object. Fig. 6 is an under plan view of the devices in the position shown by Fig. 4, and Fig. 7 is an end elevation of the machine represented by Fig. 1.

A designates the revoluble drum, which is provided with the shaft C, adapted to be journaled in suitable bearings provided on the supporting-framework B, said shaft C being equipped with any suitable means, such as the crank S, for the operation of the drum A. It will be understood that any suitable means may be provided for rotating the drum and that any style of framework may be employed in lieu of the particular frame herein shown.

The drum A is constructed to provide a door D, the latter forming a part of the periphery of said drum. Said door is adapted to be opened and closed in any usual or preferred way for the purpose of conveniently placing a number of movable objects within the drum. This door is provided with an exit-hole X and with the leading-boards U, the latter being disposed within the segmental door D and arranged to converge toward the exit-hole therein. (See Fig. 2.)

Within the drum proper, A, is arranged a series of agitators or mixers T, the same being in the form of plates, which are fastened within the drum in arbitrary positions, as shown by Fig. 2. These agitators serve to direct the movable objects in different paths on the rotation of the drum.

The door D is provided with a member or part (indicated at E) in the form of a plate, and this plate is preferably arranged in position across the drum. Said plate is provided with an exit-hole F, which registers or coincides with the exit-hole X in the door.

On the member or plate E is arranged a slidable closure H, which is provided with an outwardly-extending shoulder J, said slidable closure being arranged to traverse the opening F in the member E for the purpose of covering or closing said opening. A guide rod or stem K is attached to the closure or the shoulder J thereof, and this rod is suit-

ably fitted in a guide-lug *k*, which is provided on the plate or member *E*. Around the stem or rod *K* is loosely wound a coiled spring *L*, one end of which bears against the fixed lug *k*, while its other end is seated against the shoulder *J*, whereby the spring is adapted to force the slidable closure *H* over the opening *F*, thus closing said opening.

The closure *H* is disposed on the outside of the drum or the door *D* thereof, and it is adapted to be opened and closed when the drum is rotated. On the inside of the drum or the door *D* thereof is arranged the cover or guard *G*, the latter being attached to the closure *H* by any suitable means, so that the cover or guard will move and slide with the closure. There is an important distinction, however, between the action of the closure *H* and the cover *G*, said distinction residing in the dissimultaneous action of these parts with respect to covering and uncovering the hole *F*. The cover *G* is arranged in such relation to the closure *H* that the hole *F* will be opened by the cover *G* on the inside when the closure *H* is in its normal position, so as to cover the hole *F* on the outside of the drum, but when the closure *H* is forced backwardly, so as to uncover the hole *F*, the cover *G* is drawn or moved to a position where it will cover the hole *F* on the inside of the drum. Such action of the cover *G* prevents any movable object within the drum from entering the hole *F* during the period that the closure *H* is withdrawn for the purpose of discharging an object which may have lodged in the hole *F* previous to the rotation of the drum, thereby preventing more than one of the objects from being discharged from the drum at each rotation thereof.

I will now proceed to describe the trip devices which actuate the discharging mechanism on the rotation of the drum.

N designates a track or way which is preferably bent in the form of a segment and is provided with an angular or straight end, the latter being attached to the cross-bar *V'* of the frame *B* at the point indicated by the letter *V* in Figs. 1 and 3. The segmental part of the track or way is disposed below the drum in a position to lie in the path of the shoulder *J* on the spring-actuated closure *H*, and this track is provided at its free end with the enlargement *n*, (shown in Fig. 1,) said enlargement having an arcuate slot *P*.

O designates a trip-rod which is provided with a cranked portion *O'* and is pivotally supported on the frame *B*. Said cranked portion *O'* of the trip-rod is extended through the slot *P* of the movable track *N*, thus operatively connecting the cranked portion of the trip-rod with the movable track. In the normal position of the parts indicated by full lines in Fig. 1 the trip-rod *O* stands in an upright position and the curved portion of the track *N* lies below the path of the shoulder *J* on the closure *H*. This trip-rod is disposed in the path of a trip projection *M*,

(shown in Figs. 1 and 7,) said projection being attached to the drum *A* and extending laterally therefrom, so as to impinge against the trip-rod *O*. In the position of the drum shown by Fig. 1 the trip projection lies some distance away from the trip-rod; but when the drum is turned through the medium of the crank *S* the projection *M* rides against the rod *O* and turns the crank *O'* in a direction to raise the track *N*, thus throwing the track into the path of the shoulder *J*, whereby the closure *H* is pressed in a direction to open the hole *F*, and at the same time the cover or guard *G* is moved to a position within the drum where it will cover the hole *F* from the inside of said drum.

Q designates a retracting-lever which is mounted on the frame *B* and has operative connection with the trip-rod *O*. (See Figs. 1, 3, and 7.) This retracting-lever is provided with a spring *R*, which normally holds it in position where it does not interfere with the action of the trip-rod *O*; but it is evident that the lever *Q* may be operated in a manner to prevent the trip projection *M* from raising the track *N* in the path of the shoulder on the closure *H* whenever it is desired to prevent the operation of the discharging mechanism on the rotation of the drum.

The adjustable track *N* is slightly curved, so that as the shoulder *J* rides against it the two parts can gradually disengage one from the other, which action gives the necessary scope for the compression-spring *L* to force the slidable closure *H* in one direction, and thereby again cover the hole *F* on the outside of the drum.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A ballot-box comprising a revoluble drum provided with an exit-hole, a closure normally closing said hole, and means for actuating the closure automatically on the rotation of the drum to expose or uncover the hole.

2. A ballot-box comprising an axially-turning drum provided with a peripheral exit-hole, leading-boards and agitators within said drum, and automatic means for closing the exit-hole when the drum is at rest and for exposing or opening the hole on the drum assuming a certain predetermined position when turning on its axis.

3. A ballot-box comprising a revoluble drum having an exit-hole, a closure to cover said hole, a guard arranged in a reverse position to the closure and adapted to also cover and uncover the hole, and means for actuating said closure and the guard on the rotation of the drum.

4. A ballot-box comprising a drum mounted to turn on an axis and provided with an exit-hole, a closure adapted to open and close said hole, and a guard arranged to close the hole when the closure is adjusted to an open position.

5. A ballot-box comprising a drum mounted to turn on an axis and provided with an exit-hole, a closure arranged to open and close said hole, and a guard operatively connected
5 with the closure, and adapted to close the hole on the movement of the closure to an open position.

6. A ballot-box comprising a drum mounted to turn on an axis and provided with an exit-
10 hole, a closure for said hole, and trip devices to automatically actuate the closure when the drum is turned on its axis.

7. A ballot-box comprising a drum mounted to turn on an axis and provided with an exit-
15 hole, a closure actuated by a suitable retractor and normally covering said hole, a trip device occupying an abnormal position relative to the closure, and means actuated by a turning movement of the drum to automatically

bring the trip device into coöperative relation 20 to said closure.

8. A ballot-box comprising a drum having an exit-hole, a spring-actuated closure having a projecting shoulder, a track disposed in the path of said shoulder, a pivoted trip con- 25 nected with the track, and means carried by the drum to ride against the pivoted trip.

9. A ballot-box comprising a drum mounted to turn on an axis and having an exit-hole, a closure therefor, a track controlled by a trip, 30 and a retracting-rod to maintain the trip and the track in their abnormal positions on the turning movement of the drum.

HENRY DROUTLEGE.

Witnesses:

GEORGE WILLIAM BASLEY,
FRANCIS ERNEST BASLEY.