

No. 681,802.

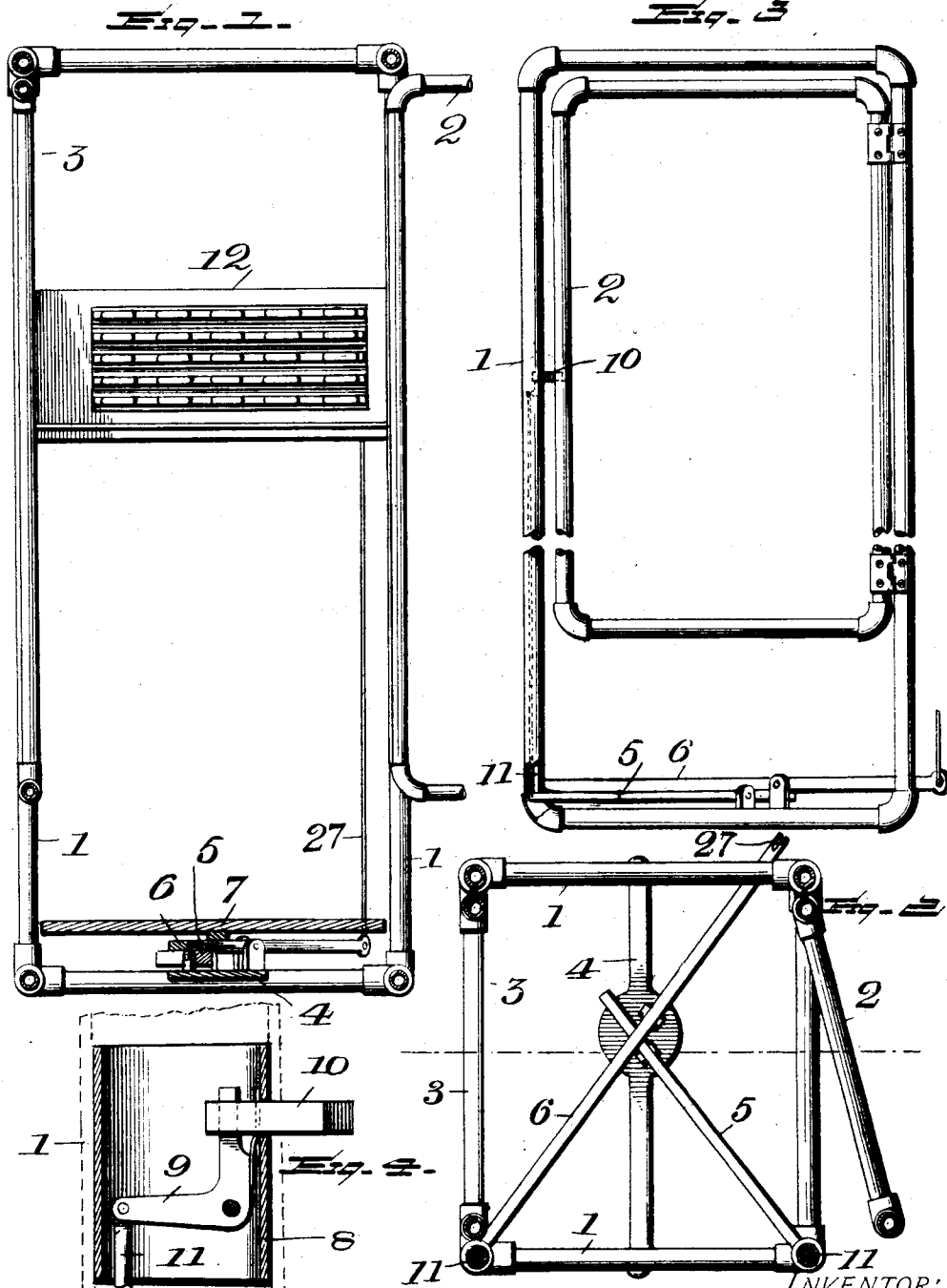
Patented Sept. 3, 1901.

L. W. LUELLEN.
VOTING MACHINE.

(Application filed July 25, 1900.)

(No Model.)

4 Sheets—Sheet 1.



WITNESSES:

L. C. Hales
R. H. Hales

INVENTOR:

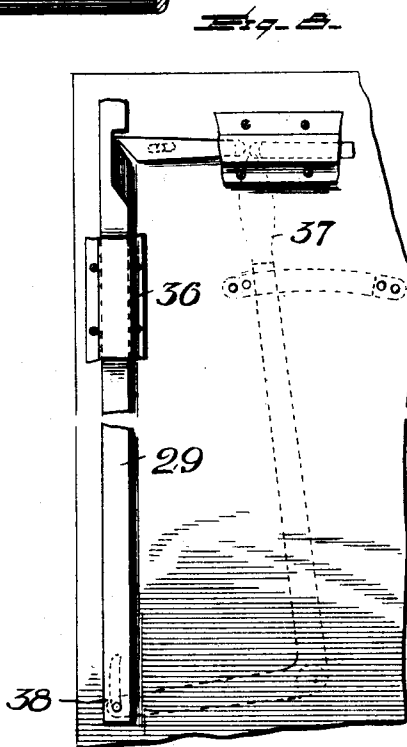
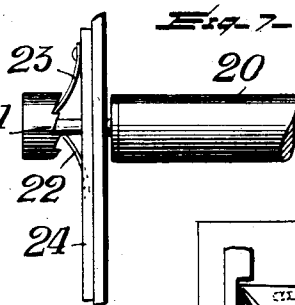
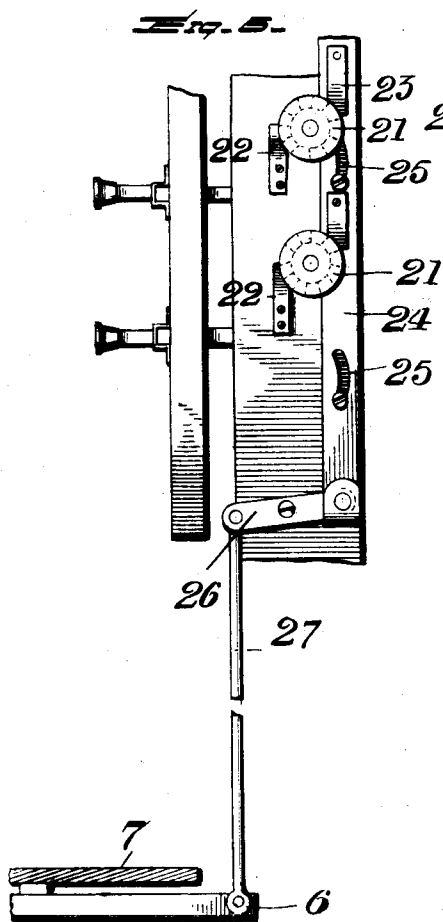
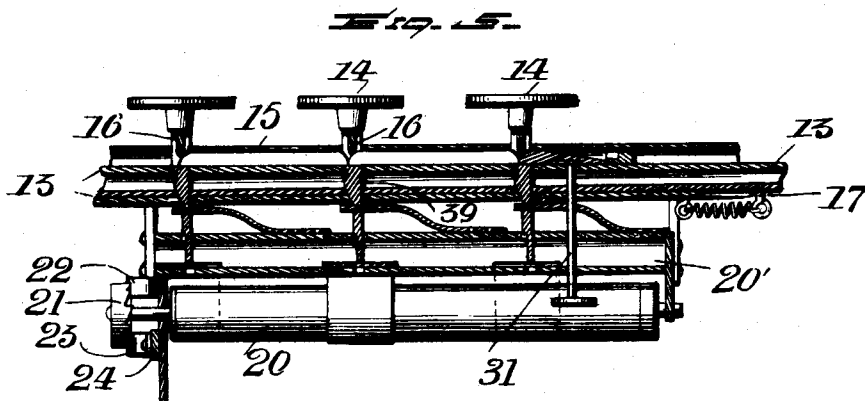
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4 Sheets—Sheet 2.



WITNESSES:

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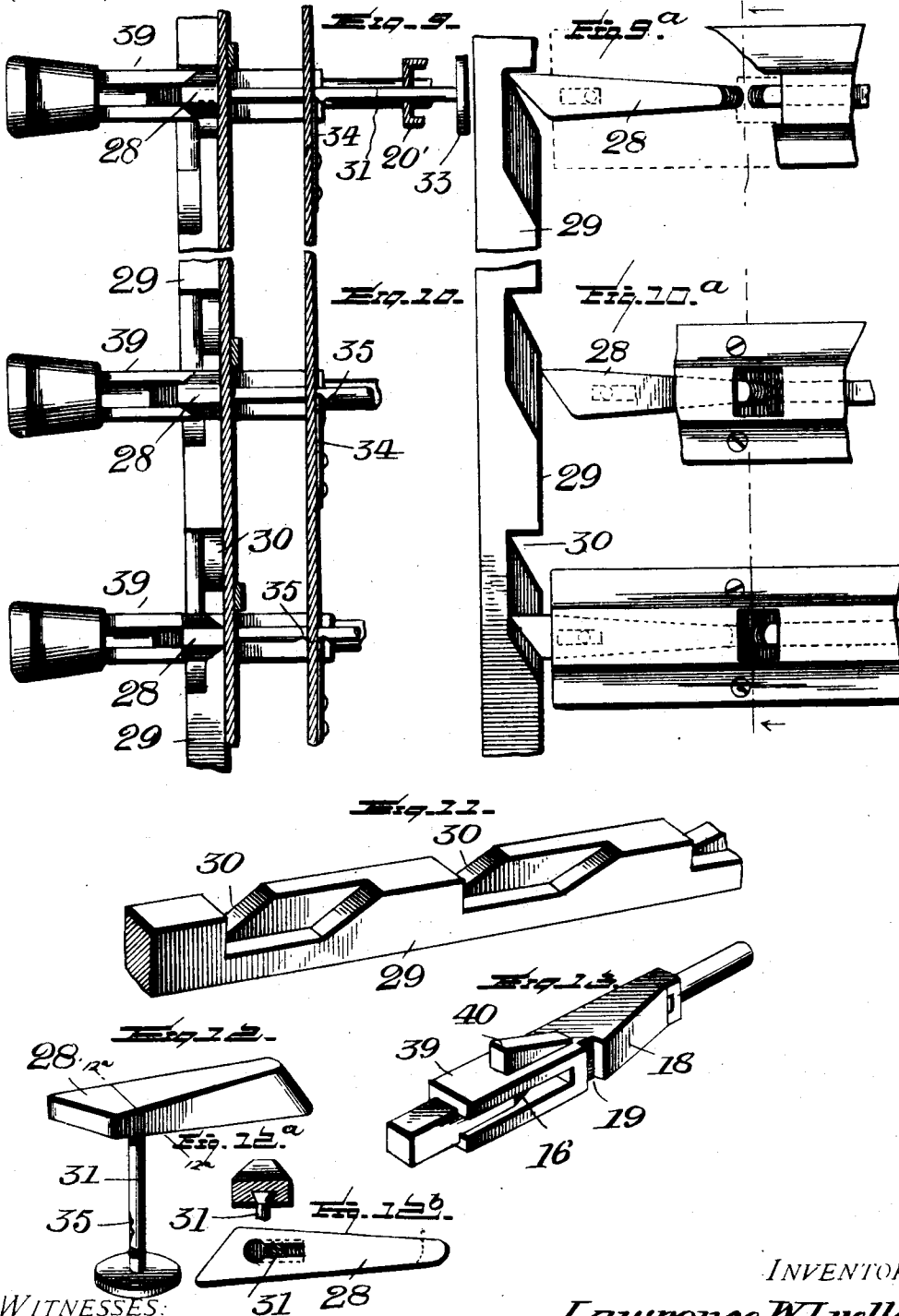
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4 Sheets—Sheet 3.



WITNESSES:

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4 Sheets—Sheet 4.

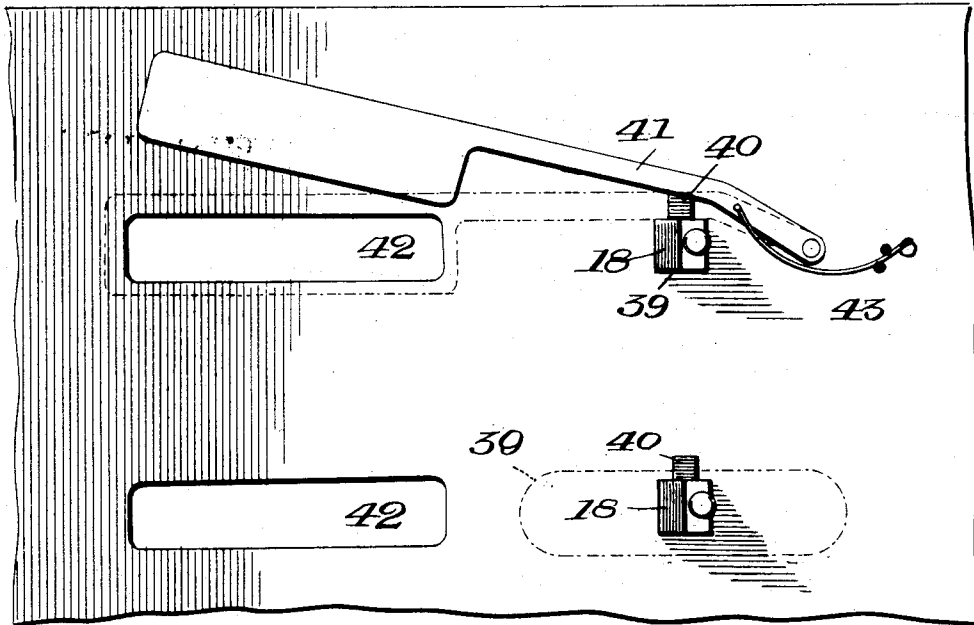


Fig. 14.

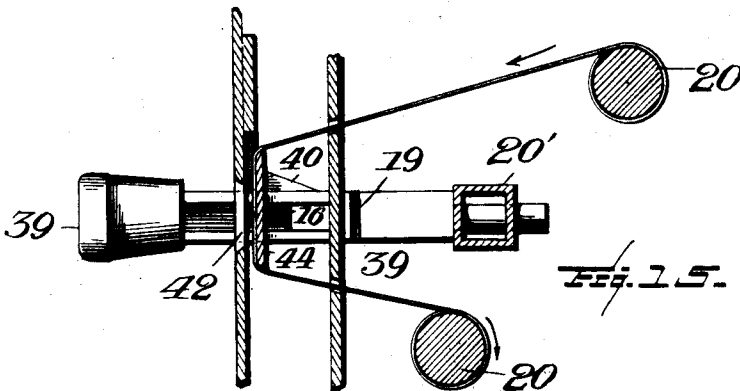


Fig. 15.

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UNITED STATES PATENT OFFICE.

LAWRENCE W. LUELLEN, OF OLATHE, KANSAS.

VOTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 681,802, dated September 3, 1901.

Application filed July 25, 1900. Serial No. 24,774. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE W. LUELLEN, a citizen of the United States, residing at Olathe, in the county of Johnson and State of Kansas, have invented certain new and useful Improvements in Voting-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in voting-machines, and has for its object to make more perfect the voting-machine described and claimed in my United States Patent No. 651,874.

With this object in view my present invention consists in providing the voting-machine with what is known as a "class-voting" feature, whereby the attending judges may at the proper time lock all keys for certain offices on the approach of a voter who is not qualified to vote for such offices. Thus in localities where women are permitted to vote for certain offices but not for others it is not necessary that there should be separate voting-booths for them, but the one and the same booth may be used for both classes of voters by simply operating the hand-lever to throw in and out of operation the mechanism of certain predetermined offices.

This invention further consists in providing a voting-machine with what is known as an "independent-voting" feature, whereby a voter is at liberty to inscribe upon an exposed web of paper the name of the candidate of his choice when such candidate has not been provided with a particular key. This feature is lock-controlled in the same manner as the voting-keys—that is to say, a shutter is provided for each independent-voting slot and is operated by a key, which when pressed becomes locked and in turn locks all other voting-keys for that particular office.

Furthermore, the present invention provides for improvements in minor details of construction and arrangement of parts, to be fully described in the following specification and clearly set forth in the claims.

Referring to the accompanying drawings, forming a part of this application, in which

like characters of reference indicate similar parts throughout, Figure 1 is a vertical sectional view of my improved voting-booth, showing the entrance-door open. Fig. 2 is a horizontal sectional view thereof with the platform removed. Fig. 3 is a front elevation of the booth-frame. Fig. 4 is an enlarged sectional view of the door-lock. Fig. 5 is a horizontal sectional view through one line of voting-keys. Fig. 6 is a side elevation of the ratchet web-feed mechanism with its platform connections. Fig. 7 is a rear elevation of one of the ratchet-wheels of said feed mechanism. Fig. 8 is a front elevation of the locking-bar and connections. Fig. 9 is a vertical section through the base-board, showing an end dog in its inner position. Fig. 9^a is a front elevation thereof. Fig. 10 is a similar view to Fig. 9, showing one end dog in its inner position and the other end dog in its outer position with the locking-bar drawn. Fig. 10^a is a front elevation of the parts in this position. Fig. 11 is a perspective view of a portion of the locking-bar, showing the formation of the cam-notches. Fig. 12 is a perspective view of an end dog with its operating-button. Fig. 12^a is a transverse section thereof. Fig. 12^b is an inverted plan view of the end dog. Fig. 13 is a perspective view of the independent-voting key without handle. Fig. 14 is a rear elevation of the independent-voting mechanism, and Fig. 15 is a vertical sectional view thereof.

In the drawings, 1 represents a rectangular booth-frame constructed of gas-pipe or any other suitable material, with entrance and exit doors 2 and 3, respectively, hinged thereto, of such length as to leave a space therebeneath to permit of the voter being seen while within the booth, it being understood that the sides of the booth-frame and the door-frame are covered with canvas or any other suitable material. A support 4 extends across the bottom of the booth-frame and has mounted thereon suitable upwardly-extending ears, to which are fulcrumed levers 5 and 6, the former of which extends from the entrance-doorway to the center of the frame and the other from the exit-doorway diagonally across the frame and resting on the tail

end of lever 5. A platform 7, having a central depending block, forms the floor of the booth, with its block bearing on the intersection of the levers 5 and 6, so that when a person steps upon the platform the rear ends of both levers are depressed. In each doorway, about midway of the door-frame, a lock is provided for engaging the door-frame and consists of a short tube-section 8, having the bell-crank lever 9 pivoted therein, with its upper end seated in an elongated slot of the sliding beveled-end spring-pressed catch 10, which projects through an aperture in the tube-section to engage a slot in the door-frame and its lower end connected by means of the rod 11 to one end of the levers 5 and 6. Thus it will be seen that when a voter steps upon the platform levers 5 and 6 are depressed at their rear ends, raising rod 11 of the entrance-door to project the catch of that door and lowering the rod 11 of the exit-door to withdraw the catch of that door, so that the entrance-door is locked behind him and the exit-door is unlocked and free to be opened at will. On one side of the booth-frame, extending from door to door, is a voting-board 12, closely resembling the voting-board described and claimed in my Patent No. 651,874, before mentioned, but differing therefrom in the features to be hereinafter described. I now produce a base-board of two parallel plates of sheet metal 13, through which slide series of spring-pressed compression-keys 14, arranged in lined groups and provided with transverse perforations to form a continuous channel through each line of keys by the aid of the casing 15. Beveled end dogs are housed within this channel and are adapted to be wedged apart by the partitions 16 in the perforations of the keys, but the play of the dogs being so limited as to permit of but one partition passing at a time, and thus preventing all other keys in a single line being operated while one key is depressed. A spring-pressed locking-strip 17 receives the stems of all keys in one line through suitable perforations and is adapted when a key is depressed to first be moved longitudinally by the cam-surface 18 against the action of its spring and then to snap within the slot 19 at the end of said cam 18 and so lock the key in its depressed position. For each line of keys there are arranged on the back of the base-board a pair of web-rolls 20 and a square hollow metallic tube 20', forming a guide-strip, through which the web is fed through these rolls and through which the ends of the keys are adapted to be pressed for perforating said web. The receiving-roll of each pair is provided on its end with a ratchet-wheel 21, having its teeth formed on its inner face and engaged by stationary spring-pawls 22 on the supporting-frame and also engaged diametrically opposite by the inverted spring-pawl 23, carried by the sliding rod 24, which is mounted on the supporting-frame by screws or the like slidable in curved slots 25, and which sliding rod is operated by the lever 26, connecting its lower end to the upper end of rod 27, which connects with the front extension of lever 6. Thus a voter by stepping on the platform elevates the front extension of lever 6, with the rod 27, and so lowers the sliding rod 24, moving all webs to a new position for another vote. At the left-hand end of each row of keys an end dog 28 is provided, with its inner end beveled similar to the other dogs, but with its outer end tapering and beveled on a line from upper left to lower right. A locking-bar 29 extends transversely across the path of all the end dogs and is capable of a limited longitudinal movement. This locking-bar is provided with a number of notches 30 to receive the projecting ends of the end dogs and is formed with two different cam-surfaces, the one quite close to the upper end of the notch and the other some distance below, so that if the end dogs lie on one side of the notches they are unaffected by the upward movement of the locking-bar, but when on the other side of the notches the upward movement of said locking-bar forces the cam end of the end dog to ride in on the close cam, and thereby deprive that row of dogs of all loose play, so that all keys in that row are prevented being pushed. To throw the outer end of the end dog from one section of the notch to the other, I provide a stem 31 to slide through the base-board and having a flaring head on its outer end to fit within an elongated keyhole-slot 32 of the end dog, so that the dog may be free to slide on said stem without being disengaged therefrom. The stem 31 has a button 33 on its rear end, by which the judges may set the end dogs in one position or the other before the polls are opened, and a spring 34 is attached to the base-board and is adapted to move edgewise into one or the other of the pair of notches 35, to retain said stem in the position in which it is placed. The locking-bar is housed within a sheet-metal casing 36 and is operated by the hand crank-lever 37 on the rear of the base-board through a pin connection 38, traveling in a curvel slot of the base-board. When this hand-lever is thrown by the judge, all end dogs which have been previously set to lie within the short portion of the notches 30 are moved along their channels to lock the keys of that line, as previously described, and when the lever is retracted these end dogs are again free to be forced outward by casting a vote in their respective lines, as usual. At any convenient location, but preferably at its right extremity, each line of keys is provided with an independent-voting key 39, which is substantially identical with the other keys, but is provided on the upper part of its stem with a cam-lug 40, on which rests the stem of a shutter 41, which is pivoted to the back of the front plate of the base-board and is adapted to cover an opening or slot 42 in said front plate when in its lower position, but to be elevated to free said opening or slot 42 when

forced upward by the cam 40 on the depression of the key 39 against the pressure of spring 43. In this instance the web instead of passing through the tube 20' travels through suitable slots in the rear plate of the base-board and over a platen 44, which extends across the slot 42. When the independent-voting key is pressed, its partition 16 wedges the dogs together as with any other key, and the cam-lug 40 presses the shutter 41 upward to free the slot 42 and expose a portion of the web to view, when a voter may readily write the name of his candidate on the web and is prevented from casting more than one vote for this particular office by the same means as is common to all the keys. The next voter on opening the entrance-door, which by any suitable means retracts the locking-strip 17, and thus releases all keys which have been depressed and locked, including the independent-voting keys, which thereby drop the shutters 41. When the next voter steps upon the platform, the web-rolls for the independent-voting keys are operated simultaneously with the other web-rolls and a new surface is presented at the slot 42.

It is obvious that numerous changes in the details of arrangement and construction of parts may be resorted to without departing from the spirit and scope of this invention as herein described and claimed.

Having fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is—

1. In a device of the character described, a series of keys, a train of movable dogs for restricting the operation of the keys, the end dog of said train being capable of lateral movement, a locking-bar having a cam-surface for moving the end dog longitudinally and means for moving the end laterally to avoid said cam-surface.

2. In a device of the character described, a series of keys, a train of movable dogs for restricting the operation of the keys, the end dog of said train being capable of lateral movement, a locking-bar having a double cam-surface for moving the end dog longitudinally, and means for moving the end dog laterally to be operated upon by one or the

other of said cam-surfaces, substantially as described.

3. In a device of the character described, a series of keys, a train of sliding dogs with cam ends adapted to be forced apart by the depression of the keys and to limit the number of keys depressed at one time, the end dog of said train being capable of lateral movement, a sliding locking-bar having a double cam-surface for moving the end dog longitudinally, and means for moving the end dog laterally to be in a position to be operated upon by one or the other of the said cam-surfaces, substantially as described.

4. In a device of the character described, a base-board having an opening therein, a key slidable in the base-board, a shutter pivoted to the base-board and supported by the key, and a cam on the key for receiving the shutter and forcing it open when the key is depressed, substantially as described.

5. In a device of the character described, a base-board, having an opening therein, a platen located behind the opening, a web fed between the platen and the opening, a shutter pivoted to the base-board and adapted to normally close the opening, a key slidable in the base-board and supporting the shutter and a cam on the key to receive the shutter and force it open when the key is depressed, substantially as described.

6. In a device of the character described, a supporting-frame, a web-roll journaled therein, a ratchet-wheel carried by the web-roll, a pawl on the supporting-frame engaging the ratchet-wheel, a rod having curved slots, pins connecting the rod to the supporting-frame and located in the said curved slots, a movable platform, and a crank connection between the platform and the rod whereby a movement of the platform will cause the rod to move in a curved path, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LAWRENCE W. LUELLEN.

Witnesses:

R. S. C. CALDWELL,
ROYCE A. RUESS.