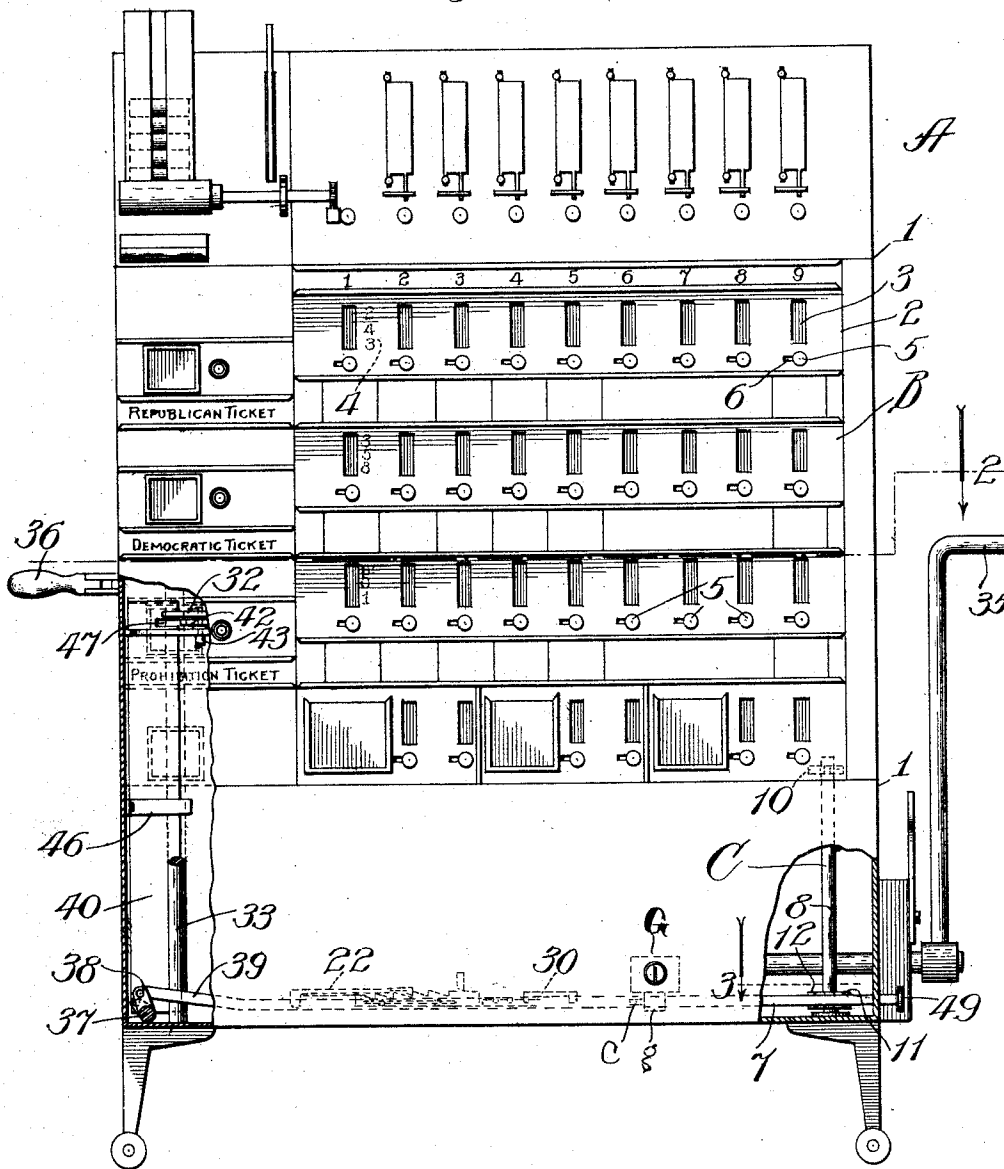


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Fig. 1.



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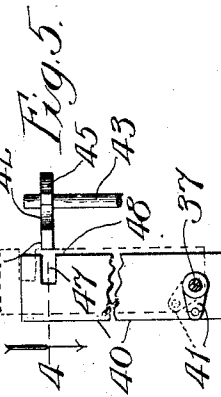
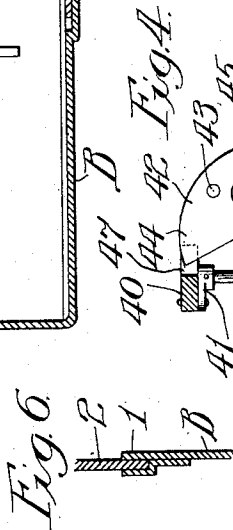
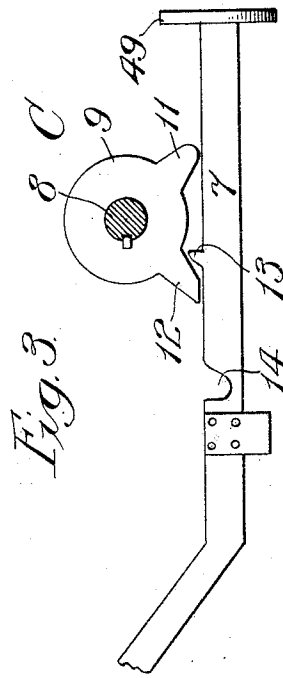
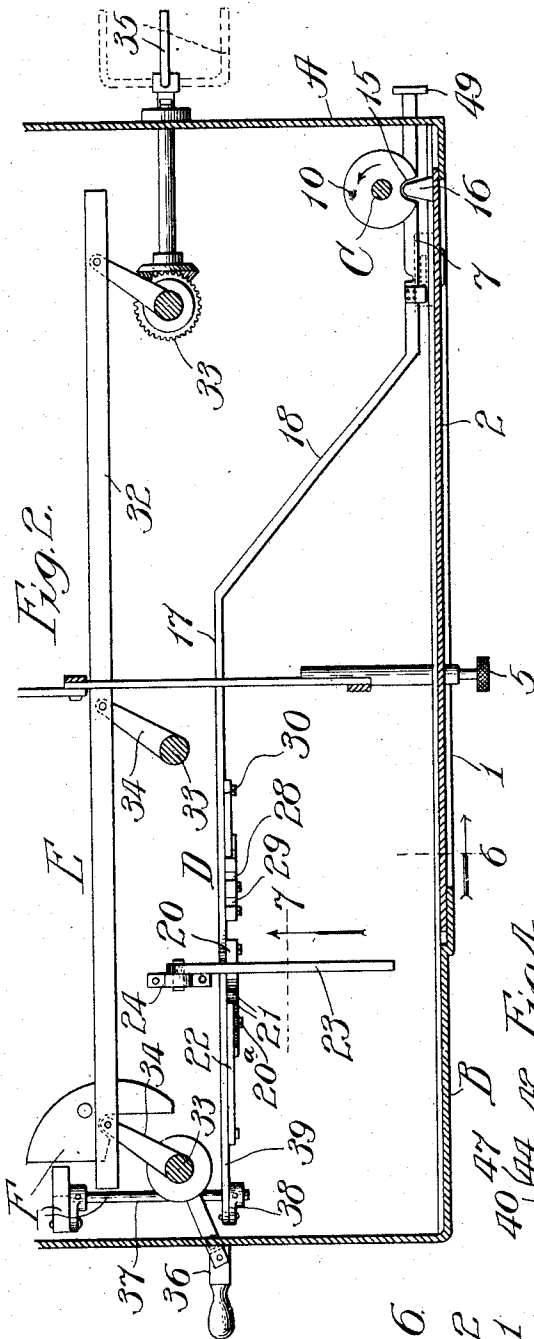
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L. R. WINSLOW.
VOTING MACHINE.
APPLICATION FILED JAN. 2, 1909.

Patented Mar. 14, 1911.

3 SHEETS—SHEET 2.

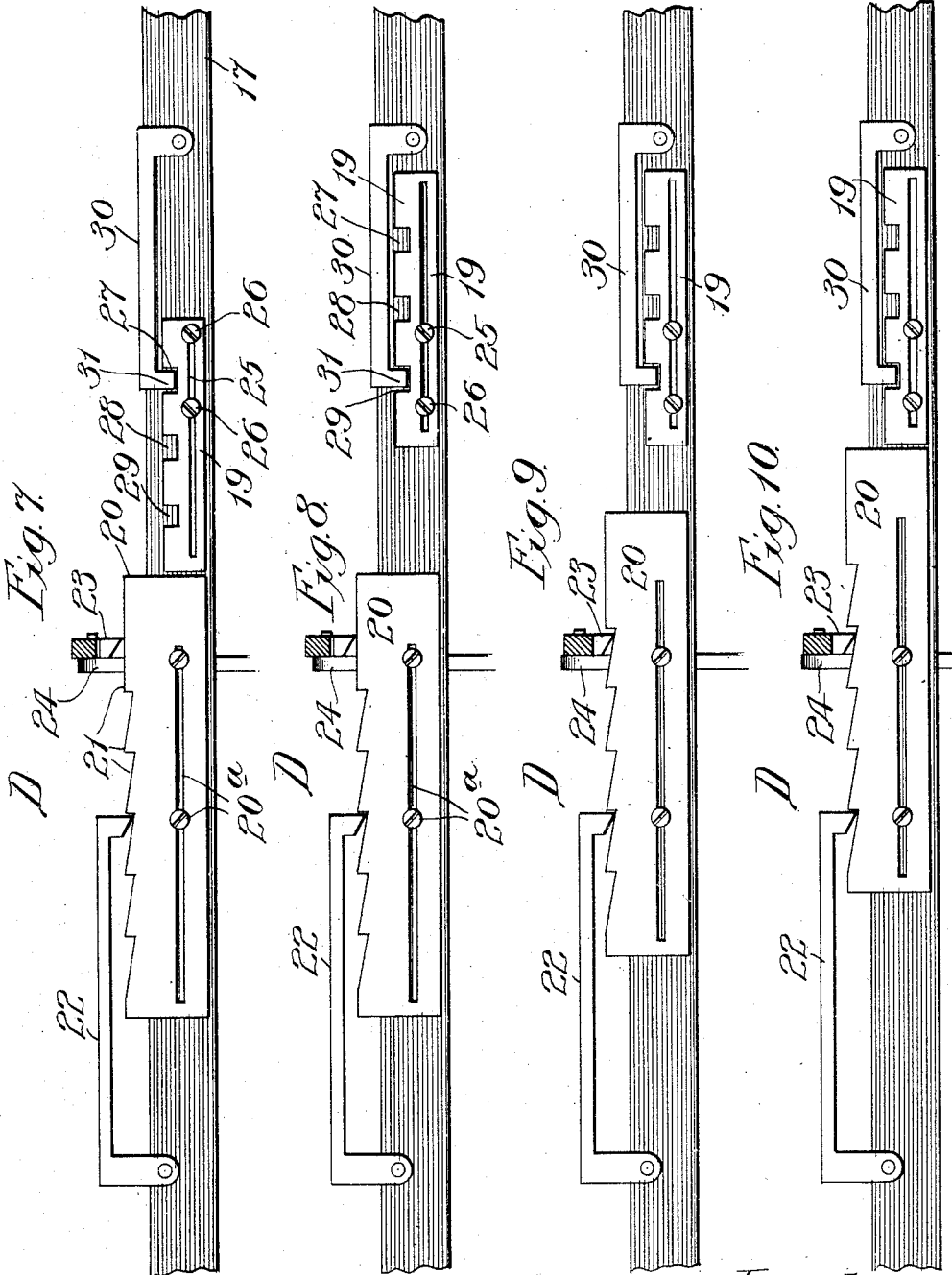
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UNITED STATES PATENT OFFICE.

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VOTING-MACHINE.

986,789.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed January 2, 1909. Serial No. 470,412.

To all whom it may concern:

Be it known that I, LENNA R. WINSLOW, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Voting-Machines, of which the following is a specification.

My invention relates particularly to closure-locking means for voting machines; and my primary object is to provide improved closure-locking means for voting machines, adapted to permit viewing of the vote-registers a limited number of times only.

It may be preparatorily stated that I accomplish my purpose, in the preferred construction, by providing for the shiftable closure or front plate of the machine which has apertures through which registers may be viewed when the plate is shifted, closure-locking mechanism which permits the closure to be shifted a predetermined number of times to enable the registers to be viewed in an authorized manner; and I provide interlock devices between the closure-actuating mechanism and the voting mechanism of the machine, whereby, when the closure is shifted to the register-viewing position the machine is locked against the voting operation, and when the voting operation is in progress the closure is locked against shifting.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a broken front elevational view of a voting machine constructed in accordance with my invention; Fig. 2, a broken horizontal sectional view taken as indicated at line 2 of Fig. 1 and showing the shiftable front plate of the machine, the actuating mechanism therefore with the attached means for limiting the number of actuations of said shiftable plate, portions of the voting mechanism of the machine, and the interlock devices between the voting mechanism of the machine and the actuating mechanism of the shiftable front plate; Fig. 3, a broken section taken as indicated at line 3 of Fig. 1 and showing a portion of the closure-actuating mechanism; Fig. 4, a horizontal sectional view taken as indicated at line 4 of Fig. 5 and showing a detail of the interlock mechanism mentioned; Fig. 5, a broken elevational view of said interlock devices, a rock-shaft thereof being shown in section, the section being taken as indicated

at line 5 of Fig. 4; Fig. 6, a broken sectional view showing one of the guides of the shiftable front plate of the machine, the section being taken as indicated at line 6, Fig. 2; Fig. 7, a broken sectional view taken as indicated at line 7 of Fig. 2 and showing the closure-locking means connected with the closure-actuating means of the machine, said closure-locking means being set to permit one actuation or shift of the closure or front plate of the machine; Fig. 8, a similar view showing said locking-mechanism set to permit three actuations of the closure; Fig. 9, a similar view showing the position of the parts of the locking-mechanism after one shift and return movement of the closure; and Fig. 10, a similar view showing the position of the parts after two shifts and return of the closure.

In the illustration given, A represents the casing of a voting machine; B, a shiftable front plate or closure for said casing; C, closure-actuating mechanism; D, a locking device connected with said closure-actuating mechanism and serving to permit a predetermined number of shifts of said closure; E, a portion of the voting-mechanism of the machine; and F, an interlock device between the closure-actuating mechanism and the voting-mechanism of the machine.

The casing A is provided at its front side with horizontal guides 1 in which is mounted a shiftable front plate or closure 2. The shiftable plate 2 is provided with apertures 3 which are normally out of registration with the registers 4 (shown by dotted lines) of the machine. The plate 2 is capable of being shifted in its horizontal guides to bring the apparatus 3 into registration with the vote-registers of the machine. The shiftable plate 2 is also provided with perforations through which extend the voting-keys 5, and adjacent to said perforations are slots 6 which accommodate the shanks of the voting-keys when the plate is shifted.

The mechanism C serving to shift the plate or closure B comprises, in the illustration given, an actuating rod or slide 7 which extends through one end of the casing and lies near the inner surface of the shiftable plate 2; a vertically disposed rock-shaft 8 equipped near its lower end with an actuating device 9 adapted to be actuated by the rod or slide 7, and equipped near its upper end with a disk 10 adapted to actuate the plate 2.

The device 9 comprises a disk equipped with two fingers 11 and 12 which normally lie adjacent to the slide 7, as shown in Fig. 3. The slide 7 is equipped with a finger 13 which is located between the fingers 11 and 12, and the slide is also provided with a recess 14 adapted to receive the finger 12 when, during the outward movement of the slide 7, the finger 13 engages the finger 11 and rotates the shaft 8 through the medium of the disk 9. The disk 10 at the upper end of the shaft 8 is provided at its periphery with a recess 15 which engages a finger 16 carried by the plate 2. It will be understood that when the rock-shaft is rotated in the manner described, the disk 10, after actuation of the mechanisms D and F has occurred, will rotate in the direction indicated by the arrow in Fig. 2 and will shift the plate 2 in a position to bring the apertures 3 into registration with the registers 4 of the machine. When the slide 7 is returned to its normal position, the sloping wall of the recess 14 engages the corresponding beveled surface of the finger 12 and rotates the rock-shaft 8 back to its normal position, thereby returning the plate 2 to its normal position.

The locking-mechanism D comprises a bar 17 which may constitute an extension of the slide or rod 7, being joined thereto by an oblique portion 18; a stop 19 adjustably connected with the bar 17; an automatically adjustable stop 20 connected with the bar 17 and provided with ratchet-teeth 21; a pawl 22 connected with the bar 17 and engaging the teeth 21; and a pivoted pawl 23 carried by a stationary support 24 and adapted to engage the teeth of the automatically adjustable stop 20. The adjustable stop 19 preferably comprises a bar provided with a longitudinal slot 25 through which pass screws 26 which enter the bar 17. The upper edge of the bar 19 is provided with notches 27, 28 and 29. Pivotaly connected with the bar 17 is a locking-pawl 30 provided with a rectangular nose 31 adapted to fit in any of the rectangular recesses or notches 27, 28 and 29, according to the adjustment of the stop 19. The automatically adjustable stop 20 is connected, by screw-and-slot connection 20^a, with the bar 17, the connection permitting the stop 20 to slip with relation to the bar 17 after the pawl 23 engages a tooth of the ratchet and while the bar 17 is being retracted, thus providing for automatic advancement of the stop 20 with relation to the bar 17.

The adjustment of the parts is such that when the stop 19 is fixed in the position shown in Fig. 7, one actuation of the front plate 2 of the machine may be made, whereupon the pawl 23 will engage the first notch of the ratchet-teeth on the self-adjusting stop 20. Inasmuch as, in the position shown

in Fig. 7, the stop 19 is substantially in contact with the self-adjusting stop 20, and inasmuch as the stop 20 will be held by the pawl 23 when an effort is made to return the bar 17 to its starting position, it will be understood that the front plate of the machine will be locked against return movement when shifted once, assuming the stop 19 to have been preparatorily adjusted to the position shown in Fig. 7. When the stop 19 is preparatorily set in the position shown in Fig. 8, the front plate 2 may be shifted to the register-viewing position three times. The first shift and return of the plate 2, in this case, leaves the parts of the locking device in the position shown in Fig. 9, the automatically adjustable stop 20 being advanced one tooth by the pawl 22 when the plate is shifted to the register-viewing position, the pawl 23 then dropping into engagement with the first notch of the ratchet on the stop 20 and preventing a return of the stop 20 when the plate is returned to the normal or closed position. When the plate is returned to the normal or closed position, the pawl 22 engages a fresh tooth of the ratchet, as shown in Fig. 9. The next complete reciprocation of the front plate 2 leaves the parts of the locking device in the position shown in Fig. 10, and allows for one more shift of the plate 2 to the open position, after which the pawl 23 will engage a succeeding tooth of the ratchet on the stop 20 and will lock the operating mechanism of the plate 2 against return movement.

The voting-mechanism E of the machine is of a construction well understood, and includes, besides the vote-registers 4 (indicated in dotted lines) and the voting-keys 5, a series of horizontally disposed bars 32 (one shown), corresponding with the horizontal rows of voting-keys; vertically disposed shafts 33 equipped with arms 34 carrying the bars 32, the shafts 33 being thus connected to move in unison through the medium of said arms and said bars; an initial-operating lever 35 connected with one of the shafts 33 and by means of which the shafts are operated to move the bars 32 and unlock the vote-registering mechanisms when the voter passes to the machine; and a final-actuating lever 36 by means of which the shafts 33 are actuated after the voting-keys have been preparatorily set by the voter, whereby the rearward movement of the bars 32 will retract the voting-keys and cause the vote-registering mechanisms to be operated. It may be added that the lever 35 is adapted to be turned in one direction by male voters and in the opposite direction by female voters, the shafts 33 being actuated, nevertheless, in the same direction.

The interlock device F comprises a horizontally disposed rock-shaft 37 equipped with a crank 38 connected with an end-

extension 39 of the bar 17; a vertically movable slide or stop 40 connected with a crank-arm 41 on the rear end of the rock-shaft 37; and a stop 42 supported on a stationary pivot 43 and having an arm 44 co-acting with the vertically movable stop 40, and an arm 45 co-acting with the adjacent arm 34 of the voting-mechanism. The vertically slidable stop 40 moves in a guide 46, as shown in Fig. 1, and is provided near its upper end with a slot 47 adapted to receive the arm 44 of the member 42 when the slide 40 is in its normal position. When the slide 40 is elevated, as occurs when the shiftable front plate 2 of the machine is moved to the register-viewing position, the edge portion 48 of the slide 40 which lies beneath the slot 47 will be raised into the path of the arm 44 of the member 42, thereby preventing the voting operation from being performed. The reason for this is that the arm 45 of the member 42 lies normally in the path of the adjacent arm 34 of the voting-mechanism, and when the shafts 33 are turned to move the stop-bar 32 forwardly to the position shown in Fig. 4, it is necessary that the member 42 shall turn on its pivot in order to permit this movement. This can only occur when the slot 47 of the slide 40 registers with the arm 44 of the member 42. On the other hand, when the front plate 2 of the machine is in its normally closed position, the actuation of the voting-mechanism swings the member 42 on its pivot and causes the arm 44 to enter the slot 47 of the slide 40, thereby locking the plate 2 against opening. Thus it will be seen that it is impossible to shift the plate 2 to the register-viewing position during the operation of the voting-mechanism; and it is likewise impossible to perform the voting operation while the shiftable plate 2 is in the register-viewing position.

The operation may be described briefly thus: The judges of election may preparatorily set the adjustable stop 19 carried by the bar 17 to permit the necessary number of shiftings of the front plate 2 of the machine to enable the vote-registers to be inspected by authorized persons, such as precinct judges or the police; and after the front plate 2 has been thrown to the register-viewing position the number of times provided for, it is effectually locked against return, so that an unauthorized manipulation may be detected. When it is desired to shift the plate 2 to the register-viewing position, this is accomplished through the medium of the rod or slide 7, which is equipped at its outer end with a knob or handle 49. When the slide 7 is turned outwardly, the finger 13 thereof engages the finger 11 of the member 9 and actuates the rock-shaft 8, through the medium of which the disk 10 is actuated, thereby actuating the plate 2

through the medium of the finger 16. When the slide 7 is turned outwardly, the bar 17 is thereby moved and the self-adjusting stop 20 is turned forwardly until the pawl 23 drops into engagement with the tooth of the ratchet on the stop 20. The possibility of returning the plate 2 to its normally closed position depends upon the initial adjustment of the stop 19. If said stop is initially adjusted in the position shown in Fig. 7, the plate 2 cannot be returned to its normal position. If the stop 19 is initially adjusted in the position shown in Fig. 8, the plate 2 may be shifted to the register-viewing position three times, but may be returned to its initial position only twice. If the stop 19 is adjusted so that the locking-pawl 30 engages the intermediate notch 28 of the stop, the plate 2 may be shifted twice to the register-viewing position, but may be returned to its normal position only once. When the plate 2 is moved to the register-viewing position, the rock-shaft 37 is turned to elevate the slide or stop 40, and the voting-mechanism is thereby locked against actuation. When the plate 2 is in the normally closed position, the slot 47 registers with the arm 44 of the member 42, and when the vote-registering mechanism is moved to the unlocked position, the arm 44 enters the slot 47, as shown in Fig. 4, thereby locking the plate 2 against being turned to the register-viewing position.

The foregoing detailed description has been given for clearness of understanding only, and no undue limitation is to be understood therefrom.

In Figs. 1 and 2, G represents a lock applied to the casing front and having a bolt *g* adapted to engage a stop *c* with which the bar 7 is equipped. The judges of election hold the key to this lock, and the lock will serve to prevent unauthorized persons from operating the mechanism and shifting the front-plate 2 during an election.

What I regard as new, and desire to secure by Letters Patent, is:—

1. In a voting machine, the combination with shiftable means normally concealing the vote-registers of the machine, of locking means therefor permitting shifting to the register-viewing position a predetermined number of times only and automatically preventing actuation after a predetermined number of shifting operations.

2. In a voting machine, the combination with a shiftable front plate provided with register-viewing openings, of locking mechanism comprising a member adapted to be actuated when said plate is shifted, and a co-acting locking member adapted to engage said first-named member automatically and preventing retraction thereof when the plate is returned to its normal position.

3. In a voting machine, the combination

with a shiftable plate provided with register-viewing openings, a bar adapted to be actuated with said shiftable plate, a stop movably carried by said bar, and a self-adjusting stop actuated through the medium of said bar and co-acting with said first-named stop.

4. In a voting machine, the combination with a closure, of a member actuated therewith, a stop carried by said member and adjustably secured thereto, a second stop movably connected with said member and co-acting with said first-named stop, means connected with said member for advancing said second-named stop, and means preventing the retraction of said second-named stop after it has been advanced.

5. In a voting machine, the combination with a closure therefor, of a bar adapted to be actuated therewith, a stop adjustably secured on said bar, a second stop slidably mounted on said bar and equipped with a ratchet, a pawl mounted on said bar and engaging said ratchet, and a pawl mounted on a stationary support and adapted to engage said ratchet.

6. In a voting machine, the combination with a shiftable closure therefor, of a bar actuated therewith, a stop and means associated therewith for securing the same to said bar in any one of a number of set positions, a second stop movably connected with said bar and equipped with ratchet teeth of a length corresponding with the positions of adjustment of said first-named stop, a pawl connected with said bar and adapted to advance said second-named stop, and a pawl carried by the stationary support and co-acting with said ratchet.

7. In a voting machine, the combination of a casing equipped with a shiftable closure, closure-actuating mechanism located in said casing and having an actuating member projecting from the casing, and locking mechanism connected with said actuating mechanism and comprising means adapted to permit a limited number of actuations of said closure and automatically preventing actuation after a predetermined number of shifting operations.

8. In a voting machine, the combination of a casing provided with a shiftable closure, a vertically disposed rock-shaft in said casing equipped with means for actuating said closure, a slide extending through said casing and equipped with means for actuating said rock-shaft, and locking means connected with said slide and comprising means serving to lock the closure against retraction after it has been shifted a predetermined number of times.

9. In a voting machine, the combination of a casing equipped with a shiftable closure, voting mechanism, means for releasably locking the voting mechanism against

actuation, a member shiftable with said closure, and interlock mechanism comprising a rock-shaft connected with said member, a slidable stop actuated by said rock-shaft, and means interposed between said stop and said first-named means and cooperating therewith to lock said first-named means in position for preventing the voting operation when said closure is moved to the register-viewing position.

10. In a voting machine, the combination of a casing provided with a shiftable closure, voting mechanism, a pivotally mounted stop adapted to be moved into and out of the path of said voting mechanism, a vertically slidable stop co-acting with said first-named stop, and means actuated with said closure and serving to actuate said second-named stop.

11. In a voting machine, the combination of a casing equipped with a shiftable closure, voting mechanism, means for releasably locking the voting mechanism against actuation, a member shiftable with said closure, and interlock mechanism comprising a pivotally mounted stop cooperating with said means and adapted to lock the latter in position for preventing the voting operation when in one position, a rock-shaft connected with said member, and a slidable stop actuated by said rock-shaft and adapted to be moved into and out of the path of said first-named stop, for the purpose set forth.

12. In a voting machine, the combination of a casing equipped with a shiftable closure, voting mechanism, means for releasably locking the voting mechanism against actuation, a member shiftable with said closure, and interlock mechanism comprising a movable stop adapted, when in one position, to lock said means against actuation and when moved from such position to permit said means to be actuated, a rock-shaft connected with said member, a second movable stop actuated by said rock-shaft and provided with an off-set portion adapted to be moved into and out of registration with said first-named stop, for the purpose set forth.

13. In a voting machine, the combination with a shiftable front plate provided with register-viewing openings, of preparatorily set locking-mechanism permitting said plate to be shifted a limited number of times and automatically preventing actuation of said front plate after a predetermined number of shifting operations, and a key-controlled lock controlling said shiftable plate.

14. In a voting machine, the combination of a casing equipped with a shiftable closure, voting mechanism, a longitudinally shiftable member for releasably locking the voting mechanism against actuation, a mem-

ber shiftable with said closure, and inter-
lock mechanism comprising a rock-shaft
connected with said last-named member, and
a slidable stop actuated by said rock-shaft
5 and adapted to lock said first-named mem-
ber against actuation when said closure is
drawn to the register-viewing position.

15. In a voting machine, the combination
of a casing equipped with a shiftable clo-
10 sure, voting mechanism, a longitudinally
shiftable member for releasably locking the
voting mechanism against actuation, a mem-
ber shiftable with said closure, and inter-
lock mechanism comprising a rock-shaft
connected with said member, a swingingly 15
mounted stop cooperating with said first-
named member and operating, when in one
position, to prevent operation of the voting
mechanism, and a slidable stop actuated by
said rock-shaft and adapted to be moved 20
into and out of the path of said first-named
stop, for the purpose set forth.

LENNA R. WINSLOW.

In presence of—

ARTHUR G. GRIFFIN,
CHAS. H. DECKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
