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W. I. T. FOSDICK.

SHUTTER LOCKING MECHANISM FOR VOTING MACHINES.

APPLICATION FILED SEPT. 18, 1905.

Fig. 1.

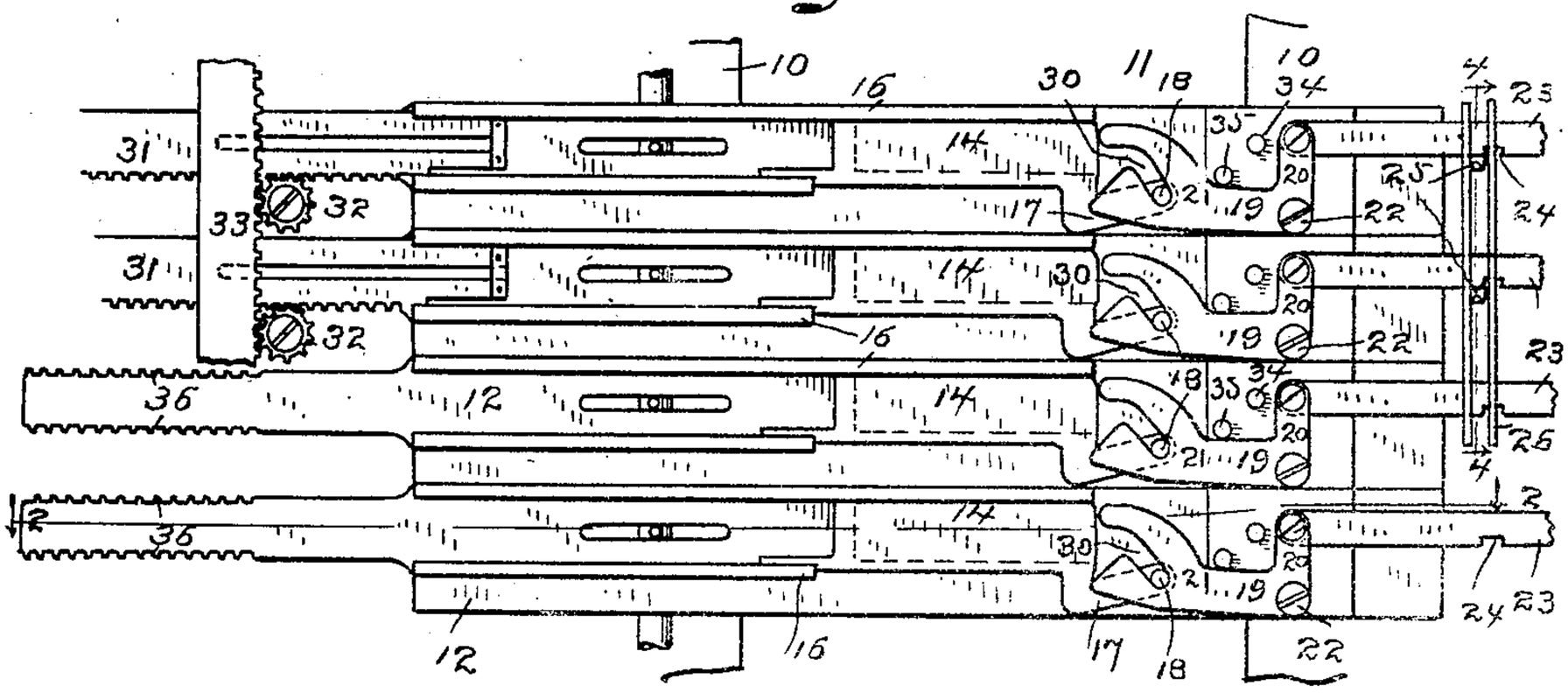


Fig. 2.

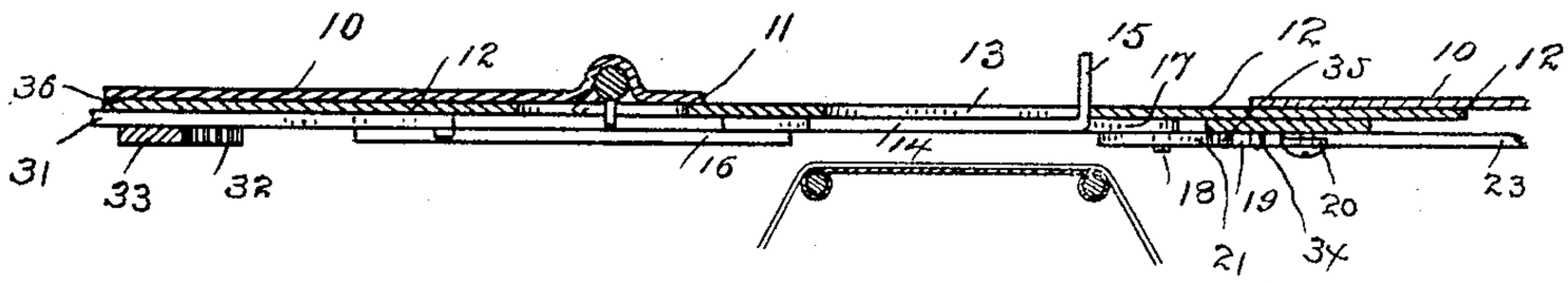


Fig. 3.

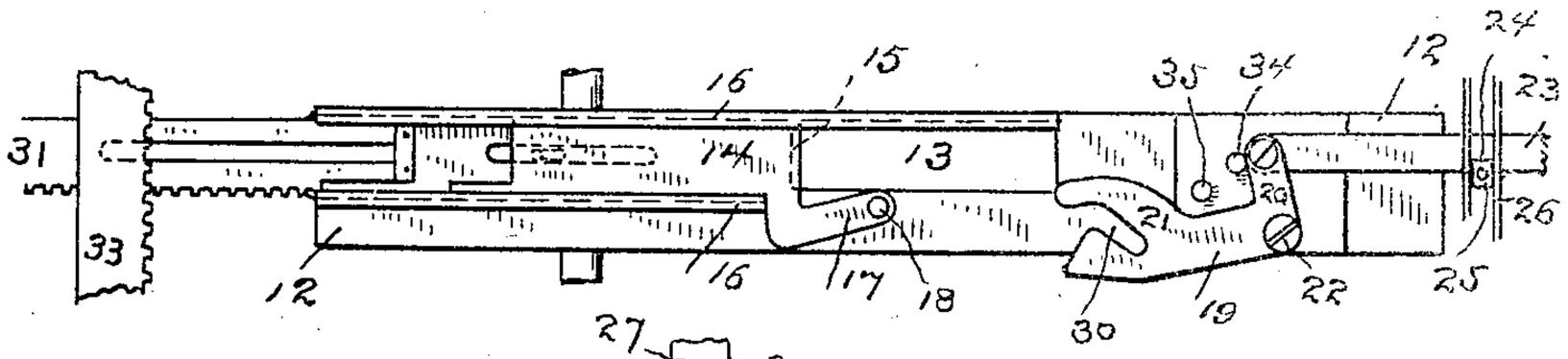
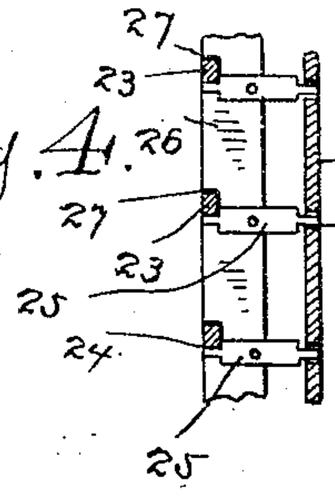


Fig. 4.



WITNESSES

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SHUTTER-LOCKING MECHANISM FOR VOTING-MACHINES.

No. 824,350. Specification of Letters Patent. Patented June 26, 1906.

Application filed September 18, 1905. Serial No. 278,962.

To all whom it may concern:

Be it known that I, WILLIAM I. T. FOSDICK, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Shutter-Locking Mechanism for Voting-Machines, of which the following is a specification.

This invention relates to that portion of the mechanism of voting-machines which enables an independent voter to cast his vote for candidates of his own selection for any or all of the offices to be voted for wholly independently of party nominations. Independent voting is performed by writing the names of persons for whom the voter desires to cast a vote upon an independent-voting sheet which is wound upon a roller as fast as it is used. Voting-apertures to which the independent-voting sheet lies contiguous are normally closed by shutters, each of which when opened discloses sufficient of the voting-sheet to permit a single vote to be written thereon. After voting, the voter operates mechanism, which I shall simply refer to as "operating" mechanism, which by means of intermediate connections moves the opened shutters to the closed position, where they are retained until opened by the next independent voter.

The invention consists in certain constructions and in certain parts, improvements, and combinations, substantially as hereinafter described and claimed.

With this object in view I have devised the novel mechanism of which the following description, in connection with the accompanying drawings, is a specification, similar reference characters being used in the several figures to indicate the parts.

Figure 1 is a detail rear elevation of my novel mechanism, showing the position of the parts when the shutters are in the closed position; Fig. 2, a longitudinal section on the line 2 2 in Fig. 1; Fig. 3, a detail rear elevation illustrating the position of the parts when a shutter is in the opened position; and Fig. 4 is a detail sectional view on the line 4 4 in Fig. 3, illustrating the operation of the latches which are in the locking position.

10 denotes the face-plate of the machine, which is provided with a vertical aperture 11. Back of this aperture are superposed plates 12, whose edges lie in contact with each other. These plates are in practice movable longitudinally, but for the purpose of group voting only, which will not be described, as it forms no portion of the present invention, for the purpose of which plates 12 may be considered as stationary. Each plate 12 is provided with a voting-aperture 13, back of which is a sliding shutter 14, each shutter being provided with a finger-piece extending through the voting-aperture for convenience in manipulation. The shutters reciprocate in ways 16 on the backs of plates 12 and are provided with forwardly-extending arms 17, lying slightly below the corresponding voting-apertures, each arm being provided with a locking-pin 18.

19 denotes bell-crank levers pivoted to plates 12, as at 22, each bell-crank lever comprising arms 20 and 21.

23 denotes long links which are in practice the end links of controlling-chains (not shown) which control the regular-voting levers of the machine. (Likewise not shown.) Each long link is pivoted to the arm 20 of the corresponding bell-crank lever and is provided on its under side with a locking-notch 24, which is adapted to be engaged by the forward end of a latch 25. These latches are pivoted between vertical plates 26 and operate by gravity, their rear ends being made heavier, so as to insure that the forward ends will enter the locking-notches the instant the notches are moved into engaging position. The vertical plates are also provided with ways 27, which serve as guides for the long links. (See Fig. 4.)

28 denotes a vertical slide which is adapted to reciprocate in ways (not shown) and is provided with apertures 29, which receive freely the rear ends of the latches. When the latches are in the locking position—that is, as in Fig. 4—the rear ends of the latches are in engagement with the upper sides of the walls of apertures 29 in the vertical slide. When the operating mechanism, which is not illustrated or described, as it forms no portion of the present invention, is operated, the slide is moved upward, causing the lower sides of the walls of apertures 29 to engage the rear ends of the latches and move them upward, thereby disengaging the forward ends of the latches from the locking-notches

and leaving the long links unlocked and ready for ordinary voting.

The arms 21 of the bell-crank levers are provided with oblique downwardly-inclined slots 30, which are adapted to receive the locking-pins on the corresponding shutter-arms and retain the shutters in the closed position when the bell-crank levers are in their normal position and the long links moved outward into position to permit regular voting. Both the upper and lower inclined walls of the slots serve as cams to oscilliate the bell-crank levers when engaged by the locking-pins upon the shutter-arms. When a shutter is moved from the closed position, as in Figs. 1 and 2, to the open position, as in Fig. 3, for the purpose of casting an independent vote, the locking-pin on the shutter will ride up the lower inclined wall of the slot, which oscillates the bell-crank lever downward and moves the long link inward, placing the locking-notch therein in position to be engaged by the corresponding latch, which locks the link and renders it impossible to vote for a regular nominee for that office until the voter has passed out and has operated the operating mechanism.

The shutters are moved to the closed position by means of shutter-closing racks 31, which are shown as operated by means of pinions 32, which engage the shutter-closing racks and also engage a vertical rack 33, which is operated by the operating mechanism. As a shutter approaches the closed position the locking-pin on the shutter-arm passes into the slot 30 in the corresponding bell-crank lever and engages the upper downwardly-inclined wall of said slot and as it moves forward tilts the bell-crank lever upward and returns it to its normal position. Simultaneously with the movement of the shutter-closing rack vertical slide 28 is moved upward by the operating mechanism and acts to disengage any engaged latches from the locking-notches in the long links, leaving the latter unlocked, this disengagement of the latches from the locking-notches in the long links of course taking place before the locking-pins on the corresponding shutter-arms pass into the slots in the bell-crank levers.

34 denotes a stop-pin which is engaged by arm 20 to limit the downward oscillation of the bell-crank lever, and 35 denotes a stop-pin which is engaged by arm 21 of the bell-crank lever to limit the upward movement of said lever in returning to its normal position.

The operation is briefly as follows: The shutters are normally closed, the locking-pins on the shutter-arms in engagement with the inner ends of the slots in the bell-crank levers, and the long links moved outward—that is, toward the right—as in Fig. 1, to permit regular voting. Should a voter desire to vote independently for any office, he moves the shutter corresponding with that office to the open position—that is, toward the left—as shown in the drawings, thereby disclosing through the corresponding voting-aperture a portion of the surface of the independent-voting sheet, upon which he writes his vote. The movement of the shutter to the open position oscillates the bell-crank lever, as already explained, and draws the long link inward, in which position it is locked by the engagement of a latch with the locking-notch therein and can only be unlocked by the operation of the operating mechanism after the voter has completed the voting operation. Should the voter have previously voted for a regular nominee for the same office, that vote will be "unvoted"—that is, nullified—by the inward movement of the long link. As this portion of the mechanism forms no portion of the present invention, it is not illustrated or described, but merely mentioned to show that it is impossible to cast a regular and independent vote for the same or for different persons for the same office. Having completed the operation of voting, the voter must operate the operating mechanism in passing out, which through intermediate connections (not shown) operates the shutter-closing racks and also the vertical slide which operates the latches. Should the voter have voted regularly—that is, not have opened any of the independent-voting shutters—no function whatever would be performed by the operation of the shutter-closing racks and vertical slide.

It may be mentioned incidentally that plates 12, which, so far as the present invention is concerned, remain stationary, are provided at their left ends, as seen in Fig. 1, with double racks 36, by means of which they are adapted to be reciprocated in group voting, which is not described, as it forms no portion of the present invention.

Having thus described my invention, I claim—

1. In a mechanism of the character described, the combination with a sliding shutter having engaging means, a link and a latch for locking said link when moved inward, of a bell-crank lever to which said link is pivoted and which is provided with means for engagement by the shutter, substantially as described, for the purpose specified.

2. In an independent-voting mechanism the combination with a sliding shutter having a locking-pin, a link and means for locking said link when drawn inward, of a bell-crank lever to which said link is pivoted and which is provided with a downwardly-inclined oblique slot, the parts being so constructed and arranged that when the shutter is opened the locking-pin will ride up the lower wall of the slot in the bell-crank lever and will oscillate said lever and draw the link inward, and when the shutter is returned to the closed position the locking-pin will ride

down the upper wall of the slot and will return said lever to its normal position and move the link outward.

3. In an independent-voting mechanism the combination with a sliding shutter having a forwardly-extending arm with a locking-pin and a link, of a bell-crank lever to which said link is pivoted and which is provided with a downwardly-inclined oblique slot adapted to be engaged by the locking-pin, substantially as described, for the purpose specified.

4. In an independent-voting mechanism, the combination with a sliding shutter and a link, of a bell-crank lever to which said link is pivoted and engaging means on the shutter and bell-crank lever acting to oscillate said lever in both directions and reciprocate the link.

5. In an independent-voting mechanism the combination with a sliding shutter and a link, of a bell-crank lever to which said link is pivoted, engaging means on the shutter and bell-crank lever, for the purpose set forth, and stop-pins for limiting the oscillation of the lever in either direction.

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

WILLIAM I. T. FOSDICK

Witnesses:
A. M. WOOSTER,
S. W. ATHERTON.