No. 840,521. PATENTED JAN. 8, 1907.

J. N. SHEPARDSON & C. H. PITNEY.

INTERLOCK FOR REGULAR AND INDEPENDENT VOTING MECHANISMS.

APPLICATION FILED AUG. 13, 1906.

2 SHEETS—SHEET 1.

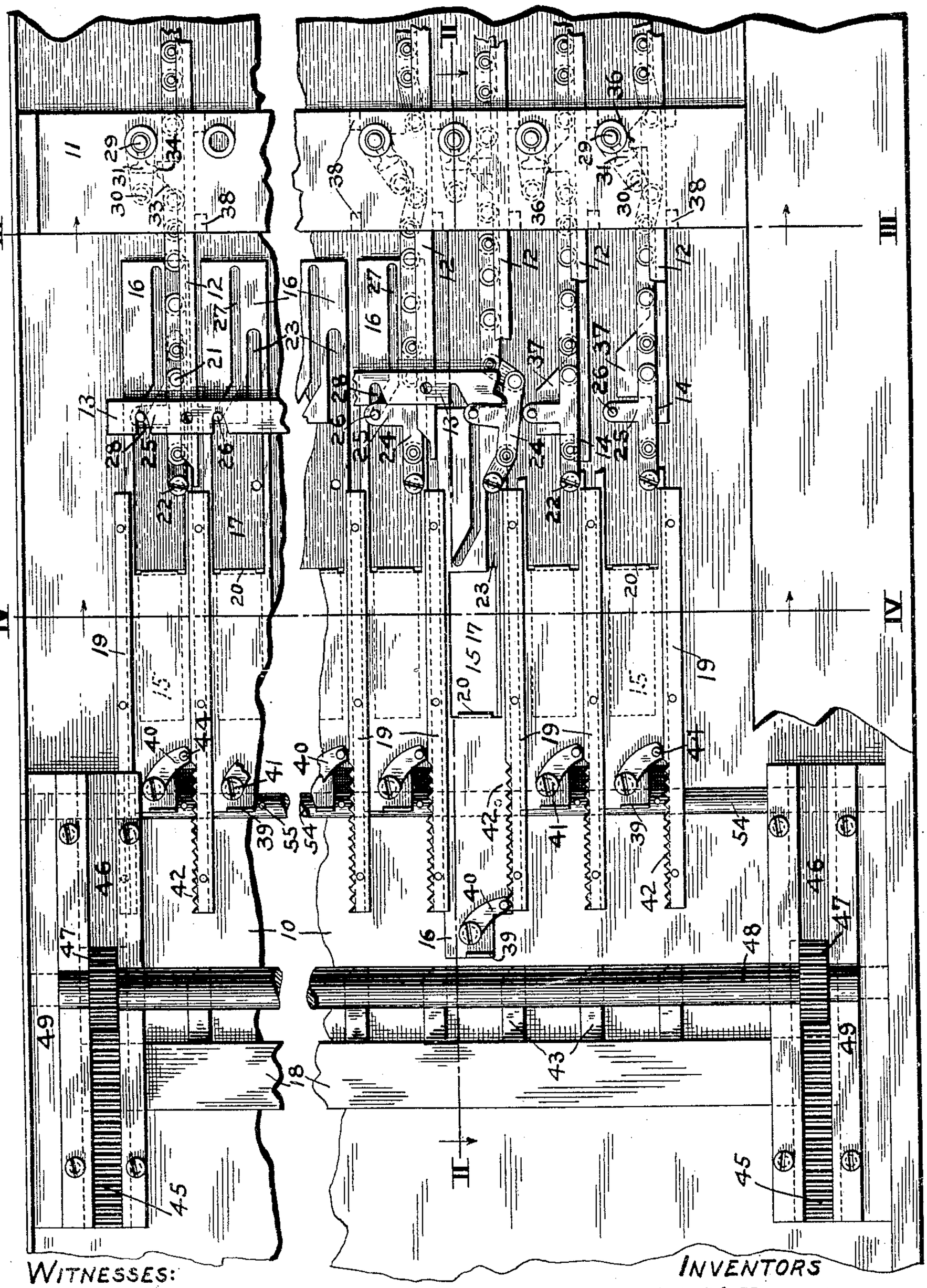

Fig. 1.

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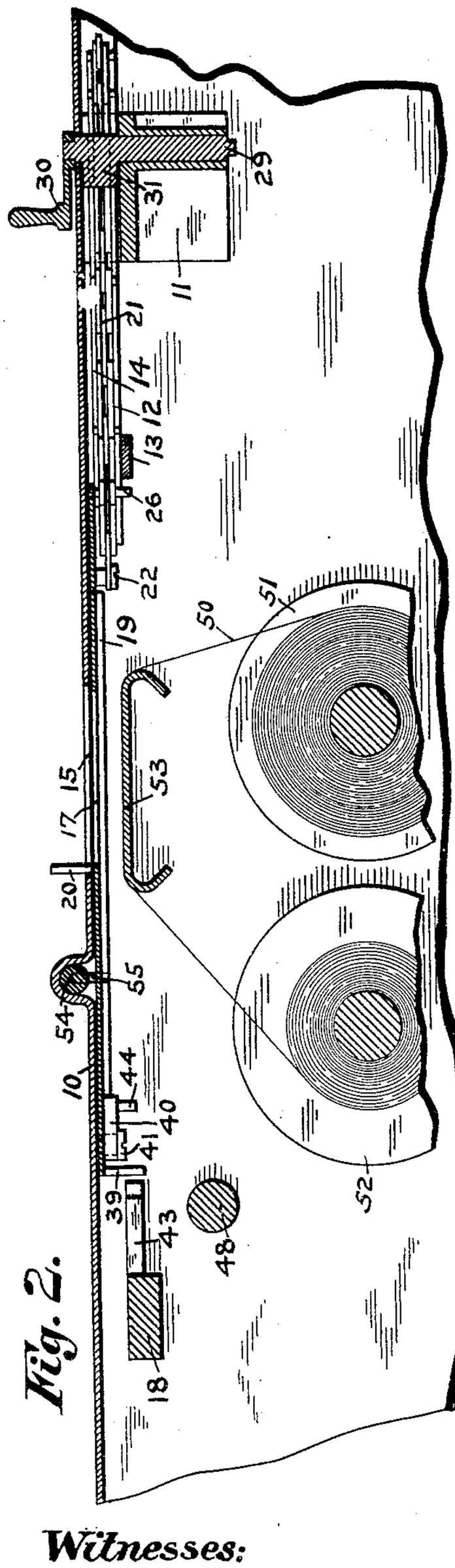

Fig. 2.

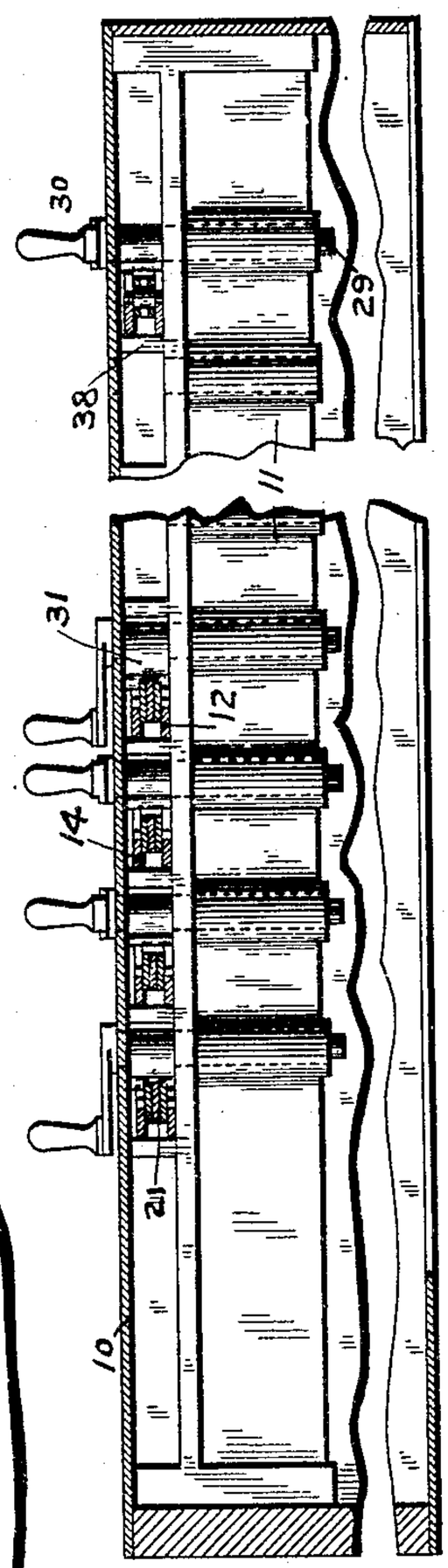

Fig. 3.

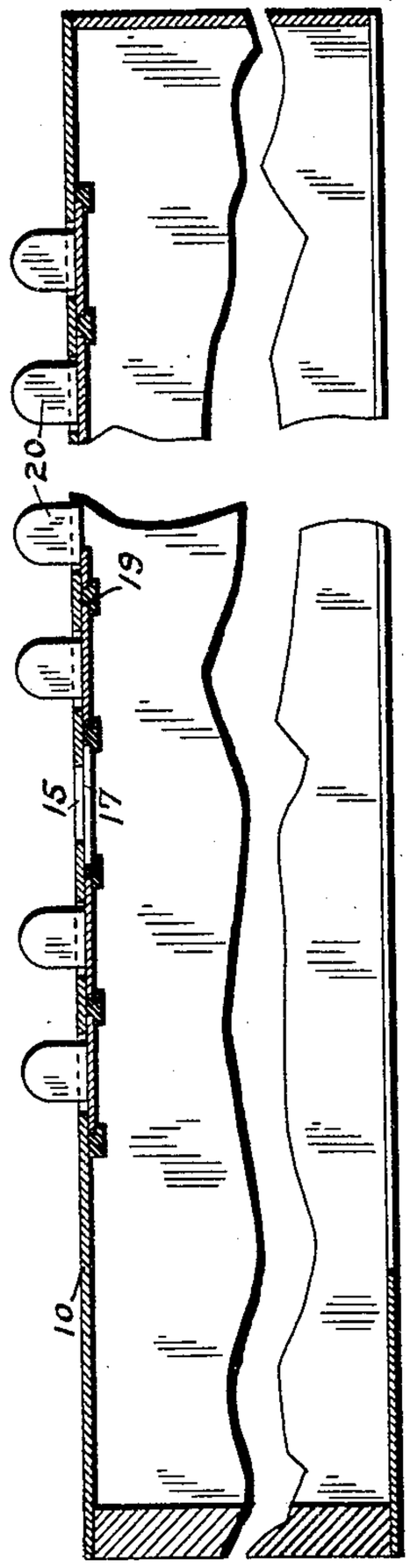

Fig. 4.

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UNITED STATES PATENT OFFICE.

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INTERLOCK FOR REGULAR AND INDEPENDENT VOTING MECHANISM.

No. 840,521. Specification of Letters Patent Patented Jan. 8, 1907.

Application filed August 13, 1906. Serial No. 330,376.

To all whom it may concern:

Be it known that we, JEDEDIAH N. SHEPARDSON and CHARLES H. PITNEY, citizens of the United States, residing at Pittsfield, county of Berkshire, State of Massachusetts, have invented a new and useful Interlock for Regular and Independent Voting Mechanism, 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.

A roll of paper, called an "independent-voting sheet," is provided, which is carried by a vertical roller, called the "supply-roller," from which it passes to a receiving-roller, being drawn over an intermediate backing-plate which supports it while votes are written thereon. A vertical series of voting-apertures is provided in the front plate of the machine, which are protected by sliding shutters. When a shutter is opened, a portion of the independent-voting sheet is disclosed, upon which a vote may be written. After voting the voter operates mechanism, which we shall simply refer to as "operating mechanism," which by means of intermediate connections closes the shutter or shutters which he has opened and locks them and also actuates the receiving-roller to draw the independent-voting sheet forward and place a fresh portion of its surface in position on the backing-plate for a vote or votes to be written thereon by the next independent voter.

The invention consists in certain constructions and in certain parts, improvements, and combinations by which when the regular-party-voting mechanism pertaining to any office is operated the shutter is retained in the closed position, so that an independent vote cannot be cast for that office, and when the shutter is moved to the open position for the purpose of casting an independent vote the regular-voting mechanism pertaining to that office is locked, thus rendering it impossible to cast a regular vote.

With this object in view we 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 rear elevation, a portion of the frame being broken away, showing so much of the mechanism of a voting-machine in the non-voting and voting positions as is necessary to illustrate the present invention; Fig. 2, a section on the line II II in Fig. 1 looking down; Fig. 3, a vertical section on the line III III in Fig. 1 looking toward the right; and Fig. 4 is a vertical section on the line IV IV in Fig. 1 looking toward the right.

The drawings show the invention as applied to the "Triumph" voting-machine.

10 denotes the front plate of the machine; 11, a standard; 12, wedge-bars or resetting-slides; 13, a vertical tie-bar by which the inner ends of the wedge-bars are connected; 14, restricting-bars; 15, voting-apertures in the front plate; 16, shutters; 17, voting-apertures in the shutters, and 18 a shutter-closing bar.

The voting-apertures in the front plate and shutters correspond with the number of offices which may be voted for. The shutters reciprocate in ways 19 on the inner side of the front plate, and each shutter is provided with a finger-piece 20, extending through the corresponding aperture in the front plate for convenience in manipulation.

21 denotes the flexible members—in the present instance chains, the inner ends of which are connected to studs 22, which project inward from the front plate and pass through slots 23 in the shutters. In the present instance slots 23 are continuous with voting-aperture 17, although this structure is immaterial. The chain shown in the drawings is an ordinary style of chain, consisting of alternate single and double links. Near the inner end of each chain is an operating-link 24, in the present instance the second link, which is a double link.

26 denotes a pin projecting from the faces of the operating-link—in the present instance from arms 25, projecting centrally from the members thereof. The end of said pin toward the front of the machine engages a cam-slot 27 in the corresponding shutter and is also adapted to engage the corresponding restricting-bar for a purpose presently to be explained. Each cam-slot is shown as com-

prising an inclined portion—in the present instance shown as extending downward from left to right, intersecting a horizontal portion. The direction of inclination of the inclined portion of the slot is a mere detail of construction that may be varied to suit the requirements of variant constructions. The end of each pin 26 extending toward the back of the machine (toward the point of view as seen in Fig. 1) is adapted to engage a corresponding recess 28 in the tie-bar when the latter is in the non-voting position, thereby locking the shutters in the closed position, it being understood, of course, that the regular voting devices are locked in the non-voting position by the wedge-bars.

29 denotes regular-voting shafts which are journaled in the standards, 30 voting-levers carried thereby, and 31 locking-lugs projecting from the voting-shafts and engaging the flexible members. The wedge-bars are provided with inclines 33, up which the locking-lugs ride when being returned to the non-voting position by movement of the wedge-bars toward the left, an operation which is performed by mechanism operated by the voter after the voting operation and which is not shown, as it forms no portion of the present invention. When in the non-voting position, the locking-lugs are locked by engagement with the high portions of the wedge-bars, which are specifically indicated by 34.

The restricting-bars are provided with portions 36, upon which the locking-lugs rest when the restricting-bars are in their operative position—that is, in position to prevent votes being cast for candidates in the corresponding line. At the inner end of each restricting-bar is a rest 37, which is engaged by the end of the corresponding pin 26 toward the front of the machine and which serves as a lock for the corresponding shutter, as shown in Fig. 1—that is to say, when the restricting-bar is in its operative position pin 26 will be at the upper end of the incline of cam-slot 27 and will be locked there by the rest, so that it will be impossible to open the shutter for the purpose of recording an independent vote. The wedge-bars and the restricting-bars rest and are longitudinally movable upon abutments 38, formed integral with the standards. The rear ends of the shutters are provided with inwardly-turned ears 39, which are adapted to be engaged by shutter-closing bar 18, which moves horizontally and acts to return all opened shutters to the closed position.

In order to lock a partly or wholly opened shutter against being returned to the closed or non-voting position, we provide each shutter with a locking-pawl 40, pivoted upon a stud 41, projecting inward from the shutter, which engages a rack 42 upon the corresponding way 19. The shutter-closing bar is provided with fingers 43, which engage pins or lugs 44, projecting from the locking-pawls, and swing the engaged pawls out of engagement with the racks each time the closing-bar is operated by a voter after the voting operation, it being understood, of course, that there are no engaged pawls unless a shutter has been moved toward the voting position. In the present instance we have shown the shutter-closing bar as connected to racks 45, which reciprocate in ways 46 upon the front plate and are engaged by pinions 47 on a vertical shaft 48, journaled in brackets 49, attached to the frame of the machine, the operating connections of shaft 48 not being shown, as they form no portion of the present invention.

50 denotes the independent-voting sheet, which is wound upon a supply-roller 51 and passes to a receiving-roller 52, a portion of said sheet intermediate said rollers passing over a backing-plate 53, lying contiguous to the voting-apertures in the front plate. The receiving-roller is actuated to wind the independent-voting sheet by means of suitable mechanism wholly omitted from the drawings, for the reason that said mechanism forms no portion of the present invention, said mechanism being itself actuated by means of an oscillatory shaft 54, having inwardly-extending pins 55, corresponding with the shutters. Each pin is adapted to be engaged by the rear end of a shutter, so that the opening of a single shutter will effect a connection that will make the mechanism operative to feed the independent-voting sheet forward when said mechanism is operated by the voter after the voting operation, the opening of additional shutters having no effect upon the mechanism.

The operation is as follows: In the normal position of the parts each flexible member has sufficient slack to permit the operation of a single regular-voting device, but no more. Suppose now that a voter does not desire to vote for any candidate in a certain horizontal line of names of candidates, but does desire to vote independently for that office. The voter by means of the finger-piece will open the corresponding shutter. This will cause pin 26 to travel down the incline of cam-slot 27 and into the horizontal portion thereof, as is clearly shown in connection with the third chain from the bottom in Fig. 1. The effect of this movement will be to deflect the chain downward and take the entire slack out of said chain, so that it will be impossible to operate a regular-voting device in that horizontal line. When the voter leaves the machine after the voting operation, he operates mechanism (not shown in the drawings) which by means of connections (not shown in the drawings) moves the wedge-bars and tie-bar from the position shown below the break in Fig. 1 to the position shown at the top in Fig. 1 and in Fig. 2. It will be noted

that in the non-voting position of the parts (see upper portion of Fig. 1) the ends of pins 26 toward the back of the machine are received by recesses 28 in the tie-bar and are locked therein, so that none of the shutters can be opened until the wedge-bars and tie-bar are again moved to the position shown below the break in Fig. 1. This operation is performed by mechanism and connections (not shown in the drawings) which are operated by the voter prior to the voting operation.

It has already been explained that the opening of a shutter for independent voting takes the slack out of—*i. e.*, tightens—the corresponding flexible member, so that the corresponding regular-voting devices cannot be operated. The return of the shutter to the closed position would of course loosen the flexible member again, so that a regular-voting device could be operated. In order to prevent this and render it impossible for a voter to vote both regularly and independently for candidates for the same office, we provide the pawls 40 upon the shutters, which prevent them from being returned to the closed position after having been partly or wholly opened.

In order to prevent a restricted voter from voting independently, the restricting-bars are provided with the rests 37, which pass under the ends of pins 26 toward the front of the machine and lock said pins in the upper ends of the inclines in cam-slots 27, thus preventing any movement of the shutters, it being of course understood that the restricting-bars prevent the operation of the regular-voting levers.

Having thus described our invention, we claim—

1. In a mechanism of the character described, the combination with a series of regular-voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, opening of said shutter acting to tighten the flexible member and lock the regular-voting devices.

2. In a mechanism of the character described, the combination with a series of regular-voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, and means for locking said voting devices and shutter in the non-voting position.

3. In a mechanism of the character described, the combination with a series of regular-voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, a wedge-bar for locking the voting devices in the non-voting position and a tie-bar having a recess engaged by the pin to lock the shutter in the non-voting position.

4. In a mechanism of the character described, the combination with a series of regular-voting devices, and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, and a restricting-bar adapted to be engaged by said pin to lock the shutter at the non-voting position against a restricted voter.

5. In a mechanism of the character described, the combination with a series of regular-voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, and means for locking the shutter against return movement after it has been moved toward the voting position.

6. In a mechanism of the character described, the combination with a series of regular-voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, and means for locking the shutter against return movement after it has been moved toward the voting position, and means for disengaging the locking means and returning the shutter to the non-voting position.

7. In a mechanism of the character described, the combination with a series of regular-voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, and carrying a locking-pawl and a way in which the shutter slides and which is provided with a rack engaged by the pawl to lock the shutter against return movement after it has been moved toward the voting position.

8. In a mechanism of the character described, the combination with a series of voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, and carrying a locking-pawl, a way in which the shutter slides and which is provided with a rack engaged by the pawl to lock the shutter against return movement after it has been moved toward the voting position and a closing-bar adapted to engage the shutter when open and return it to the non-voting position and provided with a finger adapted to disengage the locking-pawl from the rack.

9. In a mechanism of the character described, the combination with a series of voting devices and a flexible member having sufficient slack to permit the operation of a single voting device, and provided with a pin, of an independent-voting shutter having a cam-slot engaged by said pin, said cam-slot consisting of inclined and horizontal portions, the opening of said shutter acting to move the pin out of the inclined portion of the slot and into the horizontal portion thereby taking the slack out of the flexible member and locking the voting devices in the non-voting position.

10. In a mechanism of the character described, the combination with a plurality of series of voting devices and flexible members each having sufficient slack to permit the operation of a single voting device and provided with a pin, of independent-voting shutters having cam-slots engaged by said pins, the opening of a shutter acting to tighten the corresponding flexible member and lock the voting devices, a plurality of wedge-bars for the purpose set forth and a tie-bar connecting the wedge-bars and provided with recesses which receive the pins and lock them against movement in the cam-slots thereby locking the shutters in the non-voting position.

11. In a mechanism of the character described, the combination with a plurality of series of voting devices and flexible members each having sufficient slack to permit the operation of a single voting device and provided with a pin, of independent-voting shutters having cam-slots engaged by said pins, the opening of a shutter acting to tighten the corresponding flexible member and lock the voting devices, and a plurality of restricting-bars each having a rest adapted to be engaged by the corresponding pin to lock the shutter against a restricted voter.

In testimony whereof we affix our signatures in presence of two witnesses.

JEDEDIAH N. SHEPARDSON.
CHARLES H. PITNEY

Witnesses:
A. B. CAMP,
GEO. O. B. HAWLEY.