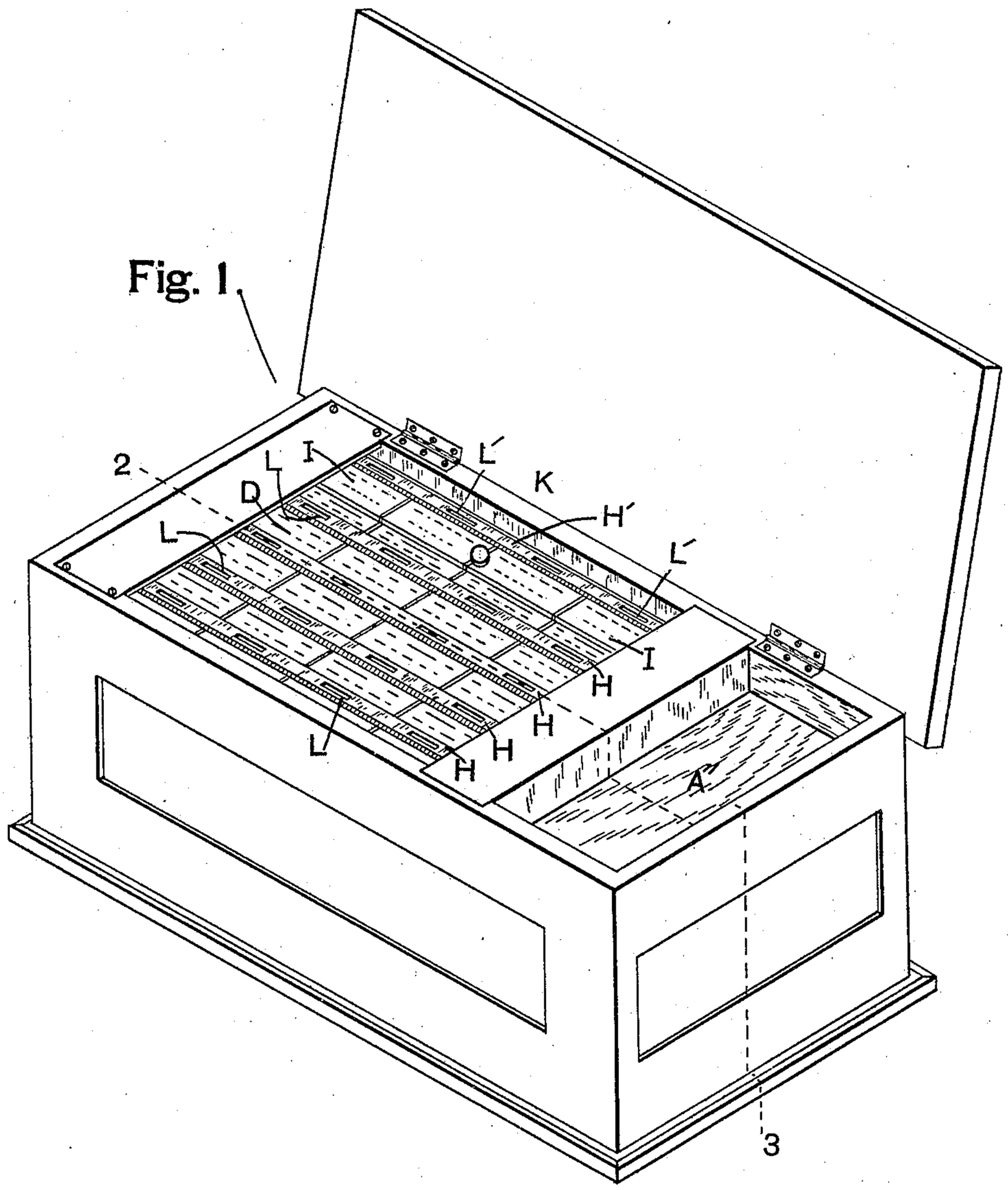
(No Model.) 4 Sheets—Sheet 1.

J. BLOCHER.

VOTING MACHINE.

No. 575,292. Patented Jan. 12, 1897.

Fig. 1.



WITNESSES:

H. H. Hale.

I. F. White.

INVENTOR:

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By his atty. Oscar Snell

(No Model.) 4 Sheets—Sheet 2.

J. BLOCHER.

VOTING MACHINE.

No. 575,292. Patented Jan. 12, 1897.

Fig. 2.

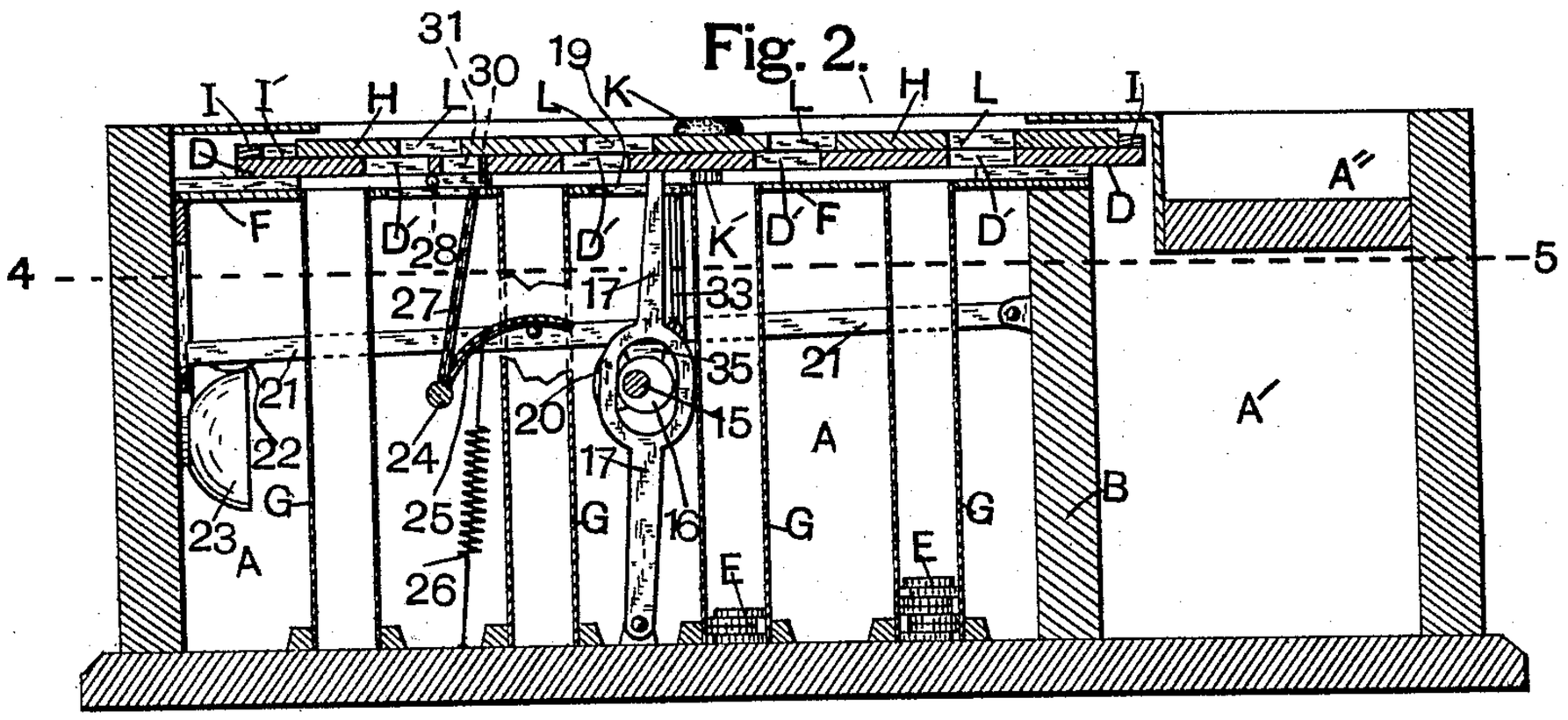


Fig. 3

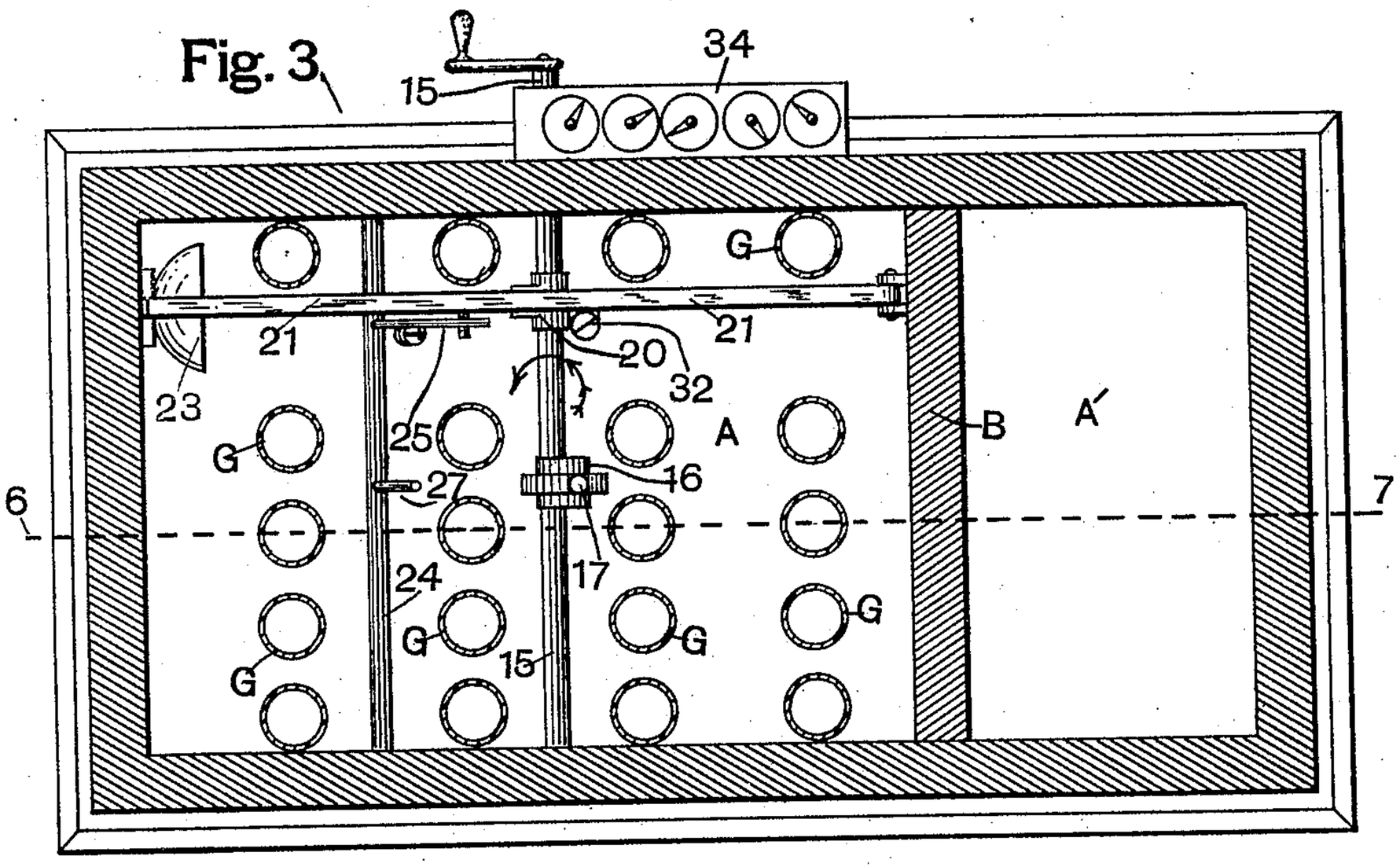


Fig. 4.

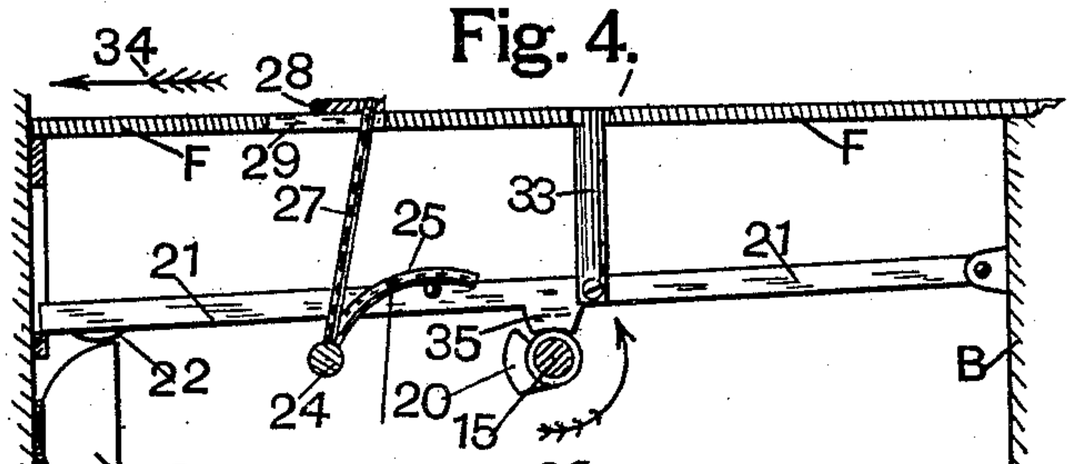
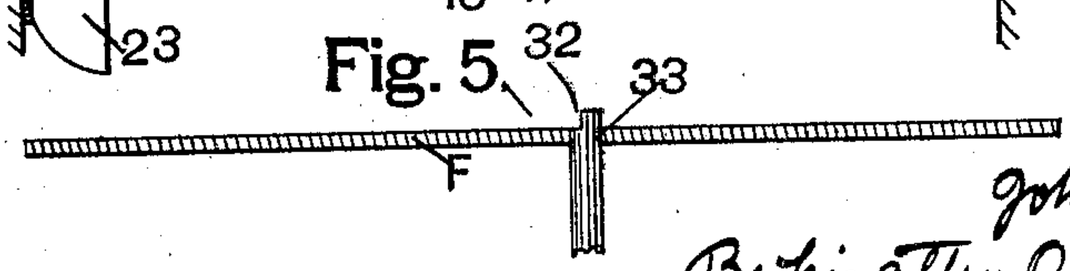


Fig. 5.



WITNESSES:

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J. BLOCHER.

VOTING MACHINE.

No. 575,292. Patented Jan. 12, 1897.

Fig. 6.

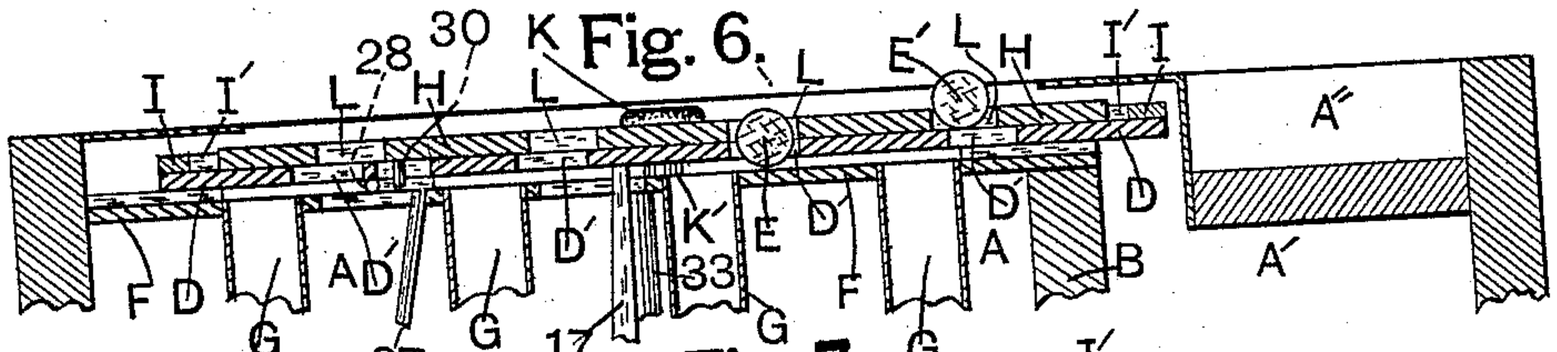

Fig. 7.

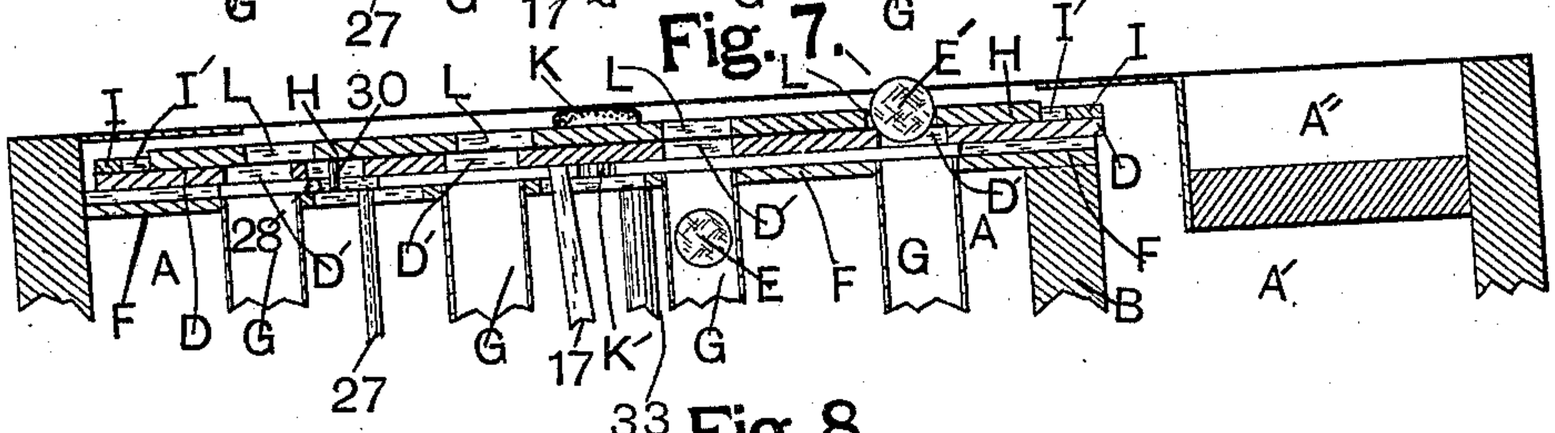

Fig. 8.

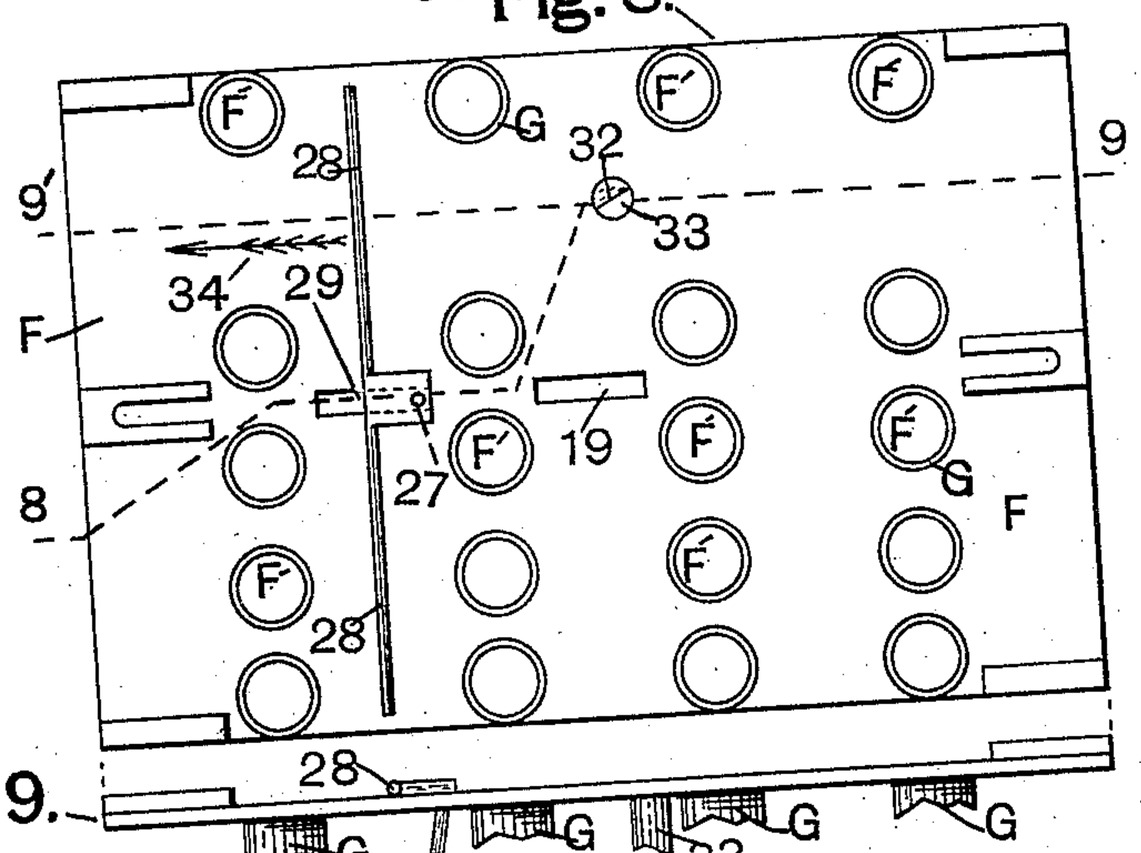

Fig. 9.

Fig. 10.

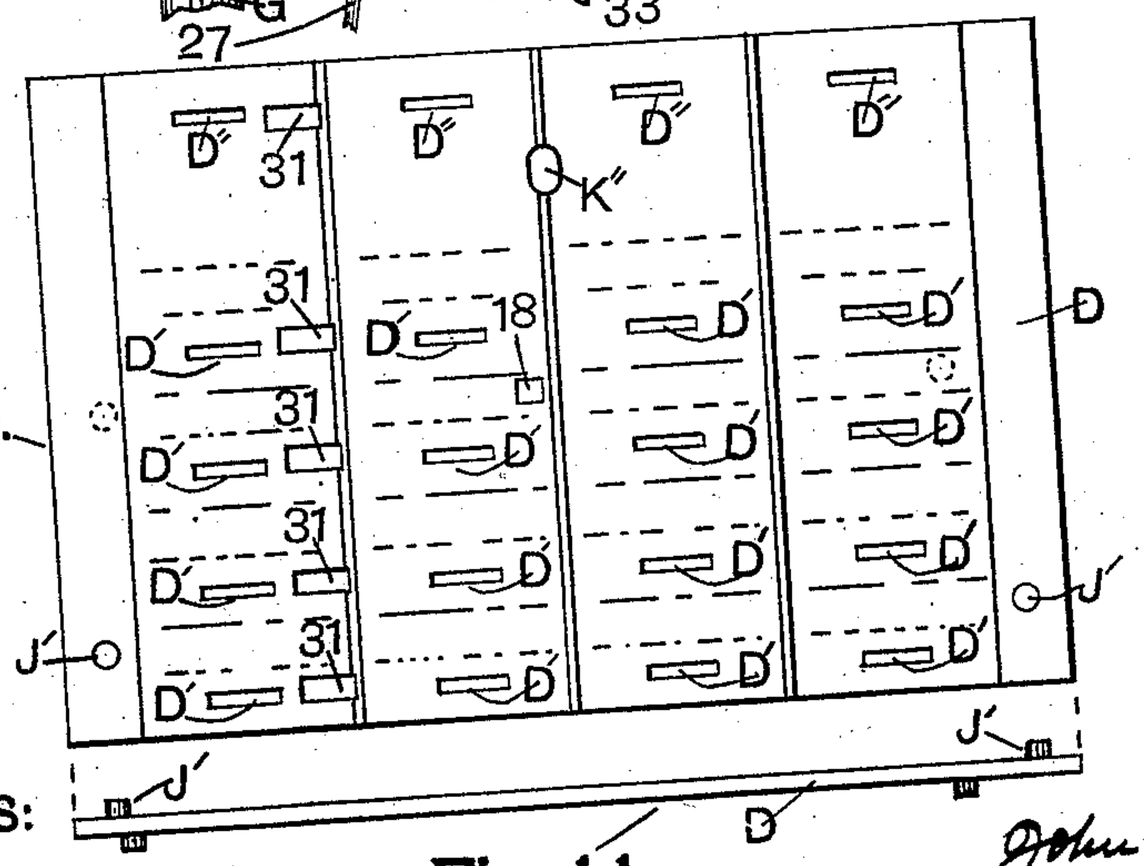

Fig. 11.

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(No Model.) 4 Sheets—Sheet 4.

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VOTING MACHINE.

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Fig. 12.

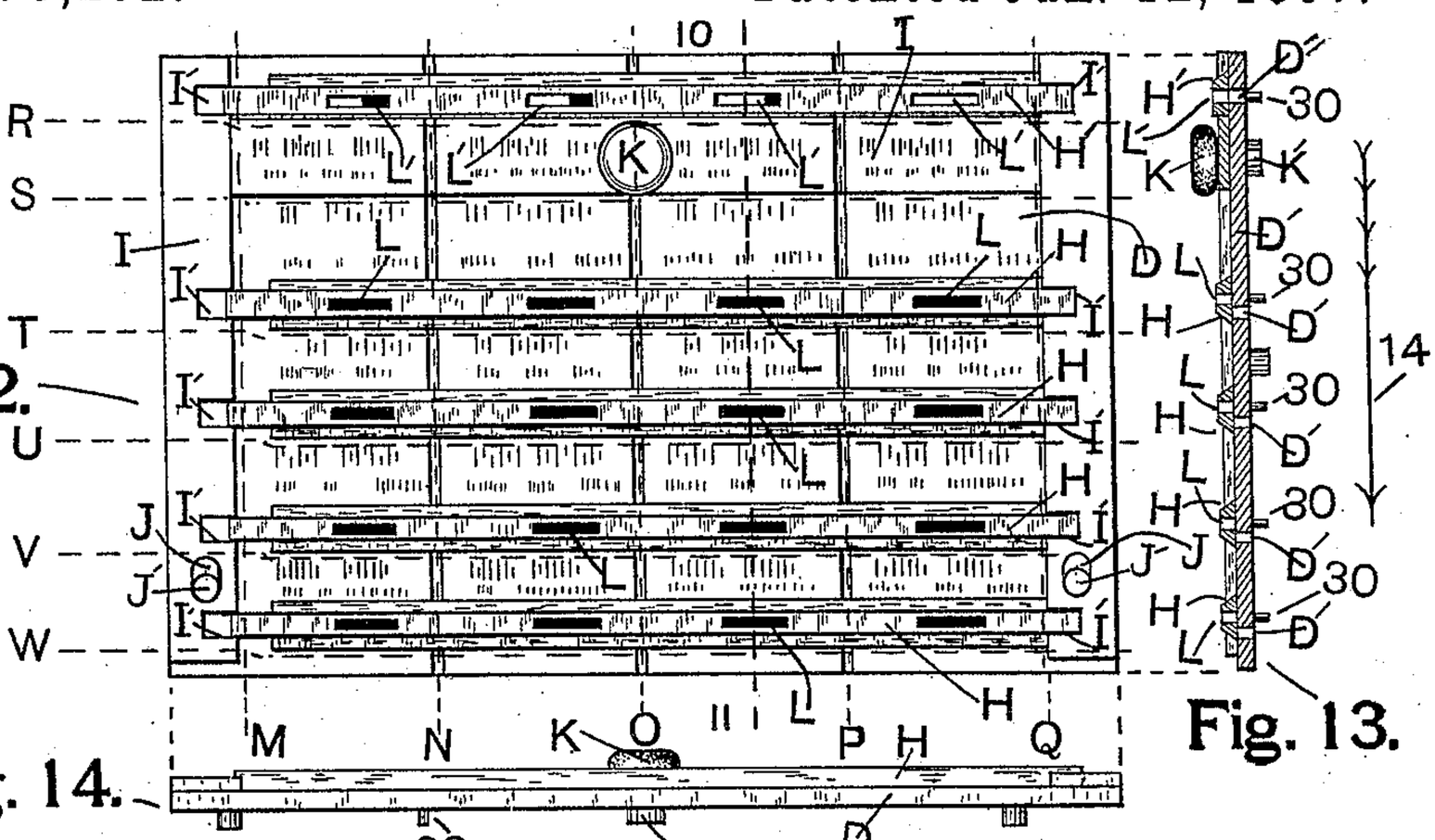


Fig. 13.

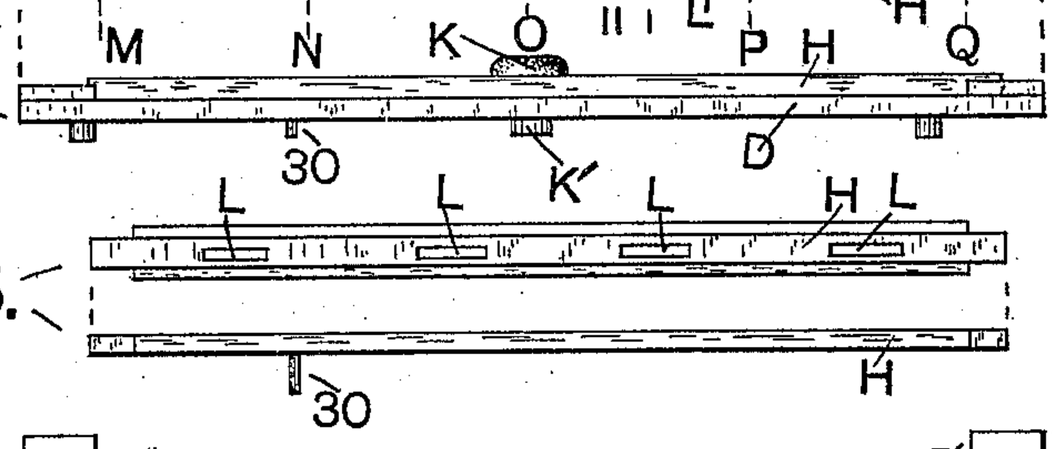


Fig. 14.

Fig. 15.

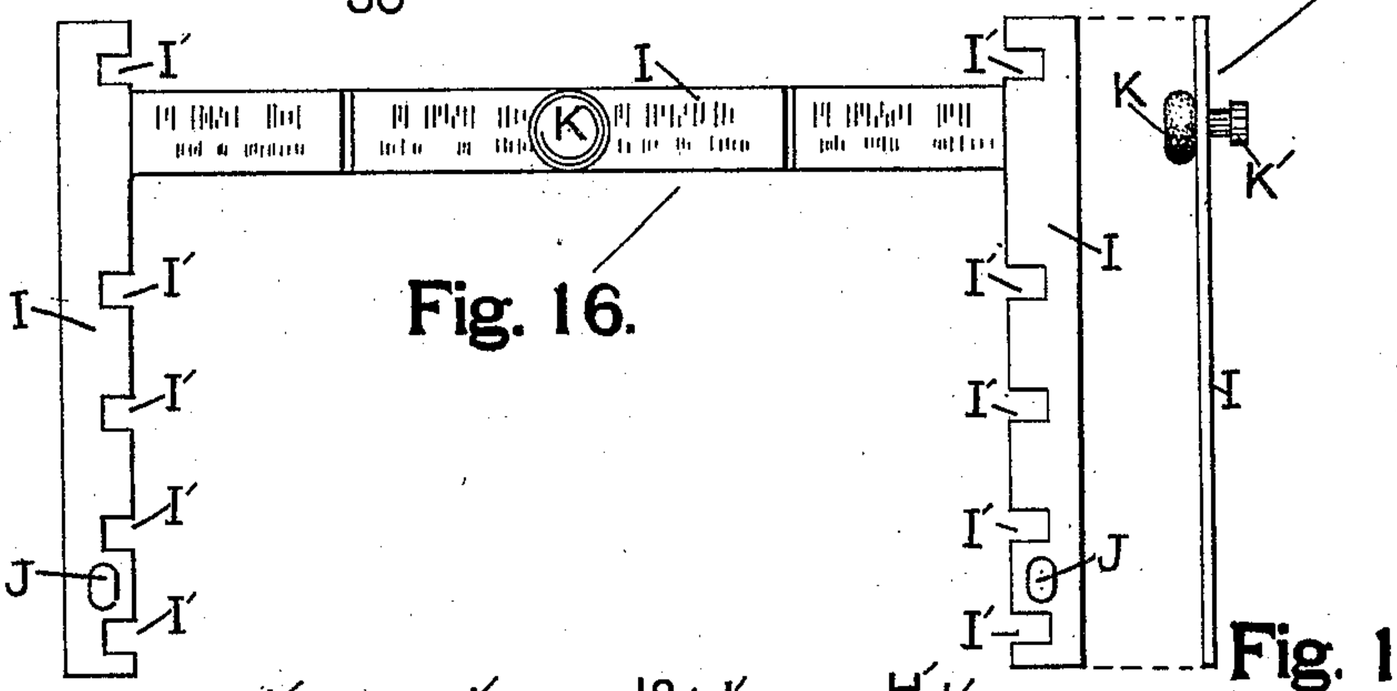


Fig. 16.

Fig. 17.

Fig. 18.

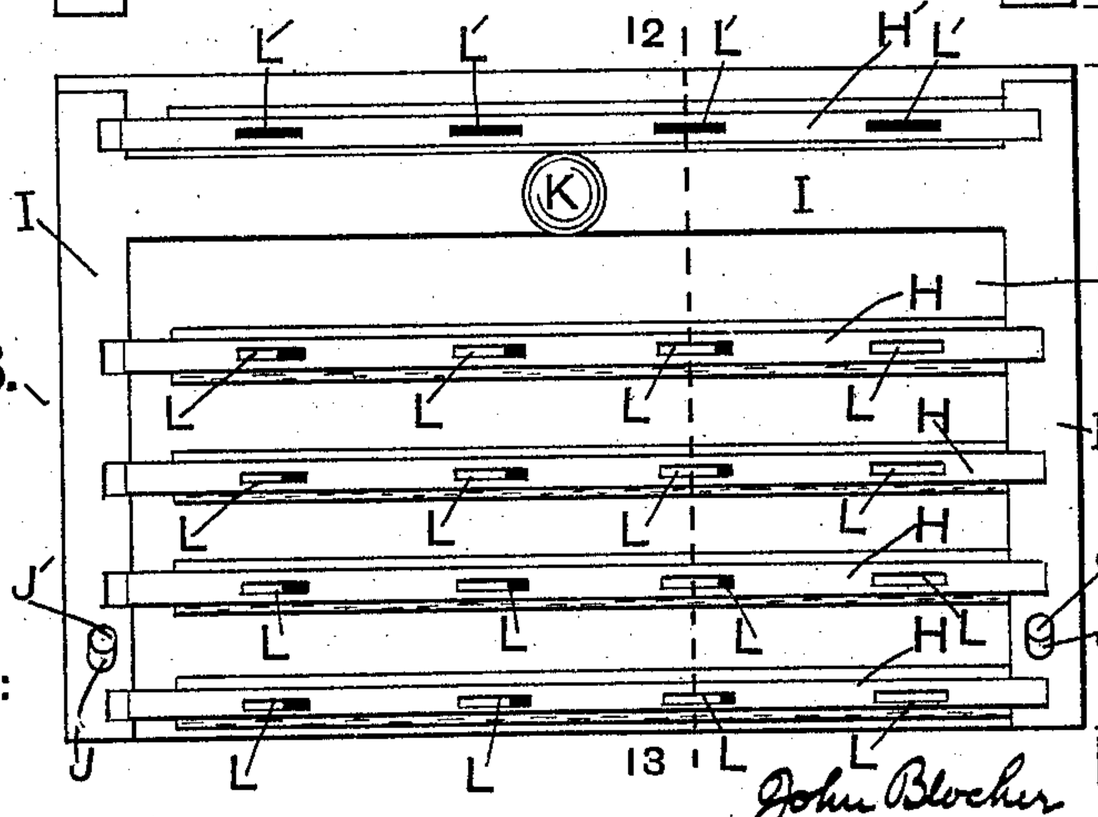
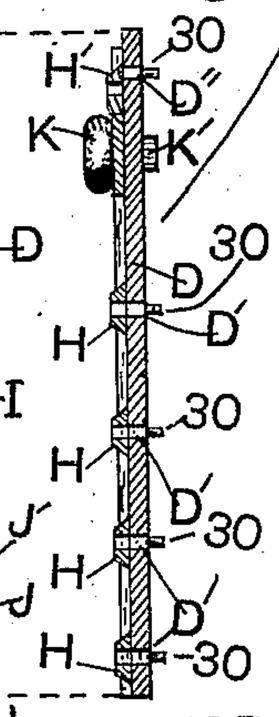


Fig. 19.



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UNITED STATES PATENT OFFICE.

JOHN BLOCHER, OF FRANKLIN GROVE, ILLINOIS, ASSIGNOR TO ADAM GRIM AND ELMER E. MILLER, OF SAME PLACE.

VOTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 575,292, dated January 12, 1897.

Application filed November 9, 1894. Serial No. 528,311. (No model.)

To all whom it may concern:

Be it known that I, JOHN BLOCHER, a citizen of the United States, residing at Franklin Grove, in the county of Lee and State of Illinois, have invented a new and useful Voting-Machine, of which the following is a specification.

My invention relates to that class of voting apparatus in which disks or spherical checks or the like are used to indicate the number of votes cast for any particular candidate; and the objects of my invention are to provide a series of orifices each one of which is marked to indicate the name of a candidate, and under each orifice is a receptacle to receive the ballots deposited into that particular orifice, there being no common depository for ballots after they have been cast into the several orifices, but each ballot-depository is separate and independent of all the others of the series.

Another object is to provide means whereby all the ballot-orifices of the several ballot depositories are closed until all the ballots to be voted are inserted in the outer mouths of the orifices, when by a movement of the means for closing the orifices all the ballots are simultaneously deposited out of sight into the several depositories provided for them, a signal-bell being struck at the time the ballots are deposited to indicate that the vote has been cast and a counter operated to register the number of the voter; and still another object is to provide means whereby either a straight or a mixed ticket may be voted, it being impossible to vote for any of the candidates of any of the other tickets after a given straight ticket has been voted, or to vote for more than one candidate for any particular office, the mechanism being so arranged that no ballot except the first one cast for any particular office will be deposited, the ballots which have been voted wrong remaining in the position placed by the voter to indicate the error and serve to lock the machine and prevent it being manipulated until the wrong ballots are removed, all of which is fully described hereinafter, and is illustrated in the accompanying drawings, in which—

Figure 1 is an isometric perspective view of a voting-machine in which is embodied my improvements. Fig. 2 is a vertical section on line 2 3, Fig. 1, and line 6 7, Fig. 3, also showing several of the operative parts in elevation. Fig. 3 is a horizontal section on the plane indicated by broken line 4 5, Fig. 2. Fig. 4 is a partial vertical section on broken line 8 9, Fig. 8. Fig. 5 is a partial vertical section of the parts shown in Fig. 8 on line 9′ 9 to show action of a bevel-head cam-pin which is fully explained hereinafter. Fig. 6 is a partial vertical section on line 6 7, Fig. 3, of the upper mechanism of the machine with one of the ballot-slides moved to a position to receive one ballot which may be deposited, the remaining ballot being in a position to be withheld. Fig. 7 is a section similar to Fig. 6, but with parts moved to a position to deposit one of the ballots. Fig. 8 is a plan view of a plate to which the tops of the ballot-depository tubes are attached and serves as a base or platform for supporting the ballot-orifice slide-plate. Fig. 9 is an elevation of the parts shown in Fig. 8 with a portion of the top ends of the depository-tubes in view. Figs. 10 and 11 are respectively a plan and a side elevation of the slide-plate hereinbefore referred to. Fig. 12 is a detached plan view of the ballot-orifice slide-plate, Fig. 10, together with the ballot-orifice guard-slides and the retainer-frame therefor imposed upon the plate. Fig. 13 is a vertical section of the parts shown in Fig. 12 on line 10 11, and Fig. 14 is an elevation of the parts shown in Fig. 12. Fig. 15 shows, respectively, a plan and a side view of one of the ballot-orifice guard-slides. Fig. 16 is a plan and Fig. 17 an end elevation of the slide-frame for the ballot-orifice guard-slides, also shown in Fig. 12. Fig. 18 is a plan similar to Fig. 12, but with the operative parts shown moved to different positions. Fig. 19 is a vertical section on line 12 13, Fig. 18, showing the operative parts in a changed position when compared with Fig. 13.

Similar letters and figures indicate like parts throughout the several views.

This voting-machine is provided with a rectangular case which is closed at the top by means of an ordinary hinged lid. The case is divided into two compartments A and A′, by means of a transverse partition B, compartment A containing the operative mech-

anism, while compartment A′ is used for a repository for ballots when the machine is not in use and for the reception of paper ballots during the progress of an election. Compartment A′ is closed at the top by means of a depressed lid A″, which should be provided with a lock, the depression above the lid serving to hold ballots to be voted when the machine is in use.

One of the most important parts of this voting-machine is the slide-plate D, (shown in Figs. 10 and 11,) which is provided with a series of slots D′ and D″ for the reception of the disk ballots, (shown at E in Figs. 2, 6, and 7.)

Plate D slides longitudinally of the machine upon the top of a stationary plate F, Figs. 8 and 9, which is provided with a series of orifices F′, in communication with the ballot-depositories G, these orifices F′ registering with the slots D′ and D″ of plate D when plate D is in a certain relative position for the deposit of ballots in the depositories G.

In Fig. 2 the ballot-depositories are represented as tubes, with the lower end resting upon the bottom of the case, the upper ends being secured in the stationary plate F, the open ends of the tubes forming the series of orifices F′, but other forms of depositories may be used, and the orifices F′ may vary in form to suit the dictates of practice and the form of ballots used.

Another important feature in this invention is the combination of the guard-slides H and H′ with the sliding plate D, as is fully illustrated in Figs. 6, 7, 12, 13, 18, and 19. The guard-slides H and H′ rest upon the top of slide-plate D, and are held in position to slide longitudinally by the ends thereof being fitted in slots I′ of a laterally-sliding frame I, (shown in Figs. 12, 16, and 18,) frame I having slots at J and J at the sides which receive short pins J′ and J′, which are secured to the sliding plate D, and then the button K, which is attached to the cross-piece of this frame, has a downwardly-projecting screw K′, whose shank moves in a slot K″ at the center near the rear edge of slide-plate D, the head of screw K′ preventing the frame I from being lifted out of position. (See Figs. 10 and 13.)

Slide-frame I is capable of sliding all the guard-slides H and H′ laterally the width of the ballot-orifices L therein, so that when the ballot-orifices L′ of guard-slide H′ near top of Fig. 12 are in lateral register with the ballot-slots D″ of slide-plate D the ballot-orifices L of guard-slides H are out of lateral register with the ballot-slots D′ of slide-plate D, as plainly shown in Fig. 12 and also in the section, Fig. 13. If, however, the slide-frame is moved forwardly in the direction indicated by arrow 14, guard-slide H′ will be out of lateral register and guard-slides H in lateral register with slots in the slide-plate D, as shown in Figs. 18 and 19.

By reference to Figs. 2, 6, and 7 the stationary plate F, slide-plate D, and one of the guard-slides H are shown in longitudinal vertical section, which plainly show that but one ballot-orifice L or L′ of one guard-slide at one time is in longitudinal register with the ballot-slots of the slide-plate D.

Fig. 6 shows the first ballot E cast for a candidate for some office indicated by that particular guard-slide shown in vertical section, the act of inserting the ballot having moved the guard-slide so that this particular ballot-orifice registers with one of the slots in slide-plate D and permits the ballot E to drop to contact with stationary plate F, and on account of the other orifices L not registering with the slots in plate D the second ballot is held up and not permitted to pass through the slot in the slide-plate, which would also be the case with additional ballots placed in the remaining two of the ballot-orifices, which illustrates that should one ballot be placed for a certain candidate that ballot will lock the guard-slide into which it has been inserted in such a position that all the other orifices in that one slide are thrown out of register with the adjacent slots of the slide-plate D, and should the parts be shifted, by means which will be explained, into the position shown in Fig. 7 only one ballot for any one guard-slide will fall into the depositories G, all other ballots being withheld.

In Fig. 12 between the vertically-extending broken lines M and N, N and O, O and P, and P and Q on sliding plate D are pasted, respectively, four separate tickets, the place for the names of the parties and the offices and candidates therefor being indicated by vertical dashes arranged relatively to the several tickets in horizontal rows between the horizontal broken lines R and S, S and T, T and U, U and V, and V and W, so that the top guard-slide H′ is for the head of the tickets, "Democratic Ticket" and "Republican Ticket," &c., and just above the next lower guard-slide is the name of the most important office to be voted for on all the tickets alike, together with the names of the candidates therefor, and so on, each guard-slide being designated for some one office on all the tickets in common, the names of the candidates only being different on the several tickets.

Should a voter desire to vote a "straight ticket," he may do so by inserting one ballot in one of the orifices L′ at the head guard-slide H′, but he cannot vote in any other orifice for the reason that the ballot placed at the head of one ticket locks the slide-frame I in position with all the other orifices out of register with the slots in plate D; but the voter can, however, remove the ballot from the orifice before it is cast by the action of the machine, and by grasping knob K and moving slide-frame I, together with all the guard-slides, down to the position shown in Fig. 18, then placing one ballot in one orifice of each of the lower guard-slides, and thus vote a mixed ticket.

The means for operating the several guard-

slides and slide-plates whereby these parts are brought to a position for depositing the proper ballots and then returned to the initial position to receive the ballots from another voter and the means in combination therewith for sounding an alarm that the ballots have been properly deposited and counted will now be described.

The transverse shaft 15, Figs. 2, 3, and 4, is provided with a hand-crank outside of the case, and secured to the shaft near the center of the case is an eccentric 16, which is fitted to vibrate a vertically-disposed lever 17, which is pivotally mounted at the lower end to the case, the top end of the lever being engaged with slide-plate D in hole 18, Fig. 10, the top end of the lever passing up through a slot 19 in depository-orifice plate F, Fig. 8.

At 20 is a cam secured to shaft 15, which serves to operate lever 21, which has one end pivoted to the case at partition B, while the other end normally rests at the lower end of a slot at the opposite end of the case, there being a small projection at 22 which contacts the bell 23 to sound an alarm whenever lever 21 falls after being lifted and suddenly released by the action of cam 20. At 24 is another transverse shaft which has an arm 25 in contact with a pin projecting from lever 21, the arm being held in contact with the pin by means of a spring 26.

Secured to shaft 24 is a vertically-disposed arm 27, whose top end engages with a lug attached to the center of a transverse rod 28, which rests and slides upon the top of depository-orifice plate F, Fig. 8, the upper end of arm 27 passing up through slot 29 in plate F, Fig. 8.

Each of the guard-slides H and the head guard-slide H′ for the head of the ticket is provided with a pin 30, which projects downwardly from the lower side and through a slot 31 in the slide-plate D. (Plainly shown in Fig. 10, and also with the pins in position in Figs. 6 and 7.) These pins relatively form at times an irregular and then a regular row across the slide-plate, for each pin is contacted by transverse rod 28 and is thereby forced and held in a straight row at the proper time, which carries all the guard-slides H and H′ to such a position that the slots L and L′ therein form straight transverse rows, Fig. 12, when in the initial position.

As stated before, the guard-slides, through their end engagement with frame I, Fig. 16, may be slid transversely back and forth upon the slide-plate F by pushing on button K in the same or in the reverse direction indicated by arrow 14, and should the whole series of guard-slides be moved in the direction indicated by arrow 14 from the initial position shown in Fig. 12, where only the head guard-slide H′ is in register laterally with the ballot-slots D″ in plate D, to the position shown in Fig. 18, where the guard-slides H are all in lateral register with the ballot-slots D′ of slide-plate D, the whole series of guard-slides H and head guard-slide H′ will be returned to the initial position shown in Fig. 12 by the action of mechanism which consists of a rod 33, which has a beveled face 32, against which the downwardly-projecting head K strikes in the return of the slide-plate and slides to first position, as is hereinafter more fully explained, these parts being plainly shown in Figs. 2, 3, 4, 5, and 8.

The counter for registering the total number of votes is shown at 34 in Fig. 3 and may be of any ordinary construction and attached to the machine in any convenient manner to present the dial or dials in plain view.

To fully describe the operation of the several parts, we will imagine the guard-slides H and head guard-slide H′, together with the slide-plate, in the initial position shown in Figs. 2, 12, and 13, where the head guard-slide H′ is the only one of the series in lateral register with the ballot-slots of slide-plate D, Fig. 10, and if now a voter desires to vote a mixed ticket he pulls finger-knob K in the direction indicated by arrow 14, Fig. 12, which moves the whole series of guard-slides to the position shown in Figs. 18 and 19. A disk ballot E may now, for instance, be inserted in the third slot L from the left-hand side of Fig. 6, when the guard-slide will be moved longitudinally a short distance and permit the ballot to drop down through one of the slots D′ of sliding plate D and contact with the top of stationary plate F, which locks the guard-slide from movement, either longitudinally or laterally, and places all of its other slots L entirely out of register with the slots D′ of slide-plate D, so that if another ballot E′ is inserted in any other slot, as, for instance, the fourth slot from the left-hand side of Fig. 6, it will be withheld from passing down through the under slot D′ in slide-plate D, as shown.

Other ballots may be inserted in the other guard-slides H, though not in guard-slide H′, but the first ballot inserted in each guard-slide H is the only one which will be deposited for some one of the several candidates for the same office, as is hereinafter shown.

When the first ballot inserted in each guard-slide is to be deposited, each of the extra ballots E′ in this guard-slide which has been cast for more than one candidate for the same office should first be removed, and to form a better understanding of the operation of the machine we will imagine they are removed, after which the shaft 15 is turned in the direction indicated by the arrow thereon, Fig. 3, causing the eccentric 16, through lever 17, to move slide-plate D, together with the guard-slides and inserted ballots, from the position shown in Fig. 6 to that shown in Fig. 7, when the ballot E first voted in each guard-slide will fall down through the slots D′, each ballot into a separate depository G, as shown, the further revolution of shaft 15 causing cam 20 to contact projection 35 on lever 21 and through arm 25 turn shaft 24, which moves

transverse slide 28, through arm 27, in the direction indicated by arrow 34 in Figs. 4 and 8 out of the way of the forward advance from initial position of the pins 30 of the guard-slides, but after the ballot has been dropped into its depository G and the slide-plate D, through the further action of eccentric 16, has started back on its return reciprocation to the initial position and all the slots of plate D are out of register with the orifices of the depositories G then the projection 35 on lever 21 suddenly slips off of the high portion of cam 20, causing the lever to fall and sound the alarm-bell 23, the transverse slide-rod 28, actuated by spring 26, being free to move backward to the initial position shown in Figs. 2, 4, and 8, and in its movement contact the downwardly-projecting pins 30 of the guard-slides and force them into line again with their ends all in contact with the right-hand arm of the sliding frame shown in Fig. 16 to the initial position shown in Figs. 12 and 18.

It will be understood that while the slide-plate D is moving forwardly from the initial position to the position necessary to deposit the ballots the top end of rod 33 is held even with the top of plate F and cannot be struck by the downwardly-projecting screw K′, which is attached to slide-frame I, Figs. 16 and 17, but in the return of plate D to initial position the cam 20 has revolved to a point where it lifts lever 21, together with rod 33, and lifting the top end of the rod above plate F, Fig. 5, the series of guard-slides II and II′ are in the relative positions shown in Fig. 18, as last described for voting a mixed ticket. The screw-head K′ at the under side of button K will strike the bevel-face 32 of rod 33 and cause the sliding frame I to slide at a right angle to the motion of plate D or transversely thereof and carry with it the whole series of guard-slides laterally from the position shown in Fig. 18 to the initial position in Fig. 12. It must be understood, however, that in case there are extra ballots E remaining in any guard-slide II they will not only not be dropped into the depositories, but will effectually lock the mechanism from further action by preventing the lateral movement of the guard-slides when the screw-head K′ contacts the beveled face of rod 33, thus detecting any attempt to vote for more than one candidate for the same office on different tickets.

Should one desire to vote a straight party ticket, one ballot may be inserted in one of the slots of the head slide-guard II at the head of the ticket desired, and this ballot will be deposited, counted, and signaled for, and should there be any extra ballots other than the first one inserted in any of the slots of the head guard-slide II′ these ballots will be withheld from being deposited in a similar manner as has been described in regard to the other guard-slides II.

Since the ballots pile up in a regular order within the depositories, they may be counted in each depository independently by inserting a graduated gage down through the ballot-slots, so that within a few minutes the number of votes for each candidate may be known either before or after the polls are closed, while the number of voters may be read at a glance at the dial of the counter.

It will be understood that all the candidates on the different tickets for the same office form a series and each candidate has a separate depository in the series. For instance, at the head of the ticket, Fig. 12, all the candidates for the principal office form a series from left to right, the names appearing between broken lines R and S, while the next lower series is between S and T, and so on, to the bottom of the several tickets.

I claim as my invention—

1. The combination in a voting-machine having several separate series of ballot-depositories, each separately receiving the ballots for candidates for the same office, of a slide having ballot-orifices therein which are adapted to communicate with the several depositories, the said orifices normally out of communication with the depositories, and means for moving the slide, whereby the orifices are moved into and out of communication therewith, a guard for each series of ballot-repository orifices consisting of a slide having a series of orifices therein, each of said orifices, one at a time, adapted to register with some particular one of the movable ballot-receptacle orifices, while the other orifices of the guard-slide are out of register—substantially as shown and described.

2. The combination in a voting-machine having several series of ballot-depositories each separately receiving the ballots for candidates for the same office, and a series of ballot-depositories each separately receiving one ballot for all the candidates on one ticket of a slide having ballot-depository orifices therein, one of said orifices for each depository, the orifices normally out of communication with the depositories and means for moving the slide, whereby all the ballot-orifices are brought into and then out of communication with the depositories, a guard for each series of ballot-depository orifices consisting of a slide having a series of orifices therein which, one at a time, are adapted to register with some one of the movable ballot-receptacle orifices, the guard-slides for the several series of ballot-depository orifices for the separate candidates arranged relatively to the guard-slide for the ballot-depository orifices for all the candidates on each ticket, whereby a vote placed for all the candidates on one ticket throws all the other guard-slide orifices out of register with the ballot-depository orifices, and vice versa, substantially as described.

3. The combination in a voting-machine having several series of ballot-depositories

each depository of a series separately receiving the ballots for candidates for the same office, of a series of ballot-depositories each separately receiving one ballot for all the candidates on one ticket, and means, whereby after a vote is placed for all the candidates on some one ticket, the split-ticket-voting devices are thrown out of register or locked, and after a vote has been placed for some one candidate the straight-ticket-voting devices are thrown out of register or locked, for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand, this 13th day of October, 1894, in the presence of witnesses.

JOHN BLOCHER.

Witnesses:
P. C. ROONEY,
F. D. KELLEY.