

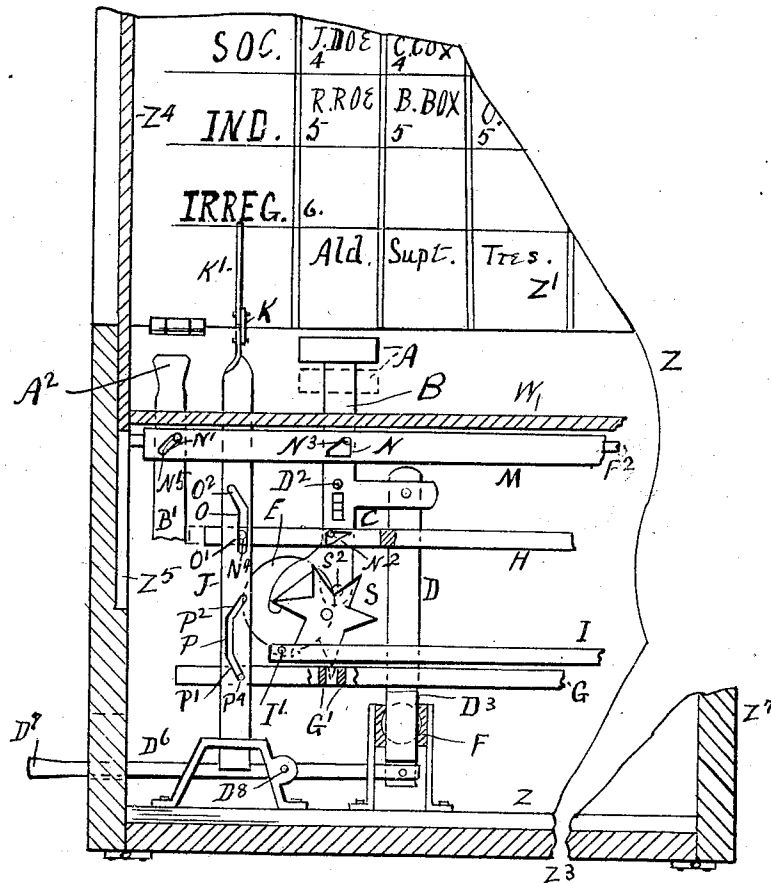
995,708.

C. H. OCUMPAUGH.
VOTING MACHINE.
APPLICATION FILED JULY 27, 1908.

Patented June 20, 1911.

4 SHEETS—SHEET 1.

Fig. 1.



Inventor

Witnesses

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H. L. Gould

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By

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Attorney

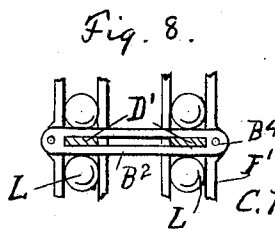
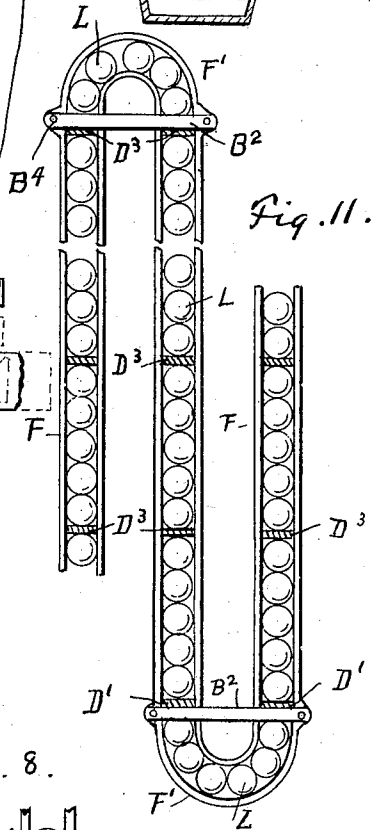
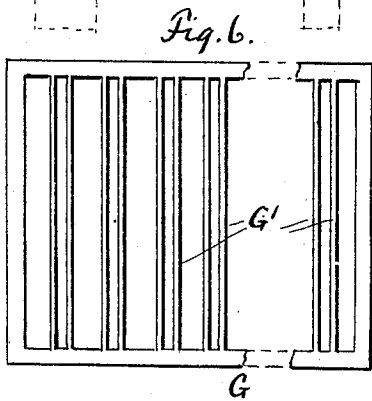
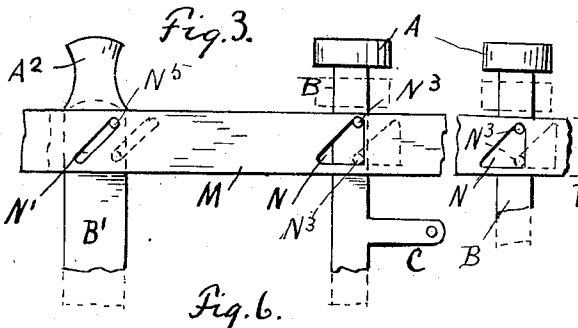
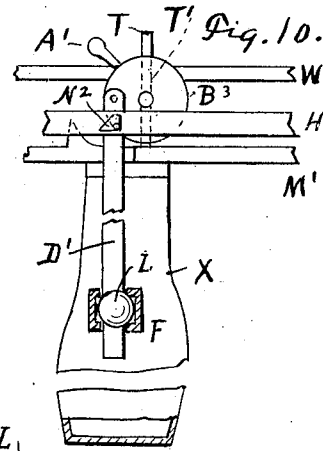
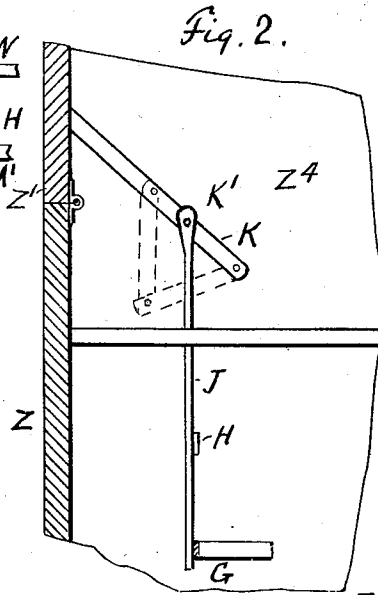
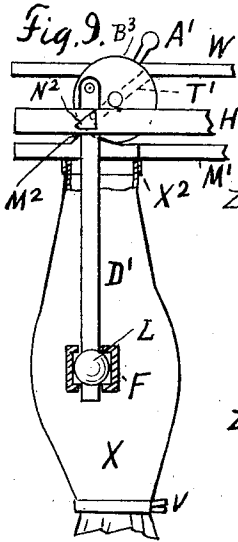
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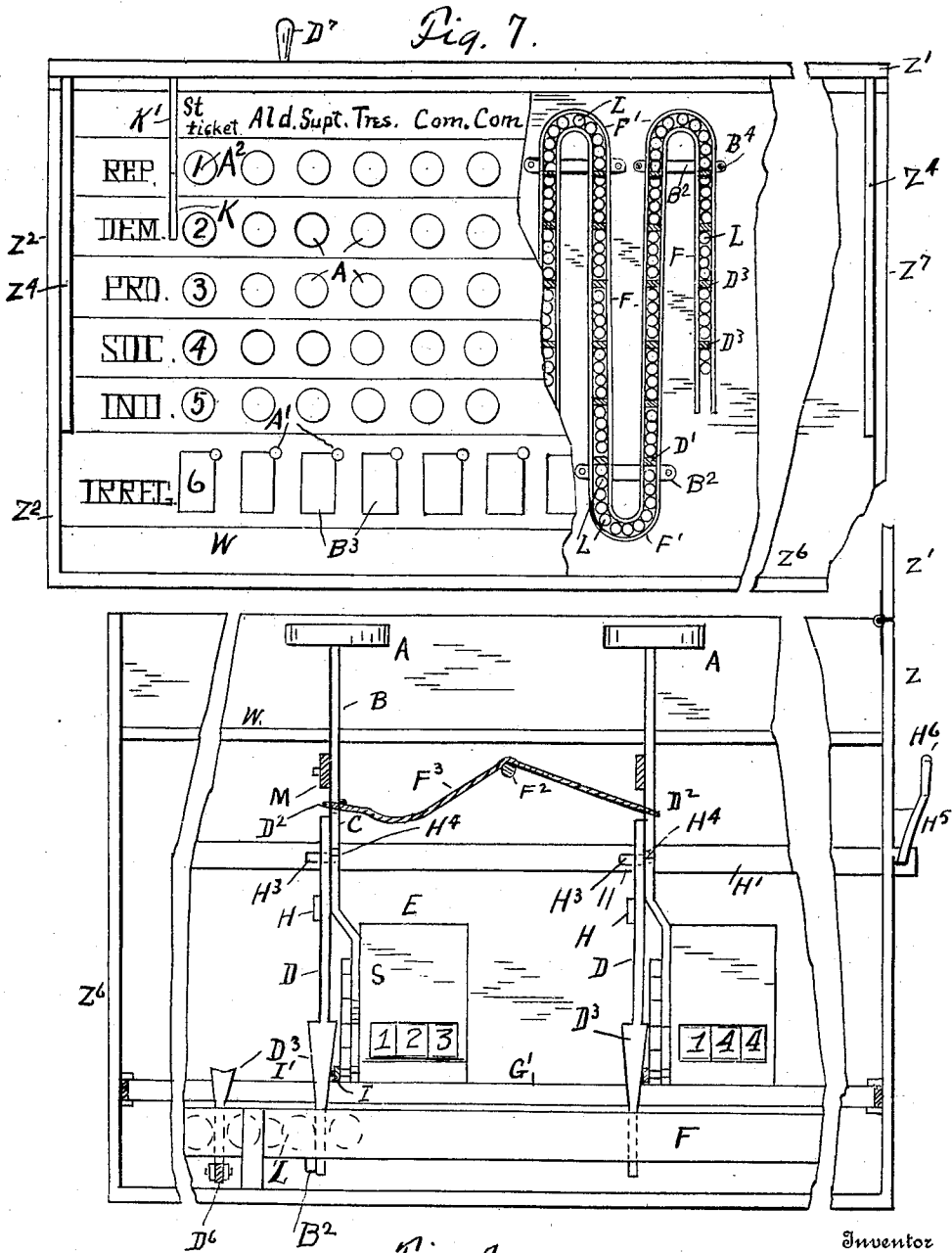
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4 SHEETS-SHEET 3.

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Witnesses
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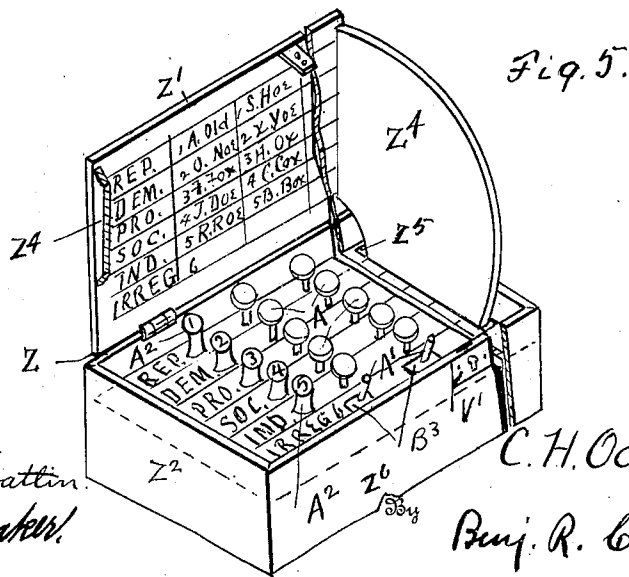
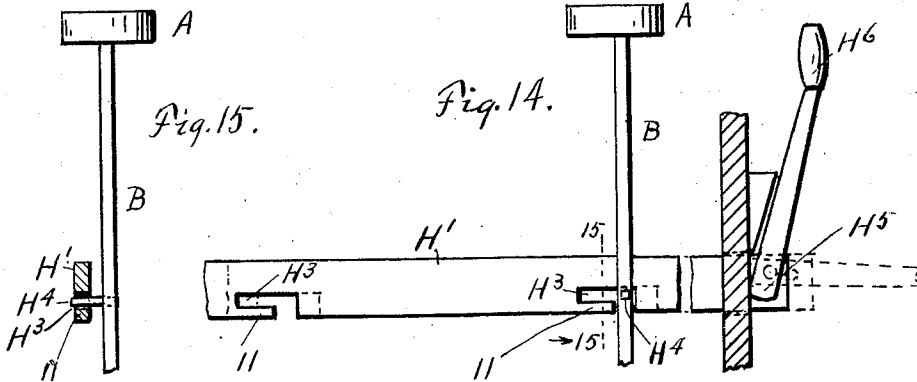
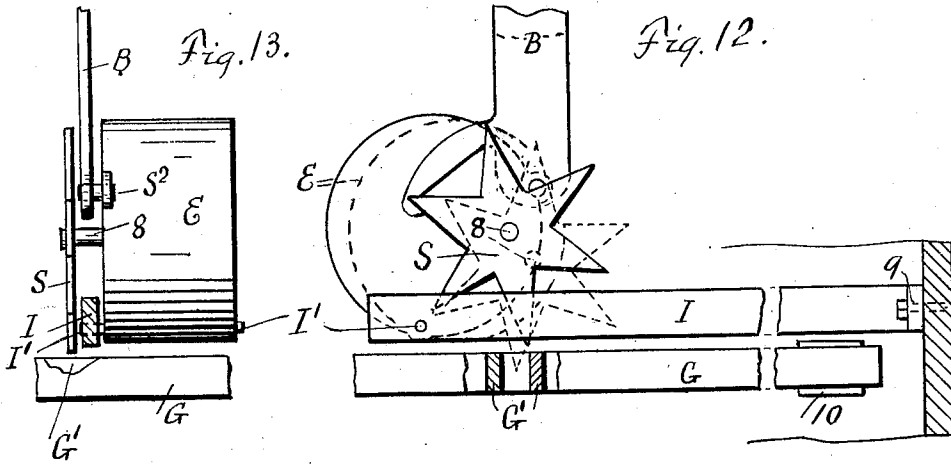
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4 SHEETS-SHEET 4.

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Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES H. OCUMPAUGH, OF ROCHESTER, NEW YORK.

VOTING-MACHINE.

995,708.

Specification of Letters Patent. Patented June 20, 1911.

Application filed July 27, 1908. Serial No. 445,623.

To all whom it may concern:

Be it known that I, CHARLES H. OCUMPAUGH, a resident of Rochester, in the county of Monroe and State of New York, 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 pertains to make and use the same.

The invention relates to voting machines, and has for its object to provide a simple, compact, efficient, and cheap construction having all the necessary and desired functions of such machines.

The invention consists in the construction herein described and pointed out.

In the accompanying drawings,—Figure 1 is a partial longitudinal section comprising an illustration of push buttons, one representing an individual candidate with its interlocking mechanism, and register, the other representing a straight ticket mechanism, and resetting mechanism; Fig. 2 is a partial transverse section looking at the register-actuating and resetting mechanism from the right; Fig. 3 is a partial elevation of the straight ticket push button and its connecting bar for actuating the push buttons of the individual candidates; Fig. 4 is a broken right end elevation of the proximate end of the case being removed and the lengthwise bars of the machine shown in section; Fig. 5 is a perspective of the machine, its cover being raised, parts of the machine being broken away; Fig. 6 is a broken plan of a counter-actuating frame; Fig. 7 is a broken plan showing the buttons in the party and office columns, the irregular device, and group voting mechanism, the face plate being broken away to show the interlocking mechanism; Fig. 8 is a partial plan showing a modified form of abutment bar; Fig. 9 is an elevation partly in section showing in normal situation the irregular device together with the interlocking mechanism, resetting rod, ballot-retaining frame, and ballot receptacle; Fig. 10 is a similar view showing the initial situation of the mechanism; Fig. 11 is a partial bottom plan of the ball-supporting frame, the interlocking bars being shown in section. Fig. 12 is a partial side view on a larger scale than Fig. 1, showing a register, support and operating devices; Fig. 13 is a view at right angles

thereto; Fig. 14 is an enlarged partial side view showing the lockout bar and operating device; Fig. 15 is a section on line 15—15 of Fig. 14.

The voting machine as shown comprises a box or case (Fig. 5) having a hinged bottom Z^3 , ends Z^2 and Z^7 , sides Z and Z^6 , and a hinged cover Z^1 having extensions Z^4 . Said extensions may fit in recesses Z^5 in the box ends when the cover is closed. As shown it is intended that the box containing the voting mechanism shall be placed on a table with the hinged side of the cover toward the inspectors. While the cover is shut, the voting mechanism is locked through the medium of the link mechanism K , K^1 , resetting-bar actuator J and a resetting bar H , so that no matter in what angle or position the box may be placed, even bottom side up, the voting mechanism will not move as long as the cover is closed, said bar H being in the position indicated by broken lines in Fig. 1. The raising of the cover Z^1 by the voter, together with the fixed end sections Z^4 , cuts off from the view of election officials and others, the vote indicators or buttons, and at the same time releases the locking mechanism so that the voter is free to make choice of any of the candidates whose names are shown on the machine. The extensions or fixed sections Z^4 at right angles to the main part of the cover are of practical importance in securing privacy for voting. Being fixed parts of the cover and adapted to be housed in the case they do not seriously impair the compactness of the machine. When the cover is raised 90 degrees the bottoms of said sections do not rise above the level of the face plate, and they extend substantially to the front thereof, as shown in Fig. 5.

A (Figs. 1, 3 and 4) denotes single candidate push buttons, A^2 straight ticket push buttons or vote indicators, and A^1 (Figs. 7, 9 and 10) handles for irregular voting. These buttons and handles by preference are operatively supported in a face plate W below the top of the box.

B denotes a main push bar having thereon a button A , and D a supplemental or secondary push bar connected by an arm C to the main bar B . Said latter bar is operatively connected to the pivoted register E and hence to a toothed wheel S fixed to a driving shaft 8 of the register E and is adapted to move said wheel into the path of counter-actuating devices, including a frame G . The

bar D is a part of the interlocking mechanism, and is simultaneously moved with and by the main bar B to lock out other bars. Each push bar B is connected to a resetting bar H by a pin N² fixed to the bar and movable in a triangular opening in the latter, said pin being normally in the upper left hand angle as shown (Fig. 1).

Registers E are each pivotally supported at I¹ on a fixed bar I. This bar, shown in partial elevation in Figs. 1 and 12 and in transverse section in Figs. 4 and 13, will be fixed to the case, as indicated at 9 in Fig. 12. The bar B is connected to the register E at a point S² in a vertical plane to the right of the plane in which is situated the pivot I¹ which supports said register, and hence when the button A is pushed and moves bar B downward, it turns the register bodily on pivot I¹, which carries the lower point of the register driving toothed wheel S (which point does not normally extend below the top plane of frame G) between two of the cross bars G¹ of frame G, where it remains until bar B is reset. Therefore when said frame is longitudinally reciprocated by the closing of the machine cover and consequent depression of bar J, with its cam slot P, as described below, wheel S of the register is turned and advances the register one space. In Fig. 12 is shown, in broken lines, the position assumed by the register and its wheel S on the depression of bar B. As before stated the shaft 8 of wheel S is the register driving shaft, and will serve to advance the first counting wheel of the register by any suitable or known device, which not being of this invention is not shown herein.

The frame G comprises a plurality of parallel parts, such as part G¹, corresponding in number to the registers and keys or indicators. The construction is such that the frame can actuate any and every register counter put in operative relation therewith. As shown in Figs. 4 and 12, frame G is movably supported in ways 10 on sides of the machine, and Fig. 4 shows that the cross bars G¹ extend clear across the machine in a direction transverse to the party rows. The frame G with its pairs of cross bars underlying all the registers, when moved necessarily operates every wheel S whose lower tooth has been carried between either pair of cross bars G¹, and counts on the corresponding registers.

The resetting-bar-actuator J, connected by links K, K¹ to the cover, is provided with a cam slot O having a bar-moving inclined part O² and a bar-holding part O¹ in which works a pin fixed to the resetting bar H. The actuator-bar J and resetting bar H are shown as reset in full lines in Fig. 11, the previous temporary situation of bar H being indicated by broken lines. Said actuator

bar has also a cam slot P to receive a pin P¹ fixed to the counter-actuating frame G. Slot P has a frame-actuating part P¹ and a part P² separated from it by a straight vertical part which together act to leave frame G in situation to be moved when bar J is actuated mediately by the cover to cause said frame to do its work and to return for a repetition of the same. Resetting is effected by a movement of the cover through less than a complete circle, an angle of ninety degrees or even less being sufficient.

B¹ denotes a push bar for actuating a straight ticket bar M. Said push bar B¹ has fixed to it a pin N³ which normally projects into the upper end of the inclined slot N¹ in bar M. The individual push bars B in the party row are connected to said bar M by pins N³ fixed thereto and engaging openings N. The pushing in of a key A² moves bar M by means of a pin N³ in slot N¹ to the right (see Figs. 1 and 3) with the effect to force in all bars B having pins N³ in openings N in said bar M.

The straight ticket bar M is reset through the medium of the bars B by a reverse action of pins N³ and N⁵ as will hereafter appear. The raising of the cover moves parts K and J from the position indicated in broken lines in Fig. 2 to that shown by full lines in Figs. 2 and 1. This causes the pins N⁴ and P¹ to take their lowest positions in slots O and P respectively without moving the resetting bar H or the counter-actuating wheel S, or the straight ticket bar M, and leaves the push button A and bar B in operative situation. Upon the pushing of said button and bar down by the voter to the situation denoted by broken lines which show button A depressed in Fig. 1 the pins N³ and N² are carried down without moving either the straight ticket bar M or the resetting bar H. It also carries down on its pivot I¹ a register case E and the register-actuating wheel S supported by the register case and operatively connected to the register wheel and thereby puts the point of a tooth of the register-actuating wheel S into position to be actuated by frame G as indicated in Figs. 1 and 12 by broken lines.

When the cover is closed by the outgoing voter the bar J is thereby pushed down and the counter actuating bar or frame G is first moved by pin P¹, while pin N⁴ is inoperative in the slot O¹, but as the bar J is completing its descent said pin N⁴ enters the slot part O² and resets bar H by the pressure of said pin against the upper wall of said slot part O², the resetting of the push bar B being effected by pin N² pressing upon the longer side of the triangular opening in said bar H.

The bars B have connected thereto as stated interlocking bars D provided with wedge shaped ends D² which are pushed be-

tween balls L, or the like, movably supported in a conduit in a frame. Said frame comprises parallel members F joined by curved members F¹, the ball conduit being continuous except as interrupted by the abutments and push bars. Any plane passing, in the present instance, transversely through two balls in the curved section has an included angle greater than a right angle with a plane passing through the balls in one of the parallel sections, and balls moved from one of the parallel sections toward another are never obliged to turn a right angle or an angle less than a right angle.

B² denotes an adjustable or removable abutment or ball-stopping bar detachably secured in place by pins B⁴ (see Figs. 11 and 8). As shown in Fig. 8, the abutment bar B² may be provided with a slot extending across parallel members of the frame and adapted to receive the ends of push bars D¹.

The irregular push or interlocking bars are indicated by D¹ (see Figs. 9, 10 and 11). Each is pivoted to a rotatable or rocking covering cylinder B³ and has a wedge foot similar to those of bars D to crowd balls and lock out other push bars whenever said cover is rotated by its handle A¹ from the situation shown in Fig. 9 to that shown in Fig. 10.

T¹ denotes a ballot-receiving slot or chamber in the rocking cover B³, the chamber being shown covered in Fig. 9 and open in Fig. 10. T denotes a ballot inserted in said chamber preparatory to being cast by dropping into a receptacle X screwed at X² to a support M¹.

V (Fig. 9) denotes a cord.

F³ (see Fig. 4) is a flexible connection such as a cord fixed at D² to push bars pertaining to different parties, and F² is a rod upon which the intermediate part of the cord rests. The purpose of the cord is to lock out one of the push bars to which it is attached when the other is operated. As many such cord connections may be employed as required.

H¹ is a lockout bar operated by a cam H⁵ having a handle H⁶. Slots H³ opening through the lower edge of the bar and provided each with a horizontal extension, which leaves a tongue 11, are adapted to receive pins in the vertical open parts of said slots H⁴, fixed to the push bars in such manner that the bars are locked by said tongues 11, when the handle H⁶ is swung down in a vertical plane parallel with bar H¹, and the lower cam-end H⁵ of the handle bearing against the adjacent wall moves bar H¹ to the right. The bar H¹ extends from the rear to the front of the machine adjacent the indicators for a particular office and parallel with the plane of the party column whereby the bar is operative when moved as above described to lock out all the party indicators for the particular office. Handle H⁶

being situated and movable parallel with the back of the machine moves the bar H¹ in the line of the indicators corresponding to the office to be locked out.

In Figs. 1 and 4 is shown another form of lock-out device. To the foot of a bar D is pivoted a lever D⁶ having a fulcrum in a bracket at D⁸. Said lever extends through a slot (indicated by broken lines) in the case and has a handle D⁷ accessible at the rear of the case. The selection of a straight ticket vote is accomplished by pushing the button A² (Fig. 1) which through the medium of the straight ticket bar M, actuates all of the buttons A for the individual candidates belonging to the same party as the straight ticket button, and through the medium of the abutment bar B², push bar D and the interlocking mechanism contained in frame F, all the other indicators for the same office are locked against action. If after having actuated a straight ticket button, the voter desires to change an individual vote, he is free to do so by pulling out or raising to normal position the button A of the candidate whom he wishes to change and in its place pushing the desired button for the same office. If any straight ticket button A² has been actuated to move the several buttons A in the corresponding party row, the restoring to normal position of any button A in said row will reset the straight ticket button A² to normal position through the medium of the straight ticket bar M (Figs. 1 and 3). This operation does not affect any other individual buttons A in said row, for the reason that during movement of bar M to the left by operation of the button A being reset, opening N and pin N³, the pins N³ of the other buttons in said row, being then at the lower left corners of their openings, allow movement of bar M without moving other buttons A, said other pins N³ not impinging against the inclined sides of the corresponding openings, but remaining at rest while the lower horizontal sides of the openings pass under them. Fig. 3, in broken lines, shows the position of parts when push A² has been depressed. If it is preferred to vote an individual or split ticket, and it is not desirable to vote the straight ticket first and then change buttons A, the voting may be done by actuating any buttons for any candidates for any office at any place on the face of the machine, provided there is not a button A or handle A¹ already actuated for a candidate for the same office.

W is a face plate of the machine through which the several cylindrical covers B³ project slightly. This plate has indicators in party and office rows, including a row of straight ticket indicators, each of which has a distinguishing number. It being sometimes easier to read a ballot sheet supported

in an upright position than on the horizontal face plate, the inner side of the cover is provided with like party rows, and office rows in which the names of the candidates appear, and with each name the number indicating the party row to which the name belongs. The voter thus seeing the numbered names of his candidates on the upright plate has, when voting a straight ticket, but to turn to the horizontal face plate and operate the indicator bearing the same number.

To operate the irregular mechanism (Figs. 9 and 10) the button of handle A^1 of the irregular cover B^3 (Figs. 7 and 9) is turned to the left, which exposes the opening T^1 in which can be placed the irregular ballot card T (Fig. 10) on which the voter has written the name of his preferred candidate. It being assumed that a single candidate is to be elected for an office, the name of but one candidate should be written on the ballot, which ballot is inserted in the opening T^1 . The bolt T is of larger dimensions than the opening so that it projects as shown. There is one irregular device for each row of candidates for the same office, and because of the interlocking bar D^1 connected with the interlocking mechanism frame F , but one handle A^1 can be actuated at a time, and if one of the buttons A for the same office has been actuated it prevents actuating another handle A^1 . When an irregular handle A^1 is actuated it interlocks through the medium of the interlocking rod D^1 and the interlocking parts in frame F to prevent the operation of any of the buttons A for the same office.

The interlocking frame consists of pairs of sections F (Figs. 1 and 7) in approximately parallel planes connected by curved sections F^1 . At or about the point of joining a section F^1 and sections F , there is an adjustable or removable grouping or abutment bar or stop B^2 (Figs. 7 and 11) which is held in place by a removable pin B^4 . This bar B^2 is so placed that it acts as a stop to prevent the selection of more than one candidate for the same office in the frame section that it coöperates with, except in cases where bar B^2 is removed at the opposite end of the frame section. The curved section F^1 has like interlocking parts L as do sections F , and so arranged that on the removal of the grouping stop B^2 , the movable parts L contained in the sections F and F^1 of the frame become practically one continuous interlocking mechanism, so that it will permit of multi-candidate or group voting, that is, one candidate can be selected for the same office in each of the two rows of buttons A corresponding with the two parallel sections F , or two candidates may be selected by the voter in the same row in preference to one in each row. The entire frame comprises a series of frame sections F with connecting

sections F^1 and at each end of the sections F are removable abutments B^2 , so that group voting may be done at any place on the machine. It will be understood that there is at least one section F for each office to be voted for.

In case there are more than two candidates for the same office nominated by each party, and one or more of the candidates has been nominated by one party and indorsed by another, to prevent cumulative voting for this candidate, I provide interlocking mechanism with buttons A which are shown in Fig. 4 in normal position. If either button is actuated the other is locked against action. If it is desired to change the actuated button, it can be withdrawn and the other button actuated, or if desired the preferred button may be actuated, but this resets the button first actuated, the length of the interlocking cord F^3 being such that it will permit of but one button to be left in place to bring its corresponding register in position to be actuated when the voter is through making his selection.

F^3 (Fig. 4) is a cord or similar article which is connected at D^2 with each of the bars B of any candidate who has been nominated by one party and indorsed by another party for the same office. This cord is carried over a rod F^2 (Fig. 4) which acts as a bearing for the cord. Rod F^2 in this case extends the length of the machine in the same direction as do the buttons representing the candidates of any one party.

The resetting and registering mechanism are such that when the voter makes a selection and closes the cover Z^1 , this action, through parts K , K^1 , J and H , resets the machine and registers the vote selected, and locks the parts of the machine against accidental registering, as by moving or shifting of the case containing the mechanism. (See Figs. 1, 2 and 4). The closing of the cover Z^1 gives the resetting-bar-actuator J a longitudinal movement and this through the means of angle P^1 in cam P (Fig. 1) and the frame G actuated by said cam, turns the star wheel S of any register E , which has been left in registering position by the voter, one notch, which moves the unit wheel of the register one figure. The part O^1 of the cam or cam slot O of the resetting bar J holds the resetting rod H in normal position while the register frame G is actuating the selected registers. The shape of the cam O and cam P is such that when the pins that travel in these cam slots reach the point O^2 and P^2 respectively, the cam P^2 returns the register-actuating frame G to its normal position; at the same time that the slot O^2 is moving the resetting bar H , and forcing the actuated buttons A to their normal position, this movement carrying the registers and their corresponding star wheels S out of the path

of the moving bars G^1 of the frame G on its return to normal position, the relation of the movement being such that on the return of frame G to normal position, the resetting bar H does not permit the bars G^1 to overtake the star wheel S , and they are never allowed to come in contact with wheel S on the return movement of frame G , because of the fact that the resetting bar H has moved the wheels out of the operating position of bars G^1 . The return of push buttons A to normal position forces the actuated straight ticket button A^2 to its normal position through the medium of push bar B and the straight ticket bar M having cam slots N and N^1 acting upon pins N^2 fixed to the bars. (Fig. 3.)

It will be seen that whenever any push buttons A that have been actuated are returned to normal position, any actuated irregular handles A^1 are returned to normal position, through the resetting bar H , whereupon the ballot T will drop out of the slot or chamber T^1 into the irregular ballot receptacle X , from which the ballot may be removed after loosening cord V (Fig. 9) by the officials after the election is over, or the receptacle X may be made so as to unscrew from the irregular frame X^1 as shown at X^2 (Fig. 9), in which event the receptacle would be made with a closed bottom. The final movement of resetting bar J through the medium of the incline O^2 in its cam O , brings the resetting bar H to such position that through the medium of cam slot N^2 (Fig. 1) it locks against action all the push buttons A , A^2 and arms A^1 , and when the lid Z^1 is shut, all of the indicating and registering mechanisms are locked against movement no matter in what direction the box may be turned or moved, and on the raising of lid Z^1 , the mechanism is ready for the next voter. I provide the case with a key lock V^1 which may be made with a spring so that it will require being unlocked between each voter registering his vote.

If it is desired to lock against action the buttons representing any office, as for example where a voter is prohibited from voting on the question of expenditure of money, I provide a lockout device, shown in Fig. 4, consisting of bar H^1 which is reciprocated by the movement of the cam H^5 (Fig. 4) on the exterior of the case. As shown, when the handle H^6 of the cam H^5 is in a vertical position, the bar H^1 is not interlocked with the push bar B , but when the handle H^6 is in a horizontal position, the lockout bar H^1 is moved so as to bring the horizontal walls of the bayonet joint slot H^3 opposite the pin H^4 on the push bar B and into position to lock the said push bar against action.

Instead of the lockout bar H^1 it is proposed to connect the lockout devices directly with the push bars substantially as repre-

sented in Fig. 1, in which D^6 denotes a lever pivoted to a push bar and provided with a fulcrum at D^5 , and having a handle D^7 extending out through the back side or end (or both) of the case. By means of the handle the power end of the lever can be elevated in the case slot, indicated by broken lines, and the push rod lowered to force its wedge shaped part between balls (or between an abutment and a ball if desired) to lock out any group, it being understood that there would be an interlocking lockout wedge D^3 for each office, and that there is no key on the push bar thus operated in the lockout. One of these wedges is shown in section in Fig. 1 as having its upper or bar part broken away. This connection of the official lockout D^6 , D^3 , with a push bar and push bar connections, it will be understood, is necessary to the maintenance of the stable disposition of parts whereby it is insured that no turning or moving of the closed box will disturb the working condition of the parts, as before set forth.

What I claim is:—

1. In a voting machine, the combination of a face plate having straight ticket voting keys provided with distinguishing numbers, and having columns containing the names of offices, and a second adjacent face plate with similar columns and with the names of the candidates, said latter names being numbered to correspond with the key numbers, whereby a voter may vote a straight ticket by seeing the candidates' numbered names on the latter plate and then operating the key similarly numbered on the first plate.

2. In a voting machine, the combination of a face plate, a plurality of individual candidate-voting indicators, a register for each indicator, a register support, a pivot connection between each of said registers and the register support, and a pivot connection between each indicator and the single corresponding register whereby either indicator may turn its own register on its supporting pivot.

3. In a voting machine, the combination with a case and a cover therefor, of a face plate, a plurality of individual candidate-voting indicators, a register for each indicator, a register support, a pivot connection between each of said registers and the register support, a pivot connection between each indicator and the single corresponding register whereby either indicator may turn its own register on its supporting pivot, register actuating means, and means connecting the actuating means operatively to said cover whereby closing the cover counts one on indicated registers.

4. In a voting machine, a containing case, a cover therefor, a fixed support in the case, registers pivotally mounted on said support,

a register actuating device, vote indicators
one for each register, each indicator always
in working connection with the same register
to move it bodily on its pivot into coopera-
5 tive relation with the register-actuating de-
vice, and means intermediate said device and
cover and operated by closing the cover to
advance the registers of actuated indicators.

In testimony whereof, I have signed this
specification in the presence of two subscrib- 10
ing witnesses.

CHARLES H. OCUMPAUGH.

Witnesses:

L. A. WOEHRLEN,
I. E. BRINK.

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