D. L. NEWCOMB.

VOTE REGISTERING MACHINE.

APPLICATION FILED MAY 14, 1902.

947,840.

Patented Feb. 1, 1910.

5 SHEETS—SHEET 1.

Fig. I

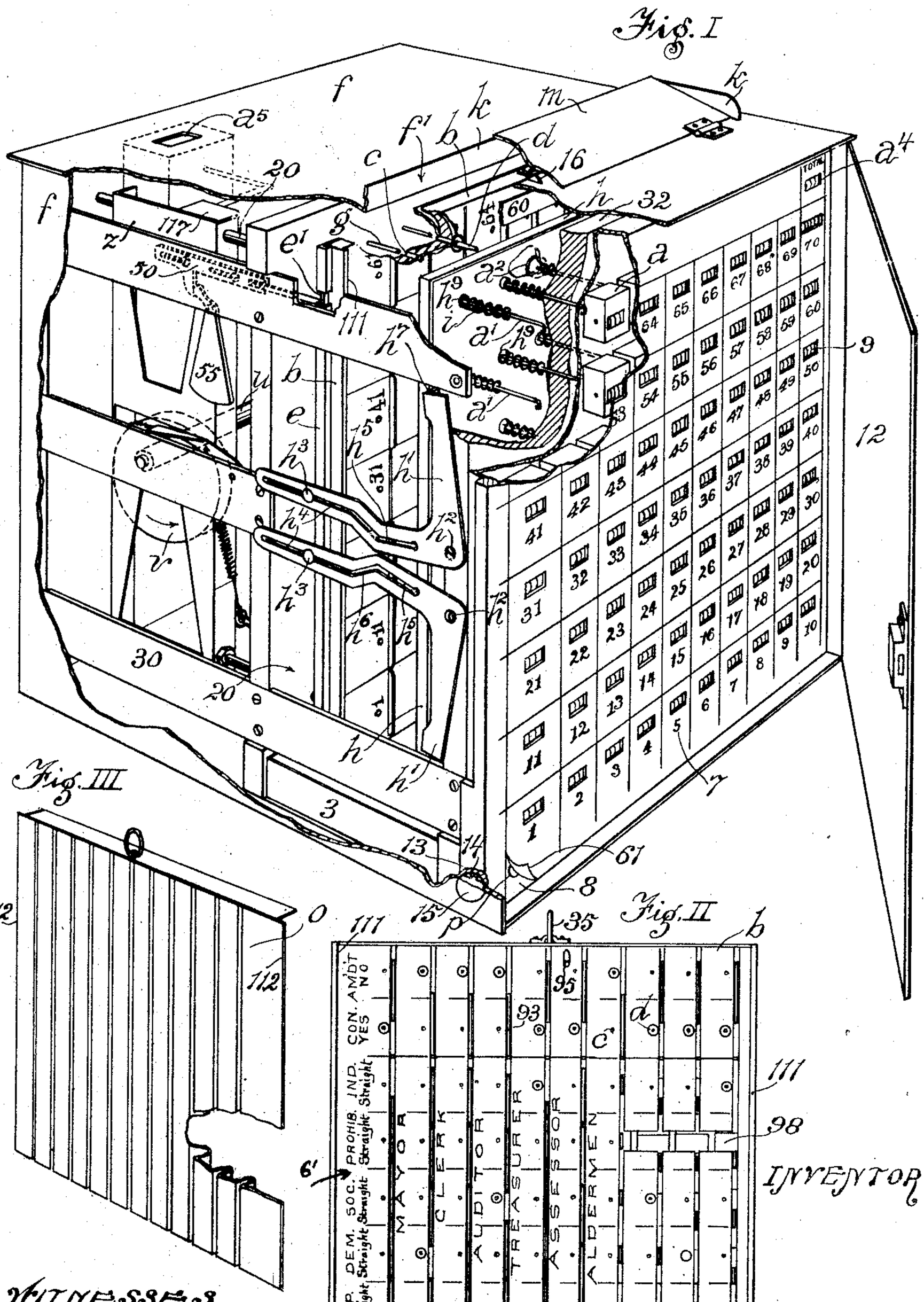

Fig. III

Fig. II

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5 SHEETS—SHEET 2.

Fig IV

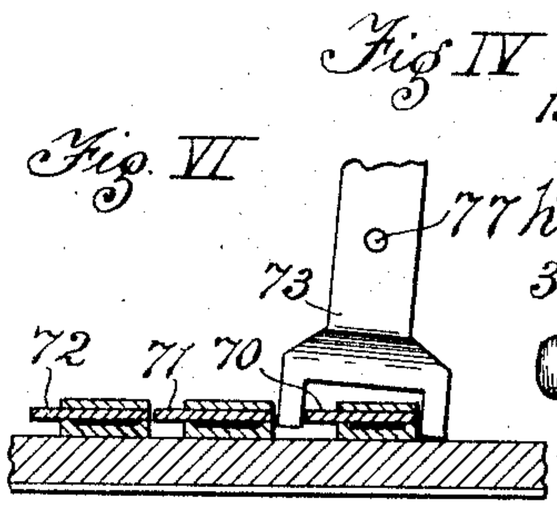


Fig. VI

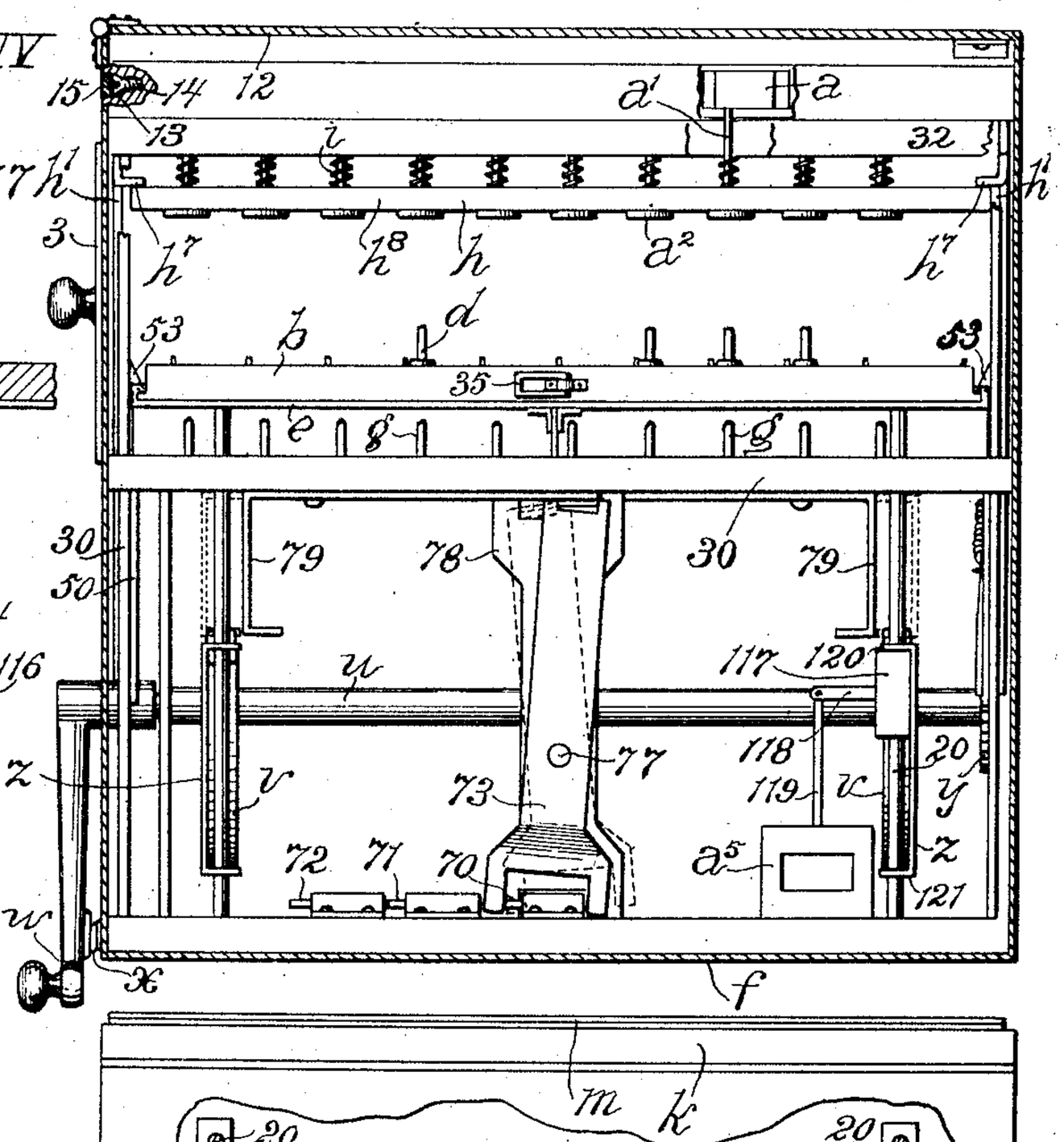


Fig XXIII

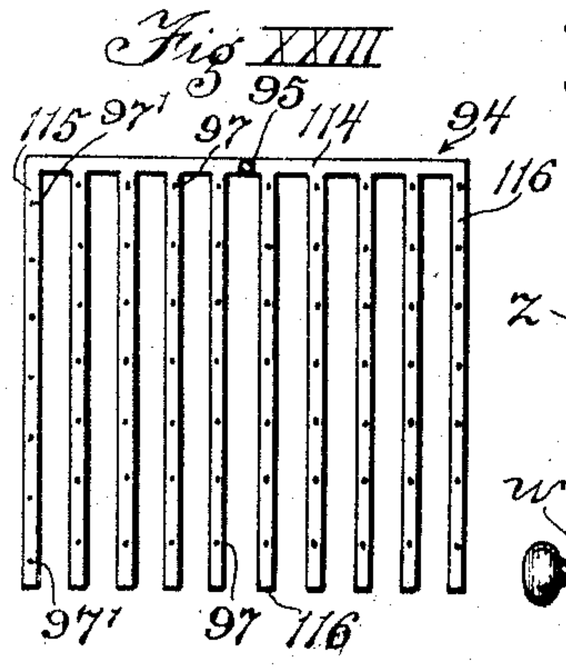


Fig. V

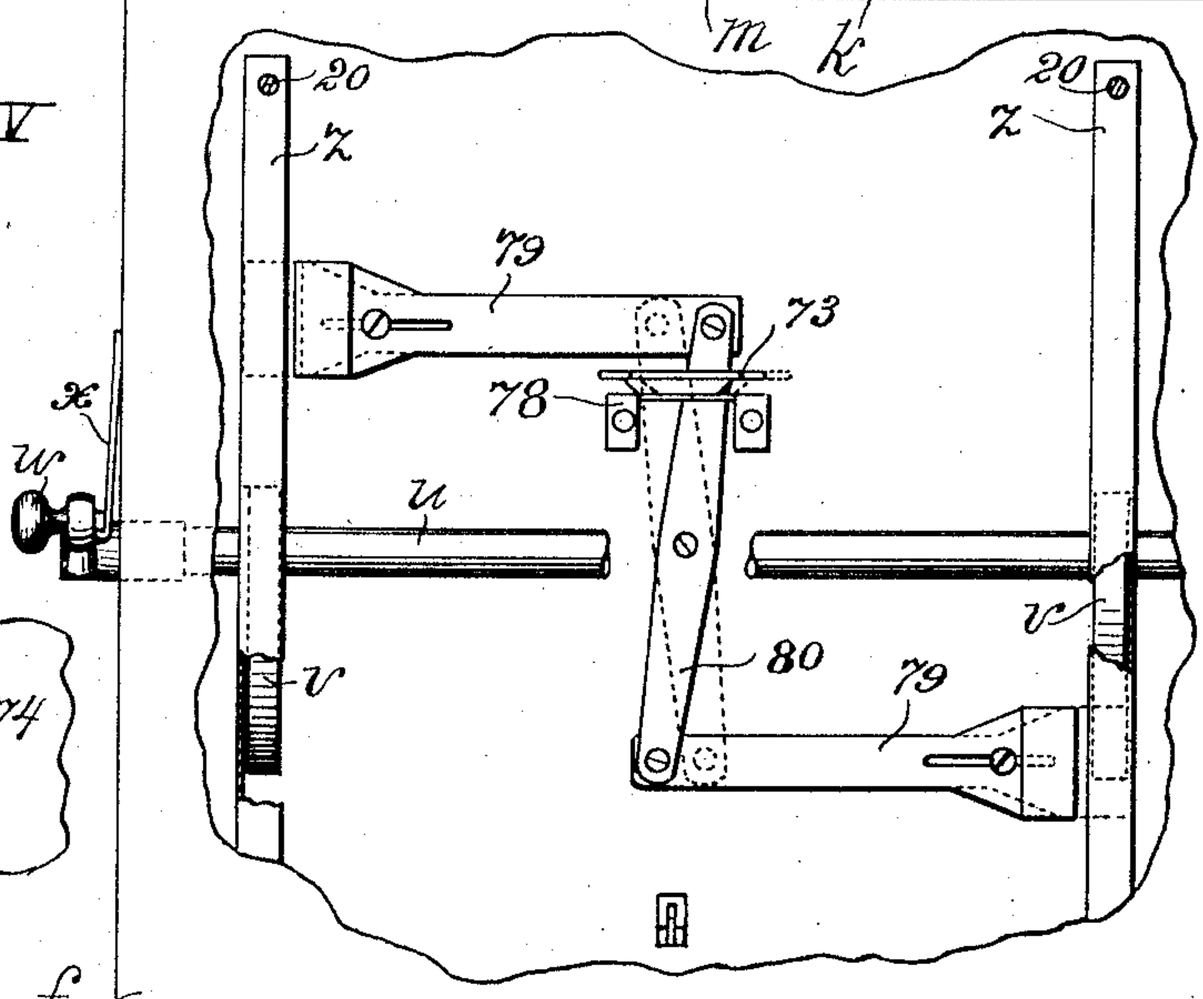
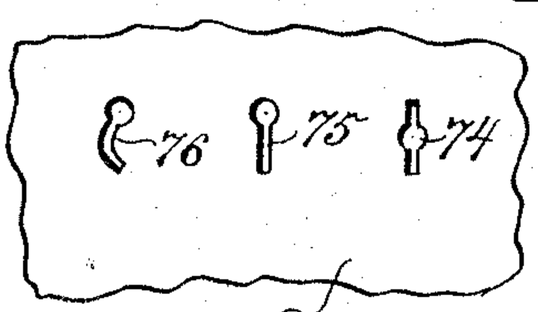


Fig VII



f

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5 SHEETS—SHEET 3.

Fig. VIII

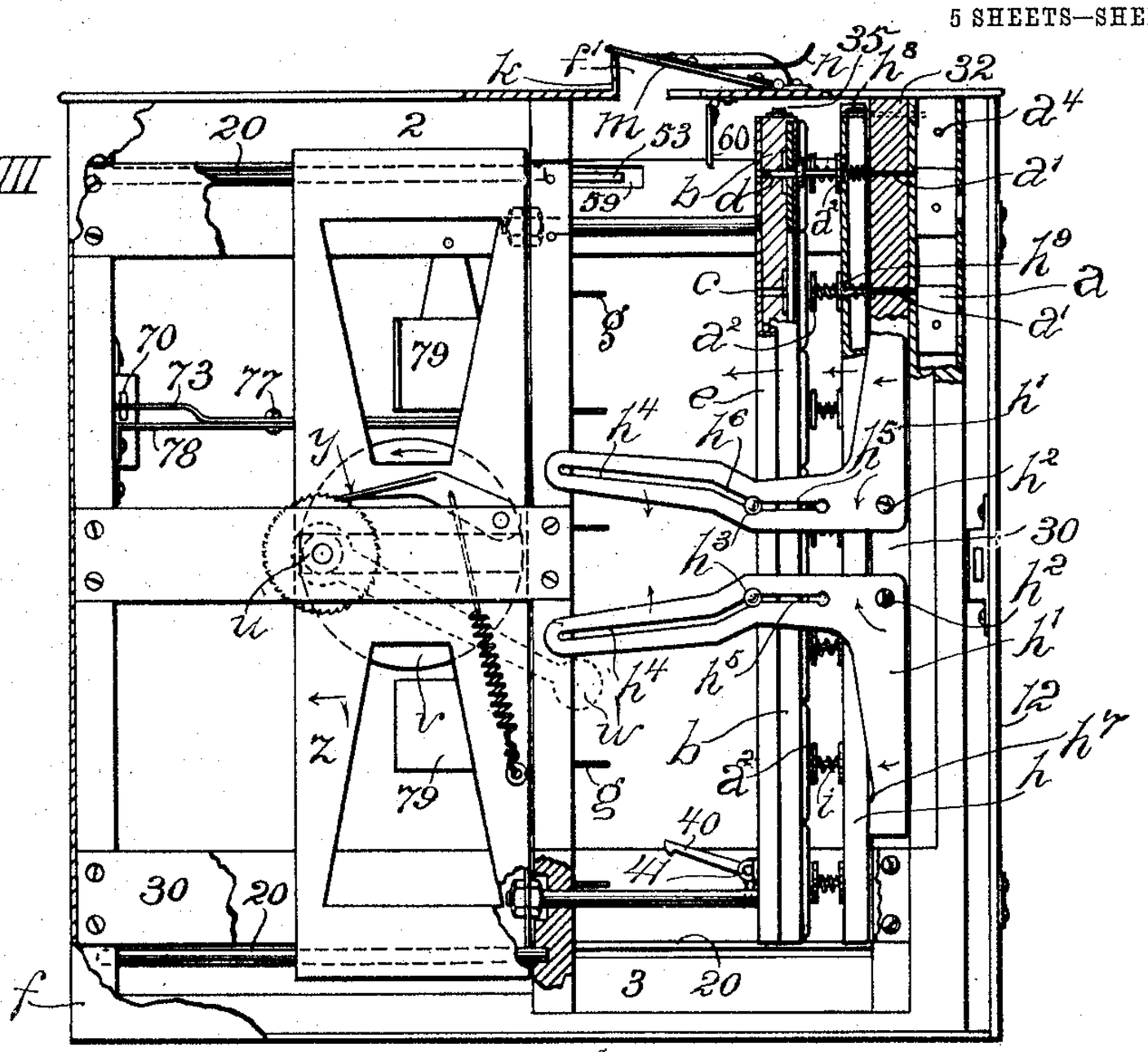
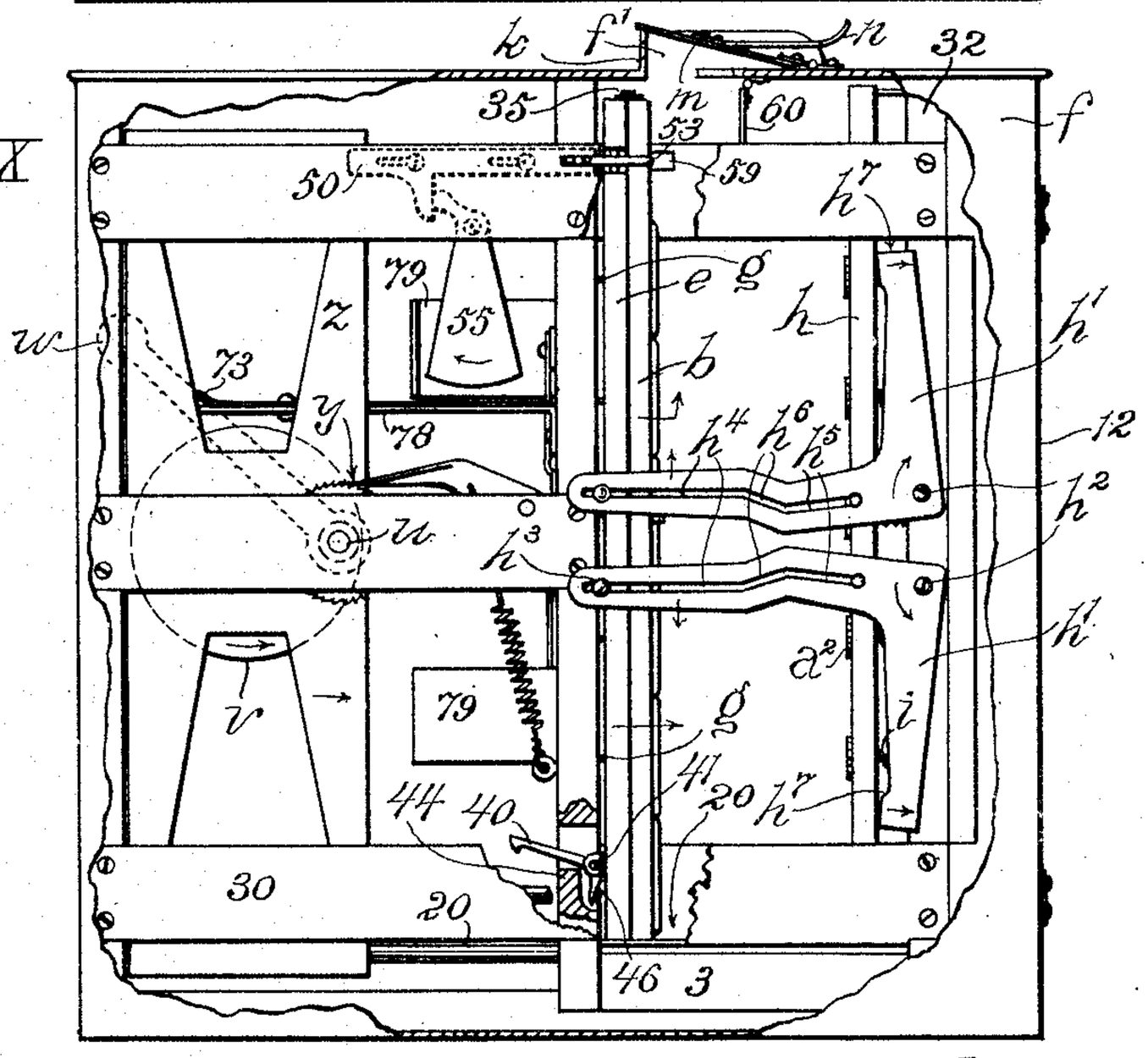


Fig. IX



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5 SHEETS—SHEET 4.

Fig. XI

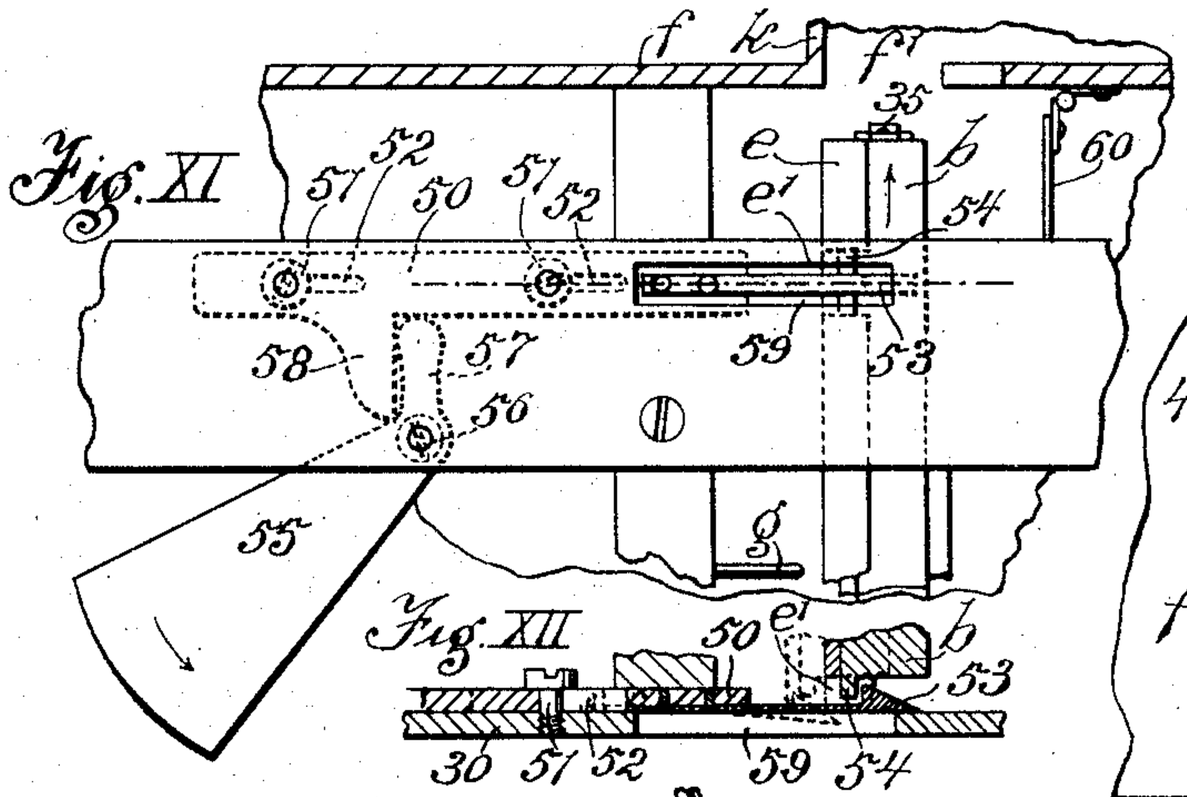


Fig. XII

Fig. XIII

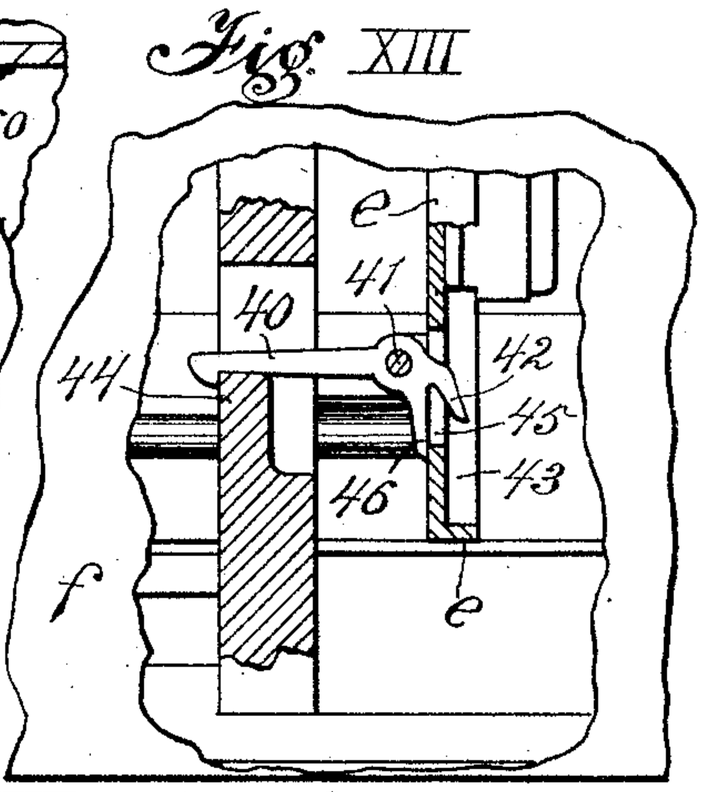


Fig. X

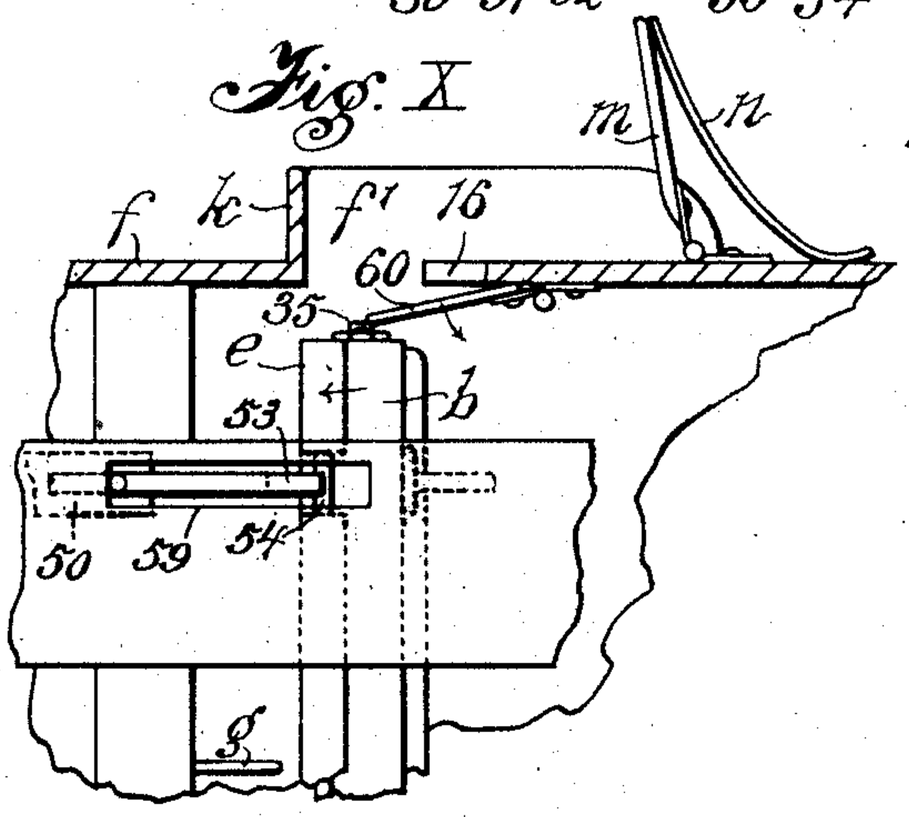


Fig. XIV

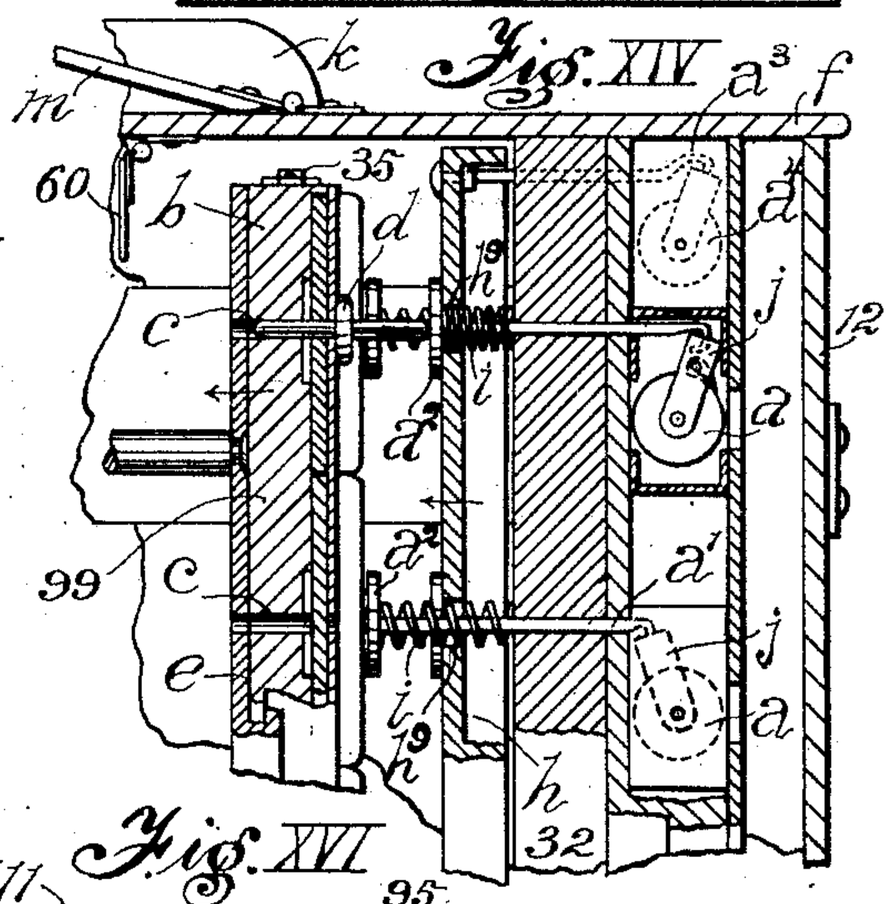


Fig. XV

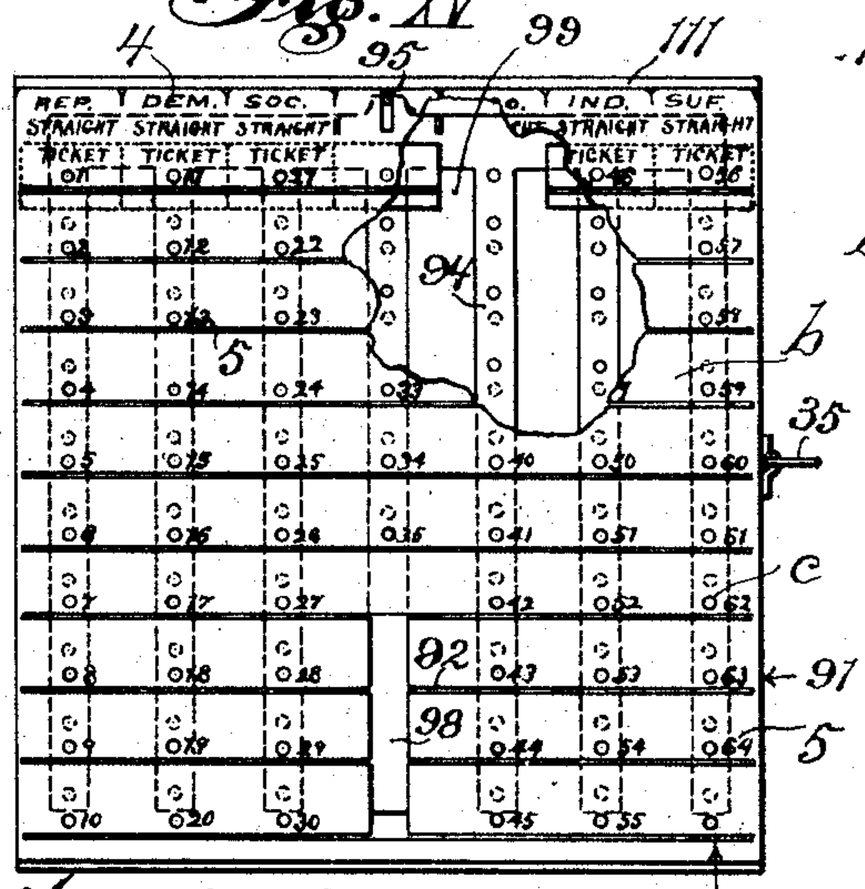
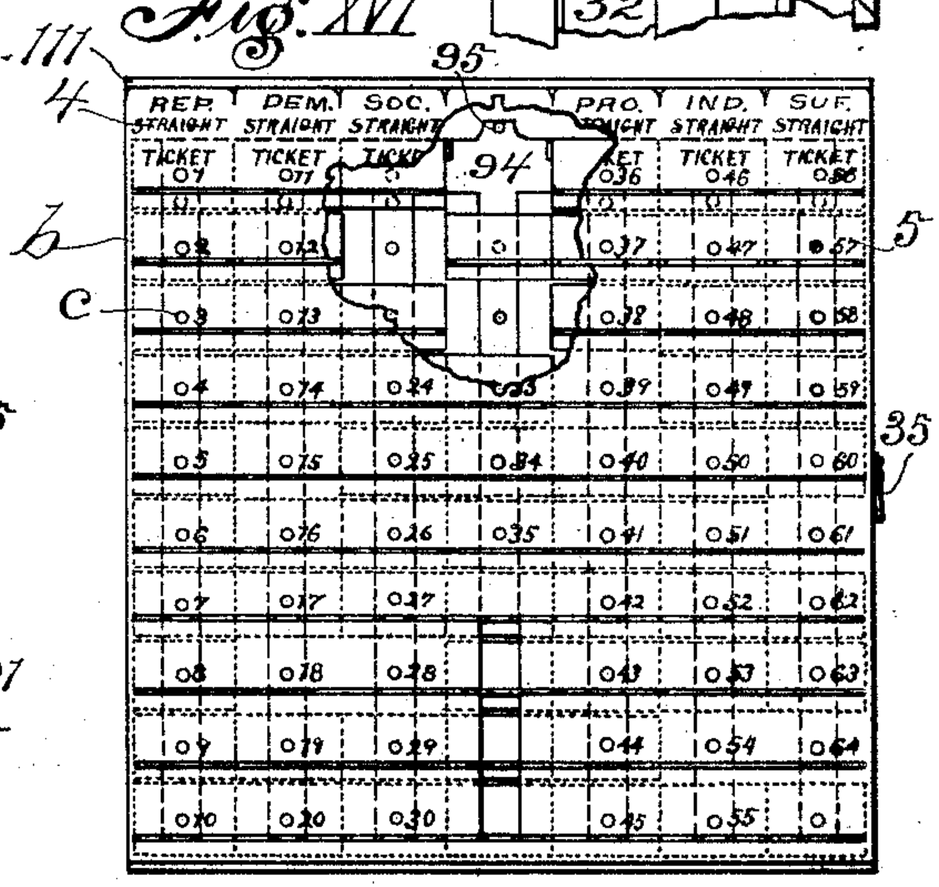


Fig. XVI



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5 SHEETS—SHEET 5.

Fig. XVII

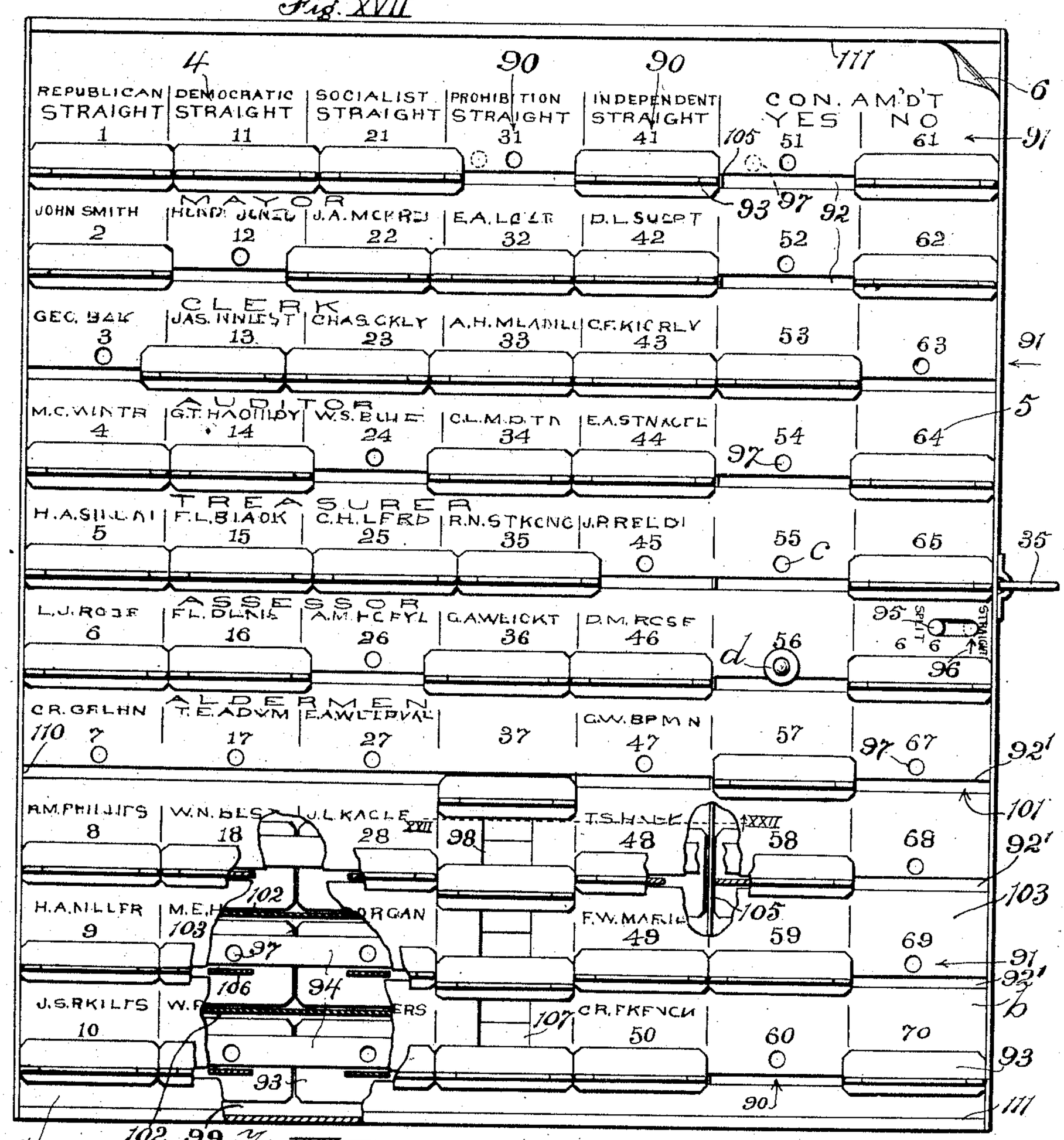


Fig. XIX

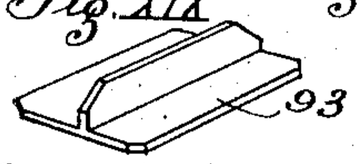


Fig. XX

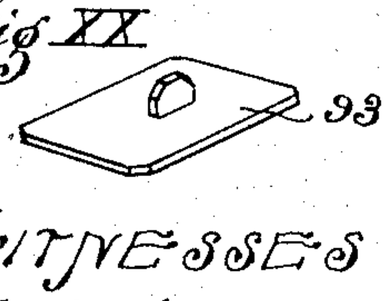


Fig. XVIII

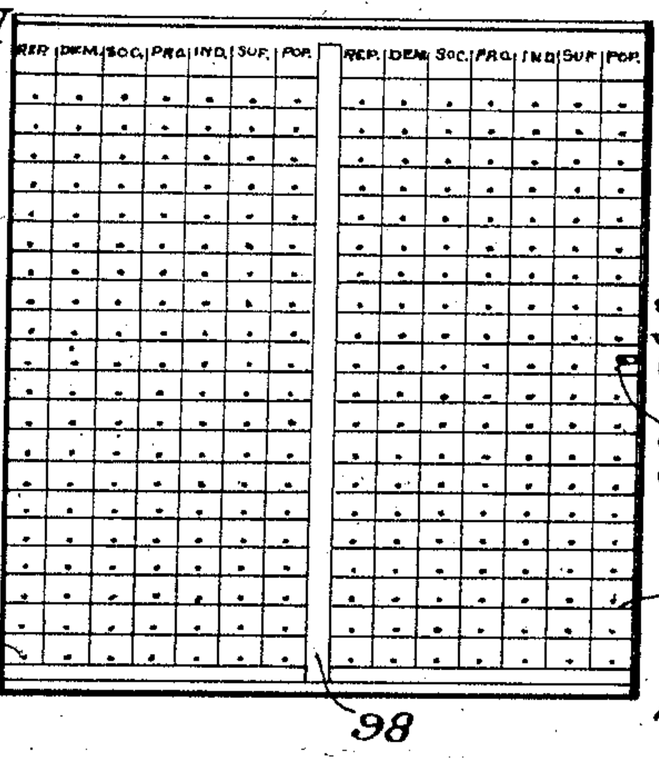


Fig. XXI

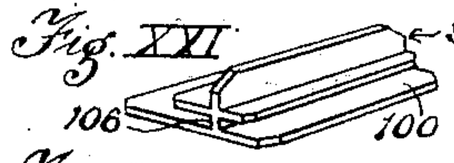
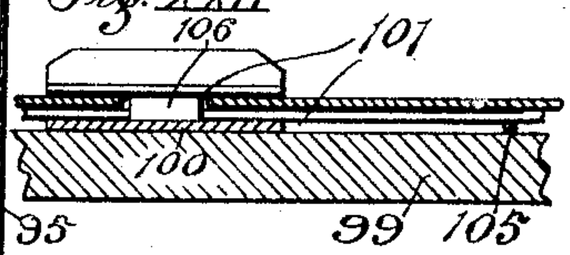


Fig. XXII



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UNITED STATES PATENT OFFICE.

DAVID L. NEWCOMB, OF SAN DIEGO, CALIFORNIA.

VOTE-REGISTERING MACHINE.

947,840. Specification of Letters Patent. Patented Feb. 1, 1910.

Application filed May 14, 1902. Serial No. 107,359.

To all whom it may concern:

Be it known that I, DAVID L. NEWCOMB, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented a new and useful Vote-Registering Machine, of which the following is a specification.

This invention relates to a voting-machine designed to carry out in a superior manner the invention set forth in my application for patent on voting-machines filed in the United States Patent Office, July 31, 1899, Serial No. 725,723, allowed May 25, 1900, and renewed April 14, 1902, Serial No. 102,916, and which voting-machine comprises independent and detached means in the nature of a mechanical ballot constructed to be arranged by the voter to indicate the vote he desires to cast, and means constructed to be operated thereby to register the vote so indicated, whereby each voter may be furnished at the polls with an independent detached ballot he can privately fix to indicate his vote while other voters are arranging like ballots with which they have been furnished, and when any voter has so fixed his ballot the same can be applied to the registering-mechanism to register the vote; the principle of said new voting-machine being that the ballot is a mechanical means, which is independent of and detached from the registering means, so that the preparation of any ballot does not interfere with the casting of any other ballot.

The means which the voter is to arrange to indicate his vote and which is to operate the registering means may consist of a member and means to be adjusted thereon to indicate the vote to be cast. Such vote indicating means may be parts hinged or otherwise fastened to said member and adapted to be adjusted thereon in different positions, and when in one position are adapted to actuate the counters of the machine, and when in another position are not adapted to actuate said counters; or said means may be detached parts, as pins, for instance, which may be adjusted on the member to indicate the vote; the machine being furnished with devices for displacing said means after the vote has been cast. I may use the term tappet for convenience to designate any of said vote indicating and counter actuating means.

An object of this invention is to produce a vote-registering machine of minimum size compared with the number of candidates for which the vote is to be taken, and designed to accommodate a ballot for a large number of candidates within as small a space as possible.

Considered in a general way, this machine comprises a registering-mechanism, or counter, a ballot-member furnished with a tappet-seat, a tappet for said seat for operating the registering-mechanism; means for producing a relative movement between the ballot member and the registering-mechanism to cause said mechanism to be operated by the tappet; and means for displacing the tappet from its operative position. Preferably such means consists in means for ejecting the tappet from its ballot-member.

In practice, the machine will be furnished with any desired number of registering mechanisms. Any desired number of ballot-members and tappets will be furnished with each machine.

The invention may be applied in various ways. For example, the ballot-member may be stationed in the machine with the tappets in place, and the registering-mechanisms may be moved to cause them to be operated by the tappets and may then be withdrawn and the tappet-ejecting mechanism or other tappet-moving mechanism may be moved to eject the tappets or otherwise move them out of operative position. Or, if preferred, the registering mechanisms may be stationed and the ballot-member moved to cause the registering-mechanisms to be operated by the tappets and also to cause the tappets to be displaced from operative position or ejected from the ballot-member. This latter arrangement is preferred and is illustrated in the accompanying drawings. In this form a plurality of registering-mechanisms are arranged in a single plane; a slideway is arranged extending at right angles to said plane; a ballot-member seat or carrier is arranged to slide in said slideway toward and from the registering-mechanisms; a flat ballot-member is furnished to seat in said carrier; and tappets are provided for said bal-

lot-member to be carried thereby to actuate the register-mechanisms respectively. Means are also provided for preventing any tampering with the registering-mechanisms before or after the ballot-member has been placed in the machine. Provision is also made whereby after each revolution, the mechanism becomes locked and can only be unlocked by the withdrawal and insertion of the ballot-member. Provision is also made whereby the register operating means are released for action only while the ballot-member is within the machine and in position where it can not be tampered with.

Another object of this invention is to provide simple and effective means whereby the machine can be locked by a plurality of persons each of whom is provided with a different key and the machine can only be unlocked by the use of all keys which have been employed for locking the same so that the representatives of any two or more parties may each be assured against any tampering with the machine in his absence on the way to or from the polling place. This is accomplished by means of a plurality of key operated bolts arranged in tandem which can be successively locked in position each to hold the preceding bolt from operation.

A further object is to provide means whereby the voter may arrange the ballot for registering a straight party ticket or at will may arrange the ballot for voting a split ticket, provision being made whereby when the ballot is arranged for voting a straight party ticket, no vote can be cast except for one party, or vice versa.

A further object is to provide means for preventing the withdrawal of the ballot-member until the tappets have been displaced from their voting position.

Another object of the invention is to provide against any unauthorized inspection of the ballot.

Another object is to provide a retractor for the counter operating mechanisms and to positively retract said retractor and lock it in its retracted position at all times, excepting when the ballot-carrier is nearly or fully in position for causing the tappets of the ballot to operate said mechanisms.

In view of the broad novelty of this machine and the many obvious forms of construction which may be employed as equivalents for various parts and combinations for applying the principle thereof, I propose in the accompanying description to point out the best mode in which I have contemplated applying the principle and to state my specific and distinct claims in as broad terms as I am capable of using. I regard myself as a pioneer in producing a voting-machine having a detached mechanical ballot. I believe this machine to be broadly new as a whole and in every part and combination, except as to any part or combination of parts thereof which are involved in my former invention above referred to, and which part or combination may not be claimed herein because of said other application.

A further object is to avoid any occasion for contesting an election, and to so construct the mechanical ballot member that its movable parts will automatically assume a conventional position when the tappets are displaced after voting and before said member can be inspected.

No attempt will be made herein to illustrate the various forms in which my invention can be carried out.

The accompanying drawings illustrate the invention in the preferred form.

Figure I is a perspective view of a vote registering machine embodying my invention. Portions of the case and interior parts are broken for clearness of illustration. The door of the case is shown open to expose the indicators of the counting registers which are concealed during the voting. A ballot is shown in the machine ready for being moved to register the vote. Fig. II is a view of a ballot-member ready for actuating the counters for voting a mixed ticket. Fig. III is a view of the tappet shield for hiding the face of the ballot-member to maintain secrecy while said member is being carried from the booth and inserted into the case of the machine. Fig. IV is a plan view of the machine. In this view the top portion of the case is omitted to expose the interior; the ballot-member is shown inserted ready for operation; a portion of the machine is broken away to expose a register or counter and the means for operating the same; and the tandem lock is shown unlocked. Fig. V is a fragmental rear elevation of the machine, a portion of the case being broken away to expose the means for locking the carrier frame. Fig. VI is a sectional detail of the tandem lock. Fig. VII is a fragmental detail of the outside of the case just rearward of the tandem lock. Fig. VIII is an elevation of the mechanism of the machine viewed from the left of Fig. I; portions being broken away to expose parts which would otherwise be hidden. A ballot is shown inserted and moved forward into position for actuating the registers. Fig. IX is an elevation from the same side as Fig. VIII showing the position of parts when a ballot-member is fully retracted and the retractor for the counter actuating mechanisms is retracted and locked. Some of the parts omitted from Fig. VIII are shown in this view. Fig. X is a detail illustrating the voted-ballot lock with the voted-ballot almost fully retracted and in position for being emptied by a further retraction which

will release said lock, and will bring the ballot into position for being locked by the empty-ballot-member in place just after the tion of the machine. The view illustrates the contrivance by which the ballot is prevented from being removed from the machine until the tappets have been displaced. Fig. XI is a fragmental detail illustrating the empty-ballot-member lock with the empty-ballot-member in place just after the tappets have been displaced. Fig. XII is a fragmental plan of the empty-ballot-member lock, shown in Fig. XI. Dotted lines show the ballot passing the catch. Fig. XIII is a fragmental detail illustrating the empty-carrier lock for locking the empty carrier against movement toward the registering-mechanism. Fig. XIV is a fragmental detail showing a ballot in position for operating the counters. One tappet is shown in place and a counter actuated thereby; and another counter is shown in front of a tappet-seat in which no tappet has been placed. In Figs. VIII to XIV arrows on certain parts respectively indicate the next movement of such parts. Fig. XV is a detail of a ballot-member from which the individual closers are omitted to avoid confusion in the view. A portion is broken to show the straight and split ticket closer which is adjusted to allow voting for a straight ticket and to prevent any vote for an individual candidate. Fig. XVI is a view of a ballot-member, a portion being broken away to expose interior construction. The straight and split ticket-closer is adjusted to allow voting for the candidates individually. Fig. XVII is an enlarged detail of a ballot partly prepared by the voter for voting a split or mixed ticket, and showing the preferred form of individual closers. Fig. XVIII illustrates a ballot for a larger number of candidates and offices. The closers are omitted from the view. Figs. XIX and XX are perspective views of individual closers shown in Fig. XVI. Fig. XXI is a perspective view of the preferred individual closers. Fig. XXII is a fragmental sectional detail of the ballot shown in Fig. XVII. Line XXII, Fig. XVII, shows the line of view, looking in the direction of the arrow. Fig. XXIII is a view of the general closer shown in Fig. XVII.

a designates independent registering-mechanisms furnished respectively with operating-devices *a'* having heads a^2.

b designates a ballot-member furnished with tappet-seats *c*. *d* designates tappets for said tappet-seats. The tappets may be variously constructed. In the preferred form the tappets *d* are formed in a shouldered pin and the tappet-seats *c* are preferably formed by perforations through the ballot-member *b*. The means for causing the tappets carried by the ballot-member to operatively engage their respective mechanism-operating devices preferably consist in a ballot-member seat or carrier *e* which slides in a slideway or guide 20 in the frame 30 of the machine.

f designates a removable case to fit over the frame. Said case *f* is in the form of a box open at the bottom and furnished with a door 12 at the front and also furnished with a slot *f'* in the top through which the ballot is to be inserted into the frame.

13 designates seal-seats through which screws 14 are passed to fasten the case to the frame. 15 designates sealing-wax in said seal-seats over the heads of the screws 14 to insure against the surreptitious removal of the case from the frame after the machine has been sent from the general custodian.

Preferably the case and the bottom of the frame will be formed of sheet metal pressed into the desired shape and when the screws 14 are removed the case can be withdrawn from the frame and again placed thereon at pleasure.

The wall of the slot *f'* may be notched, as shown at 16, in Fig. I, to allow the insertion of the ballot through a minimum opening, with the tappets *d* in operative position, while the face of the ballot is covered by a fluted shield *o*.

The register-mechanism operating-devices *a'* normally stand in a plane which extends parallel with the slot and at right angles to the path of the ballot-member.

g designates tappet-displacers consisting in pins in alinement with the perforations or tappet-seats *c* in the ballot-member when said ballot-member is seated in the ballot-seat or carrier. These tappet-displacers are on the opposite side of the slot from the registering mechanism operating-devices, so that when the carrier has been moved forward to cause the tappets to operate the registering-mechanism operating-devices and then is retracted, the said ballot-member may be carried back across beneath the slot *f'* and will then be brought to receive in the tappet-seats *c* the tappet-displacers *g*, thereby ejecting the tappets from said seats.

The ballot-member, while between the slot and the registering-mechanism operating-devices, forms a protecting-shield for such devices; but when the ballot-member and its carrier have been retracted behind the slot *f'* for the purpose of displacing the tappets, the passage is open from the slot to the inner ends of the registering-mechanism operating-devices; and such passage is also open when the ballot-member carrier is in its normal position and the ballot-member withdrawn.

In order to prevent any tampering with the registering-mechanism operating-devices at any time when such devices are not pro-

tected by the ballot-member and its carrier, the machine is furnished with a retractor and lock for the registering-mechanism operating-devices. This retractor and lock comprises a sheet, plate or frame h which forms the retractor and registering-mechanism operating-device-lock proper, and means adapted and arranged for retracting the member h and normally holding it retracted and locked. Such means may consists in levers h' each pivoted by a pivot h^2 to the frame 30 and operatively connected with the ballot carrier e to be moved thereby to retract the member h when the carrier moves backward, and to release the member h at the latter portion of the forward movement of the carrier. The means shown for connecting the levers h' with the ballot carrier e consists in studs h^3 on said carrier each working in a bent slot in its lever. Each slot has a portion h^4 that extends parallel with the paths of the studs h^3 when the lever is in the retracting position, shown in Fig. IX, and a portion h which is parallel with said path when the lever is in its unlocked position, shown in Fig. VIII, and an oblique portion h^6 connecting the portions h^4 and h^5, so that while the ballot carrier e is retracted from the member d the levers h' are locked in the retracting position, and when the ballot carrier e moves forward the stud h^3 enters the oblique portion h^6, and acts on the oblique walls thereof, thereby moving the lever out of the way of the member h and allowing said member to yield to the pressure of the tappets d on the heads a^2 of the operating-devices a'. This retractor and lock prevents the registering-mechanisms from being operated except when a ballot-member with a tappet or tappets thereon is properly operated in the usual way for registering a vote. Another purpose of the retractor and lock is to positively return all of the registering mechanisms to normal position after a vote has been registered and before the ballot-member has been withdrawn from the machine and before the ballot-member is sufficiently retracted to allow any tampering with the registering-mechanism operating-devices through the slot f'.

Each of the pins or rods a' which compose the registering-mechanism operating-devices, extends through the retractor h and is furnished on its inner end with the shoulder, projection or head a^2 which serves the triple purpose of receiving the thrust of the tappet d and of pushing forward the retractor proper h when the vote is being recorded, and of being returned by the retractor.

The portions h^4 and h^5 of the slot, as shown, radiate from the pivot h^2; and the stud h^3 is in a horizontal plane with said pivot so that the ballot carrier may be moved a distance at each end of its path without moving the levers. The intermediate portion h^6 is at an angle to the radii in which the terminal portions h^4 and h^5 lie, and said terminal and intermediate portions may be proportioned and arranged to cause the lever to move at the exact desired period of the movement of the ballot carrier. The levers may be moved from one to the other position by a half inch movement, more or less of the carrier, and at the same instant the tappets may be acting on the counter operating devices a' so that the entire movement of the carrier necessary for actuating the counters might occur while the stud is in the intermediate portion h^6; and the terminal h^5 may be enlarged to allow headed studs h^3 to pass therethrough in applying the levers to or removing them from the carrier. The said enlarged ends are desirably beyond the path along which the studs move in operating the machine, so that the levers can only be connected with and disconnected from the carrier while detached from the frame of the machine.

To avoid any binding of the retractor, a plurality of levers h' are employed, the same being reversely constructed and arranged, as shown, to act simultaneously upon the upper and lower portions of the retractor at both sides of the machine. The levers may be formed of stamped sheet metal or any other suitable material.

h^7 designates projections from the levers extending in front of the retractor h so that when the other ends of the levers are moved to bring the portions h^4 of the slots toward each other, the retractor h is forced backward by said projections h^7.

The retractor h is desirably formed of pressed sheet metal and has a stiffening-rim h^8 and is furnished with holes h^9 through which the actuating stems a' and the springs i for retaining the same, pass; thus allowing the retractor to play freely without moving any springs or pins which are not actuated by the tappets.

Each of the counter-operating devices a' is adapted and arranged to carry the retractor toward the registering-mechanisms when said device is moved to operate its mechanism; and is also adapted and arranged by means of the head a^2 to be retracted whenever the retractor is retracted.

i designates springs for the operating-devices a', respectively, which tend to normally hold said operating-devices a' retracted. These springs are preferably spiral springs seated in a member 32 of the frame and arranged surrounding the stems or rods a' and pressing against the heads a^2, respectively.

j designates a part of the counter a to which the device a' is attached.

It is to be understood that any form of ballot-member seat or carrier may be furnished and that any suitable mechanism for

reciprocating said carrier may be supplied; but I prefer to operate the ballot-seat or carrier by means of a cam-shaft turned by a crank.

u designates the cam-shaft, *v* the cams on the same, *w* the crank for turning the shaft *u*.

x is a spring-stop to stop the crank at the appropriate place to cause the ballot-member seat or carrier to register with the slot *f'* through which the ballot-member is to be introduced into the carrier.

y is a ratchet to prevent the cam-shaft *u* from turning in more than one direction.

z is an eccentric-strap, cam-frame or runway connected with the ballot-member seat or carrier *e* and sliding in a horizontal slideway 20 desirably formed of rods. The cam-frame *z* may be a plate with an open slot for the cam *u* and arranged to be moved by said cam, thereby to move the ballot-carrier to and fro.

3 designates a drawer to receive the tappets after they have been ejected from the ballot-member.

k is an upward extension forming a guide at the edges of the opening *f'* to guide the ballot into the carrier.

m is an external flap controlled by a spring *n* to rest on top of the guide and to close the opening when the shield *o* set forth and claimed in my said former application is withdrawn from the inserted ballot. The spring *n* may be fastened to the flap and arranged to engage the top of the case when the flap is raised to admit the ballot and shield.

The ballot-receiving slot *f'* is preferably in the top of the case, and in practice the voter will be given a ballot-member *b* with a suitable number of tappets, and allowed to enter a booth, not shown, where he may fix his ballot in secret.

The ballot-member may be furnished with the names of the different candidates arranged respectively at the tappet-seats; or the candidates and items to be voted for may be designated by words 4 or numbers 5. This may be accomplished by furnishing for the ballot-members a paper ticket 6 printed to correspond with the tappet-seats; marks 4 and 5 being applied to indicate the names and offices of the candidates, which are allotted for said tappet-seats, respectively. A like ticket, 61, may be printed for the face of the register and fastened to a face-plate 8 which is furnished with slots 9 to expose the readings of the registers *a*. The face-plate 8 or ticket 61 may be marked with numbers 7 to correspond with the marks for candidates and other items on the ballot, and arranged to correspond with the positions which the same will occupy on the ballot when it is in the ballot-seat.

The face-plate 8 is detachable and may be removed from the machine for access to the registers when they are to be turned to zero or when a ticket is to be fastened to the face-plate; and the ticket may be slotted in any suitable manner to correspond to the slots of the face-plate. When the registers are at zero, and the ticket has been applied to the face-plate, and the same is placed in the case and the door 12 closed, then the machine is ready for use.

p designates sealed screws by which the face plate 8 is attached to the frame 30.

A sufficient number of ballot-members, each furnished with the appropriate ticket, containing marks indicating all the candidates, the offices, and other items, will be provided for each polling place. Sample printed ballots may also be provided for each booth. The voter will be allowed to take a ballot-member and a shield *o* and will retire to a private booth which will be supplied with a suitable number of tappets. He will then insert tappets to indicate the candidates for whom he wishes to vote. Then he will place the shield over the face of the ballot, thus covering the tappets and preserving his ballot in secrecy. He will then hand the ballot to the election officer, who, having brought crank *w* against the stop *x*, will lift the flap *m* to uncover the ballot-slot and will then insert the ballot-member with the shield thereon through the ballot-slot, and into the ballot-seat or carrier. He will then withdraw the shield and allow the flap *m* to again close the slot. The appropriate person will then press in the stop *x*, operate the machine to cause the registering-mechanisms to be actuated by the tappets, and will further operate the machine to displace the tappets. The tappets ejected from the ballot-member will fall into the drawer, and by a further movement of the crank, the ballot-member will be brought beneath the slot and will then be withdrawn from the slot.

35 designates a handle on the ballot by which it can be withdrawn.

To operate the machine which I have shown in the drawings, the crank *w* will be turned in the direction of the arrow in Fig. VIII, thus turning the cam *v* to move the eccentric strap or cam-frame *z* and the ballot-carrier *e*, thus bringing the tappets *d* into contact with the head a^2 of the register-operating devices *a'*. The operating-device or devices *a'* thus actuated, will move forward and will carry the retractor *h* forward until the registering-mechanism has been moved forward one figure. At the advance of the carrier, the studs h^2 will act on the levers at the portions h^6 of the slots, thus unlocking the retractor and allowing it to move forward. The cam is so arranged that as the crank is further rotated, the carrier *e* will move the ballot back across beneath the slot far enough to bring the tappets *d*

against the ejectors g, and farther until the ejectors extend through the ballot-member sufficiently to eject the tappets. A further movement of the crank will return the carrier into position beneath the ballot-slot. The catch or stop x is arranged to intercept the crank at this point and prevent it from further rotation.

One revolution of the crank accomplishes the work of registering the vote for all of the candidates for whom the voter has arranged his ballot. After the vote is registered and the ballot-member has been removed, the machine is immediately ready for another vote. After the next ballot-member has been placed in the machine, the catch x will be sprung out of the way of the crank and another revolution of the crank will be given, and so on as the voting proceeds.

a^3 designates a total-vote registering-mechanism actuating-device fixed to the retractor h to actuate the total register a^4 at each reciprocation of the retractor h.

The retractor will only move forward when the tappet is applied to cast a vote for some candidate or item on the ballot and an additional counter a^5, adapted and arranged to be actuated at each revolution of the machine, may be applied to some suitable portion of the apparatus to register the total number of revolutions which the machine makes during the recording of the total vote, so that this last-mentioned counter may record the total number of persons voting, while the counter a^3 will simply record the number of actual votes which have been cast. In this way it is immaterial whether the voter casts a vote or simply puts in a blank ballot; as the machine will ultimately show the total number of persons voting, and also the total vote; and if the total vote recorded is less than the number of voters who voted, the discrepancy between the total vote and the number of voters will be accounted for as blank ballots, thus accounting for all voters and avoiding occasion for contesting an election.

In order that the machine shall be operated only for the purpose of recording a vote regardless of whether the ballot voted is a blank ballot or not, the machine is provided with ballot-disengaged means for normally holding the ballot-carrier retracted. The mechanical ballot is adapted and arranged to enter said carrier and to release said means when the ballot is seated in the carrier. Such means may consist in a gravity-operated latch 40 pivoted by a pivot 41 to the carrier e and furnished with an arm 42 which extends downward aslant into the ballot-way 43 to be acted on by the ballot as it descends, and to be forced out of said way by said ballot, thus lifting the latch 40 from the catch 44 therefor on the frame, so that the latch 40 remains released so long as the ballot remains in the carrier. When the ballot is removed, the latch 40 holds the carrier in a determined position to receive another ballot. The carrier and frame are thus locked together at all times when the ballot is not in the carrier.

45 is an opening in the carrier e through which the arm 42 projects into the way 43. 46 is another arm which rests against the back of the carrier e to hold the latch 40 in position to engage the catch 44 on the return of the carrier after the ballot has been moved toward the voting-mechanisms.

In order that the ballot may not be moved forward while it is in the carrier and after it has been retracted behind the opening f' through which it enters the case and the carrier, I provide an automatic catch adapted and arranged to catch the ballot-member when retracted and to be released only by the withdrawal of the ballot; and means are provided for yieldingly holding said catch normally out of the way through which the ballot is inserted into the carrier. This feature is illustrated in Figs. X, XI and XII, in which 50 is a catch-carrier mounted to move on the frame toward and from the ballot-carrier e. 51 and 52, respectively, designate studs and slots for the same by which the catch-carrier 50 is mounted on the frame. 53 is the ballot-catch, and 54 a projection in the form of a ledge along the edge of the ballot-member b, the same serving the double purpose of seating in the runway 43 of the ballot-carrier to hold the ballot in said carrier, and of serving to receive the catch 53. Any suitable means may be provided to normally hold the catch-carrier 50 retracted. 55 designates gravity-operated means in the form of a weighted lever pivoted to the frame at 56 and furnished with an arm 57, acting on a shoulder 58 on the catch-carrier 50, to normally hold said catch-carrier retracted to hold the ballot-carrier e. 59 is a slot in the frame 30 through which the catch 53 may be sprung outward to allow the projection 54 to pass backward to be caught by the catch when the ballot is retracted back of the slot f'. The frame 30 constitutes means for engaging the catch 53 when it is in its forward position shown in Fig. XII and thus preventing the catch from being released from the projection 54 of the ballot-member b, but allowing the ballot-member to be drawn up through the opening f'. When the ballot is so withdrawn, the catch 53 will be released and the weight 55 will return the carrier 50 and the catch 53 backward so that the catch will be out of the way of the next ballot which may be inserted into the machine. e' is a notch in the ballot-carrier through which the catch 53 passes to engage the ballot. Preferably a ballot-member lock of the character just de-

scribed is provided for each side of the machine to simultaneously hold both edges of the ballot member.

Means adapted and arranged to allow the ballot to pass once in one and the other direction and to engage the ballot to prevent the removal thereof until the means for actuating the counters have been displaced, are provided. A form of such means is illustrated in Figs. X and XI. 60 is an internal flap hinged to the top of the case between the notched wall of the slot *f'* and the counters. The same is adapted to normally hang by gravity, as shown in Fig. XI, in the path of the ballot and its carrier, so that when the carrier is moved forward, the flap 60 swings forward with it and allows the carrier to pass entirely beyond it as shown in Fig. XIV, whereupon the flap hangs by gravity ready to allow the carrier to move backward again into the position shown in Fig. X, wherein the flap rests on the top of the ballot and will not be released therefrom until the displacers *g* have entered the holes or seats *c* in the ballot-member *b*, thus insuring against any removal of the ballot until a return movement of the carrier toward the front. The empty ballot-lock 53 is arranged to engage the projection 54 of the ballot-member before said member has passed the flap 60, so that when the flap has been released to hang in position shown in Figs. XI and XIV, the ballot cannot be returned to the counters, but must be drawn out through the opening *f'* before the machine can make another revolution.

The flap 60 practically prevents any inspection of the ballot until the tappets have been ejected. But it is to be understood that during all this operation the external flap *m* will be in closed position so that no inspection of the opening *f'* can be had without the connivance or consent of those present.

In order to provide cheap and simple means for preventing any unauthorized operation of the machine, I provide a lock which I term a tandem lock, comprising a plurality of separate and independent bolts, as 70, 71, 72, one of which is arranged to lock a part 73 which prevents any operation of the machine. The several bolts are to be operated by different keys, not shown, as indicated by the different shaped keyholes, 74, 75, 76, in Fig. VII. Separate bolts and keys may be provided for the representatives of the several political parties entitled to recognition, so that a representative of one party provided with one key will throw the bolt 70; a person with another key will throw the bolt 71; and another one will throw the bolt 72; and it is only by the cooperation of all in the regular order that the machine can be locked or unlocked.

In the form shown the part 73 is a lever pivoted at 77 to a bar 78 which is fastened to the frame of the machine. 79 is a part moving on the frame to intercept the cam-frame *e* to prevent the operation of the machine. Said part 79 is actuated by the lever 73 through the medium of a lever 80, as clearly shown in Fig. V. A part 79 is preferably provided for each side of the machine.

The ballot-member *b* may be constructed of aluminum, or other suitable material, and is provided with tappet-seats *c* arranged in rows 90 and 91 which cross each other; the rows 90, which run in one direction, being devoted to the character of vote to be voted, as "Republican", "Democrat", "No", "Yes", etc., and the rows 91, which run in the other direction, being devoted to the individual candidates or items to be voted for.

92 designates ways which extend along the rows 91, and 93 designates adjustable individual closers which run along said ways and being sufficient in number to close all of the seats therealong except the seat or seats the voter is entitled to use in casting his vote. Each of the closers 93 is adapted to close any seat in the row to which it pertains.

94 designates closers for the rows 90 devoted to the character of votes to be voted. These closers are all connected in a single piece and are operated by a handle 95 and are adapted to be simultaneously moved into one position to close all of the seats excepting those in one of the rows 91, which seats are devoted to straight party votes, and to be simultaneously moved into another position to close the seats of said one row and to withdraw from all the other seats.

The method of preparing a ballot for a straight party vote is as follows:—The voter will move the handle 95 to the outermost arrow 96, shown in Fig. XVII, which stands opposite the word "Straight," thus indicating to him that the ballot-member is then ready to be arranged for voting a straight party ticket. He will then appropriately move any of the closers 93 in the upper row to expose the ballot-seat devoted to the straight ticket he desires to vote. For instance, if he desires to vote a straight Republican ticket, he would move to the right all of the closers which are in the uppermost of the rows 91 underneath the words "Republican Straight," "Democratic Straight," "Socialist Straight," and "Prohibition Straight," thus leaving all of the seats closed excepting that under the words "Republican Straight;" then he would insert the tappet into the seat under the words "Republican Straight" and his ballot would then be ready to receive the shield *o* and to be taken to the election officers to be voted. When the handle 95 is at the dotted position in Fig. XVII, the closers 94 being all in one

piece, will close all of the seats under the several party heads excepting those in the top row. 97 designates holes in the piece which constitutes the closers 94 to register with the seats c' of the individual votes when the handle 95 is in the position shown in solid lines in Fig. XVII to indicate a split ticket; and when the closers 94 are in this position the seats for the individual candidates or items will not be closed thereby, and the seats for the straight ticket will be closed thereby.

To vote a split ticket, or to vote for the individual candidates, the voter will move the handle 95 into the position shown in Fig. XVII, and then by moving the appropriate closers 93, he can uncover the seats for the individual candidates, and may insert the tappet or tappets as desired to fix the ballot for the desired vote for individual candidates, measures, or other items, though the seats of the upper row cannot be used for any tappet, because said seats are closed by the closer 94. 98 designates a crossway communicating between a plurality of the ways 92, and along which ways and crossway, closers may be slipped in order to provide for voting for aldermen, or for any other set of officers in which two or more candidates in any one party may be entitled to be elected. That is to say, in the ballot shown, provision is made for voting for any four out of sixteen aldermen; four aldermen being provided for in each party. By appropriately moving the individual closers 93, the desired seats may be left open for voting and a vote may be cast for any four candidates out of the total sixteen.

99 designates the main body of the ticket.

The closers may be of various forms. In Figs. XIX, XX, XXI, XXII and XXIII, some of the forms which may be used are shown. In Figs. XXI and XXII, the closer is provided with a T shaped head 100, to play in a T shaped slot 101. 102 designates supports for the portions 103 of the ticket which form the guides for the individual closers 93.

The individual closers 93 may each be slightly longer than the space between the individual seats c sq that the joint between any two of the individual closers will not coincide with any of the individual seats which are not to be used.

At the right of Fig. XVII are shown two columns for positive and negative votes on constitutional amendments and other initiative and referendum voting. 105 designates stops which separate between the "Yes" and "No" columns and the columns devoted to the party ticket, and an individual closer is applied for closing either the "Yes" or the "No" seat in voting for any question which may be submitted to popular vote for decision. The general closer 94 in such case would not extend to close any of the seats in the "Yes" and "No" columns. In Fig. XXII the stems 106 of the individual closer are sufficiently narrow to play up and down in the cross slot or way 98 which communicates between the ways 92′ at the lower part of Fig. XVII.

The printing on the ballot member is arranged so that the runways 92 extend horizontally across the ticket while the ballot is being fixed; but the handle 35 for withdrawing said ballot from the case f is at one side of the ticket so that when the ballot is held edgewise with said handle at the uppermost edge, the runways will extend vertically. The individual closers 93 and the general closers 94 run freely in their respective runways so that when unsupported by a tappet or other means they will slide down to assume a conventional position so that after the ballot has been inserted into the machine and the vote registered and the tappets displaced, all of the closers will assume the conventional position. This is true of the closers for the straight tickets as well as those for the individual candidates and items, so that before the ballot members can be withdrawn from the machine, all of the individual closers will be in conventional position uniformly assumed in every ballot member when withdrawn from the machine, so that the ballot member thus withdrawn will not indicate the vote which the candidate has cast. For this reason the split ticket position of the general ballot closer 94 is below the straight ticket position when the ballot member is in the voting position; that is to say, when the edge which is at the right in Fig. XVII is at the top as suggested in Fig. II.

110 designates stops at the ends of the ways 93 to retain the individual closers in said ways.

111 designates fastening devices at the top and bottom of the ballot member to hold the shield in place while the same is being inserted into the carrier. Any suitable form of means may be employed for this purpose. The means shown is a slideway into which flanges 112 on the shield slip.

It may be found desirable in some instances to provide at each polling place a number of machines to be voted at, successively, one for the national and one for the State and county.

In the form shown in Fig. XVIII the cross runway 98 communicates with all the runways 92; and forty of the seats c^2 are left open by the closers so that in case of a presidential election a vote may be cast for any forty of the electoral candidates and for no more.

The machine may be made in practical form adapted for use of four hundred candidates and items, more or less.

The general closer may be formed with a cross-bar 114, and fingers 115 and 116, as shown in Fig. XXIII; the holes 97 in the fingers 116 being arranged in rows to cross each other and corresponding to the seats in the ballot member, while the holes 97′ in the finger 115 are off set from the cross-bar so that when the closer 94 is brought into one position the holes 97′ will register with the seats for the straight party vote, and the holes 97 will not register with the seats to which they pertain; and on a reverse movement, the holes 97 will be brought to register with their seats, while the holes 97′ will be brought out of register with their seats.

In Figs. I and IV means are shown for actuating the total revolution-counter a^5, the same consisting in a block 117 sliding on a guide 20, and connected with said counter by an arm 118 and a connecting rod 119; the block 117 being arranged between the parts 120 and 121 of the eccentric strap z and being so proportioned that when the eccentric strap moves in one and the other direction it moves the block 117 fully to and fro to actuate the counter a^5 and register a number.

What I claim and desire to secure by Letters-Patent of the United States is:—

1. A vote-registering machine comprising a plurality of registering-mechanisms arranged in a single plane; a slideway extending at right angles to said plane; a ballot-carrier to slide in said slideway; a ballot-member to seat in said carrier; and tappets carried by said ballot-member to actuate the registering-mechanisms respectively.

2. The combination of the case furnished with a ballot-member-receiving slot; a plurality of registering-mechanisms arranged in a plane which extends parallel with the slot; a slideway extending at right angles to said plane and slot; a ballot-carrier to slide in said slideway across beneath the slot and toward and from said registering-mechanisms; a ballot-member to fit in said carrier; and tappets for said ballot-member to actuate the registering-mechanisms.

3. A vote-registering machine comprising independent registering-mechanisms furnished with operating-devices respectively; a detached ballot-member; tappets for said ballot-member to be carried thereby to register with the registering-mechanism operating-devices; means for causing the tappets to operatively engage their respective mechanism-operating devices; and means for displacing the tappets from their operative positions.

4. A vote-registering machine comprising independent registering mechanisms, furnished with operating-devices, respectively; a ballot-member furnished with tappet-seats; tappets for said tappet-seats to register with the registering-mechanism operating-devices; means for causing the tappets to operatively engage their respective registering-mechanism operating-devices; and positive means for ejecting the tappets from the tappet-seats.

5. The combination of a vote-registering machine comprising a registering-mechanism; a ballot-member furnished with a tappet-seat; a tappet for said tappet-seat; means for causing an engagement between the tappet and the registering-mechanism operating-device to operate the registering-mechanism; and operative means for ejecting the tappet from its seat.

6. The combination of a vote-registering machine comprising a registering-mechanism; a ballot-member furnished with a tappet-seat; a tappet for said tappet-seat; means for causing an engagement between the tappet and the registering-mechanism operating-device to operate the registering-mechanism; and operative means for displacing the tappet.

7. In a vote-registering machine, the combination of a registering-mechanism; a ballot-member furnished with a tappet-seat; a tappet for said seat for operating the registering-mechanism; means for producing a relative movement between the ballot-member and the registering-mechanism to cause said mechanism to be operated by the tappet; and operative means for ejecting the tappet from its seat in the ballot-member.

8. In a vote-registering machine, the combination of a registering-mechanism; a ballot-member furnished with a tappet-seat; a tappet for said seat for operating the registering-mechanism; means for producing a relative movement between the ballot-member and the registering-mechanism to cause said mechanism to be operated by the tappet; and operative means for displacing the tappet.

9. In a vote-registering machine, the combination of a registering-mechanism; a ballot-member furnished with a tappet-seat; a tappet for said seat for operating the registering-mechanism; a tappet-ejector stationed in line with the tappet; means for reciprocating the ballot-member between the ejector and the registering-mechanism to first cause said mechanism to be operated by the tappet, and then to cause the tappet to engage the ejector and thereby to be ejected from the ballot-member.

10. In a vote-registering machine, the combination of a registering-mechanism; a ballot-member furnished with a tappet-seat; a tappet for said seat for operating the registering-mechanism; a tappet-displacer; means for reciprocating the ballot-member between the displacer and the registering-mechanism to first cause said mechanism to be operated by the tappet, and then to cause the tappet to engage the displacer and thereby to be displaced.

11. A vote-registering machine comprising registering-mechanisms, respectively provided with an operating-device; a retractor for the registering-mechanism operating devices to return said devices to normal position, each of said devices being arranged to carry the retractor toward the registering-mechanisms when said device is moved to operate its mechanism; a ballot-member furnished with tappet-seats; tappets for said seats to be brought into line respectively with the mechanism-operating devices; tappet-ejectors for said tappets, respectively; means for reciprocating the ballot-member to move it toward the registering-devices to bring the tappets into engagement with the registering-mechanism operating-devices respectively, and on the reverse movement to bring the tappets into engagement with the ejectors respectively to discharge the tappets from their seats in the ballot-member.

12. A vote-registering machine comprising registering-mechanisms respectively provided with an operating-device; a retractor for the registering-mechanism operating-devices to return said devices to normal position, each of said devices being arranged to carry the retractor toward the registering-mechanisms when said device is moved to operate its mechanism; a ballot-member furnished with tappet-seats; tappets for said seats to be brought into line respectively with the mechanism-operating devices; tappet-displacers for said tappets, respectively; means for reciprocating the ballot-member to move it toward the registering-devices to bring the tappets into engagement with the registering-mechanism operating-devices respectively, and on the reverse movement to bring the tappets into engagement with the displacers respectively to displace the tappets.

13. A vote-registering machine comprising registering-mechanisms respectively provided with an operating device; a retractor for the registering-mechanism operating-devices to return said devices to normal position, each of said devices being adapted and arranged to carry the retractor toward the registering-mechanisms when said device is moved to operate its mechanism; a ballot-member; tappets for said ballot-member, to be brought into line respectively with the mechanism-registering devices; tappet-displacers for said tappets respectively; means for reciprocating the ballot-member to move it toward the registering-devices to bring the tappets into engagement with the registering-mechanism operating-devices respectively, and on the reverse movement to bring the tappets into engagement with the tappet-displacers respectively to displace the tappets from their operative positions in the ballot-member; and means for returning the retractor at the return movement of the ballot-member.

14. A vote-registering machine comprising registering-mechanisms respectively provided with an operating device; a retractor for the registering-mechanism operating-devices to return said devices to normal position, each of said devices being adapted and arranged to carry the retractor toward the registering-mechanisms when said device is moved to operate its mechanism; a ballot-member; tappets for said ballot-member to be brought into line respectively with the mechanism-registering devices; tappet-displacers for said tappets respectively; a seat for said ballot-member; means for moving the seat toward and from the registering-devices to bring the tappets into engagement with the registering-mechanism operating-devices respectively at one movement, and on the reverse movement to bring the tappets into engagement with the displacers respectively to displace the tappets from their operative positions in the ballot-member; and means operated by the carrier to return the retractor at the return movement of the carrier.

15. A vote-registering machine comprising a ballot-carrier; registering mechanisms respectively provided with an operating device; a retractor for the registering-mechanism operating-devices to return said devices to normal position, each of said devices being adapted and arranged to carry the retractor toward the registering-mechanisms when said device is moved to operate its mechanism; means for normally locking the retractor in its retracted position, and adapted and arranged to be unlocked at the advance movement of the ballot-carrier; a ballot-member; tappets for said ballot-member to be brought into line respectively with the mechanism-operating devices when the ballot-member is in said carrier; tappet-displacers for said tappets respectively; means for reciprocating said carrier to move the ballot-member toward the registering-devices to unlock the lock of the retractor and to bring the tappets into engagement with the registering-mechanism operating-devices respectively, and on the reverse movement to bring the tappets into engagement with the tappet-displacers respectively, to displace the tappets from their operative positions in the ballot-member; and means operated by said carrier to return the retractor at the return movement of said carrier.

16. In a vote-registering machine, the combination of independent registering-mechanisms; a ballot-member carrier arranged to move toward and from said mechanism; a ballot-member arranged to be inserted in said carrier; tappets for said ballot-member to register with the registering-

mechanism operating-devices; a cam-frame connected with the ballot-member seat; a cam-shaft arranged with its cams to operate the cam-frame; and means for rotating the shaft.

17. In a vote-registering machine, the combination of independent registering-mechanisms; a ballot-member carrier; a ballot-member arranged to be inserted in said carrier; tappets for said ballot-member to register with the registering-mechanism operating-devices; a cam-frame connected with the ballot-member seat; a cam-shaft arranged with its cams to operate the cam-frame; means for rotating the shaft; and tappet-displacers arranged in the path of the tappets to displace them from their operative position at the return movement of the ballot-member.

18. In a voting-machine, the combination of a case furnished in the top with a ballot-receiving slot; a ballot-carrier; ballot-displacers behind said carrier; registering-mechanisms in front of the carrier; a retractor for retracting the operating-devices of such mechanisms; means on the registering-mechanism operating-devices for respectively throwing the retractor forward and to be drawn back by said retractor; means for reciprocating the ballot-carrier across beneath said slot; a ballot-member to slide into said carrier through said slot; tappets for said ballot-member to actuate the registering-mechanism operating devices when the ballot-member is thrown forward, and to engage and be displaced by the tappet-displacers when the ballot-member is fully retracted; and a catch connected with the retractor and adapted to be retracted by said carrier when the same is retracted.

19. In a vote-registering machine, the combination of a ballot-carrier; a cam-frame connected with said carrier; a shaft furnished with cams working in said frame; means for turning the shaft in one direction; and means for preventing the shaft from turning in the other direction.

20. In a vote-registering machine, the combination of a case furnished with a slot; a ballot-carrier beneath said slot; a perforated ballot-member; tappets for the perforations of said ballot-member to operate the registering-mechanisms of the machine; said registering-mechanisms on one side of the slot; tappet-ejectors on the other side of the slot; and means for operating the carrier to first bring the tappets into engagement with the mechanism-operating devices and to insert the ejectors into the perforations after the ballot-member has passed the slot on its return movement.

21. A vote-registering machine furnished with registering-mechanisms; an exhibiting-ballot furnished with slits to correspond with the sight-openings of the registers and with spaces to receive the names of the candidates; a detached ballot-member marked to correspond with the names of the candidates respectively and with tappet-seats, one for each of said names, the names on the ballot-member and on the exhibiting-ballot corresponding in relative position with each other; tappets for the tappet-seats; and means for operating the ballot to cause the tappets to operate the registering-mechanisms.

22. A vote-registering machine comprising ballot-registering mechanisms; a ballot-registering-mechanism-retractor through which the operating-devices of the ballot-registering mechanism extend; projections on said operating-devices to advance the retractor and to be retracted by the retractor; a total vote-registering mechanism, the operating-device of which is fastened to the retractor to move therewith; a ballot-carrier to move toward and from the registering-mechanism operating-devices; a ballot-member to be carried by said carrier; tappets for said ballot-member to actuate the registering-mechanism operating-devices; and means for retracting the retractor at the return of the carrier.

23. A vote-registering machine comprising an independent detached ballot-member; adjustable members constructed to be arranged thereon to indicate the desired ballot; and a plurality of independent and separate registers to be operated by said ballot member and arranged to register the vote so indicated.

24. A voting machine comprising a plurality of separate and independent registers, a mechanical ballot having members for actuating said registers, and means for moving the ballot toward and from said registers.

25. A voting-machine comprising an independent and detached mechanical ballot, a case having an opening therein for said ballot, counters at one side of the opening, devices at the other side of the opening for displacing operative parts of the ballot, a carrier arranged to move the ballot past the opening in one direction to actuate the counters, and in the other direction to displace operative parts, and means for operating said carrier.

26. A voting-machine comprising a case having an opening therein, counters at one side of the opening and at a distance therefrom, a ballot-carrier, means for moving the ballot-carrier to and fro past the opening, a detached mechanical ballot adapted to be carried by said carrier and to operate said counters, and a ballot-disengaged latch for normally holding the carrier retracted.

27. A voting-machine comprising a detached mechanical ballot, a case having an opening therein, counters at one side of the

opening and at a distance therefrom, a ballot-carrier, means for moving the ballot-carrier toward and from the counters, means for normally holding said carrier retracted, and a mechanical ballot adapted and arranged to enter said carrier and to release said last-named means when seated in the carrier.

28. In a voting-machine, the combination of a ballot-carrier, means for moving the same, means for holding the carrier in a determined position, and a ballot constructed to enter the carrier, and to thereupon release said means.

29. In a voting-machine, the combination of a frame, a ballot-carrier moving in the frame, a pivoted latch to lock the frame and carrier together when the carrier is in a determined position, and a ballot constructed to enter said carrier and to release said latch.

30. In a voting-machine, the combination of a frame, a ballot-carrier, means for moving the ballot-carrier, a latch pivoted to the ballot-carrier and arranged to lock the carrier to the frame in a determined position and provided with an arm, and a mechanical ballot constructed to enter the carrier, and to actuate said arm to release the latch.

31. In a voting-machine, the combination of a frame; a catch on the frame; a ballot-carrier; a mechanical ballot for said carrier; a latch pivoted to the carrier and having an arm extending into the way of the ballot, and another arm resting against the carrier to hold the latch in position for engaging the catch.

32. In a voting-machine, the combination of a frame; counters; means for operating the counters; an appliance for retracting said means; a ballot-carrier, and means operated by said ballot-carrier to retract said appliance when the ballot-carrier is retracted and to release said appliance when the ballot-carrier is advanced toward said counters.

33. In a voting-machine, the combination of a case having an opening to receive a ballot and an extension at the sides of said opening; a ballot-carrier inside the case; a mechanical ballot; and an automatic flap to close said opening at the insertion of the ballot.

34. A voting-machine comprising a case having an opening, a ballot-carrier inside the case, means for moving the ballot-carrier to and fro beneath the opening, a mechanical ballot for said carrier, an external flap for closing the opening above the ballot, and an internal flap for closing the space between the ballot and one side of the opening at a return movement of the ballot.

35. In a voting-machine, the combination of a case having an opening notched at the edge, a ballot-carrier, means for moving the ballot-carrier to and fro beneath the opening, a mechanical ballot for said carrier, and means for closing said notches, and adapted and arranged to allow the ballot to pass once in one and the other direction and to engage the ballot to prevent the removal of the ballot until the same has been fully retracted.

36. In a voting-machine, the combination of a case having an opening to receive a ballot; counters at one side of the opening; a mechanical ballot having tappets on one side to actuate said counters; and a flap between the opening and the counters to close the opening behind said tappets.

37. A voting-machine comprising a detached mechanical ballot, a case having an opening, a ballot-carrier for receiving the ballot through such opening and moving the same to and fro past said opening, an automatic catch to catch the ballot-member when retracted and adapted and arranged to be released only by the withdrawal of the ballot, and means for yieldingly holding said catch normally out of the way through which the ballot is inserted into the carrier.

38. A voting-machine comprising means for actuating counters; a separate and independent mechanical ballot for operating said counters; a carrier for moving said ballot into and out of position for operating said counters; and an adjustable catch to catch said ballot on its return movement to prevent a second revolution of the machine until the ballot has been removed.

39. A voting-machine comprising a detached mechanical ballot, a case having an opening, a ballot-carrier for moving the ballot to and fro beneath said opening, a catch-carrier, a catch mounted on said catch-carrier and arranged to catch the ballot-member when retracted, gravity-operated means for yieldingly holding said catch-carrier retracted and said catch normally out of the way through which the ballot is inserted into the carrier.

40. A voting-machine comprising a detached mechanical ballot, a case having an opening, a ballot-carrier for receiving the ballot through such opening and moving the same to and fro beneath said opening, an automatic catch to catch the ballot-member when retracted, and means for yieldingly holding said catch normally out of the way through which the ballot is inserted into the carrier.

41. A voting-machine comprising a detached mechanical ballot, a case having an opening, a ballot-carrier for receiving the ballot through such opening and moving the same to and fro past said opening, an automatic movable catch adapted and arranged to catch the ballot-member when retracted and to move forward with the ballot and to stop the ballot in position to be withdrawn through said opening, means for engaging said catch to prevent its withdrawal from the ballot, said catch and ballot being con-

structed and arranged to allow the ballot to be withdrawn through the opening while the catch is in engagement with the ballot, and means for returning the catch and normally yieldingly holding it out of the way through which the ballot is inserted into the carrier.

42. A voting-machine comprising a detached mechanical ballot, a case having an opening, a ballot-carrier for receiving the ballot through such opening and moving the same to and fro past said opening, an automatic catch having a limited movement in the direction of the carrier and arranged to engage the ballot when the same is retracted past the opening and to stop the ballot at the opening on return movement, and to allow the ballot to be removed through the opening, and means adapted and arranged to prevent the catch from being moved to release it from the ballot when the ballot is in position to be withdrawn from the opening.

43. A voting-machine comprising a case having an opening to receive a ballot, counters at one side of said opening and at a distance therefrom, a ballot comprising means for actuating said counters, and a member to carry said means, devices inside the case for displacing said means, arranged at the side of the opening opposite the counters, means for moving the ballot toward the counters to actuate the same and to return the ballot back past the opening and thereby displacing the counter-actuating means, and means for holding the ballot to prevent its return past the opening toward the counters.

44. In a voting-machine, the combination of a mechanical ballot furnished with side projections, a carrier to receive said ballot and furnished at its sides with notches, and spring catches arranged to pass through said notches and to catch on said projections, respectively.

45. In a voting-machine, the combination of a case having an opening, a ballot-carrier moving to and fro beneath the opening, a mechanical ballot having movable means for actuating counters, and means adapted and arranged to allow the ballot to pass once in one and the other direction and to engage the ballot to prevent the removal thereof until said means for actuating the counters have been displaced.

46. In a voting-machine, a case, counters in said case, a detached ballot having movable means for actuating the counters, a carrier for moving the ballot toward and from said counters, means for displacing the counter-actuating means when the carrier is retracted, and means for preventing the withdrawal of the ballot from the carrier until the counter-actuating means have been displaced.

47. A voting-machine comprising a mechanical ballot, a case having an opening therein for the ballot, counters at one side of the opening, movable means on the ballot for actuating the counters, means on the other side of the opening for displacing such movable means, a flap between the opening and the counters to swing in one and the other direction, a ballot-carrier to move the ballot from the opening to the counters and return to the opposite side of the opening for the displacing of said movable means, said flap being adapted and arranged to rest on the ballot at its return until the ballot is engaged by said displacing means.

48. A voting-machine comprising a case having an opening therein, counters on one side of the opening, a detached mechanical ballot having seats for tappets, tappets in said seats to operate the counters, means on the opposite side of the opening to displace the tappets, a carrier for moving the ballot from the opening to the counters for operating the same and back past the opening to insert the displacers in the seats to displace the tappets, and a flap arranged between the opening and the counters to rest upon the ballot at its return until the displacers have entered the seats in the ballot.

49. A voting-machine comprising a case having an opening therein, counters on one side of the opening, a detached mechanical ballot furnished with movable tappets for actuating the counters, means on the other side of said opening for displacing said tappets, a carrier to move the ballot from the opening to the counters for actuating the same and back to the displacers for displacing the tappets, a flap arranged to rest upon the ballot at its return movement until the ballot engages the displacers, and an automatic lock to lock the ballot against a return beyond the flap after it has passed behind the same.

50. A voting-machine comprising a detached mechanical ballot having projecting tappets and a case having counters to be actuated by said tappets, and also having an opening with notches at one edge to allow the ballot and said tappets to be inserted, and a flap closing the opening from the notched side.

51. A voting-machine comprising counters for registering the votes, means for actuating said counters, a counter for registering the total number of votes cast, means for operating said counter, and a counter for registering the total number of times the machine is operated, and an independent detached member carrying said counter actuating and operating means.

52. A voting-machine comprising counters for registering votes, means for actuating said counters, a member adapted and arranged to be moved at each actuation of said counters, or any of them, another coun

ter adapted and arranged to be actuated at each movement of said member, another counter adapted and arranged to be actuated at each revolution of the machine, and an independent detached member carrying said counter actuating and operating means.

53. A voting-machine comprising counters for registering votes, another counter for registering the total number of votes, means for concealing all of said counters, an unconcealed counter adapted and arranged to be actuated at each revolution of the machine, and a ballot member adapted to actuate said counters.

54. A ballot-machine furnished with a ballot-carrier, means for operating the carrier, an adjustable part for locking the same, and a plurality of locks arranged in tandem, the bolt of one of said locks being adapted to lock said part in its locking position and the bolts of each successive lock being adapted to lock the bolt of the preceding lock in locking position.

55. In a voting-machine, a ballot-carrier, means for operating said carrier, a movable part for locking the same, and a plurality of locks arranged in tandem, one of said locks being adapted to lock said part, and each other lock adapted to lock its preceding lock.

56. In a voting-machine, the combination of a frame, a detached mechanical ballot, means for moving said ballot to and fro in the frame, a part moving on said frame to lock said means, and a pivoted lever adapted to move said part for locking said means.

57. In a voting-machine, the combination of a frame, a detached ballot, means for moving said ballot to and fro in the frame, a part moving on said frame to lock said means, a pivoted lever adapted to move said part for locking said means, and means for locking said lever.

58. In a voting-machine, the combination of a frame, a ballot-carrier mounted in said frame, an eccentric cam, a shaft for operating said cam, and means for connecting said cam with the carrier for operating the same.

59. In a voting-machine, the combination of a frame, a ballot-carrier mounted in said frame, an eccentric cam, a shaft for operating said cam, a crank for rotating said shaft, and an automatic stop for stopping said shaft at each complete revolution.

60. A voting-machine having a ballot-carrier, counters, a mechanical ballot having members to operate the counters and reciprocating means for moving the ballot toward and from the counters.

61. A voting machine comprising a detached ballot, a case having an opening for said ballot, means in the case for moving the ballot forward and backward beneath said opening, and a catch adapted and arranged to catch the ballot at its backward movement to prevent its return forward, said catch being arranged to allow the ballot to be drawn upward through the opening.

62. In a voting machine, a detached ballot, a case having an opening for said ballot, registering mechanism in the case, means for moving the ballot toward and from said mechanism and a flap in the path of the ballot between said opening and mechanism.

63. A voting machine having a detached ballot, a case provided with an opening for said ballot, registering-mechanism, means for moving the ballot from said opening toward such mechanism and back, and a flap hinged to the case and adapted and arranged to be engaged by the ballot on its return and thereby lifted to close the opening in front of the ballot.

64. The combination of a detached ballot, a case having an opening for said ballot, movable tappets on the ballot, registering-mechanism at one side of said opening, means for displacing the tappets at the other side of the opening, means for moving the ballot from the opening toward the registering-mechanism and return, and backward beyond the opening for the purpose of displacing the tappets, and a flap arranged to be drawn back by the ballot on its return movement to close the opening in front of the ballot until the tappets have been displaced.

65. A voting machine comprising a detached ballot, a case having an opening provided with an upward side extension and an automatic flap or door for automatically closing the opening after the ballot has been inserted.

66. A voting machine comprising a frame, counters in said frame, a ticket in front of said counters, means for operating the counters, a case open at bottom and front and provided with a door in front of said ticket, and means for sealing the case on the frame.

67. A voting machine having a frame, counters in the frame, means for actuating the counters and a case sealed on said frame.

68. A voting machine having a frame, counters in the frame, a plate sealed to the frame in front of the counters, and a case sealed to the frame and having a door in front of said plate.

69. A voting machine having a frame and furnished with counters, means for operating said counters, and a slotted plate sealed to the frame in front of the counters and furnished with a ticket to correspond with the counters.

70. A voting machine having a frame which carries counters, a removable case having a seal-seat, a screw seated in said seat and screwed into the frame, and a seal in said seat over said screw.

71. An independent and detached mechanical ballot comprising means for actuating

counters, a member having seats for said means arranged in rows which cross each other, the rows which run in one direction being devoted to the character of vote to be voted, and the rows which run in the other direction being devoted to the individual candidates or items to be voted for, adjustable closers for closing all of the seats excepting any seat or seats which the voter may be entitled to use in casting his vote and counters arranged to be actuated by said actuating means.

72. An independent and detached mechanical ballot comprising means for actuating counters, a member having seats for said means arranged in rows which cross each other, the rows which run in one direction being devoted to the character of vote to be voted, and the rows which run in the other direction being devoted to individual candidates or items to be voted for; adjustable closers arranged in series for respectively closing all the seats in the rows of the individual candidates or items, excepting any seats in said rows respectively which the voter may be entitled to vote; closers for the rows devoted to the character of votes to be voted, arranged for closing all of the seats excepting any seat or seats which the voter may be entitled to use in casting his vote and counters arranged to be actuated by said actuating means.

73. An independent and detached mechanical ballot comprising means for actuating counters, a member having seats for said means arranged in rows which cross each other, the rows which run in one direction being devoted to the character of vote to be voted and the rows which run in the other direction being devoted to the individual candidates or items to be voted for, closers for said last named rows mounted to move along said rows; each of said rows being provided with a sufficient number of closers to close all of the seats of said rows excepting the seat or seats which the voter may be entitled to use in casting his vote and counters arranged to be actuated by said actuating means.

74. A mechanical ballot comprising means for actuating counters, a member having seats for said means arranged in rows which cross each other, the rows which run in one direction being devoted to the character of vote to be voted, and the rows which run in the other direction being devoted to the individual candidates or items to be voted for, one of said last named rows being devoted to straight party votes, adjustable means for simultaneously closing all of the seats of the last named row and withdrawing from all of the other seats when in one position, and withdrawing from all of the seats of said straight party row and closing all of the other seats when in another position and counters arranged to be actuated by said actuating means.

75. A mechanical ballot comprising means for actuating counters, a member having a row of seats for said means, closers for said seats mounted and arranged to move along said row and to simultaneously close all of the seats, excepting any seat or seats which the voter may be entitled to use in voting and counters arranged to be actuated by said actuating means.

76. A mechanical ballot comprising means for actuating counters, a member having seats for said means arranged in a row, an adjustable closer having holes some of which, when the closer is in one position register respectively with some of said seats, while the closer closes other of said seats and the other holes being so arranged that they register with the first named seat when the closer is in a position wherein the first named holes are withdrawn from the first named seats and the closer closes such seats and counters arranged to be actuated by said actuating means.

77. A mechanical ballot comprising means for actuating counters, a member having seats for said means arranged in rows which cross each other, means adjustable along the rows which run in one direction to close a determined number of said seats, adjustable means adapted and arranged to simultaneously close all of said seats except those in one row, when in one position, and to close only the seats of said one row, when in the other position and counters arranged to be actuated by said actuating means.

78. In a voting machine, a detached and independent mechanical ballot, comprising means for actuating counters, a member having seats for said means arranged in cross rows; slots extending along the rows respectively, which run in one direction, closers for said seats arranged to run along said slots and respectively arranged with extensions to cover said seats when in a determined position, excepting the seat or seats which the voter may be entitled to use in casting his vote and counters arranged to be actuated by said actuating means.

79. In a voting-machine, a detached and independent mechanical ballot comprising means for actuating counters, a member having seats for said means arranged in cross rows, slots extending along the rows which run in one direction, closers arranged to run along said slots and adapted to close the seats of the rows excepting the seat or seats which the voter may be entitled to use in casting his vote, a member arranged to slide across said rows and being provided with stops to hold the closers of one or more of said rows in closing position, and to release the remaining closers when said member is in one position and to hold said last named

closer and release the first named closer when said member is in another position and counters arranged to be actuated by said actuating means.

80. A voting machine comprising counters, a mechanical ballot provided with a member having seats arranged in a row, tappets for said seats to actuate the counters, a way extending along said row, and a closer running in said way and provided with an extension to extend over and close one of said seats and tappets for said seats to actuate the counters.

81. A voting machine comprising counters, a mechanical ballot provided with a T-shaped way and with seats arranged along said way, tappets for said seats to actuate the counters, and a closer for said seats provided with a T-shaped head in said way.

82. A voting machine comprising counters in a mechanical ballot, a member provided with a T-shaped way and with seats arranged along said way, tappets for said seats to actuate the counters, a closer for said seats provided with a T-shaped head in said way, and an extension to extend over the face of the member for covering said seats.

83. A registering device provided with counters, a mechanical ballot comprising means for actuating the counters, a flat plate having on its face ways and seats for said means arranged along said ways, and closers for said seats arranged to run in said ways and to unitedly close all of the seats excepting the seat or seats which the voter may be entitled to use in voting.

84. A registering device provided with counters, a mechanical ballot comprising means for actuating the counters, a member having seats for said means arranged in rows which cross each other, ways running along said rows respectively, and a cross way connecting a plurality of said ways; and means for closing said seats adjustable in said ways to unitedly close all of the seats, excepting seats which the voter may be entitled to use in voting.

85. A registering device provided with counters, a mechanical ballot, comprising means for actuating the counters; a member having ways and seats for said means; closers adapted to move along said ways for closing said seats and one or more stops in said ways to separate between certain of said closers, whereby one row of seats with appropriate closers may be employed for voting for items of various characters.

86. A registering device provided with counters, a mechanical ballot comprising means for actuating the counters, a member having runways and seats for said means arranged along said runways, closers running freely in said seats to close a determined number of said seats and arranged to assume a determined position by the force of gravity when the ballot is held in the voting position.

87. A voting-machine comprising counters, means for moving a ballot toward and from said counters, a ballot comprising means for actuating said counters and a member having runways and seats along said runways for said means, devices for displacing said means after the vote has been registered, and closers for said seats arranged to run freely in said runways to close a determined number of said seats and to assume a conventional position when said means are displaced.

88. A voting-machine comprising counters, means for actuating said counters, a member having seats for said means, and closers adjustably mounted to run freely across said member to close a determined number of said seats and to assume a conventional position when said means are displaced from said seats and said member is held on the edge.

89. A voting-machine comprising a case, counters, a mechanical ballot for operating said counters having tappet seats, tappets for said seats and a general closer and individual closers for said seats, constructed and arranged to automatically assume a conventional position after the vote is registered, and before the ballot is removed from the case.

90. A registering device provided with counters, a mechanical ballot comprising means for actuating the counters, a member having seats for said means arranged in rows which cross each other, an adjustable closer having holes arranged in a row and spaced apart to correspond with one of the rows of the seats in said member, and having other holes spaced apart to correspond with the seats in the other rows in said member, the first named row of holes being arranged to register with the seats to which it pertains when the other holes do not register with their seats, and vice versa.

91. A registering device provided with counters, a mechanical ballot having tappet seats arranged in a row at uniform distances apart, tappets for said seats adapted to actuate the counters, and individual closers for said seats arranged to move along said row and equal in number to said seats less the number of seats the voter is entitled to use in casting his vote; each of said closers being equal in length to the space between two adjacent seats.

92. A case, registering mechanisms in the case, a detached balloting member adapted to move into the case in a determined direction and provided with movable means for actuating the registering mechanisms, means for producing a relative movement between the balloting member and the registering

mechanisms in the case to cause the operation of said registering mechanisms by said movable members, and positive means for displacing the movable members from their operative position after the registering has been effected.

93. A case, registers therein, a ballot adapted to be inserted into the case in a determined direction, means for moving the ballot in the case in another direction to actuate the registers, and means for positively displacing said register-actuating means while the ballot is in the case.

94. A case, registers therein, a ballot adapted to be inserted into the case in a determined direction, means for moving the ballot in the case in another direction to actuate the registers, means for positively displacing said register-actuating means while the ballot is in the case, and means for preventing the removal of the ballot until said register-actuating means have been displaced.

95. A registering apparatus comprising a plurality of independent and separate registers in combination with a mechanical ballot having movable members adapted to be arranged in a booth, and then applied to the registering apparatus for causing the registering therein of the desired vote.

96. A vote-registering machine comprising independent detached means provided with means constructed to be arranged by the voter to indicate the ballot he desires to vote; and a plurality of independent and separate registers to be operated thereby to register the vote so indicated.

97. In a vote-registering machine, registering mechanism, a detached ballot-member; members constructed to be adjusted thereon to indicate the vote to be cast and to operate said registering mechanism; and a shield to conceal said adjusted members.

98. The combination of a ballot member with holes therein concealing means and pins carried in said holes and concealed by said concealing means and registering means to be operated by said pins.

99. The combination of a ballot member with holes therein, means which are adapted to be arranged in said holes, for actuating registers or counters, counters to be operated by said means, and concealing means for said counter-actuating means.

100. In a vote-registering machine, registering mechanism, a detached ballot provided with means adapted to be arranged by the voter to actuate the registering mechanism, and means for concealing the arrangement of said ballot before it is inserted in the machine.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, at Los Angeles, in the county of Los Angeles, and State of California, this 18th day of April, 1902.

DAVID L. NEWCOMB.

Witnesses:
JAMES R. TOWNSEND,
ANNA M. HOLLY.