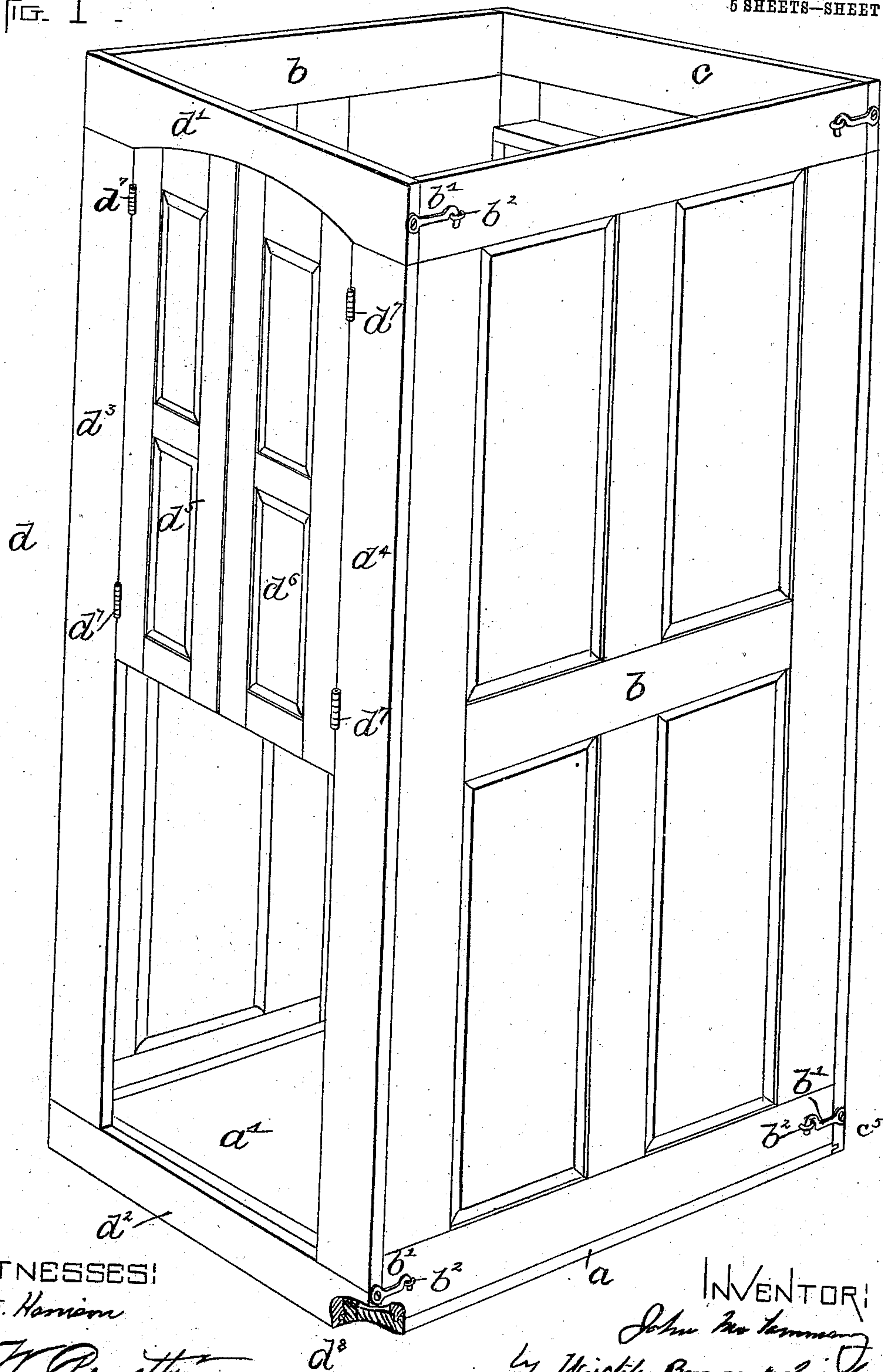


952,464.

5 SHEETS—SHEET 1.

FIG. 1



A. J. Harrison

P. W. Pezzetti

INVENTOR:

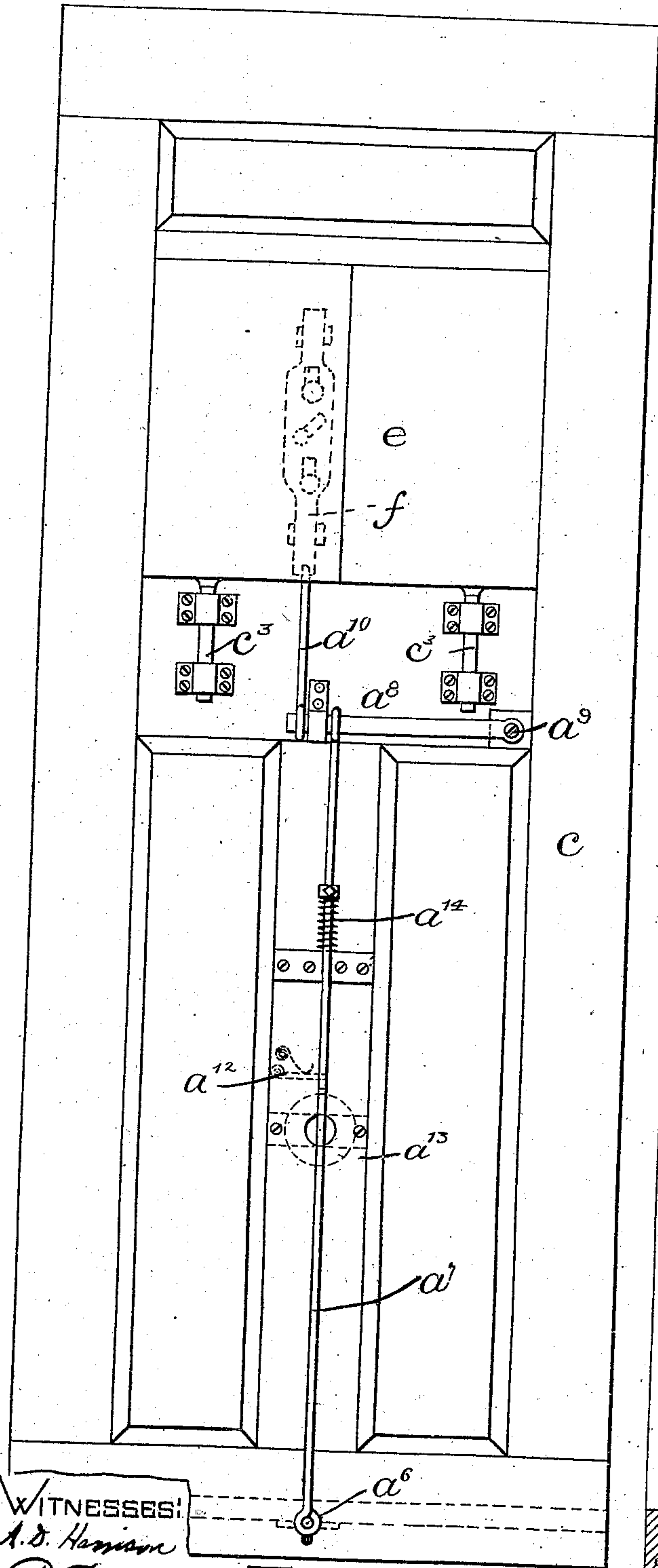
John M. Lammson
By Wright, Brown & Lundy
Attys.

J. McTAMMANY.
VOTING MACHINE.
APPLICATION FILED JAN. 14, 1898.

952,464.

Patented Mar. 22, 1910.

5 SHEETS—SHEET 2.



WITNESSES:

A. D. Harrison

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FIG. 2.

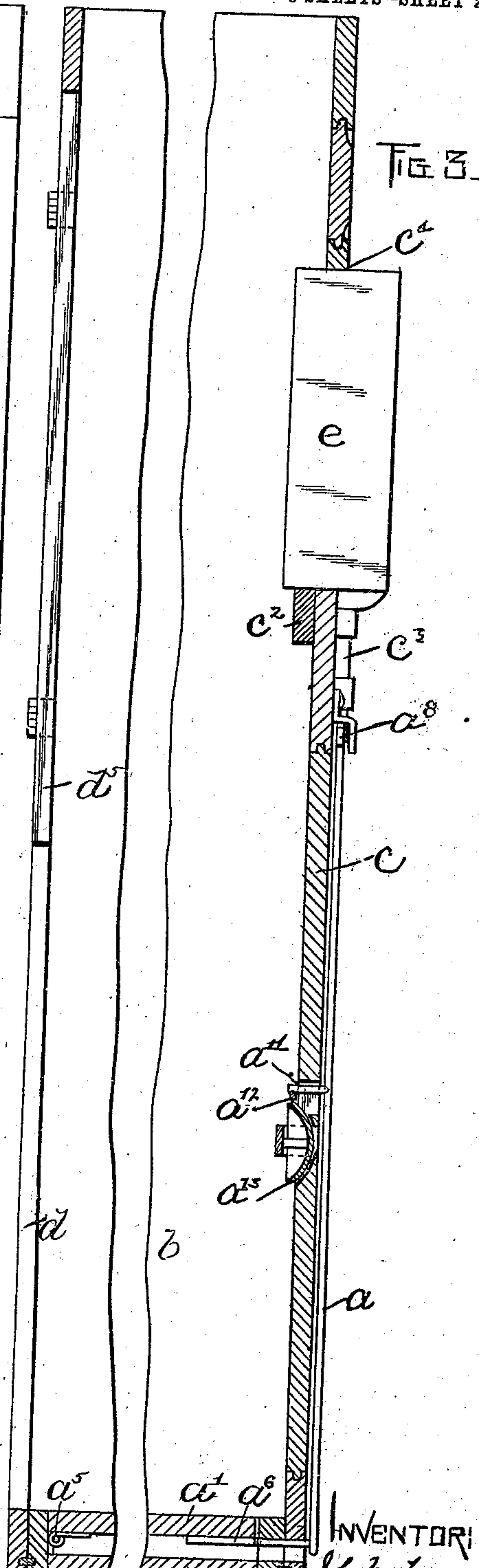


FIG. 3.

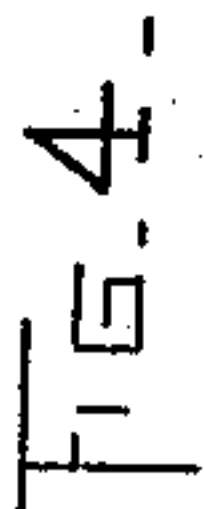
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APPLICATION FILED JAN. 14, 1898.

Patented Mar. 22, 1910.

5 SHEETS—SHEET 3.



A. J. Harrison

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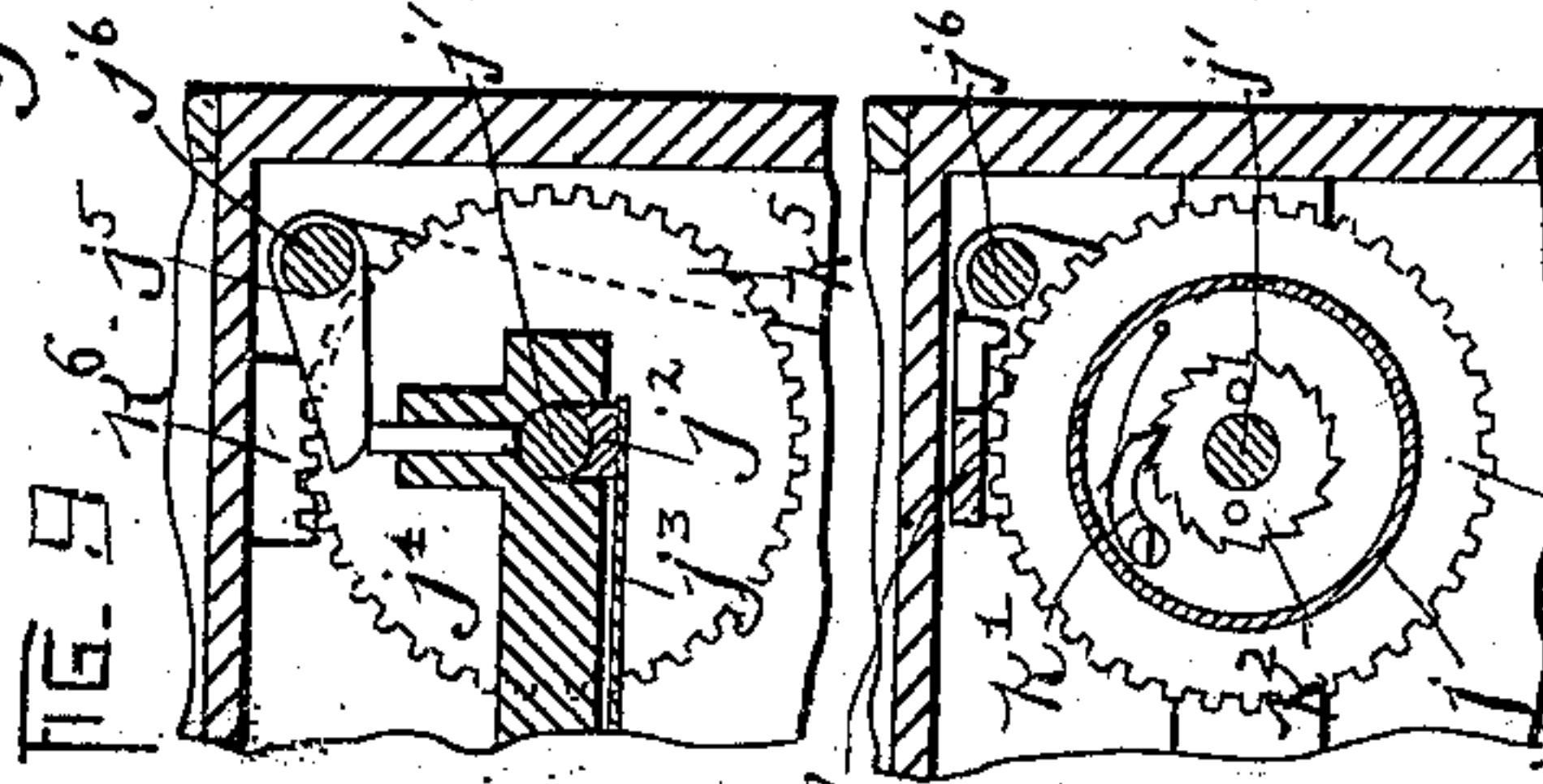
By Whipple, Brown & Quinby
Attys.

VOTING MACHINE.

APPLICATION FILED JAN. 14, 1898.

Patented Mar. 22, 1910.

5 SHEETS—SHEET 4.



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St. Louis

APPLICATION FILED JAN. 14, 1898.

Patented Mar. 22, 1910.

5 SHEETS—SHEET 5.

FIG. 4

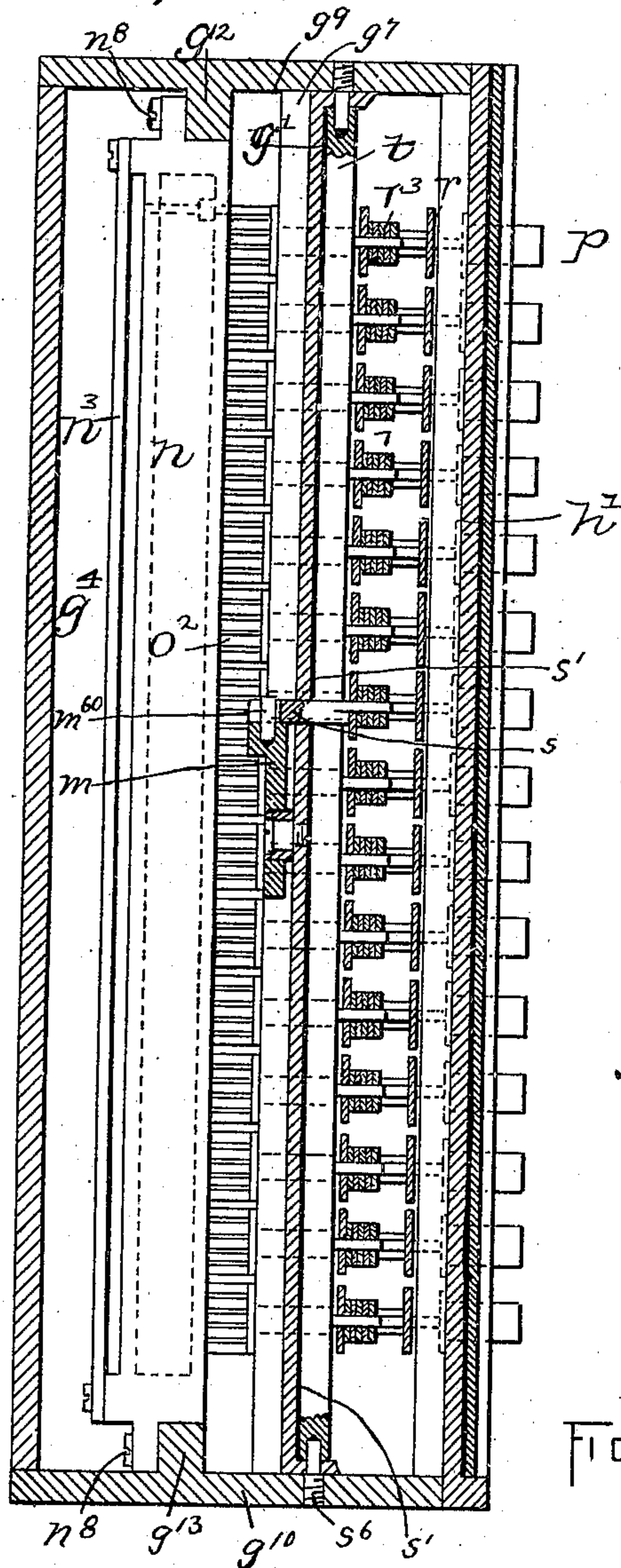
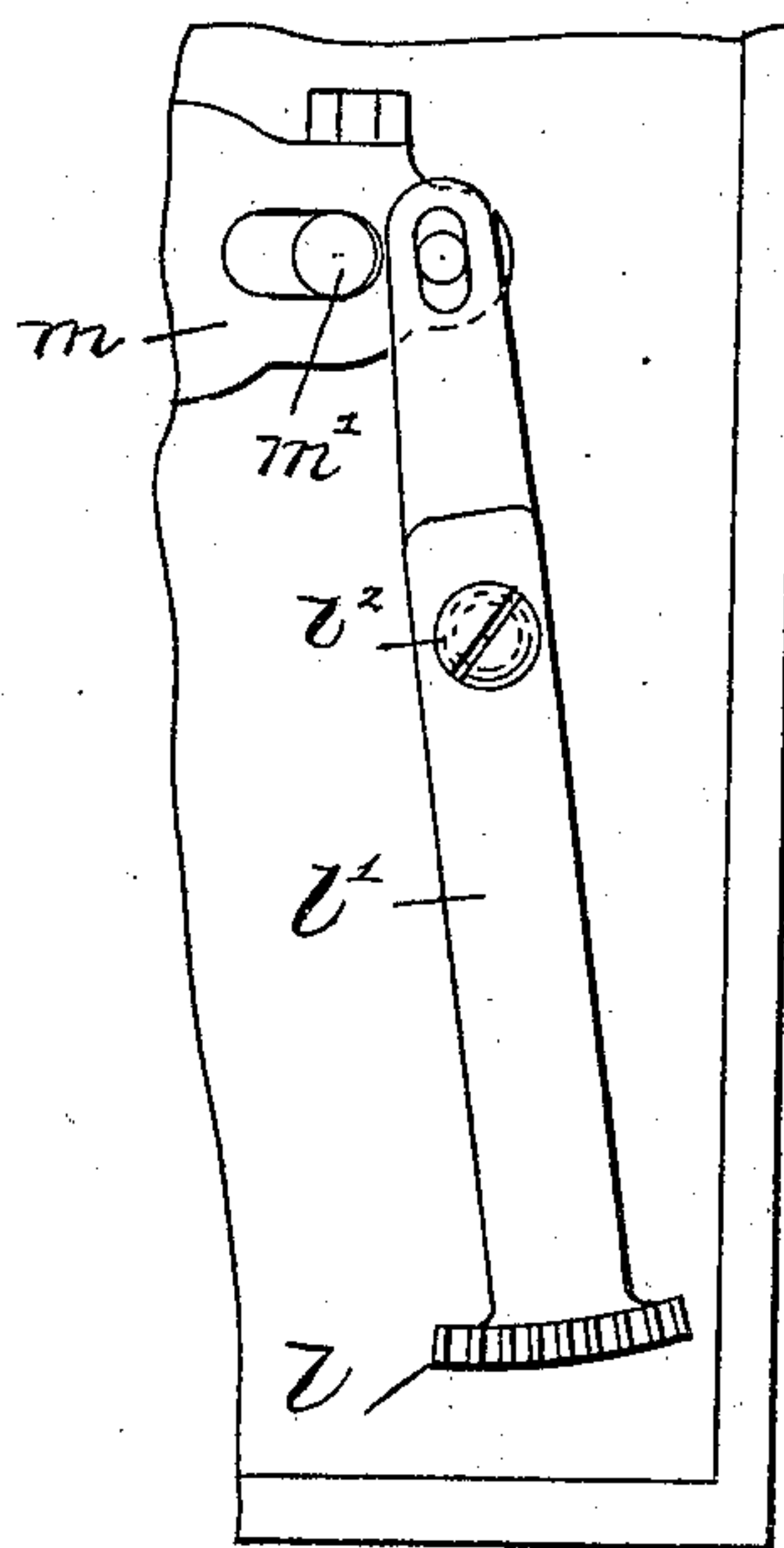


FIG. 7.



WITNESSES:

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INVENTOR:

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Attys.

UNITED STATES PATENT OFFICE.

JOHN McTAMMANY, OF SPENCER, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO McTAMMANY BALLOT COMPANY, OF PORTLAND, MAINE, A CORPORATION OF MAINE.

VOTING-MACHINE.

952,464.

Specification of Letters Patent.

Patented Mar. 22, 1910.

Application filed January 14, 1898. Serial No. 666,652.

To all whom it may concern:

Be it known that I, JOHN McTAMMANY, of Spencer, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Voting-Machines, of which the following is a specification.

This invention has relation to voting machines, and it has for its object, first, to provide a machine in which the operation of one of a series of actuators to register or tabulate a vote, causes the automatic locking of the other actuator in that series, whereby votes cannot be cast for more than one candidate for the same office; second, to provide the machine with means by which the votes of a certain class of voters may be limited to one or more questions, or to candidates for certain offices; third, to provide voter-controlled means, as a platform, for rendering the actuators inaccessible to the voter except when the latter steps on it; fourth, to provide novel means for resetting the actuators, and also means for resetting the locking devices for the actuators; and fifth, to provide a booth for the machine which may be erected and put together with the expenditure of a minimum amount of time, and which, after the vote has been completed, may be taken a part and packed away in small compass.

To these ends, the invention consists of a voting machine provided with certain features of construction and relative arrangement of parts substantially as hereinafter described and claimed, by means of which the various objects may be attained, all as illustrated upon the drawings and now to be described in detail.

Of the drawings.—Figure 1 represents in perspective view the booth for a voter, and in the rear wall of which my improved machine is mounted. Fig. 2 represents a rear elevation of the booth. Fig. 3 represents a vertical longitudinal section therethrough. Fig. 4 represents a substantially horizontal transverse section through my improved voting machine with all of the actuators in their normal positions. Fig. 5 represents a similar section and shows one of the actuators having been thrust in by a voter whereby the other actuators controlling the device for registering the vote for other candidates for the same office are locked against movement. Fig. 6 represents a rear elevation of

a machine with the rear plate removed. Fig. 7 illustrates a transverse vertical section through the machine. Fig. 8 shows in detail a segment lever which controls the feeding of the vote receiver or tally-sheet. Figs. 9 and 10 are details drawn on lines 9—9 and 10—10 respectively of Fig. 6.

First referring to Figs. 1, 2, and 3, a knock-down booth is illustrated which consists of a base-plate *a*, side walls *b b*, a rear wall *c*, and a front wall *d*. The front wall consists of upper and lower sills *d'* *d''*, connected by vertical strips *d'''* *d''''*, forming a doorway through which the voter enters the booth. The upper half of the doorway is closed by swinging doors *d'''* *d''''* hinged to the vertical bars or strips *d'''* *d''''* by spring hinges *d'''''* which normally hold the doors in their closed position. The rear wall is formed in any suitable way with upper and lower sills and is paneled as may be desired. It is provided with an aperture *c'* to receive the casing for the voting mechanism, indicated as a whole in Fig. 3, at *e*. For this purpose, the rear wall is shown as having a cross-brace *c''* with hinged brackets *c'''* on which the said casing may rest. The hinged brackets may be swung to one side when the machine is moved to permit the parts of the booth to be packed together, and upon the said rear wall are mounted the gong and the parts which control the feeding of the tally-sheet in the machine through the depression of the platform *a'*, which is supported upon the base *a*, and is hinged to the front edge thereof. The side walls indicated at *b b* may be constructed as desired, and as shown, are paneled to present a pleasing appearance and they are connected to the front and rear walls by hooks and eyes *b'* *b''* which may be readily fastened or unfastened. The front and rear walls are grooved at their lower ends as at *d'''* *c'''*, to receive tongues projecting forwardly from the base *a*, while the side walls *b b* are provided with grooves in their lower edges to receive upwardly projecting tongues from the base *a*, whereby the walls are all held by the base from movement in either direction. The platform *a'* is hinged at *a'''*, as shown in Fig. 3, and is provided with a rearwardly projecting finger *a''* connected by a link *a'''* with a lever *a''''* pivoted at *a'''''* in the rear wall of the machine. The end of lever *a''''* is connected by a link *a''''''* with a sliding bar *f*, as

shown in Fig. 6, which will afterward be described, and the said link a^7 is provided with a pin a^{11} which operates a striker a^{12} for the gong a^{13} , the said link being raised normally by the spring a^{14} , as shown in Fig. 2. The arrangement is such that when a voter steps into the booth the platform is depressed and the tally-sheet is moved, as will be described, and when he steps off the platform and out of the booth, the actuators are returned to normal position and the gong is sounded. The relation of the pin a^{11} to the striker is such that the said pin slips past the end of the striker as it moves up or down, but on the upward movement it first slightly elevates the striker and then releases it. The reason for connecting the link a^7 and the link a^{10} by the lever a^8 is merely for the purpose of getting a direct pull on the sliding bar f . The pin a^6 is located in the median line of the platform, whereas, by reason of the construction of the voting mechanism, the bar f is to one side of said lever, and hence to insure that both will move in practically rectilinear paths, the lever a^8 is placed between them and extends at a right angle to them.

The voting mechanism is illustrated more particularly in Figs. 4 to 8, inclusive, to which reference may now be had. It is formed in two parts secured together, one part containing the mechanism for feeding the tally-sheet or vote-receiver the vote-tabulating mechanism, and the resetting devices therefor, and the other part containing the actuators, the mechanism for locking them against movement and also the obstructing devices. A casing g , having a ribbed front wall g' , side walls g^2 , and a rear wall g^3 , incloses the first-mentioned parts of the machine, and a casing h , having a vertically ribbed front wall h' and side walls h^2 h^2 , incloses the second mentioned parts, the two casings having in common a top wall g^9 and a bottom wall g^{10} and being secured together by screws, not shown. The rear wall of the casing g consists of hinged doors g^4 g^4 , which may be swung open to permit access to the tally-sheet, the doors having apertures g^{11} which may be covered by glass so that the elections-officer may see the back of the tally-sheet, which is numbered or otherwise marked, and tell, by the successive numbers or marks registering with the aperture that the machine is in working condition. The top and bottom walls g^9 g^{10} have internal ribs g^{12} g^{13} to which some of the hereinafter described devices are attached, and which are formed with open sockets to receive the journals i' i' of the supporting roll i from which the vote-receiver or tally sheet A is drawn by a winding roll j . The journals are maintained in said sockets by sliding retainers j^2 , slidably secured to the ribs g^{12} g^{13} by screws, and adapted to be

moved simultaneously by arms or levers i^3 (Figs. 4, 5 and 6) extending between lugs i^5 i^5 thereon, said arms being on a shaft i^4 journaled in the top and bottom ribs g^{12} g^{13} . The winding roll j is arranged parallel to the roll i and they occupy the opposite sides or ends of the casing g . Said roll j has trunnions or journals j' j' which lie in open sockets in the said ribs g^{12} g^{13} , as shown in Fig. 6. Retainers j^2 j^2 , supported on springs j^3 , (Figs. 4, 5 and 9) hold the journals in their bearings or sockets, with a yielding pressure, and hence to remove the roll, I employ pins j^4 , passed through said ribs and bearing against said journals, and levers j^5 , on a rock-shaft j^6 , which engage the ends of said pins. By rocking the shaft (which is journaled in the top and bottom walls of the casing,) the levers force the pins through the ribs to eject the journals of the winding roll from its bearings.

The tally-sheet which I term the "vote-receiver," (meaning by said term to include all mechanisms for receiving votes) is drawn slowly from the roll i on to the roll j , the movement of the winding roll being effected by the stepping of the voter on the platform, and being consequently under the control of the latter. Upon the winding roll j is loosely mounted a gear wheel k (Figs. 6 and 10) intermeshing with a toothed segment l (Figs. 6 and 8) on a lever l' , pivoted at l^2 in the front wall g' of the casing g , and the upper end of the said lever is connected by a pin and slot connection with a transversely sliding bar m slotted at its ends to receive rollers m' m' on studs extending rearwardly from the said front wall g' of the casing. Said horizontal transversely sliding bar m is located substantially midway between the top and bottom walls of the casing, and to prevent it from dropping in case the rolls m' should become accidentally dislodged, the wall g' is provided with guides g^{15} g^{15} between which it slides. The said bar is also equipped with anti-friction rolls m^4 m^4 bearing against said wall g' and journaled on pins or studs m^6 passed through lugs m^5 formed on said sliding bar, whereby the power necessary to move said bar is minimized.

The vertically moving bar f before referred to, slides in guides g^6 g^6 , projecting rearwardly from the front wall g' and is provided with an inclined slot f' to receive the roller m^2 on a stud projecting rearwardly from the sliding bar m . It is also formed with slots f^2 to receive screws or pins f^3 which hold it in place and limit its movement. When the slide f is drawn downward, the walls of the slot f' engage the roll m^2 and slide the bar m to the right (Fig. 6,) to swing the lever l' about its pivot, which, through its toothed engagement with

the gear wheel k on the winding roll, partially rotates it and causes the feeding of the sheet by mechanism, now to be explained.

The gear wheel k is loose on the stud j' as previously stated, and carries a spring-tensioned pawl k' , which when the slide m is moved to the right, in Fig. 6, slides freely over a ratchet k^2 rigidly secured to the stud j' , but which, when the slide m is moved to the left, engages said ratchet k^2 and imparts a partial rotation to the winding roll j . On the opposite end of the winding roll is mechanism for preventing the unwinding of the roll consisting of a ratchet wheel similar to ratchet wheel k^2 rigidly secured to the roll and with which a pawl on a toothed wheel k^5 engages to hold the roll against backward movement. The gear wheel k^5 intermeshes with a rack k^6 , (Fig. 9) which serves as a stop rigidly secured to the front wall of the casing g . By this arrangement, the winding roll is rotated intermittently by the lever l' and when it is desired to unwind the tally-sheet from the roll j , and wind it upon the roll i , the levers j^5 are swung on their pivots to thrust the pins inwardly and throw the winding roll and its gear wheels out of engagement with the stop or rack k^6 and the toothed segment on the lever l' . The rolls are provided with flanged pulleys on the upper journals projected through the top wall of the casing to receive a crossed spiral spring belt, which prevents the paper from being fed with a jerk, and causes it to be fed uniformly.

Arranged within the rear casing g is a series of detachable independent frames each consisting of a vertically disposed grooved casting n , formed with a front web n' and a rear web n^2 , the front web being drilled to receive the enlarged portion or collar o' of the punch o^2 . I term the punches "vote tabulating mechanism", meaning to include thereby any device for indicating the choice of the voter, and causing it to be eventually noted on or by the vote receiver, while the devices for selecting the punches I term "actuators". There is, of course, one actuator for each vote tabulator, and they are all arranged in vertical and horizontal rows. The independent frames or castings are detachably secured to the ribs g^{12} g^{13} of the casing by screws n^8 passed through lugs or eyes in the ends thereof. To limit the forward movement of the punches, a plate n^3 is secured to the front of the web n' , said plate n^3 being perforated or provided with openings through which the front ends of the punches project to be operated upon by the ends of the actuators p . The rear plate n^4 which forms the die being provided with suitable holes to receive the ends of the punches, is secured to the casting n , at a slight distance therefrom to permit the passage of the tally-sheet A . In the spaces

between the front and rear web n' n^2 is a plate o^2 which may be termed a "resetter" or "resetting plate", inasmuch as it is perforated to fit over the punches and abut against the collars o' to reset them or restore them to the position shown in Fig. 4, after one or more of them have been operated. This resetting plate is supported upon the punches so that it may be forced back by any one or more of them. To operate each resetter, I employ a rock-shaft q , mounted in lugs n^5 , extending out from the ends of the castings n and provided with arms q' q^2 which engage the front and rear face of the resetter plate o^2 . Projecting radially out from the rear of the rock-shafts q is an arm q^3 adapted to be engaged by lugs m^3 on the slide m each time the slide is moved to the left by the voter stepping off from the machine. The rear ends of the actuators p are provided with enlarged disk-like heads p^6 with which the ends of the punches are engaged, so that when the slide m is moved longitudinally after a voter has cast a vote, the punches as well as the actuators are all reset or moved back into their normal positions through the medium of the lugs m^3 , the arms q^3 , the rock shafts q and the setting plates o^2 .

The front wall g' of the casing g is provided with rearwardly projecting vertical ribs g^7 which are in alinement with the forward projecting ribs h^4 of the front plate h' of the casing h , and arranged in apertures in the said ribs are the actuators p , before referred to. The enlarged end p^6 of each push-piece rests against the head of one of the punches o . Each actuator p is constructed in three separate parts, 2, 3, and 4, the part 2 abutting against the end of one of the punches, the part 4 projecting forward through a rib h^4 to be engaged by the hand of the voter, and having a flange to prevent its being displaced, and the part 3 being intermediate between the two and sliding in apertures in a frame consisting of two parallel plates r r' connected together by studs r^2 and arranged vertically between the front wall g' of the rear casing g and the front wall h' of the front casing h , the plate r being removably secured to the said front wall h' by screws x entering the lugs h^5 of said front wall. The three parts of the actuators are mounted in different supports, and each part may be replaced if injured. The cylindrical projecting ends or buttons 4 are supported in the ribs in the front wall of the casing, and have square heads abutting against the inner face of said wall, said wall having ribs h^{10} to engage the edges of said heads to prevent the buttons from turning, while the parts 2 are supported in the wall g' of the rear casing, so that they can be removed bodily therewith; and the intervening or intermediate parts 3 are supported

ed in the removable frame between the walls h' and g' . This is a very convenient arrangement of parts, as will be understood by those familiar with voting machines.

Between the ribs h^4 on the front wall of the casing, are vertical recesses for elongated voting lists or captions on which are printed the names of the candidates for office and the questions submitted to the voters. The names of all the candidates of each political party may be printed upon one list, with a name opposite each actuator, or else all the candidates for each office may be printed thereon, the first described arrangement being preferable for many reasons. The lists are covered by transparencies, such as strips of glass so that they may be read by the voters without being marred or injured. The intervening frame, *i. e.*, the one consisting of the plates r' , and the studs r^2 is provided with interlocking mechanism for the actuators, whereby when one candidate for an office receives a vote, all the actuators representing candidates for the same office are thereby locked against movement. The said part 3 of each push piece is provided with a wedge-shaped portion or rib 3^a , having an inclined edge, and is provided with a notch 3^b , the notches in the five push-pieces controlling the five candidates for a single office being arranged at different distances from the front plate. Placed between the plates r' are five sliding strips or lock-plates r^3 for each horizontal row of actuators, each of which is adapted to enter one of the notches 3^b in one of the push-pieces. The parts 3 of the push-pieces project through apertures in the strips or locking plates and four of the said plates are moved by each of the push pieces in the same horizontal row. In other words, each of the strips has an elongated aperture through which the part 3 of the push-piece passes, so that when said part 3 is pressed inwardly by the voter, the inclined edge of the rib 3^a moves the other strips longitudinally to cause them to engage with the other four actuators in the same horizontal row and prevent them from being pressed inward. In Fig. 5, the middle actuator is shown as pressed inward whereby the other push-pieces are all locked, each one by the engagement therewith of its particular lock-plate r^3 . To return all the locking plates simultaneously to their normal inoperative positions, the slide m has a pin m^{60} entering a slot in the end of an arm s , secured to a vertical rock-shaft s' having a finger s^2 extending into a series of apertures r^4 in each row or set of locking plates. The shaft s' is journaled in screw-pins s^8 passed through the top and bottom walls of the casing, as shown in Fig. 7. When the slide is moved to the left to set the actuators in their normal inoperative positions, the slides are engaged by the fingers s^2 upon the

initial movement of the slide, and carried to their normal inoperative positions before the actuators are reset.

In order to obstruct or prevent the operation of a portion of the actuators, in case it is desired to permit the use of the machine by women and others not qualified to vote for all the candidates for office, and all questions presented, I may employ a sliding plate t arranged between the plate r' and the front wall of the casing g . The plate is slotted to receive the parts 2 of the actuators, but is adapted to engage the ends of parts 3 of any predetermined number of the push-pieces to prevent them from being pressed inward, said ends of part 3 being slightly wider than the parts 2, as shown in Fig. 4. The said plate is so arranged that when it is moved longitudinally, or transversely of the machine, it engages the push-pieces which it is desired the person voting should not control, leaving free those push-pieces which may be actuated by the voter. This plate is controlled by the elections-officer and is out of the control of the voter, and to move it, I provide a lever t' connected thereto, as indicated in Fig. 4.

The machine as I have shown and described it, is simple, and the method or manner of operating it is consequently intelligible to the most ignorant voter. The platform is so located in front of the casing containing the mechanism that the actuators are inaccessible until the voter steps upon it, and even if he could touch them, he could not manipulate them, as they are locked by the resetting device and the spring a^{14} which is of necessity very strong and powerful, being just weak enough to permit the depression of the platform when the voter steps upon it. It will be observed that the movable parts of the voting mechanism or the parts controlling it which are outside of the casing, are with the exception of the platform outside of the booth and therefore cannot be tampered with by a voter without being detected in the act by the elections officer.

Assuming that a vote has been once cast, the operation of the device is as follows: On entering the booth, the voter treads upon the platform and his weight causes the depression thereof. The downward movement of the platform effects a similar movement of the vertical sliding bar f , the compression of the spring a^{14} and a transverse movement of the sliding bar m . The last-mentioned element, *i. e.*, the bar m , effects the feeding of the vote-receiver through the rack-segment lever l' , the gear k , the roll j , and the intervening parts, the helical spring serving to prevent the vote receiver from being moved an abnormal distance. The voter then selects the candidates for whom he wishes to vote, and presses in the actuators at the side of their names, as they appear on the voting

lists. As the actuator in any one of the horizontal rows is moved inward all the other actuators in that row are locked, and are therefore inaccessible, the actuator which is moved, forcing inward its corresponding vote-tabulator to note the vote on the vote-receiver. When the voter has completed his ballot, he steps down from the platform, and the latter being relieved of his weight is forced upward by the spring a^{14} causing the sounding of the gong, the slide f also rising and returning the slide m to its original position, whereby the interlocking plates and the actuators are reset, ready for the next voter. While the voter is in the booth, the inclosing walls and the doors d^5 d^6 screen him and preserve the secrecy of the ballot which is the first essential of a voting machine.

The booth being capable of being "knocked down" is easily stored or shipped and can be put together in a very short time ready for use. The casing for the voting mechanism is easily detachable from the rear wall of the booth and the rod a^{10} is capable of detachment from the lever a^8 when it is desired to pack or store the machine.

In some of the claims hereto annexed, I have included means whereby the number of movements of each of the actuators may be determined when desired. By this I mean to define that which every voting-machine must contain or include, for practical use. In other words, such voting-machine must include some means whereby the result of the voting contest may be determined at a time later than the moment of operation of an actuator.

Having thus explained the nature of the invention, and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the modes of its use, I declare that what I claim is:—

1. In a voting machine, a plurality of actuators, voting mechanism with which each actuator coacts for determining the number of actuations of each actuator, a plurality of interlocking devices equal in number to the actuators, all but one of said interlocking devices being operable by any one of said actuators to lock one of the other actuators against movement.

2. In a voting machine, a row of rectilinearly movable actuators, voting mechanism with which each of said actuators coacts for determining the number of actuations of each actuator and a plurality of interlocking devices for said actuators, all but one of said interlocking devices being operable by any one of said actuators to engage and lock all the other actuators in said row.

3. In a voting machine, a plurality of actuators, voting mechanism with which said actuators coact for determining the number of actuations of each actuator, a cam and a

stop on each actuator, and a plurality of interlocking devices, all but one being operable by a cam on any one of said actuators to engage the stops of all the other actuators.

4. In a voting machine, a plurality of groups of actuators, each group being devoted to the candidates of a single party, said groups being arranged whereby the actuators for all the candidates for a single office are arranged in a row, voting mechanism with which said actuators coact for determining the number of actuations of each actuator, a plurality of interlocking plates for the actuators in each row, and means whereby the actuation of an actuator in any one row operates all but one of said interlocking plates for engaging and locking all the other actuators in said row.

5. In a voting machine, a plurality of actuators, voting mechanism with which said actuators coact to determine the number of actuations of each actuator, a plurality of locking plates, all but one of which are operable by any one of the actuators, there being for each actuator a corresponding plate which is unactuated thereby, but which may be actuated by any one of the other actuators.

6. In a voting machine a plurality of voting mechanisms each having a plurality of rectilinearly movable actuators, each actuator constructed in two disconnected portions, a separate support for each portion of the actuators, and interlocking devices mounted on one of said supports.

7. In a voting machine, a plurality of actuators each formed with a front portion and a disconnected rear portion, a plate for supporting the front portions of said actuators, a removable plate for supporting the rear portions of said actuators said plate being parallel, and interlocking devices for the said actuators mounted on said removable plate, whereby when said plate is detached, the rear portions of the actuators, and the said interlocking devices are moved with it.

8. In a voting machine, a casing having a front wall, a plurality of rectilinearly movable actuators supported by and projecting through said wall, each actuator having a separable rear portion, a plurality of vote-tabulators in said casing, and a support for the rear portions of said actuators, the front wall and the said support being separable.

9. In a voting machine, a casing having a front wall, a plurality of rectilinearly movable actuators supported by and projecting through said wall, each actuator having a separable rear portion, a plurality of vote tabulators in said casing, a support for the rear portions of said actuators, and a plurality of interlocking devices for the actuators mounted on said support for the rear portions, said front wall and said support being separable.

10. In a voting machine, a plurality of actuators each divided in three separable detached portions arranged in a straight line, one portion to be manipulated by the hand, another portion to engage the vote-tabulator, and an intermediate portion adapted to be locked by interlocking devices.

11. In a voting machine, a casing having a front wall; a frame in the casing, a plurality of actuators, each having a front portion supported in the front wall, and a disconnected rear portion supported in the frame substantially in alinement with the front portion; and a plurality of interlocking devices supported on said frame and acting on said rear portions.

12. In a voting machine, a casing having a front wall; a frame in the casing, a plurality of rectilinearly movable actuators, each having a front portion supported in the front wall, with a head to engage the inner face of said wall, and a separate rear portion supported in said frame, and a plurality of vote tabulators supported independently of said frame in operative relation to said actuators.

13. A voting machine comprising a casing provided with three parallel supports, a plurality of rectilinearly movable actuators each having a detachable part mounted in each of said supports, and a plurality of vote tabulators in operative relation to said actuators.

14. A voting machine comprising a plurality of detachable frames each having a row of vote-tabulators, a plurality of actuators arranged in rows in lines transverse to the rows of tabulators, and a plurality of interlocking devices between the vote tabulators and each of the actuators, all but one of said interlocking devices being operable by any actuator in one row to lock all the remaining actuators in said row, whereby a tabulator in each row of tabulators is rendered incapable of being operated by the voter.

15. A voting machine comprising a plurality of actuators, a plurality of resetting devices therefor including a plurality of rock-shafts, a transversely movable slide for simultaneously rocking all of said shafts, and a voter-controlled cam slide movable at an angle to the first mentioned slide to actuate the same.

16. A voting machine comprising a plurality of actuators, a plurality of rock shafts for resetting said actuators, a transversely movable slide for rocking said shafts simultaneously, a cam slide movable at an angle to the first-mentioned slide to actuate the same, and a voter controlled platform connected to said cam-slide.

17. A voting machine comprising a plurality of actuators arranged in vertical rows, a resetting plate for each row of actuators,

a rock shaft for actuating each plate, a transversely movable slide for rocking said shafts, a vertically movable slide operatively connected to said transversely movable slide, a voter controlled platform, and connections between said platform and said slide.

18. A voting machine comprising a casing, its top and bottom walls provided with internal ribs, a plurality of actuators projected through the front wall of said casing and arranged in vertical rows, a removable frame detachably connected to said ribs in the rear of each vertical row of actuators, vote tabulators in each frame, a resetting device supported by each frame, and interlocking devices for said actuators arranged between said frames and said front wall of the casing.

19. A voting machine comprising a plurality of actuators arranged in vertical rows; frames having vote tabulating devices and arranged one behind each row of actuators, voter controlled resetting devices for the actuators, and a frame detachably secured between the actuators and the first mentioned frames, said frame carrying automatic interlocking devices for said actuators.

20. A voting machine comprising a vote receiver, a vote-controlled platform for actuating said receiver, a voting device actuator, a resetting device for the actuator, and a locking device for said actuator.

21. A voting machine comprising a vote-receiver, a voter-controlled platform for actuating said receiver, a voting device actuator, a resetting device for the actuator also connected to the platform and a locking device for said actuator.

22. A voting machine comprising two actuators, vote receiving mechanism, interlocking devices arranged to lock one of said actuators when the other is manipulated, means supplemental to said interlocking devices to obstruct one of said actuators, and devices for resetting said actuators.

23. A voting machine comprising two actuators, vote receiving mechanism, interlocking devices arranged to lock one of said actuators when the other is manipulated, means supplemental to said interlocking devices to obstruct one of said actuators, devices for resetting said actuators, and a voter-controlled platform connected to said resetting devices.

24. A voting machine comprising two actuators, vote receiving mechanism, interlocking devices arranged to lock one of said actuators when the other is manipulated, means supplemental to said interlocking devices to obstruct one of said actuators, devices for resetting said actuators, and a voter-controlled platform connected to said resetting devices and to said interlocking devices.

25. A voting machine including in its construction a vote receiver, rolls for winding

said receiver from one to the other, bearings for said rolls, devices for imparting a step by step rotation to the winding roll, and a stop, such as k^c , for preventing the reverse rotation of said roll, said roll being capable of being bodily moved relatively to the stop to permit the unwinding of the vote receiver.

26. A voting machine including in its construction, a winding roll, bearings in which said roll is yieldingly journaled, means for imparting a rotative movement to said roll, a stationary stop, such as k^c , for holding said roll against reverse movement, said roll being capable of movement bodily away from said stop to permit a retrograde rotation of said roll.

27. A voting machine including in its construction, a roll having a ratchet, a support loosely mounted on the roll and carrying a pawl to engage the ratchet, and a stationary stop, such as k^c , to engage said support and hold it against rotation, said support and said roll being movable one from the other, to permit their disengagement, and allow the roll to be wound in a reverse direction.

28. A voting machine including in its construction, a roll having a ratchet, a support loosely mounted on the roll and carrying a pawl to engage the ratchet, a stationary stop, such as k^c , to engage said support, and hold it against rotation, and means for disengaging said support from said stop.

29. A voting machine comprising a casing having an aperture formed therein, voting mechanism in said casing, a vote receiver adapted to receive a permanent record of the operations of the voting mechanism, said receiver and the record made thereon by the voter being visible through said aperture without destroying the secrecy of the ballot, and a platform for actuating said vote receiver.

30. A voting machine comprising a movable vote-receiving sheet, a plurality of groups of independent actuators, vote tabu-

lating mechanism between the actuators and the sheet, interlocking means for locking the remaining actuators in said group when any one of the actuators in said group is manipulated, and devices operable to feed the sheet and positively reset the interlocking means.

31. A voting machine comprising a movable vote receiving sheet, a plurality of groups of independent actuators, vote tabulating mechanism between the actuators and the sheet, interlocking means for locking the remaining actuators of each group when any one of the actuators in said group is manipulated, and voter controlled devices operable to feed the sheet, and positively reset all of the actuators simultaneously.

32. A voting machine comprising a movable vote receiving sheet, a plurality of groups of actuators, vote tabulating mechanism between the actuators and the sheet, means for obstructing any predetermined actuators in any or all of said groups, and interlocking means for locking the remaining unobstructed actuators in each group, when any one of the actuators therein is manipulated.

33. A voting machine comprising a movable vote receiving sheet, a plurality of groups of actuators, vote tabulating mechanism between the actuators and the sheet, means for obstructing any predetermined actuators in any or all of said groups, interlocking means for locking the remaining unobstructed actuators in each group when any one of the actuators therein is manipulated, and mechanism for resetting the actuators and feeding the sheet in the order named.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses, this 22nd day of December, A. D. 1897.

JOHN McTAMMANY.

Witnesses:

A. D. HARRISON,
C. F. BROWN.