No. 628,792. Patented July 11, 1899.

A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.) 9 Sheets—Sheet 1.

Fig. 1.

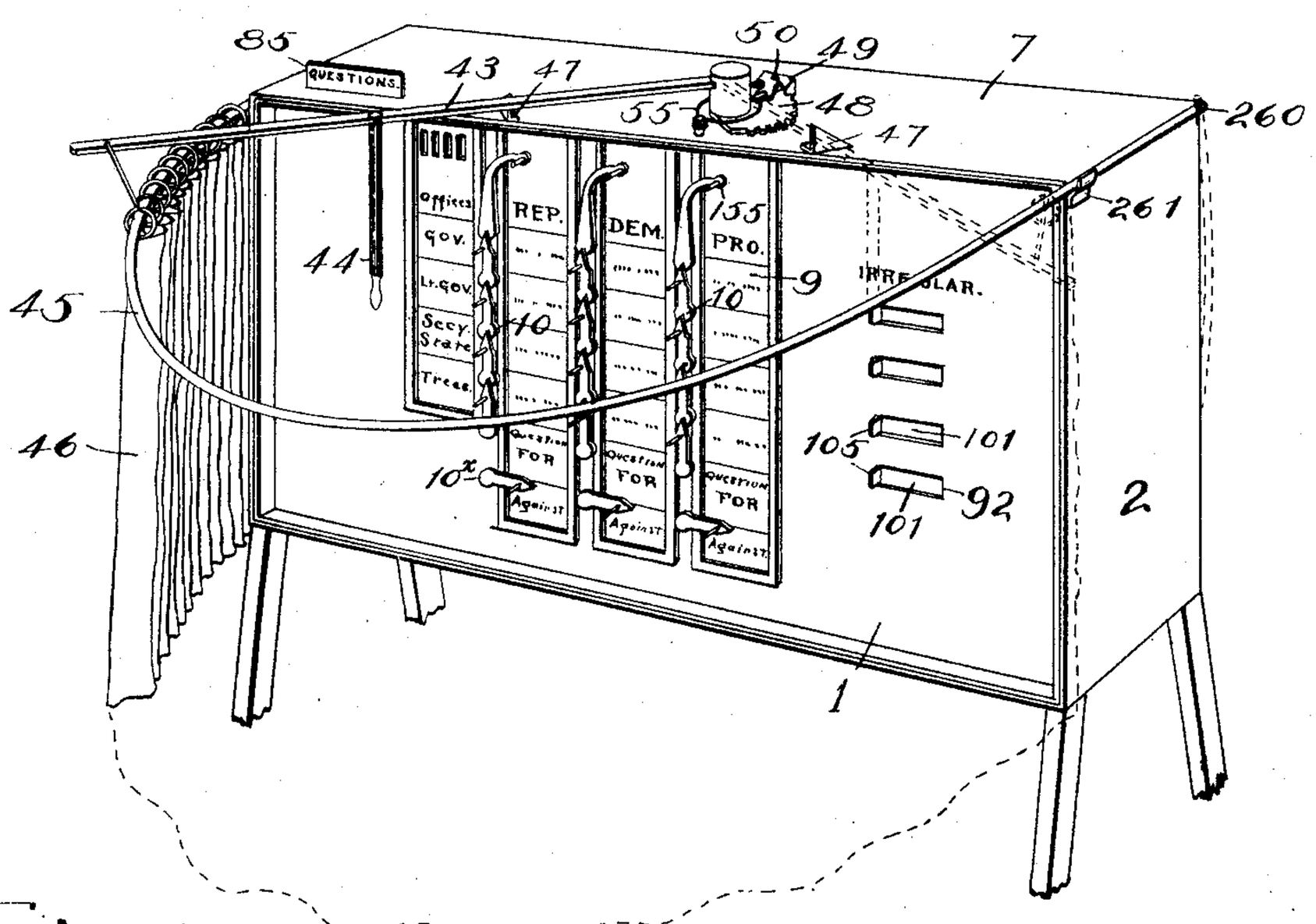


Fig. 19.

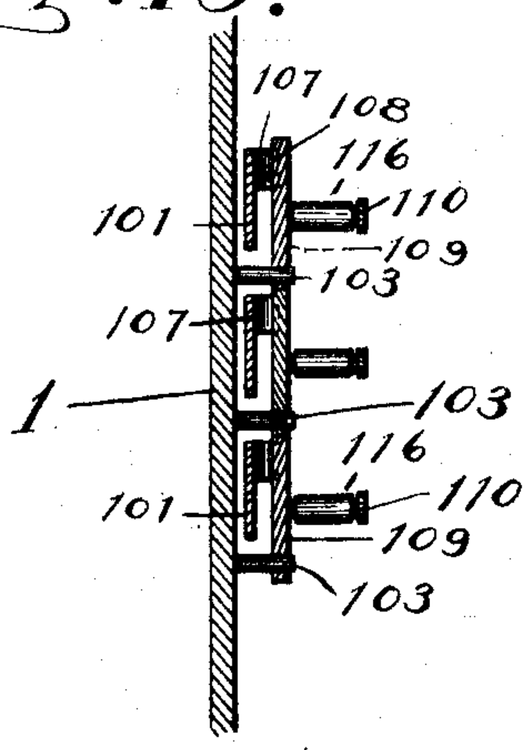
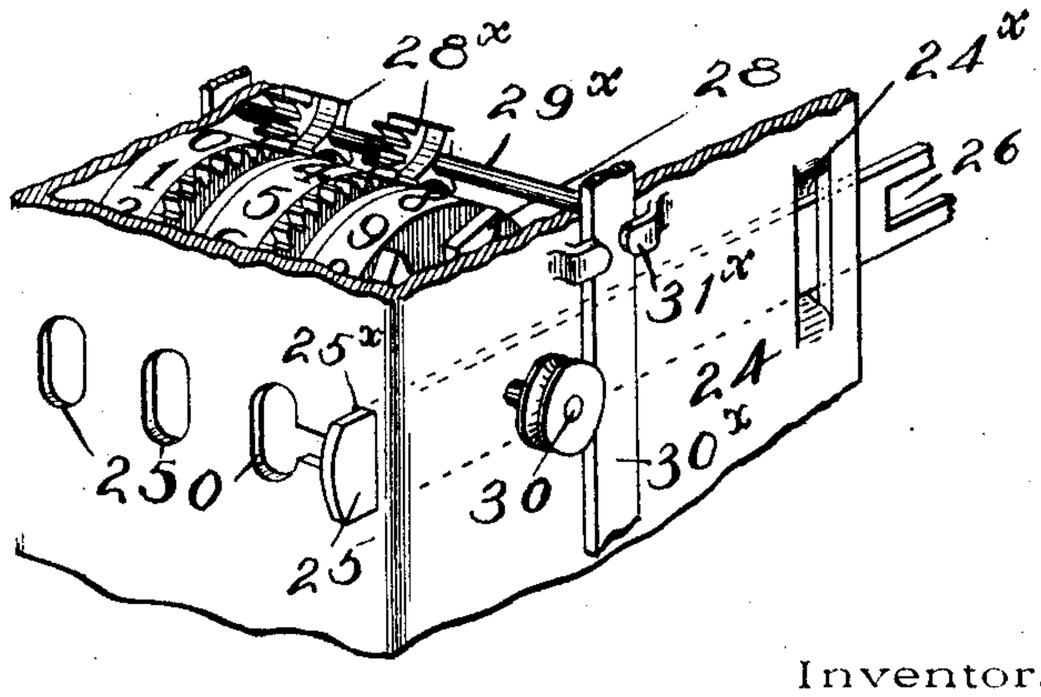


Fig. 21.



Witnesses.

Geo. H. Strickland Rich.

Chas. F. Logan.

Inventor.

Alfred J. Gillespie

by Church & Church

his

Attorneys

No. 628,792.

Patented July 11, 1899.

A. J. GILLESPIE.

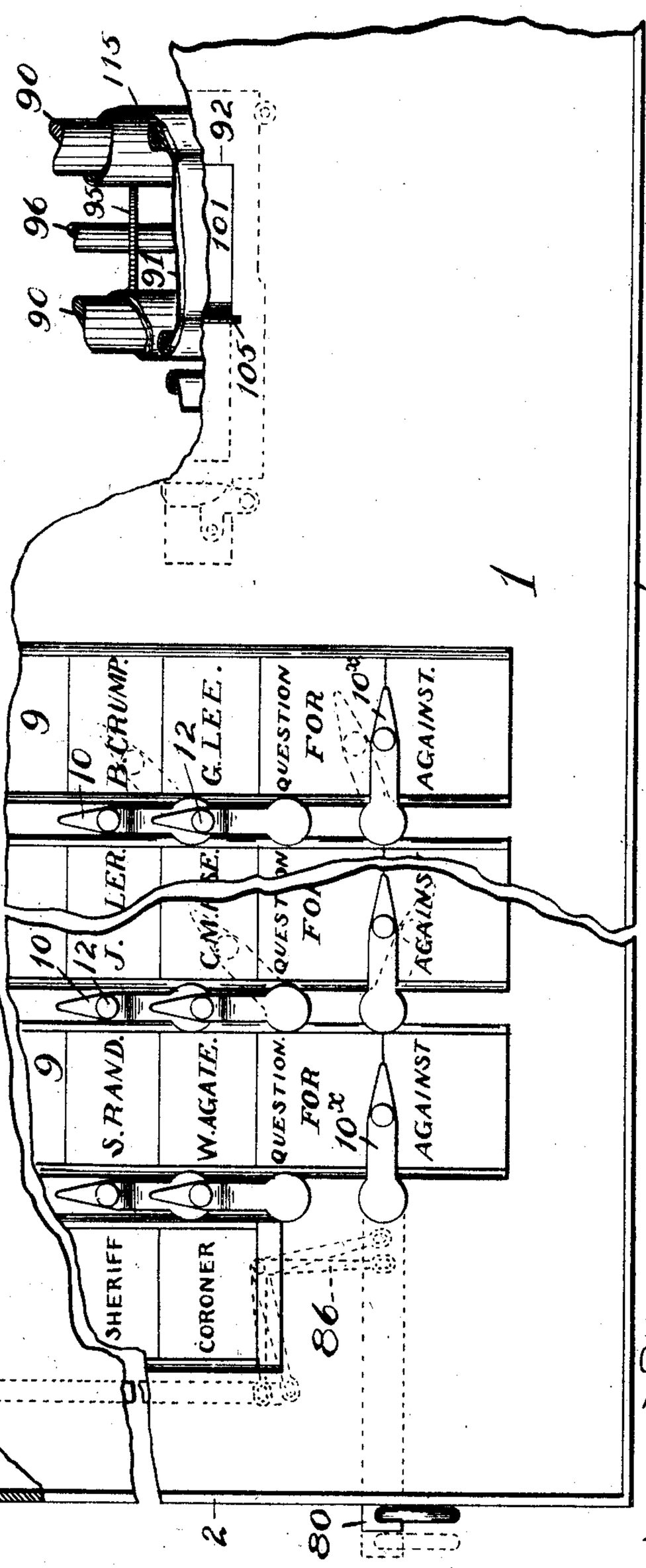
VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.)

9 Sheets—Sheet 2.

Fig. 1a.



Witnesses.
Willard Rich
Chas. F. Logan.

Inventor.
Alfred J. Gillespie
by Church & Church
his
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 628,792. Patented July 11, 1899.

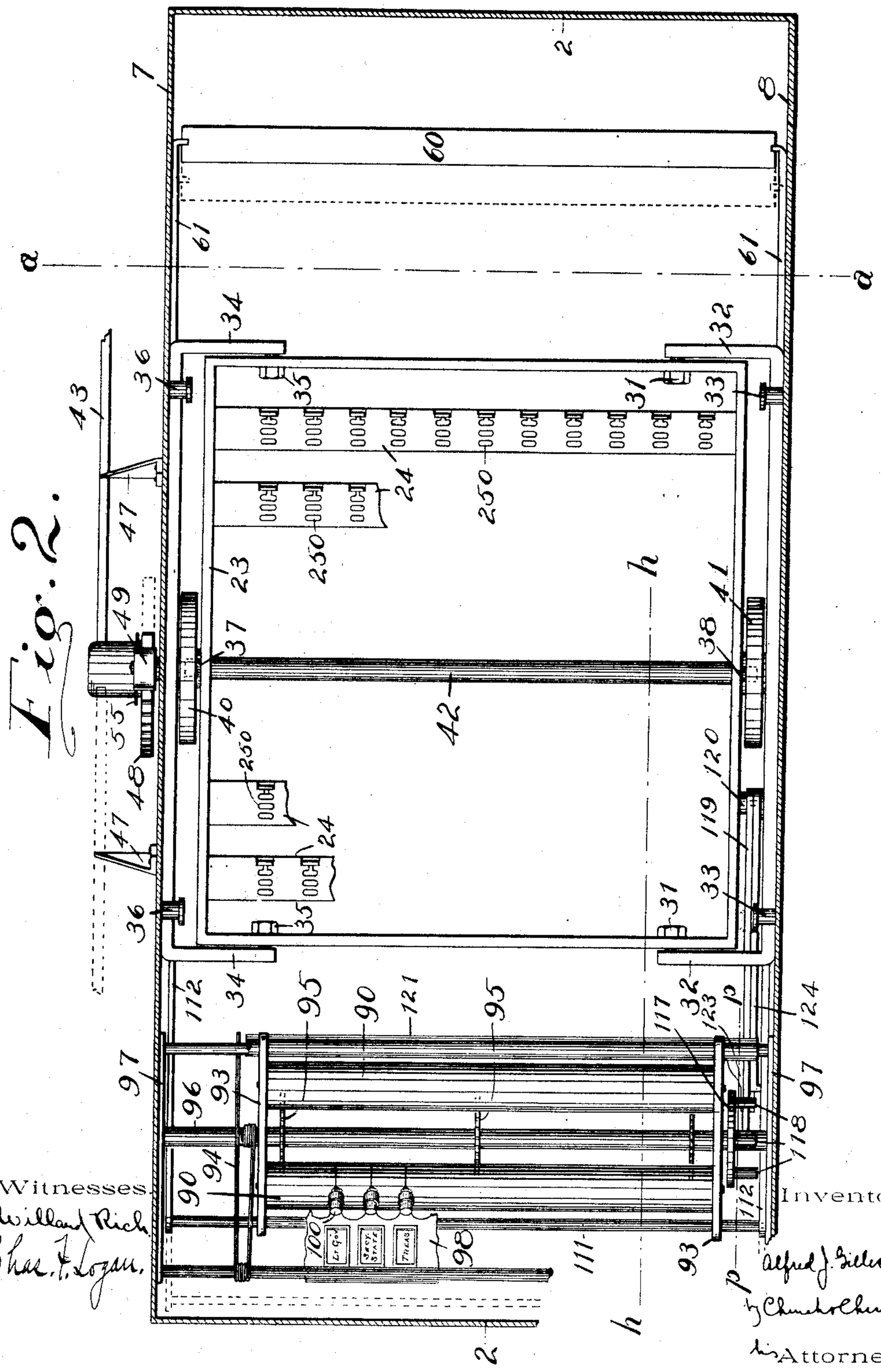
A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.) 9 Sheets—Sheet 3.

Fig. 2.



Witnesses.
Edwilland Rich
Chas. F. Logan.

Inventor.
Alfred J. Gillespie.
by Church & Church
his Attorneys.

No. 628,792.

Patented July 11, 1899.

A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.)

9 Sheets—Sheet 4.

Fig. 3.

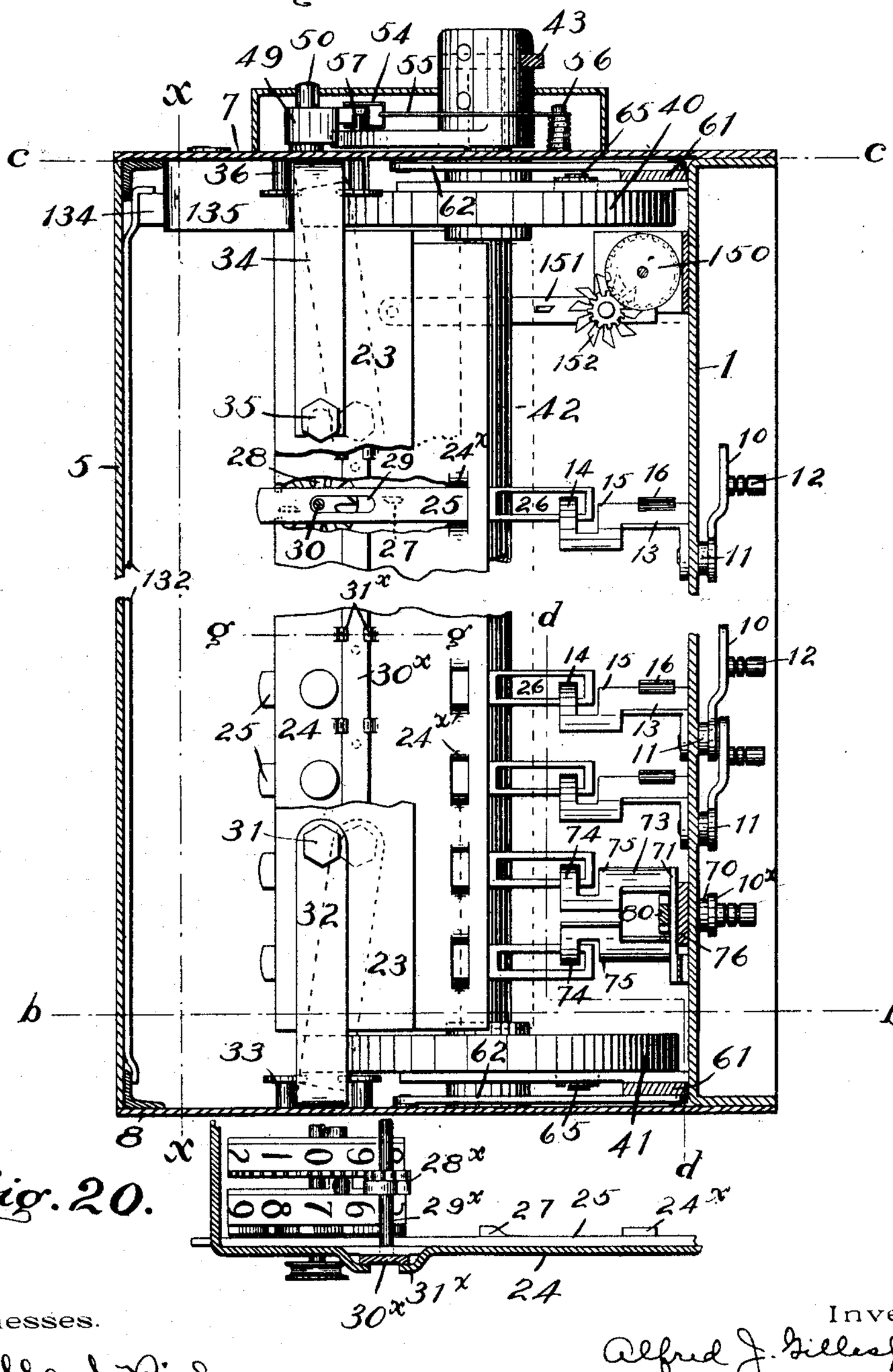


Fig. 20.

Witnesses.

Willard Rich.

Chas. F. Logan.

Inventor.

Alfred J. Gillespie

by Church & Church

his Attorneys

No. 628,792. Patented July 11, 1899.

A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.) 9 Sheets—Sheet 5.

Fig. 4.

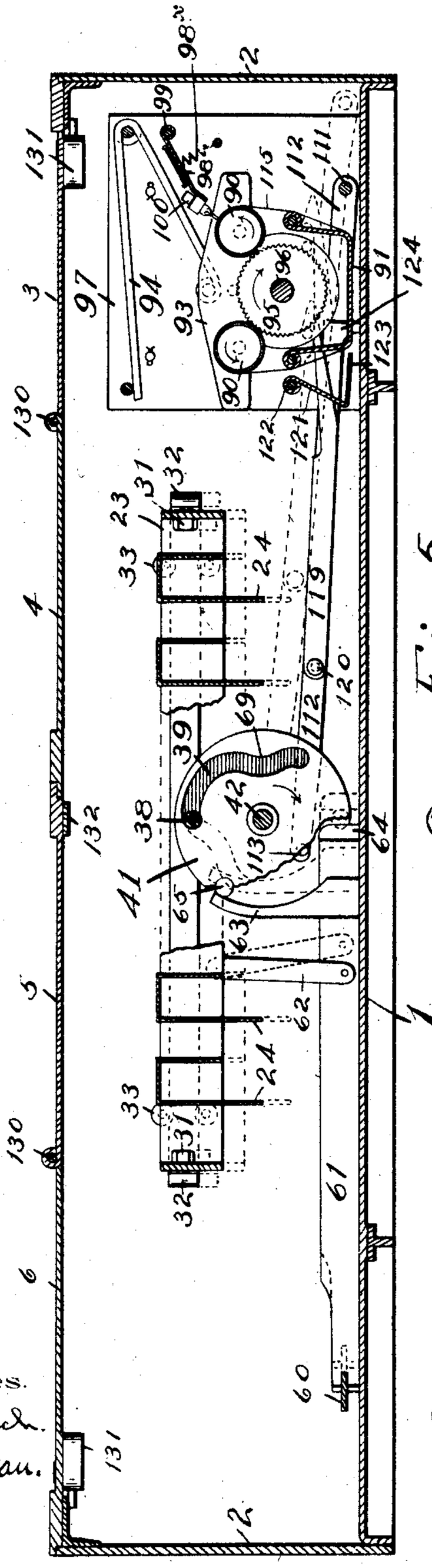
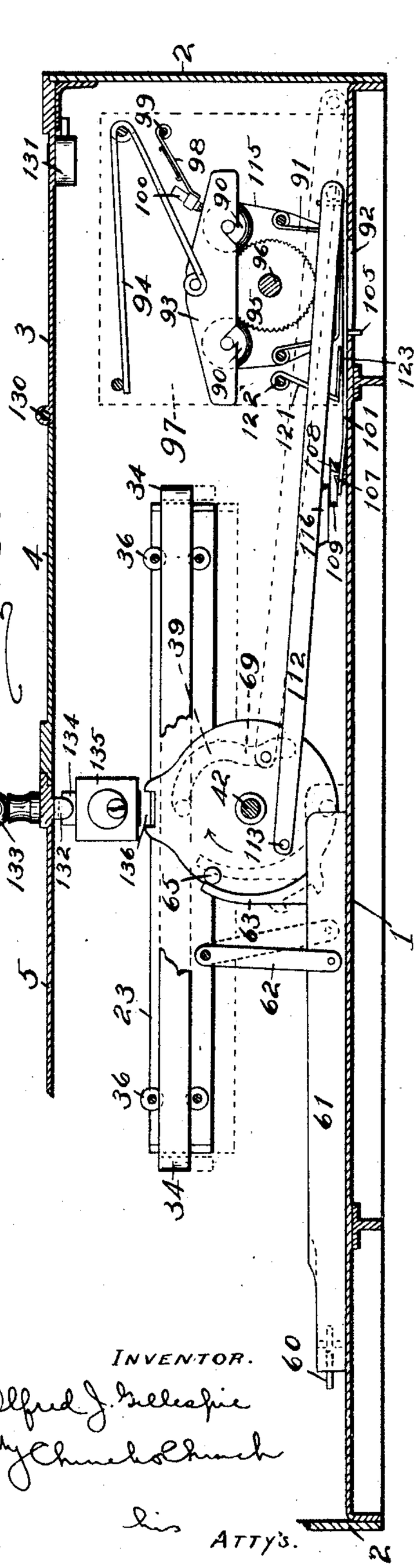


Fig. 5.



Witnesses.
Willard Rich.
Chas. F. Logan.

INVENTOR.
Alfred J. Gillespie
by Church & Church
his
ATTY'S.

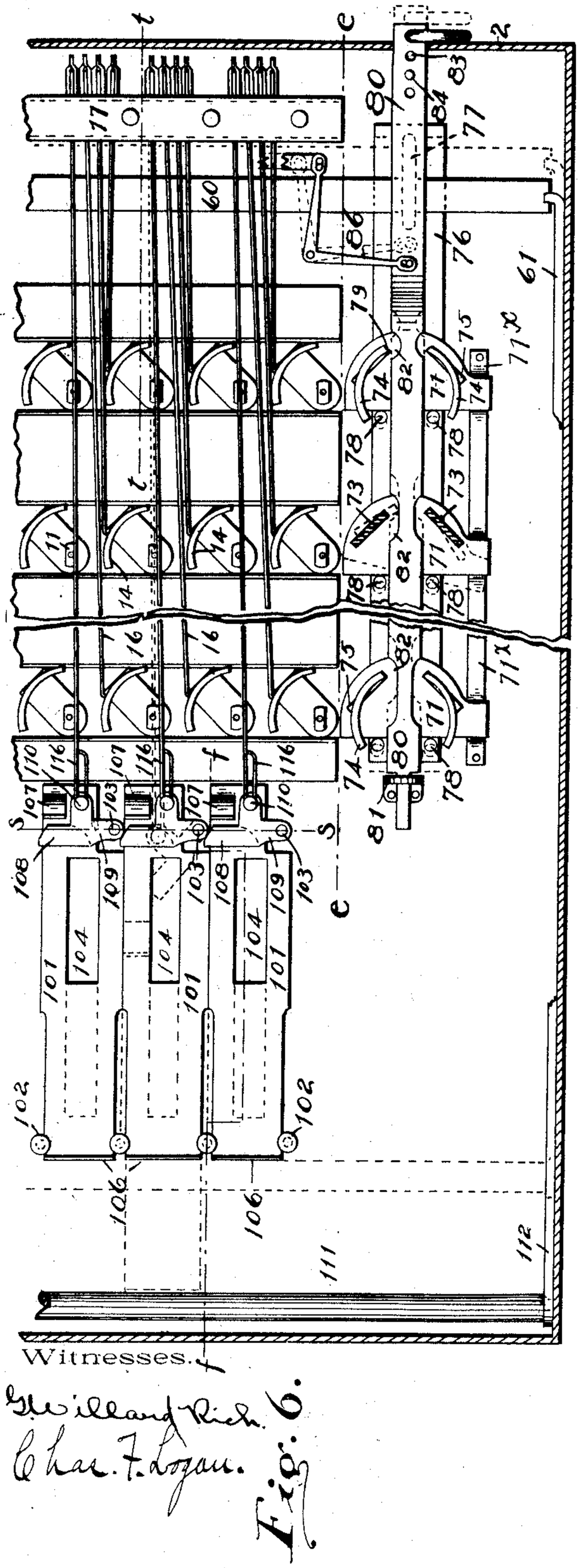
No. 628,792. Patented July 11, 1899.

A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.) 9 Sheets—Sheet 6.



Witnesses.
Gleilland Rich.
Chas. F. Logan.

Fig. 6.

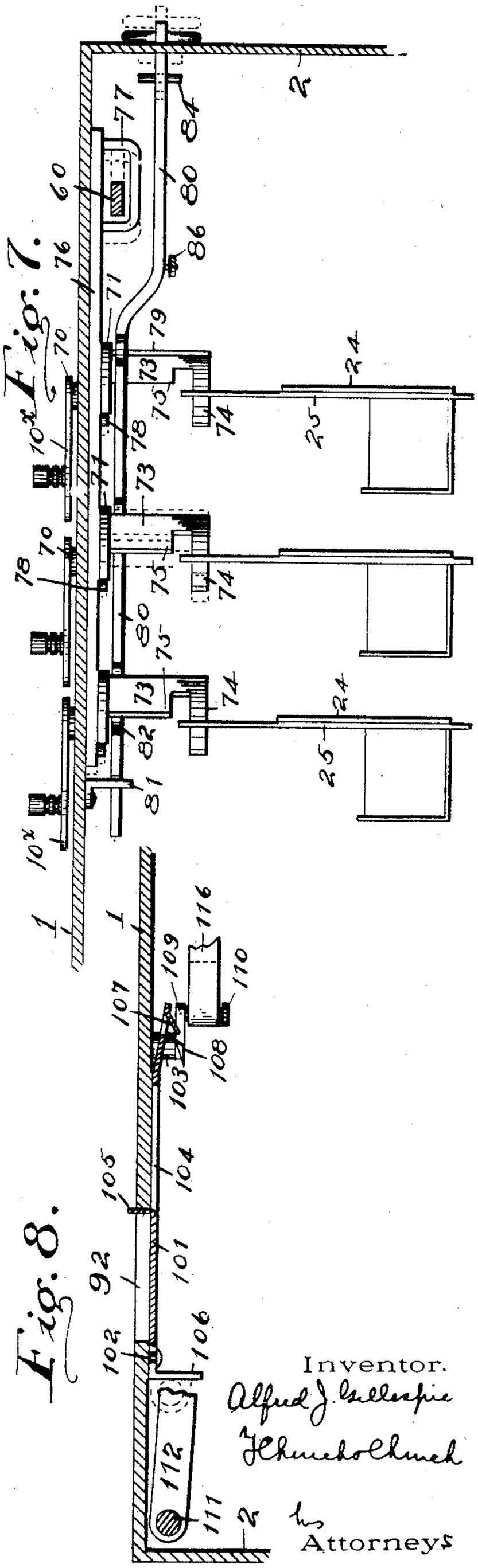


Fig. 7.

Fig. 8.

Inventor.
Alfred J. Gillespie
by Church & Church
Attorneys

No. 628,792. Patented July 11, 1899.

A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.) 9 Sheets—Sheet 7.

Fig. 9.

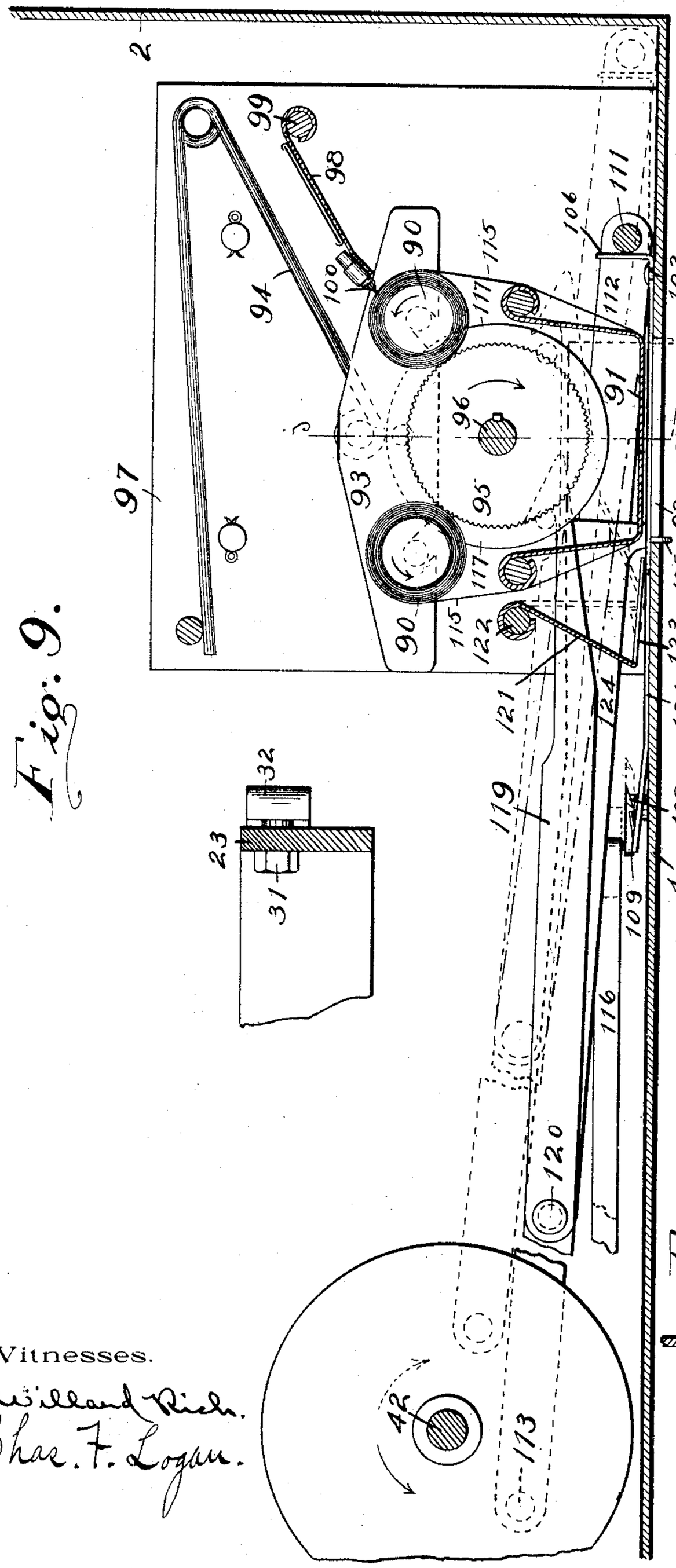


Fig. 10.

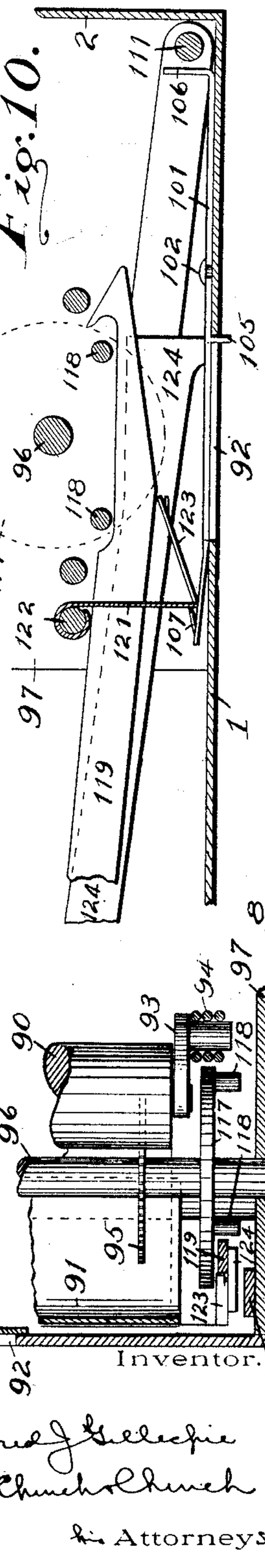


Fig. 11.

Witnesses.
Gilliland Rich.
Chas. F. Logan.

Inventor.
Alfred J. Gillespie
by Church & Church
his Attorneys

No. 628,792. Patented July 11, 1899.

A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.) 9 Sheets—Sheet 8.

Fig. 12.

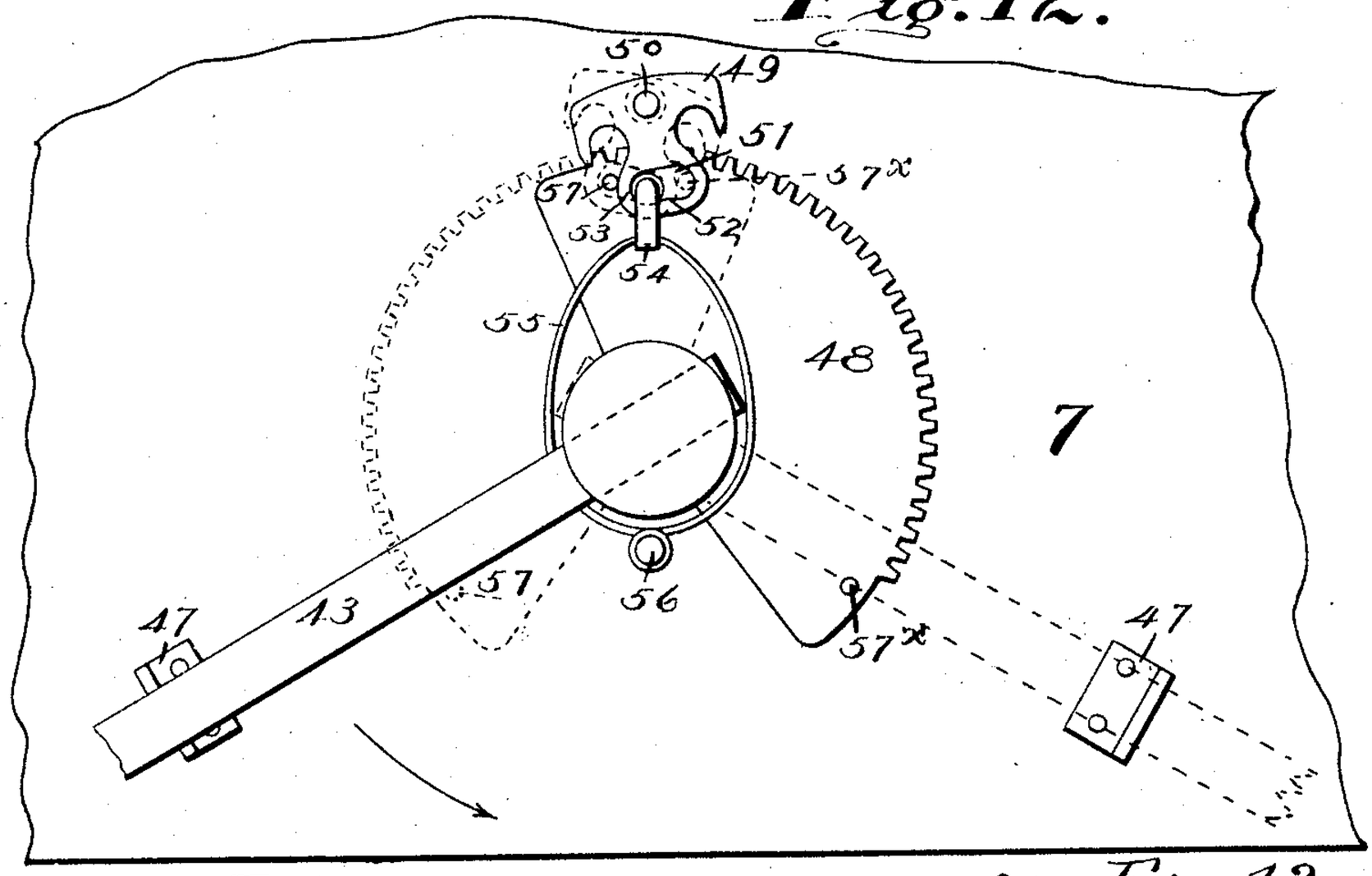


Fig. 15.

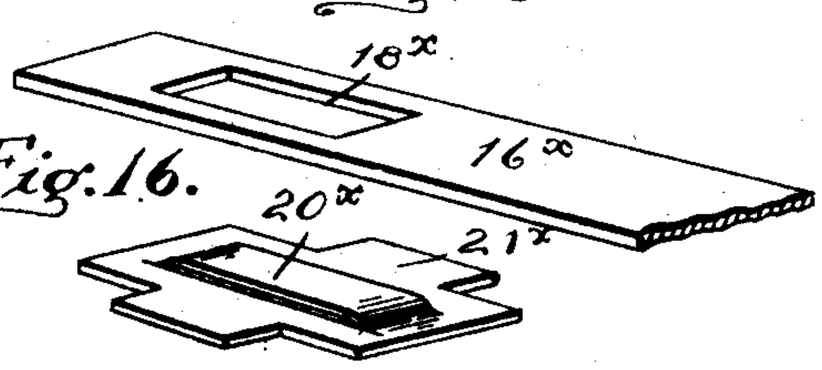


Fig. 16.

Fig. 13.

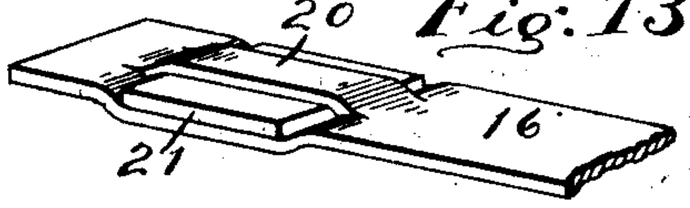


Fig. 14.

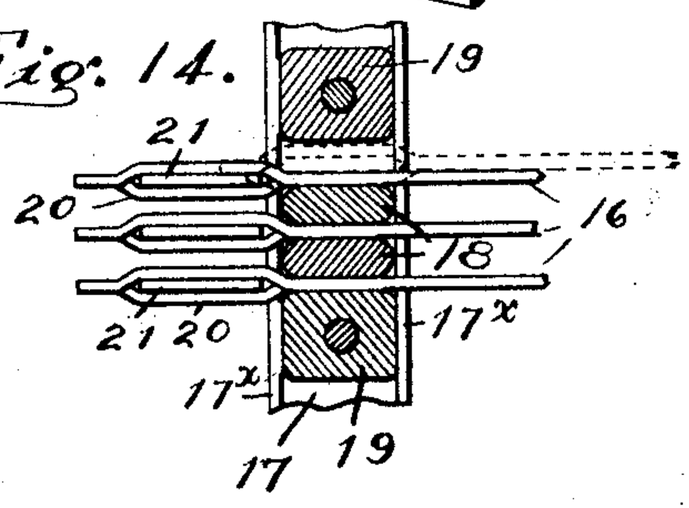


Fig. 17.

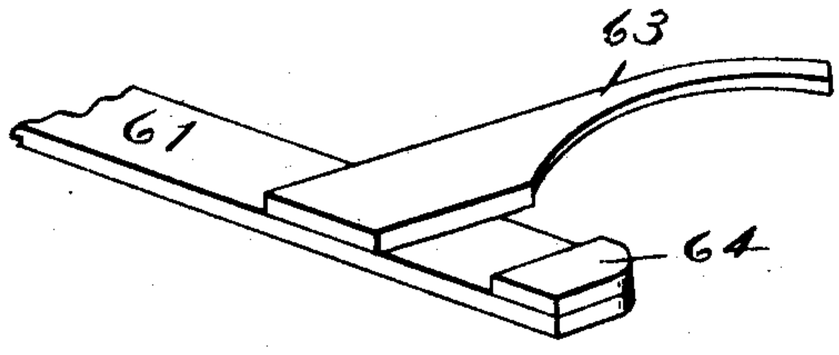
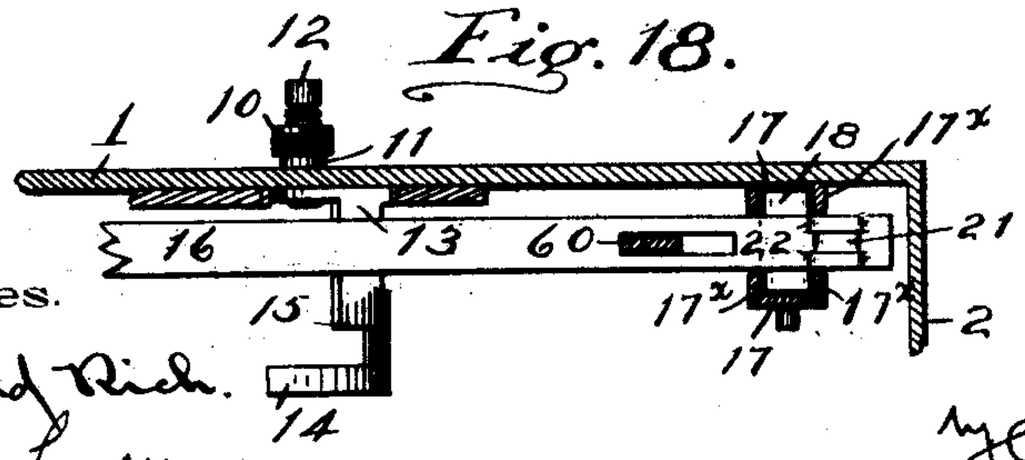


Fig. 18.



Witnesses.
Willard Rich.
Chas. F. Logan.

Inventor.
Alfred J. Gillespie
by Church & Church
his Attorneys

No. 628,792. Patented July 11, 1899.

A. J. GILLESPIE.

VOTING MACHINE.

(Application filed May 9, 1898.)

(No Model.) 9 Sheets—Sheet 9.

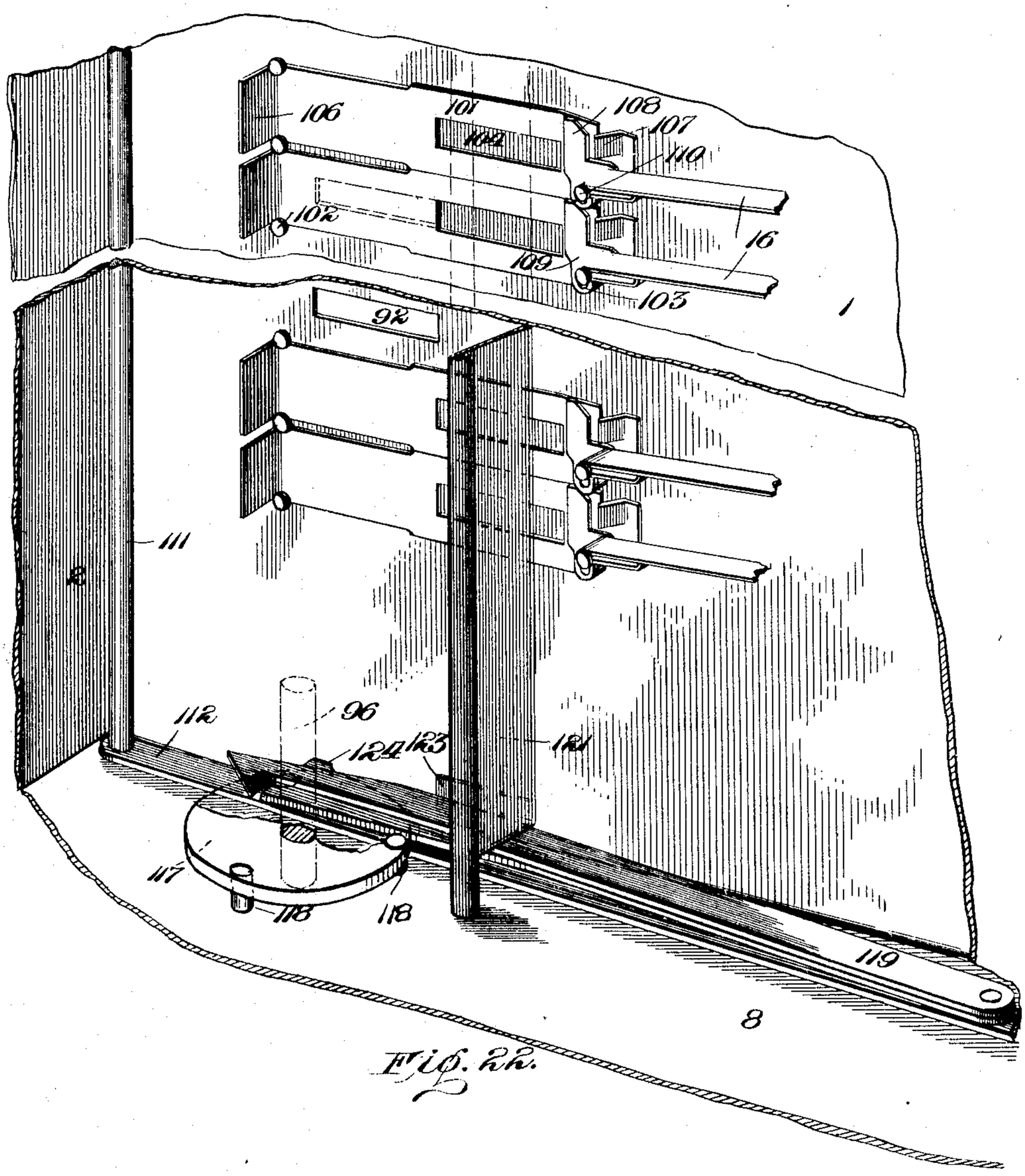


Fig. 22.

Witnesses.
Walter B. Payne.
G. Willard Rich.

Inventor.
Alfred J. Gillespie
by Church & Church
his Attorneys

UNITED STATES PATENT OFFICE.

ALFRED J. GILLESPIE, OF ROCHESTER, NEW YORK, ASSIGNOR TO THE STANDARD VOTING MACHINE COMPANY, OF SAME PLACE.

VOTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 628,792, dated July 11, 1899.

Application filed May 9, 1898. Serial No. 680,167. (No model.)

To all whom it may concern:

Be it known that I, ALFRED J. GILLESPIE, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Voting-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention has for its object to provide an improved voting-machine, particularly of the type contained in my prior patent, No. 576,570, granted May 9, 1897, and the machine contained in my pending application, filed November 18, 1897, Serial No. 658,938—that is to say, one in which the voter indicates his choice of the candidates to be voted for and then registers or records the ballots so indicated by him when or after he has left the proximity of the indicating devices which he has operated, so as to prevent a subsequent or second operation thereof; and it further consists in so improving the construction and operation of the parts that there is no liability of the machine getting out of order or of improper registering being effected by the voter intentionally or unintentionally, and, further, in providing improved irregular-balloting devices whereby persons not regularly-nominated candidates may be voted for without liability of having more than the proper number of votes indicated for the same person for the same office, whether in a group where several candidates are nominated by each party for the same office or otherwise.

The invention also consists in further improvements in the construction of the apparatus, all as will be hereinafter fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawings, Figure 1 is a perspective view of a machine constructed in accordance with my invention; Fig. 1ª, a front elevation of a portion of the casing constituting the front or ballot board of the machine, shown partly in section; Fig. 2, a vertical sectional view taken on the line *x x* of Fig. 3 looking toward the front; Fig. 3, a vertical sectional view on the line *a a* of Fig. 2; Fig. 4, a horizontal sectional view on the line *b b* of Fig. 3; Fig. 5, a similar view on the line *c c* of Fig. 3; Fig. 6, a vertical sectional view on the line *d d* of Fig. 3 looking toward the front of the machine; Fig. 7, a horizontal sectional view on the line *e e* of Fig. 6 looking down; Fig. 8, a similar view on the line *f f* of Fig. 6 looking down; Fig. 9, a horizontal sectional view on the line *h h* of Fig. 2 looking down; Fig. 10, a sectional view on the line *p p* of Fig. 2; Fig. 11, a sectional view on the line *j j* of Fig. 9; Fig. 12, a plan view of a portion of the top of the machine, showing the operating-lever and the ratchet for controlling its movement; Figs. 13 and 14, detail views showing the interlocking strips or rods between the keys; Figs. 15 and 16, modifications of the interlocking devices between the indicators; Fig. 17, a perspective view showing in detail the end of the retracting device for the indicators; Fig. 18, a sectional view on the line *t t* of Fig. 6; Fig. 19, a sectional view on the line *s s* of Fig. 6; Fig. 20, a sectional view on the line *g g* of Fig. 3; Fig. 21, a perspective detail view of a portion of one of the registers; Fig. 22, a perspective detail view taken from the rear side of the front plate of the machine, showing the cover-plates for the voting-apertures and the wing for controlling the operation of the paper-feeding devices.

Similar reference-numerals indicate similar parts.

As in the machine contained in my prior application referred to, the operating parts are contained in a casing or receptacle of suitable construction, in the present instance embodying the front plate or support 1, end plates 2, and at the rear side is closed by doors 3, 4, 5, and 6 and at the top and bottom by the plates 7 and 8, respectively. The front plate is provided with suitable indicating-cards 9, containing the candidates' names, those of candidates of the same political party being arranged in vertical lines and those of the candidates for the same office being arranged in the same horizontal lines or series, as shown in Figs. 1 and 1ª. Arranged at the side of each of the ballots or tickets of the individual candidates are movable pointers or indicators 10, mounted upon oscillatory studs 11, jour-

naled in the front plate 1 and having operating-handles 12 at the front, by which the pointers or indicators may be turned to the position shown in dotted lines in Fig. 1ª, toward the name of the candidate to which they are devoted, so that they will indicate a vote. To the rear side of each of the studs 11 is secured an arm 13, having a rearwardly-extended curved portion concentric with the center of motion of the stud and provided with a finger 14 and a shoulder 15, the former projecting beyond the shoulder, as shown in my prior application before referred to and also in Figs. 3 and 18. Each of the arms 13 has pivotally connected to it a rod or strap 16, preferably of thin metal, extending toward one side of the casing, passing between vertically-channeled plates 17 and having near its outer end a thickened portion arranged to coöperate with movable blocks 18 and also with stationary but adjustable stops or blocks 19, arranged between the plates 17, the space between said stops 19 being sufficient for the accommodation of a predetermined number of said thickened portions of the straps, as shown in Figs. 3, 13, and 14 and also in my prior application. The space between the stationary blocks 19 is just sufficient to permit the proper number of the thickened portions of the rods or straps to pass between them, and as the straps for the indicators of the candidates for the same office are grouped between the stationary blocks 19 only the proper number of indicators may be operated by the voter to indicate ballots for the candidates. In the present embodiment of my invention I prefer to form the thickened portions of the straps by striking up from the metal of which they are composed a tongue 20 and bending down the strap at the sides of the tongue, thereby forming a recess for the reception of inserted pieces 21, preferably of the same thickness as the strap, which pieces are held in position by clamping the tongue 20 down upon it, thereby trebling the thickness at this point and providing the beveled or inclined portion 22 at the edges of the thickened portions, as shown in Fig. 13; but if the metal is sufficiently heavy or stiff the pieces 21 may be dispensed with. The bars 17, confining the blocks 18, are preferably channeled bars, being provided with the flanges $17^{\times}$; but it is not deemed essential that these blocks 18 be employed, as the wedges themselves could fill the space between the stops 19. In Figs. 15 and 16 I have shown modifications of this interlocking device in which the straps $16^{\times}$ are provided with apertures $18^{\times}$ and the blocks are formed of plates $21^{\times}$, of sheet metal, having a tongue $20^{\times}$ struck up from them and adapted to "nest" or "spoon" into each other and to fit within the aperture $18^{\times}$ in the strap, this construction being such that in normal position the projections or tongues $20^{\times}$ of the blocks or plates $21^{\times}$ pass through the apertures in the straps, the space between the stationary stops 19 then being sufficient for the operation of the proper number of indicators; but when one of the straps is moved longitudinally the solid portion will pass over and rest upon the tongue $20^{\times}$, thereby decreasing the space between the blocks 19 by the thickness of the material of which the strap is composed, and thereby preventing the operation of more than the required number.

As in my prior application, the counters or registers with which the indicators (embodying the pointers and the plates 13) coöperate are mounted in the frame 23, capable of movement toward and from the front plate 1 of the machine, said registers or counters being arranged in vertical lines corresponding to the indicators and a vertical series of counters being mounted in supplemental frames 24, attached to the frame 23, as shown in Figs. 2 and 4, and each of the registers embodies a series of suitable registering-wheels connected by suitable carrying or transferring wheels $28^{\times}$, such as in the counters shown in my prior application, said carrying-wheels being mounted upon arbors or spindles $29^{\times}$, journaled in suitable apertures in the sides of the frames 24, and all of said arbors are locked in position by a vertically-adjustable bar $30^{\times}$, held in close contact with the frame 34 by means of lugs or ears $31^{\times}$, struck up from the sides, as shown in Figs. 3 and 20. Each of said counters is adapted to be operated by a sliding actuator 25, having a slot 26 for the accommodation of the finger 14 on the indicator and a solid outer end adapted to engage with the shoulder 15 of the indicators that have been operated when the counter-frame and front plate are moved toward each other. The actuator 25 is provided with pallets or teeth arranged to coöperate with the teeth on the units-wheel 28 of the register, as in my prior application, and said actuators are guided to move in right lines in the frames 24 by having tongues $24^{\times}$ punched from the sides of the latter, forming a guide for the forward portion of the actuator, while the rear portion is provided with a slot 29, through which the spindle or arbor 30 of the register-wheels extends, as shown in Fig. 3, and its outer end is guided in the slot $25^{\times}$, formed in the casing-frames 24, (see Fig. 21,) said slot having an extension into the first aperture 250 to permit the passage of the pallets on the actuator when desired to remove the latter. By the arrangement shown I am enabled to efficiently guide the actuators near both ends, and as the lower sides of the latter are smooth the friction between them and the lower sides of the slots $25^{\times}$ is slight. Furthermore, it is very desirable that a reciprocatory actuator be employed and that a sufficient amount of movement be permitted to actuate the units-wheel and at the same time use small register-wheels and have their peripheries close to the apertures 250 in the casing. The pallets or teeth 27 on the actuator are so arranged that when the latter are moved inward the counter or register will be moved one unit

and when moved outward the tooth or pallet at the outer end will project between the teeth of the units-wheel and prevent accidental movement.

The register-frame 23 is pivoted by bolts or studs 31 upon the upwardly-extending ends or arms of a yoke 32, the horizontal portion of which rests upon the bottom 8 of the casing and is permitted to rock thereon, as shown in dotted lines in Fig. 3, headed studs 33 on the bottom plate limiting the rocking motion of said yoke. At the upper end of the frame 23 there are provided arms 34, forming part of a similar yoke pivoted at 35 to the frame 23 and the rocking motion of which is limited by studs 36, secured to the upper plate of the casing. These arms of the yokes guide the frame in its movements, which are caused by pins or rollers 37 38, entering cam-grooves 39, formed in cams or disks 40 and 41, arranged at the upper and lower portions of the casing and rigidly secured to a vertical oscillatory shaft 42, journaled in the top and bottom of the casing. The cam-grooves are concentric with the center of the shaft 42 with the exception of the portion 69, and it is this part that causes the movement of the register-frame toward the front plate. The shaft 42 is provided at its upper end with an operating-arm 43, having an operating-handle 44, said arm moving upon a segmental guide 45 and carrying a curtain 46, adapted to be moved around and inclose the voter when the handle is operated in one direction and to throw the curtain back and expose the whole front of the machine when the handle is operated in the other direction. This segmental curtain-guide is pivoted at 260 to the casing and when in use is swung forward and supported on brackets 261; but when desired it can be turned over and folded down parallel with the rear side of the casing, as in dotted lines. The cam-grooves 39 in the cams or disks 40 and 41 are so arranged that as the lever 43 is moved to the position shown in Fig. 12 in full lines the frame 23 is in its rearward position, and when it is moved to the position shown in dotted lines in said Fig. 12 the frame is also in its rearward position, and a movement from the position in dotted lines to the position in full lines will cause the forward movement of the frame 23 and the actuation of any counters or registers whose indicators have been operated and the return of the frame to rearward position, this operation being substantially the same as in the machine in my pending application, although the mechanism for accomplishing it is slightly different.

For the purpose of preventing the arm and curtain from being moved back before it has completed a reciprocation in either direction up to the stops 47 on the casing I secure to the shaft a toothed segment 48, with which coöperate the oppositely-arranged teeth on a double pawl 49, pivoted at 50 to the top of the casing, said pawl having a slot 51, provided with a projection or shoulder 52, with which coöperates a roller or projection 53 on a yoke 54, connected to a spring 55, passing around the shaft and fastened to a pin 56, as shown in Figs. 3 and 12, the construction being such that when the arm is at one extreme of its movement, as in full lines in Figs. 1 and 12, the pin 57 on the segment engages the tail of the dog 49, tilting it to the position shown in full lines and causing the left-hand tooth of the dog or pawl to engage with the teeth of the segment, the spring 55 holding it in this position while the lever is moved around, and thereby preventing the backward movement; but when the other extreme of its movement, as in dotted lines, is reached the pin 57× on the other side of the segment will tilt the dog or pawl, causing the right-hand tooth to engage and preventing backward movement.

For the purpose of returning the indicators to normal position after the registration of a vote the rods or straps 15 of all of the indicators are provided with vertically-extending apertures or slots, (see Fig. 18,) through which passes a resetting-bar 60, connected to the bars 61, arranged at the top and bottom of the casing, respectively, and pivoted to guiding-links 62, pivoted to the casing, and the inner ends of the bars 61 are provided with curved fingers 63 and projections 64, as shown in Figs. 4 and 17. The fingers and projections are located on the upper sides of the lower rods and upon the lower sides of the upper rods and in position to be engaged by pins 65, arranged upon the upper and lower sides, respectively, of the cams 40 and 41, said pins, fingers, and projections 64 being so relatively arranged that the first movement of the shaft in the direction of the arrows in Figs. 4 and 5 will cause the pins 65 to move around on the fingers 63 without affecting the resetting or returning bar until after the cams have caused the forward-and-rearward motion of the register-frame, and then said pins engaging the projection 64 will move the resetting-bars toward the center of the machine, as shown in dotted lines in Figs. 4 and 5, retracting all the of indicators, and the backward movement of said resetting-bar (caused by a reversed or continued movement of the shaft) will return said bar to normal outward position. The object in curving the fingers 63, as shown, is in order that the resetting-bar, and thereby the interlocking straps or rods, be held locked while the parts are in the position shown in full lines in Fig. 4 and the cover is removed from the front of the machine, exposing the indicators. It will be understood that the slots in the straps or rods 16 are sufficiently long to permit the movement of the indicators to indicate a vote without being arrested by said bar, but that when any of the indicators are operated and the ends of their slots are brought close against the resetting-bar, the inward movement of the latter will withdraw the thickened portions of the straps or rods and reset the indicators. The full lines in Figs. 4 and 5 show

the position of the parts when the curtain is removed from the front of the casing, and the dotted lines show the parts when in condition for voting.

In machines of this description it is desirable that means be provided for enabling the voter to vote for or against certain questions—as appropriations, for instance—and while two indicators in the same horizontal row may be arranged with interlocking devices between them, as in my before-mentioned application, I prefer in some instances to arrange counters or registers devoted to the questions one above the other, and that a single indicating-arm $10^{\times}$ may serve to indicate a vote for or against the question I arrange upon the stud 70, to which the pointer or indicator is connected, a duplex indicator in the form of the plate 71, (shown in Figs. 3, 6, and 7,) substantially straight on one side and having two arms 73 secured thereto, similar to the plates 13, and each having the finger 74 and the shoulder 75, corresponding to the finger 14 and the shoulder 15 of the other indicators, these plates 73 being reversed in position, as shown in the figures mentioned, and being so formed and arranged that when the indicator is moved to indicate, say, a vote for the question, the arm $10^{\times}$ being moved up, as in dotted lines in Fig. 1^{a}, the shoulder 75 of the lower arm is moved in position to engage the lower counter-actuator and the shoulder 75 of the upper arm is moved away from its actuator, so that when the counter or register frame is moved toward the indicators only one of the registers devoted to this question will be actuated. It will be noted that this same arrangement could be used for indicating votes for candidates if only two are employed. For the purpose of returning all of the question-indicators to normal position I provide upon the front plate 1 a sliding bar 76, having a loop or yoke 77 at one end, through which the resetting-bar 60 passes, Fig. 7, and upon this bar are also provided pins 78, arranged on opposite sides of the pivot of the plate 71, Fig. 6, so that when any of the indicators are operated the bar 76 will be moved to the position shown in dotted lines in Fig. 7 to bring the end of the loop 77 into engagement with the resetting-bar 60, and when said bar 60 is moved outward the bar 76 will be carried with it, returning all of the question-indicators to normal position, with the pointers between the ballots or cards on the front plate.

As it is sometimes desirable to prevent untaxed voters from voting on questions of appropriations, for instance, or to otherwise limit their franchise, I provide means for locking out any number of question-indicators, so that voters having different qualifications may vote on the different questions, if desired, and therefore provide a longitudinally progressively movable bar 80, sliding in the end of the casing and guided in a bracket 81 at the inner end, said bar being provided with cut-out portions 82, forming shoulders at different distances from the indicators, on opposite sides, and of varying length, Fig. 6, these cut-out portions being adapted normally to receive the portions 79 of the arms attached to the plates 71 when the bar 80 is in normal position, (shown in full lines in Fig. 6;) but when said rod is moved outward one unit, which may be represented by an aperture 83, through which a locking-pin 84 is passed, the solid portion or a shoulder of the bar will be brought opposite the portions 79 of the first plate 71, and if the bar 80 is moved upward two units the solid portion or shoulder of the rod will be brought opposite the arms of the second plate 71, so as to lock two of the question-indicators, while permitting the third to be actuated to indicate a vote for or against a question, and, if desired, a further movement of the bar will serve to lock all of the question-indicators. In order that it may be made apparent to the inspectors or spectators generally which of the questions are locked, I provide in the upper portion of the casing a movable indicator-plate 85, as shown in Fig. 1^{a}, connected by a bell-crank lever 86 with the rod 80 and having upon it suitable indications showing the progressive movement of said rod—as, for instance, indicating the first question is locked, the second question is locked, &c. This indicator might be dispensed with and the end of the bar 80 serve as an indicating means, if desired.

In order that the voter may cast a ballot for persons not candidates or nominees of the regular parties for which the machine is adapted, I provide a series of "irregular-balloting" devices, one for each row of candidates and interlocked with the "regular" indicators in such manner that when a vote is indicated for a regular candidate the irregular balloting devices cannot be operated, and vice versa, and in the present embodiment these irregular balloting devices are in the form of a continuous web of paper arranged upon rollers 90, passing over a supporting-plate 91 and in rear of slots 92, formed in the front plate 1, said slots or apertures being preferably in line with the regular indicators of the candidates to whom the aperture and the corresponding line on the paper are devoted. The rollers 90 have their bearings in open slots formed in the forward sides of plates 93, arranged at the top and bottom of the machine, and said plates are pressed by springs 94 toward the front of the machine, bringing the rolls against friction-wheels or disks 95, secured rigidly to the arbor 96, journaled in plates 97, arranged at the top and bottom of the casing and secured removably thereto in any suitable manner. From this construction it will be seen that when the arbor 96 is rotated in the direction of the arrow, Fig. 9, the paper-rolls will be rotated by direct frictional contact with the paper-web and the latter withdrawn from one roll and wound upon the other, passing over the support 91 and in rear of the apertures in the front plate.

As this arbor 96 is intermittently rotated a distance substantially equal to the length of the slots in the front plate 1 a new surface of paper will be presented at each of the apertures each time said arbor is operated, and the surface of both the supply and take-up rollers being in contact with the friction-wheels 95 they will travel at the same surface speed irrespective of their size, so that the feed will be regular and there is no opportunity for an irregular or insufficient feed of the paper. In order to designate the lines of the paper which are alined with the apertures 92 in the front plate, I provide a label-plate 98, hinged upon a rod 99, secured to the plates 97 and provided with label-holders indicating the office-lines and with pencils or other suitable marking devices 100, Figs. 2 and 9, which latter cause lines to be marked on the paper as it is wound around the winding-roll, said label-plate 98 being moved by springs $98^{\times}$ to hold the pencils in contact with the paper, Fig. 4. The marking devices prevent alterations in the names written on the paper-web and serve to cancel any pasters that may have been applied in lieu of writing to prevent fraudulent manipulation by the officers or others after the paper is removed.

The apertures in the front plate 1 are each provided with a sliding cover-plate 101, guided at one end upon the studs 102 and at the other upon studs 103, and each plate is provided with an aperture 104, corresponding to the aperture in the plate 1, and also with an operating tongue or handle 105, preferably projecting through the slot 92 in the plate 1. The outer ends of the cover-plates are provided with an ear or projection 106, and the inner ends are bent outward from the front plate 1 in order to make them slightly elastic and are provided with a catch projection or tongue 107, as shown in Figs. 6 and 8, arranged to engage with the beveled or catch end 108 of a catch-lever 109, pivoted on the stud 103, said lever having a pin 110 thereon operating in the looped or slotted end of the interlocking straps or rods 116, having enlargements on their ends and interlocked with the indicators for the regular party nominees, as shown in Fig. 6. The latch connections between the levers 109 and the cover-plates 101 are such that when said plates are moved from their normal position, Fig. 8, to bring the slot 104 in line with the aperture 92 in the plate 1 the tongue 107 will engage with the end 108 of the lever 109, turn said lever on its pivot, and draw the enlarged end of the interlocking strap 116 between the stationary blocks or abutments 19 of the interlocking devices, and thereby prevent the operation of any of the regular indicators in the same group or line, so as to indicate a vote for a candidate for the same office. The lever 109 is so arranged that a very slight movement of the cover-plate will cause its operation, and after the strap or rod 116 has been operated the latter turns out of the path of the latch or projection 107, so that the strap cannot be forced out from between the interlocking blocks by the manipulation of the cover-plate. The loop on the end of the strap 116, in which the pin 110 operates, would prevent the movement of the interlocking wedge end from between the stops 19 even if there should be sufficient friction between the tongue 107 and lever 108 to move the latter backward and before its release from said tongue. From this construction it will be understood that upon opening one of the slots to write a name upon the paper in rear thereof the voter locks the regular-vote indicators, and he may then write upon the paper his choice of a candidate for the office to which the line is devoted; but he can do this only once, as the paper is not wound forward to bring a new surface in position until he has manipulated the operating-lever 43 and leaves the proximity of the front of the machine.

111 indicates a cover-plate-resetting bar extending vertically at the end of the casing and attached to the ends of links 112, the inner ends of which are pivoted at 113 to the cams or disks 40 41 on the main oscillating shaft 42, Figs. 9 and 10, and at each oscillation of said shaft the resetting-bar is moved inward and engages the ends 106 of the cover-plates and slides all of the latter back to normal position; but before this resetting is accomplished the straps 116 of the interlocking device and the levers 109 have been returned to normal position, Fig. 6, by the movement of the resetting-bar 60, and the spring ends and catches 107 on the inner ends of the cover-plates will as the covers are moved engage the beveled ends of the levers 109 and, springing slightly, pass them, so that the next opening movement will operate the interlocking devices as before, the normal position of these parts being shown in Figs. 6 and 8.

It is desirable that the web of paper or recording medium 115 be wound upon the receiving-roll a distance equal to the length of one of the slots 92 in the front plate only when one of the cover-plates 101 has been removed to indicate an irregular vote, as if the rollers were rotated continuously or with every movement of the indicating device too much paper would be consumed, as votes for irregular candidates are the exception and not the rule. This arrangement also enables me to use the irregular devices in groups embodying more than one of them with or without the regular indicators, because as all of the irregular ballots cast will come in the same vertical column on the paper-web any fraudulent voting, as casting two votes for the same person, could readily be detected by the officers when counting or canvassing the votes on the web of paper. A further advantage incident to the use of a single web of paper is that in case any attempt were made to mutilate or tear the paper through any aperture

or apertures such mutilation could only affect the portion there exposed, and the web could not be torn to prevent its proper operation.

In the present embodiment of my invention the paper-operating spindle 96 is provided at the lower end of a disk 117, provided with pins and projections 118, with which engages the hooked end of a hook bar or member 119, pivoted at 120 to the lower link 112 of the cover-resetting device, said hooked member resting normally against the front plate 1 and out of the path of projections 118, so that although it is reciprocated each time the shaft 42 is oscillated it will not necessarily actuate the disk 117 and the arbor 96; but when any one of the covers is moved to the right, as in Fig. 10, the tongue 107 thereon will engage with a movable member or wing 121, pivoted on a rod 122, (extending in the path of the projections on all of the cover-plates,) and will turn said wing from the position shown in full lines in Fig. 9 to that shown in dotted lines in said figure and also in full lines in Fig. 10, and the finger 123, attached to or forming part of the wing, will engage the hooked member 119 and move it toward the arbor 96, causing its hooked end to engage one of the pins 118, connected to the arbor, so that the next inward movement of the hooked member will turn the arbor and move the paper a distance equal to the length of the apertures 92 in the front plate. In order to prevent the movement of the arbor 96 by a manipulation of the paper through a slot, I provide a locking member in the form of a bar 124, pivoted to the link 112 at 120, said locking member projecting in the path of pins 118 when the front of the machine is covered by the curtain and the links 112 are in the position shown in Fig. 10.

The paper-operating devices are shown in full lines in Fig. 9 in the position they assume when the operating-lever is moved to the left and the curtain is removed from the front of the casing, as in Fig. 1, and the dotted lines in said Fig. 9 show the position of the parts after the operating-lever has been moved in the opposite direction, the front plate covered, and one of the covers of the irregular-voting apertures removed, thereby throwing the hooked member into engagement with the projections 118 on the paper-feeding arbor.

It will be understood that the wing 121 will be returned by the hooked member 119 to the position in full lines in Fig. 9, as said member is carried around in the arc of a circle having the arbor 96 as a center.

If desired, instead of causing the disks 95 on the arbor 96 to engage both of the paper-rolls it can be arranged to engage only the winding-roll, the other one being loose and its operation retarded by the friction in its bearings alone.

The doors 3, 4, 5, and 6 at the back of the casing are preferably arranged in pairs and hinged upon the rods 130, the two outer doors 3 and 6 being provided with suitable key-locks 131, and the door 5 overlaps the edge of the door 4 and is provided with the vertically-movable bolts 132, actuated by the handle 133, as in my prior application, the upper bolt being adapted to be engaged by the plate 134 of the key-lock 135, arranged at the top of the casing. This plate 134, when disengaged from the bolt 132, is projected into the slot 136, formed in the upper disk 40 on the shaft 42, the parts being so arranged that when the rear doors 4 and 5 are unlocked the shaft 42 is locked, so as to prevent the fraudulent manipulation of the machine, with the curtain removed from the front of the machine and the resetting-bars 60 and 111 moved inward to prevent the manipulation of the cover-plates or of any of the indicators for the regularly-nominated candidates.

I prefer that the indicators be arranged, as shown, on the front plate 1 of the casing, in order that the party and office rows may be maintained, so that illiterate voters may not be disfranchised, and each horizontal row is denominated a "series," because the indicators therein are interlocked, and each of these series also includes an irregular voting device; but by the use of the adjustable stops 19, constituting part of the interlocking devices between members of the series, the series may be extended by the inclusion of one or more horizontal rows of indicators and also the irregular voting devices therein, and thus a multicandidate group formed, in which any predetermined number of regular or nominated candidates and irregular or unnominated persons may be voted for.

In order that the total number of persons voting on the machine may be registered, I provide in the upper portion of the casing a register 150, similar to the others or of any suitable construction, having an actuating member 151, pivotally or otherwise connected to the main register-frame 23; but as the register-frame 23 is reciprocated twice for each voter this actuator coöperates with a toothed wheel 152, that is geared to the units-wheel of the register 150, so that two reciprocations of the frame 23 will be required to indicate one on the total-register.

The general operation of the machine is the same as that in my prior application, the normal position of the parts being that shown in Fig. 1, with the front plate exposed and the curtain thrown back and all of the parts locked, and when the voter is in front of the casing he draws the handle around, covering the machine with the curtain, then indicates his vote and swings the curtain back to first position, registering his ballots and locking the parts.

I have not shown herein a multicandidate group formed nor all of the ballot-indicators that would be required on a full party ticket; but it will be understood that more indicators and registers could be employed and the groups formed by the adjustment of the stops 19. I have shown also in Fig. 1

straight-party levers 155 for actuating all of the indicators in a vertical party line, but have not shown the details, as this device is embodied in my prior application, and I make no claim to any part of it herein.

I do not claim herein the construction of the regular-ballot indicators, or, broadly, means for operating them, or the curtain or barrier connected so as to cause the relative movements of registers and actuators, as these features are claimed in my prior pending application.

In order that the plates 71 of the duplex-questions indicators may be prevented from being accidentally moved, I provide a friction-spring $71^{\times}$, arranged between their lower ends and the front plate 1 of the casing, as shown in Fig. 6, said spring being connected to said plate 1 in any suitable manner, as at the ends, and in the present arrangement one spring will serve for all of the indicators shown, but separate springs could be employed, if desired.

I do not claim herein a removable frame carrying the paper-web holding and feeding devices, as this is embodied and claimed in a pending application.

I claim as my invention—

1. In a voting-machine, the combination with a series of registers, a series of ballot-indicators devoted to regular candidates and freely movable into and out of coöperative relation with their corresponding registers, of a device for voting for irregular or unnominated persons, embodying a casing having an aperture, and a movable cover-plate normally covering said aperture, interlocking devices between the regular-ballot indicators and the cover-plate of the irregular-voting device to prevent the operation of more than a predetermined number, said interlocking devices being actuated either by movement of the indicators or the movement of the cover-plate in uncovering the aperture, and operating devices for causing the simultaneous relative movement of the indicators and their registers, and returning operated cover-plates to normal position over the aperture.

2. In a voting-machine, the combination with the casing having a series of apertures therein, a plurality of series of registers, one for each candidate, a plurality of series of corresponding ballot-indicators movable freely into and out of coöperative relation with their registers, interlocking devices for limiting the number of indicators in each series operable by a single voter, and operating devices for simultaneously actuating the registers whose indicators have been operated, of irregular-voting devices embodying a plurality of movable covers, one for each of the apertures in the casing and normally covering said apertures, one of said covers being interlocked with the indicators devoted to candidates for each office, a paper-web supporting and feeding device in the casing for operating said paper past the apertures, said feeding device being normally disconnected from the register-operating devices, and connecting mechanism controlled by the covers for connecting the register-operating devices with the web-feeding device when any one of the covers is moved to open its aperture.

3. In a voting-machine, the combination with a series of registers, a series of ballot-indicators devoted to regular candidates and freely movable into and out of coöperative relation with their corresponding registers, of a device for voting for irregular or unnominated persons embodying a casing having an aperture and a movable cover-plate normally covering said aperture, interlocking devices between the ballot-indicators and the cover-plate of the irregular-voting device operating to limit the total number of indicators and covers operated, a movable ballot-receiving strip, such as paper, arranged within the casing and accessible through the aperture, means for moving it, operating devices for causing the simultaneous relative movement of the registers and indicators, and connections between said devices, the cover-plates, and the paper-operating devices for causing their simultaneous operation.

4. In a voting-machine, the combination with a casing having a plurality of voting-apertures therein, a pair of paper-rollers and actuating devices for operating them, but normally disconnected therefrom, of the movable covers for the voting-apertures accessible to the voter, a movable plate or wing inaccessible to the voter and devices for actuating the same actuated by the movement of any of the cover-plates and serving to connect the paper-feed roller with its actuating device.

5. In a voting-machine, the combination with the casing, having a series of voting-apertures therein, a paper-feeding device arranged within the casing and adapted to move a web of paper past the apertures, operating mechanism for actuating the paper-feeding devices normally disconnected therefrom, of a series of covers, one for each aperture, a movable bar or wing inaccessible to the voter actuated by the movement of any of the covers for operatively connecting the paper-feeding devices with their operating mechanism, and a cover-resetting device.

6. In a voting-machine, the combination with the casing, having a series of voting-apertures therein, a paper-feeding device arranged within the casing and adapted to move a web of paper past the apertures, and operating mechanism for actuating the paper-feeding devices, but normally disconnected therefrom, of a series of covers, one for each aperture, a movable plate or wing inaccessible to the voter actuated by the movement of any of the covers adapted, when moved by a cover, to connect the paper-feeding devices with their operating mechanism, and a cover-resetting bar.

7. In a voting-machine, the combination

with the casing, having a series of voting-apertures therein, a paper-feeding device arranged within the casing and adapted to move a web of paper past the apertures, and a movable member for actuating the paper-feeding devices normally disconnected therefrom, of a series of covers, one for each aperture, a movable plate or wing inaccessible to the voter actuated by the movement of any of the covers adapted, when moved by a cover, to connect the movable member with the paper-feeding device, and a cover-resetting bar connected to the movable member.

8. In a voting-machine, the combination with a series of regular-ballot indicators, a series of corresponding registers controlled thereby, of a casing having a plurality of apertures for irregular ballots, a single web of paper in rear of said apertures, and feeding devices therefor, movable covers for said apertures, interlocking devices between the covers and the regular indicators for candidates for the same office for preventing the operation of more than a predetermined number of covers or regular indicators in the same series, a means for operating the paper-web-feeding devices normally disconnected from it, and connections inaccessible to the voter between said web-feeding devices and the covers, whereby when any of the latter are operated to expose the web, the operating devices are connected to the web-feeding devices.

9. In a voting-machine, the combination with a series of regular-ballot indicators and a series of corresponding registers controlled thereby, of a casing having a plurality of apertures for irregular ballots, a single web of paper in rear of said apertures, and feeding devices therefor, movable covers for said apertures, interlocking devices between the covers and the regular indicators for candidates for the same office for preventing the operation of more than a predetermined number of covers or indicators in the same series, a means for operating the web-feeding devices normally disconnected from it, connections inaccessible to the voter between said web-feeding devices, their operating means and the covers, whereby when a cover is operated to expose the paper the operating devices are connected to the feeding devices, means for operating the registers whose indicators have been operated, and means for resetting the covers and indicators to normal position.

10. In a voting-machine, the combination with the casing, having the voting-aperture therein, the rotary shaft, a paper-feed roll actuated thereby, a wheel on the shaft having teeth or projections, and the reciprocating and laterally-movable hook-bar for engaging the projections, of the cover for the aperture accessible to the voter, and connections inaccessible to the voter between said plate and the hook-bar for moving the latter into engagement with the wheel when the cover-plate is operated.

11. In a voting-machine, the combination with the casing and ballot-indicating devices therein and accessible from the front, of a horizontal curtain-guide, a curtain or barrier movable on said guide in front of the casing, an arm connected to said curtain for operating it, a resetting device coöperating with the ballot-indicators, and connections between said arm and the resetting device whereby, when the curtain is removed from the front of the casing, the indicators are locked from operation.

12. In a voting-machine, the combination with the casing having a voting-aperture therein, a movable cover for said aperture accessible to the voter and having a projection thereon, of a paper-roll in the casing, actuating devices for said roll embodying a wheel having projections or teeth, a reciprocating and swinging hook, a movable plate or wing inaccessible to the voter actuated by the cover for moving the hook to engage the projections on the wheel.

13. In a voting-machine, the combination with the casing, having an irregular-voting aperture therein, a cover for said aperture, a series of regular-ballot indicators, a series of longitudinally-movable wedge straps or rods, one for each regular indicator, and one for the cover-plate, stops for preventing the operation of more than a predetermined number of straps or rods, and a detachable latch connection between the cover and its wedge-strap operating to move the wedge on the latter between the stationary stops but permitting the cover to move freely in the opposite direction.

14. In a voting-machine, the combination with the casing having a voting-aperture therein, a movable cover for said aperture, a series of regular-ballot indicators, interlocking devices between the regular indicators and the cover, and a detachable latch connection between the cover and the interlocking devices, whereby the interlocking of the regular indicators and the cover will be accomplished when the cover is moved in one direction until the machine is reset, and means for returning the cover and interlocking devices to normal position.

15. In a voting-machine, the combination with the casing having a voting-aperture, a movable cover for said aperture, a series of regular-ballot indicators, interlocking devices between the regular indicators and the cover embodying a movable rod or strap for each, a resetting-bar for resetting the rods or straps after actuation, a latch connection between the cover and its rod or strap, and means for resetting the cover after actuation.

16. In a voting-machine, the combination with a casing having an aperture, a movable cover for said aperture, having the yielding portion and the projection thereon, of the movable locking rod or strap, the lever connected thereto and adapted to be engaged by the projection on the cover.

17. In a voting-machine, the combination with a casing, having an aperture, and a movable cover for said aperture, of a movable locking rod or strap, a lever adapted to be engaged by the cover and having a loose connection with the strap.

18. In a voting-machine, the combination with a casing, having an aperture and a movable cover for said aperture, having the yielding portion and the projection thereon, of a movable locking rod or strap, the pivoted lever loosely engaging the strap and adapted to be engaged by the projection on the cover, and means for resetting the rod and the cover independently.

19. In a voting-machine, the combination with the casing, having a plurality of irregular-voting apertures, movable covers for said apertures, a plurality of series of independent regular-ballot-indicating devices and registers corresponding to the latter, but normally unconnected therewith, of a movable member, such as an interlocking rod or strap, for each cover and each regular indicator, and adjustable means for grouping said members to prevent the operation of more than a predetermined number in each group, means for supporting and simultaneously feeding a single web of paper common to all of the voting-apertures controlled by the covers, mechanism for simultaneously actuating the registers whose indicators have been operated, resetting devices for the operated covers, and resetting devices for the ballot-indicators and the movable members of the covers.

20. In a voting-machine, the combination with the casing having a voting-aperture, a cover-plate for said aperture, and paper-feeding devices within the casing embodying a wheel or disk having projections thereon, of a reciprocating hook for engaging said projection, means operated by the cover-plate for causing the engagement of the hook, and means for locking the paper-feeding devices from operation excepting when the hook is moved.

21. In a voting-machine, the combination with the casing, a series of ballot-indicators, a series of registers, and a movable frame for the latter, of the supporting and guiding arms pivoted to said frame and casing and swinging in a vertical plane, and means for moving the register-frame on said supports.

22. In a voting-machine, the combination with the casing, a series of ballot-indicators, a series of registers, and a movable frame for the latter, of the yoke resting on the casing swinging in a vertical plane, and carrying the register-frame, and the rotary cams engaging the register-frame to move it toward and from the indicators.

23. In a voting-machine, the combination with the casing, a series of ballot-indicators, a series of registers, and a register-frame, of the yokes pivoted to the casing and to the frame and swinging in a vertical plane, the shaft and cams thereon engaging the frame to move it on the yokes.

24. In a voting-machine, the combination with a register-frame, and a plurality of registers thereon, each having an actuating member, of a support, a movable ballot-indicator having a plurality of shoulders or projections thereon, corresponding to the registers, either but not both of said shoulders being freely movable into and out of coöperative relation with the actuating member of its corresponding register, and means for causing the relative movements of the register-frame and support.

25. In a voting-machine, the combination with a register-frame, and a plurality of registers thereon, each having an actuating member, of a support, a movable ballot-indicator thereon having a plurality of shoulders or projections corresponding to the registers, either but not both of said shoulders being movable into coöperative relation with the actuating member of its corresponding register, a resetting device for returning the indicator to normal position out of coöperative relation with any register-actuating member, means for operating the resetting device, and means for causing the relative movements of the register-frame and support to actuate the indicated registers.

26. In a voting-machine, the combination with a register-frame, two registers thereon, each having an actuating member, of a support, a rotary ballot-indicator on the support having two shoulders or projections, either but not both of which may be brought into coöperative relation with its corresponding register, means for causing the relative movements of the frame and support to actuate the indicated registers, and a resetting device for the indicator.

27. In a voting-machine, the combination with a register-frame, two registers thereon, each having an actuating member, of a support, a rotary ballot-indicator thereon having two shoulders or projections, either but not both of which are adapted to be moved into coöperative relation with its corresponding register at the same time, a movable resetting-bar having projections engaging the indicator on both sides of its pivot to return it to normal position, and means for operating the support and register-frame relatively to cause the actuation of the indicated registers.

28. In a voting-machine, the combination with a plurality of ballot-indicators, of a progressively-movable locking-bar for the indicators arranged to coöperate with and maintain the latter in locked position successively as it is moved in one direction.

29. In a voting-machine, the combination with a plurality of oscillatory ballot-indicators, of a progressively-moving locking-bar for the indicators having shoulders arranged to engage and maintain the indicators in locked position successively as it is moved in

one direction to prevent the operation of one or more of them.

30. In a voting-machine, the combination with a duplex oscillatory ballot-indicator, movable in two directions from a central position, of a movable locking member having shoulders or projections arranged when moved in one position to engage and prevent the operation of said indicator in either direction.

31. In a voting-machine, the combination with a plurality of duplex oscillatory ballot-indicators movable in two directions from a central position, of a progressively-movable locking-bar having shoulders or projections arranged when moved in one direction to successively engage the indicators and prevent their movement in either direction, and a resetting-bar for returning operated indicators to normal central position.

32. In a voting-machine, the combination with a plurality of ballot-indicators, of a progressively-movable locking member for cooperating with them and successively preventing their operation, and a sign or indicator connected to said member for denoting which of said indicators are locked from operation.

33. In a voting-machine, the combination with a support, a plurality of ballot-indicators thereon, a register-frame and registers thereon corresponding to the indicators, of the oscillatory cam engaging the register-frame and having the pin 65 thereon, the resetting-rod for the indicators, the bar 61 operating said rod having the curved finger 63 and projection 64, substantially as described.

34. In a voting-machine, the combination with the casing-support, ballot-indicators thereon, the movable register-frame, and the oscillatory cams for actuating it toward and from the support, of the operating-lever connected to and moving with said cams, and a curtain or cover for the indicators connected to said lever and operated thereby.

35. In a voting-machine, the combination with the casing, the ballot-indicators thereon, the movable register-frame, and the oscillatory cams for actuating it, of the operating-lever connected to and moving with the cams, locking devices for preventing the return of the lever until it has been moved the full distance in either direction, and resetting devices for the indicators also operated by the lever.

36. In an interlocking device for voting-machines, a rod or strap formed of sheet metal and having a tongue punched out from it on one or both sides to thicken the strap at this point.

37. In an interlocking device for registering-machines, and in combination with limiting-stops, a strap arranged to operate between said stops having the tongue extending therefrom on one or both sides, and a supporting-piece arranged beneath said tongue to thicken the strap at this point.

38. In a voting-machine, the combination with a plate or support having ballot-indicating devices thereon, of a movable barrier or cover for preventing access to said plate, and an operating-handle connected to said barrier to operate it, of the toothed segment connected to said handle, the reversible double pawl 49 having the projection 52, the yoke 54 coöperating therewith, and the spring 55 for operating the yoke.

39. In a voting-machine, the combination with a casing, having the voting-apertures therein, separate movable covers one for each of the apertures, a plurality of series of ballot indicating and registering mechanism, of paper-rolls containing a single web of paper common to all of the apertures, operating devices inaccessible to the voter for moving the paper when any of the covers are operated, and interlocking devices between the covers and indicating and registering devices.

40. In a voting-machine, the combination with a casing, having apertures therein, separate covers one for each of said apertures, of a single web of paper arranged in proximity to all said apertures, operating devices for operating the paper web, and connections inaccessible to the voter between the covers and said operating devices for feeding the paper when any of the covers are operated.

41. In a voting-machine, the combination with a casing, a plurality of regular-ballot indicators and registers therefor arranged in office and party series, of an irregular-voting device embodying apertures in the casing, and separate covers therefor, one for each office series, a single web of paper in proximity to all of the apertures and feeding-rollers for said paper, means for simultaneously operating the regular registers and the paper-feeding rollers.

42. In a voting-machine, the combination with the casing, having voting devices thereon, of the curved curtain-guide hinged to the casing and arranged to be turned parallel therewith or at an angle thereto, and a curtain movable on said guide.

43. In a voting-machine the combination with a plurality of movable regular-ballot indicators, an irregular or independent indicator movable into and out of voted position, and interlocking mechanism between the indicators for preventing more than a predetermined number from simultaneously occupying voted position, said regular indicators being capable of movement into and out of voted position, without recording a vote, and said irregular indicator operating the interlocking mechanism when moved in one direction only.

44. In a voting-machine the combination with a casing having an aperture and a recording-surface arranged in the casing and adapted to be exposed through said aperture, and a cover for said aperture, of means for intermittently moving said recording-surface and a loose connection between the cover and said means, which causes the cover to connect

the operating means with the recording-surface on the opening movement only, the connections between the cover and operating means being inclosed within the casing.

45. In a voting-machine the combination with a casing having an aperture, a plurality of movable regular-ballot indicators, a movable cover for the aperture and interlocking mechanism between the indicators and cover said regular indicators being capable of movement into and out of voted position without recording a ballot and said cover being movable into and out of voted position but capable of operating the interlocking mechanism when moved in one direction only.

ALFRED J. GILLESPIE.

Witnesses:
G. WILLARD RICH,
GRACE A. RODA.