

No. 609,576.

Patented Aug. 23, 1898.

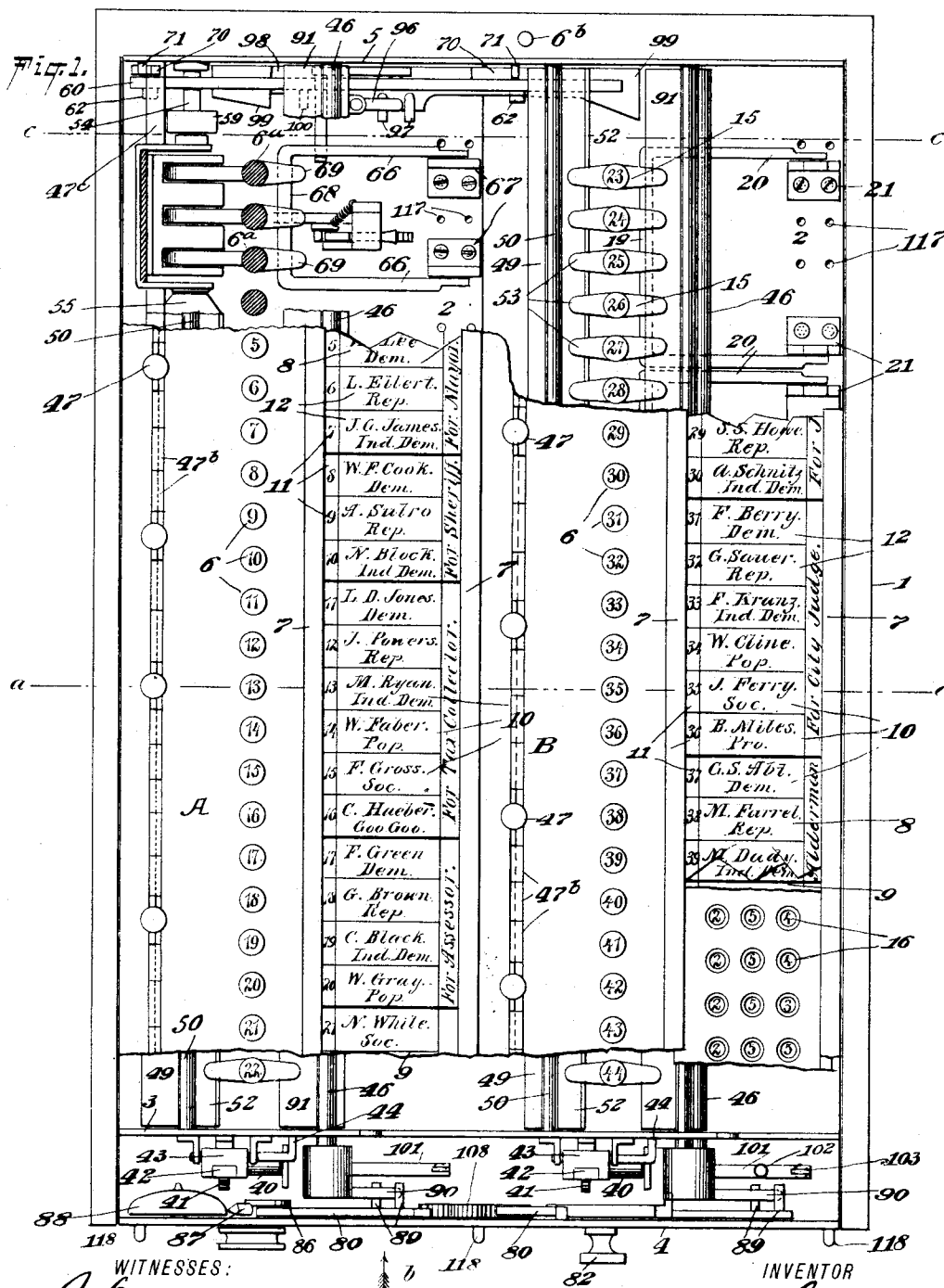
S. DUCAS.

VOTING MACHINE.

(Application filed Jan. 18, 1896.)

(No Model.)

5 Sheets—Sheet 1.



WITNESSES:

INVENTOR

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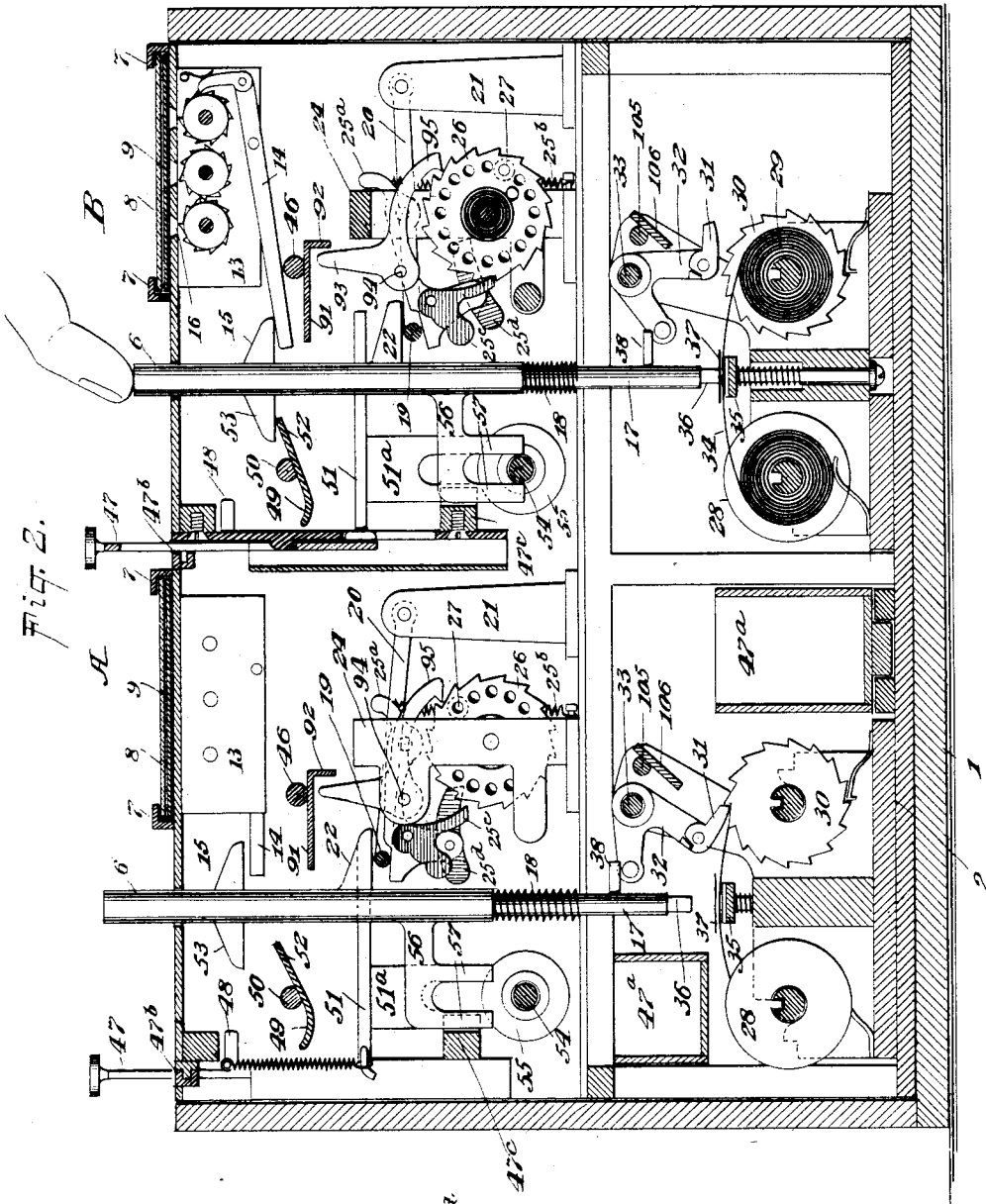
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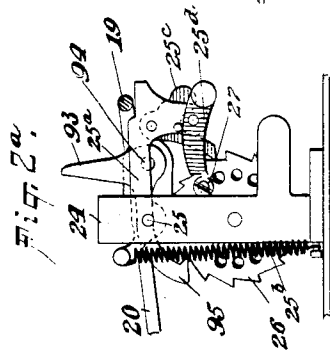
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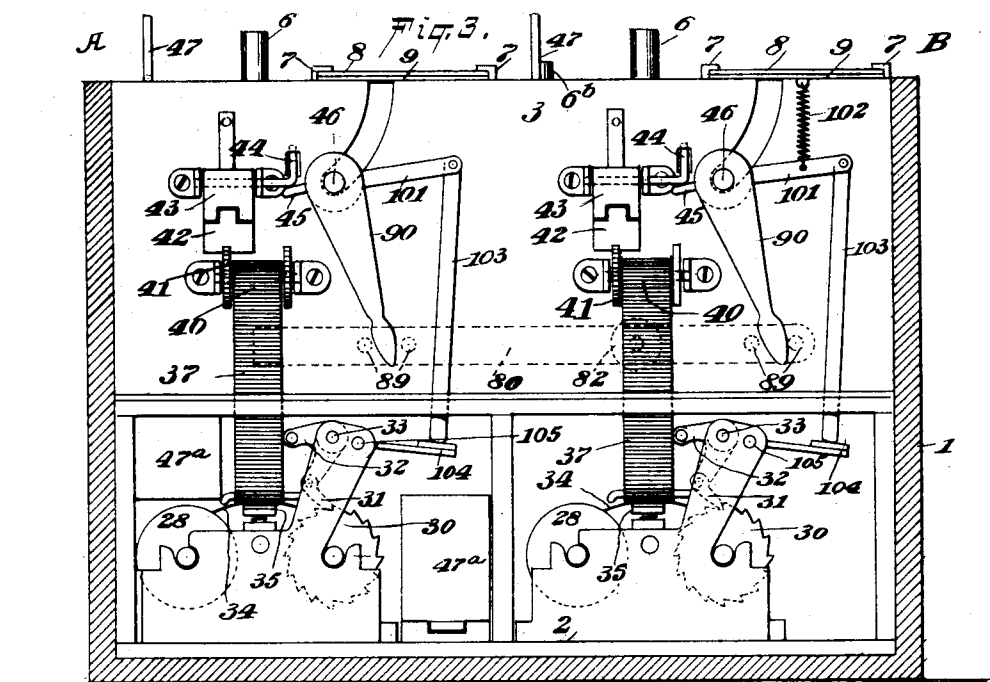


Fig. 4.

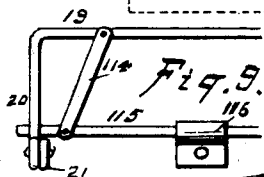
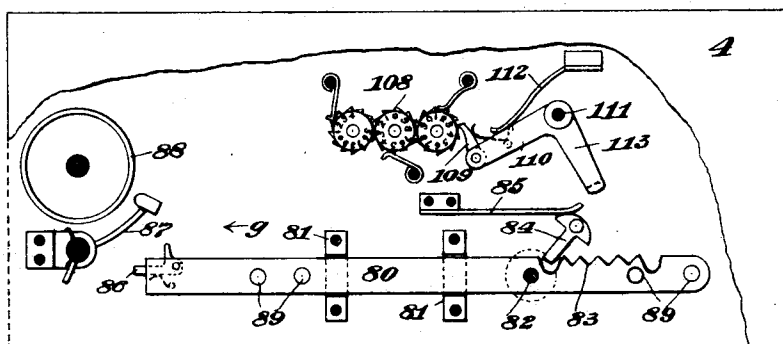
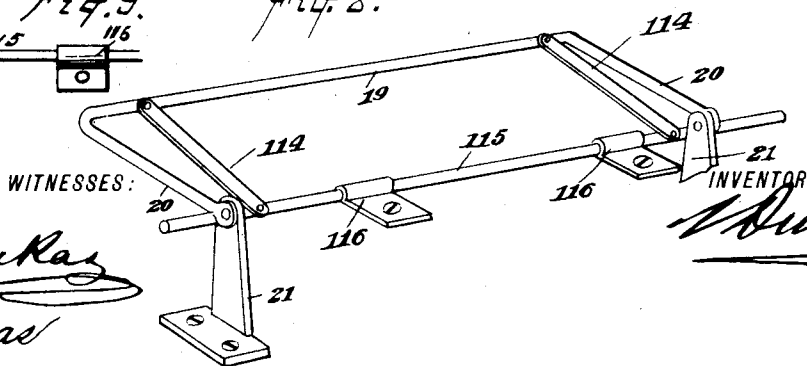


Fig. 7.



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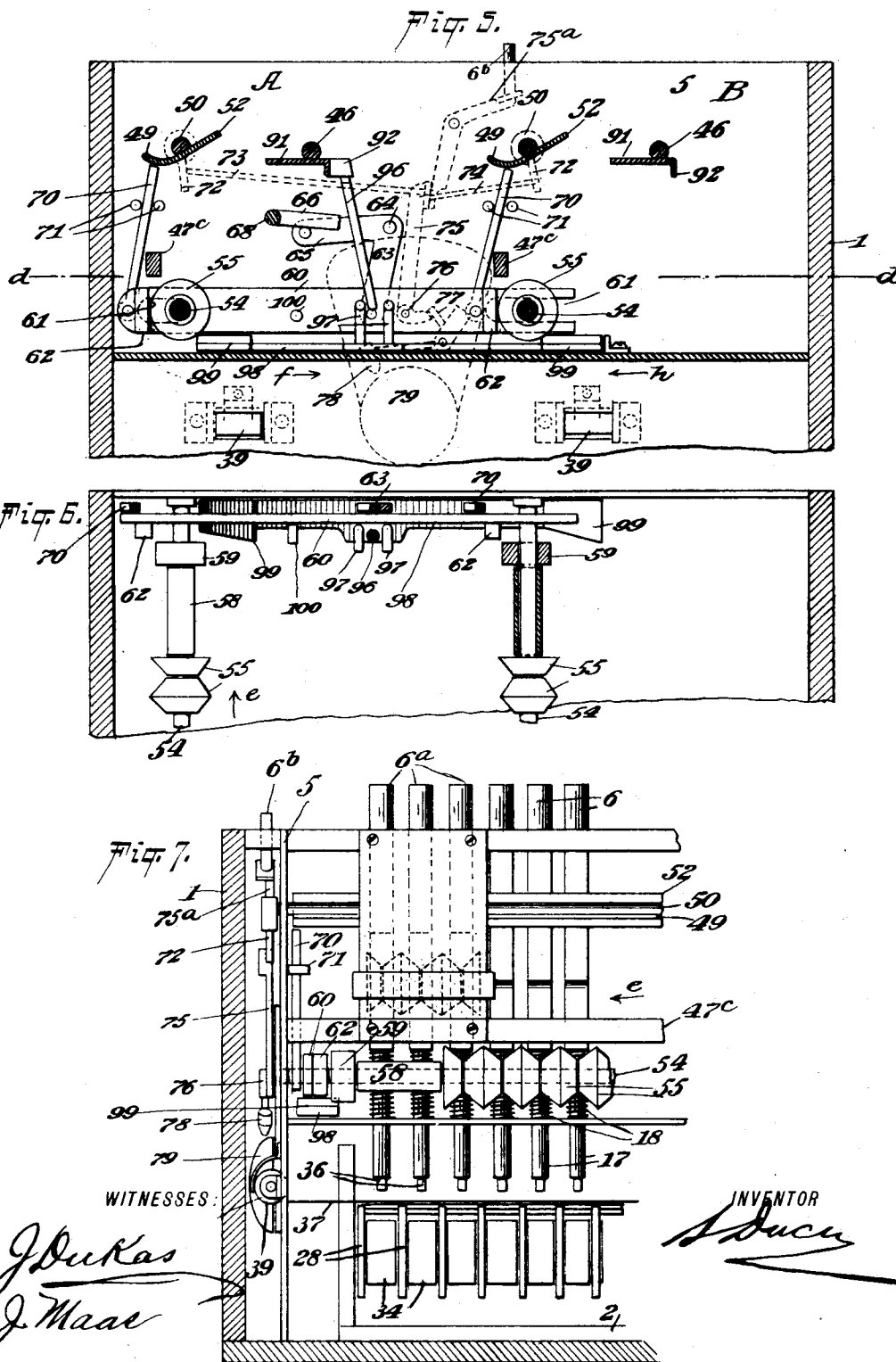
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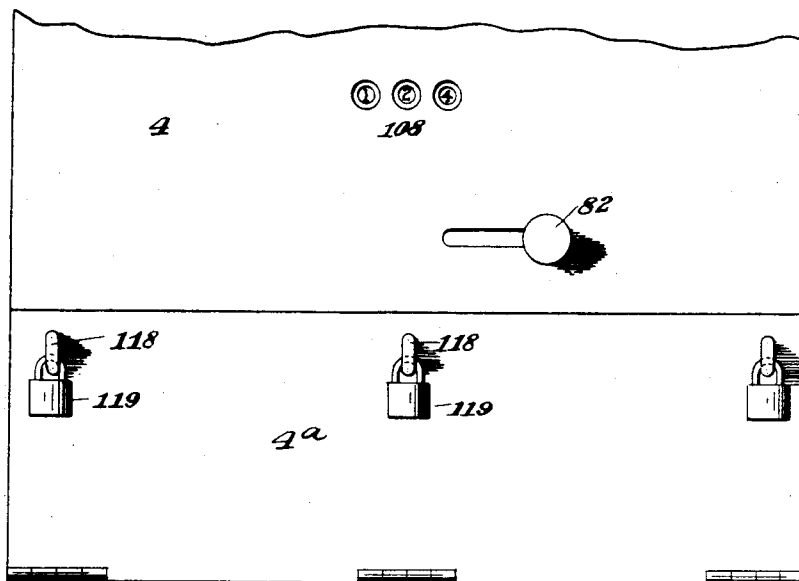
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(No Model.)

(Application filed Jan. 18, 1896.)

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Fig. 9



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UNITED STATES PATENT OFFICE.

SALOMON DUCAS, OF SAN FRANCISCO, CALIFORNIA.

VOTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 609,576, dated August 23, 1898.

Application filed January 18, 1896. Serial No. 575,973. (No model.)

To all whom it may concern:

Be it known that I, SALOMON DUCAS, a citizen of the United States, residing in the city and county of San Francisco, in the State of California, have invented certain Improvements in Voting-Machines, of which the following is a specification.

This invention relates to certain improvements in that class of voting-machines of which the machine shown and claimed in my Letters Patent No. 544,218, granted August 6, 1895, is a type; and the object of the invention is to provide a machine of this character of a simple and inexpensive nature the parts of which are so arranged and constructed as to enable the machine to be readily changed and altered, so as to accommodate it for use at different elections at which different numbers of candidates are to be voted for.

The invention consists in certain novel features of the construction of the improved voting-machine, together with certain novel combinations and arrangements of the various parts thereof, whereby certain important advantages are attained and the device is made simpler, cheaper, and otherwise better adapted and more convenient for use than various other machines heretofore employed, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In order that my improvements may be the better understood, I have illustrated in the accompanying drawings a machine embodying my invention, in which drawings—

Figure 1 is a plan view showing a machine constructed according to my invention, portions of the ends of the machine being broken away to show the inclosed parts. Fig. 2 is an enlarged vertical section taken transversely through the machine in the plane indicated by the line *a a* in Fig. 1, and Fig. 2^a is a detached detail view. Fig. 3 is an end view of the machine, looking in the direction of the arrow *b* in Fig. 1, the end plate of the casing being omitted; and Fig. 4 is a view showing the devices carried on said end plate. Fig. 5 is a vertical section taken transversely through the machine in the plane indicated by the line *c c* in Fig. 1, showing the means for locking the voting pins or spindles; and

Fig. 6 is a horizontal section taken in the plane indicated by the line *d d* in Fig. 5, showing the same parts. Fig. 7 is a fragmentary side view showing the means for locking the voting pins or spindles. Fig. 8 is an enlarged detail perspective view showing the means employed for securing an even and uniform movement of the bails. Fig. 9 is a partial end view of the machine, showing the means for locking the same.

As shown in the views, the machine is arranged in a rectangular open-topped case or box 1, of wood, and is provided with a frame 2, near one end of which is formed a transverse vertical partition 3, the opposite ends of said frame being provided with detachable end plates 4 and 5, the end plate 4 being located adjacent to the partition 3, but spaced apart therefrom to permit of various devices being mounted between them, as will be hereinafter explained.

In the frame of the machine are mounted and vertically movable a series of voting spindles or pins 6, herein shown as arranged in two series or rows, with their upper ends projecting from the top plate of the machine.

The machine as shown herein is made "double," being composed of two series of independent voting devices A and B, arranged parallel to each other and so connected together as to make the machine at once compact and simple in construction.

On the top plate of the casing, at the right-hand side of each series of voting-pins 6, is arranged a pair of guide-flanges 7, undercut on adjacent faces and spaced apart to receive and hold glass plates or strips 8, (seen in Figs. 1, 2, and 3,) and under said glass plates are held sheets or strips 9 of paper or cardboard, having spaces 10 formed on them corresponding in number and arrangement to the pins 6. The pins 6 are consecutively numbered, and each space 10 on the strips 9 is numbered to correspond with that pin 6 which is opposite to it, as indicated at 11 in Fig. 1, and on each space 10 is printed, as shown at 12, the name of one of the candidates to be voted for.

The various candidates for the same office are grouped together, as shown in Fig. 1, and along the edge of the strip 9, opposite the group of candidates for each office, is printed

the name of the office, preceded by the word "For," as "For mayor," "For sheriff," &c.

Beneath each of the spaces 10 on the strips 9 and under the top plate of the machine is arranged a counter 13 of substantially the construction shown in my former patent, and each counter 13 is actuated from a lever 14, the end of which is adapted to be engaged by a lug or arm 15, formed on and projecting from one side of the corresponding pin 6 under the top plate of the machine. The levers 14 when depressed are held down by gravity until lifted in setting the machine for the next voter, as will be hereinafter explained. The counters 13 have each three numbered disks, the numbers on which appear one after the other at openings 16 in the top plate of the machine, under the corresponding spaces 10 on strip 9, as seen in Fig. 1.

The pins 6 are circular in cross-section and play vertically in openings formed in the lower part of the frame 2 of the machine, and each pin is reduced at its lower part 17 to form a shoulder thereon, between which and the frame 2 of the machine is coiled on the reduced part of said pin a helical spring 18, serving to hold the pins normally raised and to return them to their raised positions after they are depressed.

The pins 6 corresponding to the group of spaces 10 carrying the names of candidates for the same office are connected together, so that after one pin has been pressed to cast a vote the other pins of the group are locked against movement, the means employed for this purpose being similar to that shown in my former patent, each group of pins being arranged near a bail 19, having arms 20, pivoted to uprights 21 on frame 2, said bail being engaged by arms 22 on the pins 6 of the group and when depressed by any pin of the group engaging a lever 25^a, pivoted at 25 on a standard 24 and having its end normally raised by means of a spring 25^b. (See Fig. 2^a.) Lever 25^a carries a pawl 25^c, engaging the teeth of a ratchet-wheel 26, having an adjustable stop 27, which when but one vote is to be cast by each voter for one office is set so as to stop the turning of the ratchet when the same has been rotated one tooth. When more than one vote is to be cast for one office, stop 27 is adjusted to permit the ratchet to be turned a number of teeth corresponding to the number of votes permitted to be cast. On the lever 25^a is pivoted a dog 25^d, weighted and arranged when the lever is depressed to engage the stop 27, so as to prevent movement of pins 6 when the ratchets have been turned a sufficient number of teeth.

Beneath each pin 6 is journaled in the lower part of the machine a pair of reels 28 and 29, the reel 29 having fixed to it a ratchet-wheel 30, engaged by a pawl 31 on an elbow-lever 32, fulcrumed on a rod or shaft 33, extending longitudinally through the machine. On the several reels 28 and 29 are carried tapes 34, of paper or the like, passing over spring-pressed

platen-bars 35, constructed, preferably, in short lengths, and said platen-bars 35 are arranged beneath the lower ends of the pins 6, so that when said pins are depressed their lower ends, each of which is provided with a type 36 corresponding to the number on the upper end of the pin 6, will bear on the corresponding tape 34. An ink-ribbon 37 extends longitudinally of the machine under each series of pins 6, so that when a pin is depressed its type 36 will mark on the tape 34 the number of the pin.

To feed the tapes 34, the pins 6 are provided with arms 38, arranged to engage the levers 32 when the pins are depressed, so that each pawl 31 is caused, when its pin is depressed, to feed the reel 29, having the ratchet-wheel 30, one tooth, and when the lever 32 is thus moved it stands, by reason of its weight, depressed, as shown at the right in Fig. 2, until the machine is set to permit the next voter to cast his ballot, as will be hereinafter explained. By this arrangement it will be seen that either pin 6 after having been once pushed down may be pushed down again an indefinite number of times; but its type 36 will always be impressed on the same point on tape 34, since said tape will not be fed along.

By preference each tape 34 will be numbered consecutively from end to end, and the several numbers thereon will be canceled by the types 36 on the corresponding pins 6, so that the tapes will indicate at a glance the number of votes cast for each candidate. The ink-ribbons extend through openings in the ends of the frame, and one end of each ribbon winds on a reel 39, as seen in Figs. 5 and 7. The opposite ends of the ribbons are wound on reels 40, having ratchet-wheels 41, engaged by pawls 42 on levers 43, having arms 44, to be engaged by pins or lugs 45 on rock-shafts 46, extending longitudinally through the machine at opposite sides thereof, as shown in Fig. 3. The rock-shafts 46 extend along under the levers 14 and form stops to prevent the same from being moved too far down.

Along the left-hand side of each series of pins 6 are arranged longitudinal series of blank-ballot slides 47, adapted to receive cards bearing the names of persons to be voted for other than the regular candidates whose names appear on the strips 9, and each slide has a spring to hold it normally raised and is provided with a pin 48, which when the slide is depressed engages one side of a bar or plate 49, extending longitudinally of the machine and fixed to a shaft 50, as seen in Fig. 2.

Each slide 47 has a pin 51, arranged to engage the bail 19 and operate the wheel 26 one tooth each time the slide is depressed, and a receiver 47^a is arranged below the slide, as seen in Fig. 2, to receive the ballots cast there-through. The plate 49 has its opposite side arranged to project beyond shaft 50, as seen at 52, in position to be engaged by an arm or

lug 53 on the corresponding pin 6, so that it will be seen that when either of the slides is depressed the pins 6 opposite thereto and corresponding to the names of candidates for the same office are locked against being depressed. When either pin 6 is depressed, the plate 49 acts in the reverse way to hold the slide 47 against operation.

In order that voters who desire to cast a straight party-ballot may be enabled to do this quickly and without the necessity of pressing each pin 6, I provide a number of straight party voting-pins 6^a, shown in Figs. 1 and 7 as three in number and arranged at one end of the machine. These pins are constructed and arranged similarly to the other pins 6 and each will be provided with a counter, operated as above described. The pins 6^a also have arms similar to the arms 22 and operating on a bail in such a way as to rotate a ratchet-wheel similar to the ratchet-wheel 26, having its stop set so as to permit the rotation thereof but one tooth.

It is evident that means must be provided to prevent the depression of the pins 6 after a straight party-ballot has been cast by means of one of the pins 6^a, and vice versa, and to accomplish this I employ the mechanism I will now describe. Two rods or bars 54 extend along the entire length of the machine at the left of the series of pins 6, and on said bars or rods are held a series of buttons 55, each having its opposite sides beveled to form a central V edge on the buttons, as clearly shown in Figs. 6 and 7, whereby V-shaped apertures are formed between the buttons.

The buttons 55 are loose on the rods 54 and are capable of a slight degree of movement longitudinally thereon. Each pin 6 has projecting from it, as seen in Fig. 2, an arm or lug 56, having depending forks 57, adapted to engage the V-shaped apertures between the two adjacent buttons 55 on one of the rods or bars 54, so that when one of the pins 6 is depressed said arm or lug 56 will act to press the buttons 55 apart in such a way as to move the buttons 55 on the rod or bar 54 at one side of the machine and at one side of the pin 6 longitudinally, as indicated by the arrow *e* in Figs. 6 and 7. There are no buttons on the rod under the straight party pins 6^a, said rod being provided with a loose sleeve 58 at that point, and adjacent to the end wall 5 of the frame the end of each rod 54 is provided with a loose collar 59, as seen in Figs. 6 and 7.

On the inner face of the end wall 5 of the machine is mounted a slide-plate 60, movable transversely along the same, being slotted, as seen at 61, to permit the passage through it of the rods or bars 54, as seen in Fig. 5, and said plate 60 is provided with lugs or projections 62 on its face adjacent to the collars 59, adapted, when the slide-plate is moved to the right, as indicated by the arrow *f* in Fig. 5, to stand in position to be engaged by said

collars 59 when the buttons 55 are moved endwise on rods 54 by the depression of the pins 6.

To the slide-plate 60 is coupled one arm 63 of a bell-crank or elbow lever, pivoted, as seen at 64 in Fig. 5, to the end plate 5 and having its opposite end 65 arranged to be engaged by a bail 68, similar to the bails 19, above described, and provided with arms 66, pivoted to standards 67. The bail 68 is arranged to be engaged and swung pivotally downward by lugs or arms 69, formed on the three pins 6^a, as clearly shown in Fig. 1. The bail 68 also acts on a pawl when depressed and turns a ratchet-wheel similar to the ratchet-wheels 26 one tooth whenever the pin 6^a is moved down; but the stop of said ratchet-wheel is set so that each voter can only turn the wheel one tooth. By this arrangement of the parts it will be seen that when either of the straight party ballot pins 6^a is depressed the engagement of the bail 68 with the elbow-lever will cause said lever to swing pivotally, so as to move the slide-plate 60 in the direction of the arrow *f* in Fig. 5, whereby the lugs 62 will be brought opposite the collars 59 and will serve to hold the buttons 55 against being moved on the rods 54, so that it will be seen that the other pins 6 are held against being depressed by reason of their forks 57 not being able to move the buttons 55 apart. This prevents the pins 6 from being depressed far enough to actuate their counting devices 13 or to print on tapes 34.

The length of the rods or bars 54 is such that the buttons 55 can only be pressed apart far enough to permit of but one forked arm 56 passing between them at a time, so that when one pin 6 is depressed all the other pins 6 are locked against movement by reason of the buttons 55 being then immovable, and when either pin 6 is depressed it will be seen that the collar 59 on the corresponding rod or bar 54 will be moved endwise on said rod or bar, so as to stand opposite to one of the lugs 62 on slide-plate 60, whereby should it be attempted to press down either of the straight party-pins 6^a said lugs 62 on slide-plate 60 will come in engagement with the collar 59 and the slide-plate will be held against movement in the direction of the arrow *f* in Fig. 5. Consequently, as will be obvious, said pins 6^a cannot be depressed sufficiently far to operate their counting devices. To the slide-plate 60 are also pivotally connected the lower ends of locking-bars 70, which normally stand when the slide-plate is pushed to the left, as seen in Fig. 5, in inclined positions, with their upper ends held between studs 71, arranged in pairs and projecting from the end plate 5 of the machine. When in their inclined positions, as shown in Fig. 5, the upper ends of said bars 70 are sufficiently lowered to permit the plates 49, which are engaged and rocked, as above described, by the operation of the slides 47, to

be operated, so that said slides may be operated; but when a straight party-ballot has been cast and the slide-plate 60 moved in the direction of the arrow *f* in Fig. 5 the bars 70 are moved to erect positions and their upper ends are raised, so as to engage under the plates 49 and prevent the said plates from being swung pivotally when the slides 47 are pressed, whereby it will be seen that said slides are locked in their raised positions.

The pins 51 of the slides 47 are provided with depending arms 51^a, the lower ends of which are forked similarly to the arms 56 on the pins 6, and said arms 51^a are arranged between the arms 56 and are in position to engage the buttons 55 and move them endwise on the rod 54 when the slide 47 is depressed, so as to push the collar 59 over into position to be engaged by the lug 62 on the slide 60, so as to lock the straight party-pins 6^a and prevent a voter from casting a straight party-ballot after he has cast a ballot by means of one or more of the slides 47. Beneath the slides 47 extends a bar 47^c, having notches to guide pins 6, which have their arms 56 engaging said notches.

The rods 50 each project outside the end plate 5 and are provided with depending arms 72, coupled to links 73 and 74, which extend toward each other and are connected to the upper end of a lever 75, fulcrumed at 76 on end plate 5 and having its free end bent and arranged to engage one arm 77 of a pivoted elbow-lever carrying a hammer 78, arranged to strike a bell or gong 79 on the end plate 5. By this arrangement it will be seen that when either of the pins 6 and 6^a is pressed the plate 49 will be swung pivotally, causing the rod 50 to turn, and the turning of said rod will act to sound the bell 79. In order that a voter may prevent persons outside the booth from knowing when he has voted a straight party-ballot, a button 6^b is arranged projecting from the top plate of the machine and has its lower end connected by a lever 75^a to lever 75, so that said pin 6^b may be depressed and the bell 79 sounded as many times as desired.

After each voter has operated the machine to cast his ballot as above described the poll-clerk resets the machine for the next voter by moving a slide-plate 80, mounted to slide in guides 81 within the end plate 4 of the frame, said slide-plate being provided with a handle 82, extending through a slot in the said end plate to the outside of the machine, as seen in Figs. 1, 3, and 4. The slide-plate 80 has a series of notches or teeth 83 formed in its upper side in position to be engaged by the nose of a double-acting pawl 84, pivoted on plate 4 and actuated by a spring 85, secured thereto.

The pawl 84, by engagement with the teeth or notches 83, prevents the slide-plate 80 from being drawn back when moved but part way, so that after the slide-plate has been moved part way it must be moved completely before

it will be disengaged by the pawl to permit it to be returned. When the slide-plate has been moved in one direction, as indicated by the arrow *g* in Fig. 4, a catch 86 on its end engages the hammer 87 of a bell 88, mounted on the end plate 4, and actuates said hammer to sound the bell, so that warning will be given that the machine has been set for a new voter to enter the booth.

Near opposite ends of the slide-plate 80 are located pins or projections 89, arranged in pairs and adapted to receive between them the lower ends of crank-arms 90, secured on the ends of the rock-shafts 46, which extend, as above mentioned, longitudinally through the machine and carry pins or arms 45, arranged to wind the ink-ribbons 37 on their reels. On the shafts 46, between the plates 5 and 3 of the frame, are secured flattened plates 91, arranged to engage under the levers 14 when the rock-shafts 46 are turned by the movement of the slide-plate 80, with which the crank-arms 90 engage, whereby the said levers 14 are raised and the counters 13 reset to permit them to be again operated by the depression of the next pin 6 or 6^a by the next voter.

The plates 91 have depending flanges 92 extending along their edges, which flanges are arranged to engage the upturned arms 93 of bell-crank or elbow levers pivoted at 94, as seen in Fig. 2, and have hooked ends 95, forming dogs to engage the teeth of the ratchet-wheels 26 and hold the same when turned, said ratchet-wheels having springs arranged to return them automatically to their starting-points when the ratchet-wheels are released. By means of the engagement of the flanges 92 with arms 93 it will be seen that when the rock-shafts 46 are turned by the operation of the slide-plate 80 the dogs 95 are withdrawn from engagement with ratchet-wheels 26 to permit said ratchet-wheels to be automatically returned by means of their springs in position to be operated by the next voter.

Adjacent to the end plate 5 of the machine one of the rock-shafts 46 has secured to it a depending crank-arm 96, the lower end of which has, as seen in Fig. 5, engagement between two lugs 97, projecting upwardly from a cam-slide 98, mounted to slide under the slide-plate 60 and having wedge-shaped cams or projections 99 arranged to engage behind the collars 59 on rods or bars 54 when said cam-plate is moved in the direction of the arrow *h* in Fig. 5, whereby it will be seen that the said collars 59 will be moved out of position to engage the lugs 62 on slide-plate 60 in case the preceding voter has voted a mixed ticket by using the pins 6.

As the cam-slide 98 nears the end of its movement the pins 97 thereon come into engagement with a lug or pin 100 on the slide-plate 60, whereby said slide-plate is moved in the direction of the arrow *h* in Fig. 5 and out of position to engage the collar 59 to prevent

the movement of the pins 6 in case the preceding voter has voted a straight party-ballot by means of the pins 6^a.

Adjacent to the crank-arms 90 the rock-shafts 46 are provided with arms 101, to which are connected springs 102, serving to return the rock-shafts and slide-plate 80 to their normal positions after they have been moved, as above explained, and to the outer ends of said arms 101 are coupled the upper ends of vertically-moving slide-rods 103, guided in the frame 2, as seen in Fig. 3, and having their lower ends arranged to rest on crank-arms 104 on the ends of shafts or rods 105, mounted to turn in the lower part of the machine just behind the shafts 33, whereon are mounted the levers 32, carrying the pawls which actuate the tapes 34.

On the shafts 105 are fixed plates 106, arranged to engage the levers 32, by which construction it will be seen that when the rock-shafts 46 are actuated by the movement of the slide-plate 80 the shafts 105 will also be rocked and the plates 106 caused to engage the levers 32 and lift them from their lowered positions (shown at the right in Fig. 2) to their raised positions (shown at the left in said figure) ready to be again operated by the next voter.

In order to count and register the total number of voters whose ballots are cast on the machine, I provide on the end plate 4 of the machine a counter 108, operated by a pawl 109 on one end 110 of a bell-crank lever pivoted at 111 on the end plate 4 and provided with a spring 112, the other end 113 of said lever being arranged in position to be engaged and moved by contact with one of the crank-arms 90 when the slide-plate 80 is manipulated. When the bails 19 are of considerable length, as will be the case where a number of candidates run for one office, I prefer to provide the bails with means so that the pins 6, which bear at the end of the bail, shall move the bail the same distance as those at the central part thereof, and such a device is shown in Fig. 8. In this view the bail 19 has pivoted arms or links 114, the lower ends of which are connected to the ends of a slide-bar 115, guided in keepers 116 on the frame 2. By this arrangement when either of the corresponding pins 6 is depressed the bail will be moved down evenly, since the levers and slide-bar cause the ends of the bail to move in unison.

To make the machine changeable to accommodate it for use at different elections where different groupings of the pins and other parts are desirable, the frame 2 has apertures 117 to receive screws to hold standards 21 and other parts in various positions. By this arrangement the standards may be adjusted for bails of different lengths. To permit of rearranging the slides 47, the top plate is composed of strip-like sections, as seen in Fig. 1, and said slides are located in rows between the sections. Between the slides are spacing-

blocks 47^b, as seen in Fig. 2, the blocks being of lengths equal to the width of the slides 47, so when a slide is removed its place may be filled by a spacing-block.

As shown in Fig. 9, the plate 4 is provided at its base with a hinged door 4^a, through which the reels carrying the tapes 34 may be removed after the election, and said door is apertured to permit the passage of bails 118 on the frame, these bails being adapted to receive different locks 119, so that a key to the machine may be held by a representative of each party. As many locks and bails may be used as may be desired.

In operation the machine will be placed in a booth, and before each voter enters the booth the poll-clerk will operate the slide-plate 80, so as to set the machine for voting. The voter on entering the booth may vote a straight party-ballot by pressing one of the pins 6^a, and the vote will be indicated by the counter of the pin 6^a pressed, all the other pins 6^a and 6, together with the slides 47, being automatically locked. If, however, the voter desires to vote a mixed ticket, he selects his candidates, voting for each on the pins 6, and the counter 13 of each pin will indicate the vote when the pin is pressed, while the pins 6^a will be locked together with the slide 47 and the other pins 6 used for voting for the candidates for the same office, except in cases where several votes are permitted to be cast for similar offices.

If the voter desires to vote for persons not regular candidates and whose names are not on the strips 9, he will call for blank ballots or tickets before he enters the booth, and these tickets or ballots will be correspondingly marked or numbered, so that the same name cannot be written on two of them and two votes cast for the same person by one voter without detection.

From the above description of my improved voting-machine it will be seen that the device is of an extremely simple and inexpensive construction and is especially well adapted for the purposes for which it is designed, being, moreover, compact and simple in operation, and it will be also obvious from the above description that the device is susceptible of considerable modification without material departure from the principles and spirit of the invention, and for this reason I do not wish to be understood as limiting myself to the precise construction and arrangement of the various parts herein set forth.

I do not claim, broadly, in a voting-machine, the combination, with a series of keys, one for each candidate, of another series of keys, one for each straight party-ticket, and connections whereby upon the operation of any one of the keys of either series all the keys of the other series will be locked from operation.

Having thus described my invention, I claim—

1. In a voting-machine, the combination of a frame or casing, a series of voting-pins, a

series of parts alined with each other and adapted to move in unison, an arm on each voting-pin arranged to engage and actuate said parts, an independent series of voting-pins for straight party-tickets, and means comprising a slide, a swinging bail and an intermediate connection adapted to prevent the operation of the voting-pins of the independent series, said movable parts being capable of a limited extent of movement and being adapted when moved by the operation of one of the first-mentioned voting-pins, to hold the other voting-pins of that series against operation.

2. In a voting-machine, the combination of a frame or casing, a voting-pin adapted for longitudinal movement and having a projection, a pivoted bail to be engaged by the projection, a lever to be moved by said bail, a ratchet-wheel having an adjustable stop, a pawl pivoted on said lever, and a weighted dog pivoted on said lever, and arranged to engage the adjustable stop of the ratchet-wheel.

3. In a voting-machine, the combination of a frame or casing, a series of voting-pins therein, a type carried by each pin, spring-pressed platen-bars beneath the lower ends of the pins, a strip for each pin arranged to be engaged by said type, and a pivoted lever and weighted pawl actuated by the movement of a voting-pin for feeding the strip under said type.

4. In a voting-machine, the combination of a frame or casing, a series of endwise-movable voting-pins carrying types, paper strips arranged to move under the types, reels on which the strips are mounted, and means comprising a lever pivoted between its ends and provided with pawl-and-ratchet mechanism, said lever being in the path of and actuated by the movement of the pins, for moving the reels to feed the strips.

5. In a voting-machine, the combination of a frame or casing, a series of endwise-movable voting-pins, carrying types, paper strips arranged to move under the types, reels whereon the strips are carried, means comprising an arm on each pin, a lever for each pin, pivoted between its ends and having one end in the path of said arm, and pawl-and-ratchet mechanism, said lever actuated by the movement of the pins for moving said reels to feed said strips, and a spring-supported platen arranged under the strips and types and constructed in sections.

6. In a voting-machine, the combination of a frame or casing, a series of voting-pins therein, each having a printing device, a strip for each pin and adapted to be engaged by said type, a reel for each strip, pivoted levers and pawls for feeding the strip beneath the pins, said levers engaged by arms or projections on the pins when the pins are depressed, and means substantially as described for simultaneously moving all of the levers into operative position.

7. In a voting-machine, the combination of a frame or casing, a series of voting-pins for individual candidates, a series of independent

voting-pins for straight party-ballots, buttons arranged to be moved, arms on the first-mentioned voting-pins to engage and move the buttons, and a slide operated by the pins of the last-named series, said slide being arranged when moved to prevent the movement of the buttons, and said buttons when moved being arranged to prevent the movement of the slide.

8. In a voting-machine, the combination of a frame or casing, a series of voting-pins for individual candidates, a series of independent voting-pins for straight party-ballots, buttons adapted to be moved when the pins of the first-named series are operated, a slide operated by the pins of the last-named series, said slide being arranged when moved to prevent movement of the buttons and said buttons being adapted when moved to prevent the movement of the slide and means for moving the slide and buttons out of operative position.

9. In a voting-machine, the combination of a frame or casing, a series of voting-pins for individual candidates, a series of independent voting-pins for straight party-ballots, buttons arranged to be moved when the pins of one series are operated, a slide operated by the pins of the last-mentioned series and arranged when moved to prevent the movement of the buttons, said buttons when moved being adapted to prevent the movement of the slide, and a cam-plate provided with means for moving it and arranged to engage said buttons and slide and return them to their normal positions.

10. In a voting-machine, the combination of a frame or casing, a series of voting-pins for irregular candidates, a series of voting-pins for straight party-ballots, a rod to be turned by the pins of one series and a plate on said rod, a slide to be moved by the pins of the other series and means to engage said plate and hold the rod against movement.

11. In a voting-machine, the combination of a frame or casing, a series of voting-pins for irregular candidates, a series of voting-pins for straight party-ballots, a rod to be turned by the pins of one series, a plate on said rod, a slide-plate to be moved by the pins of the other series, and a locking-pin carried by said slide to engage said plate to hold said rod against being turned.

12. A voting-machine having a frame or casing, one wall of which is constructed in sections separated by elongated spaces, voting-slides held in said spaces between the sections and spacing-blocks held in said spaces between the slides.

13. In a voting-machine, the combination of a frame or casing, two parallel series of voting-pins for individual candidates, a series of voting-pins for straight party-ballots, two rods, buttons on the rods, means for moving the buttons by the movement of the pins of the first-named series and a slide actuated by the pins of the last-named series, said slide

being arranged when moved to prevent the operation of the buttons, and said buttons being arranged when moved to prevent the operation of the slide.

5 14. In a voting-machine, the combination of a frame, a shaft 46 oscillating therein, a counter 13, means between the counter and shaft for actuating the former, a notched bar 80
10 adapted to engage said bar.

15. A voting-machine having a depressible

bail, a bar mounted to slide parallel to the bail, arms connecting the bail and bar, and voting-pins arranged to move the bail and acting at different points along the same. 15

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

SALOMON DUCAS.

Witnesses:

JAMES MAURO,

S. F. GERHARDT.