

939,367.

W. W. WILLS.
BALLOT BOX.
APPLICATION FILED AUG. 22, 1907.

Patented Nov. 9, 1909.
2 SHEETS—SHEET 1.

Fig. 1.

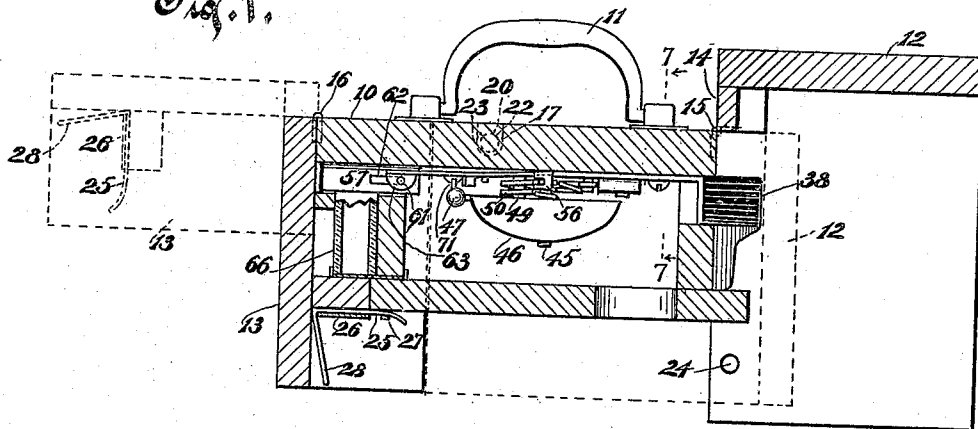


Fig. 2.

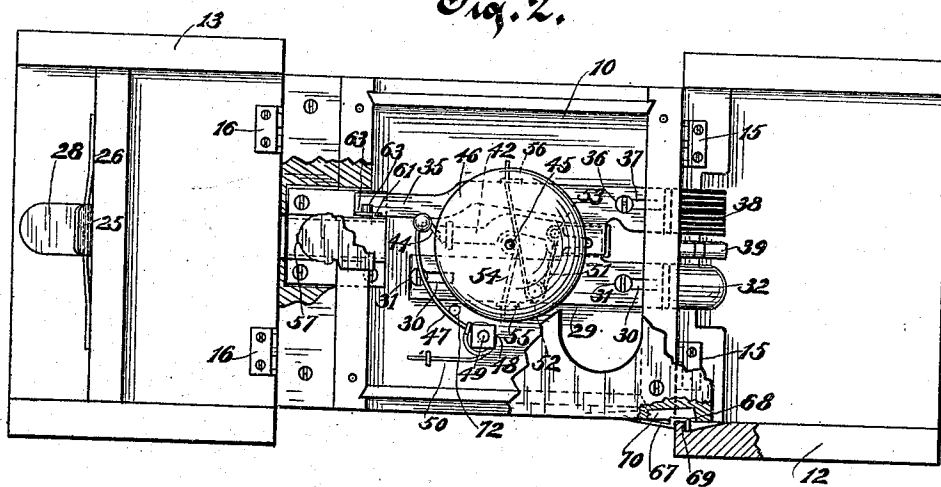
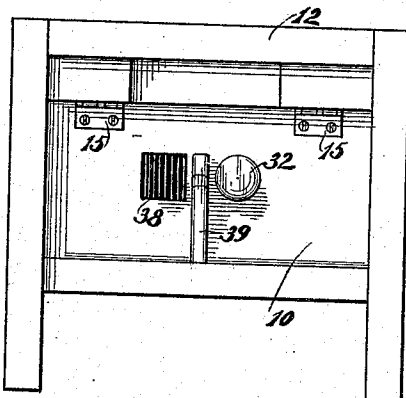


Fig. 3.



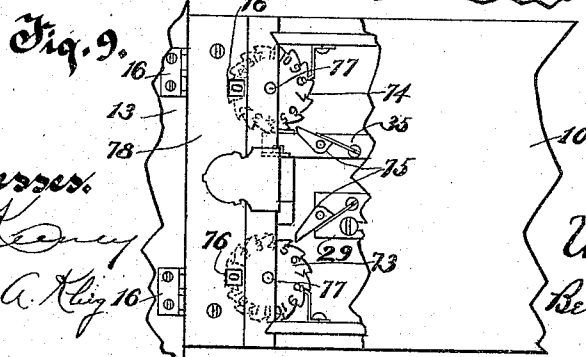
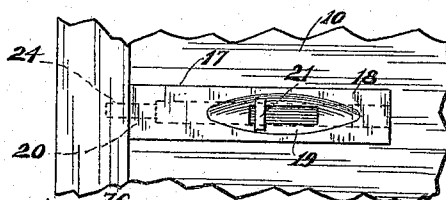
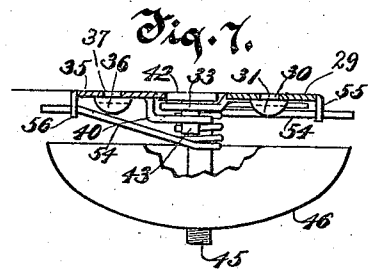
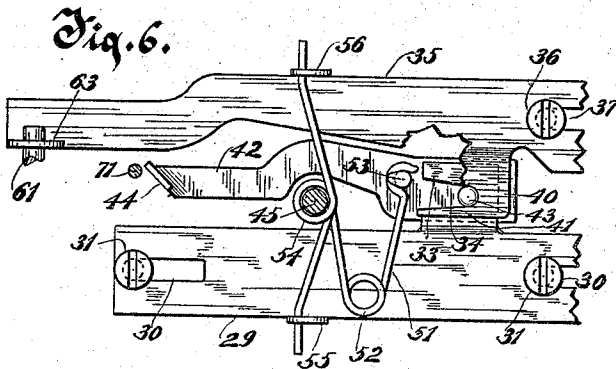
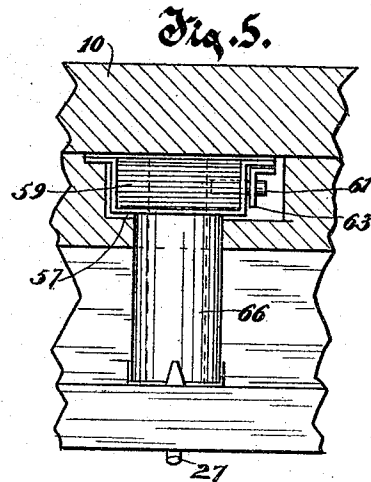
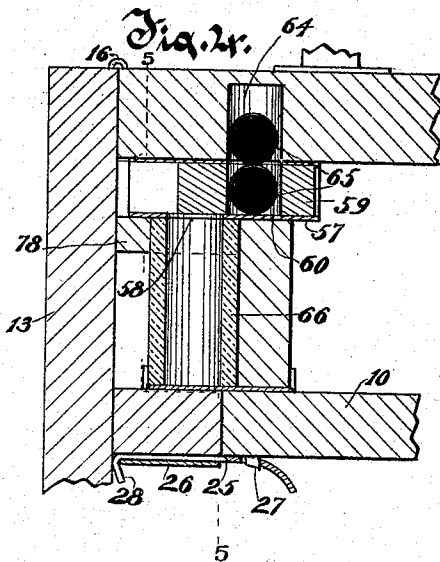
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UNITED STATES PATENT OFFICE.

WILLIAM W. WILLS, OF JANESVILLE, WISCONSIN.

BALLOT-BOX.

939,367.

Specification of Letters Patent.

Patented Nov. 9, 1909.

Application filed August 22, 1907. Serial No. 389,643.

To all whom it may concern:

Be it known that I, WILLIAM W. WILLS, residing in Janesville, in the county of Rock and State of Wisconsin, have invented new and useful Improvements in Ballot-Boxes, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in ballot boxes.

As is well known, in secret societies, and in many other organizations for that matter, the ballots are in the shape of balls which are deposited in a box, most of the balls being of white color, and a few of black color. One or more of the black balls, according to the regulation of the particular organization, if cast, has the effect of rejecting the candidate.

The form of ballot box above alluded to is objectionable in some particulars. Very often a voter removes his hand, with the ball therein and discloses the color of his ballot to a person near him; or, again, a person can place his hand within the hood of the box, and give the impression of casting a vote, whereas, as a matter of fact, he does not vote at all.

The primary object of my invention is to provide a ballot box of such construction that it is impossible for a person to disclose his ballot and also of such construction that it can be determined at once whether or not a person has voted.

With the above primary object, and other incidental objects, in view, the invention consists of the construction and combination of parts, or the equivalents thereof, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a sectional view through the box and through the hooded portions at opposite ends of the box, the hood portion at the voting end of the box being shown in full lines as open and in dotted lines as closed, and the hood portion at the opposite end being shown in full lines as closed and in dotted lines as open; Fig. 2 is an inverted plan view of Fig. 1, both hoods being shown in open position, and parts broken away; Fig. 3 is a view of the voting end of the machine, the hood being open; Fig. 4 is a sectional view of a fragment of the opposite end of the machine; Fig. 5 is a sectional view on the line 5—5 of Fig. 4; Fig. 6 is an inverted plan view of the operating mechanism, parts broken away; Fig. 7 is a sectional view on the line 7—7 of Fig. 1, looking toward the left and a portion of the bell mechanism shown as broken away; Fig. 8 is a plan view of a fragment of the top of the box, showing the bolt for releasably locking the front hood in its closed position; and, Fig. 9 is an inverted plan view of a fragment of the machine, showing registering wheels which may be employed in connection with the device, for registering the total number of votes cast, both white and black.

Referring to the drawings, the numeral 10 indicates the main portion of the box, said box being preferably of rectangular form, and provided with four side pieces, and top and bottom pieces, the top piece being preferably provided with a pivoted handle 11. Two hinged hoods are provided for the opposite ends of the main portion of the box, the hood at the voting end being indicated by the numeral 12, and the hood at the opposite end by the numeral 13. Each hood consists of an end piece and two side pieces, the end pieces thereof covering the end pieces of the main portion of the box, and the side pieces of the hood covering the sides of the box, when the hoods are closed, the ends of the side pieces of the hoods meeting under this adjustment. Fig. 1 shows in dotted lines the hood at the voting end of the machine as closed, and in full lines the hood at the opposite end as closed, thus clearly illustrating the position of the different parts when the machine is not in use. The end piece of the hood 12 is provided with a projecting ledge 14, and the hinge connections 15 for said hood are made between this ledge and the adjacent end of the top of the box. The hood 13 is hinged to the opposite end of the top of the box by means of the hinges 16—16.

Some convenient and desirable means is advisably employed for releasably locking the hood 12 in its closed position. I prefer to employ for this purpose the construction shown in the accompanying drawings which illustrate a recess 17 in the top of the main box 10, said recess being covered by a metal plate 18 having an elongated opening 19 therethrough. In the recess is adapted to slide a locking bolt 20, said bolt provided with a pin projecting through the slot, the head 21 of the pin extending across the slot in position to permit the finger to readily en-

gage therewith. The outer end of the metal plate 18 is bent down over the outer end of the recess 17, as indicated by the numeral 22 in Fig. 1, and this downwardly bent portion is provided with an opening 23, through which the bolt is adapted to pass, when said bolt is forced outwardly. The inner side of one of the side pieces of the hood 12, near the upper edge thereof is provided with a recess 24, registering with the opening 23. When, therefore, the hood 12 is turned down on its hinges and the bolt 20 is forced outwardly, it is obvious that the hood will be releasably locked in its closed position. Any suitable mechanism may also be provided for releasably locking the hood 13. In the drawing, I have shown convenient mechanism for this purpose, consisting of a metallic elastic tongue 25 which passes beneath and is held down in place by a metallic strip 26 running thereacross, and fastened at opposite ends by screws, or equivalent means. The inner end of tongue 25 is provided with an opening, and when the hood 13 is swung to a closed position, the opening in the tongue is adapted to be brought into engagement with a pin 27 projecting downwardly from the bottom of the box 10. The outer end of tongue 25 is provided with a depending inwardly bent finger piece 28. By pressing this finger piece toward the end of the hood 13, it will be obvious that the inner end of the tongue will be raised out of engagement with the pin 27, and hence the hood 13 can then be readily swung outwardly and upwardly on its hinges.

All the working mechanism of the device is contained within the main box 10. Referring to this mechanism, the numeral 29 indicates a flat arm arranged on the under side of the top of the box, said arm being provided with elongated slots 30—30 through which screws 31—31 extend and enter the top of the box. The screws and slots thereby provide a means for holding the arm to the top of the box, while at the same time permitting limited longitudinal movement of the arm. The arm 29 extends outwardly through an opening in the voting end of the box, and is provided on this end with a rounded white push button 32. The arm 29 is further provided, between its ends, and within the box, with a laterally projecting finger 33, which is recessed from its inner edge outwardly for a desired distance, as indicated by the numeral 34. Another and longer arm 35 is also secured to the under side of the top of the box by means of a screw 36 passing through an elongated slot 37 in said arm and entering the top of the box. The outer end of this arm is also extended into an opening in the voting end of the box, and said outer end has secured thereto a cube 38 of black color. The black cube 38 and the white button 32 are advisably

separated by means of a rib 39 disposed therebetween. Arm 35 is also provided with a laterally projecting finger 40 which extends over finger 33, and is likewise provided with a recess 41 extending from its inner edge outwardly for a desired distance.

Disposed between arms 29 and 35 is a gong sounding arm 42, shorter than either of the other two arms, and having one end passing above the finger 33 of arm 29, and the said end provided with a depending pin 43 which extends through the recesses 34 and 41, and is normally held at the outer closed ends of said recesses. The opposite end of arm 42 is provided with a depending inclined lug 44, which is adapted to act on the clapper or tongue of a bell or gong, and cause an alarm to be sounded, as hereinafter fully described.

The bell or alarm mechanism comprises the usual stem 45, the sounding bow 46 secured to the lower end of said stem, and the clapper or tongue 47, the latter in the form of an arm provided at one end with a striking head or ball, and having its opposite end passing into a nut 48 screwed on to the lower end of a depending pin 49. In order to increase the effective striking capability of the clapper, a spring wire 50 is secured at one end to the under side of the top of the box 10, and this spring is extended to and wound around the pin 49, and finally carried downwardly into engagement with the clapper arm.

It is necessary, after the arms 29, 35 and 42 have been pushed inwardly and the pushing force removed therefrom, to provide means for returning said arms to normal position, or, in other words, for again forcing said arms outwardly. I prefer to provide for this purpose the simple spring wire mechanism clearly shown in the accompanying drawings, particular attention being called to Figs. 6 and 7 of said drawings. The spring wire for controlling the intermediate arm 42 is designated by the numeral 51. This wire is bent into substantial V-shaped form, with several coils 52 at the bend thereof. One end of this wire hooks around a pin 53 projecting from the arm 42, and the opposite end of said wire is coiled one or more times around the upper portion of the stem 45. It is obvious that the pushing in of the arm 42 must be accomplished against the contrary force exerted by the spring 51, and that therefore the moment pressure is removed from arm 42 this spring will have the effect of forcing the arm outwardly, and thereby restoring said arm to its normal position.

The spring for effecting the return outward movements of arms 29 and 35 is indicated by the numeral 54. This spring is coiled a number of times around stem 45, just below the coils of spring 51. From its

upper coil one arm of the spring is carried outwardly and engages a lug 55 depending from arm 29, and another arm of the spring is carried outwardly from the lower coil of said spring and engages a lug 56 depending from arm 35. The two arms 29 and 35 are, therefore, controlled by a single spring of such construction that the two members thereof will, after the arms 29 and 35 have been pushed inwardly and pressure removed therefrom, cause said arms to be returned to normal position.

Attached to the under side of the top of the box 10, at the rear of said top, is a casing 57 provided in its bottom with an opening 58. This casing forms a guide for a longitudinally movable ball carrier, in the form of a rectangular block 59. This block has an opening 60 therethrough, and also has projecting laterally from one side edge thereof a pin 61, said pin extending through an elongated slot 62 in the side of the casing. The pin engages with a lug 63 depending from the arm 35, and this connection causes a movement of the carrier 59 whenever the arm 35 is actuated. The top of the box is recessed upwardly from the under side of said top, as indicated by the numeral 64. Normally the ball carrier 59 is in the forward portion of the casing 57, and in this position the opening 60 of said carrier is in registration with the recess 64 (see Fig. 4 of the drawings). Black balls 65 are shown in Fig. 4, one being in the opening 60 of the carrier, and the other in the recess 64. Extending downwardly from the bottom of the casing 57, is a transparent tube 66. The bottom of this tube is closed, while its upper end is open and registers with the opening 58 in the bottom of the casing 57.

When the box is to be used, it is adjusted in the manner shown in Fig. 1 of the drawings, with the two hoods in the full line positions, that is, the hood 12 at the voting end of the box open, and the hood 13 at the opposite end of the box closed. It is desirable to releasably lock the hood 12 in this open position, and as a means for accomplishing this I provide a flat spring 67, one end of said spring being secured to the side edge of the bottom of the box, and the free end of said spring being bent into angular shape to form a recess 68, which is adapted, when the hood 12 is turned outwardly and upwardly on its hinges to an open position, to engage a tongue 69 cut in the edge of one of the side pieces of the hood 12. By this provision, it is obvious that the spring 67 automatically effects the locking of the hood 12 when said hood is turned to its open position. In order to close the hood 12, all that is necessary to be done is to press spring 67 inwardly into a recess 70, so that the inner side of the hood will clear the spring when said hood is turned to a closed position.

The box being adjusted as shown in Fig. 1, it is ready to be passed around for voting purposes. A person desiring to vote places his hand within the hooded portion 12, and if it is his wish to vote for a proposition, or for the election of any person to membership in the organization, he presses inwardly on the white button 32. This button being on the end of arm 29, necessarily causes an inward movement of said arm, but in view of the fact that arm 29 is not connected to the ball carrier 59, the actuation of arm 29 does not in the least affect the said carrier. The inward movement of arm 29, however, carries with it the intermediate gong sounding arm 42, by reason of the provision of the recess 34 in connection with the pin 43 which is seated at the forward closed end of said recess. The simultaneous inward movement of this arm 42 causes the inclined lug 44 of said arm to engage against a finger 71 projecting from the head or ball of the clapper arm. This causes the clapper arm to be thrown rearwardly against the contrary force exerted by the spring 50. During the time the contact exists between the depending lug 44 and the finger 71, while arm 42 is being actuated as described, the finger 71 has a sliding movement along the inclined lug 44, causing a slight turning of arm 42 in a direction toward arm 35, the turning being permitted by reason of the provision of the pin 43 and the recess 34 which said pin engages. This continues until the finger escapes the inclined lug. The moment this escape occurs the clapper arm, by reason of the action of the spring 50 is turned forwardly, and the hammer or ball of the clapper arm is brought into forcible contact with the sound bow 46 of the bell. The head or ball of the clapper arm is normally held a slight distance from the sound bow by means of a pin 72. Pressure on arm 29 being now removed said arm, together with arm 42, are returned to normal position by means of the action of the spring 54, and spring 51 and just before arm 42 completes its full return movement, the finger 71 engages on the forward side of the inclined lug 44 and rides along said lug until it escapes over the end thereof, the arm 42 in this engagement of the finger 71 being caused to turn on its pivot slightly toward arm 29. The finger 71 is now to the rear of lug 44, or in normal position. If the next person to whom the box is passed desires to vote a black ball, the black cube 38 is pressed inwardly. This has the effect of causing a longitudinal movement of the arm 35 toward the rear of the machine, and this arm likewise carries with it the arm 42 by reason of the engagement of the pin 43 of said arm with the recess 41 of the lateral finger of arm 35, and the bell is sounded in exactly the same manner as explained in regard to the sounding of the bell

when the arm 29 is actuated. The movement of arm 35 toward the rear of the machine also causes a movement of the ball carrier 59 by reason of the connection between said arm 35 and the ball carrier afforded by the pin 61 and lug 63. The ball carrier is moved just far enough in its casing 57 to bring the opening 60 of the ball carrier into registration with the opening 58 in the bottom of the casing. The moment this registration occurs the black ball 65 contained in the opening 60 is free to pass through opening 58 and into the transparent tube 66. Upon pressure being removed from the cube 38 the arm 35 and arm 42 are turned to normal position by the action of the springs 54 and 51. The return movement of arm 42 brings the lug 44 in advance of the finger 71, as fully explained relative to the action of arm 29 when pressure was removed from arm 29. The return movement of arm 35, necessarily carries therewith the carrier 59 until such time as the opening 60 of said carrier is in registration with the recess 64. The moment this registration occurs the black ball 65 contained in recess 64 is free to drop down into the opening 60 of the carrier, and the machine is ready for another vote.

It will be seen from the above description that if a person fails to vote this fact is at once known by reason of the failure of the bell to ring, inasmuch as whether the white button be pressed inwardly or the black cube, the bell must necessarily ring if said button or cube are pressed in to their full extent, and which is necessary in order to properly vote.

After all the persons entitled to vote have recorded their votes, the hood 13 is then opened to the dotted line position, Fig. 1, so as to disclose the transparent tube 66. If there are no black balls in this transparent tube, it is an indication that the ballot is clear; and that the particular person voted on has been elected, or the particular measure voted on has been adopted. If, however, one or more black balls appear in the glass tube, it is an indication that the particular person voted upon has been rejected, or the particular measure voted upon has been rejected, as the case may be. Of course under the rules of some organizations a certain number of black balls are required to be voted in order to reject an applicant or to reject certain propositions, and in that event the box will be equipped with the necessary number of black balls, the recess 64 being enlarged to accommodate such additional black balls.

If desired registering wheels may be employed in connection with the box, said wheels adapted for registering the total votes cast, both white and black. I have shown a form of registering wheels in Fig. 9

of the drawings, the registering wheel for the arm 29 being indicated by the numeral 73 and the registering wheel for the arm 35 by the numeral 74. Both of these wheels have numerals thereon running from 0 to 14, and the arms 29 and 35 are provided respectively with pawls 75—75. It is obvious that each time the arms 29 and 35 are pushed inwardly or rearwardly the pawls 75 will be brought into engagement with the teeth of the registering wheels, and each of these actuations will rotate the registering wheels the distance from one number to the other. These registering wheels are located on opposite sides of the transparent tube 66, and the numbers upon the wheels are successively brought into registration with openings 76—76. The wheels are shown as on a horizontal plane, being mounted upon vertical shafts 77—77. The openings 76 are formed in a beam 78, said beam forming a part of the framework. Of course, if desired, two registering wheels for each of the arms 29 and 35 might be provided, and mechanism employed for rotating the second wheel of each set after one complete rotation of the first wheel of a set, so that the registering mechanism for each arm may be made capable of registering a large number of votes.

While I have described certain details of construction in the foregoing specification and shown the same in the drawings, yet I do not wish to be understood as limiting myself to such specific details of construction, inasmuch as various modifications could be resorted to without departing from the broad spirit and scope of the invention, as indicated and covered by the appended claims.

What I claim as my invention is:

1. A ballot box, comprising a ballot carrier adapted to discharge ballots therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a longitudinally movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, a bell sounding arm to one side of and parallel to the first mentioned arm and connected to said first mentioned arm so as to be movable simultaneously therewith, said bell carrying arm provided at one end with a projecting diagonally disposed lug, and bell or gong mechanism comprising a sounding bow and a striking clapper, the striking end or head of the latter provided with a projecting finger adapted to be engaged by the diagonally disposed lug of the gong sounding arm on the movement of said arm in both directions.

2. A ballot box, comprising a ballot carrier adapted to discharge ballots therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is

moved in one direction, a movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, said movable arm provided with a projecting recessed finger, a gong sounding arm provided with a trip, and also with a projecting pin extending into the recess of the first mentioned arm, and bell or gong mechanism adapted to be acted upon by the trip of the gong sounding arm, on each movement of said gong sounding arm.

3. A ballot box carrying an arm adapted to have a limited movement in opposite directions, and provided with a projecting recessed finger, a gong sounding arm provided with a trip, and also provided with a projecting pin extending into the recess of the first mentioned arm, bell or gong mechanism adapted to be operated by the trip of the gong operating arm, to cause a sounding of the alarm, on the movement of said gong sounding arm.

4. A ballot box, comprising a ballot carrier having means for discharging a ballot therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, said arm also provided with a projecting recessed finger, another movable arm provided with a projecting finger adjacent to the finger of the first named arm, the recesses of the two fingers registering, gong sounding mechanism, a gong sounding arm intermediate of the two first mentioned arms and provided with a projecting trip and with a projecting pin, the latter entering the registering recesses of the two adjacent fingers, and bell or gong mechanism adapted to be operated by the trip of the gong sounding arm, whenever either of the two first mentioned arms are operated.

5. A ballot box, comprising a ballot carrier having means for discharging a ballot therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, another movable arm, bell sounding mechanism, said mechanism consisting of a sounding bow mounted upon a stem, and a clapper adapted to be operated by the bell sounding mechanism to cause an alarm, upon a movement of either of the two arms, and a spring coiled around the stem of the sounding bow and having two arms extending respectively to the two movable arms, and adapted to return the arms to normal position, after said arms have been actuated.

6. A ballot box, comprising a ballot car-

rier having means for discharging a ballot therefrom, a ballot receptacle adapted to receive a ballot from the carrier each time the carrier is moved in one direction, a movable arm connected to the carrier in such manner as to cause a movement of said carrier each time the arm is actuated, another movable arm, bell or gong mechanism, said mechanism consisting of a sounding bow mounted on a stem, and a clapper, a bell or gong sounding arm, connections between the two first mentioned arms and the gong sounding arm, and adapted to cause said gong sounding arm to act on the bell mechanism to produce a ringing of the bell, upon the actuation of either of the two first mentioned arms, a spring coiled around the stem of the sounding bow and having two arms extending to and connected respectively with the two first mentioned arms, and a spring having one end coiled around the stem of the sounding bow and its opposite end engaging the gong sounding arm, said springs adapted, after the several arms have been actuated, for returning said arms to normal position.

7. A ballot box, comprising interior voting mechanism, and provided at the voting end thereof with a hinged hood, and at the opposite end thereof with a hinged hood, the two hoods when closed adapted to incase the box, and the hood at the voting end of the box when opened giving access to the voting mechanism, and the hood at the opposite end when opened exposing to view the result of the ballot.

8. A ballot box, comprising interior voting mechanism, and provided at one end thereof with a hinged hood, and means for releasably locking said hood in its opened position.

9. A ballot box, comprising interior voting mechanism, and provided at the voting end thereof with a hinged hood, the said hood when opened giving access to the voting mechanism, and a spring arm secured to the box and having its free end adapted to engage the hood, in order to lock said hood releasably in the open position of the hood.

10. A ballot box, comprising interior voting mechanism, and provided at the voting end thereof with a hinged hood, the said hood when opened giving access to the voting mechanism, and a spring arm secured to the box and having its free end bent angularly to form a recess, said recess adapted to engage a projection from the hood, when the hood is turned to an open position, in order to releasably lock the hood in said open position, and the said free end of the spring adapted to be forced into a recess in the box, to provide for the closing of the hood.

11. A ballot box, comprising interior voting mechanism, and provided at the voting end thereof with a hinged hood, and in its

top with a recess, and a bolt movable in said recess and adapted, when thrust outwardly and when the hood is closed, for entering a recess in the hood, in order to releasably lock
5 said hood in its closed position.

12. A ballot box, comprising interior voting mechanism, and provided at one end thereof with a hood, and a spring arm secured to the hood, one end of said arm being
10 bent to provide a finger piece, and its oppo-

site end provided with an opening adapted to automatically engage a pin projecting from the box, to thereby releasably lock said hood in its closed position.

In testimony whereof, I affix my signature, 15
in presence of two witnesses.

WILLIAM W. WILLS.

Witnesses:

ELIZARETH CASEY,

GEO. G. SUTHERLAND.