(No Model.)

4 Sheets—Sheet 1.

J. M. FENNERTY.

BALLOT BOX.

No. 306,819. Patented Oct. 21, 1884.

Fig. 2.

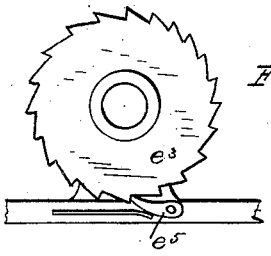
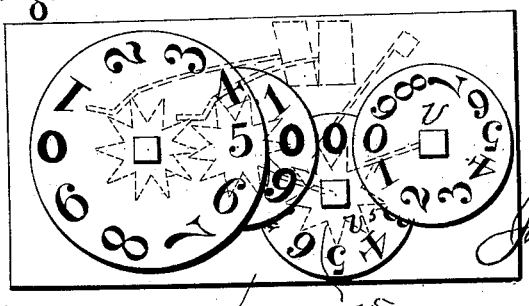


Fig. 1.

Fig. 4.



WITNESSES

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(No Model.) 4 Sheets—Sheet 2.

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Fig. 8.

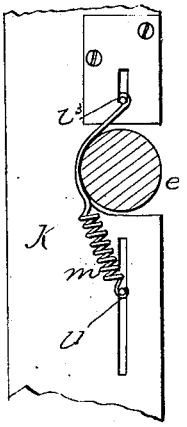
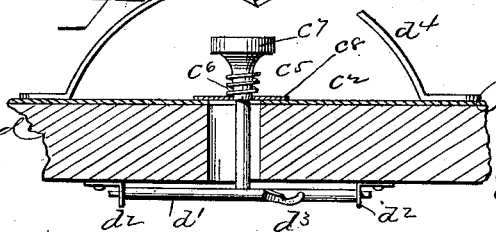


Fig. 2

Fig. 9



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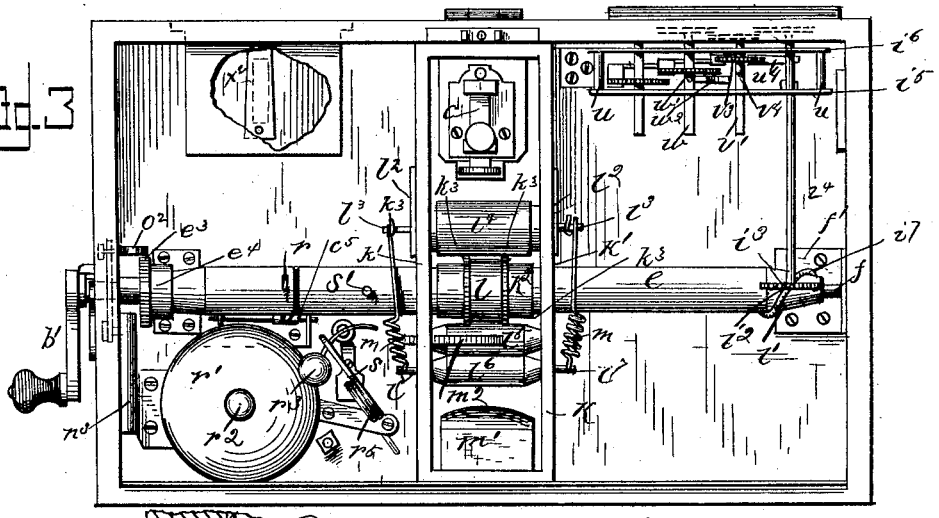
BALLOT BOX.

No. 306,819. Patented Oct. 21, 1884.

Fig. 3



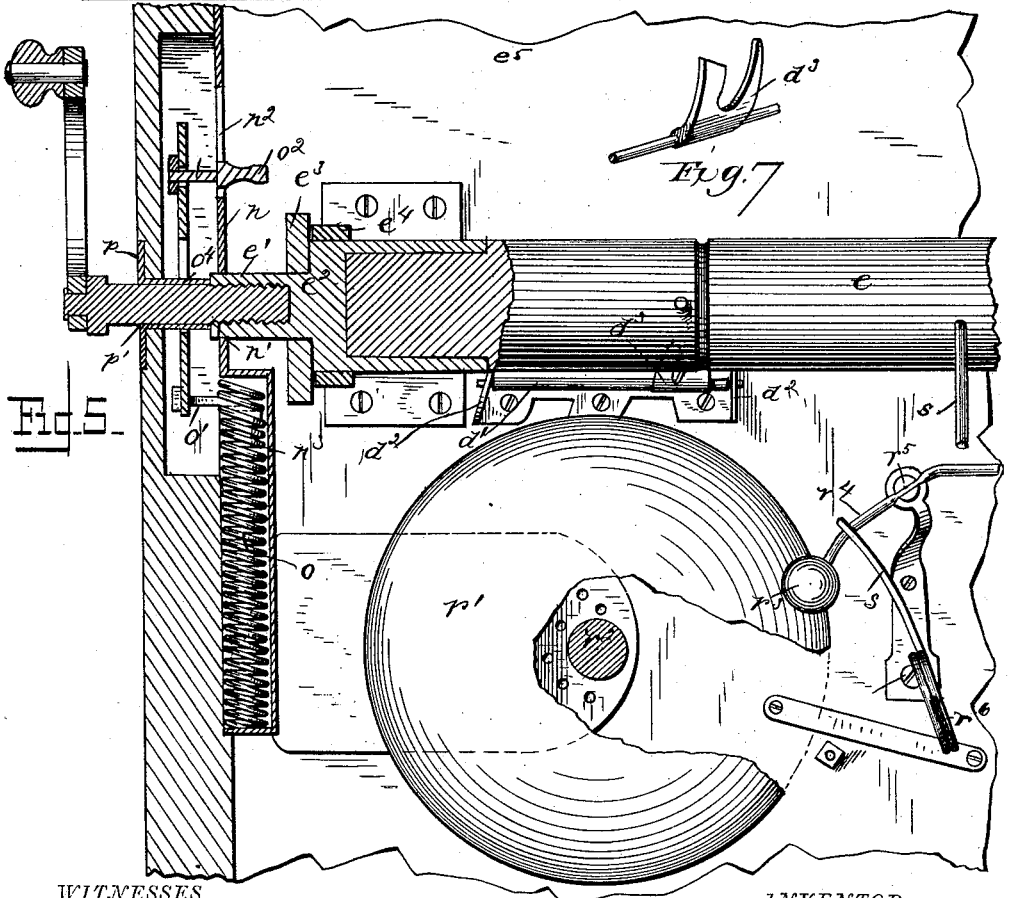


Fig. 5

Fig. 7

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BALLOT BOX.

No. 306,819. Patented Oct. 21, 1884.

Fig. 10

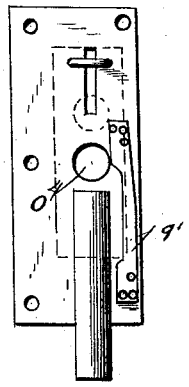


Fig. 11

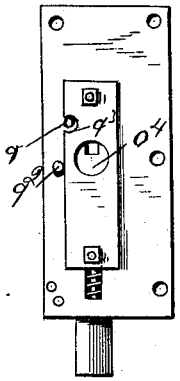
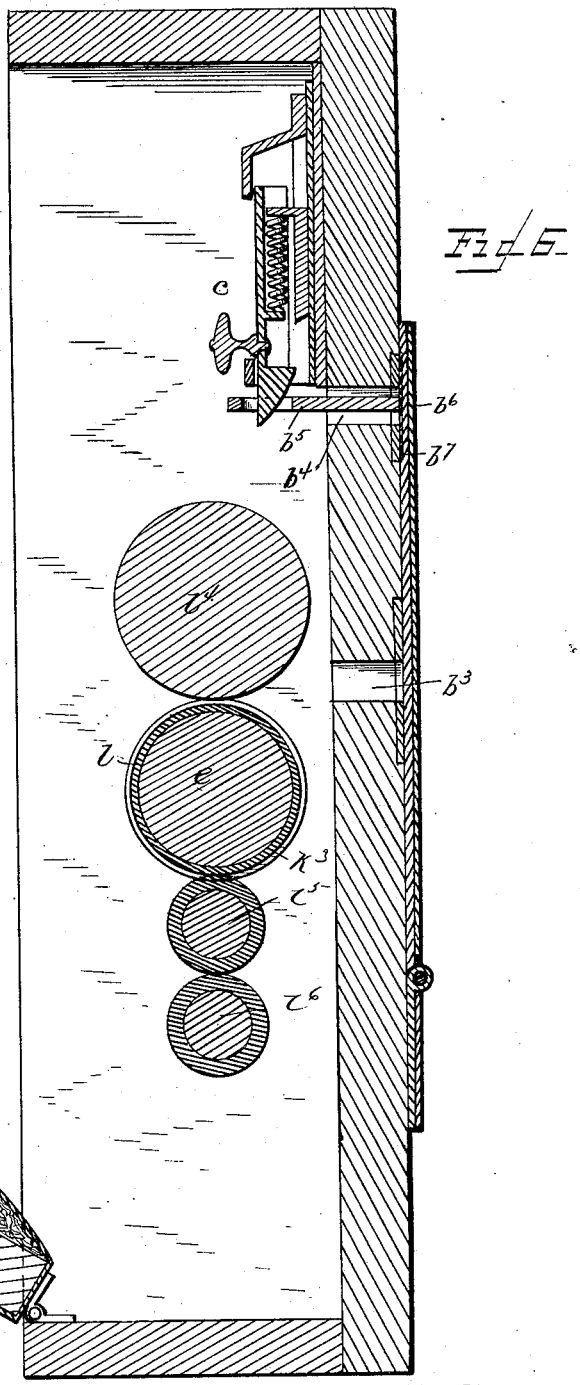


Fig. 5



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UNITED STATES PATENT OFFICE.

JOHN M. FENNERTY, OF MEMPHIS, TENNESSEE.

BALLOT-BOX.

SPECIFICATION forming part of Letters Patent No. 306,819, dated October 21, 1884.

Application filed February 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. FENNERTY, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Ballot-Box, of which the following is a specification, reference being had to the accompanying drawings.

Figure 1 is a view in perspective of my improved ballot-box closed, either before or after election. Fig. 2 is a perspective view of the ballot-box opened, but not disclosing the working mechanism that conveys the ballot to the ticket-receptacle, prints the marks thereon, sounds the alarm, and registers the ballot. Fig. 3 is a bottom view of the lid, showing the working mechanism contained therein. Fig. 4 is a detail view of the registering mechanism. Fig. 5 is an enlarged detail view of the setting mechanism and the alarm mechanism. Fig. 6 is a transverse section through the cover-plate, the automatic catch for locking it, and the inking and stamping mechanism. Fig. 7 is an enlarged detail view of the rod d' and the notched cam-plate d^3. Fig. 8 is a detail view of the frame k, showing the slots for the roller-journals and the openings for the main shaft. Fig. 9 is a detail view of the setting-stud and its attendant mechanism. Figs. 10 and 11 are detail views of the setting-slide and mechanism; and Fig. 12 is a detail view of the pawl and ratchet.

This invention has relation to safety ballot-boxes to be used at United States, State, county, and other elections, to prevent tampering with the ballots after they have been deposited in the box; to prevent ballot-box stuffing; voting of tissue-ballots, by providing for their detection when the ballots are counted; to be used, also, to register each ballot as it is passed into the box, and to sound a bell or gong at the deposit of each ballot, so that bystanders may keep a count of the number of ballots cast; and it consists in the construction and novel arrangement of devices, as will be hereinafter fully described, and particularly pointed out in the claims appended hereto.

Referring by letter to the accompanying drawings, a designates the ballot-box proper; a', the ballot or ticket receptacle; and a^2, the cover or lid, which is provided with an internal hinged inclosing-bottom a^4, and contains most of the working mechanism for performing the several offices for which the box is intended. The lid a^2 is provided with a hasp, a^3, which engages a staple, a^5, projecting from the body of the box, and is secured in place by a padlock. The hasp a^3 covers the key-hole to a catch-lock of approved pattern, when closed, to give additional security to the box when locked. The lid of the box is provided with a small box, b, in which the crank-handle b' is kept locked when not in use. The padlock may be also kept in this box b during the time the ballots are being taken from the box and counted, so that it may not be accidentally lost. The lid a^2 is provided with a centrally-located ticket-orifice, b^3, which is metal-faced, and is of a size proper to admit the ordinary election ticket when folded according to custom. It is also provided in front of the ticket-orifice b^3 with a metal-faced rectangular opening, b^4, for the hasp b^5 of a hinged metal cover-plate, b^6, which is intended to close the ticket-orifice both before and after the balloting. When the metal cover-plate b^6 is open during election days, a pivoted plate, b^7, secured to the lid between the metal-faced openings, is adapted to be swung round over the rectangular opening b^4 to prevent the hasp b^5 from being accidentally passed down through the opening b^4 into engagement with the self-catching lock c on the under face of the lid.

When it is designed to close the ticket-orifice at the time of closing the polls, the pivot-plate b^7 is swung round away from the hasp-opening b^4, and the hasp b^5 passes down through it, when the cover-plate is properly manipulated, and engages the self-catching slide-bolt c beneath, thereby locking the cover-plate, so that it can only be opened by opening the box a and unlocking the internal hinged inclosing-bottom a^4 and springing the bolt c for this purpose. The lid of the box is also provided with a perforated plate, c', which covers an opening in the lid over the bell, hereinafter described, for the purpose of permitting the sound emitted by the bell when struck by the hammer to be heard for a considerable distance from the ballot-box. Immediately in front of this perforated plate c' is a slotted plate, c^2, through the slot c^4 of

which a headed setting-stud, c^5, provided with a tension-spring, c^6, between its head c^7 and a slide-plate, c^8, operating over the slot c^1, passes. To the lower end of the setting-rod c^5 is secured a rod, d', working horizontally in aligned bearings d^2 d^2, secured to the under face of the lid proper of the box, as shown. This rod d' is provided with a notched shoulder-plate, d^3, between the bearings d^2 d^2, which moves with the rod d' and has slight play between the bearing-plates d^2 d^2.

To the face of the slotted plate c^2 nearest the crank end of the lid, is secured a curved guard-plate, d^4, which prevents the setting-stud c^5 from being accidentalty moved in its slot to set the notched plate d^3, to permit a single revolution of the operating-crank. The main shaft e extends from inner to inner face of the ends of the lid proper of the box on a horizontal line a little in the rear of the longitudinal middle line of the lid, and of course beneath the top of the lid, as shown. The main portion of the main shaft e is made of wood in order that it may be of a proper diameter and also be strong without being too heavy. The crank end of the main shaft is preferably of brass, and its extreme end is made hollow, the hollow being threaded to receive the threads on the stem of the crank when inserted through an opening in that end of the lid, as will be further explained. The hollow threaded portion e' of the main shaft e is made smaller in diameter than the sleeve portion e^2 of said shaft e, and is provided with a ratchet-wheel, e^3, fixed to the hollow portion e' outside of the enlarged metal bearing e^4 for the shaft e, secured to the face of the lid proper, near the crank end thereof in which the sleeve portion e^2 revolves in one direction only. A spring-pawl, e^5, is secured to the under face of the lid proper to prevent backward motion of the ratchet-wheel e^3, and consequently of the main shaft e.

The opposite end of the main shaft e from that just described has a spindle bearing, f, in an angle-plate, f^2 secured to the under face of the lid proper, and to that end of the lid, which is connected by toggle arms f^2 f^2, for securing the lid to box a to prevent the lid from being opened beyond a vertical position. This end of the main shaft e is provided with a worm, i, upon the tapering portion i', extending for a short distance inwardly of the main shaft e from its connection with the spindle-bearing f. The thread i^7 of the worm i extends once around the tapering portion of the main shaft e, and is drawn out to operate one of the star-point teeth, i^2, of a wheel, i^3, having ten of these teeth i^2. This wheel i^3 is mounted on the rear end of a small shaft, i^4, which extends forward, and has its bearings in the case-plates i^5 i^6 of the registering mechanism at the front of the lid, as will be hereinafter explained. A rectangular frame, k, of wood, open at both top and bottom, has a depth less than the ends and sides of the lid, and is secured at its ends to the inner faces of the sides of the lid, so that its sides will be parallel with and at equal distances from the transverse middle line of the lid. The sides of this open top and bottom frame are provided with openings k' k', through which the main shaft e passes. That portion k^2 which lies between the sides of the rectangular frame k is slightly larger than the portions lying outside of the openings k' k', and is provided with shoulders k^3 k^3. Between these shoulders k^3 k^3 the portion k^2 is slightly convexo-convex in longitudinal section, and is provided on its circumferential middle with a rubber stamp, l, which may be provided with the desired type-matter—such, for instance, as "Registered vote, 6th Ward, Memphis, Aug. 7, 1884"—or any other designating on what date the ticket was placed in the box, the polling-place, ward, or precinct, and the like, which will readily suggest themselves. In front of this stamp l, and journaled in slotted bearings l^2 in the sides of the rectangular frame k, the journals l^3 l^3 of which project through said slotted bearings l^2 l^2, is a second wooden roller, l^4, which is concavo-concave in longitudinal section.

In the rear of the stamp l, and journaled in elongated slot-bearings, are two distributing-rollers, l^5 l^5, the roller l^5 having its journals projecting through the slot-bearings l^7 l^7 in the sides of the rectangular frame k, and connected to the journals l^3 l^3 of the wooden roller l^4 by retracting-springs m m, so that the rollers will be held in yielding connection, but will not permit a ticket to be introduced into the ticket-orifice and passed into the ticket-receptacle of the ballot-box without employing the crank to revolve the main shaft e. In rear of and below the distributing-rollers is hinged an inking-pad, m', which is held in place by a flat spring, m^2, secured at one end to one side of the frame k. By moving the spring m^2 forward on its pivot in frame k, the forward end of the hinged inking-pad m' will be freed, and its pad surface may be supplied with ink, and from it the distributing-rollers take their ink and supply it to the stamp.

The mechanism for setting the slide for admitting the crank to the hollow threaded portion of the main shaft e is constructed as follows: A slotted plate, n, is let into the inner face of the end of the lid, and is provided with a perforation, n', into which the end of the hollow threaded portion of the main shaft e enters, but does not pass through. The horizontal slot n^2 is in front of and in line with the perforation n', and in rear of the perforation n' the plate n is provided with a casing, n^3, opening through the plate n, in which casing a spiral contracting and expanding spring, o, is seated. This spring o is secured at its forward end to a slide, o', provided at its forward end with a finger-piece, o^2, which is screwed into the forward end of said slide o' through the slot n^2 into a threaded perforation in said

slide o'. The slide o' is also provided with a perforation, o^4, of the same size, or nearly the same size, as the perforation n' in the slotted plate n. Let into the outer face of the end of the lid is a plate, p, which is also provided with a perforation, p', which aligns with the perforation n' in the slotted plate n. The slide o' is provided near its forward end on its upper edge with a detent or stop, q.

Above the slide o', on the inner face of the end of the lid, is a flat spring, q', which is provided in its forward end with a push-stud, q^2, which passes out through an opening in the end of the lid and projects slightly near the plate on the outside of the end of the lid. The push-stud q^2 engages a notch, q^3, in the edge of the slide o' when the slide o' is pushed forward to align the perforations in the inner and outer plates with its own perforation to permit the insertion of the handle into the threaded end of the main shaft e. The detent or stop on the slide o' will move the push-stud out. The slide o', when the force exerted on it to contract the spring within its case has been released, will move back to engage the push-stud, and will hold the three perforations in alignment. After the stem of the crank has been introduced these parts cannot get out of alignment by accident. The outer perforated plate in the end of the lid is provided with a swinging cover-plate, p, which covers the perforation in said plate when the crank-handle has been removed, and when the handle has been removed the push-stud may be pushed in to release the slide o' and throw the perforations out of alignment, which is usually done after the ballots have all been cast. The setting-stud under the curved guard is first set by moving it to the left by hand. This carries the notched plate on the lower end of the setting-stud toward the left and brings its notch in line with an arm, r, extending outwardly from the main shaft.

The alarm mechanism consists of a bell, r', on a threaded stem, r^2, depending from a plate secured to the under face of the lid.

The bell-hammer consists of a ball, r^3, secured to an angle-lever, r^4, secured in a pivoted fulcrum on the lower end of an arm secured to the under face of the lid. A retracting-spring, s, is secured to the under face of the lid, and passes around beneath the angle-lever r^4 and in contact with it, and is provided with a coil, r^6, as shown. A stud, s', on the main shaft e strikes the projecting end of the angle-lever r^4 and pulls the retracting-spring s down by means of the forward portion of the lever r^4, and when the stud s' slips over the projecting end of the lever r^4 the spring s will cause the ball to strike the bell just after or at the time one revolution of the main shaft e has been made and the shaft stopped by the arm which carries the setting-stud to its normal position, thus indicating that one ballot has been deposited. As the setting-stud must be moved to the left each time a revolution of the main shaft is made, every time an alarm is sounded it may be tallied by bystanders, so the actual tally may be kept by persons who do not see the ballots deposited.

The registering mechanism will be now described. The case-plates i^5 i^6 are secured together by corner-posts u—four in number—and are also connected to the end of the lid in any suitable manner so as to leave a space between the front side of the lid for the dial-plates, so that the latter may be exposed through an opening, u', in the front side of the lid. This opening is provided with a glass plate, as usual, and a slide, w^2, working in ways w^3 w^3 to protect the glass plate and prevent it from being broken when the ballot-box is being transported. Within the case-plates are journaled four shafts—viz., the long shaft i^4, carrying the wheel i^3 (having ten star-point teeth, i^2) at its rear end, which engages the worm on main shaft e, and is the prime shaft, and carries the longer prime lever-arm u^4 between the case-plates i^5 i^6 and the prime dial v, having the nine digits arranged so that they will be exposed successively as the dial turns to the right hand; the short shaft v', having the wheel v^3, the short lever v^4 in rear thereof, and the second dial v^5 at its forward end provided with the same digits, and also revolving to the right; third, the shaft w, having the wheel w', with ten teeth, the lever-arm w^2, and the third dial-plate revolving to the left; the fourth shaft, lever-arm, and star-point toothed wheel having ten teeth and a dial which revolves to the left, but is larger in circumference than the others, in order that the view-space or window need not be so large to expose the numbers on the dials, as they can be brought on a horizontal line, and quite close to each other. This register will register up to ten thousand, which is ample for any ward or for general purposes. The internal hinged bottom, a^4, has a middle opening, a^7, through which the ballots drop to the ticket receptacle or box after they leave the stamping and feeding mechanism.

To arrange the ballot-box for use at the polls, it must be unlocked at the padlock first and the staple removed. The hasp is then lifted and the catch-lock connecting the lid to the body of the box opened and the lid turned up, so that the internal hinged lid-bottom, a^4, may be unlocked and turned down to expose the working mechanism within the lid. The sliding catch should then be withdrawn to permit the hinged plate that protects the ticket-orifice to be turned back. The slide o' should then be pushed down until it engages the push-stud and causes the perforations for permitting the crank-stem to be entered into the threaded end of the main shaft to be aligned for this purpose. The hinged lid-bottom should again be locked, (the pad having been first properly inked,) and the lid turned down—it locks itself automatically—and the hasp applied and the padlock put on. It will, of course, be necessary to have the dials of the

register set at zero to start with. The crank should then be taken from the small box on the top of the lid, the plate closing the aligned openings turned to open them, and the crank-stem inserted and turned to place in the threaded end of the main-shaft. The pivoted plate covering the ticket-orifice should then be turned to open the same and cover the hasp-opening for the hinged cover-plate, so that the hasp may not be accidentally inserted therein before it is time to close the polls; otherwise the ballot-box might be closed too early.

This ballot-box is complete in all of its appointments, will not get out of order, and cannot be tampered with without the fraud being detected, and if properly used will insure a fair count.

When a ballot is offered, the person whose duty it is to receive it and deposit it in the box will take it in his left hand and hold it over the ticket-orifice, and then insert it therein. At the same time with his right hand he will remove the setting-stud to the left from its normal position, and his assistant will turn the crank, which will carry the ticket down between the stamping-roller and the spring-roller, (and it cannot be forced through without the crank is turned, as the retracting-springs will prevent this,) where it will be stamped—and only one ticket can be stamped at a time, even if several are folded together—the bell will sound the alarm that a ticket has been deposited, and at the same time the register will mark one ticket registered, and the crank will be stopped and the setting-stud will be back in its normal position long before the revolution has been made, so that the crank cannot be turned backward to prevent an alarm or a registry of the ticket.

In addition to the small box on the top or side of the lid proper, I have provided a small drawer, *x*, which slides into the lid or upper portion of the box through its front side, near the crank end, but not near enough to interfere with the operation of the set-slide *o'*. Over said drawer, in the top of the lid, is an opening or slot, *x'*, through which the key to the crank-box and the key to the internal hinged bottom are to be dropped when the polls are closed and before the counting of the tickets begins, and the key to this drawer is to be retained by the sheriff, the marshal, or any regularly-appointed deputy, and taken to the sheriff's or marshal's office for safe keeping until again needed.

The slot *x'* in the top of the lid of the box is provided on its under face with a catch-plate or spring-lock, x^2, to protect the slot and prevent the keys in the drawer *x* from being taken therefrom, although readily admitting them to the box through said slot. The judges of the election and all other persons can then have access only to the ticket-receptacle for the purpose of counting the tickets, and cannot change or alter the register. This drawer for containing the above-described keys is therefore an additional safeguard, as it leaves the safe keeping of the box in a greater number of official hands. The instructions for manipulating the box and keys should be printed in large type and pasted on the outside of the internal lid in plain view, so that any person may readily understand how to open, close, set the box, and deposit the keys when the polls have been closed.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a safety ballot-box, the combination with a ballot-box receptacle for the tickets when deposited, and a hinged lid adapted to be locked thereon, and provided with a hinged bottom lid adapted to be locked to the hinged lid to conceal and expose at will the printing, registering, and alarm mechanism, of a ticket-orifice protected by a hinged cover-plate provided with a hasp to engage a spring-latch concealed within the lid-space, substantially as specified.

2. In a safety ballot-box, a hinged lid having a hinged bottom adapted to be locked to said lid, a main shaft having a hollow threaded portion, a ratchet and pawl at one end, a spindle-journal and tapering worm at the other end, and intermediate arms projecting from said shaft, in combination with bell mechanism, printing mechanism, and registering mechanism, a setting-stud and notched plate, slide mechanism for aligning the perforations in the end plate and inner slotted plate, and a push-stud and spring for holding and releasing the slide of said slide mechanism, substantially as specified.

3. In a safety ballot-box, the hinged lid having the rectangular middle frame arranged transversely of the lid, in combination with the main shaft having the rubber stamp attached around its middle circumference, the spring-roller arranged in slotted bearings at one side thereof in said frame, the distributing-rollers journaled in elongated slots in said frame on the opposite side of the stamp, the hinged inking-pad and its holding-spring, the hinged bottom for concealing them under lock and key, and mechanism for setting and operating the main shaft, substantially as specified.

4. In a safety ballot-box, the combination of the main shaft journaled in bearings at the ends of the lid, and having the ratchet-wheel and the worm, the star-wheel with the ten teeth on the shaft at a right angle to the main shaft and engaging the worm, the lever near the other end of the star-wheel shaft and the prime-dial at its end, the three other shafts in the case-plates of the register having lever-arms, ten-toothed wheels, and dials, and the view-plate and covering, and mechanism for setting and operating the main shaft for imparting the motion to the registering mechanism, substantially as specified.

5. In a safety ballot-box, the combination, with the main shaft supported in suitable bear-

ings in the lid of the box, and provided at one end with the hollow internally-theaded metal portion, of the slotted plate having the half-case for the retracting-spring connected to the set-slide having the perforation for the stem of the crank, the slottled plate having also a perforation for said stem, the outer plate in the end of the lid for said stem, the inside flat spring provided with the notched push-stud passing out through the end of the lid, and the stop and finger-piece on the slide, substantially as specified.

6. In a safety ballot-box, the combination, with the hinged lid and the hinged bottom lid incasing an alarm and mechanism for sounding it, of a perforated plate covering an opening in the top of the lid over the alarm, substantially as specified.

7. In a safety ballot-box, the combination of the four shafts, four star-point wheels having ten teeth each, the four dials, and three detent-springs, the glass view-plate and slide, and mechanism for operating the toothed wheels to move the dials, substantially as specified.

8. In a safety ballot-box, the combination of the setting-stud having the head-spring and cross-plate, the slotted plate through which the stud passes, a rod at the lower end of the setting-stud carrying a notched plate and working in bearings secured to the under face of the lid, and the main shaft having an arm to engage the notched plate, and mechanism for operating the parts, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN M. FENNERTY.

Witnesses:
THEO. MUNGEN,
EDW. G. SIGGERS.