(No Model.) 3 Sheets—Sheet 1.

A. REPPMANN.

BALLOT BOX.

No. 455,766. Patented July 14, 1891.

Fig. 1.

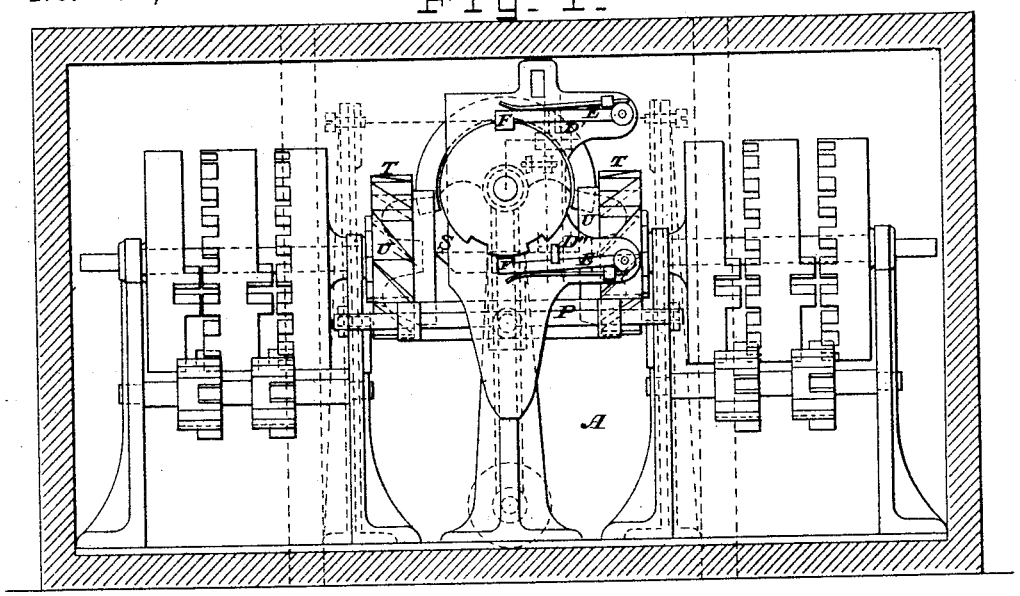
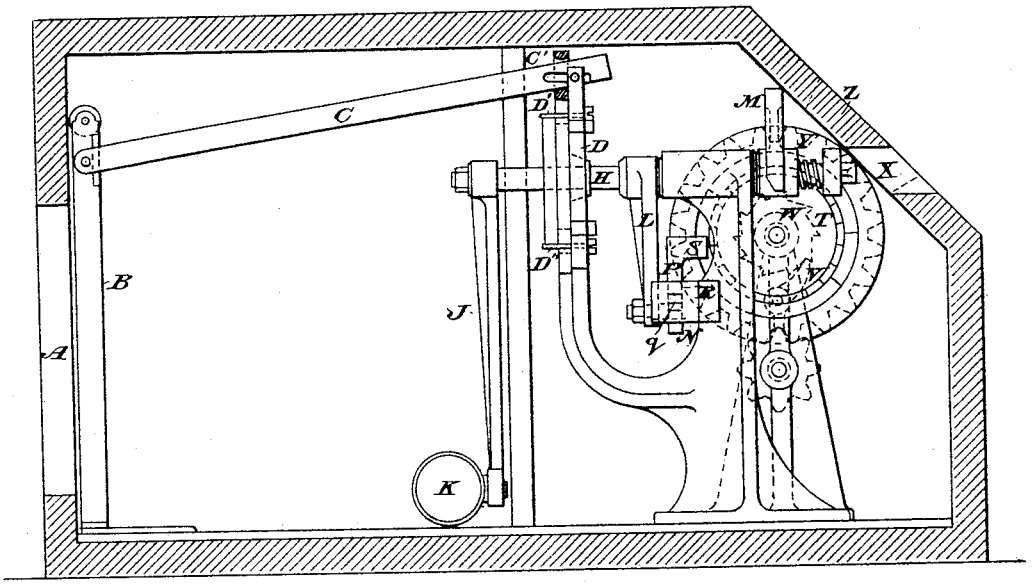


Fig. 3.



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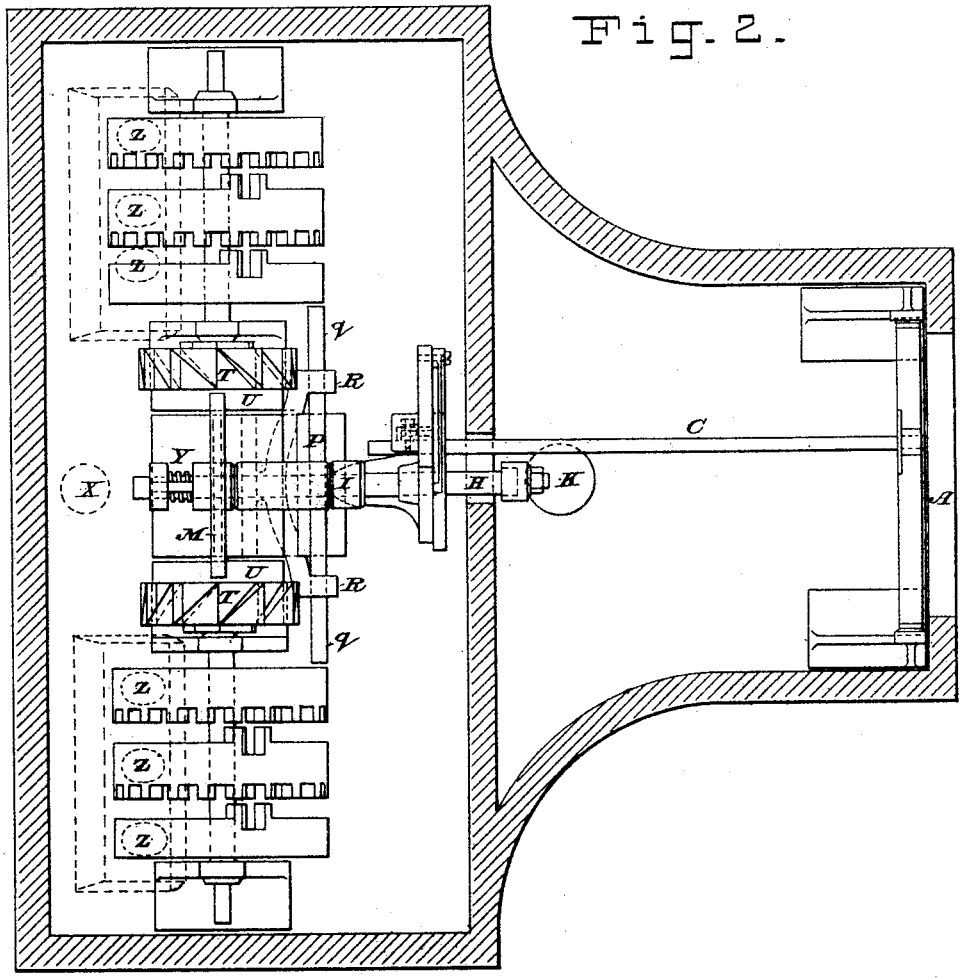
(No Model.) 3 Sheets—Sheet 2.

A. REPPMANN.

BALLOT BOX.

No. 455,766. Patented July 14, 1891.

Fig. 2.



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(No Model.) 3 Sheets—Sheet 3.

A. REPPMANN.

BALLOT BOX.

No. 455,766. Patented July 14, 1891.

Fig. 5.

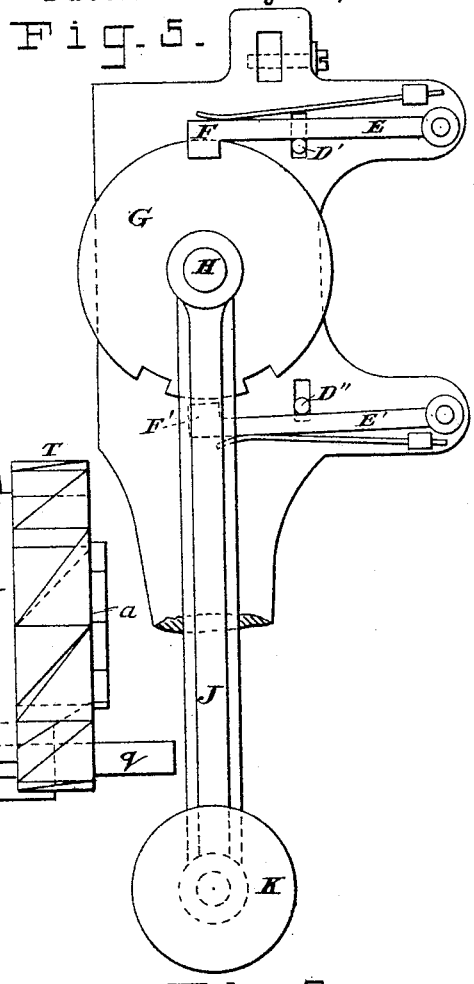


Fig. 4.

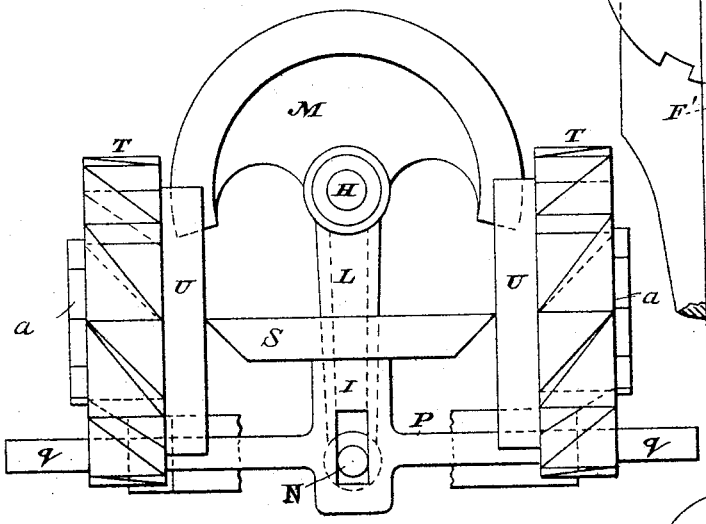


Fig. 6.

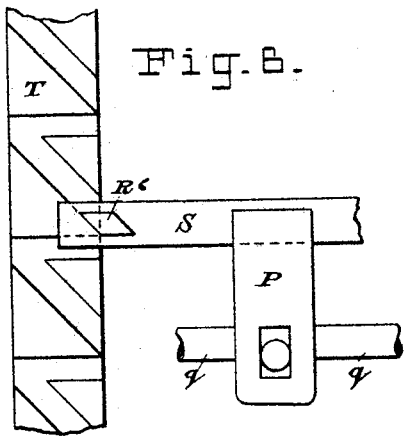
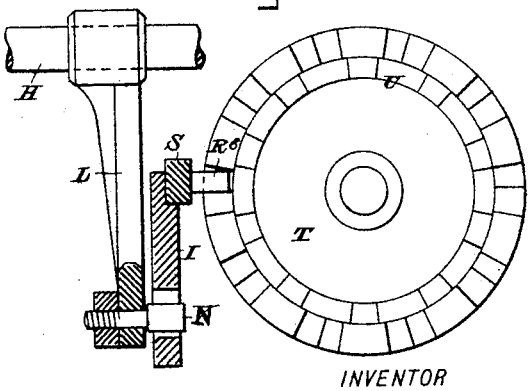


Fig. 7.



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UNITED STATES PATENT OFFICE.

ALBERT REPPMANN, OF MOSCOW, RUSSIA.

BALLOT-BOX.

SPECIFICATION forming part of Letters Patent No. 455,766, dated July 14, 1891.

Application filed September 23, 1889. Serial No. 324,795. (No model.)

To all whom it may concern:

Be it known that I, ALBERT REPPMANN, state councilor, a subject of the Emperor of Russia, residing in Moscow, Russia, have invented certain new and useful Improvements in Vote-Registers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

It is well known that with ordinary ballot-boxes not only is intentional fraud possible, but also accidental mistakes may occur, irrespective of other inconveniences incidental to the distribution and counting of the balls.

My present invention relates to an improved method of registering the votes in ballot-boxes, in which the above defects are obviated by doing entirely away with the use of balls. The ballot-box consists for this purpose of two compartments separated by a partition, the front compartment serving to receive the hand of the person balloting and containing a pendulum or crank-handle, which the operator seizes and moves at will either to the right hand or to the left to a certain point, and at the moment when this point is reached the vote of the operator is effected in the second compartment by means of such motion. The handle is locked in this position, so that the operator cannot move it back again in order to repeat the operation and thus give a double vote, and it is only set free again when the hand of the operator is withdrawn from the hole, thereby allowing a covering-plate to move in front of the same, and thus effecting the release.

The back compartment is divided into three parts. In those at the right and left hand are situated counter mechanisms, and in the middle division is contained the mechanism actuating the counters.

On the accompanying drawings, Figure 1 is a section of the ballot-box, showing the back compartment, with a front view of the registering mechanism. Fig. 2 is a sectional plan of the box, showing a plan of the entire mechanism. Fig. 3 shows a side view of the mechanism by which the counters are actuated. Fig. 4 shows an enlarged view of such mechanism; Fig. 5, an enlarged view of the crank-handle and parts in connection therewith for preventing fraud. Figs. 6 and 7 show a modified construction of the mechanism for actuating the registering-counters.

A, Figs. 2 and 3, is the circular opening in the box for the introduction of the hand. B is the vertically-hanging disk closing the opening A. This disk may be arranged either inside the box, as shown, or outside, so as to open either inward or outward.

To the disk B is connected a lever C, which has an oblique slot at its other end, Fig. 3, and in being pushed through the opening C′ by the inward motion of the disk B on the introduction of the hand it raises a sliding bar D, having pins D′ and D″, Figs. 3 and 5. These pins bear against spring-catches E E′, having teeth F F′, with which they bear at diametrically-opposite points on periphery of the disk G, fixed on the axis H of the crank-handle J K, and having three notches, into which the teeth can enter when disk is brought into certain positions. Of these notches one is at top, diametrically opposite the crank-handle J K, so that when this is in the central or normal position the upper catch E in entering the notch prevents the handle from moving. The other two notches are situated at equal angles on either side of the vertical center line, so that on the catch E being raised out of its notch and the handle being moved to either side until either of the lower notches is in the vertical center line the lower catch E′ will enter it and thus lock the handle in the position into which it has been moved. The raising of the catch E out of the top notch is effected by the upper pin D′ of the sliding bar D when this is raised by the opening of the disk B on the introduction of the hand, as above described. If the handle is then moved to the one side or the other for registering a vote, it will be locked in such position by the lower catch, as described, so that it is not possible to move the handle back again in order to repeat the vote, the handle being only released from the locked position upon the withdrawal of the hand from the hole, as the disk B in closing again will draw back the lever C, thereby causing the slide D to descend and disengage the catch E′ from the notch of G by means of the

pin D″, so that the handle J K can then swing back into its central position, where it will be again locked by the upper catch E. At the moment when the catch E′ enters the one or other of the lower notches a registration of a vote on the one or other of the counter mechanisms will be effected and the voter will know whether he has moved the handle far enough for this purpose by the fact that it then becomes locked in position, whereas if it is not moved sufficiently far to effect a registration it will swing back again when let go of. As the disk G, catches E E′, and slide D are situated behind the partition of the box, they cannot be tampered with by the hand of the voter.

The mechanism for actuating the one or other of the counters is as follows: The spindle H of the crank-handle carries, in addition to the crank-handle J K and disk G, an arm L, having a pin N, Figs. 4 and 7, entering a slot in a sliding piece P, the ends *g g* of which are of rectangular section and slide in correspondingly-shaped guide-holes in supports R, Fig. 3. The slide P carries a bar or double finger S, having inclines formed at its ends. Opposite these inclines are wheels T T, fixed on the axes of the two counter mechanisms *a a*, which wheels have teeth formed with inclines corresponding to those of the fingers, and they have also annular projections U, with a number of teeth or notches corresponding to that of the teeth on the wheels T. Into these notches take the ends of the segmental-shaped arm M, carried by the spindle H, which arm thus locks both wheels T and prevents them from turning the counters.

The apparatus operates as follows: On moving the crank-handle J K, say, to the right the consequent movement of the arm L also moves the slide P, with finger S, to the right, while the arm M turns to the left, thereby passing out of gear with the ring U of the right-hand wheel T, and consequently leaving the latter free to turn. By the time this is effected the incline of the finger S reaches a tooth on the wheel T, and in sliding inward upon the same causes the wheel to turn through a distance equal to the spring of the teeth, or nearly so. When the crank-handle J K has been moved to the extreme angular position, the spring-catch E′, enters the notch on disk G and prevents the handle from being moved back, as already described, and at the same time a spring-pawl V, gearing with the teeth of a ratchet-wheel W, Fig. 3, prevents the wheel T from turning back again. When, on the release of the crank-handle, as described, this swings back to its central position, the disk M will again enter the next tooth or notch of the ring U, and will, in consequence of the inclined surface of such notch, turn the right-hand wheel T to a slight extent farther round in the same direction as that in which it was moved by the finger S, so that this may correctly act on the following tooth when it is again moved in the same direction. When the apparatus is in the normal condition of rest, all parts of the mechanism assume a symmetrical position, in consequence of which, the two wheels T being both locked by the arm M, no movement of the counter mechanism can take place during the carrying, tilting, or shaking of the ballot-box. To enable the counter mechanisms to be set to zero, there is provided in the back inclined surface of the box, Fig. 3, an opening X, through which a key can be introduced upon the end of the spindle H, so that on compressing the spring Y by the key the disk M will thereby be made loose on the spindle H. If now the key be turned first to the left, the arm M will be turned so as to free the right-hand counter mechanism, so that this can be set to zero, after which by turning the key to the right the same can be effected with the left-hand counter. The numbers registered by the counters are read off through openings Z, covered with glass, and also inclosed in any suitable manner during the process of balloting. The counter mechanism can be of any suitable known construction. Figs. 6 and 7 show a modified arrangement for actuating the wheels T of the counter. When using wheels with teeth having inclines, as described, actuated by inclines on the finger S, it would be possible to move the one finger, say, only about half-way, and then to move it back again and move the other finger the full distance, so as to record a vote on the other side. This circumstance would be of no importance if the balloting were continued afterward; but if this action should be effected by the last person balloting the units-wheel of the counter on the side on which the imperfect action was effected would be moved only partly through the required distance, and consequently the numeral of the units would not be in line with those of the tens and hundreds. In order to prevent the possibility of this occurring, the wheels T, instead of being formed with teeth having inclines, may be formed with inclined and horizontal grooves of the form shown at Fig. 6 and the fingers S be provided with projecting studs of rhomboidal shape, as at R^6, the inclined faces being parallel with the grooves of the wheel T. On moving the finger toward the wheel the stud in entering the groove opposite it will effect the turning of the wheel, and consequently, also, the units-wheel of the counter. If the finger be moved through its full stroke, the stud R^6 will on the return motion pass along the horizontal part of the groove and will consequently impart no motion to the wheel thereby. If, on the other hand, the finger were moved back again before completing its stroke, the stud remaining in the inclined groove would cause the wheel T to move back again the same distance which it had moved forward, so that the counter would continue to show the previously-registered unit.

I claim as my invention—

1. In balloting mechanism, the combination

of the disk B, lever C, sliding bar D, with pins D′ D^2, crank-handle J K, spindle H, notched disk G, spring-catches F F′, arm L, slide P, finger with inclines S, wheels T T U U, and segment-shaped arm M, arranged and operating substantially as herein described.

2. In a ballot-box provided with front and rear compartments, the front compartment having an opening therein, the combination, with registering mechanism in the rear compartment and a crank-handle in the front compartment, of a disk pivoted above and adapted to close the opening in the front compartment and connected by means of rod C with the mechanism in the rear compartment, whereby when the disk is moved to uncover the said opening the crank-handle can be operated to actuate the registering mechanism, substantially as set forth.

3. In a balloting mechanism, the combination, with the registering mechanism, of wheels T, provided with inclined and horizontal grooves, and fingers S, actuated by crank-handle J K and provided with studs R^6, which engage said grooves and cause wheels T to move, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT REPPMANN.

Witnesses:
WL. LEVINSKY,
P. PETROFF.