A. B. RONEY. 2 Sheets—Sheet 1.

Registering Ballot-Box.

No. 211,056. Patented Dec. 17, 1878.

Fig. 1.

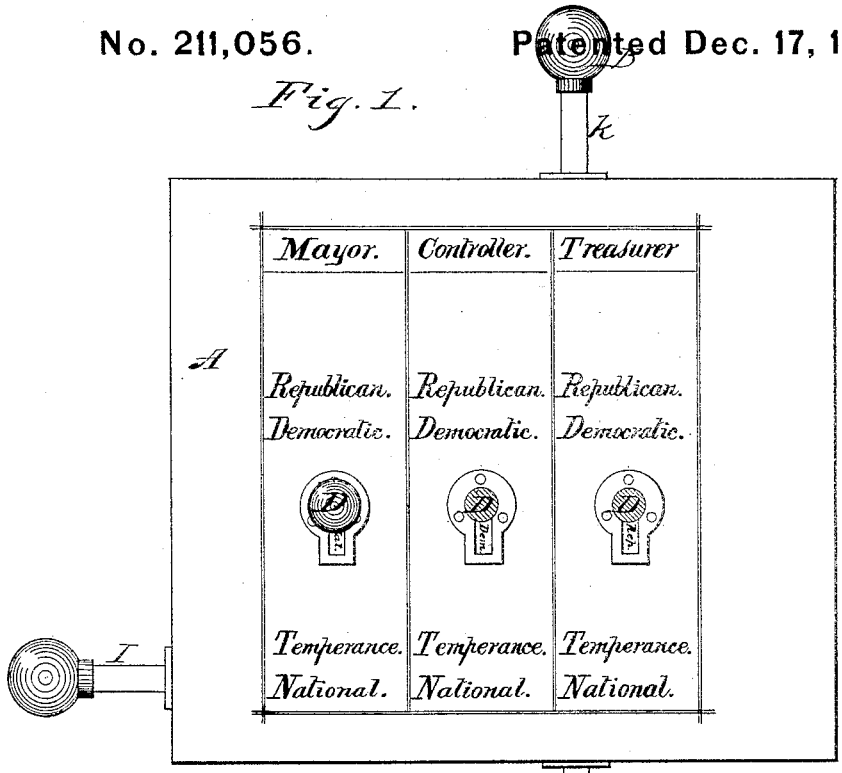
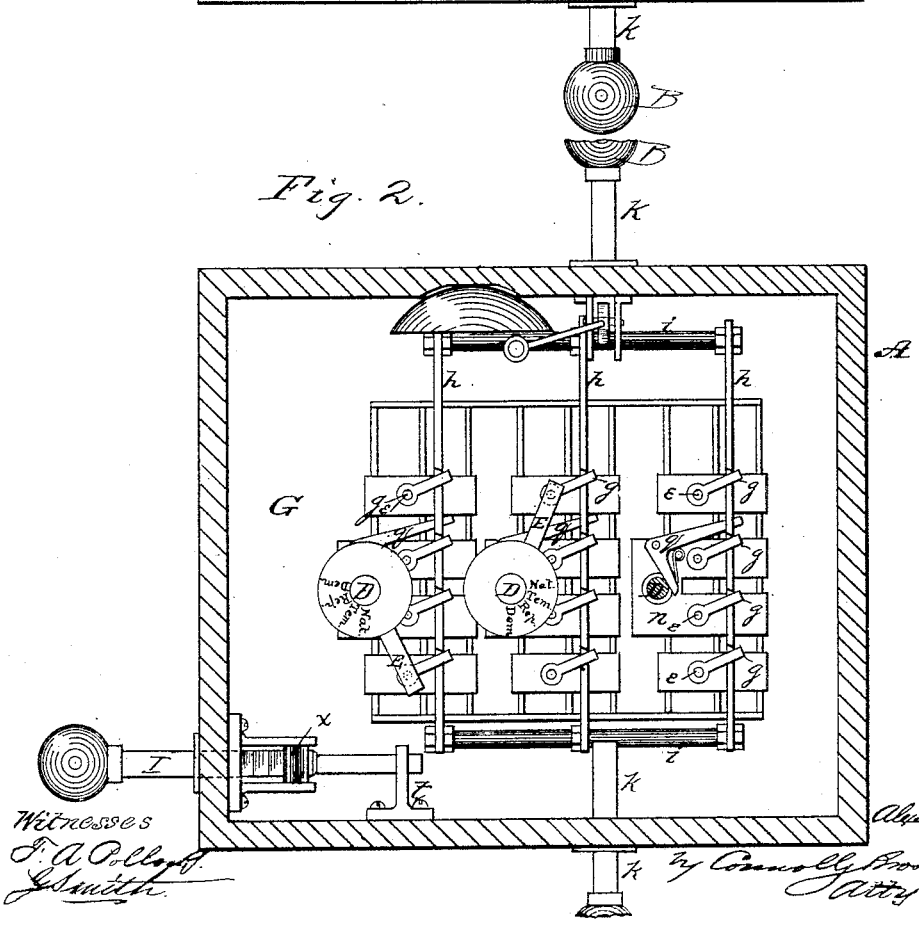


Fig. 2.



Witnesses
F. A. Pollock
J. Smith.

Alexander B. Roney
Inventor
by Connolly Bros & McTighe
Attys

2 Sheets—Sheet 2.

A. B. RONEY.

Registering Ballot-Box.

No. 211,056. Patented Dec. 17, 1878.

Fig. 3.

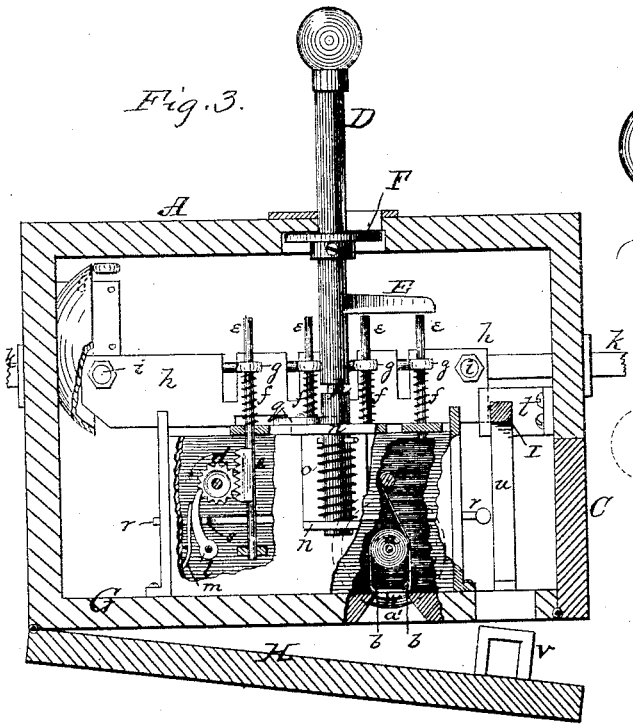


Fig. 4.

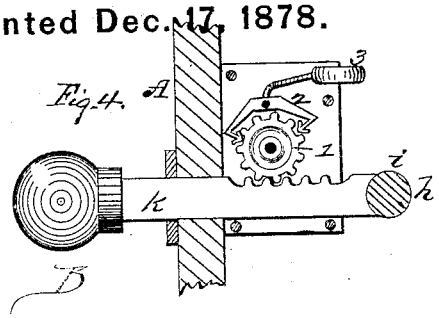


Fig. 5.

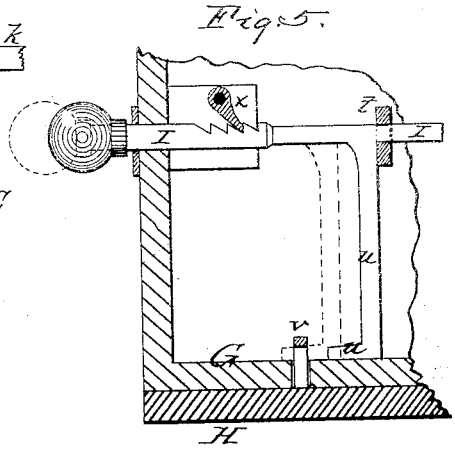


Fig. 6.

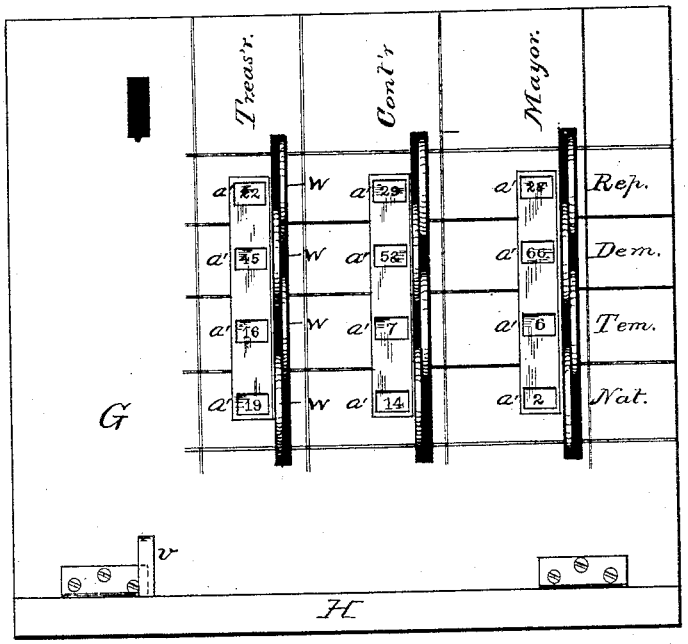
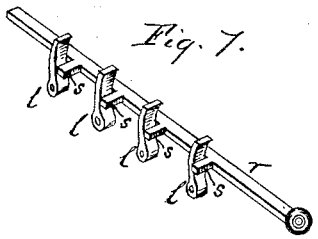


Fig. 7.



Witnesses.
F. A. Pollock.
G. Smith.

Alexander B. Roney
Inventor
by Connolly Bros & McTighe
Attys.

UNITED STATES PATENT OFFICE.

ALEXANDER B. RONEY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO BENJAMIN F. KENNEDY, OF SAME PLACE.

IMPROVEMENT IN REGISTERING BALLOT-BOXES.

Specification forming part of Letters Patent No. **211,056**, dated December 17, 1878; application filed September 14, 1878.

To all whom it may concern:

Be it known that I, ALEXANDER B. RONEY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and Improvements in Universal Registering Ballot-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a plan view of top; Fig. 2, a plan view of interior; Fig. 3, a vertical cross-section, partly broken, to show mechanism; Fig. 4, a detail, showing alarm; Fig. 5, a detail, showing locking devices; Fig. 6, a view of bottom, showing record, &c.; Fig. 7, a detail for winding.

This invention relates to registering ballot-boxes; and consists in the construction, combination, and arrangement of parts, substantially as hereinafter described and claimed.

The object of this invention is to avoid the trouble and waste of time caused by counting the votes, to prevent intimidation, to guard against fraud, to save the cost of elections, and to guarantee satisfaction to the candidates and preserve the purity of the franchise.

To these ends my invention is as follows: In the box A, arranged in suitable bearings, are a number of similar rollers, *a*, placed in groups, each group consisting of as many rollers as there are political parties in the field, and as many groups as there are offices to be voted for. On each roller *a* is wound a separate tape, with numbers, from one upward, printed on its outer face, the highest number being at the center of the coil. The outer end of each tape passes downward and under two friction-rollers, *b b*, so as to present an even surface for inspection through apertures *a'* in the bottom of the box A, thence upward to a shaft, *c*, to which its end is fixed. Thus the revolving of shaft *c* unwinds the tape from *a* and winds it on shaft *c*. On each of the shafts *c*, which are grouped like rollers *a*, is fixed a toothed wheel or pinion, *d*, having its axis horizontal and parallel to rollers *a*. In adjustable relation with each of the wheels *d* is a vertical rack, *e*, set in bearings, and capable of partial revolution and up-and-down motion, being held normally at the highest point by the spring *f*. On turning the rack so as to gear with the pinion, and then depressing it, the pinion revolves, and, revolving, winds the tape a certain length to bring the next number into view at the aperture below. As the racks are all inside the box, it is necessary to give them the two motions from without—a vertical motion to wind the tape a distance of one number, and thus record the vote, and a partial revolution to throw the rack into and out of gear with the pinion, so that after depression the rack may be ungeared to rise again. The latter motion is thus effected: Fixed on each rack is a lateral finger, *g*, all the fingers being arranged in one common direction. All the fingers of each group of racks pass through appropriate slots in a movable bar, *h*, each finger having its own slot, and all the bars *h* being connected at their ends to the transverse rods *i*, which, in turn, are connected to the bars *k*, which pass outside the box A and terminate in knobs or handles B. By now pushing the frame *h i k* one way each rack is at once thrown into gear with its appropriate pinion, and the depression of any one will record a vote; and by pushing the frame in the opposite direction all are released, and then depressing the racks cannot record a vote at all.

Mechanism, to be described further, is provided, by which an alarm is sounded, by motion of the frame in either direction, to proclaim, first, the recording of the vote, and, second, the preparation for another. Were the spring *f* free to act at all times, it would at once force up the rack after depression, which might give room for confusion or fraud. I prevent this. To the frame-work, near each pinion, I pivot a pawl, *l*, its point pressing into the face of the pinion by a spring, *m*, and so arranged that it permits revolution when the rack is depressed, but engages the pinion and prevents revolution in the contrary direction; and as the rack is still in gear, it, too, is held down securely; and hence, when a rack is once depressed to record a vote for any can-

didate, the voter can not record a second until the rack is released and regeared; but as this must be done by reciprocating the frame, two alarms would be struck to notify the public that the voter or judges are tampering.

As before stated, there is a separate rack, pinion, and tape for each candidate and each office, and it becomes necessary to provide some means of depressing any one of the racks from without the box. Now this might be done by using a separate button for each rack; but then there would be no security against fraud, since, while the voter is absorbed in properly recording his vote, an unscrupulous and dexterous hand might be engaged in recording votes for other candidates. I prevent this by operating all the racks of each group from one common source, which can be adjusted to any of the racks at will, and when once operated cannot again be used without sounding the alarm.

Alongside each group of racks is placed a vertical rod, D, which I call the "voting-post." This is stepped in two bearings, *n n*, between which a spring, *o*, surrounds it, which forces it up when free to move. Post D can be turned and reciprocated. An arm, E, projects laterally from the post, of such length as to reach over the farthest rack of the group to which it belongs. A disk, F, is fixed to the post, just beneath the cover of the box, and on this disk are radially marked the names of the political parties in the field, and in the cover of the box is a slit just wide enough to allow one name to be seen at a time. By rotating the post any desired party can be brought to view under the slit, thus indicating to the voter that the arm E has swung around to a point immediately above the rack belonging to that party. Then, by simply forcing down the post D, its arm E pushes down that particular rack of the group, and the vote is recorded; but it is necessary to prevent that post from being used a second time without sounding the alarm. I make a groove or shoulder, *p*, on the post D, and pivot a spring-actuated elbow-lever, *q*, on the frame-work pressing normally against the post. The other end of lever *q* passes through a slot in the plate or bar *h*. When, now, the post is pushed down to record a vote, the lever *q* flies into the groove or over the shoulder, and prevents its return upward. This can be effected only by pushing the frame *h i k* till the slot-edge forces the lever *q* out of the groove *p*. Thus one motion of the frame serves to disconnect the racks and release the post. The motion, of course, sounds the alarm. Thus one voting-post for each office will record votes for any candidate running for that office, prevent fraud in the record, and allow the independent voter to vote his ticket as readily as the straight-out partisan. No tickets or ballots or "stickers" are required. The ignorant voter is not at the mercy of unscrupulous men, who insist upon "scratching" his ticket or resort to sleight-of-hand to cause him to unsuspectingly deposit their ticket instead of his own.

There is an alarm sounded as preparation for a voter, and one after he has voted all his candidates. Should there be more alarms the bystanders hear them, and at once know that fraud is going on, and can bear witness against it.

To permit rewinding of the tapes, when required, after having done duty, I fix to each tape-roller a large wheel, W, whose periphery projects through openings in the inner bottom of the box, so as to be accessible to authorized persons. I release the pinions for winding by means of the sliding rods *r*, one for each group, having the spurs *s* at proper intervals, so that when the rod *r* is pushed inward the pawls are all forced away from their pinions, and winding can be effected.

To obtain access to the rods *r*, I construct the box with a side door, C, which only opens after the secondary bottom is opened. The bottom G is fixed and immovable, and has the reading-apertures covered with glass to prevent access to the tapes. Below this is a secondary bottom, H, of opaque material, hinged to the box, closing against the butt of the door C, and preventing inspection of the tapes except when open; but to open it, I so construct it that the act of unlocking the bottom H instantly renders the whole registering mechanism incapable of recording a single vote, and the box cannot again be made ready for voting except by an authorized person carrying the means of so doing.

A bolt-rod, I, passes through one end of the box, and is guided inside by the standard *t*. A hook-bolt, *u*, depends from the rod, and engages the keeper *v*, which is attached to the bottom H, and passes up through a slot in the bottom G. Rod I, bolt *u*, keeper *v*, and frame *h i k* are so disposed relatively that the inward thrust of rod I necessary to disengage bolt *u* from keeper *v*, and unlock bottom H, cannot be given until the frame *h i k* is pushed out of its way; but this motion of the frame throws all the racks out of gear with their pinions, so that, even if the racks be now surreptitiously depressed, no recording can be done on the tapes.

To prevent the relocking of the bottom by unauthorized persons, I cut ratchet-teeth in the rod I, into which plays a pawl or detent, *x*, accessible only to one having a suitable key. When rod I is pushed in the detent catches it and prevents its return until a key is inserted and the detent lifted. By keeping such key in court, or wherever the returns are officially counted, that kind of fraud at the polls known as "stuffing the ballot-box" is effectually prevented.

The alarm can be effected by cutting a rack on one of the bars *k*, and gearing into it a pinion, 1, with an anchor-escapement, 2. Thus the motion of the bar *k* in either direction rocks the anchor 2, and a hammer, 3, attached to it strikes the gong 4.

I do not confine myself to this construction, however, as various means of striking an alarm by the reciprocation of the frame can be devised by any ordinary mechanic.

The box is permanently closed upon the recording mechanism, no opening existing for tampering save the reading-apertures, and these are covered with glass plates. As additional precaution, combination-locks may be provided for the door C and the bottom H.

I wish it understood that I do not confine myself to the precise construction of parts herein described, as a skilled mechanic might readily find equivalents.

What I claim is—

1. The combination of rack *e*, its eccentric finger *g*, and slotted bar *h* to govern the finger, for the purpose of rendering the rack operative or inoperative, as desired.

2. An adjustable voting-post, D, in combination with and controlling the movements of an indicator inside the box having the political parties or the names of the candidates marked thereon, and the whole so arranged that the different names may be brought to view by the rotation of the post.

3. The combination of a group of vertically-reciprocating racks with a rotating and reciprocating voting-post, D, having an arm, E, to operate the racks, and capable of automatic locking when depressed.

4. The combination of a series of wheels, *d*, racks *e*, springs *f*, and fingers *g* with the reciprocating slotted bar *h* and an alarm sounded by the reciprocation of said bar *h* in either direction.

5. In a registering ballot-box having reading-apertures on one face, and in combination therewith, a secondary opaque cover for that face provided with a lock so constructed and located, substantially as described, that the registers must be disconnected from their actuating devices before the said cover can be unlocked.

6. In a voting apparatus, the combination of rod I and its bolt *u* with the secondary opaque cover H and keeper *v*, substantially as described.

7. In a voting apparatus, the combination of rod I, having ratchet-teeth formed thereon, with the pivoted pawl, substantially as described, whereby, when the bolt is pushed in to unlock the cover H, the pawl prevents its return, and thereby maintains the registers in a useless condition.

8. The combination of the grooved or shouldered voting-post D, the spring-actuated elbow-lever *q*, and the slotted bar *h*, substantially as described, whereby the same movement of frame *h i k* releases the rack and voting-post.

9. The combination of the numbered tapes, rollers *a*, and wheels W, shafts *c*, wheels *d*, and spring-pawls *l* with the rod *r*, having lateral spurs *s*, substantially as described, whereby rewinding of the tape can be effected from the exterior.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of August, 1878.

ALEXANDER B. RONEY.

Witnesses:

A. V. D. WATTERSON,

MARSHALL BROWN.