

M. J. SHINN.  
 APPARATUS FOR DETECTING FRAUD IN BALLOT BOXES.  
 No. 30,503. Patented Oct. 23, 1860.

Fig. 1

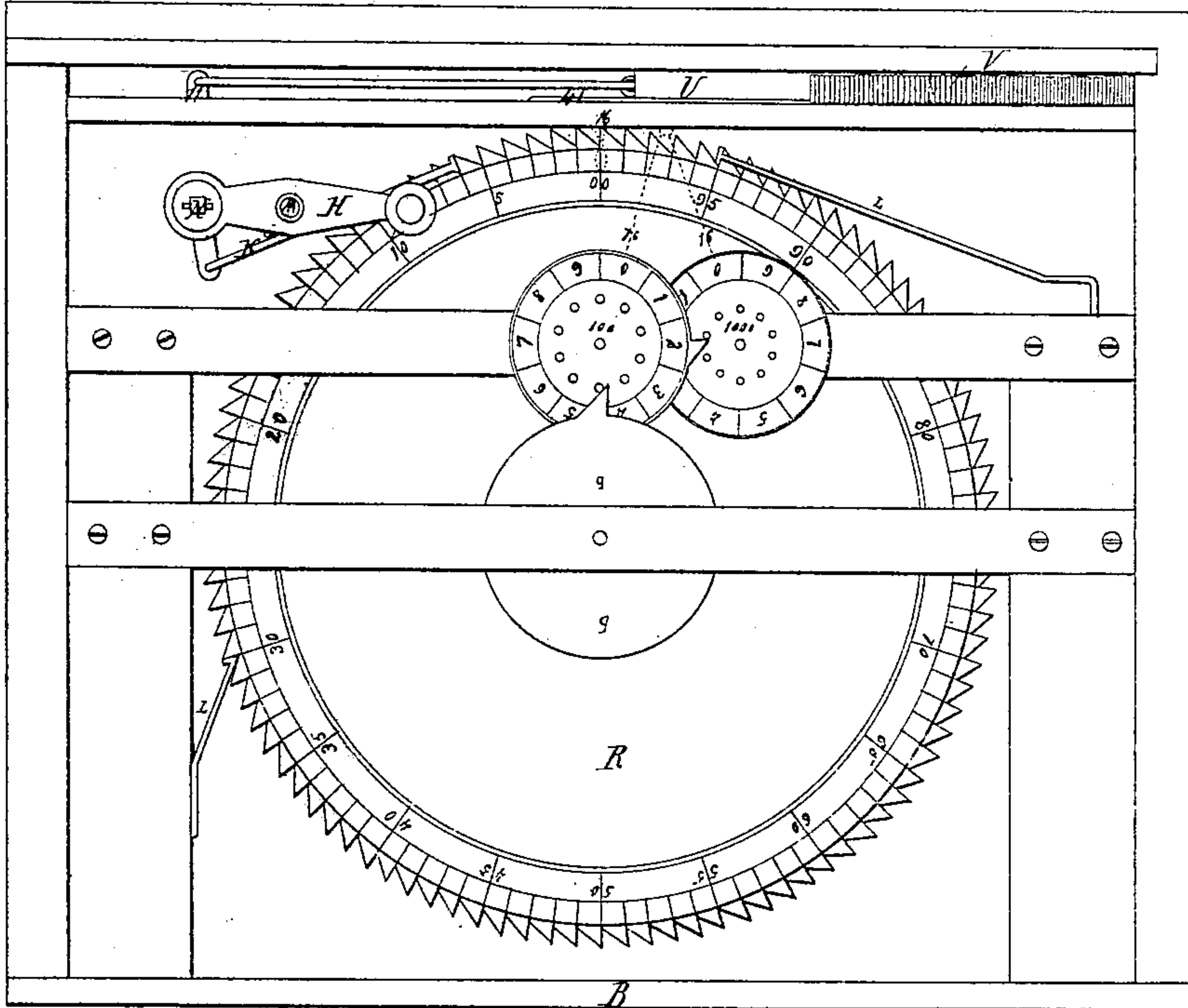
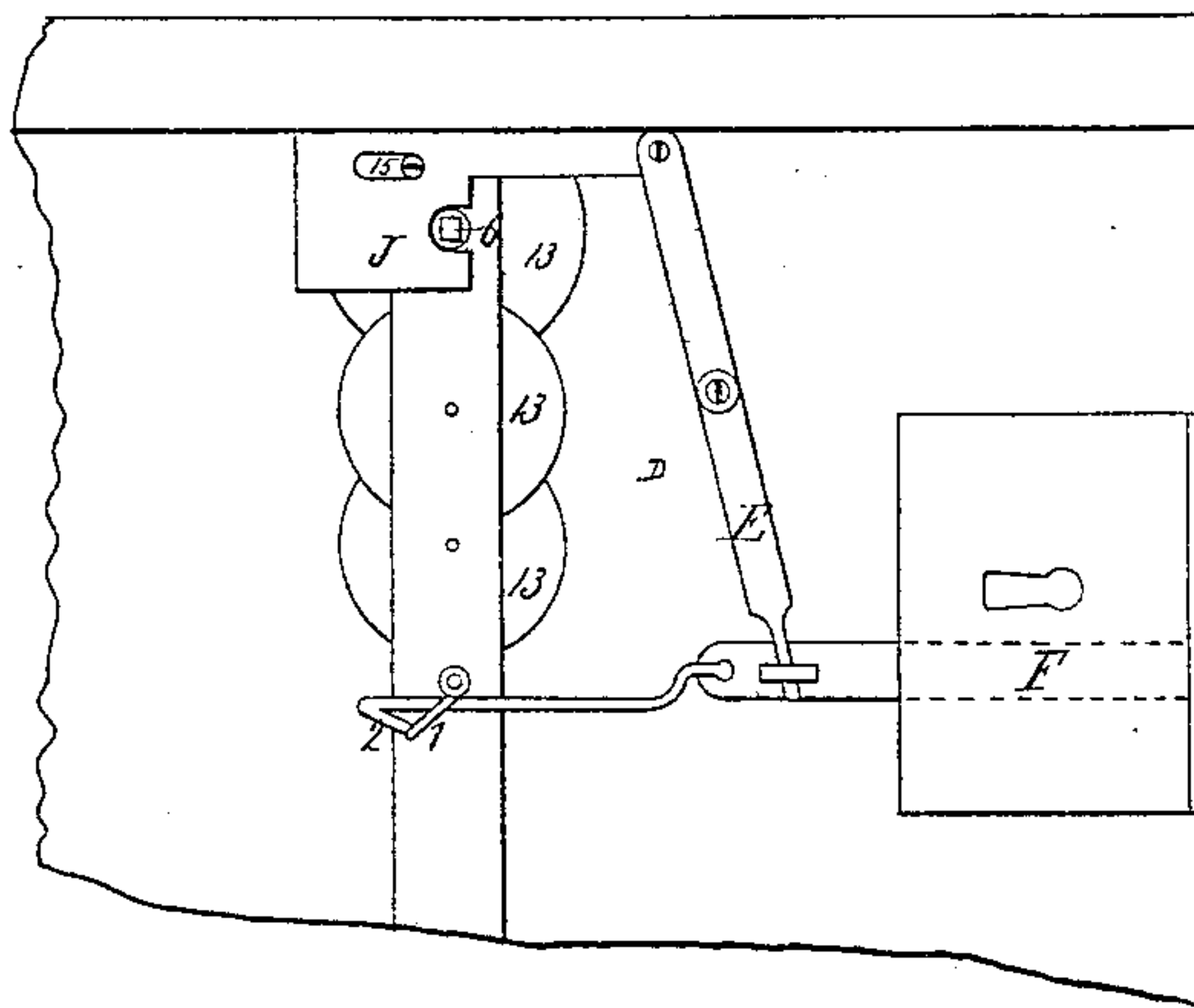


Fig. 4



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 John Finley  
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Inventor;  
 Miles J. Shinn

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Fig. 3.

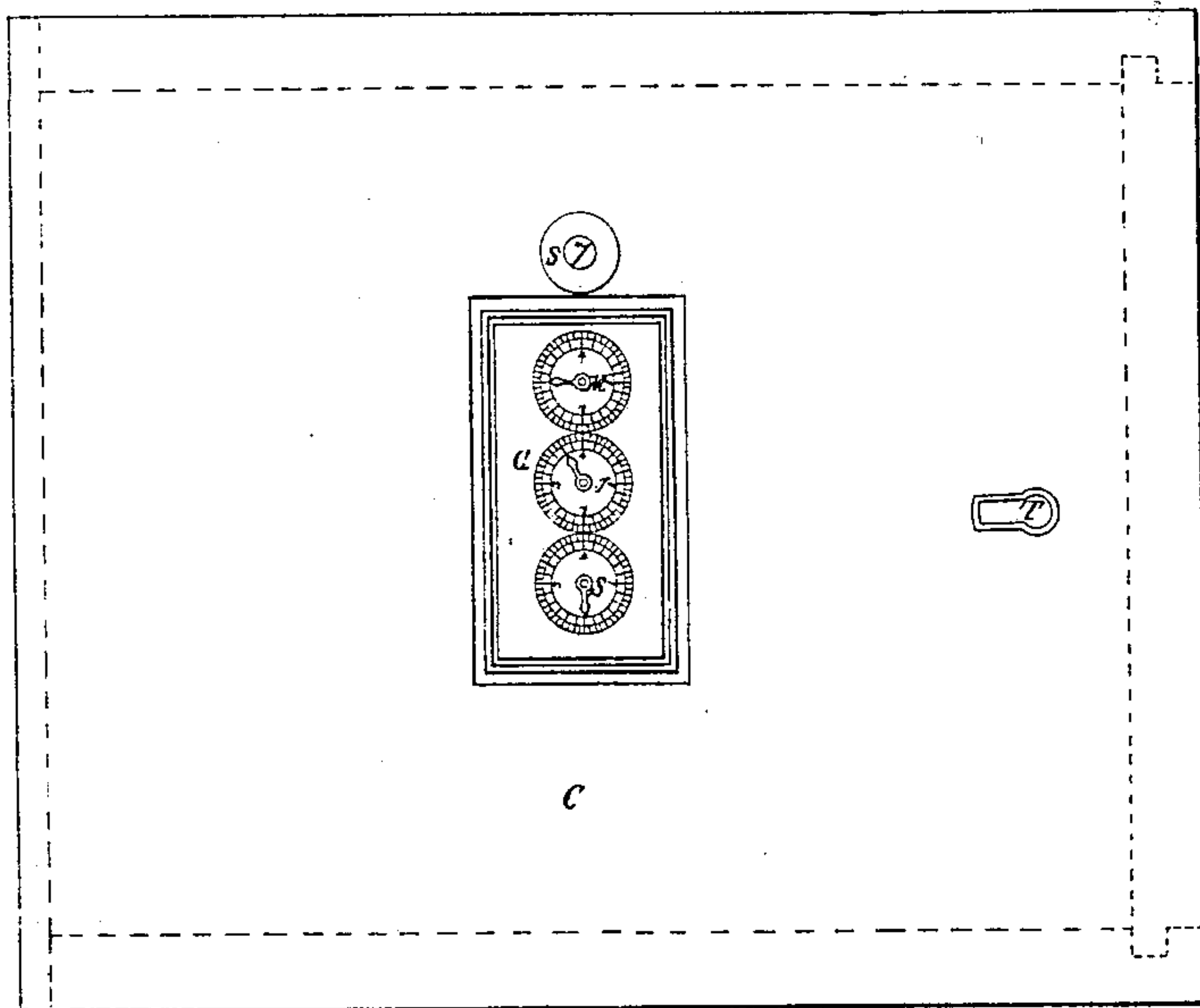
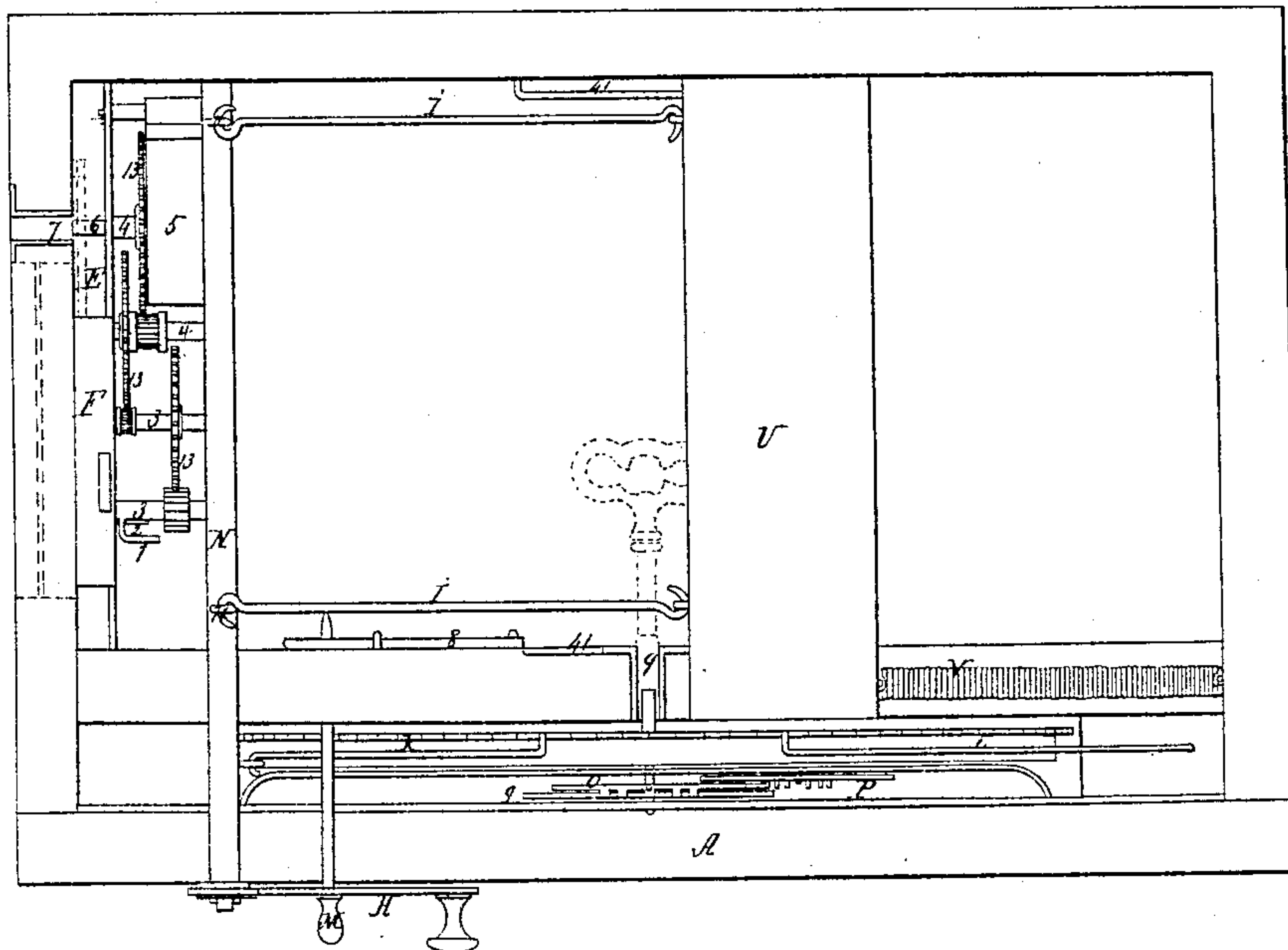


Fig. 2.



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# UNITED STATES PATENT OFFICE.

MILES J. SHINN, OF RICHMOND, INDIANA.

## APPARATUS FOR DETECTING FRAUD IN BALLOT-BOXES.

Specification of Letters Patent No. 30,503, dated October 23, 1860.

*To all whom it may concern:*

Be it known that I, MILES J. SHINN, of the city of Richmond, in the county of Wayne, and State of Indiana, have invented a new and useful Improvement in Self-Registering Ballot-Boxes; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and characters of reference marked thereon, which form part of this specification.

My invention relates to the method of registering the ballots, as they are deposited in a locked box; and to a device for detecting any attempt to open said box in the absence of the parties empowered to examine and record the votes. The device for registering the votes, I distinguish by the term "registrar"; and that for indicating any attempt to open the lock of ballot box, I distinguish by the term "detector".

In order that those properly skilled, may be enabled to construct, and use my invention, I proceed to describe the various points in detail, as well as to explain the mode of operation of the separate devices.

In the accompanying drawings: Figure 1, is a side elevation of a ballot box, having the side removed, so as to show the machinery for registering the ballots. Fig. 2, is a plan of box, having the cover removed, for the purpose of showing the machinery both of "registrar" and "detector". Fig. 3, is a front elevation of ballot-box showing dial-plates of detector, etc. Fig. 4, more clearly shows the connection of detector with the lock of ballot box.

First, in reference to the "registrar", Figs. 1, and 2. In the lid or cover Z of the box, is a slit, or oblong aperture *a*, through which the ballots are slipped, when being deposited in the box; but, close below the lid Z lies a slide U, which closes the slit *a*, and thus prevents the ballots being slipped in, until it is slid forward clear of said slit. (Otherwise, in this slide U, a slit or aperture corresponding to that in lid Z, may be made so that when said slide is moved forward a given distance, the two apertures may coincide, and thus permit the ballots to pass into the box.) In order that this slide U, may be moved away from the slit *a*, when required, the following device is provided: N is a rocking shaft, journaled in the sides A, A, of the box, and passing through one of said sides. To that end

of shaft projecting through the side of box, a handle or thumb-lever H, is keyed for the purpose of rocking the same. This shaft N, bears two short arms or levers (marked No. 11) to which the rods I, I are attached; the other ends of which rods are attached to slide U. Upon elevating the thumb-lever H, the shaft N, is rocked, and the arms 11, 11, by means of the rods I, I, draw forward the slide U, so as to unstop the slit *a*, before mentioned. After the ballot is deposited, the helical spring V, draws back the slide to its former position. A draw pin M, passing through an aperture in lever H, and through the side A, of box, and being secured by a spring catch 8, inside of box, prevents the slide U, being operated for the introduction of ballots until it is withdrawn; and this cannot be effected without opening or removing the lid Z.

R, is a large ratchet wheel having one hundred (100) teeth, and being numbered on its face in the manner of a dial to correspond with said teeth. On the rocking shaft N is a short arm *b*, over and above those already described, to which arm is attached a falling lever *k*; said lever being bent at its free extremity, which extremity rests on teeth of ratchet wheel R. When the shaft N is rocked for the purpose of permitting a ballot to be deposited, the arm *b*, pushes forward the lever *k*, the extremity of which, stopping against the shoulder of ratchet tooth, drives forward the wheel R, one degree, and thus registers "one." Spring catches L, L, now prevent the wheel from moving backward, and the slide U, being drawn back by spring V, rocks the shaft N, into its first position: the lever *k*, being now drawn back, slides over the incline of ratchet tooth, and drops into position for driving forward the wheel R, at the next ballot. When the wheel R has made one revolution, a projecting pin, on disk *q* (which disk is keyed on shaft of ratchet wheel, and revolves with it) catching on the rung *c*, of dial wheel O, turns it forward one degree, and thus registers "one hundred." When this dial wheel O, which has 10 rungs, has made one revolution, a projecting pin *d*, catching on the rungs *e*, of dial wheel P, turns the same forward one degree, and thus registers "one thousand." Stationary pointers or index fingers to each disk or dial, indicate at any time the combined or total number of ballots registered. By means of a key 9, the



dials of "registrar" may all be set at zero before commencing to receive ballots. Next, in reference to the "detector," Figs. 2, 3, and 4. The detector consists of an ordinary 5 piece of clockwork, comprising two, three, or more toothed wheels 13, gearing the one into pinions or trundles on the shafts of the other; and each wheel being provided with a pointer and index-dial M, J, S, as 10 shown at G, Fig. 3. A main-spring on the first wheel 4, giving motion to the whole, and the shaft or axle of the same spring-bearing wheel being formed into a key staple, and placed opposite to a key hole in front 15 of box as shown at 7, for the convenience of "winding up" the apparatus.

F, is the lock which secures the lid of ballot box from being opened; T, is the key hole. To the bolt of the lock *g*, a bent wire 20 arm 2, is attached, which when the bolt is shot out or "locked", catches against a stop 1, on the axle or rim (either will do) of one of the clockwork wheels. By this means the detector when wound up is prevented 25 from running down. A lever E, pivoted at *f*, is likewise attached at one end to lower end of bolt of lock, *g*, and at its other end is attached to the long arm of a sheet-metal plate J, which is notched out for the key 30 hole of clockwork 6, 7. In the drawing (Fig. 4.) the bolt is shown shot out; that is to say the box is supposed to be locked. It is possible in this condition of things to wind up the detector.

35 Let it here be understood that the number of teeth in each wheel is made to vary greatly from that on the others; as for instance, the first wheel may have 90 teeth; the second 79; and the third 134; also, that the number 40 of rungs in the trundle pinions on each axle shall also vary from each other, and shall be in no regular ratio to the number of teeth on the wheel gearing therewith. For instance, the pinions in gear with the wheel 45 of 90 teeth might have 7 rungs; that gearing with wheel of 79 teeth, may have 10 rungs; and that gearing with wheel of 134 teeth may have 9 rungs. By this arrangement, supposing the spring to be wound up, 50 and the index attached to each wheel and axle to be set at zero on their respective dials; it will require an immense number of revolutions of the wheels before their in-

dices would again all point at zero; as the doctrine of progression and permutations 55 will show; and as, in winding up the device, the wheels do not move backward (the spring being attached to an independent cylinder on the axle of its wheel, which is so set as to move backward on winding up 60 without affecting its wheel; but in moving forward or unwinding, carrying it forward with it) it would be impossible to retrace the course of the indices to arrive at the starting point. Now suppose the ballot box to be 65 locked, and left in charge of an officer; the detector is wound up, and each of the judges record the readings on the several dials in front. If during their absence, any one possessed of a key should attempt to with- 70 draw the bolt, or unlock the box, the least success depresses the arm 2, liberates the catch 1, and the detector begins to run down; at the same time the lever E has raised up the plate J, and covered the key hole 7, of 75 spring (or detector) and thus prevents their holding back the device by means of a key: thus the crime will be detected by the judges when they return and compare their notes with the altered state of the indices. 80

The advantages of my invention are increased security against fraudulent practices at elections, and consequently, an increased guarantee to electors that the suffrages of the majority will elect the "running" can- 85 didate. Its value is scarcely overestimable.

Having fully described my invention, and the mode of its operation, and its advantages, I proceed to state what I claim, and what I desire to secure by Letters Patent: 90

1. The "detector" herein described, or any equivalent for the same, attached to a ballot box, to indicate and expose tampering with the lock or cover of the same.

2. The device described as a "registrar" 95 for registering the number of votes polled; consisting of ratchet wheel R, index wheels O, and P, slide U, rocking shaft N, with arms 11, 11, and *b*, and thumb lever H, together with lock-pin M, falling lever *k*, stops 100 L, L; all arranged substantially as and for the purpose set forth.

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Witnesses:

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