

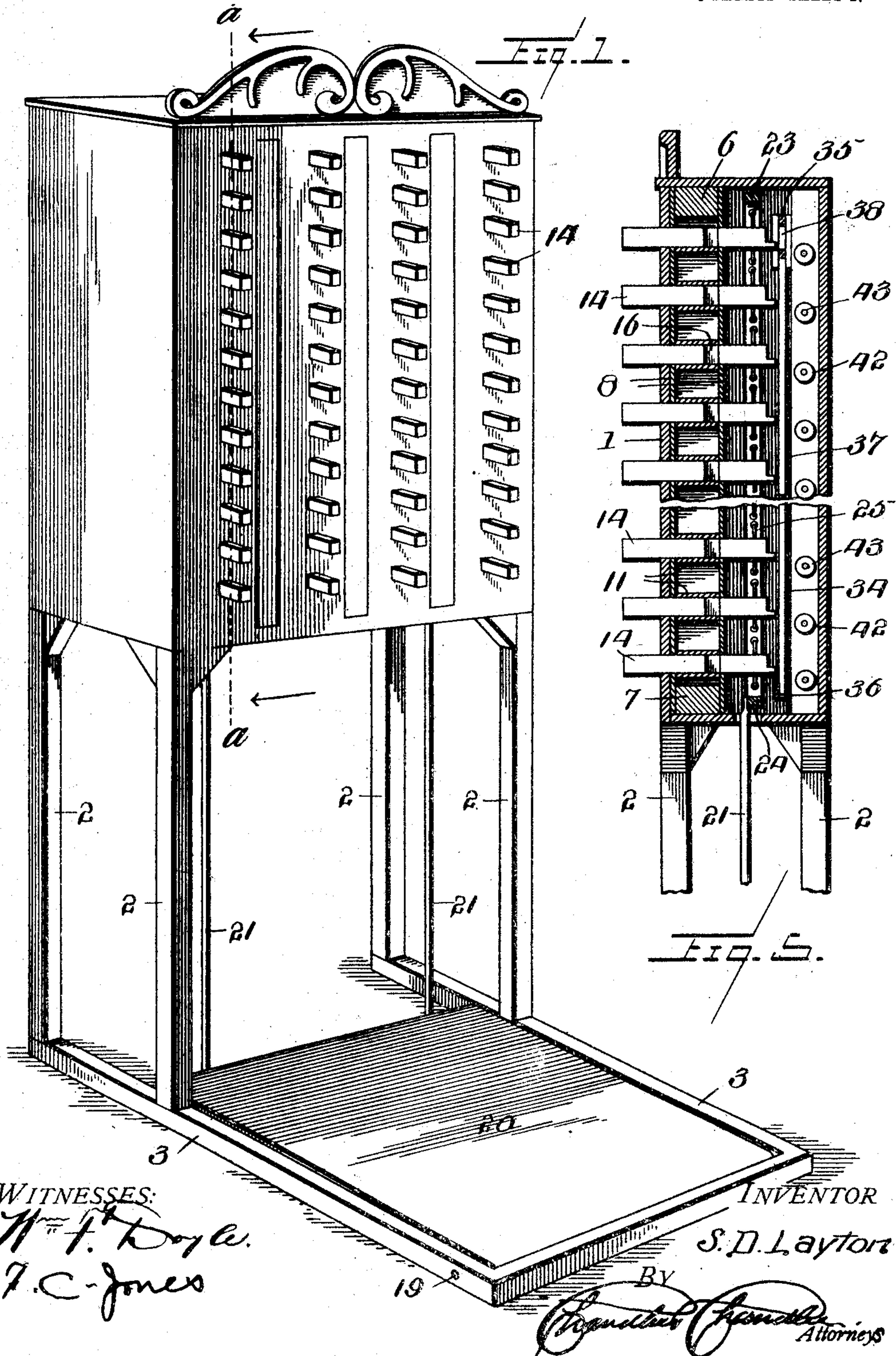
No. 812,938.

PATENTED FEB. 20, 1906.

S. D. LAYTON.  
VOTING MACHINE.

APPLICATION FILED NOV. 14, 1903.

3 SHEETS—SHEET 1.



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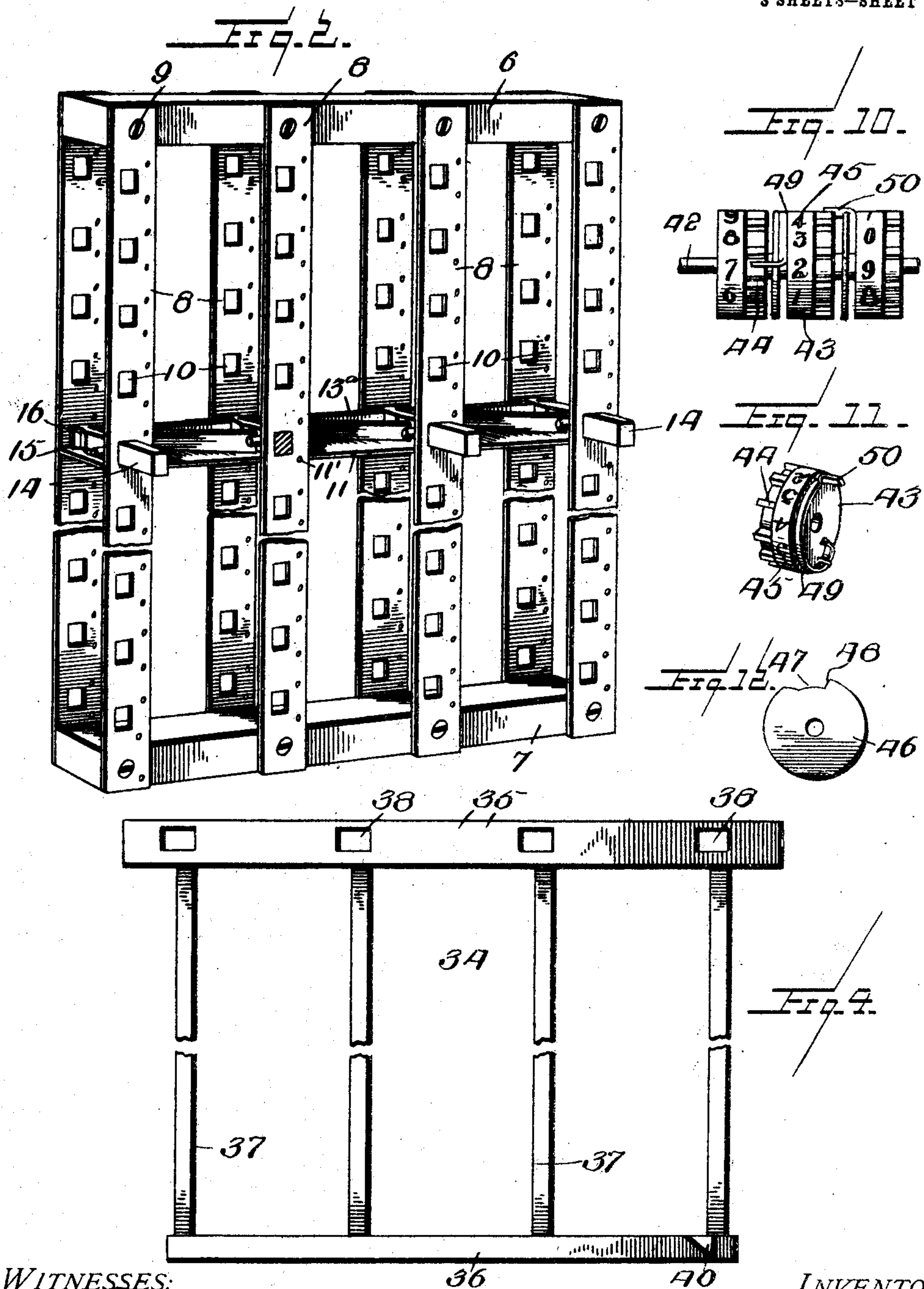
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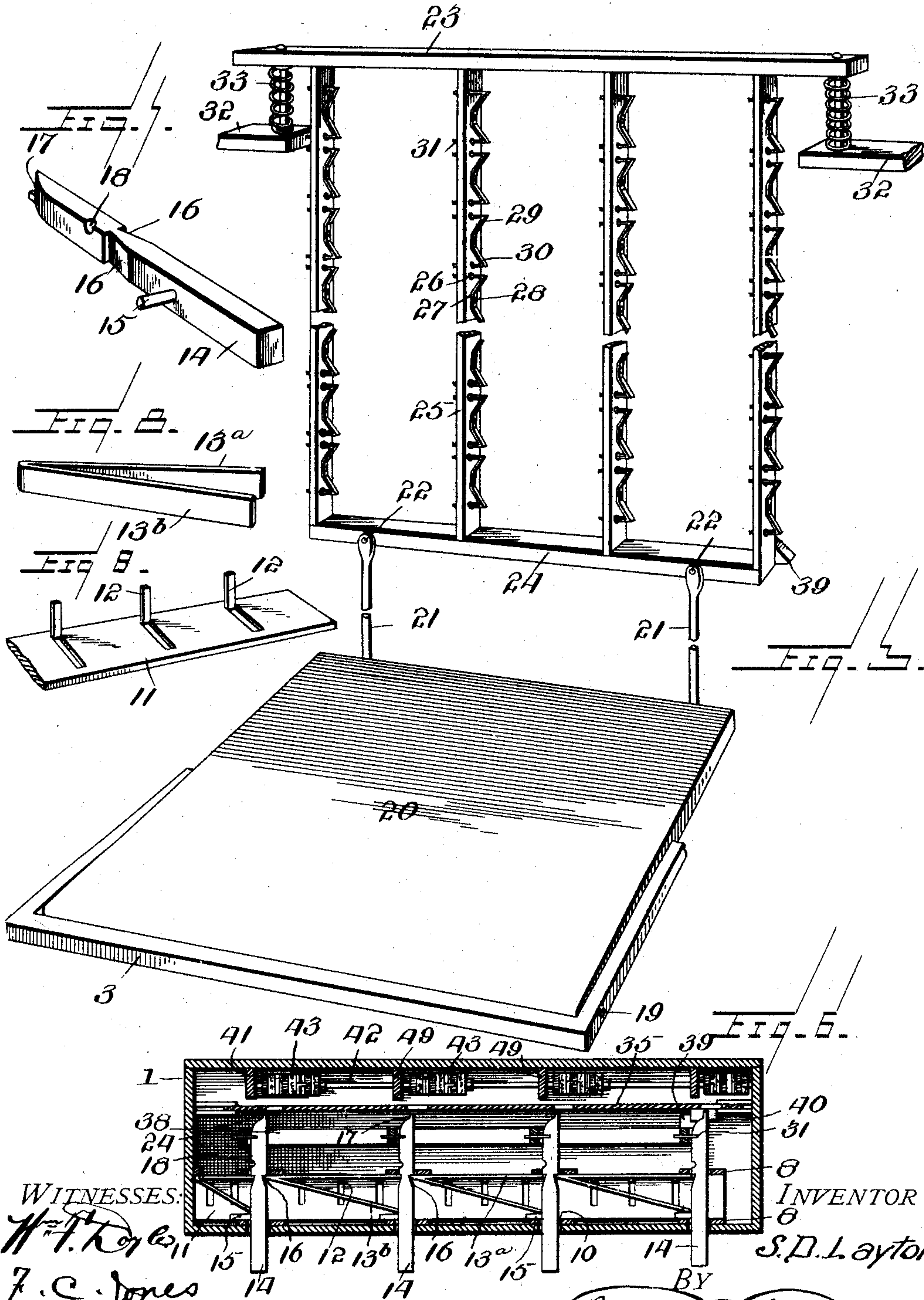


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# UNITED STATES PATENT OFFICE.

STEPHEN D. LAYTON, OF WESTPORT, INDIANA.

## VOTING-MACHINE.

No. 812,938.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed November 14, 1903. Serial No. 181,235.

*To all whom it may concern:*

Be it known that I, STEPHEN D. LAYTON, a citizen of the United States, residing at Westport, in the county of Decatur, State of Indiana, have invented certain new and useful Improvements in Voting-Machines; 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 appertains to make and use the same.

This invention relates to voting-machines, and has for one of its objects to provide an exceedingly simple, cheap, and compact structure capable of easy and accurate manipulation.

Another object resides in the registering of votes cast, the voter manipulating the vote casting and registering mechanisms simultaneously.

A further object of the invention is to provide a structure wherein the weight of the voter is adapted to shift certain mechanism, whereby the device may be rendered operative and inoperative.

A still further object of the invention resides in a mechanism of the above-named character wherein the voter may operate the same as a unit when it is desired to vote a straight or full ticket.

With these and other objects in view the present invention consists also in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of the invention. Fig. 2 is a detail perspective view of the key-carrying frame. Fig. 3 is a detail perspective view of the movable or intermediate frame for retaining the push-buttons or keys when pushed into engagement with the registering mechanism. Fig. 4 is a front elevation of the movable frame for use in the manipulation of a full or straight ticket by the movement of a single button or key. Fig. 5 is a vertical sectional view on the line *a a* of Fig. 1. Fig. 6 is a horizontal sectional view of the vote-casting mechanism, the top of the casing and upper horizontal member of the key-carrying frame being removed. Fig. 7 is a detail perspective view of one of the push-buttons or keys. Fig. 8 is a detail perspective view of one of the V-shaped springs. Fig. 9 is a detail perspective view of a portion of one of the

shelves, illustrating the "struck-up" portion which coacts with the V-shaped springs. Fig. 10 is a front elevation of the registering mechanism. Fig. 11 is a detail perspective view of one of the registering-wheels, including the pawl or spring member carried thereby. Fig. 12 is a face view of one of the washers for spacing the registering-wheels.

Referring now more particularly to the accompanying drawings, the reference character 1 designates a suitable casing, preferably rectangular in cross-section, which is mounted at the desired elevation upon legs or other suitable supports 2, which in turn are secured at their free or lower ends in any suitable manner upon the base-frame 3. The front of this casing is preferably made up of vertical slats or strips of metal or other suitable material, each strip having alining openings 5 arranged throughout its length for a purpose presently explained.

Disposed within the casing 1 and adjacent to the front face thereof is a key-carrying frame comprising upper and lower horizontal strips of wood or other suitable material 6 and 7, having oppositely-disposed vertical strips of metal or other material 8 secured to their respective edges by means of screws or other means 9, the oppositely-disposed strips having corresponding alining openings 10 arranged throughout their length, the frame being secured within the casing with the openings in the strips thereof arranged to correspond with the openings 5 in the casing. Arranged within the said frame between the vertical strips and beneath each set of corresponding openings thereof are a series of shelves 11, of metal or other suitable material, each shelf having an upwardly-directed portion 12, formed, preferably, by being struck up therefrom. It is to be understood, however, that these portions 12 of the shelves 11 may be separate therefrom and otherwise secured thereto, if desired. These shelves are preferably supported between the said vertical strips by means of bolts or other means 11', which pierce the vertical strips, as shown. The upwardly-directed portions of the shelves are disposed at the rear thereof and otherwise arranged to permit the closed end of the V-shaped springs fitting therebetween and the rear vertical strip 8, the closed end of the spring fitting in the notch of one key and the free ends or leaves of the springs being separated and directed toward the in-



ner faces of the oppositely-disposed pair of strips and in contact with the keys 14, permitting the lateral projections 15 of each key to engage therewith for a purpose to be now explained. The keys 14, just alluded to, are preferably rectangular in cross-section to correspond with the preferably rectangular-shaped openings in the casing and first-mentioned frame and through which they are adapted to slide freely, each key sliding upon the lowermost shell 11 of each pair and provided with oppositely-disposed grooves or notches 16, one of which is engaged by one leaf 13<sup>a</sup> of the adjacent V-shaped spring and the other leaf 13<sup>b</sup> adapted to be engaged by the lateral projection 15 of the key. Intermediate the beveled end 17 and the grooves or notches 16 of each key and formed in one side thereof is another notch or groove 18 for a purpose presently understood.

Mounted for rocking movement upon the shaft or pivot-pins 19, within the base-frame 3, is a suitable platform 20, fixedly secured to the rear of which and extending upwardly therefrom are arranged suitable vertical rods 21, having connection at their free ends, as at 22, with a frame comprising upper and lower members 23 and 24, respectively, and equidistant vertical strips 25. Secured upon each of these vertical strips 25 and between each pair of perforations 26 are arranged peculiarly-formed springs having their flat portion 27 secured thereto by means of a suitable fastening 28, with their portions 29 and 30 bent outwardly therefrom and then inwardly, as at 31, to form guide-pins for work within the perforations 26, the purpose being hereinafter explained. The upper cross member 23 of this last-mentioned frame is preferably of greater length than the lower member 24, and extends beyond the outermost vertical strips 25 and directly over suitable supports 32, arranged within the casing 1, and with which supports said cross member is secured in any suitable manner by the coil-springs 33. By reason of this peculiar manner of mounting the second-mentioned frame a vertical yielding movement thereof is permitted when the platform 20 is depressed and raised, consequently throwing the vertical strips and the peculiarly-mounted springs mounted thereupon into and out of alinement with the openings in the key-carrying frame, as well understood. It will be noted that this second-mentioned frame is of lighter weight than the key-carrying frame, and that the vertical strips of the former are not as great in width as the vertical strips of the latter, and that the strips and the peculiarly-formed springs mounted in the second-mentioned frame are disposed a little to one side of the series of openings arranged in the first-mentioned frame. A frame 34, having upper and lower horizontal members 35 and 36, connected by vertical strips 37, is slidably

mounted within the casing 1 in the rear of the second-mentioned or intermediate frame, and in the upper horizontal member 35 thereof there is formed a series of openings 38, which are preferably arranged to one side of each vertical member of the frame. It will of course be understood that the casing 1 is of such dimensions as to permit of a vertical movement of the intermediate frame and a sliding movement of the frame 34. In order that the operation of the device may be readily comprehended, it will be stated as follows:

The names of the candidates of each party are placed upon each strip of the casing opposite a push-button or key, and if it be desired to vote for candidates of different parties the voter steps upon the platform 20, thereby drawing the intermediate frame downward. As he pushes a key inwardly the lateral projections 15 of the latter will force the leaf 13<sup>b</sup> of the V-shaped spring 13 inwardly toward the leaf 13<sup>a</sup> thereof, the corner groove or notch 18 engaging the portion 29 of the springs carried by the intermediate frame, where the key is held until the voter has cast all the votes he desires, when, by stepping off the platform, the intermediate frame will move upward to its normal position, releasing the key from said spring, the V-shaped spring serving to throw the key back to its normal position. When the key has been pushed inwardly a sufficient distance—that is, when the corner-notch of the key has become engaged with the springs of the intermediate frame—the end of the key contacts with suitable registering mechanism, hereinafter explained, and registers the vote. When the key is pushed inwardly, the V-shaped springs on opposite sides thereof are forced laterally by reason of the fact that they ride upon the inclined faces of the grooves or notches 16, causing the remainder of the V-shaped springs to bite into the respective keys with which they may contact and prevent them from being pushed inwardly. In other words, the keys are permitted to move laterally by reason of the space therebetween and the edges of the openings in which the keys slide and for the further reason that the spring nature of the leaves of the V-shaped elements give or bulge accordingly, forcing the adjacent keys laterally, the sides of the openings aforesaid being such as to permit the lateral movement of the keys. It might be stated further that the short V-shaped spring member shown at the left of Fig. 6, though short and fitting in within a comparatively small space as compared with the distance between the keys, has one, if not both, of its leaves operate in the manner set forth above in connection with the V-shaped springs. Hence it will be seen that but one key can be pushed at a time, rendering all possibility of illegal vot-



ing out of the question. In other words, a voter standing on the platform 20 could not push two buttons for two different candidates for one office.

5 There are times when it is desired to vote a full or straight ticket, and in such an event the voter stands upon the platform 20, causing the intermediate frame to be drawn downward, when he pushes upon the uppermost  
10 key in the line of the party for whom he wishes to vote, the beveled end of the key contacting and engaging the corresponding spring of the intermediate frame and entering the corresponding opening 38 in the top  
15 of the frame 34, causing the latter to move slightly to one side and engaging the registering mechanism to register the vote which will indicate a full or straight ticket.

20 When it is desired to reset the mechanism, the voter simply steps from the platform, causing the intermediate frame to rise, the beveled projection 39 thereof engaging with the beveled projection 40 of the frame 34 and sliding it back to its normal position.

25 As clearly shown in the drawings, the registering mechanism consists of a frame 41 of any suitable material, secured in any suitable manner to the rear of the frame 1. Disposed horizontally within the frame 41 are a  
30 series of fixed shafts 42, revolubly mounted upon which are a series of adding or registering wheels 43, there being three of these wheels arranged for coöperation with each push-button or key 14. These wheels have  
35 a portion of their peripheries provided with teeth 44 and the remaining portion correspondingly numbered, as indicated by the character 45, and each wheel is spaced one from the other by means of suitable washers  
40 or other spacing elements 46, fixedly secured upon the shafts upon which the wheels are mounted, each washer or other element having an inclined notch in its periphery, resulting in a shoulder 48. Of each set of three  
45 wheels there is a units, tens, and hundreds wheel, the units and tens wheel each carrying a spring member or pawl 49, fixedly secured thereto, the free end 50 of the spring being bent radially to ride upon the adjacent washer  
50 or other element until it reaches the shoulder 48, when it has a tendency to drop into the inclined notch 47 and engage the teeth of the wheel upon the opposite side of the washer—  
for instance, the tens and hundreds wheels—  
55 and move the latter one point. If desired, each set of three wheels may be spaced from the adjacent set by means of the vertical partition-strips 49. It will thus be understood that when, we will say for illustration, a gov-  
60 ernor-button is pushed inwardly the pointed end thereof contacts with the teeth of the units-wheel, moving the same one point, indicating that one vote has been cast for one particular candidate, as well understood.  
65 When the same button has been pushed in-

wardly again, it moves the units-wheel one point, and so on until the portion 50 of the pawl or spring member 49 drops over the shoulder 48 into the groove 47, turning the tens-wheel one point, indicating that ten  
70 votes have been cast for the same candidate. When the tens-wheel has been moved ten points, the spring carried by the tens-wheel engages the adjacent washer or other element and moves the hundreds-wheel one point,  
75 thereby registering and adding the votes cast for each candidate, as well understood.

It will be understood from the above description that when a full or straight ticket is voted the frame 34 slides a sufficient distance  
80 to permit the vertical strips thereof to come within the path of the remainder of the keys, obviously preventing a movement of any of the other keys of any one of the parties for whom the people may be voting until the  
85 voter has stepped from the platform 20. When an individual key is operated, it passes into the path of the vertical strips and prevents the movement of the frame 34, and consequently the straight-ticket keys cannot be  
90 passed through the openings 38, thereby preventing the straight ticket from being voted. It will be understood also that when a voter casts his vote for one particular candidate the button or key which he pushes inwardly  
95 and upon both sides of which the V-shaped springs are in contact the latter are forced laterally by reason of the inclined notch 16 of the button or key and as the opposite ends of the said adjacent springs are in contact with  
100 the alining keys or buttons, which are fitted loosely in their bearings, causing all the keys or buttons in the line of the button pushed to bite into and lock the remaining alining keys  
105 against movement toward the registering mechanism. In other words, each key has a V-shaped spring fitting upon opposite sides thereof in the notches 16, and as an inward movement of one key or button moves the  
110 opposite springs laterally it is obvious that such movement of said springs will cause a lateral movement of all the alining-springs, and consequently bite into or bear against their corresponding keys in such a manner as  
115 to prevent an inward movement thereof, as well understood.

I claim—

1. The combination with straight-ticket and individual keys arranged in rows, and registering mechanism, of a frame comprising  
120 a plurality of imperforate strips corresponding in number to the rows of keys, and a member connected rigidly to the end of the strips, disposed in the path of the straight-ticket  
125 keys and provided with openings, each of which is normally disposed to one side of one straight-ticket key, said straight-ticket keys being adapted to pass through said openings to move the frame and engage the registering  
130 mechanism.



2. The combination with the keys arranged in rows and provided with notches, of a frame comprising strips corresponding in number to the rows and each carrying a plurality of  
5 springs, a platform, connections between the platform and the frame for moving the frame into a position that when the keys are pressed the springs will enter the locking-notches.

3. The combination with a plurality of  
10 rows of keys, each key being provided with notches, V-shaped springs bearing between adjacent keys of adjacent rows, a lateral projection on each key for engagement with one leaf of a spring, while the other leaf engages  
15 in one of the notches in the same key and the

point of the spring fits in an adjacent key of an adjacent row.

4. The combination with the keys, of a frame, independently-movable spring-locks for the keys mounted on the frame, and mech- 20  
anism for moving the frame to move the spring-locks to and from a position where they will be engaged by the keys.

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

STEPHEN D. LAYTON.

Witnesses:

BENJAMIN F. GASTON,  
JOHN T. GILLIBRAND.