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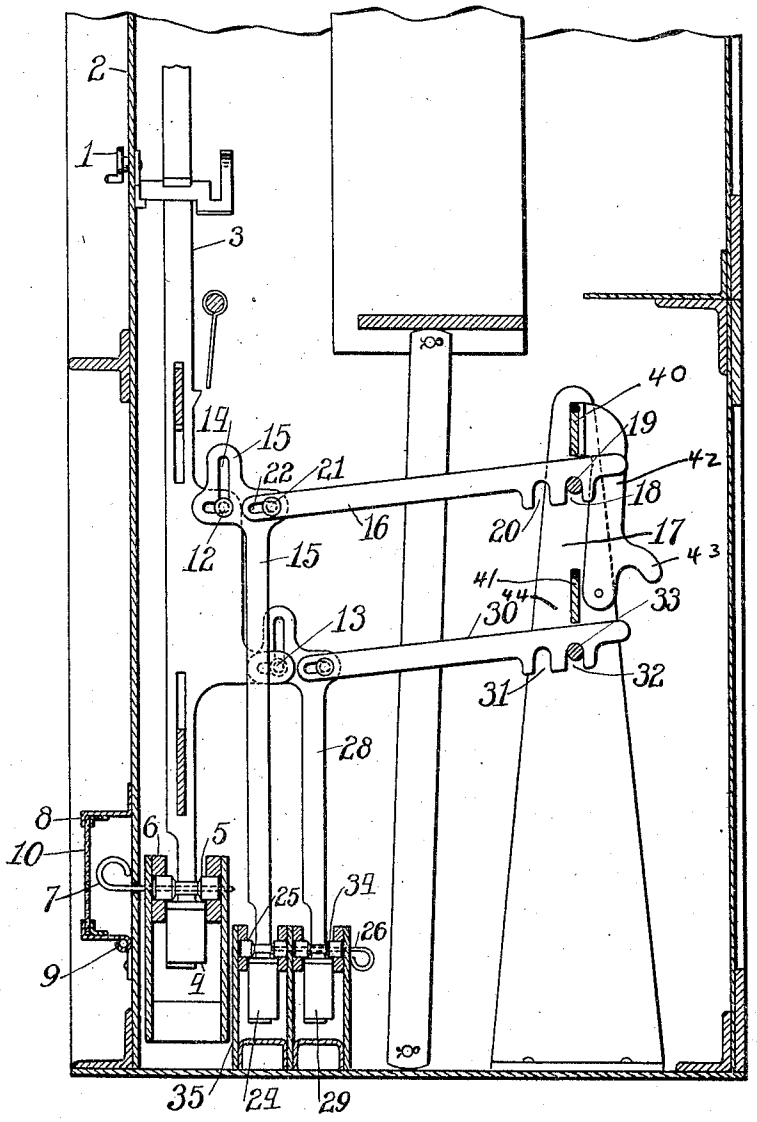
INDORSING DEVICE FOR VOTING MACHINES.

APPLICATION FILED JUNE 5, 1908. RENEWED DEC. 6, 1909.

950,156. Patented Feb. 22, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

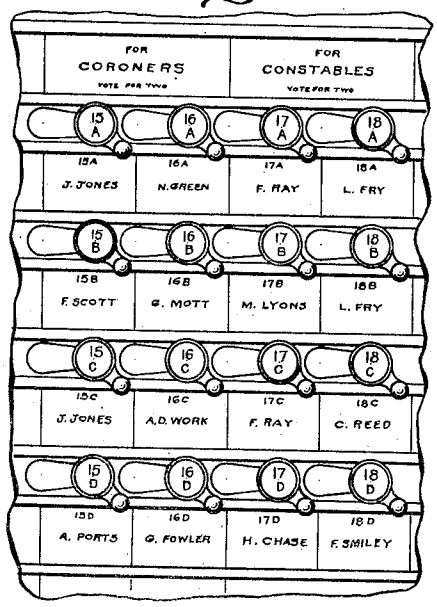


Fig. 3.

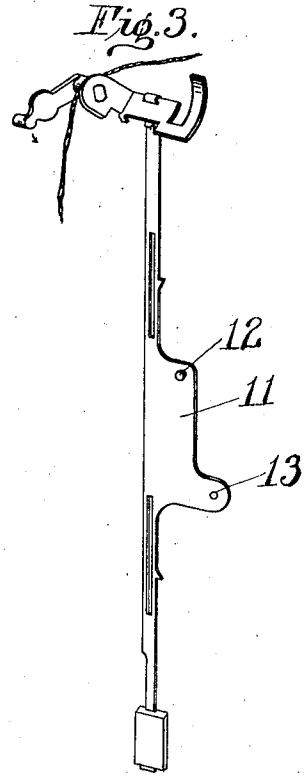


Fig. 4.

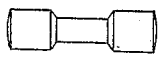


Fig. 5.

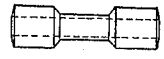


Fig. 8.

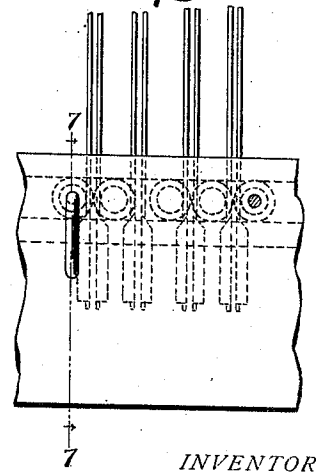


Fig. 7.

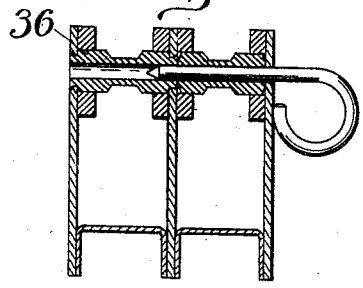
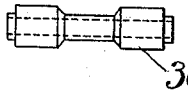


Fig. 6.



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INDORSING DEVICE FOR VOTING-MACHINES.

950,156. Specification of Letters Patent. Patented Feb. 22, 1910.

Application filed June 5, 1908, Serial No. 436,910. Renewed December 6, 1909. Serial No. 531,690.

To all whom it may concern:

Be it known that I, WILLIAM J. LAUSTERER, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Indorsing Devices for Voting-Machines, of which the following is a specification.

My present invention relates to improvements in voting machines, more especially of the type described for example in my prior patent 820,802.

The improvement forming the subject matter of this application is an indorsed candidate interlock which is built into the machine as a permanent part thereof, but which is normally disconnected from the operating parts of the machine so as not to interfere with or restrict the operation thereof, the parts being so arranged that whenever an indorsed candidate occurs in a multicandidate group, the particular voting devices belonging to such indorsed candidate may be interlocked specially against each other, so that only one of said voting devices may be placed in voted position. This auxiliary interlock is in duplicate so that the keys of the indorsed candidate may be controlled by the interlocking parts of either system, with connections so arranged that the wedge of either system of auxiliary interlocks can be connected to the keys sought to be interlocked, so that said key will not only be interlocked by the main interlocking system of the machine but by the auxiliary interlock as well. If necessary any one or more of said keys can be locked by both of the auxiliary interlocks in addition to the main interlock.

In the accompanying drawings, Figure 1 shows a vertical cross section of the power part of the machine, showing the main interlock and the two auxiliary interlocks. Fig. 2 shows a portion of the keyboard comprising two multicandidate groups with indorsed candidates therein. Fig. 3 is a detail perspective view of a key with its main interlocking strap so shaped as to provide for the necessary connections with the auxiliary interlocks. Fig. 4 is a detail showing the solid interlocking rollers used in all the interlocking channels. Fig. 5 is a detail showing the pin roller used in the first and third channels. Fig. 6 is a detail showing the pin roller used in the middle channel of those shown in Fig. 1. Fig. 7 is an enlarged cross section of the auxiliary interlocking channels and rollers, taken on line 7—7 in Fig. 8, the pin being shown on full line. Fig. 8 is a side elevation of the auxiliary interlocking channels and straps, looking at them from the rear of the machine.

Similar reference numerals in the several figures indicate similar parts.

The indicator keys 1 are pivotally supported in the front plate 2, and have connected to them at the rear end interlocking strap 3 terminating in the interlocking wedge 4. This wedge engages with the rollers 5 carried in the interlocking channel 6, all of which construction is substantially the same as that shown in my prior patent 793,666.

In my present invention the grouping pins 7, which engage with pin rollers placed at predetermined intervals in the channel, pass through the rollers and channel from the front of the machine. That is, they are inserted in their proper place from the front of the machine and not from the back of the machine, and to permit a longitudinal travel of the interlocking channel, which may be sometimes necessary as is described in my former patent 793,666, I cut a slot in the front plate running from one end of the machine to the other, so that the pins when placed in the interlocking channel may travel sidewise through said slot with the interlocking channel and without interfering with the movement of it. To prevent manipulation of these pins by any unauthorized person, I cover or protect them with a hood 8 pivoted to 9. This hood can be locked up against the front plate of the machine in any suitable manner that will hold it securely against tampering and still permit it to be turned down by the proper official to permit easy access to the grouping pin.

To permit inspection of the grouping pins when the hood is in locked position, I may provide that the front of it 10 consist of a narrow strip of glass through which the grouping pins can easily be seen.

On each of the interlocking straps 3 is carried a plate 11, to each of which are riveted the pins or studs 12 and 13. Engaging with the

pin 12 is a strap 15 having a right angle slot therein 14, with which slot the said strap engages the pin 12. When the strap 15 is held in the position shown in Fig. 1, the pin 12 is free to move up and down in the vertical arm of the slot 14 without disturbing the position of the strap 15. This pin, of course, will move up and down with the strap 3 of which it is an integral part. If, however, the strap 15 is moved to the right so that the horizontal arm of the slot 14 engages with the pin 12, the strap 15 will then move up and down with the strap 3, because it will then be positively engaged therewith. The strap 15 can be held in either of these two positions by the link 16. This link has cut therein on its under side at its right hand end, two notches 19 and 20. Carried on suitable standards 17 in the machine is a bar 18. If the notch 19 in the link 16 engages with the bar 18 the strap 15 will be held positively in position so as not to be disturbed by the vertical movement of the pin 12. If the notch 20, however, engages with the bar 18, the strap 15 will be pulled to the right, so that the horizontal portion of the slot 14 will be positively engaged with the pin 12 and will be moved up and down by it as it is moved by the strap 3. Riveted to the strap 15 is a pin 21, and the link 16 has a loose engagement therewith by means of the slot 22 stamped in link 16. This loose engagement is made necessary because the distance between centers of the notches 19 and 20 is greater than the movement of the pin 12 in the horizontal part of the slot 14, and the movement which the link 16 must make in excess of the lateral movement that is permitted to the strap is compensated for by the loose connection between the link 16 and the pin 21. It will be understood, of course, that there is one of these auxiliary interlocking straps 15 for each main interlocking strap 3 in the machine, although if advisable I may only provide these auxiliary interlocking straps for the keys and interlocking straps of a single office line, or for the keys and interlocking straps of a plurality of single office lines, it being understood that the principal use to which these auxiliary interlocking straps will be put is when the main interlocking straps and their keys are combined in a multi-candidate group in which occur indorsed candidates. The auxiliary interlocking straps 15 each terminate in a wedge 24 interlocked by interlocking rollers 25 similar to those carried in the main interlocking channel, except as hereinafter described.

Pin rollers are provided in the auxiliary interlocking channel 35 at regular intervals, and these pin rollers are held in place in the manner which I will now describe. The pin rollers in question are provided with trunnions such as are shown in Figs. 6 and 7. The plates making up the side of the auxiliary channel 35 are pierced at suitable intervals with holes large enough to receive the trunnions of the pin rollers 36. The solid rollers and pin rollers are assembled in the channel 35 in proper order with the pin rollers placed with their trunnions engaging with the holes in side plates of the channel. These trunnions are then slightly flattened out so that they act as rivets holding the sides of the channel together. In so riveting the pin roller the pin hole is left unobstructed so that it will receive the end of the grouping pin when it is used in the adjacent channel. In this way the pin rollers of the channel 35 are always held rigidly in place with the intermediate solid rollers between them and sufficient space is allowed between the rollers of each office line in this channel to pull in one of the auxiliary interlocking wedges 24 and no more. While the wedges and rollers in the main interlocking channel may be combined into a multicandidate group comprising two or more office lines, it is the intention that the corresponding straps and wedges of the auxiliary interlocking channel will always remain divided into single office lines so that of the wedges interlocked thereby only one wedge can be drawn to voted position in each office line. If now in the multicandidate group established on the main interlock, two or more keys are found to belong to the same candidate, it will be noticed that both of such keys can be voted for the candidate so indorsed, thus giving two votes to that candidate when the voter should be restricted to but one. In order to prevent this deficiency of the main interlock, all that is necessary to do is to connect the auxiliary straps to the main interlocking straps belonging to the keys of the indorsed candidate, so that when the main interlocking straps are lifted their auxiliary straps will be lifted as well. As the auxiliary interlock prevents more than one wedge being moved to voted position, it will prevent voting twice for the indorsed candidate. It will be understood that the keys of the multi-candidate group which do not have indorsed candidates will remain disconnected from their auxiliary interlocking straps, so that the auxiliary strap will remain quiet when the main interlocking strap is raised and lowered.

It sometimes occurs in a single office line that two indorsed candidates occur therein. In such case the second set of auxiliary interlocking straps 28 and their wedges 29 can be used. These straps are connected to the main interlocking strap 3 at the pin 13 in the same way that the straps 15 are connected to the straps 3 at the pin 12. They are also controlled so as to be connected to or disconnected from the pin 13 by means of

a link 30 corresponding substantially to link 16, which link 30 is provided with notches 31 and 32, either of which can engage with the bar 33 to hold the link 30 in either of two positions similar to those described in connection with link 16. The wedges 29 of the second set of auxiliary interlocking straps interlock with the rollers 34 carried in the second auxiliary interlocking channel. As shown in Figs. 1 and 7, the two channels for the auxiliary interlock are built side by side and are so placed that the grouping pins pass through the pin rollers in the outer channels, and into engagement with the pin roller of the inner channel. The construction of the grouping channels permitting this is illustrated in Fig. 1.

If all the names of a single indorsed candidate occur in the same office line, either of the auxiliary interlocks can be used as above described, but as sometimes happens the names of an indorsed candidate are placed in two adjacent office lines. In such a case connections must be made with the wedges of the auxiliary interlock carried in the outer channel as above described, selecting the wedges belonging to the keys of the indorsed candidate as his name occurs in the two or more office lines of the group. In such case the grouping pin that holds the intermediate roller between the two office lines in the outer auxiliary interlock must be withdrawn, leaving the intermediate roller to travel as it would in a multicandidate group. This, however, will permit the voting of two wedges in that particular group, and to prevent this I would use in the auxiliary interlock a compensator similar to that shown in my application No. 281,875 (see Fig. 8) or any other suitable device that would take up the lost space so as to prevent the voting of the second wedge therein. In this way it is possible to apply this auxiliary interlock to an indorsed candidate where the name of said indorsed candidate occurred in two adjacent office lines, or in two or more office lines that were separate to a greater or less extent. It will thus be seen that the extra interlock for the indorsed candidate is built into the machine and is always ready for use as indicated by the ballot labels on the machine and needs no other adjustment than the simple connecting up of the auxiliary interlocking wedges to the keys that belong to the indorsed candidate so that but one of said keys can be voted.

Carried on the standard 17 are the locking bars 40 and 41, which engage with the links 16 and 30 respectively and hold them locked in either position in which they have been placed as above described. Each of these bars is mounted to swing on an axis near its upper edge. Connected to the upper bar is the handle 42 by which it may be raised. This handle when turned down holds the bar 40 from being swung out of locking position, and while in this position the links 16 cannot be disengaged from the bar 18. The handle 42 also bears against the bar 41 and prevents it from being swung up as well. The bar 41 bears against a stud 44 on the standard 17 which prevents it from being swung rearwardly so that between the stud 44 and the handle 42 the bar 41 is held in close engagement. In order to hold the handle 42 in its locking position, a lug 43 is formed thereon which may be made sufficiently long so that when the lower back door of the machine is closed the handle 42 cannot be raised far enough to permit the releasing of the links 16 and 30.

I claim as my invention as follows:

1. In a voting machine a plurality of keys with a grouping interlock comprising wedges or spaces therefor common to all of said keys, a plurality of indorsing interlocking wedges for each key all forming part of the permanent structure and means for connecting to or disconnecting from the key at will, one or both of the indorsing wedges.

2. In a voting machine a plurality of keys with a grouping interlock therefor comprising interlocking wedges and straps, a plurality of studs mounted on each of said straps, a plurality of auxiliary interlocking straps, each having a right angled slot therein by which each of said straps engages its stud, the upper end of each of said auxiliary straps being capable of both a longitudinal movement and a swinging movement by which each of said auxiliary straps can move independently of its main interlock or can be locked to it to move in unison therewith.

3. A plurality of keys each having a main interlocking strap connected thereto, studs mounted on said strap, a plurality of auxiliary interlocking straps for each key engaging with said stud to move longitudinally therewith or to move independently thereof for a limited distance, and means for positively holding said straps in the one position or the other.

4. In a voting machine three rows of parallel interlocking straps, connections between the straps of one of these rows and the straps of the other two rows, said connections being adjustable to leave the straps of the first row free to move independent of the straps of the other two rows, or to connect the straps of the first row to move in unison with the straps of either or both of the other rows.

5. In a voting machine interlock, a main interlocking strap movable longitudinally, having a stud thereon, an auxiliary strap having a slot therein to engage with said stud in either of two positions, in one of which positions both straps will move longitudinally together, and in the other position,

the main strap will move independent of the auxiliary strap.

6. In a voting machine interlock, a main interlocking strap movable longitudinally, having a stud thereon, an auxiliary strap having a slot therein to engage with said stud in either of two positions, in one of which positions both straps will move longitudinally together, and in the other position the main strap will move independent of the auxiliary strap, and a lock for positively holding said auxiliary strap in either of said positions.

7. In a voting machine interlock a plurality of series of longitudinally movable interlocking straps forming a permanent part of the machine, means for positively imparting the motion of the straps in one of the series to the corresponding straps in the other series, said means being adjustable to permit the free movement of the one series of straps without disturbing the position of the straps in the other series.

8. In a voting machine interlock, a main interlocking strap and an auxiliary interlocking strap permanently engaged therewith, both of said straps being capable of longitudinal movement, said auxiliary strap being capable of adjustment to two positions, in one of which positions it will be moved positively by the main strap and in its other position the main strap will be free to move without it.

9. In a voting machine interlock, a main interlocking strap and an auxiliary interlocking strap permanently engaged therewith, both of said straps being capable of longitudinal movement, said auxiliary strap being capable of adjustment to two positions, in one of which positions it will be moved positively by the main strap and in its other position the main strap will be free to move without it, and means for locking said auxiliary strap in either of the two positions.

10. In a voting machine interlock, a main interlocking strap and an auxiliary interlocking strap permanently engaged therewith, both of said straps being capable of longitudinal movement, said auxiliary strap being capable of adjustment to two positions, in one of which positions it will be moved positively by the main strap and in its other position the main strap will be free to move without it, and means for locking said auxiliary strap in either of the two positions, said means consisting of a link connected to said auxiliary strap having two notches therein, a stationary bar with which said notches can engage to hold said strap in either of its two positions.

11. In a voting machine interlock, a main interlocking strap and an auxiliary interlocking strap permanently engaged therewith, both of said straps being capable of longitudinal movement, said auxiliary strap being capable of adjustment to two positions, in one of which positions it will be moved positively by the main strap and in its other position the main strap will be free to move without it, and means for locking said auxiliary strap in either of the two positions, said means consisting of a link connected to said auxiliary strap having two notches therein, a stationary bar with which said notches can engage to hold said strap in either of its two positions, a slotted connection between the link and its strap.

12. The combination of interlocking abutments having ends formed with trunnions, intermediate spacing devices, an interlocking channel to support said abutments, and spacing devices, said channel being pierced at suitable intervals to receive said trunnions to support said abutments.

13. The combination of interlocking abutments, projections formed on the ends thereof, an interlocking channel to support said abutments, said channel being pierced at suitable intervals to receive said trunnions to support said abutments.

14. The combination of a pair of interlocking channels separated by a dividing plate, stationary abutments supported by the one channel, said abutments having projections thereon, and said channel being pierced at suitable intervals to receive said projections, each of said abutments being pierced to receive a grouping pin from the adjacent channel.

15. The combination of a pair of interlocking channels separated by a dividing plate, stationary abutments supported by the one channel, and said abutments having projections thereon, and said channel being pierced at suitable intervals to receive said projections, each of said abutments being pierced to receive a grouping pin from the adjacent channel, movable abutments supported by the adjacent channel and grouping pins therefor by which said movable abutments may be made stationary with respect to the channels.

16. The combination in a voting machine of a casing, including a front plate, an interlocking channel mounted within the casing adjacent to said front plate, said channel holding the parts of an interchangeable interlock, grouping pins for controlling said interlock, an opening through the front plate through which said pins engage said interlock, a removable cover plate for said grouping pins holding said pins in place.

17. The combination in a voting machine of a casing, including a front plate, an interlocking channel mounted within said casing adjacent to said front plate, said channel holding the parts of an interchangeable interlock, grouping pins for controlling said interlock, a slot through the front plate

through which said pins engage said interlock, a transparent hood for exposing said pins and holding them in place.

18. In a voting machine interlock, a main interlocking strap and a plurality of auxiliary interlocking straps permanently engaged therewith, all of said straps being capable of longitudinal movement, each of said auxiliary straps being capable of adjustment to two positions, in one of which positions the auxiliary strap will be moved positively by the main strap, and in the other position the main strap will be free to move without it.

19. An adjusting mechanism for an interlock consisting of a bar, a plurality of links each of which has a plurality of notches thereon whereby it may engage said bar in a plurality of positions, and a locking device common to said links to hold them in such engaged position.

20. An adjusting mechanism for an interlock consisting of a bar, a plurality of links each of which has a plurality of notches thereon whereby it may engage said bar in a plurality of positions, and a locking device common to said links to hold them in such engaged position, and means for restricting the movement of said locking device.

21. The combination in a voting machine of a plurality of keys, a plurality of interlocking devices for each key forming part of the permanent structure, any or all of said devices being capable of being rendered inoperative at will, the operation of each of said keys being capable of being controlled by either one or part or all of its interlocking devices.

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

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