

W. J. LAUSTERER.
KEY OPERATING AND LOCKING BARS FOR VOTING MACHINES.

APPLICATION FILED AUG. 7, 1908.

933,378.

Patented Sept. 7, 1909.

2 SHEETS—SHEET 1.

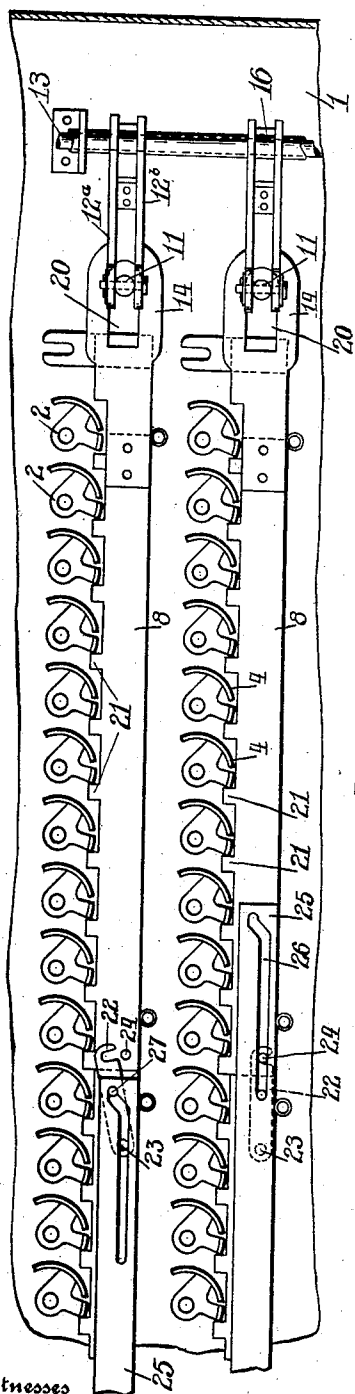


Fig. 1.

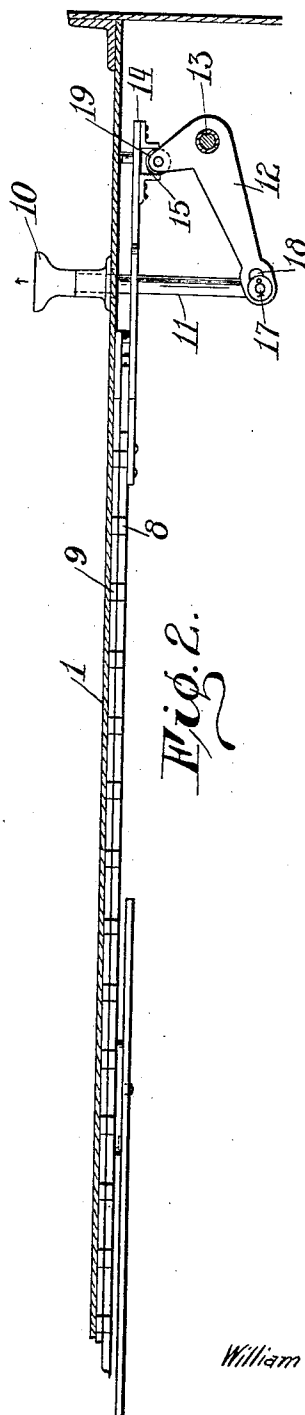


Fig. 2.

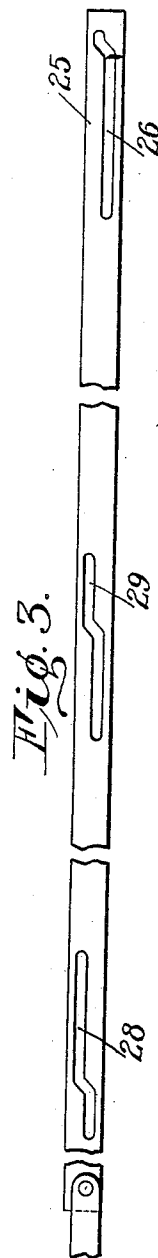


Fig. 3.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

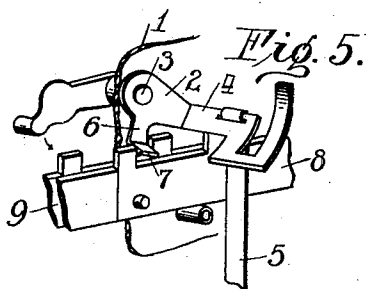
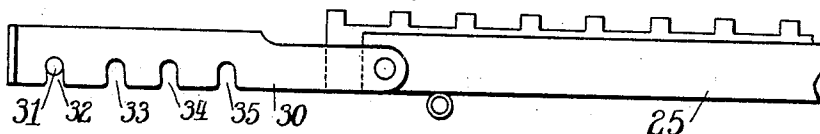


Fig. 6.

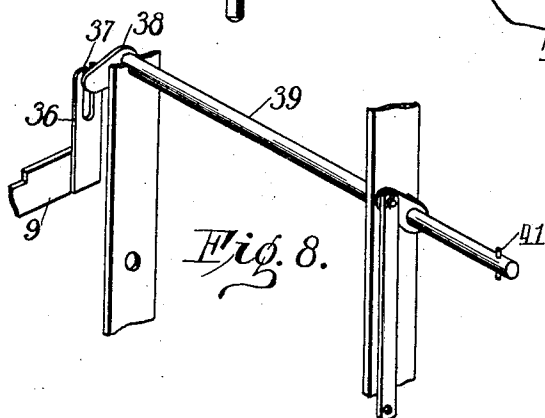
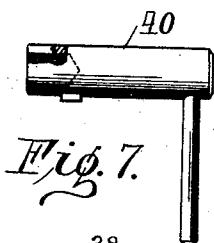
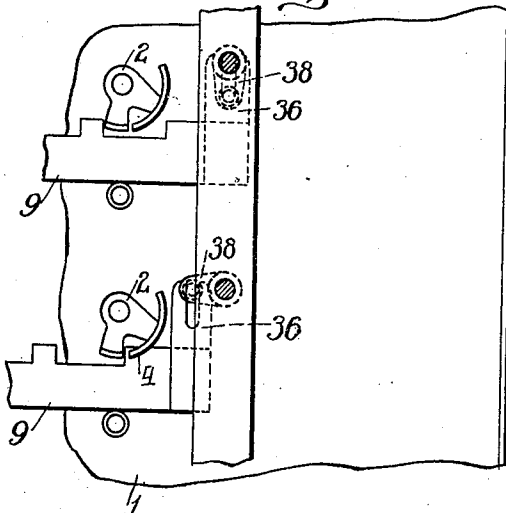
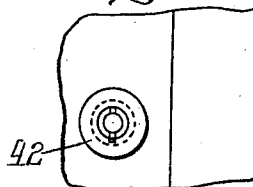


Fig. 9.



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UNITED STATES PATENT OFFICE.

WILLIAM J. LAUSTERER, OF JAMESTOWN, NEW YORK, ASSIGNOR TO EMPIRE VOTING MACHINE COMPANY, OF ROCHESTER AND JAMESTOWN, NEW YORK, A CORPORATION OF NEW YORK.

KEY OPERATING AND LOCKING BARS FOR VOTING-MACHINES.

933,378.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed August 7, 1908. Serial No. 447,367.

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 Key Operating and Locking Bars for Voting-Machines, of which the following is a specification.

My invention relates to improvements in voting machines, the improvement being applied to a machine such as is described in patent to W. J. Lausterer No. 820,802, May 15, 1906, and has for its object to provide an improved form of straight ticket voting mechanism and a mechanism for locking out the keys in a primary election.

The improvement in the straight ticket voting mechanism has for its object more especially to provide an improved form of straight ticket key and a sliding bar connected thereto behind the keyboard of the machine for operating the individual pointers. This straight ticket bar is made up of sections which can be readily disconnected by a single operating device, all forming a permanent part of the machine.

The primary election lockout has for its purpose to lock out the keys by party rows so that but one or more of the party rows of keys may be released at a time for voting operation. This lockout is capable of being rendered inert without being removed from the machine so that the machine may be used in a general election without removing the lockout therefrom.

In primary elections it will be understood that the primaries of all the parties are held at the same time and place and that one machine is adjusted to carry the names of all the candidates of all the parties. If the ordinary machine capable of use for general election were labeled with the names of the candidates of the various parties that participate in a primary election, any voter belonging to one party might vote for some of the candidates of one party and for other candidates of another party. This, however, is strictly forbidden by the primary election laws of many of the States, such laws providing that the voter must announce his party affiliations at the polls of the primary to the election officers before he will be al-

lowed to vote, and then he will be allowed by the election officers to vote only on the candidates of that particular party. It is understood, of course, that the object of the primary election is to select those candidates which will make up the party tickets in the regular election following thereafter. In order to restrict the voter to candidates of his own party in primary elections, I have devised certain additions to the machine the effect of which is to permit the election officer to release the voting devices belonging to the candidates of but one party, at the same time holding locked all of the voting devices of all of the candidates of all the other parties.

The object of my invention is to restrict the successive voters in their operation of the machine to the particular parts of the machine which their party affiliation entitles them to vote on.

The various features of my invention will be more particularly described in the specification and pointed out in the claims at the end of the specification.

In the accompany drawings, Figure 1 represents a rear elevation of a portion of the keyboard of the voting machine with my improved straight ticket mechanism and primary lockout mechanism thereon. Fig. 2 is a plan view of the straight ticket mechanism and primary lockout, the voting keys being omitted. Fig. 3 is a detail view of the cam bar for disconnecting the sections of a straight ticket bar. Fig. 4 is a detail view of the cam bar shown in Fig. 3 and the handle for adjusting it. Fig. 5 is a detail view in perspective of one of the voting keys and a straight ticket bar and the lockout bar. Fig. 6 is a detail view of a portion of two of the locking bars and the mechanism for operating them. Fig. 7 is a detail view of the key for operating the lockout bars. Fig. 8 is a perspective view of the end of the lockout bar and the shaft by which it is operated. Fig. 9 is a detail view of the hole in the back door of the voting machine through which the key 7 operates on the lockout bar.

In the accompanying drawings like reference numerals refer to like parts.

In Fig. 1 reference numerals 1 refers to the front plate of the machine on which are

mounted keys 2, 2. These keys are substantially the same as those shown in my prior patent except as will hereinafter be otherwise pointed out. Said key 2 is made of a single piece of metal stamped with two arms extending radially from its center 3, one of which arms 4 is upturned to form the part for driving the counter actuator and the connection for the interlocking strap 5; the other of the arms 6 is upturned with the projection 7 for engagement with the straight ticket bar 8 and the lockout bar 9.

Mounted on the key plate of the machine are the straight ticket keys 10, 10, which straight ticket keys are mounted to move at right angles to the key plate. The straight ticket keys have a stem 11 extending through the key plate, which stem is connected by sliding engagement with the bell crank 12 pivoted on the bearing rod 13. The other end of the bell crank engages with a socket 15 mounted on the plate 14 connected to the straight ticket bar 8. The bell crank 12 is made up of two plates 12^a, 12^b, spaced apart on the bearing rod 13 by a collar 16, and the stem 11 of the straight ticket key is engaged between the ends of the long arms of the bell crank by means of a pin 17 carried thereon passing through slots 18 in said long arm. The short arms of the bell crank carry between them the roller 19 which engages with the socket 15 carried on the plate 14. The plate 14 has a recess 20 cut therein by which it spans the stem 11 of the straight ticket key and connects to the straight ticket bar 8 beyond it. This straight ticket bar 8 consists of a series of short sections joined together in the manner I am about to describe. When fastened together these sections make a continuous bar having on its upper edge projections or lugs 21 suitable for engagement with the projections 7-7 on the keys 2-2, so that when the bars 8 are moved endwise by pulling out the straight ticket key 10, the key 2 in Fig. 5 will be rotated in the direction to lift interlocking strap 5. Or, as viewed in the several Figs. 1, 5, and 6 of the drawings, the keys of the party row will all be rotated upward to the right.

In Fig. 1 two sections of the straight ticket bar 8 are shown connected by the latch 22. As shown in Fig. 1 the first section of the straight ticket bar is connected directly to the straight ticket key through the bell crank 12: the second section of the straight ticket bar 8 is connected to the first section by the latch 22 pivoted on the stud 23 on the second section, which latch hooks onto the stud 24 in the first section. The third section of the straight ticket bar may be connected to the second section in like manner and the fourth section to the third, and so on. In order to connect and disconnect these sections at will, I have provided

the sliding cam bar 25 shown in Figs. 1, 3, and 4, which cam bar 25 engages by a cam with each of the latches 22, and for that purpose the bar 25 has a separate cam for each latch. The cam groove 26 shown at the right in Fig. 3 is the particular form of the cam which is depended upon to engage and operate the latch 22 in Fig. 1. As shown in Fig. 1 the latch 22 carries thereon the stud 27, which stud engages with the cam groove 26. When the bar 25 is moved to the left the stud 27 and its latch 22 are held down positively until the stud 27 is engaged by the active portion of the cam, after which by the further movement of the bar 25 the latch 22 is lifted and disengaged from the stud 24. After this disengagement has been completed the first section of the straight ticket bar can be moved by the operation of the straight ticket key without moving any of the other sections of the straight ticket bar. As will be seen from an inspection of Figs. 1 and 3 this disengagement of the latch 22 does not occur until after the bar 25 has moved the full length of the cam groove 26.

As shown in Fig. 3 the cam bar 25 has three cams cut therein each of different shape. The cam groove 28 engages the latch similar to 22 mounted on the fourth section of the straight ticket bar 8 with which stud it would engage early in the movement of the bar 25 to the left. This bar 25 also has cut therein a cam groove 29 which engages with the stud 27 on the latch 22 carried on the third section of the straight ticket bar. After the bar 25 has moved half of the distance it can travel to the left, the cam groove 29 will lift the stud 27 carried on the latch 22 and disconnect in that way the third section of the straight ticket bar from the second. As above described the cam groove 26 in turn can disconnect the second section of the straight ticket bar from the first. It will be noticed from an inspection of Fig. 3 that the operation of these cams in the bar 25 is successive. The bar 25 has a total movement equal to the length of any one of the cam grooves 26, 28, or 29, which cam grooves are all of the same length. The movement of the bar 25 one-third of its travel will cause the cam 28 to operate to disconnect the fourth section of the straight ticket bar. If the bar 25 is moved an additional one-third of its travel it will cause the cam 29 to operate to disconnect the third section, and the last one-third of its travel will cause the cam 26 to disconnect the second section of the straight ticket bar. To move the bar 25 by regular intervals, it is provided with a handle 30 shown in Fig. 4. This handle has four notches 32, 33, 34, and 35 cut therein at equal distances between centers, the spacing apart of which notches is adapted to measure the travel of the bar, so as to secure the operation of the cams 28, 29, and 26, as

will now be described. A stud 31 is provided with which the handle 30 can be engaged for the purpose of locking it in four different positions. If the notch 32 is engaged with the stud 31 all of the sections of the straight ticket bar will be locked together: if the handle 30 be drawn out so that the notch 33 engages with the stud 31, the fourth section of the straight ticket bar will be disconnected from the other three. If the notch 34 engages with the stud 31, the third section will be disconnected from the second, and if the notch 35 engages with the stud 31, the second section of the straight ticket bar will be disconnected from the first, but during all this time the cam grooves maintain positive connection with the studs 27 on the respective latches controlled thereby, so that by moving the bar 25 in the reverse direction the sections of the straight ticket bar can be as readily connected up again for operation. It will be understood, of course, that the sections which have been disconnected remain idle while those sections that remain connected up will be moved by the straight ticket key and will cause the operation of the individual keys that are adjacent to such connected section.

To permit the movement of the straight ticket bars without disturbing the connections between the sections or without interfering with the bar 25, I provide a sufficient clearance in the lower idle part of the cams 28, 29, and 26, so that the studs 27 of the latches that have not been disconnected may slide therein when moved by the straight ticket key without causing the sections of the bar to be disconnected or without otherwise interfering with the bar 25.

Lying between the straight ticket bar 8 and the key plate 1 of the machine is the lockout bar 9, which lockout bar has projections or lugs 21 formed thereon similar to the projections on the straight ticket bars. If the straight ticket bar is connected up and allowed to rest in the position shown in Figs. 1 and 2 and if the lockout bar 9 is then moved to the left the keys of that party row will all have their projections 7 engaged between the projections 21 on the lockout bar and the straight ticket bar, and will be held firmly against movement in either direction. In this way the straight ticket bar and the keys engaged therewith will serve as a stop for the lockout bar, and the keys will be held firmly locked against movement in either direction between these two bars. It will be further noticed that both of these bars 8 and 9 engage with the same projection 7 on the keys, which projections are made sufficiently long so that they can serve this double purpose. The lockout bars 9 at the right hand end carry a yoke 36 with each of which yokes engages a stud 37 carried on a crank 38, mounted on a crank shaft

39. This crank shaft is capable of operation by the key 40 shown in Fig. 7. This key is hollowed out so as to engage with the shaft 39, and has a slotted end by which it can positively engage the stud 41 carried on such shaft 39.

In Fig. 6 are shown two lockout bars 9, the upper one of which is in unlocking position permitting the key 2 shown therewith to be turned freely to the right. It will be noticed that the crank 38 in that figure stands parallel to the yoke 36. The lower bar 9 in Fig. 6 has been moved to the left so as to lock the key 2 shown in connection therewith, and the crank 38 by which said bar 9 has been moved stands at right angles to the yoke 36. Any attempt to rotate the key 2 upward to the right will drive the yoke 36 dead centered against the crank 38, by which dead center the bar 9 is held against being disturbed by the voting key. The bar 9 is operated by inserting the key 40 through the hole 42 in the back door of the machine, a detail of which is shown in Fig. 9.

It will thus be seen that I have devised a simple and effective construction, by means of which the keys can be voted collectively as a party row, or can be voted collectively by one or more sections of such party row, and by which all of the keys of the party row may be locked against operation. It is obvious too that by disconnecting the straight ticket bar from the straight ticket key and moving it to the left, the straight ticket bar may be made to serve the purpose of a lockout bar, but by duplicating these bars as above described, the same result is secured more conveniently.

Having thus described my invention, what I claim as new and patentable is as follows:

1. The combination in a voting machine of a plate, a series of pivoted keys arranged thereon in a row, a straight ticket bar mounted on said plate and sliding longitudinally and parallel to said row of keys, a projection on each key, corresponding projections on the bar engaging therewith, and a push key mounted on the plate to move transversely to the movement of the bar, and a bell crank connection between said key and said bar.

2. The combination in a voting machine of a series of pivoted keys arranged in a row, a straight ticket bar sliding longitudinally and parallel to said row, said bar being made up of detachable sections, couplings between said sections, a cam bar controlling said couplings, and movable progressively to connect or disconnect said couplings successively.

3. The combination in a voting machine of a series of pivoted keys arranged in a row, a straight ticket bar sliding longitudinally parallel to said row, said bar being

made up of detachable sections, couplings between said sections, cams for connecting and disconnecting said couplings.

4. A straight ticket bar made up of detachable sections, couplings between said sections, a single bar having therein a separate cam for each coupling for operating said couplings, said cams being so positioned that the movement of the bar would operate said couplings in succession.

5. The combination in a voting machine of a straight ticket bar made up of detachable sections, said bar having a limited movement, couplings between said sections, a single cam bar having therein a separate cam for each coupling for operating said couplings, said cams being so positioned that the movement of the cam bar will operate the couplings in succession, said bars being so related that during the movement of the straight ticket bar the couplings will be held undisturbed by the cam bar.

6. The combination in a voting machine of a straight ticket bar made up of detachable sections, couplings between said sections, a controlling bar having therein a separate cam for operating each coupling, said cams being positioned to operate said couplings in succession when the bar is moved through its full travel, a gage for measuring the travel of the bar to separately operate each coupling.

7. The combination in a voting machine of a straight ticket bar made up of detachable sections, couplings between said sections, a controlling bar having therein a

separate cam for operating each coupling, said cams being positioned to operate said couplings in succession when the bar is moved through its full travel, a handle with recesses cut therein to measure the movement of the bar needed to operate each of the couplings.

8. The combination in a voting machine of a series of pivoted keys arranged in a row, a lockout bar and a straight ticket bar arranged parallel to said row, projections on each of said bars for each key, projections on each key to engage with both bars, said bars being capable of being positioned to engage the keys of the row between them, to prevent the movement of said keys in either direction.

9. The combination in a voting machine of a series of pivoted keys arranged in a row, a lockout bar for locking said keys, a crank for operating said lockout bar, said crank being dead centered on said bar when the bar is in position to lock the keys.

10. The combination in a voting machine of a plate, keys mounted thereon in a row, a straight ticket bar and a lockout bar mounted side by side parallel to said row of keys, studs on said plate for supporting both of said bars, said bars being mounted to move longitudinally.

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

WILLIAM J. LAUSTERER.

Witnesses:

ALEXANDER B. CORCILUS.

ETHEL C. MILLER.