

(No Model.)

2 Sheets—Sheet 1.

W. J. WALKER & A. L. BEDFORD.  
ELECTRIC ALARM MONEY DRAWER.

No. 501,306.

Patented July 11, 1893.

Fig. 1.

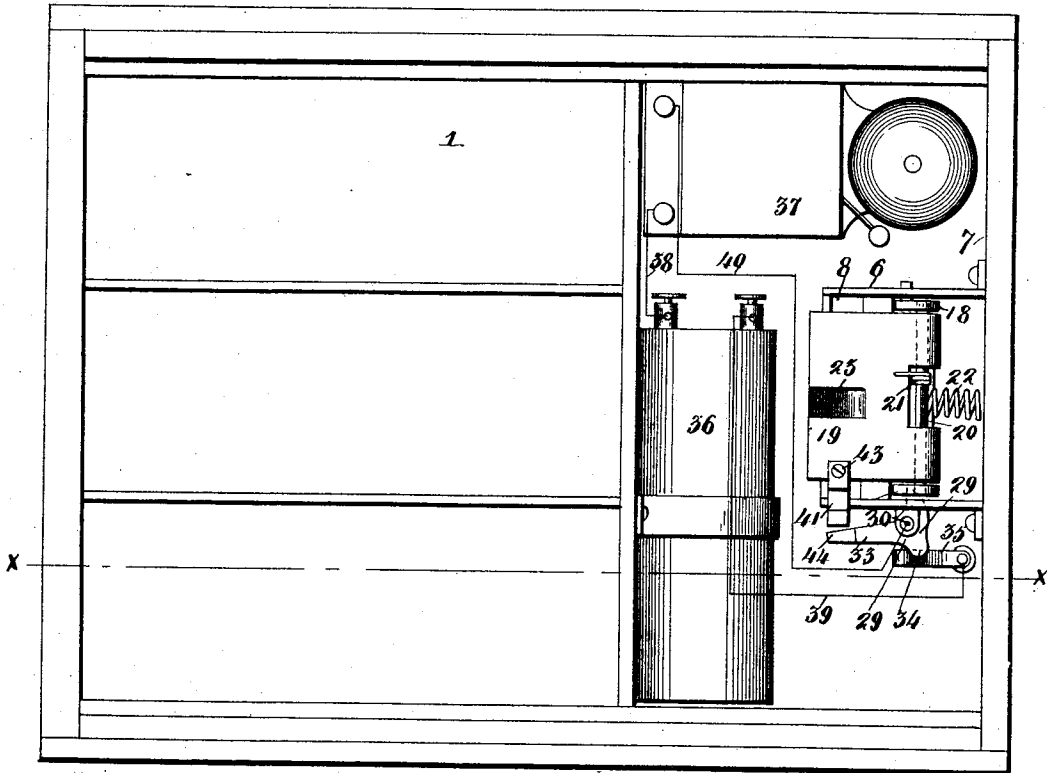


Fig. 2.

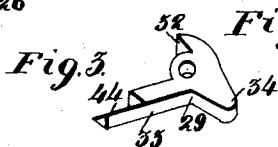
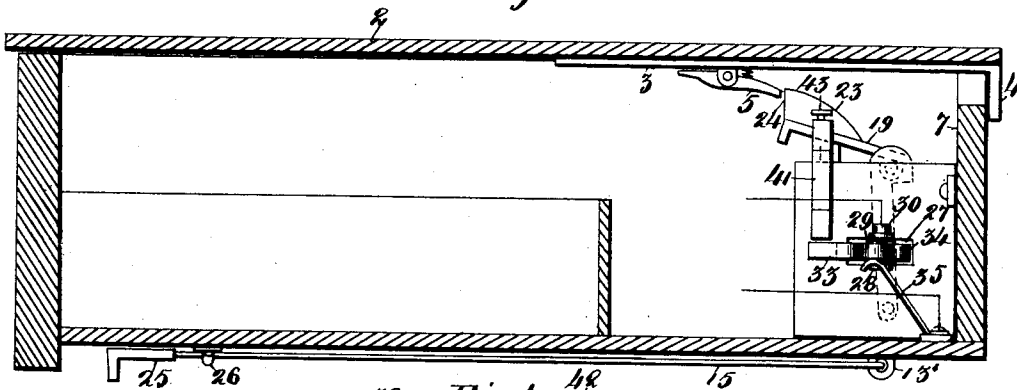
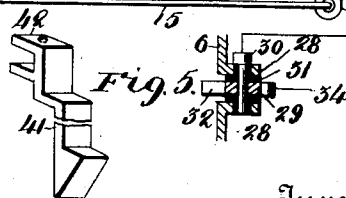


Fig. 4.



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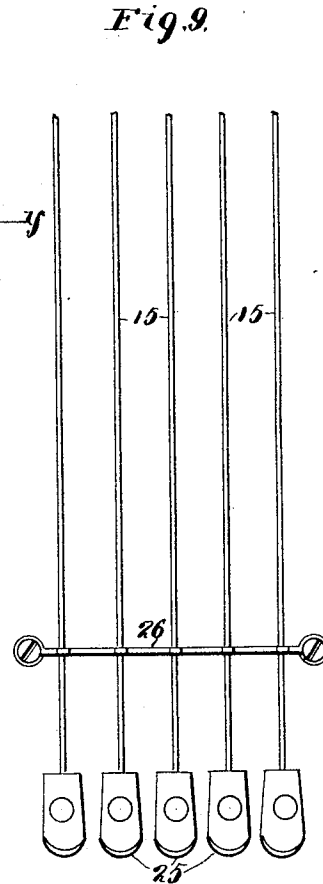
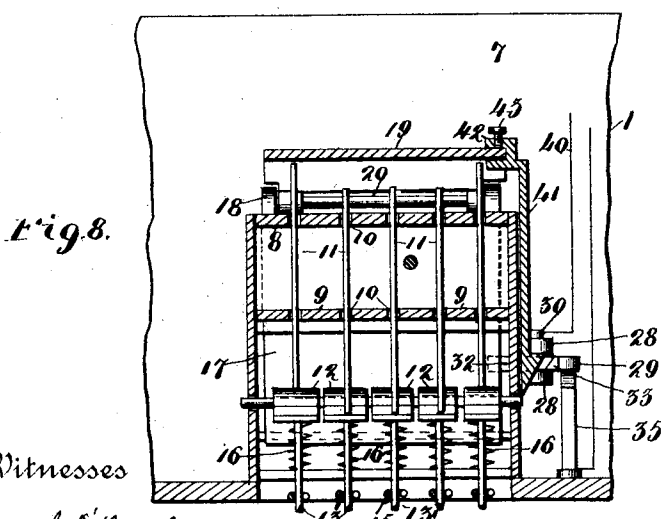
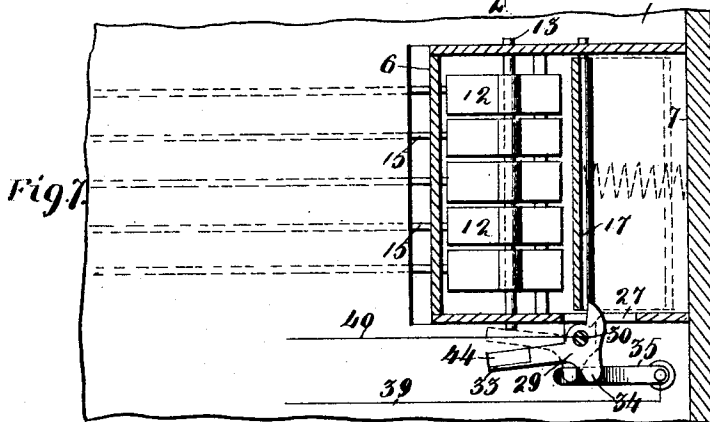
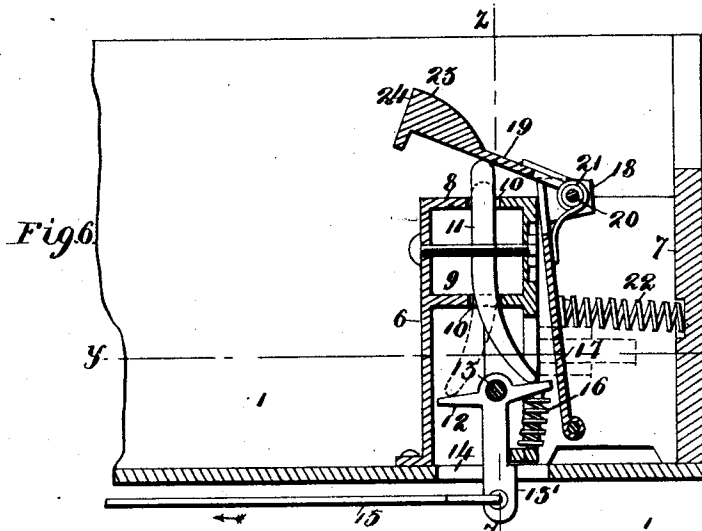
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Witnesses

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# UNITED STATES PATENT OFFICE.

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## ELECTRIC-ALARM MONEY-DRAWER.

SPECIFICATION forming part of Letters Patent No. 501,306, dated July 11, 1893.

Application filed April 12, 1893. Serial No. 470,115. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM J. WALKER and ALEXANDER L. BEDFORD, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Electric-Alarm Money-Drawers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our improvement has relation to electric alarm money drawers and consists in the novel arrangement and combination of parts more particularly described in the specification and pointed out in the claims.

In the drawings, Figure 1 is a plan view of the drawer and the several parts located therein. Fig. 2 is a vertical longitudinal section taken on the line  $x-x$  of Fig. 1. Fig. 3 is a perspective view of the contacting plate. Fig. 4 is a perspective view of the detachable arm for operating the contacting plate in one direction. Fig. 5 is a sectional view of the contacting plate and ears of the casing of the lock showing the electrical connections. Fig. 6 is a vertical longitudinal section of the lock with the drawer partially broken away. Fig. 7 is a horizontal section taken on the line  $y-y$  of Fig. 6. Fig. 8 is a vertical transverse section taken on the line  $z-z$  of Fig. 6, and Fig. 9 is a plan view of the finger plates and rods for operating the lock.

Our present invention consists in the employment of the money drawer known as the "Tucker" drawer to which are attached certain parts as hereinafter described whereby a continuous alarm is sounded when an attempt is made to open the drawer by one not familiar with the combination.

Referring to the drawings, 1 represents the drawer which carries the lock and the parts for operating the same, and 2 a plate which is usually secured to the lower surface of the counter or other support for guiding and holding the drawer. To the said plate 2 is secured a metallic plate 3 having a depending lip 4 for limiting the movement of the drawer in one direction.

5 represents a spring actuated pawl which is movably secured to the plate 3 allowing the lock to move under the same when the drawer is brought against the lip 4, but prevents the

said drawer from being moved in the opposite direction. The lock consists of a casing 6 secured to the rear wall 7 of the drawer the construction of which is better shown in Figs. 6, 7, and 8.

8 represents the top of the casing and 9 a partition wall located below the top 8, each being provided with elongated openings 10 for holding and guiding the tumblers 11 in their proper position and relation to the remaining parts of the lock.

12 represents a series of steps which in the present instance are five in number, and are arranged side by side and movably secured to the casing by a shaft 13. Upon the said steps the lower curved ends of the tumblers 11 rest and are operated by the same.

13' represent depending extensions which form a part of the steps and project through an opening 14 formed in the bottom of the drawer, to the ends of which extensions are attached one end of the operating rods 15.

16 represents coiled springs which operate to hold the steps in position as shown in Fig. 6 and are adapted to be depressed when the rods 15 are pulled in the direction as shown by the arrow in said figure.

17 represents a plate the lower edge of which is movably secured to the side walls of the casing 6, and formed integrally with the said plate are ears 18 providing means for securing the plate 19 to the plate 17. Encircling the shaft 20 which secures the said plates 17 and 19, is a spring 21 the arms of which bear against the plates 19 and 17 respectively, which operates to hold the plate 19 upon the upper ends of the tumblers 11. Interposed between the plate 17 and the rear wall 7 of the drawer is a coiled spring 22 for normally holding the plate 17 in the position as shown in Fig. 6. Formed integrally with the plate 19 is a projection 23 having an abutting surface 24 which surface is adapted to be brought in contact with the engaging end of the pawl 5 when an attempt is made to open the drawer without properly operating the finger plates.

25 represents the finger plates which are five in number corresponding to the number of tumblers and steps, and are secured to the ends of the rods 15 near the front of the drawer.

26 represents a retaining wire which is secured to the bottom of the drawer and holds the rods 15 in their proper position, but allowing the said rods to be freely operated.

5 The construction of the device as above described is found in the Tucker drawer, and to these parts our invention is easily applied and consists of the parts now to be described: Formed in one side of the casing is an opening 27 and secured to said casing above and below said opening are two ears 28 between which is pivoted a contacting plate 29 by a metallic pin 30. By referring to Fig. 5 it will be seen that the pin, as well as the contacting plate, is thoroughly insulated from the casing or ears forming a part of the same by the insulation 31. The contacting plate 29 is provided with a short arm 32 having a flat surface against which the side of the plate 17 adjacent to one edge thereof is brought in contact for throwing the arm 33 forming a part of the contacting plate in close proximity to the casing 6 of the lock where the same can co-operate with the parts as hereinafter described. The said contacting plate is also provided with a projection 34 the under surface of which makes contact with the upper curved end of the flat spring 35 forming a complete circuit.

30 36 represents an ordinary battery, and 37 an electric bell both of which are located within the drawer, the same being connected by a wire 38 in a well known manner. To the spring 35 is attached one end of a wire 39 leading to one pole of the battery, and to the pin 30 is attached a second wire 40 leading to the bell as best shown in Fig. 1.

41 represents a detachable arm having a forked end 42 which end receives the edge of the plate 19 and is fastened to the same by set screw 43. The lower end of said arm is spear shaped having an inclined surface or wedge-shaped appearance which surface is adapted to be brought in contact with the bevel surface 44 formed on the arm 33 of the contacting plate when the same is in the position as shown in dotted lines in Fig. 7, but when the said plate is in the position as shown in Fig. 1, or the projection 34 of the plate out of contact with the spring 35, the arm 41 will have no action upon the contacting plate when the plate 19 drops as shown in Fig. 8.

By referring to Fig. 8 it will be seen that the first and fifth tumblers are the ones that designate the combination, as the curved ends of the said tumblers are turned toward the rear end of the drawer, while the others are turned in a reverse direction, all of said tumblers however resting upon the steps 12. Now, should the first and fifth finger plate be pulled, the plate 19 will drop and allow the abutting surface 24 of the said plate to be moved under the pawl 5 when the drawer is being opened; but should any finger plates be pulled either with or without those set to the combination, the plate 19 would not drop when an attempt is made to open the drawer, and

the abutting surface 24 would come in contact with the pawl 5 and force the plate 17 back in the position as shown in dotted lines Fig. 7, in which movement the contacting plate 29 would be forced in the position as shown in dotted lines in said figure, bringing the projection 34 in contact with the spring 35 and form a complete circuit, thereby sounding a continuous alarm, and indicating that the drawer has been tampered with by one not familiar with the combination. In order to break the circuit it is necessary to know the combination, and when the proper finger plates are pulled, the plate 19 will drop and the lower end of the arm carried thereby brought in contact with the arm 33 of the plate 29, and move the same out of contact with the spring 35, thus breaking the circuit. After the circuit has been once completed by the movement of the drawer the said circuit will remain closed so long as the plate 19 remains in an elevated position, and any further attempt to open the drawer while the said plate is in said position will have no effect upon the contacting plate 29, and the alarm will continue to sound, premising however, that the proper finger plates have not been operated. When the proper finger plates however have been operated, the tumblers operated thereby will allow the plate 19 to drop and the lower end of the arm 21 to come in contact with the arm 33 of the contacting plate 29 and move said plate off from the spring 35 and break the circuit. When the drawer is worked under ordinary circumstances or the proper finger plates at all times operated, the normal position of the contacting plate 29 will be as shown in Fig. 8, the arm 33 of the same being out of the path of the arm 41 and consequently the contacting plate will not be actuated but remain in said position and out of contact with the spring 35. It will be understood that the combination of the lock is changed by turning the tumblers as in the ordinary Tucker drawer.

Having described our invention, what we claim is—

1. An electric money drawer having a lock composed of a pivoted plate the free end thereof moving in a vertical plane and the lower surface of the plate adapted to rest upon suitable tumblers, an electric circuit, a second plate hinged to said first named plate, a device against which the free end of the first plate is brought in contact when in an elevated position, and a switch operated by said plates to make or break the circuit, substantially as set forth.

2. An electric money drawer having a lock composed of tumblers, finger plates for operating the same, a plate resting upon the upper ends of the tumblers, an electric switch, means carried by said plate for operating the same in one direction, a second plate hinged to the first plate for operating the switch in the opposite direction, an electric circuit, and

a device against which the first named plate is brought in contact, substantially as set forth.

3. An electric money drawer having a lock, 5  
tumblers forming a part of the same, steps upon which the lower ends of said tumblers rest, rods attached to the said steps, finger plates also attached to the rods, a plate resting upon the upper ends of the tumblers, a 10  
spring pawl against which the said plate is brought in contact, a depending arm forming part of said plate and actuated thereby, a second plate pivoted to the casing of the lock and also to the first named plate, a switch 15  
actuated by the last named plate in one direction for completing the circuit, and an electric circuit in connection with said switch, substantially as set forth.

4. An electric money drawer having a lock 20  
composed of two movable plates hinged together, tumblers upon which one of the plates rests, a switch actuated by said plates, and an electric circuit in connection with said switch, substantially as set forth.

25 5. An electric money drawer having a lock,

a plate forming a part of the same and hinged to the casing of the lock, a spring bearing against said plate for operating the same in one direction, a switch also pivoted to the casing and operated in one direction by the 30  
said plate, a second plate hinged to the first plate and adapted to be brought in contact with a spring pawl, tumblers upon which the last named plate rests, steps for supporting said tumblers, rods attached to said steps and 35  
provided with finger plates, a depending arm carried by said last named plate for operating the switch in the opposite direction, a spring located below said switch and normally out of contact with the same, and a circuit in con- 40  
nection with said switch and spring, substantially as set forth.

In testimony whereof we affix our signatures in the presence of two witnesses.

WILLIAM J. WALKER.  
ALEXANDER L. BEDFORD.

Witnesses:

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