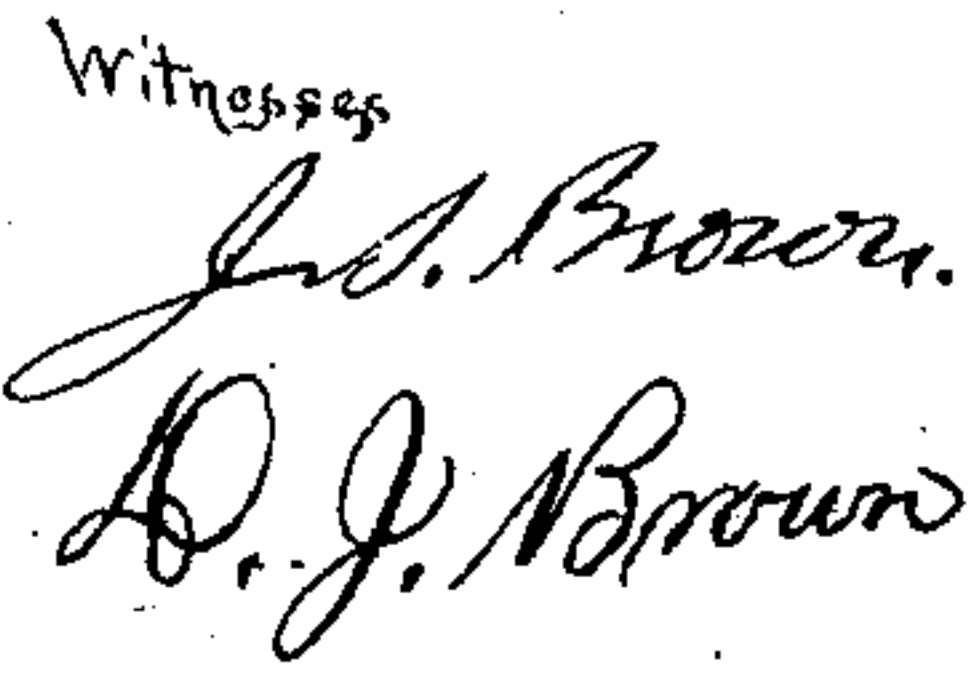
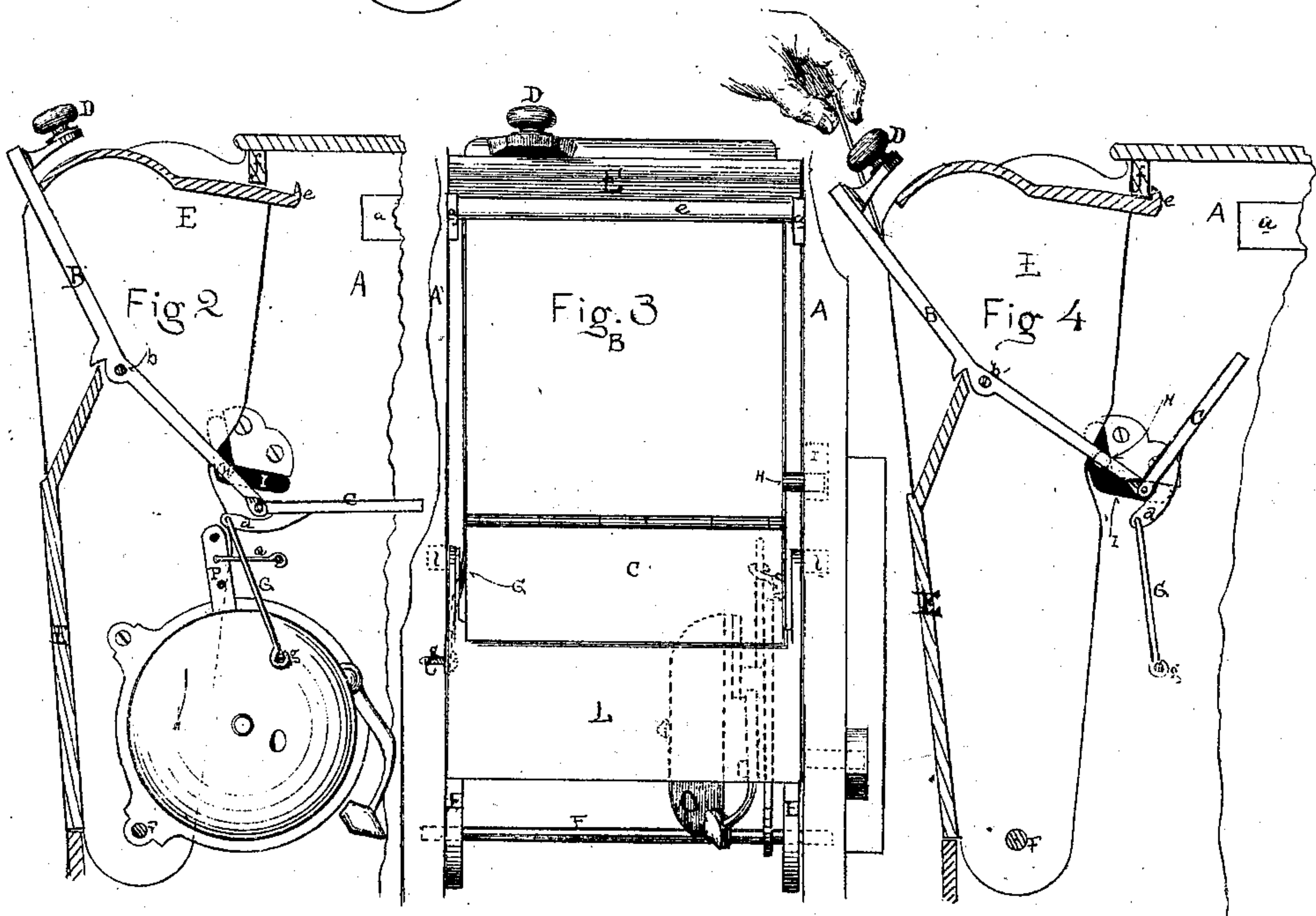


Improvement in Fare-Boxes.

Patented June 13, 1871.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN FARE-BOXES.

Specification forming part of Letters Patent No. 115,999, dated June 13, 1871.

To all whom it may concern:

Be it known that I, JAMES F. WINCHELL, of Springfield, in the county of Clark and State of Ohio, have invented a new and useful Improvement in Fare-Boxes, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical longitudinal section of the upper part of a fare-box, showing the devices to prevent abstraction of tickets, &c., after being deposited; Figs. 2 and 4, similar sections of the same, showing the parts in their various positions. Fig. 3 is a vertical transverse section of the same.

This invention relates to mechanism to prevent abstraction of money or tickets from fare-boxes or other receptacles of a like character; and it consists in the peculiar construction and mode of operation of a double gate or apron, by means of which the passage to the depository of said receptacle is always closed at one of two points, and never partially open at both.

I am aware that contrivances have been made designed to produce the above-named result; but, so far as I am informed, said contrivances have been differently constructed and more liable to derangement.

That others may fully understand my invention, I will particularly describe it.

A is the box or case, containing the cut-off gates B C. In the drawing the case A shows a portion of a fare-box designed for street-railways. Its dimensions may be such as may be found most desirable. Below the case A, not shown in the drawing, is the safe or money-box, which receives the tickets and money and retains them until removed by the person having authority to do so.

When the passenger is about to deposit his ticket, he opens the exterior gate B by pulling forward upon the knob D, as shown in Fig. 4, and in so doing he closes the passage at an interior point by the movement of the gate C. The gate C is automatic and its movement effective before the external orifice begins to be uncovered by the movement of the gate B, so that before the external orifice is uncovered the internal one is closed, and vice versa. I effect these movements by attaching the gate B to E—a portion of the case A, which is made

movable upon the center or joint F. The gate B is attached to the movable part E by a joint-pin, *b*, upon which the gate B moves to uncover the external orifice or ticket-hole. The gate C is hinged to the lower edge of the gate B, as shown in the figures, and it is provided with an arm, *d*, which is attached to the under side of the said gate C, near one end, and projects some little distance backward of the joint connecting said gates. From the extremity of the arm *d* a link or check-wire, G, extends downward, and is secured by a joint, *g*, to the stationary side of the case A. The adjustment of these parts is such that when the ticket-hole is closed the gates B C are in line with each other, as shown in Fig. 1.

If, with the devices above described, the knob D should be pulled forward, the lower end of gate B would be moved forward and upward, and the gate C would be carried with it; but the link G, being connected to the fixed center of motion *g*, would cause the gate C to assume an angular position, as shown; but the movements of the two gates upon their joints would be simultaneous throughout, and this would defeat the object in view, because both internal and external gates would be partially open at the same moment, and a device for the abstraction of the contents of the safe might be admitted. It is necessary that the gate C should move so far as to close entirely the internal orifice before the gate B commences to move upon its joint *b*. I effect this by means of a stud, H, projecting from the side of the gate B into a cam-groove, I, made in the stationary side of the case A. The effect of the cam-groove I is to prevent a movement of the gate B upon its axis *b* until the movable side E has been drawn forward a certain distance, moving upon the joint F. The cam-groove I thereby operates as an automatic lock to retain the part E and the gate B in relative position. When the portion E of the case A has been moved a sufficient distance to permit the stud H to slip around the angle of the cam-groove I, as shown in Fig. 2, then the gate may move upon its axis *b* and the ticket-hole be uncovered, as shown in Fig. 4. But during the movement of the portion E, as above described, the gate C will have been raised up, as shown by dotted lines in Fig. 1, and in black lines in Fig. 2. It

is thought that this movement of gate C will be sufficient to afford security without completely closing the passage below the ticket-hole. If, however, it should be found otherwise, a stationary partition, J, may be inserted in case A, with its lower edge so placed that it will meet the edge of the gate C at the completion of its first movement, as above described, and said partition may be so curved that during the further movement of the gate C its edge will pass close to the surface of said partition, as shown in Fig. 1. Instead of an inserted partition, J, the case A may be so made that its side will occupy that position. A spring, K, is placed within the case A to retract the portion E and close the ticket-hole when the fare has been deposited and the knob D released. A stop, *a*, limits the inward motion of the portion E, as shown in Fig. 1, and a flange, *e*, engages with a stop, *f*, to limit the outward movement of the same part, as shown in Fig. 4.

From the above description, it will appear that pulling the knob D forward moves the portion E of case A upon its center F, and raises the gate to close the inner passage, and then permits the gate B to move upon its center *b* and uncover the ticket-hole, and that a free passage from the exterior to interior of the receptacle will not exist at any movement.

In the drawing, Figs. 1 and 3, the gate C is represented as resting upon an apron, L, which is pivoted in the stationary sides of case A, at *l*. Its lower edge rests against the glass front M, and the ticket or money is temporarily arrested there for the inspection of the driver. When he has satisfied himself that the ticket or money deposited is proper payment of the fare,

he depresses the edge of the apron L by a movement of the thumb-lever N, as shown by dotted lines in Fig. 1, and said ticket or money is precipitated into the safe below. In order to warn the driver that a fare has been paid into the fare-box, or rather to warn him when the ticket-hole has been uncovered for that purpose, a trip-bell, O, is placed within the case A and secured to the moving portion E. The trip-lever P is attached to the stationary side of the case A by a wire, Q, and so adjusted that the hammer will be tripped when the ticket-hole is uncovered. This manner of mounting the bell is not essential, as it may be differently arranged or entirely omitted.

To adapt my device to letter-boxes, &c., the apron L, glass M, and bell O may be omitted.

Having described my invention, what I claim as new is—

1. In combination with the case A, the movable part E, with gates B and C attached, and operated, as described, by means of cam I and link G.

2. In combination with the case A and the movable part E, having the gates B and C attached and operated as set forth, the stationary partition J, located and arranged, in relation to the gate C, as set forth.

3. In combination with the case A and the movable part E, having the gates B and C attached and operated as described, the trip-bell O, adjusted to strike an alarm before the ticket-hole is uncovered,

JAMES F. WINCHELL.

Witnesses:

R. D. O. SMITH,
E. R. McKEAN.