No. 858,378. PATENTED JULY 2, 1907.

I. FLUEGELMAN.

TICKET RECEIVING BOX.

APPLICATION FILED NOV. 17, 1906.

2 SHEETS—SHEET 1.

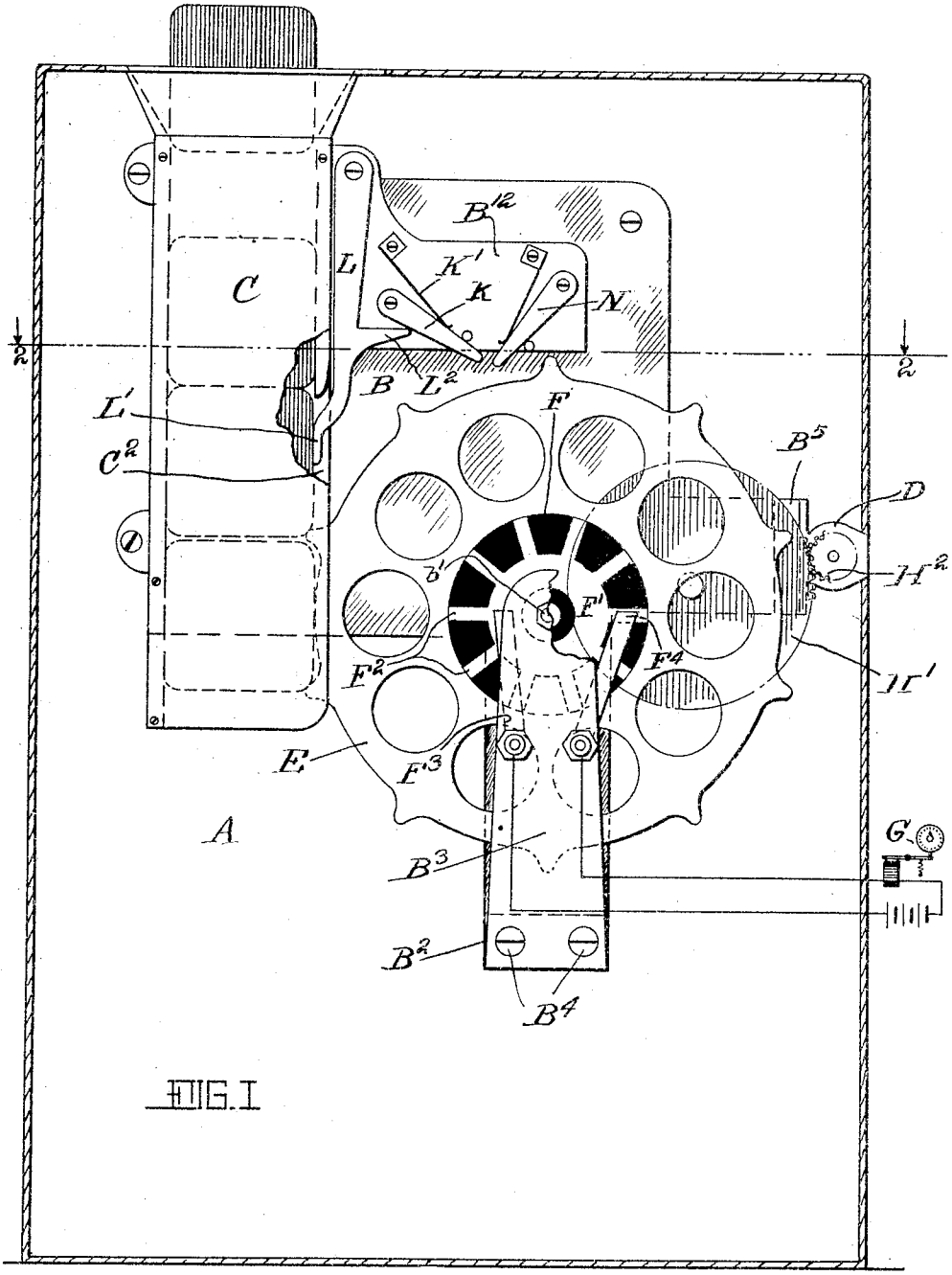


FIG. I

Witnesses:
Evan Morrisbey
M. Wetzhoff

Inventor:
Isidor Fluegelman,
By his Attorneys,
Lyons & Rissing.

No. 858,378. PATENTED JULY 2, 1907.

I. FLUEGELMAN.

TICKET RECEIVING BOX.

APPLICATION FILED NOV. 17, 1906.

2 SHEETS—SHEET 2.

FIG. 2

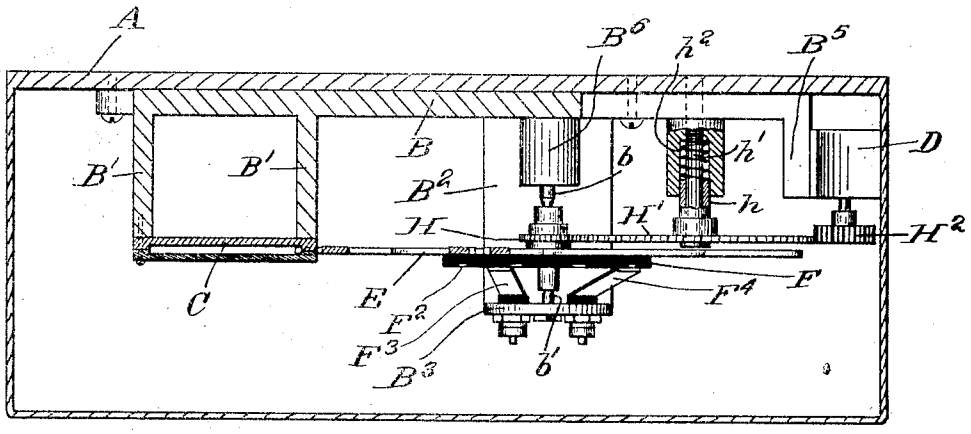
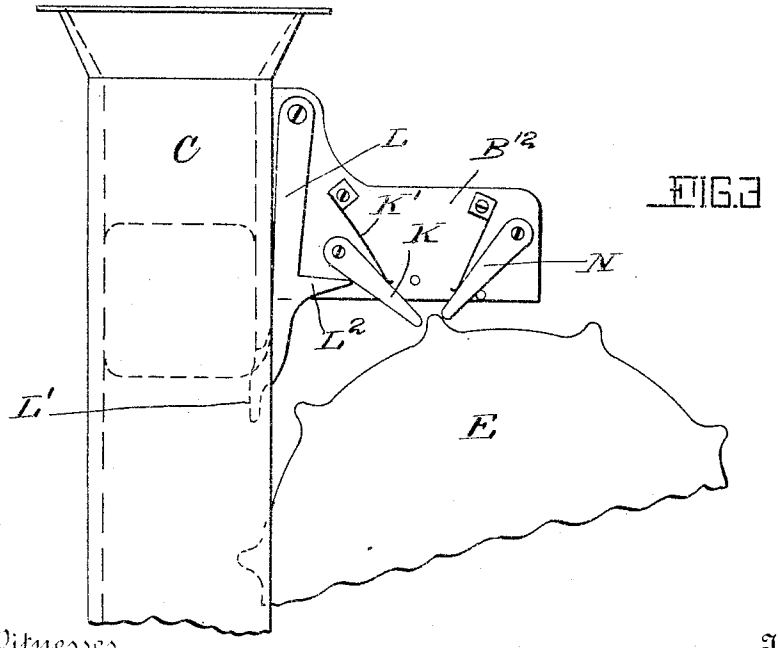


FIG. 3



Witnesses
Fran Honigsberg
M Tetzloff

Inventor:
Isidor Fluegelman,
By his Attorneys
Lyon & Bump.

UNITED STATES PATENT OFFICE.

ISIDOR FLUEGELMAN, OF PHILADELPHIA, PENNSYLVANIA.

TICKET-RECEIVING BOX.

No. 858,378. Specification of Letters Patent. Patented July 2, 1907.

Application filed November 17, 1906. Serial No. 343,839.

To all whom it may concern:

Be it known that I, ISIDOR FLUEGELMAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Ticket-Receiving Boxes, of which the following is a specification.

My invention relates to the so-called checkogram system for theaters, baseball games and the like. In this system checks or tablets of vulcanized rubber, metal or other suitable material, which serve the function of tickets, are sold by means of an automatic ticket-ejecting machine to purchasers who wish to obtain admission to the place of entertainment. These tickets are thereupon given to the ticket-taker by the purchaser at the door of the theater and the ticket-taker puts these tickets or checks into a box intended for their reception. Now I supply the ticket or check receiving box with a circuit changing device operated by the insertion of a check into the box and I place the circuit changer in circuit with an electromagnetic counter situated in the office of the manager, who is thereupon enabled to determine, at any moment, the number of tickets which have been received at the door up to that time. In this way he will be able to tell whether the ticket-taker is putting into the receiving box, instead of into his pocket for illegitimate use, all the tickets sold and he will also know when the ticket seller is to be instructed to sell no more tickets in case of an unusual crowd. I also supply the circuit changing device with a mechanical register or counter which shows how many tickets have been received, thus acting as a check upon the electromagnetic counter. It happens that in devices of this sort, the tickets are sometimes dropped into the receiving box very rapidly, one after the other.

The object of my invention is to devise a mechanism which shall permit this rapidity of insertion of the checks and which shall, at the same time, insure moving both the electrical and mechanical counters, one step and one step only for each check which has passed. To attain these ends I mount on the ticket receiving box a tunnel or similar guide through which the checks pass and I naturally prefer to make the tunnel of the cross-sectional size and shape of the tickets. Into this tunnel projects a tooth of a spacing wheel, the distance between the teeth of which is equal to or somewhat greater than the length of a ticket so that each ticket, in its passage through the tunnel, moves the spacing wheel one step and one step only. The spacing wheel is however normally locked from forward motion by a stop pawl, which pawl is moved to free the wheel by a part projecting into the tunnel which part is in turn actuated by the ticket in its passage on its way to the projecting tooth. To the spacing wheel is connected an electrical commutator having a number of segments corresponding to the number of teeth on the spacing wheel, so that the circuit to the electromagnetic counter may be made each time the wheel is moved one step. I also connect to the spacing wheel, by a train of reducing gears, a mechanical counter and I preferably make one wheel of the train axially movable so that the counter may be disconnected from the spacing wheel and be reset when necessary. In this way my counting device has a possible speed of operation far in excess of any demands upon it and, no matter what the speed, the electrical and mechanical counters inevitably register the passage of each tooth of the spacing wheel through the tunnel which means they register the number of checks passed.

In the drawings,—Figure 1 is a side elevation with a part of the tunnel broken away; Fig. 2 is a section on the line 2—2 of Fig. 1; and Fig. 3 is a detail of the pawls in their normal position.

Upon the back of the usual ticket receiving box A, I fasten a casting B having a pair of wings B′ to which is secured, by suitable screws, the guide for the checks which I have shown as a longitudinally split tunnel C which, as seen, is made in two parts, juxtaposed to form a slot C^2, as shown in Fig. 1. In one place with the frame B is also cast a support B^2 to which is secured a standard B^3 by means of the screws B^4. Again the casting B has an arm B^5 to which is secured a common type of mechanical counter, such as the Veeder counter, which may be bought in the open market. Finally the frame B has a boss B^6 carrying a pivot *b*, in line with a coöperating pivot *b′* on the standard B^3.

Between the pivots *b* and *b′*, I journal a spacing wheel E to which is rigidly secured the commutator F, having a circular metallic segment or ring F′, and wings F^2, the electric circuit being completed, by means of the brushes F^3 and F^4, to any common type of electromagnetic counter G. Since I employ as many wings F^2 as the spacing wheel has teeth, it is seen that the circuit will be completed through the brushes F^3, F^4, and the electromagnetic recorder G will be operated each time the spacing wheel moves one step, that is a distance equal to the space between two adjacent teeth. To the spacing wheel E, I also secure a pinion H, meshing with a gear H′ which takes into a gear H^2 mounted on the shaft of the mechanical counter D. The gears H, H′, H^2, are so proportioned however that each time the spacing wheel moves one step, the shaft of the mechanical counter is turned a distance to register one unit. It will thus be seen that the rotation of the spacing wheel does two things, it registers the number of its teeth which have passed a given point both on the mechanical counter D and on the electromagnetic counter G.

To enable the mechanical counter D to be reset, I mount the gear wheel H′ on a sleeve *h* which slides axially back and forth upon a pin *h′*, the gear H′ being pressed outwardly, into a position in which it meshes

with the gear H, by the spring h^2. When it is desired to reset the mechanical counter D, the gear H′ is pressed backward against the tension of the spring h^2 by means of a suitable key until it is out of mesh with the pinion H, whereupon the gears H′ and H^2 may be freely rotated in a direction to bring the digits of the mechanical counter all back to zero.

I have now to describe the mechanism by which the passage of each check through the tunnel moves the spacing wheel one step and one step only. To this end, as I have before explained, I make the length of the check about equal to the distance between the teeth of the spacing wheel so that two adjacent teeth embrace the corners at the ends of the check. The checks, as they fall through the tunnel, then serve as actuating devices for the wheel. When a number of checks are put into the tunnel so rapidly that they lie one upon the other, they act very much as would a sprocket chain passing over the teeth of the wheel. It will be noticed, in this connection, that the corners of the tickets are cut off, being rounded in the case shown, and that a spacing wheel tooth takes in between two adjacent tickets.

In order that the passage of a single ticket through the tunnel may not, by its momentum, cause the spacing wheel to move more than a single step, I employ a stop pawl K tensioned by a spring K′. So long as there is no check in the proper position of the tunnel, the stop pawl K projects in the path of the spacing wheel, as shown in Fig. 3, and prevents any motion of the latter. In order to throw the stop pawl out of engagement with the wheel tooth at the proper time, I employ a pawl-actuating device L which I have shown in the shape of a hanging pivoted arm, having a part L′ projecting into the tunnel in the path of the checks, and having a projection L^2 contacting with and operating the stop pawl. The pawl N, it will be observed, prevents, at all times, any motion of the spacing wheel in a backward direction. I may remark, in passing, that the pawl-actuating device L and the pawls K and N are each mounted upon a part B^{12} of the casting B. It will now be seen that as a check passes down through the tunnel C, it contacts with the part L′ of the pawl-actuating device which projects into the tunnel through the slot C^2, thus throwing the pawl-actuating device to the right in Fig. 1 and raising the pawl K out of engagement with the spacing wheel tooth. If but a single ticket is passing, the pawl-actuating device is forthwith pushed back into the tunnel by means of the spring K′ acting on the pawl K and pushing against the projection L^2. In this manner the stop pawl K comes into the path of the next tooth and stops the wheel after it has moved one step. Should, however, a number of checks lie one on top of the other in the tunnel, the pawl-actuating device will hold the stop pawl K continuously out of engagement until all the checks have passed, whereupon the pawl-actuating device will be moved back into the tunnel and the stop pawl into engagement with the tooth of the spacing gear. In the meanwhile, however, this wheel will have been moved as many steps as tickets have passed through the tunnel and their number will have been registered both upon the mechanical and electrical counters and this no matter how rapidly the checks are inserted.

I claim,—

1. A ticket receiving box comprising a tunnel for the checks, a toothed spacing wheel projecting into the tunnel, a stop pawl for the wheel, a pawl-actuating device in the path of the checks, and registering mechanism controlled by the spacing wheel substantially as described.

2. A ticket receiving box comprising a tunnel for checks, a toothed spacing wheel having teeth projecting into the tunnel, a stop, pawl for the teeth, and a hanging arm having a part projecting into the path of the checks and a projection coöperating with the stop pawl to disengage it from the teeth on the passage of the checks, substantially as described.

3. A ticket receiving box comprising a frame having a longitudinally split tunnel mounted thereon with a slot therein, a toothed spacing wheel projecting through the slot, a stop pawl for the wheel, and a pawl-actuating device also projecting through the slot into the path of the checks, substantially as described.

4. A ticket receiving box comprising a tunnel for the checks, a toothed spacing wheel projecting into the tunnel, a commutator rotating with the wheel, and an electromagnetic register in circuit with the commutator, substantially as described.

5. A ticket receiving box comprising a tunnel for the checks, a toothed spacing wheel projecting into the tunnel, a commutator rotating with the wheel having a metallic ring and wings, brushes coöperating with the ring and wings respectively, and an electromagnetic register in circuit with the brushes, substantially as described.

6. A check receiving box comprising a tunnel for the checks, through which checks with corners are passed, a spacing wheel having teeth projecting into the tunnel arranged to embrace the corners of the checks, and a registering mechanism controlled by the spacing wheel, substantially as described.

7. A check receiving box comprising a tunnel for the checks, through which checks with corners are passed, a spacing wheel having a tooth projecting into the tunnel and moved a single space by contact with the corner of the check in its passage through the tunnel, and a registering mechanism controlled by the spacing wheel, substantially as described.

8. A ticket receiving box comprising a tunnel for the checks, a toothed spacing wheel projecting into the tunnel, a mechanical counter and toothed gearing connecting the spacing wheel and counter, one member of which is mounted to slide axially, whereby the counter may be disengaged from the spacing wheel for resetting, substantially as described.

9. A ticket receiving box comprising a tunnel for the checks, a toothed spacing wheel projecting into the tunnel, a stop pawl for the wheel, a pawl-actuating device in the path of the checks, a commutator rotating with the wheel and an electromagnetic recorder in circuit with the commutator, substantially as described.

10. A ticket receiving box comprising a tunnel for the checks, a toothed spacing wheel projecting into the tunnel, a stop pawl for the wheel, a pawl-actuating device in the path of the checks, a mechanical counter, and mechanism connecting the counter and wheel, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISIDOR FLUEGELMAN.

Witnesses:
ROSE E. GIRVIN,
MAY CAULFIELD.