G. J. HILL.

Fare-Box.

No. 165,579. Patented July 13, 1875.

Fig. 1

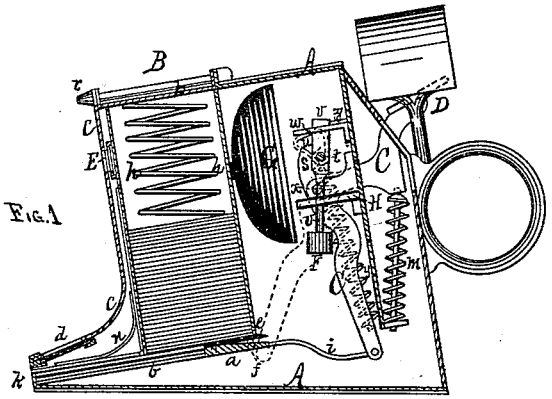


Fig. 2

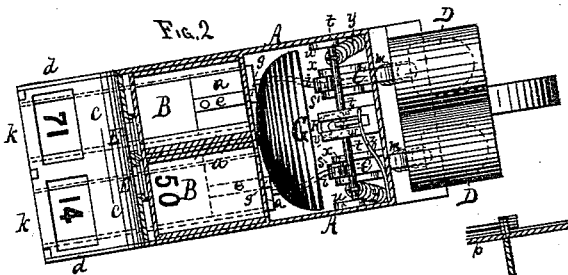


Fig. 5

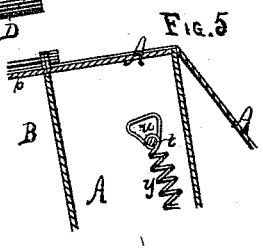


Fig. 4

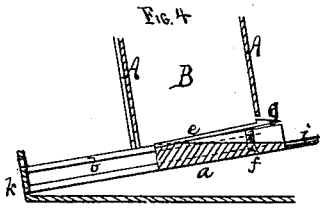
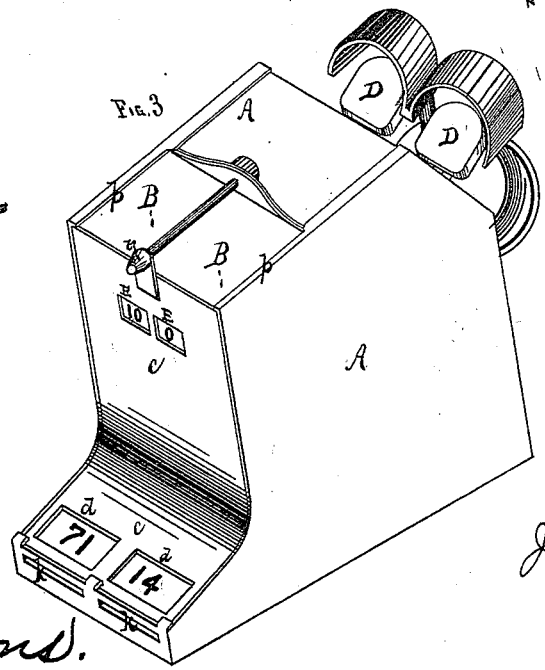


Fig. 3



WITNESSES.

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INVENTOR, BY

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Atty.

UNITED STATES PATENT OFFICE.

GEORGE J. HILL, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES W. RUGER AND AUGUSTUS RUGER, OF SAME PLACE.

IMPROVEMENT IN FARE-BOXES.

Specification forming part of Letters Patent No. **165,579**, dated July 13, 1875; application filed April 28, 1875.

To all whom it may concern:

Be it known that I, GEORGE JAY HILL, of Buffalo, in the county of Erie and State of New York, assignor to myself and JAMES WALLACE RUGER and AUGUSTUS RUGER, all of same place, have made certain Improvements in Fare Boxes or Indicators, of which the following is a specification:

In the drawings, Figure 1 is a sectional side elevation. Fig. 2 is a plan view with the top removed. Fig. 3 is a perspective view. Fig. 4, an enlarged view of the slide and spring for delivering the ticket. Fig. 5, detail view.

This invention is designed more especially for street-cars and sleeping and palace cars, and consists in a device having one or more tubes, or compartments, in which are set printed tickets consecutively numbered, each tube with a delivery-opening and having also above the opening and in front of each compartment an index-opening, with the number displayed therein corresponding to that shown in the delivery-opening with which the conductor starts on the trip. These devices are combined with an alarm mechanism to call attention to the receipt of cash fares, or the taking up of tickets. The delivery of these tickets is accomplished by one or more thumb-levers, which throw out a slide on which the tickets rest, each action of the lever displacing one ticket and delivering another. These levers are connected with the alarm mechanism, and when released from the downward pressure on the thumb-plates causes the bell to ring.

A is a frame or case, having one or more compartments, B B, in which the tickets will be placed. In the bottom of each of these compartments slides *a* are arranged, having tongues on their sides which run in grooves *b b*. The bottom of the case A extends forward in front of the compartments B B the length of a ticket, and is covered with a curved metal plate, *c*, forming the front, and having openings *d d* covered with glass, through which the last ticket with its number may be seen before delivery to passenger. *e* is the ticket-catch, which is also a spring, one in each compartment, or tube, (see Fig. 4,) and having an inclined head, *g*, on the back end. This spring or catch is secured to the slide *a* at its front end, and catches and pushes out the lower tickets in the compartments B, as hereinafter explained. The tickets are held down in the compartments by springs *h* to keep them in place. C C are operating-levers pivoted or hung as shown at *x*, the upper portion running through the back of the case A and ending in thumb-plates D D, while the lower parts project downward and are connected by rods *i i* to the ticket-slides, and by pressing down upon the thumb-plates D D the slides *a a* will be thrown forward, and the spring-catch *e g* will hold the lower ticket and force it forward until its outer side reaches the delivery-opening *d* of the case at *k*, where it will stop, and the springs *m m* throw the lever-arms upward and draw the plates *a a* back again to their former places. The catch *g* being inclined will slip beneath the next ticket, which has, in the meantime, been forced down by the spring *h* into the place of the ticket now in the delivery-opening *d*, and be again ready for the action of the levers, which is immediately repeated to force the second ticket out, while the second takes its place, so that its number can be ascertained through the glass of the delivery-opening *d*. *f* is a screw set under the spring-catch *e g* to adjust it, up or down, to the thickness of the tickets. E E are index-openings in the front of the case in which the starting number or numbers of the tickets will be displayed, so that the officials may know just how many cash fares have been collected and how many tickets taken up, as the device will do both most infallibly by comparing the starting number of each index and delivery opening, the difference being the number of fares collected, (at a fixed price,) or number of tickets previously sold and taken up by the conductor using this fare-indicator, as more particularly hereinafter explained. *n n* are springs which press down upon the tickets as they leave the compartments and hold them from falling out of the delivery-openings *d d*, as well as preventing the insertion of any more tickets through these openings, as they will slide over the springs and show that the attempt has been made if left in. The openings *d d* and E E

will have glass covers, and the cover *p* to the compartments and front *c* will be sealed at *r* to prevent conductors or others tampering with the contents.

The levers C C are formed with projections or cams *s s*, having inclined sides, as shown. Back of these a rod, *t*, is placed, running across the case, with its ends resting in triangular-shaped cavities *u u*. Secured to the center of this rod *t* is an upright hammer-rod, *v*, having at its lower end a hammer, F, by which the bell G is struck, while its upper end is flat and works between two bars or guides, *w w*.

H is a rod projecting from the back of the case, (or it may be the pivot on which the bell is set, if the bell is placed low enough down,) through which the rod *v* passes loosely—the object to be hereinafter fully explained.

The striking operation is as follows: When one of the thumb-levers D is pushed down the cam *s* will be pushed backward, and by its inclined side serve to raise one end of the rod *t* until the cam passes under it, when it will be drawn down, by the spring *y*, on the other side of the cam, and rest almost in its former position; but this action has thrown the top of the bell-hammer rod *v* a little ahead, and consequently, by means of the rod H, the bottom or hammer part an equal distance back. When the thumb-lever is released, the front of the cam *s*, acting again upon the rod *t*, will raise it until it passes over the top of the cam, when it will be pulled down with some force by the spring *y;* this sudden action causes the hammer to strike the bell by the spring of the rod *v*. A spring, *z*, at the top of the rod will force it back and keep it in proper position for acting.

This invention is intended, mainly, for use on street-cars or sleeping-cars, or where a single fixed fare is established; but each tube or compartment will contain tickets of a different color from the others, to denote a different fare, if desired.

For example: In one tube all the tickets will be blue, the fare being five cents. The starting-number in the index will be set at 0; after the trip the conductor returns the fare-indicator to the office, and the last number on the blue ticket will be seen in the delivery opening, *d*, and will show the number, say 75, thereon. This, at a glance, indicates that seventy-five tickets have been sold, calling for $3.75 in cash. The other tube (if but two are used) will have yellow tickets, and it is designed to denote the number of tickets taken up from passengers which have been previously sold to them. The index is also set with the starting-number, "0," and on the return of the fare-indicator to the office the yellow ticket in the delivery opening shows, say 80. This at once calls for eighty regular, or commutation, tickets, that the conductor has received. A settlement is, therefore, effected with him in a few minutes.

If half fares are collected, or two different fares are established on the same road, it only requires that the tubes should be multiplied, as the working of all will be precisely alike.

The alarm is not struck at the moment the ticket is thrown out of the device, but just after, or when the pressure on the thumb-lever is released—that is, a ticket is issued before the alarm is given.

The tickets issued by this indicator are given to each and every passenger as a receipt that they have paid their fare in cash, or handed in to the conductor a regular ticket. These receipt-tickets are numbered, but are not returned to the conductor at all—the passengers destroying or throwing them away.

The arrangement of the springs *n n*, in the delivery opening, effectually prevents an old ticket being put back in the opening, to deceive the office on return of the indicator.

It is obvious that this invention may also be used as a check on clerks or employés in many business transactions, but it is intended more particularly for use on street-cars, palace and sleeping cars, as before stated.

The consecutively-numbered tickets are a very important feature as receipts to passengers and indicators to the company.

I claim—

1. The frame or case A having one or more compartments B, in combination with the slide *a*, having the catch *e g*, the lever C, connected with the said slide by the rod *i*, the thumb-plate D, connected with the lever C, for operating the slide and its catch, and an alarm mechanism connected with the levers C and D, for sounding an alarm when the same are operated substantially as and for the purpose described.

2. The mechanism for ringing the bell G, consisting essentially of the lever-arms *s s*, rod *t*, resting in cavities *u u*, hammer *v* F, and springs *y z*, by which the single hammer operates for any number of the finger-levers, as hereinbefore specified.

3. The springs *n n*, in combination with the tubes B B, and delivery openings *d d*, by which a ticket cannot be returned through these openings, substantially as hereinbefore specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEO. J. HILL.

Witnesses:
T. H. PARSONS,
C. H. WOODWARD.