(No Model.)

J. W. GREER.

FARE BOX.

No. 351,911. Patented Nov. 2, 1886.

Fig. 1.

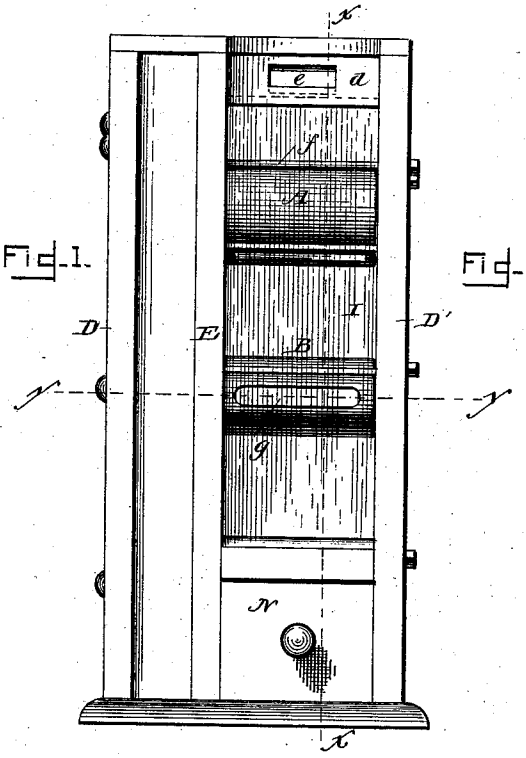


Fig. 2.

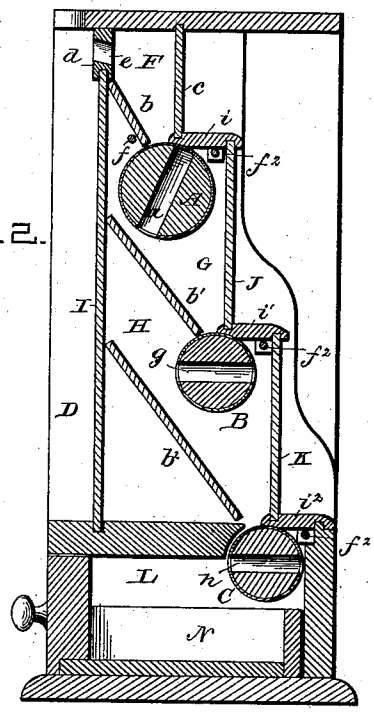


Fig. 3.

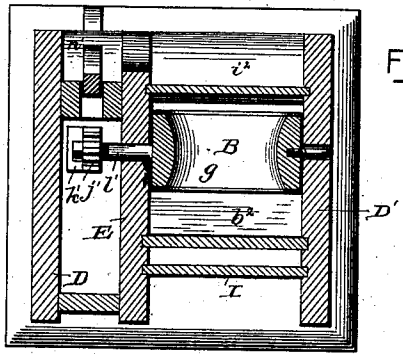
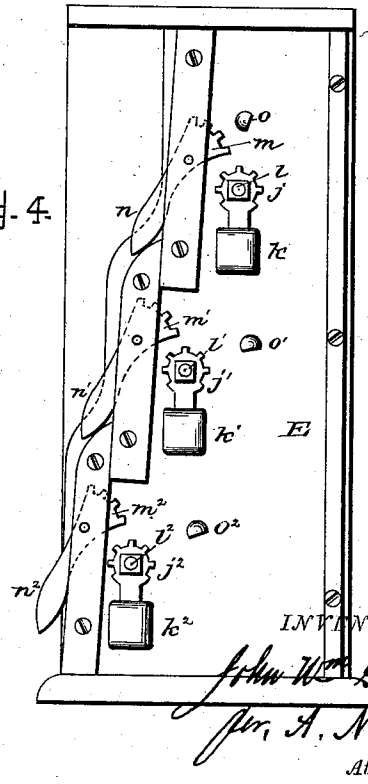


Fig. 4.



WITNESSES:

C. H. Durand

Edw. M. Dunn

INVENTOR:

John W. Greer

per A. N. Marr

Attorney.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN WILLIAM GREER, OF AUSTIN, TEXAS, ASSIGNOR OF ONE-HALF TO WILLIAM H. TOBIN, OF SAME PLACE.

FARE-BOX.

SPECIFICATION forming part of Letters Patent No. 351,911, dated November 2, 1886.

Application filed March 4, 1886. Serial No. 194,003. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM GREER, a citizen of the United States, residing at Austin, in the county of Travis and State of Texas, have invented certain new and useful Improvements in Fare-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improvement in boxes for collecting fares, the same being applicable in cars, coaches, &c.

The box is of upright rectangular form, inclosed at the top, bottom, and on two sides with wood or other opaque material, the two other and opposite upright sides being inclosed in glass of different sizes, to form windows for observation of the interior, said windows being neatly and securely set in substantial frames of metal or wood. The inclosed portion of the box has three revolving cylinders at different elevations, each of which has a longitudinal slot to receive the fares, which, as said cylinders are manipulated by the operator, gravitate toward a drawer provided at the bottom of the box. The slots, with the exception of the upper one, pass entirely through the said cylinders, and the said cylinders are weighted in such a manner that the said slots, with the exception of the upper one, are normally horizontal, the one forming the exception having its mouth downward. The slot in the upper cylinder forms a pocket, which receives the fare first from the passenger, and when said cylinder is allowed to return to normal position it reverses the fare or piece representing it. There are three transparent incline planes or chutes in the box, arranged with reference to the three cylinders so that the fares dropped into the box may be directed toward and into the slots of the cylinders. Beneath the lowest of the cylinders is the drawer provided to finally catch the fares and hold them for the person in charge of the key. The three cylinders are provided with journals, which lodge in suitable bearings in the sides and partition of the box, and on one side they extend through said partition and have fixed to them toothed wheels provided with weights, which gravitate, when free, to return their respective cylinders to normal positions. Levers pivoted in the box at points opposite to and within reach of the toothed wheels have on their short arms toothed segments, which engage with their respective toothed wheels aforesaid, and their long arms form handles for the operator to manipulate the cylinders to bring their slots in vertical position to shift the fares from an upper apartment to a lower, and finally drop them into the drawer. Stops are provided, fixed in the vertical partition of the box—in two cases to the right and above the toothed wheels, and in the third immediately above the upper toothed wheel. In the upper of the three apartments which contain the cylinders is fixed a rod parallel to the axis of the upper cylinder and back of the upper incline plane. This rod is for the purpose of preventing an ill-disposed person from emptying the box of its contents by turning it upside down, as will be hereinafter explained.

In my drawings, Figure 1 is an elevation of the box as seen from the inside of the vehicle in which it is fixed. Fig. 2 is a vertical central section of the box, showing the cylinders in normal position. Fig. 3 is a horizontal section showing the cylinders, &c. Fig. 4 is a side elevation with the outer side wall of the box removed and exhibiting the mechanism by which the operator manipulates the several cylinders.

Similar reference-letters indicate like parts in all of the figures.

Referring to the drawings, A B C are the three cylinders, journaled in the outer wall, D, and partition E of the case or box. The upper cylinder, A, is provided with a longitudinal slot, *a*, which has a depth less than the diameter of the said cylinder, so that fares may not pass through directly to the chamber below. The normal position of this cylinder exhibits the mouth of the slot *a* downward.

F is an inclosed space at the top of the fare-box, formed by the ceiling of said box, an inclined glass plate, *b*, a vertical glass plate, *c*, and a piece, *d*, provided with an opening, *e*, for fares. Immediately in rear of inclined plate *b* is a bar, *f*, which serves to assist in holding two of the vertical walls of the box together, as well as to prevent the fares from being ab-

stracted should the box be turned upside down. The position of the slot *a* in cylinder A and the lower edge of inclined plate *b* is such that when fares slide down they are in position to enter the slot or pocket of the cylinder as soon as its mouth is turned upward.

The middle cylinder, B, is provided with a slot, *g*, which passes entirely through it. Said slot, as before mentioned, is normally horizontal.

G is a space about the cylinder A, inclosed between glass plate I, inclined plates *b b'*, and vertical plate J. Beneath this space is another similar space, H, inclosed by plate I, plates *b' b²*, and vertical plate K, in which is suspended the cylinder B, provided with slot *g*.

C is a third or bottom cylinder, provided with a slot, *h*, which slot, like that of cylinder B, has in normal position its openings in a horizontal plane. The inclined plates *b' b²*, like that of plate *b*, are so located with reference to the cylinders beneath them that the fares when dumped fall directly into the mouths of the slots of said cylinders. Beneath the space H is a space or box, L, inclosing cylinder C, and a drawer, N, which forms the final receptacle of the fare-box.

Plate I is of a single piece of glass, confined between a groove in the top of the box L and bottom of the piece *d* and the partition E and outer wall, D, of the fare-box.

The plates *c*, J, and K are of equal width with each other and the plate I, but of unequal height one with another. The lower of the plates *c*, J, and K is the highest, and the upper the lowest, and the spaces back of them are of corresponding sizes for obvious reasons. The plates *c*, J, and K, which are, in fact, windows, are confined between the vertical partition E and wall D, and rest, respectively, upon metallic sills *i i' i²*, provided with lugs beneath, through which pass bolts *f²*, which hold the partition E and wall D together. Sills *i i'* serve also as lintels to plates J and K. *j j' j²* are toothed wheels, provided with weights *k k' k²*, secured to the shafts *l l' l²*, which form axes of the cylinders A B C.

m m' m² are pivoted toothed segments, formed to mesh, respectively, with the toothed wheels. Handles *n n' n²* form, with the said segments, levers to revolve the cylinders.

Stops *o o' o²*, secured in partition E, are located at proper points within reach of weights *k k' k²*, and serve to limit the arc of movement to said weights and the cylinders, their slots being opened or closed at will of the operator.

The operation and use of my fare-box may be described as follows: The box being fixed in place so that the long glass plate I will be inside next to the customer, the fare is deposited at the opening *d* and slides down over plate *b*, and rests upon the closed cylinder A. The operator, observing through the window *e* that the fare is correct, on one side, by means of lever *n*, revolves the said cylinder A a half-revolution, or until the weight K reaches its stop O, to bring the mouth of slot *a* beneath the plate *b* to receive the said fare, and then lets go said lever *n*, to allow the said slot to take its normal position with its mouth down, thus dumping said fare reversed upon plate *b'* and closed cylinder B. The operator now revolves the cylinder B until it is stopped, as in the first case, to bring the mouth of the slot *g* under the inclined plate *b'*, which directs said fare down through said slot *g*, thence upon plate *b²* to closed cylinder C. The operator now revolves said cylinder in a manner similar to that of B or A, so that slot *h* will receive the said fare and allow it to pass through into the drawer N, from which it may be taken by the person holding the key. If it were possible to detach the fare-box from its fixed position and turn it upside down by means of levers *n² n'*, the cylinders C and D might be manipulated so that fares would find their way from drawer N to space G through slots *h* and *g*; but in no case could the fares reach the space F through slot *a* of cylinder A on account of the guard formed by the bar *f*, which is located below and in close proximity to glass plate *b*, which would always prevent any piece from being turned sufficiently to enter the said slot, no matter how skillfully such cylinder might be manipulated, as the piece would always rest upon said bar *f* and be prevented from turning by the long plate I, against which it would rest. It is understood, of course, that the space between the bar *f* and the glass plate I must be less than the width or diameter of the piece forming the fare.

From the fact that cylinders B and C are out of vertical alignment and surrounded by ample spaces and inclined chutes, even with the box reversed it would be next to impossible to manipulate fares through cylinders B and C.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fare-box, the combination, with cylinder A, provided with a longitudinal slot more than half the diameter of said cylinder in depth, and weighted by means of a rotary weight secured to the shaft which forms the axis, to return said cylinder and keep it to normal position with the mouth of the slot downward, of the inclined parallel plates *b b'*, located, respectively, above and below said cylinder B, and means for operating said cylinder A, composed of segment *m*, arm *n*, and toothed wheel *j*, secured to the shaft of said cylinder, as and for the purpose set forth.

2. The combination, with cylinder B, provided with a longitudinal slot running through it the entire depth of its diameter and weighted by means of a rotary weight fixed to the shaft forming its axis to keep it in normal position with its mouths in a horizontal plane, of the inclined plates *b' b²*, respectively above and below said cylinder, and means for revolving said cylinder, composed of toothed segment *m'*, handle *n'*, and toothed wheel *j'*, fixed to the axis of said cylinder, as and for the purpose specified.

3. The combination, with cylinder A and glass plate *b*, of the bar *f*, located below and in close proximity to said plate, as and for the purpose set forth.

4. In a fare-box, the combination, with the revolving cylinders A B C, each provided with a slot, the first-named having its slot in the form of a pocket and located so as to receive the fares dropped by the passenger, the second located beneath the first to receive the fares after they have been reversed in the cylinder above, and the third located in the box which contains the drawer, and means consisting of the toothed segments, the wheels gearing therewith provided with weights, of the plates *b b' b²*, located, respectively, with reference to the said cylinders, as and for the purpose set forth.

5. The fare-box, substantially as described, provided with three weighted rotary cylinders journaled in suitable bearings at different elevations, with their axes out of vertical alignment, the upper being provided with a pocket to reverse fares, and the two lower ones having slots formed entirely through them to allow fares to gravitate to a final receptacle, substantially as set forth.

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

JOHN WILLIAM GREER.

Witnesses:
H. A. FITZHUGH,
T. J. WORTHAM.